7020 Koll Center Parkway, Suite 134, Pleasanton, CA 94566 (510) 426-5395 FAX (510) 426-5391

Compliance & Closure, Inc.

ENVIRONMENTAL PROTECTION
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May 23, 1996

Alameda County Health Department
Hazardous Materials Division
1131 Harbor Bay Parkway
Alameda, California 94502

Attention: Mr. Scott Seery

Subject: Preliminary Site Assessment Report
Former Jack Holland Sr. Oil Company
16301 East 14th Street, San Leandro, California
(CCI Project No. 12059-1)

Dear Mr. Seery:

In accordance with instructions from Ms. Barbara Holland, Compliance & Closure, Inc. is here by forwarding the Preliminary Site Assessment Report for the former Jack Holland Sr. Oil Company facility, located at 16301 East 14th Street, in the City of San Leandro, Alameda County, California.

CCI would appreciate you comments on this report. If you have any questions or require additional information, please call our office at (510) 426-5395.

Sincerely,
Compliance & Closure, Inc.

Gary R. Mulkey

Gary R. Mulkey, R.G. 5842

cc: Ms. Barbara Holland

CAMBRIA
Environmental Technology, Inc.

ALCO
HAZMAT
94 JUN 10 PM 12: 10

June 9, 1994

Scott Seery
Alameda County Department
of Environmental Health
80 Swan Way, Rm 350
Oakland, CA 94621

Never implemented

Re: Preliminary Site Assessment
Jack Holland Sr. Oil Company
16301 East 14th Street
San Leandro, California

Dear Mr. Seery:

This letter summarizes Cambria Environmental Technology's scope of work for a subsurface investigation and tank removal at selected parcels that comprise the property referenced above. This workplan is submitted to satisfy the request of the California Regional Water Quality Control Board (RWQCB) outlined in their April 21, 1994 letter to Barbara Holland. The April 21 RWQCB letter referenced four specific parcels that comprise this site address: 80C-479-6-3, 80C-479-6-4, 80C-479-6-11, and 80C-479-6-13. However, Ms. Holland has never owned parcel 80C-479-6-4. Therefore, this workplan addresses only parcels 80C-479-6-3, 80C-479-6-11, and 80C-479-6-13. The project background, our project objectives, and our proposed scope of work and work schedule are presented below.

PROJECT BACKGROUND

Site Location: The site is a former bulk fuel storage and retail facility located in a commercial area of San Leandro, California. The site contains two underground diesel storage tanks, one underground petroleum solvent storage tank, numerous aboveground storage tanks, and refueling facilities. The site is currently bounded on the north and south by car dealerships and on the west by a park and recreational facility.

~5 USTs, total @ site

Sched 1.

Previous Investigations: In September 1990, Crosby & Overton of Oakland, California (C&O) drilled five soil borings adjacent to two underground diesel storage tanks to assess whether hydrocarbons from the tanks had leaked into the subsurface. Total petroleum hydrocarbons as diesel (TPHd) were

detected in soil samples from all borings, at concentrations up to 25,000 parts per million (ppm). C&O suggested in their investigation report that diesel was released as overspill during tank filling operations and from leakage from the underground storage tanks.[1] Soils encountered were primarily clay and silty to sandy clay to the total depth explored of 15 ft. **Ground water was encountered at 14.5 ft depth.**

OBJECTIVES

As requested in the April 21 RWQCB letter, the project objectives are to:

- Determine the location and orientation of all aboveground and underground storage tanks on all parcels,
- Have a licensed surveyor survey each tank and boundaries for all four parcels and prepare a map depicting the tanks with respect to the parcel boundaries,
- Assess the horizontal and vertical extent of soil and ground water contamination originating from parcels owned by Barbara Holland, and
- Remove the aboveground and underground storage tanks from parcels owned by Barbara Holland in accordance with Title 23, California Code of Regulations, the Alameda County Fire Code and ACDEH requirements.

