

918

2/21/97 Reviewed 1/10/97 "Soil Samplg Rpt" by KEI. **No great contamination. Max concs:** 0.025 ppm benzene, 430 ppm TPHg (in SP), ND TPHd, ND TOG, ND 8010, metals no problem (except 53 ppm Cr, where 10X STLC is 50 ppm). They offhauled 84 yd<sup>3</sup> of soil on 12/23/96 and 1/7/97 to Forward Landfill. **We need doc.**

Phoned Haig Kevork: not in. Lm for Joel Greger instead, asking for soil doc. He will send the manifests.

3-3 newy 2-26 ltr: soil doc.

11/8/96  
con't

Rbt Matson w/Unocal at 714-428-6563. Lm for him.

Lm for Bill Bruerster of Unocal. Status? I faxed CNS ltr to Tina Berry today.

Phoned Pam Evans: did she give temp closure? How long will it last? She said 12 mos (fm their ltr). There is no temp closure permit. Did she write them a ltr? NO. They can get longer if they ask. Did she hear about the island reconfiguration? NO. Maybe Tina meant that they'd be applying for a permit w/in 2-3 wks, not do the field work.

11/12/96 spoke w/Bill Breuster of Unocal: He is the construction engineer. Replacing pumps, piping. Project will begin on 11/20. Waste oil UST will be removed 11/26 or 11/27. But I haven't received a tank closure plan yet. He wonders if there has been a change in SOP for Unocal. Lm for Tina Berry: Bill said that your Dept (Env) handles tank removals. But I haven't received a tank closure plan yet. He wonders if there has been a change in SOP for Unocal.

11/14/96 spoke w/Tina Berry: I just received the Tank Closure Plan today! Submitted by Rbt H. Lee, signed by Ron Sorenson. Fax 277-2309. I will fax her the tank closure plan for her signature.

11/18/96 calls w/TB: reviewed closure plan.

11/19/96 calls w/Pam, Bill B: met w/Balch in office

11/26/96 **ONSITE FOR REMOVAL OF 1,100-GAL WASTE OIL UST AND SAMPLING UNDER PIPING/DISPENSERS.**

12/16/96 lm Haig

12/17/96 received fax from Haig

12/30/96 reviewed 12/17 fax: lab report. Lines/Dispensers: TPHg and benzene all ND except 0.025 mg/kg in PD1 at 5.5'bgs. PD1 stockpile had 430 mg/kg TPHg, ND benzene, some TEX, and 22 mg/kg Pb. Waste oil UST: ND TPHg, ND BTEX, ND TPHd, ND O&G, ND HVOCS, ND Pb, ND Cd, 53 mg/kg Cr, 36 mg/kg Ni, and 30 mg/kg Zn. **So what was left in place was ND or negligible.**

1/6/97 Reviewed 8/1/96 QR by MPDS. **GW sampled on 7/9/96 flowed SW (consistent). They are using ORC in all the Mws. They have UP TO 140,000 PPB MTBE!!! left mess for Pam re the high MTBE.**

- 3/1/96 Reviewed 11/6/95 QR by MPDS. **GW sampled on 10/10/95 flowed S-SW at 0.008 ft/ft.** Fluctuating levels of concs: both increases and decreases. Note that the DG edge of plume is really undefined, and contam may be heading onto the adjacent Shell site! Max hits in DG wells are 740 ppb TPHg and 170 ppb benzene (MW7).
- 8/18/95 spoke w/Bob Kezerian: they're ready to do the VES pilot test: on 8/21-23. They waited this long (wp dated 12/94) bec the high water table was covering the well screens. Now there's more exposed well screen.
- 4/8/96 Reviewed 1/31/96 QR by MPDS. **GW sampled on 1/3/96 flowed S-SW at 0.007 ft/ft.** The fact that MW3 has 2,300 ppb benzene and only 100+ ppb TEX shows that the release is fresh. And the fact that MW4 has been ND shows that the plume cuts a narrow swath in the subsurface. MW3 shows an increase, but most other Mws show a decrease this Q. GWEs are slightly lower this Q.
- 6/3/96 Reviewed 5/21 ltr fm Unocal. **ORC socks were installed in wells in April. Which wells? Im Tina: ALL wells.** Started DO in Jan or April. Asked her to report DO in Table 2.
- 7/19/96 Mike Wilson of CNS and Assoc. Phoned: 714-573-3888 They have a waste oil UST onsite which is no longer in use. What are the regs re temp closure? Pam phoned him back. **I didn't realize there was another UST onsite.**
- 11/8/96 Reviewed 5/29/96 QR by MPDS. **ORC filter socks were installed in all the Mws. GW sampled on 4/10/96 flowed S at 0.006 ft/ft.** Also, there is a significant amt of MTBE in MW3, MW6, and MW7. See Table 3. (These are DG and offsite wells.) Table 6 has DO, etc. Range of DO is 3.04 to 5.88 mg/L.

