## GeoSolv, LLC

Environmental and Hydrogeological Consulting 643 Oregon Street, Sonoma, CA 95476 Phone: (707) 996-4227 Fax: (707) 996-7882

We Don't Just Work on Your Environmental Problems. We Solve Them!

July 18, 1998

Scott Seary
Alameda County Health Care Agency
Environmental Protection Division, Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor, Room 250
Alameda, CA 94502
(510) 567-6774 Phone, (510) 337-9335 Fax

SUBJECT:

Response to Alameda County Health Care Services Correspondence dated July 15, 1998, regarding the 5-22-98 GeoSolv Workplan for a 2<sup>nd</sup> Phase Subsurface Investigation Report on Hydrocarbons at the Former Glovatorium/The Leather Cleaners Site Located at: 3815 BROADWAY, OAKLAND, CA 94611

Dear Mr. Seary,

Attached is the response to the questions you posed in your June 19, 1998 E-Mail. As you can see, I prepared my response within two days of receiving your E-Mail. Albert Cohen, the Depper's attorney, reviewed my June 21, 1998 letter, for me, last week. He has many responsibilities which he must prioritize, as do I, and I for one, am not adverse to receiving a deadline in your agency correspondence. Since you took approximately one month to respond to my workplan submittal, we assumed that a one month response time to your inquiry is acceptable. This is also consistent with your agency's and other County and State agencys' practice of requiring 30 days for a response to environmental regulatory correspondence. Please include specific deadlines for responses, when necessary, to be received by your agency.

Also, E-Mail is a wonderful medium for communication, however, remember that I can't always respond with E-Mail because your agency may not have the text and graphics conversion capabilities necessary to receive the information you may need in my response to you. Finally, if you are going to send E-Mail, please "cc:" Albert Cohen and the Deppers, as well. I know that Mr. Cohen has E-Mail, however, I don't know if the Deppers do.

Sincerely,

Franklin J. Goldman CEO/GeoSolv, LLC

Registered Geologist No. 5557 Certified Hydrogeologist No. 466

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We Don't Just Work on Your Environmental Problems. We Solve Them!

June 21, 1998

Scott Seary
Alameda County Health Care Agency
Environmental Protection Division, Department of Environmental Health
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Alameda, CA 94502
(510) 567-6774 Phone, (510) 337-9335 Fax

SUBJECT:

Response to Alameda County Health Care Services Correspondence by E-Mail, dated June 19, 1998, regarding the 5-22-98 GeoSolv Workplan for a 2<sup>nd</sup> Phase Subsurface Investigation Report on Hydrocarbons at the Former Glovatorium/The Leather Cleaners Site Located at: 3815 BROADWAY, OAKLAND, CA 94611

Dear Mr. Seary,

This correspondence is a response to your questions regarding the proposed scope of work, boring placement, target compounds, boring depths, and "drilling" equipment proposed in the workplan. The questions posed have been answered in the following item-by-item format.

1) Overall I like the proposed boring locations. I'd like to present to you, however, a discussion about the locations of those borings planned proximal to (previous) boring B-10, located near a floor drain west of the cleaning room.

The boring you have shown closest and immediately east of boring B-10 looks like a good location to collect the shallow soil data missed in B-10.

Here are my thoughts about the other three boring locations: according to the scaled map, each is currently proposed within approximately 10 feet of boring B-10. My initial thought is that these 3 should be moved another 5-10 feet further out along the same "spokes" from B-10. My reasoning behind this is that moving them further out will give better spatial resolution in terms of gradations in both soil and groundwater (GW) concentrations, and will move two of them closer to the buried storm drain, a potential "receptor" and conduit for off-site transport.

My other thought about these 3 borings is one or more (additional borings) should be targeted along the drain line that serves the floor drains investigated by borings B-10 and B-9. Do we know where this (these) drain line(s) is(are)? Let's get them mapped them out, as they likely serve as contaminant dispersal conduits, and we should target them for that reason.

## 1A) Response:

I see no problem with spreading out the distribution of the three proposed boreholes an additional 5 to 10 feet. The concentration contours of chlorinated solvents in soil will be generated by, and interpolated from, the contaminants identified in the four proposed boreholes. The inevitable result of having two of the four boreholes closer to the stormdrain may aid in determining if the stormdrain is a man-made conduit for contaminant transport as well as defining the chlorinated solvent plume in soil at the discharge point.

The location of the drain lines is not known and should be evaluated based upon a down-hole camera survey so that a proper placement of boreholes can be determined. The down-hole camera would be able to identify breaches in the piping and would determine which investigative tool would be appropriate. For example, if the drain lines are shallow, it would be more appropriate to collect shallow soil samples from shallow hand dug pits with a hand sampling system. It might also be more prudent to perform the downhole camera survey and the additional boreholes after this 2<sup>nd</sup> phase investigation reveals a more complete graphical distribution of the point source contaminants in the vicinity of location at B-10.

2) Because this phase of the investigations is seeking primarily to better define impacts to soil and GW from both HVOC and Stoddard solvent, another boring should be placed approximately 15-25 feet towards Broadway up the walkway from Boring B-13.

Along this same line of thought, the boring proposed for the upper northeast corner of the outdoor equipment storage area (adjacent to the cleaning room) should add HVOC and Stoddard solvent to the suite of proposed target compounds; and, the boring proposed directly adjacent the buried storm drain should also add both HVOC and Stoddard solvent to the proposed suite of target compounds.