SCOPE OF WORK

We propose a phased approach to meet these project objectives. Our first task is to identify all underground storage tanks on each parcel. Once the tanks are identified, we will survey the tank locations with respect to the parcel boundaries to determine whether any of the underground storage tanks extend onto parcels owned by Barbara Holland. We will then investigate the horizontal and vertical extent of contaminants that may have been released from these tanks. Finally, we will remove

[1] Crosby and Overton, 1990, Subsurface Soil Investigation, prepared for the Jack Holland Sr. Oil Corporation site, 16301 East 14th Street, San Leandro, California, 12 pages plus attachments.

all aboveground and underground storage tanks on parcels owned by Barbara Holland. These tasks are described in detail below.

Tank Location: We recommend using ground penetrating radar (GPR) to locate all underground storage tanks beneath the four parcels, including the parcel owned solely by Ann Marie Holland. GPR should be able to accurately locate the underground storage tanks without interference from the aboveground tanks. Prior to conducting the GPR survey, our subcontractor will visit the site to confirm that they can accurately perform the survey given the site layout. If the subcontractor determines that the site structures would prevent a GPR survey, then we will use a backhoe to uncover and locate the tanks.

Site Survey: After the tanks are located using GPR, we will retain a licensed surveyor to survey all aboveground and underground storage tanks locations with respect to the parcel boundaries. The surveyor will prepare a map depicting both the parcel boundaries and the location of all tanks.

Soil and Ground Water Sampling: Once the tanks are located and surveyed, we will conduct a subsurface investigation to assess whether tanks extending onto parcels owned by Barbara Holland have released contaminants to the subsurface. We will drill several initial soil borings adjacent to each tank and collect and analyze soil samples from the borings. We will also collect ground water samples from several of the borings to determine whether contaminants are in ground water. If contaminants are observed during drilling of the initial borings, we will drill additional borings further from the contaminant source area until the extent of contaminants in soil and ground water is defined. We will submit a map with our proposed initial boring locations for your approval before drilling. The map will also identify possible locations for additional borings if they are needed.

All field activities will be conducted in accordance with ACDEH and RWQCB guidelines. Our standard field procedures are presented in Attachment A. We will also prepare a site safety plan, identify underground utilities and secure well installation permits prior to drilling.

Soil and Water Analyses: We will analyze selected soil and ground water samples from the borings for:

- TPH as gasoline (TPHg) by modified EPA Method 8015,
- Benzene, ethylbenzene, toluene and xylenes (BETX) by EPA Method 8020, and
- TPH as diesel and motor oil (TPHd and TPHmo, respectively) by modified EPA Method 8015 with an extended run.

We will also analyze soil and water samples collected adjacent to the underground solvent storage tank for chlorinated volatile organic compounds (VOCs) using EPA Method 8010.

Well Installation: If contaminants are detected in soil and/or ground water, we will install ground water monitoring wells within ten ft of the anticipated downgradient side of the source tank and beyond the downgradient extent of the contaminants. Proposed well locations will be submitted for your approval prior to installation. Once the wells are installed, they will be developed using a combination of surging and well evacuation as outlined in our attached standard field procedures. Within a few days of development, the wells will be sampled for the contaminants detected in the borehole water samples collected during the initial phase of this investigation.

Tank Removal: We will subcontract a licensed contractor to remove and dispose of the tanks lying partially or entirely on parcels owned by Barbara Holland. For this task, Cambria and/or the subcontractor will:

- Obtain all tank removal permits,
- Prepare the tanks for removal by purging all volatile vapor using carbon dioxide,
- Remove the tanks and associated piping and inspect the condition of the tanks, piping and underlying soil to identify any obvious holes or leaks and any obvious contamination,
- Collect native soil samples from about 18 inches beneath the fill ends of the tank and at 20 ft intervals beneath the piping following State and local regulatory guidelines,
- Stockpile removed soil on the site,

- Analyze diesel tank samples for TPHd and BETX and analyze the solvent tank samples for TPHg, TPHd, TPHmo, BETX and chlorinated solvents.
- Backfill the excavations, and
- Manifest and dispose of the tanks and piping.

The excavated soil will be characterized and either disposed or bioremediated onsite and replaced in the excavations. The decision to bioremediate or to dispose of the soil will be based on stockpile characterization and the space available for bioremediation.

We do not recommend overexcavation to remove contaminated soil adjacent to the tanks unless the soil boring investigation indicates that the extent of contaminants is limited. Since piping may extend onto parcels not owned by Barbara Holland, we will remove piping up to the parcel boundary. However, tanks that extend only partially onto parcels owned by Barbara Holland will be removed during this phase of work.

