



POST OFFICE BOX 234 • HAYWARD, CALIFORNIA 94543 • (415) 581-6750 • CA LIC. NO. 263060

July 1, 1994

Ms. Juliet Shin
Alameda County Health Care Services
1131 Harbor Bay Parkway Suite 250
Alameda, Ca. 94502

Dear Ms. Shin:

Pursuant to our conversation today I am enclosing four bids for your review. As I had stated to you, we requested the same bids from each company giving them a copy of Anderson Consulting's bid without the dollar amount, however there is such a wide variation on the reports we received that we felt it was best for you to look them over.

Thank you for allowing us to send these bids to you for your review. If you have any questions, please feel free to contact my husband or myself.

Sincerely,

Mary L. Beck

MLB

Encls:



581-6750

POST OFFICE BOX 234
HAYWARD, CA 94543

CHARLIE BECK
CA LIC. No. 263060

"Family owned and operated since 1957"

RALPH N. MENDELSON, INC.
MICHAEL S. BROWN, INC.
THOMAS P. SULLIVAN, INC.
JOHN B. DICKSON
GREGORY I. BEATTIE
RICHARD A. LYONS

LAW OFFICES OF
MENDELSON & BROWN
A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS
1040 MARINA VILLAGE PARKWAY, SUITE B
POST OFFICE BOX 2426
ALAMEDA, CALIFORNIA 94501
TELEPHONE (510) 521-1211
FACSIMILE (510) 521-7879

OF COUNSEL
ALAN S. GARBER

July 5, 1994

5268-105

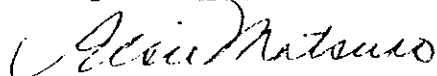
Mary Beck
Beck Roofing Company
P.O. Box 234
Hayward, CA 94543

Re: Supplemental Subsurface Investigation

Dear Mary:

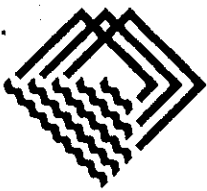
Enclosed is Pacific Environmental Group's bid proposal for the work described in Anderson Consulting Group's Work Plan for Supplemental Subsurface Investigation dated May 16, 1994.

Very truly yours,



ELSIE K. MATSUNO
Paralegal

Enclosure 1



PACIFIC
ENVIRONMENTAL
GROUP, INC.

June 29, 1994
Project S02-004.04

Ms. Elsie Matsuno
c/o Mendelson and Brown
1040 Marina Village Parkway, Suite B
Alameda, California 94501

Re: Becks Roofing Company
Request for Bid
21123 Meekland Avenue
Hayward, California

Dear Ms. Matsuno:

Pacific Environmental Group, Inc. (PACIFIC) is pleased to submit this proposal for services to perform subsurface investigation activities at the site referenced above. PACIFIC has reviewed the work plan and data provided in the invitation to bid package dated June 17, 1994.

This bid proposal responds to the specific tasking outlined in the request for bid documentation with the exception of the hydropunch water sampling outlined in Section 2.1 of the work plan. Hydropunch water sampling was not addressed in this proposal because analysis of the capillary fringe/groundwater interface soil sample will provide sufficient data to confirm hydrocarbon impact in groundwater.

This bid package also presents an alternative approach to the planned site investigation activities. As an alternative approach, PACIFIC proposes to drill three soil borings, analyze the soil and groundwater interface samples, and convert the three soil borings to groundwater monitoring wells for the purpose of defining and monitoring groundwater conditions on the site. Rationale for an alternative approach to the subsurface investigation are presented in the following paragraph.

As defined in the *Work Plan for Supplemental Subsurface Investigation* dated May 16, 1994, the purpose of the planned site investigation will be to further define the extent of hydrocarbons in soil and groundwater. However, a review of previous site investigation data shows the vertical extent of on-site hydrocarbons in soil has already been defined as limited to the capillary fringe, with the exception of the soil located below the invert of the former underground storage tank (UST) excavation. Soil analytical data from previous site investigations show a concentra-

tion of total petroleum hydrocarbons calculated as gasoline (TPH-g) in soil greater than 10 parts per million (ppm) was found only in the capillary fringe (at depths ranging between 24 and 30 feet below ground surface) and downgradient of the former UST. Furthermore, it can be assumed from analytical data analyzed from the UST over excavation activities that vadose-zone and capillary-fringe soil below the tank invert has been impacted with TPH-g concentrations greater than 10 ppm.

This proposal itemizes Phases I, II, III (prefield, field, postfield), and sample analysis costs for site investigation activities. A general description of the project, project tasking, and costs, as defined by the request for bid package work plan, is presented as Attachment A. A general description of the recommended alternative approach to the project, project tasking, and costs is presented as Attachment B. Proposed field and laboratory procedures are presented as Attachment C. A schedule for the project is presented in the following section.

SCHEDULE

PACIFIC estimates the project can be accomplished within 60 calendar days upon notification of the contract. The prefield and field work, including permitting and drilling, can be accomplished within 20 days. Once the field work is completed a site assessment investigation report will be prepared. The assessment report will be submitted to the client for review within 30 days following the completion of the field work. It is anticipated the draft document review process would be completed within 5 days. Once the draft document review process is complete, a final report will be delivered to the client within 5 days.

A tentative implementation schedule for Phases I, II, and III of proposed remedial investigation activities is provided below:

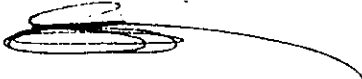
| Task | Days |
|---|-----------|
| Phase I: Prefield Activities | |
| Permit Acquisition, Site Safety Plan, and Utilities Clearance | 15 |
| Phase II: Field Work | |
| Soil Boring and Well Installation | 1 |
| Well Elevation Surveying | 1 |
| Soil Transport and Disposal | 1 |
| Phase III: Post Field Activities | |
| Draft Report Preparation | 30 |
| Draft Comment Review | 5 |
| Final Report Delivery | 5 |
| Estimated Project Total | 60 |

PACIFIC proposes to complete the entire scope of work outlined in this bid package on a time and expense basis. The amount proposed for the work as defined in the May 16, 1994 work plan is \$15,000. The amount proposed for the alternative approach is \$15,100.

