



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

January 27, 2012

Arkansas Bandag Corporation
PO Box 10048
Fort Smith AR 72917

Mr. Chris Brown
ABF Freight Systems, Inc.
PO Box 10048
Fort Smith AR 72917
(sent via electronic mail to cbrown@abf.com)

Subject: Request for a Work Plan Addendum; Fuel Leak Case No. RO0003033 and GeoTracker Global ID T0600100018, ABF Freight Systems, 4575 Tidewater Avenue, Oakland, CA 94601

Dear Mr. Brown:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site, including the *Soil and Groundwater Investigation Work Plan*, dated November 4, 2011, and prepared by the Trinity Source Group, Inc (Trinity). The work plan included an initial Site Conceptual Model (SCM) and the results of a groundwater monitoring and sampling event (with well redevelopment) conducted in October 2011 after discussions with ACEH. Thank you for the work plan and the initial work at the site.

Based on ACEH staff review of the referenced documents and of the case file we generally concur with the recently proposed scope of work, provided that the modifications requested in the technical comments below are addressed and incorporated during the field implementation. While the comments below request a number of additional soil bores, submittal of a revised Work Plan is limited to a revised Figure 5 and additionally requested items, unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed. We request that you address the following technical comments, submit the requested document, and upon ACEH approval, perform the proposed work, and send us the technical reports requested below. Please provide 72-hour advance written notification to this office (e-mail preferred to: mark.detterman@acgov.org) prior to the start of field activities.

TECHNICAL COMMENTS

- 1. Request for additional bore locations and grab groundwater sampling** – The November 2011 work plan referenced above proposes to install six tank basin backfill bores to investigate for potential residual soil contamination within the (presumed former) UST complex. The bores also are intended to investigate the vertical extent of any residual soil contamination encountered. Two additional groundwater monitoring wells to the north and south of the tank complex are proposed. Four additional bores are held in reserve should residual contamination be encountered in the tank complex, or in soil samples collected during well installation. These are intended to define the lateral extent of impacted soil around detected concentrations. The proposed installation of two sub-slab vapor probes within the maintenance facility immediate west of the UST complex is discussed in Technical Comment No. 4 below.

ACEH notes that conflicting information is presently available for the site. While existing soil analytical appears to indicate limited impact to soil outside the UST complex (up to 34 mg/kg motor fuel at a depth of 9.5 feet), the soil samples were collected at a depth of 4.5 and 9.5 feet below grade surface (bgs), while groundwater appears to have been generally encountered at between 1 and 2 feet in most existing soil bores, with one noted to be as deep as 7 feet bgs. This can suggest that the soil samples were collected below groundwater (but may suggest the

vertical extent in soil might be defined). ACEH also notes that groundwater at an adjacent site (Di Salvo Trucking, RO0000107, 4919 Tidewater Avenue, Oakland) is generally encountered at a depth of 2 to 3 feet bgs). As a consequence of these indications ACEH requests the installation of additional soil bores, and the collection of grab groundwater samples, to define the lateral extent of potential soil and groundwater contamination in the vicinity of the UST complex prior to the installation of groundwater wells (with close attention paid to the depth of first encountered groundwater). This will also assist in determining well screen placement. Because the UST complex is immediately adjacent to the maintenance facility, this should include bores within that structure. This request is based on the detection of up to 2,900 mg/kg extractable hydrocarbons in the stockpile characterization sample and the presumed limited ability to remove additional laterally impacted soil adjacent to the building. This will additionally help in the understanding of the potential for vapor intrusion into that facility. This would also be consistent with full site delineation required by current policy and in any future adoption of the as yet not adopted "Low-Threat Policy". Because there is no UST basin perimeter characterization data this should also include collection of soil and groundwater to sufficiently characterize the basin perimeter.

For this phase of work ACEH requests a work plan addendum prior to commencement of field work (a revised Figure 5), to depict the location of additional bore and grab groundwater locations, by the date identified below.

2. **Request for a Preferential Pathway Study** – The purpose of a preferential pathway study is to locate potential migration pathways and conduits and determine the probability of a groundwater plume encountering preferential pathways and conduits that could spread contamination. Because of the proximity of the tidal estuary, ACEH requests you undertake this study prior to site investigations, and submit the results in a brief letter report accompanying the work plan addendum revised figure requested above. As a consequence, ACEH requests a conduit study that details the potential migration pathways and potential conduits (utilities, utility laterals, pipelines, foundational, and in particular at this site. in-filled estuary sloughs, and etc.) for vertical and lateral migration that may be present in the vicinity of the site.

Discuss your analysis and interpretation of the results of the preferential pathway study and report your results in the work plan addendum requested below. The results of your study shall contain all information required by California Code of Regulations, Title 23, Division 3, Chapter 16, §2654(b).

- a. **Utility Survey** - An evaluation of all utility lines, utility laterals, and trenches (including sewers, storm drains, yard drainage, electrical, gas, pipelines, trench backfill, foundation backfill, etc.) within and near the site and plume area(s) is required as part of your study. Please synthesize available information and maps, and generate appropriate (vicinity and / or site specific) maps and cross-sections illustrating the location and depth of all utility lines and trenches within and near the site and plume areas(s) as part of your study.
 - b. **In-Filled Estuary Channels** – ACEH reviewed the *Creek & Watershed Map of Oakland & Berkeley* (available through either the Oakland Museum of California website, or the ACEH website under "Technical References") for potential creeks, channelized creeks, trunk storm drain lines, or in-filled estuary sloughs. The subject site, inclusive of both buildings and the UST complex, appears to have been located directly over a former slough channel. Backfill for the channel is requested to be carefully evaluated and consideration be given with respect to potential preferential pathways caused by granular fill placement. This may require some modification to bore placement locations.
3. **Vapor Survey** – ACEH is in general agreement that a vapor survey is appropriate at the site; however, prior to conducting the survey, ACEH requests that the maintenance building layout, including utility conduits, bay doors, bathrooms, offices, or other appropriate structures be mapped out on a figure, and sub-slab vapor probe locations be justified within that context. This is requested to be submitted as a part of the work plan addendum previously requested. ACEH has the additional comments in regards to the proposed sub-slab vapor survey:

