

Trigger concs?

5/21/97 spoke w/Madhulla: She reviewed the Risk Assessment. She spoke w/Tony Dahl of TerraVac. Asked him to avg the benz concs for vadose zone soils (<19'bgs), and compare to the Tier 1 (see Table 1 in 3/25/97 rpt). He will also revise Table 2 (mgmt plan) and will use SSTLs for onsite Mws as the trigger concs.

6/20/97 Dale Klettke wrote initial draft of approval letter (for MW sampling).

6/27/97 Dale wrote final draft of letter (after BC review).

7/8/97 Reviewed 6/27/97 letter that Dale wrote to Chevron. He approved the samplg schedule in Table 2 of the RV 3/25 or 26/97 report.

spoke w/Madhulla and Tony Dahl: he will send the real revised Table 2. The Table 2 in the 6/11/97 fax pkg is not revised (nor was it faxed, as seen by the absence of fax typing on the top of the page).

Mess fm Phil: got Dale's letter. Will start samplg in June. Will do C1 to C3 and CR1 semi ann in 2nd and 4th Q, others annually in 2nd Q. Is that ok?

Lm for Phil: back fm vacation on 7/8. Told him ok to do the annual samplg in 2nd Q. Not much difference in historical concs.

7/11/97 phoned PB: does he want a ltr approving the RA? Yes.

DRAFTED LETTER APPROVING THE RA.

7/15/97 spoke w/Tony Dahl: Soil pathway not a problem; vadose zone <Tier 1.

Mess fm Phil Briggs: It does not make sense to do Qly samplg in C4 thru MW11, as per Dale's letter. Mess to Phil: Dale got that from pg 14 of the 3/25/97 TV rpt. But Table 2 does not reflect the "quarterly" requirement, only the annual requirement. That was changed. The offsite wells do not need Qly samplg now; I agree. I will specify that in my ltr to him; he should get it by end of wk.

FINALIZED LETTER APPROVING THE RA, w/both JE and Madhulla's sign. Since she is out on vacation until 7/18, **Tom will sign.**

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Chevron plume and Borsuk plume could be co-mingled. **He wants a copy of most recent QR.** Maybe he should have his son call me (Rbt Weber) and we can see what else he wants. **Does he want the RA?** Mr. Weber will start on the proceedings to buy the property. If he becomes a po, the County will have to change our database to reflect this change in status. Will he try to get a remediation/monitoring/characterization agreement with Chevron? He thinks that is a good idea. Does he have a lawyer? No; he will have to get one.

Spoke w/Tom: Chevron and po should work out the piping installation bet themselves. We don't have authority to request that. But they should submit wp to me.

Phoned Mr. Weber: lm what Tom said.

4/17/97 Joyce Massaro phoned: 415-326-7354 why hasn't there been any response from the County in a long time (since 7/8/96 ltr)? **She wants me to cc letter to her home address at 233 Polhemus Ave., Atherton CA 94027.** What is the site zoned for? She thinks it's mixed res and comm. She heard that the buyer wants to build residential. Mr. Weber? She doesn't know the name. She heard the buyer wanted to use site as parking lot at first, then turn it into parking lot. She had other pot buyers talk to her about bldg res units. **MAYBE WE SHOULD DO RA FOR RESIDENTIAL???** Explained to her the following:

On 1/14/97, I reviewed Terra Vac's 11/14/96 "Final Remed Status Rpt and Request for NFA," received here on 12/10/96. I had many questions and concerns w/this rpt. I spoke w/M. Frye of TV on 1/14/97. He said the rpt was to be considered a draft, and he would submit a draft addendum to address my concerns (re the parameters used for the RA). I heard nothing from TV, so I contacted PB of Chevron on 3/3/97. Apparently, Mark Frye left TV, and the project had to be reassigned. TV submitted a revised "Final Remed Status Rpt and Request for NFA," which was stamped "draft," dated 3/25/97. I reviewed it on 4/3/97. I had some additional questions. I met w/Tony Dahl of TV on 4/11/97 to discuss these concerns. Their report includes a Tier 2 RA. All RAs that get submitted to the County must also be reviewed by our toxicologist, ML. I submitted the RA to her on 4/11. She has indicated to Chevron that it should take her approx 2-3 wks to review it. When she has reviewed it, I can finally draft a ltr to Chevron, with approval, conditional approval, or disapproval of the TV rpt. This ltr should be signed by both JE and ML.

4/11/97 MEETING W/TONY DAHL

* item #3: chart 2: DVE only began around day 600. Weiss VES was done prior to that (started 3/92).

* item #5: "current site conditions and uses" means 100% commercial.

* **He will check to see when they stopped doing AS. Thinks M. Miller directed it.**

* p. 14: He will generate a decay curve starting w/4th Q 96 (and future data) and compare to standard half life decay rate for benzene. But this is not necessary, just a matter of interest.

Told him ok to use 1 x 10⁻⁵ instead of 10⁻⁶ risk.

Gave the following docs to Madhulla for

review: 11/96 Terra Vac rpt, 3/26/97 Final Remediation Status Rpt and Request for NFA, 2 revised RBCA worksheets (without PEL, plus one w/basement), and pages 18-20 of these notes.

4/14/97 Mr. Edward Weber phoned: 655-0858. He is a potential buyer. Wants to know site status. Explained. He is a trustee for family trust, looking for income producing property. Will lease to a parking lot company. Douglas Parking. Just use it for above ground parking, no underground parking. He spoke w/Phil Briggs. Douglas wants the machine removed. Webers son is a geologist, worked for Ecova, worked for Bruce Hageman (good friend of his) who said they can reserve a small space for the machinery. Told him they will probably be able to remove the machinery. Is it possible to remove some of the Mws onsite? Just pave over them? Or do we have to retain all of them? He wonders if they should design an underground piping system, all tied into one corner, before they pave the site, in case they need to do future remediation. **Can I request this of Chevron?** Who wd pay for it? They would have to negotiate w/Chevron. Did he talk to Phil Briggs about this? No. Joyce Massaro lives in Atherton. He has a 1031 pending (a stocker exchange). They can exchange an existing property they own upwards into a larger piece of property. They wd be deferring the taxes. No bank that has to make a loan. He was trying to buy another property: 1432 Harrison St. Garage/Bacharach Borsuk property. Hes been charging fees for his legal work to the estate, in essence a tax-free transfer of funds. Doesnt think hes in the cleanup fund. Bacharach was going to sell prop to Weber. Now Bach is very ill. Borsuk is his nephew, who is fighting any cleanup, bec once its all cleaned up and case is closed, he cant get any more \$\$ transferred. He is suspicious that the

4/3/97 To refresh my memory, I had to re-review the 11/14/96 "Final Remediation Status Rpt and Request for NFA" by Terra Vac. 1) Pg 4 states the clean up goals were 100 TPH and 1 benzene (ppm in soil), as per the 3/28/95 TerraVac wp and my 5/31/95 approval ltr. But these were only goals of the DVE system. They still planned to do AS AFTER the DVE system met its objectives. So their statement is misleading. 2) Pg 12 uses 13 ppb benzene as avg fm 6/20/96 concs. But I got 44.11 ppb. What gives? No explanation. 3) Pg 13: they want to shut down AS and destroy the Mws. Not yet!!! Pg 13, 5th paragraph. I do not understand this.