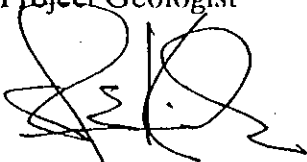
Thank you for the opportunity to submit a bid proposal for your project. We are eager to perform this work and hope to hear from you soon. If you have any questions regarding this proposal, please call Steve Krcik or myself at (408) 441-7500.

Sincerely,

Pacific Environmental Group, Inc.



Lainie Demian
Project Geologist



Steven B. Krcik
Senior Geologist
RG 4976

Attachments: Figure 1 - Proposed Groundwater Monitoring Well Locations
Attachment A - Proposal Based on Request for Bid
Package Work Plan
Attachment B - Proposal Based on Recommended
Alternative Approach
Attachment C - Proposed Field and Laboratory Procedures

ATTACHMENT A

**PROPOSAL BASED ON REQUEST
FOR BID PACKAGE WORK PLAN**

ATTACHMENT A
PROPOSAL BASED ON REQUEST
FOR BID PACKAGE WORK PLAN

General Description

The scope of work under this proposal includes the drilling and sampling of 5 soil borings to a depth of 30 feet. One of the borings will also be drilled to a depth of approximately 40 feet and converted to a groundwater monitoring well. The groundwater monitoring well will be developed following installation and sampled during the regularly scheduled quarterly monitoring event. Soil and groundwater samples will be collected and submitted to an analytical laboratory for analyses for the presence total petroleum hydrocarbons calculated as gasoline (TPH-g), benzene, toluene, ethylbenzene, and xylenes (BTEX compounds). A groundwater sample from the newly installed well will also be analyzed for volatile organic compounds (VOCs).

The work will be performed in accordance with the Alameda County Department of Environmental Health (ACDEH) guidelines and the Alameda County Water District (ACWD) document entitled *Groundwater Monitoring Guidelines, Groundwater Protection Program* dated September 1992. Selected soil samples will be collected for laboratory analysis using methods and procedures defined in the *State Water Resources Control Board (LUFT) Field Manual* (revised October 1989), and the *Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites* dated August 10, 1990.

1. PHASE I: PREFIELD ACTIVITIES

- a. **Site Safety Plan.** A site safety plan will be prepared describing the site-specific safety concerns. The plan will include reference to the site's historical analytical data and direction to the hospital nearest the site. \$300

| | |
|--|-----------------------|
| b. Permitting and Permits. PACIFIC will perform as liaison with the ACWD and any other agencies to obtain soil boring and well installation permits. | \$300 |
| c. Underground Utility Location (Underground Services Alert [USA] and private). Utility clearance for the drilling event will include USA notification, review of site blueprints, PACIFIC field reconnaissance for unmarked utilities, and hand-clearing each borehole to a depth of 5 feet. | \$500 |
| Total Cost for Phase I | <u>\$1,100</u> |

2. PHASE II: FIELD ACTIVITIES

| | |
|--|---------|
| a. Soil Boring, Monitoring Well Installation, and Soil Sampling. Five exploratory soil borings will be drilled at predefined locations to a total depth of approximately 30 feet for each boring. The borings will be drilled using hollow-stem auger drilling equipment and logged by a geologist using the Unified Soil Classification System and standard geologic techniques. | \$5,700 |
|--|---------|

Soil samples for logging and possible chemical analysis will be collected during drilling at 5-foot intervals and significant changes in lithology. At a minimum, soil samples for analysis will be collected at 5-foot depth intervals.

Soil samples will be collected during drilling and analyzed in the field for ionizable organic compounds using an HNU photo-ionization detector.

One groundwater monitoring well will be installed in the downgradient boring location. The boring will be converted to a groundwater monitoring well by the installation of 2-inch diameter flush-threaded Schedule 40 PVC casing. The depth of the well will be determined based on field observations. The well will probably have a total depth of 40 feet with the screen interval extending 5 feet above and 15 feet below the water level.

The four borings not converted to wells will be sealed using Portland cement. Drill cuttings will be disposed of on the existing on-site soil stockpile. It is estimated that approximately 4 cubic yards of drill cuttings will be generated during soil boring activities.

Costs for drillers, equipment, materials, PACIFIC field personnel, and soil sample analyses are itemized below.

| | |
|-----------------------------------|-------|
| Prefield/Project Management | 500 |
| Subcontractors Charges (drillers) | 3,900 |
| Materials and Equipment Charges | 300 |
| PACIFIC Personnel (field work) | 1,000 |

b. Monitoring Well Development. The well will be developed not less than 72 hours after installation as per ACDEH requirements. Proposed well development procedures are presented as Attachment C. \$400

c. Driller's Rinsate and Purgewater Disposal. Driller's rinsate and well development purgewater will be removed from the site and transported to Gibson Oil in Redwood City, California for disposal into a treatment system. \$600

| | |
|-------------------------------------|-----|
| Treatment Facility Fees | 300 |
| PACIFIC Personnel (water transport) | 300 |

d. Well Elevation Surveying. Well elevation for all site wells (top of box and top of casing) will be surveyed to the nearest 0.01 foot mean sea level. Northings and eastings will also be established based on a USGS benchmark and site-specific coordinates. All work will be performed by a licensed surveyor. \$1,600

e. Quarterly Monitoring and Sampling. Four groundwater monitoring wells will be sampled. The newly installed well will be sampled not less than 72 hours after development as per ACDEH requirements. A brief quarterly sampling report will be prepared. \$900

Total Cost for Phase II \$8,600

3. PHASE III: POSTFIELD ACTIVITIES

- a. **Reporting.** A site assessment report will be written in accordance with ACDEH and Regional Water Quality Control Board requirements. The report will include discussions of field procedures and methodology, boring logs with as-built well construction details, geologic and hydrogeologic interpretation, analytical laboratory results, gradient maps, and plume maps, if applicable. Based on the findings of the remedial investigation, recommendations for future work will be included in the cover letter accompanying the assessment report. \$2,500

Total Cost for Phase III **\$2,500**

4. LABORATORY ANALYSIS

- a. **Soil and Groundwater Analyses.** It is estimated that approximately 5 soil samples from each boring will be analyzed for TPH-g and BTEX compounds. Groundwater samples from the four wells will be analyzed for TPH-g, BTEX compounds, and VOCs. \$2,800