Phoned Tina Berry: to ask about the waste oil UST. I heard they were planning to remove/replace the USTs? Status? Mess fm TB: no plans to replace USTs: they are all dbl walled FG. Will upgrade islands and maybe piping, starting in 2-3 wks. Will change ORC socks w/new socks w/greater % ORC. Re waste oil UST, she doesn't know anything. Contact Bill Bruerster at 277-2325 (w/their maintenance/engineering/construction gp).

Phoned CNS: spoke w/Mike Wilson:714-573-3888. UST is still in place. They pumped it out on 8/30. He will fax manifest (for product pumpout) to me, as well as OFD written approval. They got verbal approval for temporary closure (from OFD and Pam Evans). They do temp/perm permitting, but not removals. His contact is

Dale's notes

0918 Unocal Service Station #0752, 800 Harrison Street, Oakland, CA 94607

10/17/95 Review MPDS Quarterly Groundwater Monitoring Report-dated August 8, 1995. Monitoring wells MW-1 through MW-8 were sampled. Monitoring wells MW-1, MW-2, MW-3, MW-5, MW-7 and MW-8 were found to contain elevated levels of TPHg or one or more BTEX fractions. Monitoring wells MW-2, MW-3 and MW-5 are the impacted wells with the highest concentrations of benzene (270 ug/l, 1300 ug/l and 210 ug/l), respectively. Contamination found in down-gradient wells MW-7 and MW-8 (furthest down-gradient) have detected levels of benzene over primary MCLs for at least the last two sampling events. This is an active site at present. Extent of contamination is not sufficiently defined. Request an SWI? Review with BC. BC recommends that I request a RAP to identify technologies which may be used to remediate this site.

11/13/95 Call to/from Tina Berry of Unocal (277.2321) concerning site. She informed me that they had performed a feasibility study for the use of SVE for remediating the site, and that it had failed miserably. She wants to use a oxygen releasing-compound (ORC- manganese dioxide socks) in the impacted wells to help raise oxygen levels and promote biodegradation/natural attenuation. She will send me information on the product. She stated that she is already using it on ALCO sites with DEH oversight (ALL, SOS, EC sites). She said that the report on the feasibility study should already have been received by this office. Will look for the report.

Review Kaprelian Engineering, Inc. (KEI) "Pilot Vapor Extraction Test Report"-dated October 23, 1995. Monitoring wells MW3, MW1, MW5 and MW6 were tested for adequate flow by pulling a vacuum on the well heads. **All wells failed due to continued non-measurable flow.**

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- 5/15/95 Reviewed 1/31/95 QR by MPDS. GW sampled on 1/2/95 flowed S or S-SW (consistent), and had up to 1,700 ppb TPHg and up to 50 ppb benzene (CG MW5--nearest to Harrison St). DG MW7 was ND for TPHg and benzene. DG MW8 had 440 ppb TPHg and 18 ppb benzene. There was an overall increase in GWEs, while the concs had an overall decrease this Q. Strange.
- 6/1/95 Reviewed 5/18/95 letter from KEI. They did a historical review for sites in the immediate area.
- 7/26/95 Reviewed 5/3/95 QR by MPDS. **GW sampled on 4/3/95 flowed SW at 0.005 ft/ft.** GWEs increased approx 2' this Q. Concs also increased significantly.

Site Summary STID 918  
Unocal #0752  
800 Harrison St.  
Oakland 94607

continued fm handwritten notes:

- 10/6/94 Reviewed 8/2/94 QR by MPDS. GW sampled on 7/5/94 flowed S to SW. **Huge increase in MW3: (from 6,000 to) 25,000 ppb TPH-g, although benzene went (from 800 to) ND. Strange.** But the MW directly DG of MW3 is ND (MW6). Hmmm. Unexplainable. No conclusions in QR.
- 2/7/95 Reviewed 12/1/94 WP by KEI for a pilot vapor extraction test: over 48 hrs, using MW3 (the well w/highest hits). Let's look at the boring logs: is there enough exposed screen to even conduct a pilot test? DTW was 18.14' on 7/5/94 (and a foot deeper the year before); screen is from 15-33'bgs. So there's about 3' of exposed screen at present. Are they planning on drilling VEWs, if the pilot test proves successful? Or just using existing MWs? Phoned Bob Kezerian of KEI; I asked him if the screen is submerged, if that would create a problem for the pilot test? If screen is submerged, (likely now with all the rain), they'll wait til the GWE decreases. It would be nice to use existing wells if they have enough vacuum influence. If there's not enough exposed screen, we may need to do GW extraction simultaneously. Unocal is no longer planning to sell property, but wants to do pilot test anyway.
- 2/7/95 Reviewed 11/8/94 QR by MPDS. GW sampled 10/6/94 flowed S-SW at .007 ft/ft and had up to 49,000 ppb TPHg and 1,300 ppb benzene (MW3). This is an increase overall, altho GWE DECREASED. I wonder if their USTs are in good shape. Could not locate UST file. left mess K. Tinsley.
- 2/8/95 mess fm K. Tinsley: the USTs are new, double-walled. He doesn't have the UST file. They have 5-yr permit; got it about 1 yr ago. Ron and he did the final inspection; maybe Ron has the file. **Still don't know when the last integrity test was.** Should be in the file. left mess Ron re file. He does not have it. Total well depth changes every quarter; why? Silting up?

- 5-10-94 Revu 2-3-94 QR by MPDS.  
 Gw sampled 1-3-94 had up to  
 4,900 ppb TPH-g + up to 830 ppb benz  
 (MW3). They also got VOCs in  
 MW1, 4 + 8 (table 3).  
 Gw flowed SSW again.  
 [I]s not really migrating to S side  
 of 8th St (MW7+8).
- 5-27 Revu 5-18 ltr from KEI. They want  
 to discontinue TPH-d + 8010 in MW1.  
 Phoned Bob Kezerian of KEI, + asked  
 for S-S QR. He'll send.
- 6-7 Reviewed 6-6 faxed report dated  
 5-5-94 (QR). Gw sampled 4-2-94  
 had up to 6,000 TPHg + 800 benz.  
 OK to discontinue TPHd + 8010 in MW1.  
 Gw flowed SW on 4-2-94.  
 Wait for hard copy, then wr ltr.
- 6-8 wr ltr to RP

3-10-94 Tina Berry phoned. They want to begin field work next week (3-16 or 17). When will I approve wp? fax approval

Revy 11-29-93 Phase I Env. Site Ass. by PHR

510-277-2309 fax

Wrote acceptance ltr; faxed to T. Berry.

3-17 8:00am Site visit. Met Doug Lee of KEI. They're just starting to cut concrete. Looked at SB ltr.

4-11 Reviewed 4-1-94 KEI report re "Subsurf. Invest." They drilled 10 SBs on 3-17 + 18-94. (EB 3-12).

GW encountered at 19-20.5' by 5. ND in EB 3, 4, 6, 7 + 10 + 12. hits in EB 5, 8, 9 + 11. (EB 8)

in-shop side →

Up to 21,000 ppm TPH-g + 7.0 ppm benz. EB11 had up to 13,000 ppm TOG, 4,300 ppm TPH-hf, 130 ppb PCE, + ~~46~~ 46 ppb 111-TCA

They rec. QM. Nada mas.



11-3-93 Reviewed 8-20-93 QR by KEI.  
 gw flowed S-SW on 7-23-93.  
 [J]s in DG MWs 7+8 both ↑ + ↓  
 No trend in gw [J].

12-21 discuss w/J. Sammons.  
 MW elevations in 9-9-93 QR by KEI.  
<sup>+ MW 8</sup>  
~~checked~~

2-15-94 Revy 11-8-93 QR by KEI.  
 gw flowed SW on 10-5-93.  
 Conc's both ↑ + ↓.

DG M7+M8 (offsite) both ↓ this Q. Good!  
 UHCs ↓ in MW1 this Q. Good!

2-16 Reviewed 2-4 wp by KEI.  
 Unocal wants to "divest" site.  
 (sell?)

867-0760  
 762-7610

They propose 10 SBs.

Tina Berry - Env. 277-2321

2-22 Sp w/Tina Berry  
 Unocal wants to sell site  
 operating station since 30's.

Unocal  
 EBs in sidewalk <sup>Harrison</sup> sec. USTs were there.  
 min. 1 per EB. She has a Phase I. Nov. 93  
 Can I get a copy? Yes. She'll send. Her gp  
 h expanded last 6 mos.

~~5-26-92~~

9-3-92 lrm Joel Greger of KEI  
602-5100

① re Qly for wells sampled early July?  
donde?

② status of ~~off site~~ <sup>DG</sup> MWS 4-6.