Reviewed 3/25/97 "Final Remediation Status Rpt and Request for NFA," by TerraVac. Note it is stamped as DRAFT. They request monitoring only.

4/4/97 Continued review of the 3/25/97 "Final Remediation Status Rpt and Request for NFA," by TerraVac. It reads essentially the same as the 11/14/96 TV rpt, with the following notations: 1) Pg 4, 2nd Paragraph in 4.1 clarifies my prior concern (see 4/3 comments): "Active remediation goals for vadose zone soils were established." 2) pg 8 says "Currently no remedial activities are being conducted at the site." Did they shut down the AS? If so, when? (And when did it start up?) Was it shut down with County approval? (I think not.) 3) Chart 2 shows approx 750 days of system operation. But the DVE only operated from 10/95 til 3/96, which is 5 months or 180 days. Does not compute. See pg 8 also. Pg 9, first para is also wrong: 78 days = 12,617 lb removed. 4) Fig 2 and 3 are combined on one page. 5) Pg 11, top: specify the "current site conditions and uses" 6) **QUESTIONS FOR MADHULLA:** a) pg 11 questions for ML: re the PEL and Handbook of Hydrology? B) pg 12 Sect 7.4. OK: I understand how they got 160 ppb benzene as their avg benzene conc for the modeling. This was based on 12/12/96 QS event.

4/8/97 Reviewed 1/14/97 "4th Q 96 Mon" by BTS, under 2/27/97 cover ltr fm PB. GW sampled 12/12/96 flowed towards wells C1, C5, MW12 and VEW3.

- 8/1/96 Phoned Assessor: 272-3787 **Parcel # is just 2-65-6-1.** what is this site zoned? "3000 use code: vacant commercial land." Does that mean it can only be used for commercial and not residential? She said to call the City's permits and planning 238-3443 (press 7 for zoning info). Confusion ensued: someone else told me that Zoning is 238-3911 (but its Planning and Bldg)(press 7 for zoning). Finally got a hold of the Zoning person. He says his number is 238-3384. C55 zone: central core commercial. **Is it possible to build residential on it? Yes. From single family to a roominghouse, without getting a special variance.**
- 11/5/96 Reviewed 8/7/96 "2nd Q 96 Mon" rpt by BTS. **GW sampled on 6/20/96 had complex flow regime, but generally flowed N, as per the Figure.** Concs are fairly low; highest is CR1: 570 ppb benzene and 9900 ppb TPHg. Nice drop in C3; although DL for benzene was 25 ppb; got <25 benzene (aka ND). **WE CAN GO SEMI-ANNUAL AT SOME POINT. Maybe now, except the wells of concern will stay Q: CR1, C1, C2, C3, C5, MW12, and gauge VEW-3. So go semi-ann on C4, C6, C7, C8, C9, MW10, MW11.**
- Reviewed Phils 9/9 cover ltr. Looks like were thinking similarly re the well monitoring.
- 1/9/97 Mark Frye phoned: did I get report and request for closure? Yes, but I havent had time to review it.
- 1/14/97 Reviewed 11/14/96 "Final Remediation Status Report and Request for No Further Action," by Terra Vac.
- Spoke w/M. Frye: He thought this report would be a draft report. He wants me to consider it as draft. I must write a letter approving request for no further remediation. He will clarify data set for RBCA (did they use Nds for average? Soil data tabulated?), and reference certain things (ie well survey). The soil data should include all soil samples ever taken at the site. So that should satisfy my need for soil data in all my questions. I will talk to Madhulla about using PEL for indoor air. He will submit a draft addendum.*
- 2/19/97 Reviewed 10/31/96 QR by BTS. **GW sampled on 9/30/96 flowed N at 0.003 ft/ft.** Concs have decreased. Air sparging was active.
- Im waiting for Terra Vac to get back to me in writing on their 11/14/96 rpt, as we discussed on 1/14/97.**
- 3/3/97 Phoned P. Briggs: lm: He is on vacation this wk. Back on 3/10. I have requested clarification from TerraVac, and have not received a response.

8/1/96
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zoned commercial w/a conditional use variance for res, then maybe we should use the res pathway. If it's just straight commercial, let's use the comm pathway. My closure letter will say that po should notify us if there is a proposed change in land use. Mark: soil rem goals were 100 TPH and 1 ppm benzene. Jen: check the screening in C3 and CR1. Is it similar? These wells are close by, but have diff orders of mag of benzene. Jim: maybe use ORC socks in the hot spot. Jen: what does con't AS cost? Jim: whole project cost \$150,000. Jen: was the project based on a time constraint? Ie we will operate the system for a max total of 6 mos? Jim: no. Mark: based on cleanup goals.

Checked our Assessor's records: found it listed as 1331 Harrison St., Parcel #17-022, 2-65-6-1, and owner is Gertha Stowell and Joyce Massaro Trust, 233 Polhemus Ave., Atherton CA 94027. Atherton!!! No wonder po uses her lawyer's address for mail. Why wd she want to advertise she is fm Atherton?

Found boring log for VEW-3 in 4/30/93 "Additional Env Assmt Report" by GTI. Total depth is 30.5', where they hit flowing sands w/HC odor. Screened fm 15' to 30'bgs. Soils are all sands. GW was at 21.5'bgs.

Found boring logs for VEW-1 and VEW-2 in 8/3/92 "Env Assmt Report" by GTI. Both were drilled to total depth of 20'bgs, and screened from 11-20'bgs. Soil was moist above the 20' depth, but no gw was noted. VEW1 was sand to 8', then gravel to 20', while VEW2 was all sand except silt bet 8 and 12'bgs.

Found boring log for CR1 in 12/5/90 "Well Inst Rept" by GSI. Total depth 32', screen fm 18 to 32'bgs, gw at 24'bgs ("sat w/gasoline, strong chem odor"), soil is all sand and silty sand.