Sample Coordination 230

Soil Sample Analysis
TPH-g/BTEX analysis(25 samples) 2,000

Groundwater Sample Analysis
TPH-g/BTEX analysis (4 samples) 320
VOC analysis (1 sample) 250

Total Cost for Laboratory Analysis **\$2,800**

TOTAL (Phases I, II, III, and Laboratory Analysis) **\$15,000**

ATTACHMENT B

**PROPOSAL BASED ON
RECOMMENDED ALTERNATIVE APPROACH**

ATTACHMENT B
PROPOSAL BASED ON
RECOMMENDED ALTERNATIVE APPROACH

General Description

The scope of work under this alternative approach proposal includes the drilling and installation of 3 groundwater monitoring wells to a depth of approximately 40 feet. The proposed locations for the wells is shown on Figure 1. The groundwater monitoring wells will be developed following installation and sampled during the regularly scheduled quarterly monitoring event. Soil and groundwater samples will be collected and submitted to an analytical laboratory for analyses for the presence of total petroleum hydrocarbons calculated as gasoline (TPH-g), benzene, toluene, ethylbenzene, and xylenes (BTEX compounds). Groundwater samples from the newly installed wells will also be analyzed for volatile organic compounds (VOCs).

The work will be performed in accordance with the Alameda County Department of Environmental Health (ACDEH) guidelines and the Alameda County Water District (ACWD) document entitled *Groundwater Monitoring Guidelines, Groundwater Protection Program* dated September 1992. Selected soil samples will be collected for laboratory analysis using methods and procedures defined in the *State Water Resources Control Board (LUFT) Field Manual* (revised October 1989), and the *Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites* dated August 10, 1990.

1. PHASE I: PREFIELD ACTIVITIES

- a. **Site Safety Plan.** A site safety plan will be prepared \$300
describing the site-specific safety concerns. The plan will
include reference to the site's historical analytical data and
direction to the hospital nearest the site.

| | |
|--|-----------------------|
| b. Permitting and Permits. PACIFIC will perform as liaison with the ACWD and any other agencies to obtain soil boring and well installation permits. | \$300 |
| c. Underground Utility Location (Underground Services Alert [USA] and private). Utility clearance for the drilling event will include USA notification, review of site blueprints, PACIFIC field reconnaissance for unmarked utilities, and hand-clearing each borehole to a depth of 5 feet. | \$400 |
| Total Cost for Phase I | <u>\$1,000</u> |

2. PHASE II: FIELD ACTIVITIES

- | | |
|---|---------|
| a. Soil Boring, Monitoring Well Installation, and Soil Sampling. Three exploratory soil borings will be drilled at predefined locations to a total depth of approximately 40 feet for each boring. The borings will be drilled using hollow-stem auger drilling equipment and logged by a geologist using the Unified Soil Classification System and standard geologic techniques. | \$5,800 |
|---|---------|

The borings will be converted to groundwater monitoring wells by the installation of 2-inch diameter flush-threaded Schedule 40 PVC casing. The depth of each well will be determined based on field observations. The wells will probably have a total depth of 40 feet with the screen interval extending 5 feet above and 15 feet below the water level.

Soil samples for logging and possible chemical analysis will be collected during drilling at 5-foot intervals and significant changes in lithology. At a minimum, soil samples for analysis will be collected at 5-foot depth intervals.

Soil samples will be collected during drilling and analyzed in the field for ionizable organic compounds using an HNU photo-ionization detector.

Drill cuttings will be disposed of on the existing on-site soil stockpile. It is estimated that approximately 4 cubic yards of drill cuttings will be generated during soil boring activities.

Costs for drillers, equipment, materials, PACIFIC field personnel, and soil sample analyses are itemized below.

Soil Boring and Well Installation

| | |
|-----------------------------------|-------|
| Prefield/Project Management | 500 |
| Subcontractors Charges (drillers) | 4,000 |
| Materials and Equipment Charges | 300 |
| PACIFIC Personnel (field work) | 1,000 |

b. **Monitoring Well Development.** The wells will be developed not less than 72 hours after installation as per ACDEH requirements. Proposed well development procedures are presented as Attachment C. \$600

c. **Driller's Rinsate and Purgewater Disposal.** Driller's rinsate and well development purgewater will be removed from the site and transported to Gibson Oil in Redwood City, California for disposal into a treatment system. \$600

| | |
|-------------------------------------|-----|
| Treatment Facility Disposal Fees | 300 |
| PACIFIC Personnel (water transport) | 300 |

d. **Well Elevation Surveying.** Well elevation for all site wells (top of box and top of casing) will be surveyed to the nearest 0.01 foot mean sea level. Northings and eastings will also be established based on a USGS benchmark and site-specific coordinates. All work will be performed by a licensed surveyor. \$1,000

c. **Quarterly Monitoring and Sampling.** Six groundwater monitoring wells will be sampled. The three newly installed wells will be sampled not less than 72 hours after development as per ACDEH requirements. \$1,000

Total Cost for Phase II \$9,000

3. PHASE III: POSTFIELD ACTIVITIES

- a. **Reporting.** A site assessment report will be written in accordance with ACDEH and Regional Water Quality Control Board requirements. The report will include discussions of field procedures and methodology, boring logs with as-built well construction details, geologic and hydrogeologic interpretation, analytical laboratory results, gradient maps, and plume maps, if applicable. Based on the findings of the remedial investigation, recommendations for future work will be included in the cover letter accompanying the assessment report. \$2,500

Total Cost for Phase III \$2,500

4. LABORATORY ANALYSIS

- a. **Soil and Groundwater Analyses.** It is estimated that approximately 5 soil samples from each boring will be analyzed for TPH-g and BTEX compounds. Groundwater samples from six wells will be analyzed for TPH-g and BTEX compounds. Groundwater samples from the 3 newly installed well will also be analyzed for VOCs. \$2,600

Sample Coordination 170

Soil Sample Analysis
TPH-g/BTEX analysis (15 samples) 1,200

Groundwater Sample Analysis
TPH-g/BTEX analysis (6 samples) 480
VOC analysis (3 samples) 750

