

11/12/96 WROTE LETTER TO RP (new contact)

2/20/97 Reviewed Jan 96 "GW Mon and Prod Recovery Progress Rpt" by Aramark. GW sampled on 11/15/96 flowed SE at 0.005 ft/ft. RAO3 was sampled and analyzed: 24,000 ppb TPHd and 0.33 ppb benzene. Benzene has been very low in this well over the past 4 Qs of samplg, even tho TPHd has been very high. Maybe I should have asked them to analyze PNAs in this well. MW4 and MW5 were also analyzed: got ND TPHd (BTEX was NA).

3/14/97 spoke w/Kevin Bate: He didnt do BTEX in 4th Q or 1st Q in MW4 and MW5. Got some FP in RAO-3. They added hydrogen peroxide; will add it monthly, then check FP Qly.

8/4/97 - Reviewed 3/97 "Annual GW Mon and Product Recovery Progress Rpt" by RMT. GW sampled on 2/18/97 flowed SW at 0.01 ft/ft. WHY WASNT RAO-1 SAMPLED? It is most immediately DG of RAO-3 (w/FP).

Phoned Kevin Bate: RAO-1 was not sampled bec it was dry. Maybe it is damaged. Landscapers were there about 1 yr ago. Hes not sure where the bottom of well is sounding. I asked him to document this in the next rpt (FP rpt). They want to use vac truck on RAO-3 in August. Told him ok. They are using H2O2 in the meantime.

Bruce Bennett 835-9285

Kevin Bates 310-578-1841 → To England.
(478)

1-8-98 Jim Van Offwich 847-995-1500

phone-log
(No Date)

- 11/7/96 Reviewed 5/96 QR by RMT. GW sampled on 5/10/96 flowed generally South. FP continues to exist in RAO-3. OK to stop BTEX in MW5 (we have 5 Qs ND). OK to go semi-annual in MW4 and MW5. Was the H2O2 successful in RAO-3?
- 11/8/96 Reviewed 8/96 QR by RMT. GW sampled on 8/6/96 flowed South. FP continues to exist in RAO-3. They said 30mL of FP was removed from June thru Aug. It would be ok to do annual (1st Q) sampling for BTEX in MW4 and MW5. And do annual sampling in the RAO wells 1,2,4. Phoned Kevin Bates: He is the PM, and Jim is the Sr PM. Jim moved to Chicago. Was the H2O2 successful in RAO-3? Yes, in cleaning the well screen to a certain extent, but it is hard to say how well. They could do the H2O2 again in RAO3. We think the screen may be clogged again, since the FP removed has gone down to nil again. Maybe use vac truck w/stinger tube, and draw out as much as possible and create a gradient towards RAO3. It is more effective w/gasoline, but it still may help. But if the screen is clogged, it may not help. So we need to unclog the screen at the same time, or better yet, before hand. OK to delete BTEX in 4th Q, but continue TPH analyses in MW4 and MW5. If we have consistency, go annual on those 2 Mws. Start RAO1,2,4 in 1st Q again. As for RAO3, if FP, no dissolved gw sample. If no FP, then take dissolved gw sample.

I will hold off on writing a ltr until Kevin meets w/Phil next week. Phil is Bob Robbins' boss. He will bring up the subject of pumpout on RAO3. Then I will formally request it, so they can get reimbursed by State Fund. New contact is Phil Creske (?); must change database; get new address.

- 11/12/96 spoke w/Kevin Bate: they want to do RAO3 Q if no product, and the rest annual. If FP, make sure canister is adjusted and they are retrieving FP. Then treat well w/5 gal of H2O2 every Q whether or not there is FP. Also further evaluate feasibility of doing enhanced fluid recovery. He prefers not mentioning it in my ltr. RP doesn't want to commit to it unless he knows it will be beneficial. How will they evaluate pumpout of RAO3? He will look at their bore logs, read tech papers. I will say their 4.5% solution of H2O2 proposal is acceptable. They will do QS next week. Will use pharmaceutical grade (3.5%) of H2O2 next week in RAO3. If it has similar effect, they will continue to use it. They don't want to have to store another drum of chemicals onsite, and therefore have MSDS, accountability.