Boring log for C3 is in the 8/9/90 "SB and Well Inst Rept" by GSI. Total depth is 35', screen fm 18 to 30', gw at 24' (initial)("free product, strong chem odor") and stabilized at 22', soils are clayey sand to 7', sand w/clay to 32', and silt to total depth.

CONCLUSION: CR1 and C3 are screened similarly: 18 to 32 (CR1) and 18 to 30 (C3), gw at approximate same depth (24'), both have sands as native soil.

- 3/21/96 Reviewed 1/25/96 QR by BTS. **GW sampled on 12/27/95 flowed N at 0.02 ft/ft. Got 0.04' FP in C3, and 0.02' in CR1. Good order of magnitude decreases in C1, C2, C5, . . . C8 concs may be from offsite source.**
- 7/8/96 spoke w/Mark Frye of Terra Vac: Took off DVE on both sites, and have been just air sparging. He hasn't spoke w/Phil much since he started. He mentioned writing a "no further remediation action" report, and just do QM. Hes been waiting for Phil to contact me to set up a time for a mtg. What about the Monthly Updates? He has been providing them for Phil, through May. He hasnt written one for June, bec he thought wed be mtg in June. He thinks the QM was done late last month. He will call Phil and let him know that I called. Fourth Q 95 showed a good response to remediation, in orders of magnitude reduction, and first Q 96 showed more reduction. Looking forward to results fm 2nd Q 96. Thinks these sites are "low risk gw" at this point. Wants a mtg to informally review these cases, prior to presenting a formal report. Told him Id write RP a letter, giving Phil a gentle push to get up to speed on these sites. OK.

WROTE LETTER

- 7/31/96 Reviewed two letters fm Chevron dated 7/22/96. "Project Status, April 96" says DVE system demobilized. Doing AS only. With DVE, TPH extraction rates dropped to <50 lb/day, and DVE system inlet composition changed fm lighter to heavier end compounds.

Reviewed "1st Q 96 Mon" by BTS, dated 4/25/96. **GW sampled 3/26/96 flowed N at 0.02 ft/ft.** DVE started 10/3/95 and ended early to mid March 96. Concs decreased, but is it due to decrease in GWEs or the DVE? GWEs decreased in all except UG wells C4 and MW10, Cg wells C5, C6, C8, and DG well C7. (So no real trend in GWEs one way or the other). Why was C3 sampled on 4/1/96?

- 8/1/96 MEETING W/CHEVRON AND TERRA VAC (MARK FRYE AND JIM PERKINS). Mark: April was last PS report. AS and DVE occurred at same time, but did not start at the same time. Do not want to do AS if theres FP. Jen: why does the tabulated data only report VEW3? Mark: thinks VEW 1 and 2 were screened invadose zone, and at different time than VEW3. They want to stop AS and just do mon. Wants to evaluate the site as a "low risk gw site," based on RWQCBs latest guidelines. Goal is closure. Jen: what about the zoning? Phil will get parcel #, and Jen will check w/the Assessor. If its

1/29/96 Reviewed 11/7/95 "Drilling Report," by Terra Vac. Two air sparging wells were installed on 9/22/95: SP3 and SP4. Soils were sampled bet 20 and 35' bgs. Max hits: 14,000 ppm TPHg and 17 ppm benzene (SP3-20'). Soils are sands.

Reviewed "Project Status, Jan 96," by Terra Vac (rcvd 1/18). They are extracting approx 300 lb TPH per day via 9 EWS.

2/2/96 Reviewed file for Tom's request on sites that are designated "GT" in Rbase. I could not find any evidence that they did GT, altho one report mentioned they did it. I think they were confused. Looks like they did SVE, using an ICE to combust the vapors. Not GT.

3/1/96 Reviewed 10/24/95 QR by GTS. GW sampled on 9/28/95 flowed North. First time they analyzed dissolved const in C3 since 93: 280,000 ppb Tphg and 27,000 ppb benzene. . . Big increase in conc in C8: 12,000 ppb Tphg, but the benzene conc decreased; hmmm. Why didn't they analyze CR-1?

Reviewed "Project Status, Feb 96" by Terra Vac. DVE system still operating; 60 lb/day.

Reviewed 1/16/96 "Interim SB Inst Report" by Terra Vac. They added 4 air sparging wells (Sp5 thru SP8). These wells went into areas w/soil hits; see Table 1; up to 6,900 ppm TPHg and 96 ppm benzene (SP6).

3/21/96 Mark Frye phoned re status of 3/96 status report? MM has left, and Phil Briggs has taken his place. Mark will check on status. OK.

Received the 3/96 status report (2 copies). DVE is removing <50 lb/day. So we'll shut it off and continue w/air sparging. OK.

Phoned Mark Frye: told him it's ok to demob the DVE system. Have they gotten extraction rate since 3/1/96? No, they turned it off 3/1/96. Next QS should be impressive. They've done sparging since Jan. The sparging may have introduced some lighter ends into the equation (%s of BTEX). I noted how the BTEX was about 50/50 on light and heavy ends being present. They wanted to see more % of heavy ends, and less % of light ends. GW gets sampled next week.

8/23/95 Jason Nutt of Terra Vac phoned: they want to put in a propane tank (AST) for remediation system. Any permits needed? Told him to contact City's Bldg and Planning Dept, and OFD.

12/12/95 Reviewed 11/18 Chevron letter, and 10/20 Terra Vac "system Startup Report." System started up on 10/3/95.

Reviewed 12/12 fax from Chevron, re project status. DVE system currently removing approx 100 lb/day TPH. But Fig 2 shows the removal rate as <100 lb/day from day 39 to present. But they were at 50 lb/day from day 55 to present. So well just keep doing DVE. So they are NOT ready to demobilize the DVE system yet. OK They still have a high percentage of species "lighter than benzene" on Table 3. (Why didnt they sample the other 7 wells in table 3?) Looks good.

12/14/95 spoke w/MM: he wants to deviate fm the wp by making the wells into air sparging wells, rather than DVE wells. I asked him to put it in writing, as well as rationale for the number and placement of wells. Will do. The map for the proposed boring locations was included in the 12/12 fax. OK. Four wells for 14th St.

Reviewed 8/31/95 "Drilling Report" by Terra Vac. The 2 air sparging wells and 2 VEWs were installed in July, as per the wp. Soil results: up to 3,100 ppm Tphg (SP1) and up to 15 ppm benzene (SP2). Looks like they selected the samples from the depths w/the highest PID readings, as per wp. One sample from each boring.

12/19/95 Reviewed 12/18 fax from TerraVac. They plan to install 4 interim borings, and convert to sparge wells instead of DVE wells. Because they have 10 DVE wells already, which they think are adequate, but only 5 sparge wells (for dissolved phase plume). OK, but how did they decide WHERE to position the wells? Maybe by the areas of highest vapor concs. See table 4 in 12/12 fax.