Total Cost for Laboratory Analysis \$2,600

TOTAL (Phases I, II, III, and Laboratory Analysis) \$15,100

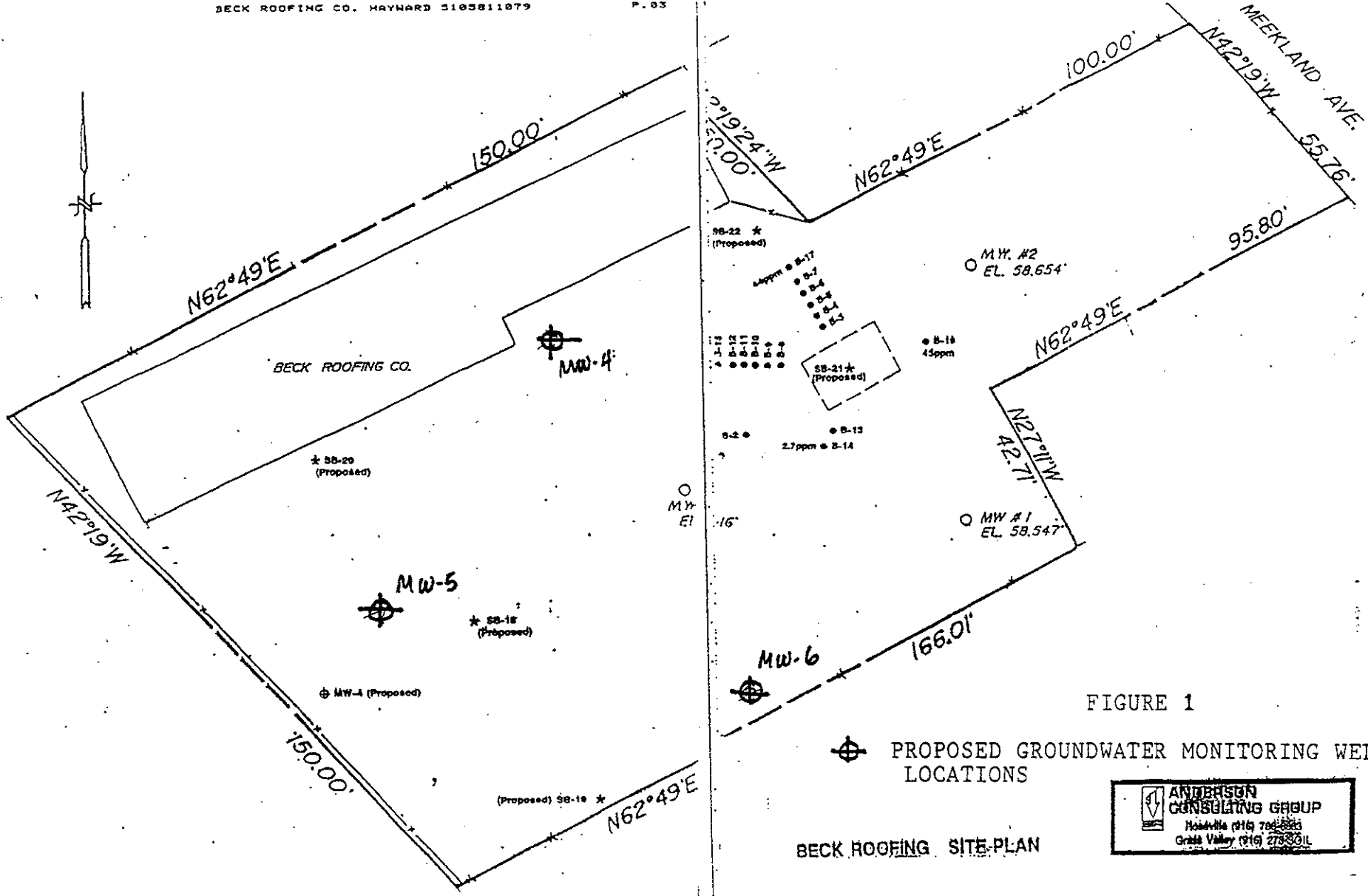


FIGURE 1

BECK ROOFING SITE PLAN

ATTACHMENT C

PROPOSED FIELD AND LABORATORY PROCEDURES

ATTACHMENT C

PROPOSED FIELD AND LABORATORY PROCEDURES

Drilling and Well Construction Procedures

The soil borings for the groundwater monitoring wells will be drilled using 8-inch diameter hollow-stem auger drilling equipment and logged by a Pacific Environmental Group, Inc. geologist using the Unified Soil Classification System and standard geologic techniques. Soil samples for logging and chemical analysis will be collected using a California-modified split-spoon sampler. The sampler will be driven a maximum of 18 inches using a 140-pound hammer with a 30-inch drop.

Soil samples for chemical analysis will be retained in brass liners, capped with Teflon squares and plastic end caps, taped, and sealed in clean zip-lock bags. If applicable, groundwater samples from the soil borings will be collected with either: (1) a Teflon or disposable bailer from the open borehole, or (2) a Teflon or disposable bailer from temporary casing installed in the borehole. The method used will depend on the rate of groundwater flow into the borehole. The samples will be placed on ice for transport to the laboratory accompanied by chain-of-custody documentation. All down-hole drilling and sampling equipment will be steam-cleaned following the completion of each soil boring. Down-hole sampling equipment will be washed in a tri sodium phosphate solution between samples.

Soil borings will be converted to groundwater monitoring wells by the installation of 2-inch diameter Schedule 40 PVC casing with 0.020-inch factory-slotted screen. Screen will be placed from the bottom of each boring to approximately 5 feet above static water level. The annular space will then be packed with Lonestar 2 x 12 sand across the entire screened interval, extending approximately 2 feet above the top of the screen. Each well will then be sealed with approximately 2 feet of bentonite above the sand pack, and cement-sand slurry to the ground surface. A locking watertight cap and traffic-rated protective vault box with a secured lid will be installed at the top of each well. Borings not converted to groundwater monitoring wells will be sealed with a bentonite and Portland cement seal from the bottom of the boring to the ground surface.

Organic Vapor Procedures

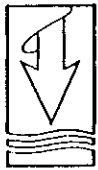
Soil samples collected in the field will be analyzed using an HNU Model PI 101 photo-ionization detector (or equivalent) with a 10.2 eV lamp. The test procedure involves measuring approximately 30 grams from an undisturbed soil sample, placing this sub-sample in a clean glass jar, and sealing the jar with aluminum foil secured under a ring-type threaded lid. The jar will be warmed for approximately 20 minutes, then the foil pierced and the headspace within the jar tested for total organic vapor measured in parts per million as benzene (ppm; volume/volume). The instrument will be previously calibrated using a 100-ppm isobutylene standard (in air) and a sensitivity factor of 0.55 which relates the photo-ionization sensitivity of benzene to the sensitivity of isobutylene. The results of these tests will be recorded on the boring logs.