3/19/96 Reviewed DK's 11/6/95 letter to RP. They want to do enhanced bio: add 5% hydrogen peroxide solution to RAO-3 monthly for 3 months. Reviewed 12/22/95 letter fm RMT. They have been adding 15 gal of 5% H2O2 each month. They want to clean up the well screen and sand pack prior to sampling in 1st Q 96.

Reviewed Dec 95 QR by RMT. GW sampled on 11/14/95 flowed South at 0.01 to 0.02 ft/ft (see Fig 2). Why didn't they sample RAO-1? They disposed "5 soil and possibly water drums" on 5/6/95. They can stop analyzing BTEX in RAO 1,2,4. And after 4 Qs, stop BTEX in MW4 & 5. They have not recovered any FP since 6/95 (App D). So they can reduce frequency of monitoring to monthly.

Phoned RMT: spoke w/Kevin Bate: Why wasn't RAO-1 sampled? He'll have JV give me a call. Did they sample yet for 1st Q 96? Results for RAO-3?

Wrote letter, allowing deletion of BTEX in RAO1, 2, and 4. Decrease frequency of monitoring in RAO3 to monthly (for FP).

3/21/96 spoke w/JV: They sampled RAO-3 in first Q 96, and it was indeed hot. RAO-1 was dry; that's why it wasn't sampled in Nov 95, but it has gw now. GWE was high in RAO3; H2O2 cleaned up the screen perhaps, thus allowing FP in, so they have FP again. How thick? <0.1' They removed 400 mL in 2/1, 275 mL in 2/9. Any BTEX in RAO3? 16 ppb benzene. Also no BTEX in RAO1,2,4. They only sampled RAO1 and RAO3 and MW4 MW5 in 2/96. Bec my 8/21/95 letter said to sample RAO2 and RAO4 in the "spring quarter" not the "first quarter!" My mistake, and their misunderstanding. He doesn't need me to write a ltr just to delete BTEX. The 3/96 QR is on its way.

3/28/96 Reviewed 3/96 QR by RMT. GW sampled on 2/1/96 flowed SE at 0.01 ft/ft. Consistent. RAO3 was finally sampled (due to no FP recovery since 6/95). They got high concs (1,700 ppm TPHd and 16 ppb benzene) bec the 1) screen was apparently cleaned out by the addition of the H2O2, and 2) GWE rose 1-2 ft during the last 3 months. Thus, 400 mL FP was recovered! Yeah! Only RAO1 and RAO3, MW4 and MW5 were sampled.

5/6/96 Tariq from RMT phoned. He has a question re my 8/21/95 letter. He sampled RAO1 in 2/96; is that the spring Q? Yes. I clarified that "spring and fall" means 1st and 3rd Qs. He will sample MW4, MW5, and RAO3 in 2nd Q. Is that right? Yes. But we don't have to analyze BTEX in MW5 anymore, bec we have 4 Qs ND.

8/21/95 Reviewed June 95 QR by RMT. GW sampled on 5/5/95 flowed SE at 0.008 ft/ft. RAO1, 2, and 4 were ND for TPHd and BTEX this quarter. One 55-gal drum of purge water was disposed to Demenno Kerdoon in Compton CA on 5/6/95. I think we can reduce the sampling frequency in the RAO wells. We've had 8 quarters ND BTEX, 8 Qs ND TPHd in RAO2&4.

Spoke w/Jim Vannortwick: let's reduce sampling frequency. OK. How about reduce FP bailing frequency from weekly to monthly? He said they may forget; so let's go biweekly (every 2 weeks). 'Ok.

Wrote letter to RP: ok to reduce sampling frequency in RAO2 & 4 to annual, and frequency of FP bailing to monthly. Let's start sampling RAO-3 for dissolved concs.

692 Aramark Uniform Services, Inc., 330 Chestnut Street, Oakland, CA 94607

10/18/95 Review RMT, Inc. "Groundwater Monitoring and Product Recovery Progress Report" - dated September 1995. Groundwater samples were obtained from monitoring wells RAO-1, RAO-2, RAO-4, MW-4 and MW-5. The groundwater flow direction is southeast with a gradient of approximately 0.006ft/ft.