Reporting: Following the fieldwork, we will prepare a report presenting the investigation results. The report will include:

- A summary of the site background and history,
- A map of tank locations with respect to parcel boundaries,
- Rationale for the boring and well placements and design,
- Descriptions of activities performed during drilling, soil sampling, well installation, well development and sampling, and tank removal,
- Observations recorded during tank removal,
- Tabulated soil and ground water analytic results,
- Figures illustrating the extent of hydrocarbons in soil and ground water,
- Analytic reports and chain-of-custody forms,

- Well elevation survey and ground water elevation data,
- Soil, water and tank disposal methods, and
- Conclusions.

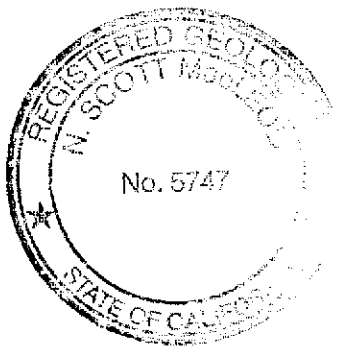
We will also submit quarterly project status reports that present all activities performed in the previous quarter and activities anticipated for the upcoming quarter.

SCHEDULE

We will begin this project within 30 days of receiving your written approval of this workplan and the necessary permits. We will submit a report presenting the results of the subsurface investigation and tank removal within 60 days of completing all field work. We will submit the quarterly status reports within 30 days of the end of each calendar quarter.

We appreciate your cooperation with this investigation and look forward to receiving your written approval of this workplan. Please call if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.



N. Scott MacLeod, R.G.
Principal Geologist

NSM:nm

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Attachments: Standard Field Procedures

cc: Barbara Holland, P.O. Box 247, Pebble Beach, CA 93953
Bernie Rose, Randick & O'Dea, 1800 Harrison, Suite 2350, Oakland, CA 94612
Steven R. Ritchie, California Regional Water Quality Control Board, San Francisco Bay Region, 2101 Webster Street, Suite 500, Oakland, CA 94612