Laboratory Procedures

Soil and groundwater samples collected during drilling and sampling activities will be analyzed for the presence of total petroleum hydrocarbons calculated as gasoline by modified EPA Methods 8015/8020/5030; and benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020. Samples may also be analyzed for volatile organic compounds by EPA Method 8140, halogenated organic compounds by EPA Method 8010, and total Lead by AA. All analyses will be performed by a state-certified laboratory.

Well Development Procedures

Well development is a method used to remove fine-grained sediment, debris, and drilling fluids from groundwater monitoring wells, and to set the sandpack so it will simulate the adjacent information. A minimum of ten casing volumes of groundwater (unless the well is dewatered) are purged from the well during development. Initially, the well is purged of sediment and debris. After the initial removal of debris, the well screen is surged at 2-foot intervals along the full screen length with a vented surge block for approximately 15 minutes. The sequence of surging and purging is repeated at least three times during the ten casing evacuation. During purging, the well is monitored for temperature, pH, electrical conductivity (EC), and turbidity. A well is considered "developed" only if the temperature, pH, and EC parameters have stabilized.



**ANDERSON
CONSULTING
GROUP**

ALCO
HAZMAT

94 JUL -6 PM 1:47

File No. 3288-46
16 May 1994

*Geotechnical and
Environmental
Engineering
Solid Waste
Management*

Alameda County Health Agency
Department of Environmental Health
80 Swan Way, Room 350
Oakland, CA 94621

Attention: Juliet Shin

Subject: Beck Roofing Company, Inc.
21123 Meekland Avenue
Hayward, CA 94541
**WORKPLAN FOR SUPPLEMENTAL
SUBSURFACE INVESTIGATION**

Dear Ms. Shin:

Following is our proposed scope of work to further delineate the extent of petroleum contaminated soil at the above referenced property.

As you are aware, a 1,000 gallon gasoline tank was removed from the property in May 1990. Contaminated soil adjacent to and beneath the tank was also excavated to a depth of 17 feet and stockpiled onsite. Subsequently, three monitoring wells were installed, and several exploratory borings were advanced to define the extent of contamination.

Results of that work determined that the soil contamination is fairly extensive and the groundwater has been impacted. However, the extent of the soil and groundwater contamination have not yet been adequately defined. Consequently, we feel further characterization of soil and groundwater contamination is necessary to evaluate remedial alternatives. Specifically, areas that have not yet been adequately defined include:

- Vadose soil beneath the tank excavation - Contaminated soil, proximal to the underground tank was excavated to a depth of 17 feet. Apparently, no effort has been directed at characterizing soil contamination from 17 feet to groundwater at approximately 30 feet below the surface.
- Downgradient zero line of groundwater contamination. Based on groundwater elevation measurements, and laboratory analysis of groundwater samples collected from the 3 onsite monitoring wells, it appears local groundwater flow (and hydrocarbon migration) is southwesterly. Groundwater contaminant concentrations measured in MW3, southwest of the tank excavation have consistently been well above applicable Maximum Contaminant Levels (MCLs) established by the State Department of Toxic Substances Control (DTSC).

631 Commerce Drive
Roseville, CA 95678-6431

916.969.8883

916.786.8883

Fax 916.786.7891

350 Crown Point Circle
Suite 250, Grass Valley, CA

95945-7801

916.273.7645

Fax 916.273.9159



**ANDERSON
CONSULTING
GROUP**

*Geotechnical and
Environmental
Engineering
Solid Waste
Management*

File No. 3288-44
17 May 1994

Beck Roofing Company, Inc.
21123 Meekland Avenue
Hayward, CA 94541

Attention: Mary Beck

Subject: Beck Roofing
21123 Meekland Avenue
Hayward, California
PROPOSAL FOR SUPPLEMENTAL INVESTIGATION

Dear Mrs. Beck:

Enclosed is a copy of the workplan we prepared and submitted to Alameda County Department of Environmental Health for further investigation of the soil/groundwater contamination at the above referenced property.

We estimate we can complete the scope of work described therein for \$13,500.


We understand you would also like us to conduct the quarterly groundwater sampling required by Alameda County Department of Environmental Health.

We estimate the cost for each quarterly sampling event, including sampling and laboratory analysis as described in the enclosed workplan, and a written report to be \$1,600.00.

If you have any questions regarding the proposed scope of work or associated costs, please do not hesitate to call.

Sincerely,

ANDERSON CONSULTING GROUP


F. William Welter
Project Engineer

e:\carol\prop\3288-44.fww

631 Commerce Drive
Roseville, CA 95678-6431
916.969.8883
916.786.8883
Fax 916.786.7891

350 Crown Point Circle
Suite 250, Grass Valley, CA
95945-7801
916.273.7645
Fax 916.273.9159

- Zero line of soil contamination. Soil sample analysis, performed while drilling MW2 and MW3, essentially established limits of the soil contamination to the northeast and southeast. The limit of soil contamination to the northwest and southwest of the tank excavation have not been established.

1.0 OBJECTIVE OF INVESTIGATION

The purpose of this additional investigation is to accomplish the following objectives.

1. Establish the zero line of the groundwater contamination plume on the southwest side of the property or determine if groundwater contamination has extended beyond the southwest property line.
2. Attempt to delineate the zero line of the soil contamination on the southwest and northwest sides of the tank excavation. The existing building may impede investigation northwest of the tank excavation.
3. Characterize contaminant concentrations in vadose soil directly underneath the tank excavation (from 17 to 30 feet below the surface).
4. Analyze and recommend appropriate remedial measures and possibly continued groundwater monitoring.

2.0 METHODOLOGY

To accomplish the above stated objectives we propose to advance 5 to 6 additional exploratory borings to a depth of approximately 30 feet. One of the borings will be drilled to a depth of approximately 40 feet and converted to a two-inch diameter monitoring well. The enclosed site plan depicts the proposed borings and well locations. If petroleum contaminants are not detected in soil and groundwater samples collected in SB-18, the new well (MW4) may be constructed at this location.