No free product is presently being recovered in well RAO-3. Non-detectable amounts of BTEX and TPHd were found in monitoring wells RAO-1, RAO-2 and RAO-4. TPHd was detected in monitoring wells MW-4 and MW-5 at concentrations of 500 ug/L and 1100 ug/L, respectively.

11/6/95 Review RMT, Inc. "Quarterly Groundwater Monitoring Activities"-dated November 3, 1995. Letter requests that sampling of recovery well RAO-3 be postponed until 1st quarter 1996, so that a dilute solution of H₂O₂ be added to remediate residual petroleum hydrocarbon buildup of the well screen and sand pack. The 5% solution would be added at a rate of 5 gallons per month for the next three months. This is acceptable. Draft letter approving H₂O₂ addition.

Call to/ from James Portwick, JR (310)578-1241
to/from

4/12/95 Reviewed March 95 "Subsurface Investigation Wp" by RMT. Includes 2 MWs, as discussed on 3/1/95. Soil samples collected near diesel fuel dispenser at approx 5' and 10'bgs will be analyzed for TPHg, TPHd, BTEX, and organic lead. Good; the 5' depth corresponds to the depth of sample SO-08A (9400 ppm TPHd at 5'bgs) (The overex sample in same spot was B1 at 9'bgs and had only 150 ppm TPHd). Soil samples collected near mop oil UST at approx 5' and 10'bgs will be analyzed for TPHg, TPHd, TRPH (by 418.1), TPH-mo, TPH-k, and TPH-ms. (Fine; remember the samples at 14'bgs were ND for TPH-ms/k/mo and TRPH, but the dirty Stockpile was backfilled.) . . . well placement is ok.

Questions: 1) why is gw approx 8'bgs (DTW) in the SW corner of this site, but we did not find any gw at 14'bgs in mop oil pit? (They propose to drill each MW to only 15'bgs, with screen from 5-15'bgs.) 2) why do they propose organic lead in soil near diesel fuel regulator? I don't think we need lead at all.

Reviewed March 95 GW Monitoring and Product Recovery Progress Report, by RMT. GW sampled on 2/3/95 flowed SW at 0.02 ft/ft, as per page 4. **But it looks SE on Fig 2.** PUrge water was disposed to EBMUD, as per their approval letter dated 2/3/95 in App. C. OK.

phoned JV: He's concerned that too long a well screen will dilute the samples. The depth of well bottom may be 20'bgs. Depends where we get first water. He's noticed that all his gw flow directions in N Cal have changed spring 95 Quarter. Probably due to all the rains. But he thinks it's just temporary.

Wrote acceptance ltr to RP.

5/6/95 Site visit for MW inst.

6/20/95 Reviewed June 95 "MW Inst. Report" by RMT. Soil was all ND except trace TRPH in MW4. Water had 1100 TPHd in MW5 and 240 TPHd and 260 TPHms in MW4. They used the 5 onsite wells (wells without FP) to determine gw flow (SE at 0.008 ft/ft on 5/5/95). This is generally toward the Inner Harbor. See page 9: **they want NFA.** They cite Tri-Regional Guidelines that says 100 mg/kg TPH is used to prioritize sites. But this conc is for soil!

6/21/95 phoned RMT: to explain we need 4 Qs. He'll tell RP.

Wrote letter to RP

2/23/95 Reviewed Dec 94 QR by RMT. Site is now called "Aramark." GW sampled on 11/18/94 flowed SW at .005 ft/ft. GW sampled on 11/18/94 had ND TPHd and ND BTEX in the 3 perimeter wells. Let's reduce sampling frequency to semi-annual or annual, and continue removing FP. Looks like FP has been removed weekly; maybe they can reduce THIS frequency also, bec. they haven't been getting much FP, at least from 9/15 to 11/9/94. But remember that was a dry 2 months. I wonder how much they've encountered this past rainy winter?

spoke w/K. Bates: Discussed going to annual frequency. They just sent draft QR to RP. I should revisit the issue of MWS in the other (East) part of site. KB said that they might want to do RA instead. See 4/21/94 notes from mtg w/RP. Compare residual hits w/ASTM #s. He'll fax FP data.