- a. **Tracer Shroud** - The sampling protocols indicate that a shroud will be used; however, do not describe how the sampling train will be accessed to retain a helium enriched atmosphere around the sampling train at all times. To preclude miscommunication ACEH requests that the shroud remain in place for the duration of the test to maintain that atmosphere. To allow "real-time" monitoring of the shroud tracer atmosphere with a helium monitoring device, the shroud should be fitted with a minimum of one port. The port can be used to access the sampling train without removal of the shroud if a gas impermeable (e. g. plastic) curtain is used. Please tabulate the shroud tracer concentrations in the report requested below should the tracer concentration readings are not contained in the field data sheets.
 - b. **Additional Soil Vapor Analytical Suite** – To characterize the sub-slab vapor environment ACEH requests the collection and analysis of standard atmospheric gases (nitrogen and oxygen), as well as methane and carbon dioxide by appropriate methodologies.
4. **Well Placement** – ACEH is in general agreement that additional wells are appropriate at this site in order to define the lateral extent of impacted soil and groundwater. The wells should be placed based on the collection of additional soil and groundwater data to be collected in the soil bore program. Prior to well placement selection ACEH requests a data submittal of the results of the soil bore and sub-slab vapor survey investigations (data tables, figures, bore logs, and other appropriate data or explanations) in conjunction with proposed well locations. Upon ACEH concurrence with well placement, installation of the wells can proceed.
5. **Well Screen Intervals** – The work plan proposes to install well screens 11- to 16-feet in length between approximately 15 and 20 feet bgs, and up to approximately 4 feet bgs to intercept static water levels. ACEH assumes (and requests) that the upper depth interval be adjusted in the field depending on the depth of first encountered groundwater; however, ACEH generally requires shorter screen intervals in order to collect more representative groundwater sample. In general this should be no more than a 5 foot sand interval; however, ACEH also recognizes that a fully screened water-bearing zone is appropriate in thinner permeable zones. For shorter water bearing zones ACEH requests an effort to minimize the screen length at each well location to the extent possible, with well screens minimally longer than the water-bearing zone, but including the capillary fringe. If longer screen intervals are judged appropriate well clusters or multilevel wells (e.g. CMT) may be appropriate. Please document intended changes in the brief work plan addendum requested below, by the date identified below.
6. **Request for Quarterly Groundwater Monitoring and Sampling** - ACEH requests continuation of groundwater monitoring, initially on a quarterly basis, in order to establish groundwater and contaminant trends at the site, principally due to the extremely limited set of groundwater data present at the site. New wells additionally require a minimum of one full year of quarterly groundwater monitoring and sampling, once installed. The site can be reevaluated after this initial period for a reduction in the groundwater monitoring interval to semi-annual, or other appropriately justified intervals.
7. **Laboratory Analysis** - ACEH has the following technical comments on the proposed analytical program:
 - a. **Soil Analysis** – With respect to soil characterization for potential waste oil contaminants ACEH additionally requests collection of the standard waste oil suite of contaminants contained in revised *Table 2: Recommended Minimum Verification Analysis for Underground Storage Tank Leaks* (revised October 10, 2006). This should additionally include oil and grease, chlorinated VOCs (EPA 8260 list), EDB, EDC, PCBs, and PCPs by appropriate laboratory methods.

ACEH is in agreement that the use of silica gel cleanup is appropriate at this bay margin site. ACEH additionally requests an analysis of the carbon-range (fuel fingerprint) be

conducted in an attempt to determine if future cost savings may be achieved, in particular in the extractable range, at the site. Initially this would be in addition to standard TPH range analysis (gas, diesel, motor oil, etc).

- b. Groundwater Analysis** - In addition to the proposed groundwater analytical suite, ACEH additionally requests initial inclusion of a full fuel oxygenate analysis program (MTBE, TBA, DIPE, ETBE, TAME, as well as EDB and EDC). This should be applied to both grab groundwater and well groundwater samples. Upon collection of sufficient analytical data this request can be reevaluated. ACEH additionally requests collection of salinity measurements from groundwater monitoring wells on a one time basis. This, in addition to specific conductivity measurements, will help establish the resource potential of groundwater beneath the site.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Mark Detterman), according to the following schedule:

- **March 3, 2012** – Work Plan Addendum (Figure 5, Conduit Survey, and Screen Interval)
- **March 16, 2012** – First Quarter 2012 Groundwater Monitoring Report
- **45 Days After Work Plan Addendum Approval** – Soil, Groundwater, and Vapor Data Submittal
- **45 Days After Well Location Approval** – Soil and Groundwater Investigation Report
- **June 15, 2012** – Second Quarter 2012 Groundwater Monitoring Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Mark E. Detterman, PG, CEG
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions

cc: David Reinsma, Trinity Source Group, Inc, 500 Chestnut Street, Suite 225, Santa Cruz, CA 95060
(sent via electronic mail to dar@tsgcorp.net)

Debra Moser, Trinity Source Group, Inc, 500 Chestnut Street, Suite 225, Santa Cruz, CA 95060
(sent via electronic mail to djm@tsgcorp.net)

Donna Drogos, (sent via electronic mail to donna.drogos@acgov.org)
Mark Detterman (sent via electronic mail to mark.detterman@acgov.org)
Electronic File, GeoTracker

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	REVISION DATE: July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to deh.loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.