Tc w/Mark Frye of Terra Vac: SP1 and 2 are strong (high flow rate) sparge wells; SP3 and 4 are not as good. The proposed wells are situated near the low flow wells to supplement them. Going for a symmetric pattern. Doing QM next week. The sparge wells will be screened between 22 and 25'bgs, below the water table. Will start the sparging w/new wells soon after installation. Already running sparge blower.

Dale's notes

478 Chevron Service Station #9-4816, 301 14th Street, Oakland, CA 94612

11/3/95

Review Blaine Tech Services "Second Quarter 1995 Monitoring at 9-4816"-dated July 20, 1995. Monitoring wells C-4, C-6, C-7, C-9, MW-10 and MW-11 were non-detect for TPHg and BTEX fractions for this sampling event. MW-12 was the most severely impacted sampled well with detected concentrations of TPHg-76,000 ppb, benzene-26,000 ppb, toluene-4,200 ppb, ethyl benzene-1300 ppb, and total xylenes-3400 ppb from the groundwater sample collected on 6/19/95. Separate-phase hydrocarbons (free product) were detected in monitoring wells C-3, CR-1 and VEW-3. Groundwater was measured at approximately 18.4 to 19.5' bgs and the direction of groundwater flow is towards the northeast. Monitoring well C-8 which is down-gradient of the site has been consistently detecting elevated levels of TPHg (5700 ppb-this quarter) and some BTEX (benzene-37 ppb). It looks as though some contamination is not being captured and contained by the remediation system (three vapor extraction wells and one recovery well) and is migrating off-site in the area of monitoring well C-8. Reviewed file. Two new air sparging wells (SP1 and SP2) and two new vapor extraction wells (VEW4 and VEW5) are to be installed by Terra Vac. This should help.

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boring. Up to 6 such borings will be placed. **Issue #4:** MM wants to see a light at the end of the tunnel. **Other issues:** a) JM is concerned that County write a ltr at start of mgmt phase, that allows bldg onsite (ie "no health threat"). JE: ok, but will Bank accept such a ltr? Well see. b) MM: pg 8 language re evaluating human health risks: would be quantitative; the concs protective of gw are usually protective of human health. Also use ASTM. c) JM is concerned that a feasibility study be done at outset of project; this is what McLaren Hart recommended. MM: involves Sbs, sampling, lab results, report to County, then County review. We agreed to look at CO2 before, during DVE. TW: a steep increase in CO2 should occur in beginning, due to bug activity. We agreed to measure CO2 fm inlet whenever they sample the inlet, as per AQMD permit, during DVE. CO2 should rise steeply, then peak, then decrease over time, since less HC would be available. HC will hopefully be the limiting factor. Less HC food, less bugs, less CO2.

5/24/95 reviewed both 5/19 faxes from Chevron. Spoke w/MM. Wrote letter to RP

5/26/95 Spoke w/Tim Warner. They want to do CO2 tests (in Drager tubes) during the DVE only. Theyll do OUR test (oxygen uptake recovery) during the air sparging. They temporarily shut off the air sparging system for 8 hr; and sample O2 every hr; they look for a decrease in O2 levels over time. There wont be enough microbes (bec there wont be as much HC substrate) to give good CO2 readings during air sparging. Thats why they do OUR test during air sparging.

Finished ltr to RP.

6/22/95 Reviewed 4/14/95 QR by GTS. **GW sampled on 3/29/95 flowed radially inward, towards the dewatering wells.** Concs are similar to last Quarter, except **FP increased in well C3 from <1ft to 2.26ft this quarter!** CR1 had 0.17ft FP (small increase from 0.08ft). They hand-bailed FP from C3 and CR1.

8/17/95 spoke w/MM: they have not started remediation yet. Waiting for air permit. The wells are all in.

Reviewed 7/28/95 letter from Terra Vac, also signed by Chevron.

Wrote letter

5/15/95 Tim Warner of Terra Vac phoned: will we require a permit if they decide to do nutrient injection (in addition to the proposed air sparging)? All I can say is to look at the Doug Salter site. . . Kevin Graves waived the requirement for RWQCB approval or permitting of their pilot test and subsequent nutrient/H2O2 injection. But they use dilute concs of nutrients in low doses. These dilutions and doses are specified in the wp. RWQCB reviewed this data before allowing go ahead without permit. **Wp is 20 wks of DVE to remove FP, then 30 wks for air injection/sparging to decrease dissolved concs. Then mgmt plan.**

5/18/95 Spoke w/K. Graves: **Issue #1)** Their soil cleanup level of 100 ppm TPH is ok; how about 1 ppm total BTEX? **Issue #2)** Instead of x amount of wks for each type remediation, let's base it on system performance, i.e. shut off DVE when FP is gone, instead of when HC vapors are <50 lb/day. Look at it this way: 50 lb/day = 7 gal gasoline/day (if a gallon of gasoline weighs 7 lb). This is too high a recovery rate to shut off the system. If we're asymptotic at 50 lb/day, then the system may be underdesigned. **Issue #3)** pg 7: re # of confirmatory soil borings. How big is the soil problem now? Let's see a soil isoconc. Map. THEN we'll determine the # and placement of Sbs. **Issue #4)** pg 8: mgmt plan phase: sampling frequency and closure should be predicated on the concs we're getting. It's too vague, and unacceptable to include such "sunset clauses" in the wp.

5/19/95 **Mtg w/property owner Joyce Massaro, Mark Miller, Tim Warner of TerraVac, and JE. Issue #1:** How about 1 ppm total BTEX cleanup level? TW said that BTEX is approx 35% of gasoline. So they propose 1 ppm benzene cleanup level. **Issue #2:** TW said air injection is more cost effective than DVE at <50 lb/day. FP should be gone 4-6 wks of DVE, and certainly by the time were down to 50 lb/day. **Wants to see trend in vapor samples, where % light ends (including benzene) decreases over time, and % heavier ends (TEX) increases over time.** Were talking vapors only. JE: can we quantify lb removed w/air injection? TW: we can measure CO2 during DVE in vapor, and convert to lb per day. We can also determine OUR (oxygen uptake recovery) for vapor. O2 decreases over time as bugs eat HC. Air Force has a calculation for change in O2 uptake over time, which gives you ppm. . . . Most lb removed by direct volatilization, and some lb removed by bio activity as the remediation progresses. **Issue #3:** the interim borings and confirmatory borings may end up being the same, i.e. when they install a boring intended to be interim (to add to the system), and its ND, then it