Reviewed the data: probably DO need a MW near the dispenser vaults bec. we initially had up to 9,400 ppm TPHd (S0-08) at 5'bgs. (They overexed to 150 ppm TPHd-- and also 670 ppm TPHk in that strange "soil" in sample E.) As for mop oil UST, there was 290 ppm TPH via 418.1. But "mop oil consists of highly refined base oil which the Intl Agency for Research on Cancer classifies as having no evidence of carcinogenic potential, and it's not expected to present any env. problems." (p.20 of 3/94 UST Closure Report).

3/1/95 spoke w/J. Vannortwick: Got approval to discharge purge water to Aramark's wastewater treatment system, which then leads to EBMUD (Gonzalez, wastewater control operator). They got it in writing, and will include ltr in next report. So now the only drums they store is the free product removed from RAO-3. He spoke w/RP today, who agreed to install 2 MWS. Discussed w/Madhulla. She thinks, yes we should install one well near the mop oil UST. It's still an oil. Phoned JV again and relayed this to him. One well DG of S0-8A and one well DG of mop oil UST. He'll get me a wp. Specify # samples to be ANALYZED per boring.

4/12/95 Jim V phoned: wants to drill wells in early May. He already sent wp. I got it, but have not yet reviewed it.

couple days, when I can be onsite. JV will type a proposal to RP (and steps for JJ). The newest QR and FP Recovery Report is being finalized right now, and he can rush it to me by 5/19. He'll include manifests for disposal of drummed oil.

- 5/18/94 Site visit for bailing RAO-3. See field report. left mess for RP
- 5/19/94 message fm Bob Robbins. He'll find someone else to bail well, either at the plant or a consultant. Received fax w/FP Recovery Data til 5/3/94.
- 5/27/94 Reviewed May 94 QR by RMT. GW sampled on 4/28/94 flowed SW and was ND except RAO-3. Includes HW manifest for 110 gal purge water.
- 6/6/94 spoke w/JV. He thinks JJ is still doing the bailing. JV put together info and photographs to train next bailer. Told him the seal of RAO-3 is not watertight. He can fix that. May's readings were all low after 5/3/94.
- 6/8/94 JV phoned. They're gonna take JJ off job and put someone else in his place (an engineer type). Plant Mgr Brian Barnett will be responsible for making sure weekly bailing gets done. I want to be there for the training of the new guy.
- 6/14/94 messages to and from JV
- 6/17/94 Reviewed 6/14/94 "Product Recovery Canister, MW RAO-3" report by RMT. Site visit for bailing RAO-3 and mtg the new person fm Aratex who'll be doing the bailing. See field report.
- 8/5/94 Reviewed the 7/15/94 letter fm RMT. They report that they've addressed all my concerns from the 6/17/94 onsite meeting/inspection. Attached to the letter is Product Recovery for the month of June. I should follow up the 6/17 mtg/inspection.
- 9/12/94 File review by Bret Culbert of ACC (522-8188)
- 10/4/94 Reviewed Sept. 1994 "GW Mon and Product Recovery Progress Report," by RMT. GW sampled on 8/12/94 flowed SW (consistent), and was ND for TPH-d and BTEX in RAO-1, -2, and -4. Thickness of FP has decreased to .00-.02' since the big "hit" on 5/3/94 of .22.' The quantity of FP recovered during 2nd Q is 168 mL (it was 1,688 mL in first Q).

TPH-g ? was this actually TPH-k ?

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(I did not okay this backfilling. I specifically told them not to do it. MWS should be installed to monitor this.) They overexed the dispenser vaults to ND except B-1 (150 ppm TPH-d), C-1 (38 ppm TPH-d), and E-1 (670 ppm TPH-k, 1,100 ppm TPH-mo). These concs. are left in place (they backfilled the vaults). They propose closure for both UST areas. We know that gw in the SW corner of their property is about 9'bgs.