2.1 Soil Borings/Temporary Wells (Hydropunch)

All of the soil borings will be performed by Turner Exploration, from Rancho Cordova, California (C-57 License No. 602720). A truck mounted Mobile B-53 drill rig will be utilized to advance eight-inch hollow stem augers to a depth immediately above groundwater. Soil samples will be collected at maximum 5 feet vertical intervals with a split-spoon sampler driven through the hollow stem auger.

Soil samples will be retrieved from the sampler in their brass liners, covered with teflon tape, capped, sealed with duct tape, and immediately placed in a precooled ice chest.

To prevent cross contamination, all sampling equipment will be cleaned between samples with a dilute water and trisodium phosphate solution and rinsed with distilled water. In addition augers will be steam cleaned between borings.

A teflon coated temporary well screen (hydropunch) will be driven into the water bearing zone from the bottom of select soil borings to facilitate collection of discreet groundwater samples from those borings. Water samples will be collected with a stainless steel bailer and transferred to sterile 40-milliliter containers sealed with TFE lined septae and screw caps. The groundwater samples will also be placed immediately in a precooled ice chest.

All soil cuttings generated while drilling will be disposed of in the onsite soil stockpile remaining from the tank excavation stored on site. All of the borings will be backfilled with neat cement grout.

2.2 Monitoring Well Installation

The monitoring well will also be constructed by Turner Exploration. The two inch diameter pvc well casing will be installed through the hollow stem auger, and the auger will be progressively retrieved as the sand pack is set. The annulus will be sealed with a neat cement grout and finished with a flush mount, traffic rated enclosure, set in concrete. After completion a level survey will be performed of the new well, and the existing three wells to determine local groundwater flow characteristics

2.2.1 Well development and Sampling

On the day following completion of the well, it will be developed by alternating bailing and surging until turbidity diminishes appreciably. Purge water will be contained in sealed and labeled 55-gallon drums and stored onsite. Disposition of the purge water will be determined when results from groundwater analyses are available.

Regular quarterly sampling of all of the wells will resume as soon as the above field investigation and construction of the new well (MW4) are complete. Prior to sampling, 3-4 well volumes will be purged from each well. Samples will be collected with a new disposable teflon bailer when field measurements indicate pH, conductivity, and temperature have stabilized. The samples will be transferred to appropriate sterilized and preserved containers. Those intended for volatile organics analysis will be transferred with a nozzle designed to reduce aeration of the sample. All samples will be placed immediately in a precooled ice chest and kept refrigerated until they are delivered to the laboratory.

The samples will be submitted to a State Certified Laboratory where they will be analyzed for:

- Total Petroleum Hydrocarbons, as gasoline (modified EPA Method 8015)
- Volatile Organics (EPA Method 602)

- Total Lead (EPA Method 7420)

2.3 Laboratory Analysis

Soil and water samples will be submitted to a California Certified Laboratory and analyzed for Total Petroleum Hydrocarbons, as gasoline (EPA Method 8015 modified), and Volatile Hydrocarbons (EPA Method 8020/602). We anticipate utilizing an onsite mobile laboratory during the field work. This provides analytic data while the work is in progress that may warrant modification to the proposed boring locations.

3.0 PREPARATION OF PROBLEM ASSESSMENT REPORT (PAR)

When the field and laboratory work are complete, we will issue a written report describing our methods and summarizing the analytic data. The report will define the extent of contamination and propose remedial measures.

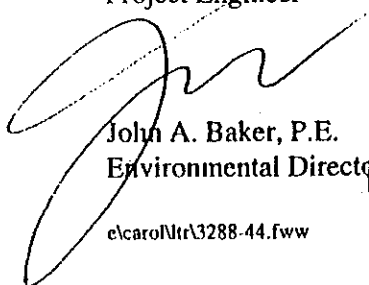
If you have any questions regarding this workplan, please do not hesitate to call.

Sincerely,

ANDERSON CONSULTING GROUP



F. William Welter
Project Engineer



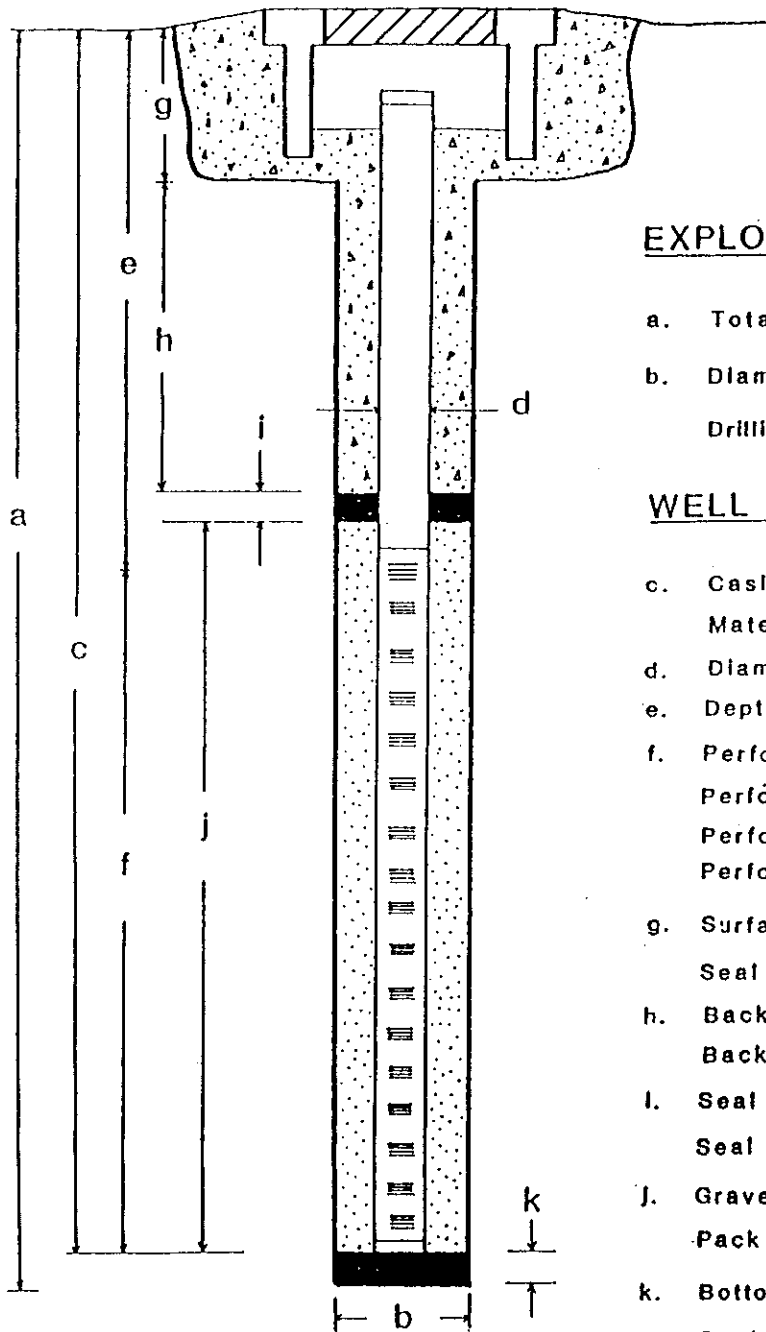
John A. Baker, P.E.
Environmental Director