Site Summary STID 3777
American President Lines
1579 Middle Harbor Rd.
Oak 607

continued fm handwritten notes:

- 12/9/94 Reviewed 9/1/94 QR by Geomatrix. Sixth QR. GW sampled 6/14/94 flowed SW, toward Inner Harbor; gradient is very flat. Overall decrease in concs. Only HC was 9.4 ppb benzene in MW1. Low concs of DCA and DCB in MW1 and MW2. MW3 all ND. Note that TDS measured in 4 Qs of 1993 ranged from 1,600 to 23,000 ppm.
- 1/19/95 Jon Amdur of Port knows that adjacent UPRR site (STID 2044) has a plume which extends onto their site. Jon's being cc'd on USPCI reports for UPRR.
- 1/31/95 Reviewed 11/3/94 QR by Geomatrix. GW sampled on 8/23/94; flat SW gradient; up to 3000 ppb TPHd and 13 ppb benzene (MW1); low hits of HVOCs in all 3 MWS. **They can stop TOG sampling in all wells; can also stop BTEX in MW3. Must write RP re this.**

2-2 Wn ltr to RP

analyzed (p.5 and 6). Only two confirmatory SBs to depths up to 25' will be adequate to establish that remediation goals have been achieved for vadose zone soils (p.7). **Question: Only 2 samples will be collected from each interval (each SB?).** Their locations will be accepted by AlCo. **Issue: Two SBs are not enough.** They propose to analyze for TPHg. If <100 ppm TPHg, the goal is achieved. If >100 ppm TPHg, the secondary sample (from same sampling interval) will be analyzed for TCLP to show that benzene is <0.5 ppm in the deionized water leachate from the soil sample. (That IS the regulatory level, as per 22CCR for TCLP.) **Explain: They finally state (p.7) that they expect benzene conc in gw to be "on the order of 100 ppb."** Their mgmt plan includes QM of all wells for one year; if benzene concs show a "general decrease" in most wells, reduce frequency to annual. If benzene concs decrease for 3 consecutive yrs, then stop monitoring and ask for closure. That's a minimum total of 4 yrs of monitoring. **Question: will the Mgmt Plan be submitted to AlCo for approval?** There are issues like benzene trigger concs (p.8) to be considered. **Question: were they involved w/McClellan AFB? See the EPIC Greensheet.**

- 4/12/95 Received and reviewed fax from Blaine Tech: analytical reports for gw sampled on 3/29/95. **Where's the tabulated data? I'm missing 12/94 QM results.** left mess MM re possible mtg dates.
- 4/14/95 spoke w/MM re mtg dates. phoned Beth C and left mess to arrange a mtg date: 4/25, 4/27, 5/1, or 5/3?
- 4/25/95 phoned Beth C: left mess: possible mtg dates: 4/27 or 5/1. phoned MM: lm: Beth C has not returned my call from 4/14. Told him the 2 possible dates. mess fm Beth C: May 1st may be good date; she has not heard from RP, and that's what holding her up.
- 4/27/95 mess to Beth C: can we firm up a date? How about 10am on Monday May 1st? Will McLaren Hart attend? lm MM: I got a message fm Beth C. Possible time 10 am 5/1.
- 5/11/95 spoke w/MM: They met w/the p.o. and lawyer. McLaren Hart had some concerns re the air injection, but they smoothed things out, and are now in agreement. Ready to schedule a mtg w/me: 5/19 at 10am.

4/10/95 phoned Beth C: told her I have not yet set up mtg w/Chevron, bec I have not yet reviewed the workplan (left mess)

Reviewed 4/3/95 fax: includes 11/29/94 Discharge Compliance Report for EBMUD. This includes the period from 8/9/94 and 11/1/94. The total pounds of HCs removed is just for the period specified. (I think we're missing the period between 6/94 and 8/94.) They also included the data for 11/94 to 3/7/95. The avg flow rate is only approx 1 gpm. There was FP in EWS on 12/13/94. Note that their carbon is almost spent. Maybe this is the real reason they want to turn off the system? There was some breakthrough on the first carbon on 12/13/94 (the date of the FP). Only 80 lbs of HCs have been removed (this is total lbs; see asymptotic graph). Question: why did influent TPHg/benzene concs increase in 2/95? The fax also includes 2/13/95 Summary of SPH Removal. for period from 12/20/94 to 2/7/95: only removed 8.9 gal (from all 3 wells: C3, CR1, and VEW3). Question: why does this table include C3, when the Figure does not include C3 as a GWE or a SVE well?

4/11/95 Reviewed 3/28/95 "Addendum Remediation Work Plan," by Terra Vac. MM's cover letter: Proposes dual vacuum extraction and air sparging to reduce HCs in soils to 100 ppm TPHg, and in gw to remove FP and **decrease dissolved concs to levels conducive to biodegradation.** A subsequent mgmt plan will be implemented to monitor decreasing levels of HCs in gw. (I think he means NAZ.) Wants a mtg.

Workplan: use dual vacuum extraction (DVE) system (to remediate soils to an average conc of 100 ppm TPH) and air sparging (to remediate onsite gw to a benzene conc "conducive for biodegradation"). see page 1-2. . . Question: Please specify the benzene gw concs which are "conducive for biodegradation." Their DVE sounds a lot like the one used at McClellan Air Force Base; they both use carbon to polish extracted gw before discharge. Chevron wants to use a thermal oxidizer to treat vapors prior to discharge. It's unclear to me whether McClellan used the thermal oxidizer (no--they used carbon only). . . They propose to install 2 air sparging wells (SP1 and SP2) and 2 new VEWs (VEW4 and VEW5). The DVE system will be shut down and removed after extracted HC vapor concs are <50lb per day for two consecutive sampling events. Question for SOS: Is this conc reasonable? Air sparging will continue. After 4 wks of operation (p.6), up to 4 VEWs will be installed to supplement extraction in selected areas. Question: Specify minimum # (and depths) of soil samples to be

100ppb?



too high to shut off DVE.

3/3/95 Reviewed 3/1 ltr fm MM. They request extension of deadline for wp submittal from 3/9/95 to 3/31/95. So ok; what can I say but ok?

3/28/95 spoke w/MM: wp should be here by 3/31. Then wants to meet. Wants to know my feelings re current remed. system (SVE is defunct). GWE may be pulling FP lower into saturated zone. **So he wants to shut GWE off until new system is up. Is that ok?** Look at 1/2/95 QR: DG well MW11 is ND. . . CR1 had 2' or 3' drawdown compared to C3. Other EWs are VEW 1 & 2. WP is for more VEWs; and dual VES.