- 4/5/94 spoke w/Bob Robbins. Set up mtg for 4/21
- 4/21/94 mtg w/Bob Robbins of Aratex and ^{Jim} John Vannortwick of RMT. See notes on yellow paper.
- 4/28/94 Site visit. Met w/Bob Sohousky of RMT onsite. The canister was full of oil upon 2nd bailing.
- 5/9/94 Discussed remediation options w/SH. Reviewed file for background info.
 - 1) Any residual soil contam near RAO-3? yes.
 - 2) maybe do SBs around RAO-3 to delineate plume. They already did it. See Dec 90 Supplementary Areal Invest. report by RMT.
 - 3) what happened to the overex option? They proposed it but never did it. Opted for silly canister instead. Let's examine this overex possibility again.
 - 4) looked at SB logs. All 4 wells were screened in the same general area (7' to 24' or 27' bgs).

Basically, can't get closure for the SW portion of site bec. they have residual soil contam. Possible to reduce frequency of QM, esp. in UG well. . .

- 5/16/94 spoke w/Bob Robbins. Let's re-examine the overex option. They're back on a daily schedule for emptying of canister. He'll contact JV and see what time we can arrange to meet onsite for emptying of canister.
- 5/17/94 JV phoned. They last emptied canister on 5/3. At that time, they removed 2000 mL oil and 35 gal water. RMT met w/Aratex employee John Jacobs (JJ) and gave him a refresher on how to bail, etc. JV thinks that JJ has been forgetting to bail. Bob Robbins is upset about this, and is going to bark at the onsite Plant Mgr (Bryant Bennett). The canister was bailed daily when they began in late 92, then every 2 or 3 weeks in mid 93, then monthly in 94. JV can suggest to RP that they check on JJ's work every 3 weeks, when they're in the Bay Area (San Jose). **We suspect that more oil accumulates in the canister after (heavy) rains. I want it checked after every rain now.** They haven't checked it since 5/3, but we'll arrange to do it in the next

removal.

- 10/19/92 Letter fm AlCo to RP. Requests that QS be resumed, and that they either implement the Jan 92 wp or submit a new wp by 11/19/92.
- 10/28/92 QR by RMT for 12/21/91 QS.
- 11/19/92 Remedial Action Workplan by RMT. Proposes a recovery canister w/semi-permeable membrane in RAO-3 to remove FP in gw
- 11/23/92 Letter fm AlCo to RP. Accepted wp conditionally.
- 12/3/92 QR by RMT for gw sampled 11/4/92
- 4/9/93 QR by RMT for gw sampled 2/19/93
- 4/20/93 Letter fm AlCo to RP. Please document a) disposal of FP and purge water disposal, b) gw flow direction
- 6/7/93 Letter fm RP to AlCo. Includes pot. map. Manifest for purge water and FP disposal will be submitted.
- July 93 QR and Product Recovery Progress Report by RMT
- 7/23/93 AlCo approved a tank closure plan for 3 USTs: 10K mop oil, 12K diesel, and 10K unleaded gas
- 7/29/93 ~~Removal of 12K diesel, 5K gas, and 10K mop oil USTs.~~
- Sept.93 QR and Product Recovery Progress Report by RMT
- 7/30/93 Site visit for sampling below remote fueling pits.
- Dec..93 QR and Product Recovery Progress Report by RMT
- 12/7/93 Letter to AlCo fm RMT. Soil sampling results and proposed soil excavation activities (dispenser vaults and diesel fuel regulator).
- 1/22/94 (Saturday) Site visit for overex of dispenser vaults and fuel regulator.
- March94 QR and Product Recovery Progress Report by RMT. GW sampled 1/29/94 flowed SW. Purge water will be disposed. RAO-3 had no FP on 1/29/94. Why didn't they analyze it for dissolved contam?
- March94 UST Closure Documentation Report by RMT. Up to 36 ppm TPH-d was backfilled in fuel UST area. Up to 290 ppm TPH-mo (by 418.1) was backfilled into mop oil UST area.