elcaro\Ntr\3288-44.fww



Schematic of Monitoring Well

Not to Scale



EXPLORATORY BORING

- a. Total depth 40 ft.
 b. Diameter 8 in.
 Drilling method Hollow Stem Auger

WELL CONSTRUCTION

- c. Casing length 40 ft.
 Material Schedule 40 PVC
 d. Diameter 2 in.
 e. Depth to top perforations 30.0 ft.
 f. Perforated length 10 ft.
 Perforated interval from 30 to 40 ft.
 Perforation type Factory Slot
 Perforation size .02-inch
 g. Surface seal (0 to 2.0 ft.) 2.0 ft.
 Seal material Neat Cement Grout
 h. Backfill (2.0 to 27 ft.) 25.0 ft.
 Backfill material Neat Cement Grout
 i. Seal (27 to 29 ft.) 2.0 ft.
 Seal material Bentonite
 j. Gravel pack (29 to 40 ft.) 11.0 ft.
 Pack material 030 Sand
 k. Bottom seal _____ ft.
 Seal material PVC End Cap

FILE NO. 3288-44
 PROJECT Beck Roofing
 WELL NO. MW4
 DATE COMPLETED _____



**ANDERSON
 CONSULTING GROUP**

Roseville (916) 786-8883
 Grass Valley (916) 273-SOIL



WALLACE - KUHL
& ASSOCIATES INC.

June 23, 1994

ALCO
HAZMAT

94 JUL -6 PM 1:47

Ms. Mary Beck
Beck Roofing Company
21123 Meekland Avenue
Hayward, California 94541

ENVIRONMENTAL SERVICES PROPOSAL
BECK ROOFING COMPANY
21123 Meekland Avenue
Hayward, California

Dear Ms. Beck,

We are submitting this proposal for an evaluation of soil and ground water contamination at the above-referenced property. The purpose of our work would be to evaluate the horizontal and vertical extent of petroleum hydrocarbon contamination detected during previous site characterization. Based on review of the Workplan prepared by Anderson Consulting Group, we propose the following scope of work:

- obtain necessary permits
- drill six exploratory borings to 30 feet below surface grade. obtained from the borings at a intervals, or at significant lith would be logged and screened vapor analyzer and the observ
- obtain one ground water samp hydropunch or similar technol
- place drill cuttings on the existing stockpile

- A minimum of one soil sample must be analyzed from borings that will be used to delineate extent of soil contamination.

- Does this estimate include daily monitoring?

Construction of Enclosure

Environmental Cleanup

Remediation Services

Construction Inspection

Material Testing

350 Industrial Blvd.

Walton, California

CA 94591

Telephone (415) 231-1100

916.372.1134

BECK ROOFING

June 23, 1994

Page 2

- convert one of the borings to a ground water monitoring well utilizing two-inch diameter Schedule 40 PVC with appropriate screen sizing, filter pack, bentonite seal, and cement grout. The well boring will be advanced to a depth of approximately 40 feet below site grade
- complete the well with a traffic-rated, flush-mounted casing and locking well cap
- submit the water samples and selected soil samples to a state-certified on-site mobile analytical laboratory for analysis of Total Petroleum Hydrocarbons as gasoline (TPH, EPA Method 8015-modified) and Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX, EPA Method 8020/602)
- develop the well until stabilized pH, temperature, and conductivity readings are attained and/or the water is relatively free of sediment. All purged water will be pumped into 55-gallon drums to be stored on site
- obtain one water sample from the well. Prior to sampling, the well will be purged of at least three well volumes; purged water will be pumped into 55-gallon drums to be stored on site
- submit the water sample, along with a travel blank, and documentation to a California-certified laboratory for a gasoline and BTEX
- upon completion of sampling and testing, prepare a summary report containing well construction details, laboratory test results, ground water samples, conclusions regarding the nature and extent of water contamination and recommendations for further work.

- I would have them list off the separate expenses to specify what this estimate includes

+ Does it include disposition of soil cuttings & purge water?

We anticipate that the above scope of work could be completed for an estimated cost of \$10,000. Our cost is based on an estimated depth to ground water of 30 feet below grade, and on the assumption that subsurface conditions are amenable to drilling with a standard drill rig equipped



BECK ROOFING

June 23, 1994

Page 3

with hollow-stem augers. If rock, deeper ground water or other unanticipated conditions are encountered, we will discuss changed conditions and costs with you prior to proceeding.

All work would be performed under the direct supervision of a Registered Geologist in accordance with current state and county protocol.

Limitations

We will perform our services in a manner consistent with the standards of care and skill ordinarily exercised by members of the environmental profession at the time the service will be performed. Thus, no warranty is expressed or implied. We have attempted to anticipate contingencies associated with this project. However, unforeseen circumstances may result in a changed scope of work. Changes in scope may result in an adjustment of our fees. Any changes necessary will be mutually agreed upon by Wallace ■ Kuhl & Associates, Inc. and you before implementation.

The costs in the proposal are based on time and materials in accordance with our attached schedules of fees and are valid for 50 days. If this proposal and the terms of the attached agreement are acceptable to you, please sign and return it with one copy of this letter for our files. If you have any questions or wish to discuss our scope of work, please call.