Reviewed file. Remember, the GWE runs gw thru 2 carbon vessels. Comes in dirty, goes out ND. Confirmed ND results in DG MW11. But it's so far DG. Also look at MW12. There's some good hits there. Has 2/95 sampling been done? Results? GWES? left mess MM re this.

discussed gw parameters w/SOS: I need up to date info on GWE system: influent concs, quantity of HCs removed, pumping rates, etc. The last Progress Report on remediation system I received was dated 6/15/94 by Weiss (Chevron cover ltr 7/12/94). This Progress Report was only for VES; I don't remember ever seeing one for GWE system. Steep cone of depression; assumed tight formation (**must check boring logs**); not getting much plume control bec. zone of influence is not very wide. Are they extracting gw at rates lower than is possible? Can they sustain a higher pump rate and expand the zone of influence? They can sustain pumping rate in CR1 of 2.5gpm for 7 hrs, as per the aquifer test (2/24/94 report); but they concluded guess 2.0gpm conservatively. (They only sustained 0.7gpm in VEW-3.) **Bottom line: they may not stop operating GWE system, bec. they need plume control.**

Phoned MM: left mess re GWE Progress Report, etc.

4/3/95 mess fm MM: will fax me system performance data. Re steep cone of depression around CR-1: he does not see it that way; he thinks CR1 is influencing a large area, based on most recent QM results. Suggests we turn off system for a couple months, then see 2nd QM results. Wants to save a couple months of O&M costs. . . received fax

4/7/95 mess fm Beth C: she got copy of proposed wp from Chevron's consultant Terra Vac. Is it appropriate to have Joyce Massaro and/or Beth C present for mtg w/Chevron? She'll be out of town next week, but will check messages.

2/8/95 mess fm Beth Castleberry: did Chevron get their bids yet? What's the story? She got QR dated 1/2/95, and a cover ltr fm MM dated 2/95, with no mention of the bids. Call her at 415-328-6561. I left mess MM. Mess fm MM: they extended the deadline for bids to 2/21, since they hadn't heard from all 7 consultants. He's sorry he didn't mention it. Well, just how many bids DID he get so far? What do they propose? Do I have to give THEM a deadline?

2/9/95 Phoned MM: They have NO bids yet. Continuing to operate gw dewatering system for hydraulic control.

left mess Beth Castleberry, explaining all this. Wrote ltr to RP re this.

2/17/95 mess fm MM 8:35am: got my 2/9 letter. History of our correspondence has been well documented. Bids are for 7 of their sites within 3 counties, fm 7 consultants. Will take 2 wks to evaluate bids and select consultant. "Shortly thereafter" will get the workplans, but he doesn't think they can make the 3/9 deadline. Leniency? Why haven't I pushed on the 609 Oak St. site like this one? Is it due to the property owner? He thought we had an understanding that they're moving forward asap. We still don't have an endpoint that the prop owner or Chevron understands. This is NOT a site for NAA right now; still needs mucho remediation. Please call back today.

left mess MM: This site is different than 609 Oak bec. we just removed those tanks a few months ago. Gave him 2 more weeks, til 3/23 (new deadline). Asked him to write me a letter re this. Asked him to make this site a priority.

Reviewed 2/6 ltr fm MM: .94 and .08 ft FP in C-3 and CR-1 during QS on 11/29/94. FP also seen in VEW-3. FP has been bailed weekly. FP has decreased to 0.00 ft by 1/23/95. Reviewed 2/2/95 QR by Blaine Tech: GW sampled on 11/29/94 flowed towards extraction wells, and had up to 50,000 ppb TPHg (C-1) and up to 9,100 ppb benzene (MW-12).

3/1/95 spoke w/MM: They chose Terra Vac as their consultant. Contact is Jim Perkins (San Leandro office). They specialize in remediation at Superfund sites. TVac says they can get the wp in by end of March. MM will write me a ltr req'g time extension.

Monroe. 4) ok 5) update w/Weiss 6) Weiss estimated the HC mass at 3000 gal or 19,800 pounds remaining, as of 8/94. June 94: Weiss 4,000-6,000 gal TPHg insitu (this may be the original estimate prior to treatment). . .2,200 gal removed (4/94 report). He doesn't like to do it bec some HC gets adhered to soil, biodegradation, some FP was bailed before the system began. . .so it's hard to come up w/# pounds released. . .SVE adds O2, which increases biodegradation even further. Afraid that County will want to see the same # pounds removed as is estimated to be there. Doesn't know if the mass was estimated before the system began. (See corrective action plan?)

They got the AQMD permit for changeover to ICE. But don't have the ICE unit; it's in use on peninsula. The gw treatment system is really a dewatering system; it's going thru carbon as a condition of operating permit. But the mass of contam is in the smear zone, not the gw.

12/15/94 mess fm MM: he spoke w/Jeff Monroe, who "vividly" remembered they excavated to gw, but did not extend laterally. Sidewalls cleaned up well. They saw FP in the cap fringe. This confirms MM's suspicions about where the FP problem is. I may contact Jeff if I so desire at 707-538-8818.

1/4/94 Spoke w/MM briefly: sent project out to bid 12/22 or soon after. Should receive bids by end of month. He's letting the consultants pick which treatment method to use. GWE (dewatering) still running, but SVE has been down since August 94. Maybe dual vacuum extraction (remove air and gw in same stream); sandy soils. Phoned Beth C. to update her: just left message (no new reports submitted since our mtg 12/7)

1/25/95 Beth C phoned: does the County require HC mass estimates prior to treatment? No, we look at concs of soil/gw before and after, and determine cleanup goals. Questions for Chevron: Are they unhappy w/present consultant? Are bids in yet?

2/3/95 Reviewed 11/11/94 QR by GTI. GW sampled on 9/26/94 had decreasing concs (and decreasing GWEs), and gw flowed inward, radially toward the extraction wells. There was .79' FP in well C-3; this well hasn't had FP since 12/92. Well C-5 has been having strange ratios of TPH-g to benzene. CR-1 and MW-12 were not sampled due to the pump.

11/18/94 left mess re 12/1 or 12/2 mtg at 2pm(Beth C). She called back: Let's meet Dec 1 at 2 pm. Mess fm Mark M: how did mtg go? He also sees that the 7/91 TR report did not include ND overex results, altho the cover letter says it was ND after overex. **Is there a continuing source?**

11/23/94 lm MM

11/29/94 Beth C cancelled 12/1 mtg

12/2/94 lm Beth C. Meet on 12/7 2pm

12/7/94 Mtg w/Beth Castleberry and Joyce Massaro. JM wants to sell prop. She's the only trustee. BC: series of litigations. Has agreement fm Chevron to clean up. JM: my grandfather also had agreement w/Chevron to clean up. Chevron's lease expired 12/90. Cleanup began then. Has interested potential buyer who can't get funding.