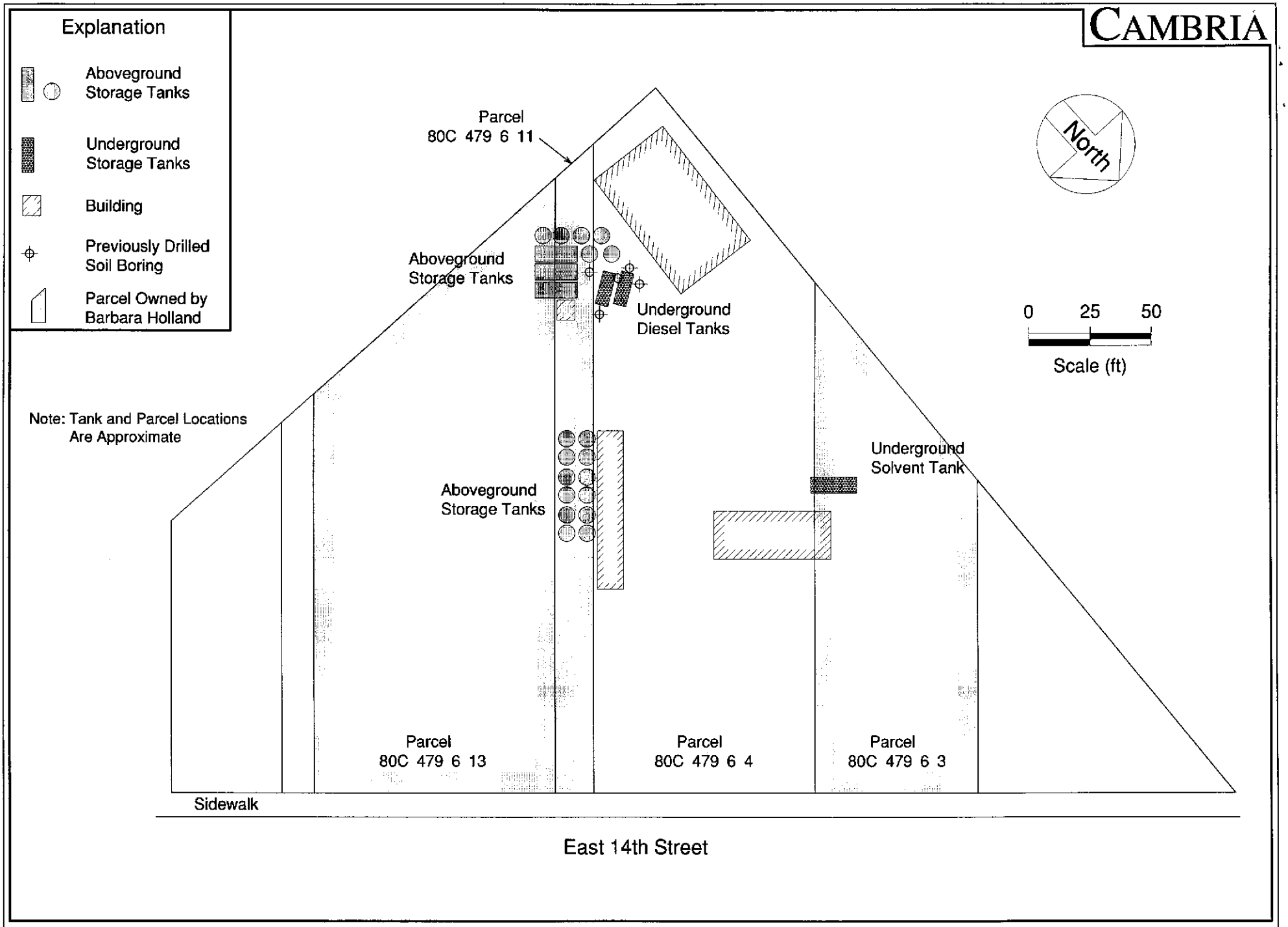

Figure 1. Site Base Map, Jack Holland Sr. Oil Corporation Properties, San Leandro, California

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ATTACHMENT A

STANDARD FIELD PROCEDURES

This document describes standard field methods for drilling and sampling soil borings and installing, developing and sampling ground water monitoring wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

SOIL BORING AND SAMPLING

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the Unified Soil Classification System by a trained geologist working under the supervision of a California Registered Geologist (RG) or a Certified Engineering Geologist (CEG).

Soil Boring and Sampling

Soil borings are typically drilled using solid flight or hollow-stem augers. Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using split-barrel samplers lined with steam-cleaned brass or stainless steel tubes that are driven through the hollow auger stem into undisturbed sediments at the bottom of the borehole. Samples are driven using a 140 pound hammer dropped 30 inches.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Analysis

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labelled, stored on crushed or dry ice, depending upon local agency requirements, at or below 4°C. The samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable photoionization detector (PID) measures volatile hydrocarbon vapor concentrations in the

tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the stratigraphy and ground water depth to select soil samples for analysis.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe. If wells are completed in the borings, the well installation, development and sampling procedures summarized below are followed.

MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

Well Construction and Surveying

Wells are installed to monitor ground water quality and determine the ground water elevation, flow direction and gradient. Well depths and screen lengths are based on ground water depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines. Well screens typically extend 10 to 15 ft below and 5 ft above the static water level at the time of drilling. However, the well screen will generally not extend into or through a clay layer that is at least three ft thick.

Well casing and screen are flush-threaded, Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two ft above the well screen. A two ft thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I,II cement.

Well-heads are secured by locking well-caps inside traffic-rated vaults finished flush with the ground surface. A stovepipe may be installed between the well-head and the vault cap for additional security.

The well top-of-casing elevation is surveyed with respect to mean sea level and the well is surveyed for horizontal location with respect to an onsite or nearby offsite landmark.

Well Development

Wells are generally developed using a combination of ground water surging and extraction. Surging agitates the ground water and dislodges fine sediments from the sand pack. After about ten minutes of surging, ground water is extracted from the well using bailing, pumping and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least ten well-casing volumes of ground water are extracted and the sediment volume in the ground water is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.

Ground Water Sampling

Depending on local regulatory guidelines, three to four well-casing volumes of ground water are purged prior to sampling. Purging continues until ground water pH, conductivity, and temperature have stabilized. Ground water samples are collected using bailers or pumps and are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labelled, placed in protective foam sleeves, stored on crushed ice at 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.