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2/7/89): ND BTEX, ND 8010, ND 8270, metals were < 10X the STLCS; COC; and a map.

- 8/3/90 QR by RMT. GW flowed S. RAO-3 had 267,000 ppb TPH-d and 1.9 ppb benzene.
- 9/14/90 Letter from AlCo to RP. Approved proposal in 8/3/90 QR re further delineation of gw contam.
- Dec. 90 Supplementary Areal Invest. report by RMT. The lateral extent of the diesel affected zone is approx. within 10' of former UST limits, and bet. 5' to 11'bgs within former UST location. **Concludes that soil remediation is required.**
- 3/11/91 letter fm AlCo to RP. Concurs w/Dec 90 report. Says "the diesel plume detected under the former tank pit should be pumped for treatment or disposal."
- 6/17/91 Tank test results for the 10K mop oil UST. It passed.
- 6/19/91 Tank test results for 3 USTs: 5K gas, 12K diesel, and 10K mop oil. All passed.
- Jan 92 WorkPlan for Remediation by Excavation of Diesel-Impacted Soils, by RMT
- 3/2/92 NOR sent
- no date unsigned Project Proposal for invest. of contam. in former boiler fuel tank location, by RMT
- 3/31/92 Letter fm AlCo to RP, approving the Jan 92 wp, but also requiring wp for remediation of gw. **JE now working on case.**
- 4/8/92 Letter fm AlCo to RP. How will gw remediation be addressed?
- 5/28/92 fax fm RMT. Says gw will be remediated by removal of FP in soil and gw by excavation. The ex will extend approx. 2' into gw. Shoring will be installed. GW will be temporarily stored in a tank pending recycling. RAO-3 will be destroyed and then rebuilt.
- 9/25/92 fax fm RMT. GW sampling results for 12/12/91
- 10/15/92 JE spoke w/Cathy Lielausis of RMT. The FP is increasing in RAO-3, which makes her think there's another source, maybe former piping trench. The existing aboveground natural gas lines near the bldg E of RAO-3 prevent excavation. Checked our files: no mention of piping

Site Summary STID 692
 Aratex
 330 Chestnut St.
 Oakland CA 94607

- 12/16/88 Removal of 1500-gal diesel UST. No obvious holes. 2 soil samples taken. Apparently, pit was "refilled" w/SP. Results: up to 8100 ppm TPH-d, 3700 ppm TOG, and ND benzene.
- 1/24/89 AlCo approved closure plan for 550-gal waste oil UST. Can't determine where it was located from the map.
- 3/9/89 letter from BATT w/lab report for soil sampling: ND BTEX, 75 ppm TOG, and ND TPH-d. **Was this for waste oil UST removal?**
- 6/7/89 Four MWS were installed. (see Aug 89 RMT report p.1)
- 6/14/89 letter to RMT (consultant) from AlCo. Approves the workplan for MWS.
- 6/30/89 note to file from D.Byrne. Found .25" FP in tank pit well.
- 8/14/89 note to file fm K.Chesick. Aratex has 3 unpermitted USTs.
- 8/21/89 ULR in file. Says that "soil samples collected at time of tank removal contained up to 75 ppm TOG. Samples were not analyzed for TPH-g, 8010, 8270, or metals." **This looks like they removed a waste oil UST on 2/8/89.**
- Letter to RP from AlCo. Says a 550-gal w.o. UST was removed on 2/7/89. Requires additional soil sampling below the UST for the missing constituents.
- Aug 89 "Soil and GW Invest." report by RMT. **It appears that AlCo allowed them to backfill w/the SP soil, since they were close to a bldg. The SP soil was apparently not sampled, so we don't know how hot it was. . . .** The borings were ND for soil for TPHd, BTEX, and TOG **except RAO-3, which had 22,000 ppm TPH-d and 8,200 ppm TOG at 8' (ND benz).**
- 10/24/89 letter to AlCo from Aratex, re additional info re removal of waste oil UST. Includes tank manifest; letter fm contractor stating there were no holes or corrosion in tank or piping; lab report stating samples taken on 9/7/89 (maybe they went back and resampled, bec. original sample taken during tank removal on