We appreciate the opportunity to provide a proposal for this project.

Wallace ■ Kuhl & Associates, Inc.



Eric Hubbard

Senior Geologist

EH:sdm

Attachments

Pro/teck.pro/3PR94125



WALLACE ■ KUH
& ASSOCIATES INC

WALLACE • KUHL & ASSOCIATES, INC.

ENVIRONMENTAL CONSULTING AGREEMENT

Beck Roofing Company ("Client") and WALLACE • KUHL & ASSOCIATES, INC. ("WKA") agree:

1. PROFESSIONAL SERVICES. WKA will perform professional services and will receive compensation pursuant to the terms and conditions of the attached proposal letter dated June 23, 1994, which is incorporated herein by reference for the project known as BECK ROOFING COMPANY. In performing professional services, WKA shall use that degree of care and skill ordinarily exercised, under similar circumstances, by reputable members of the engineering and geologic profession practicing under similar conditions at the same time and in the same or similar locality. It is the intent of WKA to provide services in accordance with applicable laws and regulations.

Client understands and acknowledges the uncertainty connected with environmental evaluation and agrees that no guarantee or warranty, express or implied, is provided. Client recognizes that WKA's failure to detect the presence of hazardous materials at the site, even though hazardous materials may be assumed or expected to exist, does not guarantee that hazardous materials are not present at the site. Client also recognizes and assumes the risk that sampling through an unknown contaminated zone may spread contamination to an aquifer, underground stream, or other hydrous body not previously contaminated, spreading hazardous materials off-site. Client acknowledges that nothing can be done to prevent such an occurrence and accepts the risk and liability associated with such an occurrence because such sampling is a necessary aspect of the work which WKA will perform for the Client's benefit.

Client further understands that subsurface conditions beneath the project site may vary from those encountered in borings, surveys or explorations and that the information and recommendations developed by WKA are based solely on the information available to it. Any exploration, testing, surveys and analysis associated with the work will be performed by WKA solely to fulfill the purpose of this Agreement and WKA is not responsible for interpretation by others of the information developed.

2. PAYMENT. WKA will submit invoices for services rendered on a periodic basis, provided, however, said invoices shall not be submitted more frequently than once every 30 days. Invoices shall be due upon receipt, but shall not be considered delinquent if paid on or before the expiration of 30 days from the date of mailing. If payment is not made, a late payment charge shall be due on the invoice amount at the rate of one and one-half percent (1½%) per month, which is an ANNUAL PERCENTAGE of eighteen percent (18%), on the unpaid balance from the date of the invoice until paid. In the event of delinquency, Client shall pay the actual cost of collection including, without limitation, reasonable attorney's fees.

3. RIGHT-OF-ENTRY. Unless otherwise agreed, Client will furnish right-of-entry to WKA to make borings, surveys and/or explorations. WKA will take reasonable precautions to reduce damage to property. However, Client understands that in the normal course of work some damage may occur and agrees to indemnify and hold WKA harmless from liability for such damage including third party liability, if any.

4. UTILITIES. WKA will request responsible utility owners to locate off-site lines. Client agrees to be solely responsible for designating the locations of all utility lines and subterranean structures within the property lines of the project. Client further agrees that WKA will not be liable for damage to subterranean structures including, but not limited to, pipes, tanks, conduits, and wires which are not correctly located on or off the site.

5. INDEMNIFICATION. Client shall be solely responsible for and agrees to indemnify, defend and hold WKA harmless from all liability for property damage or personal injury incurred, including injury to any other person during the course of the work to be performed under this Agreement, except for gross negligence, intentional misconduct or fraud by WKA. This includes, but is not limited to, liability resulting from the handling of hazardous materials or hazardous wastes or any liability whatsoever resulting from services performed in accordance with this Agreement for exploration, excavation or remediation or, further, any liability due to Client's failure to comply with the terms and conditions of this Agreement or delay or failure to act upon WKA's recommendation which results in a violation of law, regulation or any action brought against WKA, except for WKA's gross negligence or willful misconduct.

6. LIABILITY. WKA carries workers' compensation insurance and public liability insurance for bodily injury and property damage which may be suffered by third parties and members of the public who are not covered by the limitation of liability set forth in Paragraph 7. Certificates of coverage will be furnished to Client upon request. WKA assumes the risk of damage caused by its personnel to its supplies and equipment. In the event Client desires greater insurance coverage and directs WKA to take out additional insurance, WKA shall procure and maintain additional insurance, if procurable, at Client's expense; provided, however, WKA shall not be responsible for property damage and bodily injury resulting from any cause, including fire and explosion, beyond the amount and coverage of WKA's insurance except for gross negligence, fraud or willful misconduct by WKA.

CONTINUED ON REVERSE SIDE





WALLACE • KUHIL
& ASSOCIATES INC.

**SCHEDULE OF FEES
FOR
GEOLOGIC AND ENVIRONMENTAL SERVICES PERSONNEL**

(August 1993)

| | |
|---------------------------------|--------------|
| Draftsperson | \$45.00/hr. |
| Environmental Technician | \$50.00/hr. |
| Senior Environmental Technician | \$60.00/hr. |
| Staff Geologist/Engineer | \$80.00/hr. |
| Project Biologist | \$90.00/hr. |
| Project Geologist/Engineer | \$90.00/hr. |
| Senior Geologist/Engineer | \$100.00/hr. |
| Principal Geologist/Engineer | \$130.00/hr. |

Premium charges

| | |
|---------------------|-----------------|
| Overtime | add \$20.00/hr. |
| Sunday and Holidays | add \$30.00/hr. |

Litigation

| | |
|--------------------------------------|--------------|
| Data Review/Consultation | \$150.00/hr. |
| Depositions/Expert Witness Testimony | \$225.00/hr. |

Vehicle Charges

\$0.52/mile

**Subsistence
Lodging**

\$35.00/day
Cost

**Services by Associate Firms and
other outside services**

Cost + 20%

**Equipment rental, freight,
special materials**

Cost + 20%

Geotechnical Engineering

Engineering Geology

Environmental Consulting

Remediation Services

Construction Inspection

Materials Testing

3050 Industrial Blvd

West Sacramento

CA 95691

TEL 916.372.2365

916.372.1431