JE's remarks: 3/92 VES via ICE. . .7/93 VES via carbon. . .8/94 GWE via carbon. . . .up to 7,800 ppm TPHg potentially left in place after TR: it doesn't warrant FP in gw. Ask Jeff Monroe, Paul Smith, M. Miller. . . .advised JM that she could go to consultants herself to get (free) bids for overex.

JE's questions:

- 1) are high influent concs best treated by carbon or ICE? Why are they changing back to ICE?
- 2) How about excavating contaminated soils, much like we did at 850 W. Grand?
- 3) any field notes/sketches from the 7/91 TR report?
- 4) get the consultant to add conclusions section to treatment system--effectiveness, etc.
- 5) the BiMonthly Progress Reports are off schedule
- 6) did they estimate HC mass prior to starting treatment? McLaren Hart could not find this info.

★(Beth's question)

12/12/94 spoke w/MM. Answers to my Questions 1): Either one works; ICE is better vis a vis cost-benefit; ICE is basically cheaper for high influent concs. If the concs are too low, need to use supplemental fuel (usu. propane), which increases the cost. 2) he agrees there's no big picture as to what the final endpoint is. .he's now getting bids on wp for cleanup from different consultants, to get to closure or NAA w/in 12 months if possible. Will take 1-2 months to get wp. 3) we looked at the 7/91 TR report (see 478-A file). Looks like they didn't overex the dirty bottom samples (6100 ppm), but it's still unclear. He'll contact Jeff

(0)

11/15/94 w/their own carbon. Vapor phase has its own carbon
con't system. Soils are fairly permeable, so it should clean
up quickly once the VES gets going. He thinks we're
going about remediation in the best way. Contam is in
the smear zone.

11/16/94 Reviewed file for mtg. Boring logs indicate the
lithology is sand or clayey sand to approx 34'bgs. GW
occurred at approx 22'bgs. (So VES is a good
remediation choice.) . . . GW flowed S and SW in 1990,
1991, and 2/92. VES began in March 1992; it consisted
of an ICE (internal combustion engine) extracting vapors
from CR-1 and C-5. Since then, gw flow direction was
more difficult to define due to mounding around CR-1,
but appeared to change direction to N or NW or W
(gradient is very flat). GW probably changed direction
due to decreased soil pore pressure created by the VES.
Two additional VE wells were installed in 6/92 (VEW-1
and VEW-2); they were added to the existing CR-1. . . .
Another VE well (VEW-3) was installed NE of treatment
enclosure on 3/31/93 and added to VES. . . On 4/16/93,
VES was shut down to change from ICE to vapor-phase
carbon bec. the ICE was no longer cost effective based
on the influent concs, bec gw elev rose and covered the
vadose zone. . . .The new carbon VES was restarted on
7/26/93. Chevron proposed a GWE and treatment system be
installed to operate simultaneously w/the SVES, in their
9/20/93 letter. Why? To expose the saturated soils in
the cap fringe to induced air flow and to remediate
dissolved phase HCs in gw. This wp was submitted in
11/93; it did not include aquifer test. Lots of
discussions ensued bet. Chevron, their consultant Weiss,
Beth Castleberry, their consultant McLaren Hart, and JE.
Aquifer test was done on 1/27/94. GWE system started on
8/9/94. VES remediation system was modified; it
includes VEWs 1,2,3, CR1 and C5; it restarted first week
of August; then shut down a week later due to high
influent concs and spent carbon. They're going back to
ICE for VES now; should start it in 12/94 or 1/95.

Phoned MM; left mess that the 7/24/91 GSI report, which
indicates contam during tank removal. . .But the
attached 7/26/91 letter from Nancy Vukelich of Chevron
says they overexed to ND to 30 ppm TPhg. So which is
it?

11/17/94 mess fm Beth C: can't make mtg

9/2/94 Reviewed 7/11/94 letter fm Chevron and 4/12/94 BiMonthly Progress Report by Weiss, for Feb and March 94.
Reviewed 7/12/94 letter fm Chevron and 6/15/94 BiMonthly Product Recovery by WEISS, for April and May 94.

10/13/94 mess. fm Beth Castleberry. She wants mtg for info purposes to discuss cleanup status. How do I view the cleanup? What are my goals for cleanup?

10/19/94 left mess. for Beth C.

10/28/94 mess. fm and to Charles Shaw of Joyce L. Diaz Appraisers (462-6364). They're appraising a nearby property (1425 Harrison St.). He wanted to know if the plume has reached this site.

Spoke w/Beth Castleberry. Chevron estimates another 8-10 years to cleanup. PO is frustrated w/this lengthy cleanup. PO wants to know what I think of the cleanup. Chevron voluntarily began cleanup. Is there any proactive stance on my part re cleanup goals, etc? Is Chevron cleaning up per our requirements? Set up mtg for 11/9 at 2 pm. Should we get our lawyer? She's not suing them. Ask Scott. Must review file at length.

11/8/94 mess fm Beth C. Must reschedule mtg

11/15/94 spoke w/MM. He's thinking of changing consultants to try to speed up remediation. He's not happy w/Weiss either. Hopes to start using a thermal unit; they're now using carbon. They're dewatering gw to expose concs in cap fringe. Large smear zone where HCs have fluctuated w/gw. GW being dewatered is treated w/carbon, then to EBMUD.

Reviewed 7/15/94 QR by GTI. GW sampled 6/17/94 flowed N offsite (onto 14th St.), and was mounded onsite around CR-01, the VE well. Fig 1 did not include MW-11. Concs in CR-01 markedly decreased this Q. Concs in other MWs fluctuated both up and down. MW-11 was not resampled this Q; it was last sampled 5/94. **The VES system was shut down in late August, after only one week of operations, due to spent carbon, due to higher than anticipated influent concs. . . .**phoned Mike Cook at Weiss (450-6150). He said they've submitted AQMD for a change of permit to include a catalytic oxidizer and internal combustion engine, which will enable them to handle higher concs. Should get their permits from AQMD: to construct (within next 3 wks), and to operate. The GWE system is currently operating to 1) control the plume, but flat gradient, so not much migration, and 2) to expose source soil. GW is being treated separately

test: CR-1 and VEW-3 were tested in Jan.