## 2A) Response:

I agree that the extent of the contaminant plumes have not been defined to the east of B-13. We can probably excavate a borehole to a depth of approximately 10 feet bgs, due to limited access, and could collect two soil samples and one groundwater grab sample for HVOC and stoddard solvent analyses.

OK

The borehole to be placed adjacent to the stormdrain will be analyzed for HVOCs and stoddard solvent.

3) Will you send me a copy of your evidence for the "breach" in the storm drain? (E-2)

3A) Response:

Yes, we will send you a copy of the video tapes exhibiting the breach in the storm drain. In fact, we may have to revise the location of the borehole proposed to be placed adjacent to the stormdrain because its purpose is to identify contaminants which could enter through the breach via surrounding soils. This proposed borehole location was established by using the video tapes to determine the surficial location, above the main breach, at the top of concrete. This borehole location will be more thoroughly defined prior to initiating field work.

OK

OK

- 4) The proposal for sampling the storm drain "outfall" seems premature at this time. We can talk about it once I see your location map.
- 4A) Response: I will provide you with a location map after this second phase investigation is completed. I concur that we can discuss this matter at a later date.
- As the original Precision push tool rig (DA series) had difficulty advancing much beyond 10' (and even 7' in a couple of holes), how can we be sure it will advance deep enough where its use is proposed now? As its static weight is only around 450 lbs, will the rig be bolted to the slab to accommodate the need for additional depth should its static weight be insufficient to provide the resistance needed to advance the drill string?
- 5A) Response:

I did perform a job walk with Mr. Perez of Precision drilling and was assured that the small rig could reach the depths proposed. I and the driller, of course, cannot guarantee that any drill rig will reach a specific depth as I we don't have control over the variables which may determine the total depth which can be obtained. We can make some educated guesses based on our knowledge of local subsurface stratigraphy. I seem to remember that all of the borings could reach eleven feet bgs, given enough time. If necessary, we will set up a contingency for bolting the small rig to the floor.

No!

- Why are some of the proposed boreholes to be advanced to 8', others to 11', and yet others to 15'? (It looks like the 8' borings are those where shallow samples were not collected the first time around in B-6, -9, and -10.) How will collection of GW samples be assured when some holes are nearly half the depth of others? Why are depth limits even proposed? Wouldn't it be better just to indicate each will be advanced to sufficient depth to collect GW samples, whatever that depth may turn out to be?
- 6A) Response:

The eight foot borings are meant to obtain shallow soll samples from potential discharge points as you required. The are to be drilled to an additional one to three feet bgs so that a borehole will provide a sufficient volume of saturated borehole in order to obtain a large enough volume of water for groundwater sampling to be representative. Also, the shallower boreholes happen to be placed in locations which are very difficult to access and therefore must utilize the smaller drill rig which can't excavate much deeper than what has been proposed. The 11 foot deep boreholes were based on previously established stratigraphy and limited access. These locations were based on the fact that we need critical information in these locations, however only the small rig can reach these areas. The one 10 foot borehole is based upon the depth of the stormdrain conduit breach. The proposed 15 foot deep boreholes will be excavated with the larger rig because access won't be as difficult and the vertical and lateral extent of chlorinated solvents in soil must be defined in this manner.

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Depths to groundwater recently measured during the rainy season were approximately 5 to 6 feet bgs. Now that we are at the end of the rainy season, I expect the depths to groundwater to be approximately 7 to 8 feet bgs. If groundwater is found to be deeper that expected, we will excavate deeper if technically possible.

- 7) Which 2 of the soil samples will be subjected to the foc and other physical tests? How was (will) this selection (be) made?
- 7A) Response:

The soil samples will be collected in the soil horizons which have been the most greatly impacted at the source zone of the chlorinated solvent spill at B-10. The soil samples will be collected from the subject soil horizon which is lateral to the plume so that high levels of hydrocarbons can't significantly influence the fraction of organic carbon levels in the test samples. An attempt will be made to obtain a representative sample which is relatively sandy and another which is predominantly clay so that a range of soil characteristics can be established.

OK

- 8) Soil sample intervals as proposed seem fine. However, as both HVOC and hydrocarbon compounds are being sought, language under Sec. 2.2a should be changed to eliminate the qualifier word "hydrocarbon" when referencing when samples are collected from zones of contamination.
- 8A) Response: Agreed
- 9) As originally proposed, the work plan indicates target compounds for GW analyses will mimic those for soil samples (underscored paragraph, Sec. 1, page 4). The enclosed figure illustrates the proposed analysis suites for soil for each boring. However, text under Secs. 2.2 and 2.2b suggests something else. We'll need to talk about what target compounds from which borehole will be expected and amend the plan as needed.
- 9A) Response: Water samples collected from each borehole will be analyzed for the same constituents as all the laboratory analyses of the soll samples obtained from each corresponding borehole. For example: the borehole proposed to be located east of B-13 will be sampled and analyzed for HVOCs and Stoddard Solvent in soil. A groundwater sample will also be collected and analyzed for HVOCs and Stoddard Solvent.
- 10) Once the boring locations are finalized, a revised map should then be generated. The borehole locations should be assigned an identification label (e.g, B-14, B-15, etc.) to facilitate communication and review of work plan scope.
- 10A) Response: See attached map

Please do not hesitate to call if you have any questions or require any additional information.

Sincerely,

Franklin J. Goldman CEO/GeoSolv, LLC

Registered Geologist No. 5557 Certified Hydrogeologist No. 466 2nd Phase Soil Sampling Plan for Depper 3815 Broadway, Oakland, CA