- 3/1/94 Spoke w/Beth Castleberry. OK by her. Wrote acceptance letter to RP (for 11/2/93 GWE wp, along with 2/24/94 "Hydraulic test results" by Weiss)
- 3/14/94 Carol Eaton of Sierra phoned (370-1280) re MW permitting for well in st.
- 4/8/94 J. Sturman of L-F reviewed file bec. this site is nearby to 1432-1434 Harrison St. (STID 498).
- 4/27/94 Site visit for MW-11 inst. and reconstruction of C-5 into a 4" well. Met Carol Eaton fm Weiss onsite at 8:00 am. C-5 is attached to remediation system, so it's not accessible for reconstruction. They can't do C-5 yet. Must wait til 9am to drill MW-11. Not much for me to see, so I left site at 8:30am.
- 4/28/94 spoke w/MM. They drilled MW-11 and another 4" well about 5-7' N of C-5 (MW-12) bec. they couldn't access C-5.
- 6/16/94 mess fm MM: is modifying SVE, and will send 4/12/94 Progress Report.
- 6/22/94 spoke w/MM. Wants to know if NV and I agreed on cleanup levels. NO. He wants to propose some cleanup levels, bec. p.o. wants a timeline for end of cleanup.
- 7/19/94 TP spoke w/Margaret Bernard, attorney for hotel owner across 14th ST. She was concerned that contamination may be heading towards the hotel; she must have seen MW-11 going in on 14th ST.
- 7/29/94 Reviewed 4/15/94 QR by GTI. GW sampled on 3/9/94 flowed N (consistent). Concs. decreased in the extraction well (CR1) and in DG well C7, but increased in onsite wells C3, C4, C2, C1, and C5. Strangely, the GWEs decreased this event; the last event was Sept 93. You would have expected an increase in GWEs for the spring. . .

Reviewed 6/23/94 Subsurface Investigation report by SIerra. DG well MW-11 was installed in 14th St.; gw sample was ND for TPHg and TEX, but had 1.4 ppb benzene. Soil boring in MW-11 was ND at 20'bgs. First water at 22'; static water at 20'. Looks like we've defined the downgradient edge of plume. . . . Soil vapor extraction well MW-12 was installed right next to C-5. Its water is hot: 160,000 TPHg and 69,000 benzene.

12/17/93 spoke w/Nancy V. Next QM is scheduled for Monday, 12/20. Results should be in first week Jan. She'll fax to me. Then we'll see what's happening with DG MWs C-5 and C-7. C-7 had hits for the first time this past Q. I said that I agree w/McLaren/Hart's recommendation for an aquifer test prior to system design/installation. I'll approve the wp on that condition. But I want to wait to approve wp until the next QM results come in. Because I'm not sure we've got the plume defined. Nancy said it would be difficult to place a MW DG of C-5 because that block on 14th St. is full of buildings.

1/10/94 Reviewed 1/7 fax: results from 12/21 QS.

1/11/94 Reviewed 1/11 fax: potentiometric map. Reviewed 1/5 letter fm NV, and 12/9/93 BiMonthly Progress Report by Weiss. She agreed to do aquifer test and another MW.

1/12/94 message to and fm NV. Spoke w/NV. She's thinking of locating the DG MW on North side of 14th St., near Webster St. I think that may be too far; 14th St. may be intercepting plume via utilities. At least locate it on South side of 14th St. What about the property adjacent to C-5? The gw flowed NW, not N in the past. She said Weiss was out there and that it's all developed. No location possible. She'll send location map and wp (SOP) for the new well. She'll also schedule a pump test w/Weiss.

1/18/94 Beth Castleberry phoned. She's happy w/what Chevron proposes. Please cc her.

2/16/94 Reviewed the 1/27/94 workplan by GTI for one more MW. Wrote acceptance letter.

3/1/94 Reviewed 2/14 letter from Chevron w/attached 2/8 BiMonthly Progress Report by Weiss re SVE system. They turned SVE system off on 1/31/94 until the next visit. They're visiting 3X per month now. **Is SVE system on now?**

Reviewed 2/15 letter fm Chevron w/attached QR by GTI, dated 1/28. (I had already received this QR via fax on 1/7/94). Up to 210,000 ppb TPH-g and 47,000 ppb benzene (C-3) on 12/21/93. C-5 also has high concs. Plume looks like it's migrating offsite, in a NW direction.

Reviewed 2/23 letter fm Chevron w/attached 2/24 aquifer test by Weiss. C-5 will be reconstructed into a 4-inch well more suitable for extraction. This will be done in conjunction with inst. of new offsite well. Aquifer

Site Summary STID 478
Former Chevron
301-14th St. (not in Assessor's records)
aka 1331 Harrison St. (in Assessor's records)
Oakland CA 94612

11/19/93 Mtg w/SCI: Bill Rudolf and Scott Leck. Their client may acquire adjacent building on Harrison St. There was FP (gas) up to 1.5' at one point. Will County require they define DG extent? We found a well (MW10) near their client's site, and it's ND.

12/8/93 spoke w/Beth Castleberry. She'll fax the McLaren Hart report. It's marked "confidential," but it won't be anymore because it's being sent to us and to Chevron. The property owner has been trying to sell for about 8 years. Deals w/several potential buyers have fallen through. Joyce Massaro is the sole trustee of the Gertha Ann Stowell Trust. Her address is 233 Polhemus Ave., Atherton CA 94025. P.O. has comments on Chevron's wp; they want to be more involved with the decision process. I phoned Nancy V. and relayed this message. I reminded Beth that Chevron has 60 days to implement the wp w/out agency concurrence, as per Sect. 2722(e), Article 11, Title 23, w/extra notification.

Revised NOR; changed property owner address.

12/16/93 Reviewed a) 12/10/93 letter from Beth Castleberry, and b) 11/18/93 McLaren/Hart response to the 11/2/93 Weiss GW Extraction System Installation wp. The SVE system employed since 3/92 indicates low HC recovery rates. Way too low. Therefore, they agree w/Chevron's intent to do gw extraction and SVE concurrently. However, they have some concerns:

- 1) need more info on hydraulic parameters; ie aquifer test, hydraulic conductivity, specific yield; prior to designing the extraction system; so that they can design the radius of influence or zone of capture.
- 2) the off-site extent of gw contam. has not been sufficiently characterized.

I think McLaren/^{usually}Hart has some valid concerns.

- 1) Chevron ~~often~~ does not perform the aquifer test prior to designing treatment systems. Ask Scott.
- 2) I'm concerned that C-5 was not analyzed last quarter (Sept. 93) due to "a hornet's nest." C-5 was the most DG well in Sept. 93; the next most DG well was C-2, which had 22,000 ppb TPHg and 1,900 ppb benzene. C-5 had 90,000 ppb TPHg and 26,000 ppb benzene last quarter (June 93). Therefore, it is possible that the DG extent of gw plume has not been characterized.