9-3-92<sup>2</sup> tel con w/ Doug Lee - upcoming drilling  
in early Oct. for 3 mws. - ~~still waiting~~  
for encroachment permit was obtained!  
~~Marcel Uvegbu 8-21 is mailing permit to ~~them~~ KEI~~  
~~he'll v status + cl bk.~~

Sept. 30 + Oct. 1<sup>st</sup> est. date for drilling  
Qly dated 7-27, sent on 8-3 to Gil Wistar

9-18 lrm Tom Berkin re srs of gw contain  
in MW3. Was - soil remediat at D2?  
(1200 ppm TPH-g).

Plk discontinuation of O+G + metals for MW1.  
Why weren't the other 2 mws sampled for  
O+G, metals, etc? ND O+G in soil.

Status of encroachment permit? Drilling dates?

9-23 1) mws <sup>to be</sup> installed 9-30 + 10-1  
2) exc. to 6' at D2. then stopped due to canopy.  
at 2.5' - another sample (1200 ppm)

Shell is across Harrison St. / 8th

DG of Unocal - any gw work?

cc: Tim Ross - KEI

4-27-92 "3 proposed wells<sup>MW 4, 5, 6</sup> not yet installed."  
 spoke w/ Timi Ross. Geologist l.c.l.<sup>me</sup> w/ info on permits for mws.  
 (Joel Greger). Encroachment permit needed  
 4-29 spoke w/ IG: "Unocal is supposedly obtaining permits" He'll push for the permits.

5-26-92 ask Susan if they zd be req'd to do more than just monitoring (+ adding 3 more mws.) zd ~~to~~ a remediate? Been monitoring since 6-91. TPH-g has ↑ from 5800 to 8000 ppb in that time. B Ifm 1200 to 1400 ppb.

Susan says they zd also delineate D + VOC plume near MW-1. Diesel: 94 ppb 4-2-92  
 just monitor ND 12-30-91  
 ND 9-30-91  
 ND 6-5-91  
 ✓ to see how long they've sampled for O+G in MW-1. 4-2-92 ND  
 12-30-91 ND : they may discontinue O+G samplg.  
 9-30-91 ND  
 6-5-91 ND

We'll push for these 3 add'l mws; see results of req'g remediation.

11-13-91

Qly Report - MW's sampled 9-30-91.  
 levels ↑ in MW3 to 6800 ppb TPH-g  
 1400 " Benz

levels ↑ in MW2 to 130 ppb TPH-g  
 18 " Benz.

gw flow S.

1-30-92

Qly Report. - MW's sampled 12-30-91.  
 levels ↑ in MW3 to 7200 ppb TPH-g  
 2100 " Benz

gw flow S.

levels ↓ in MW2 to 91 " TPH-g  
 16 " Benz.

3-9-92

Not. letter sent to RP (transfer to LOP)

4-30-92

Qly Report - mws sampled 4-2-92  
 gw flow S.

levels ↑ in MW3 to 8000 ppb TPH-g

" ↓ " " to 1400 ppb Benz.

" ↓ " MW2 to 88 ppb TPH-g.

12 " Benz.

p. 8 - Unocal waiting for encroachment permit  
 fm City of Oak for MW5+6.

2-4-91 W.O. SP soil sample by KEI

1600 ppm Pb

ND PCBs

"SP disposed at Chem Waste Inc. Class I site"  
no doc.

2-4-91 SP soil sample by KEI

fm gas pit

"some soil disposed at BFI in Livermore" Class III

"some" can be used as backfill."

~~5-8-91 ltr to Allo fm KEI.~~

7-5-91 Prelim. GW Invest.

5 SBs + 3 MWS.

gw flow SE on 6-5-91.

5800 ppb TPH-g (mw 3) = DG well.

1200 " Benz "

~~soil~~ SBs: MW1 had some TPH-g + d.

11-13-91 workplan by KEI.

3 more MWS in DG area.

11-9-90 3 USTs removed:

two 10,000 gal gas "no obvious holes"  
one 2,800 gal w.oil "one hole"  
2 soil samples (A1 + B1) taken fm below gas tanks at 14' bgs.  
A2 + B2 (SS) fm gas tank pit S. sidewall at 12' bgs.  
W01 fm w.o. tank pit fm 6.5' bgs had ND TPH-g, BTEX, TPH-d, TOG, 8010, 8270 + Cd.  
A1 had a hit ~~ULR~~ of 1,200 ppm TPH-g.  
A2 + B2 had ND TPH-g  
B1 had 45 ppm TPH-g.

11-12-90 KEI collected SS C-19 fm gas tank pit at 19' bgs.  
C-19 had 3,800 ppm TPH-g

11-20-90 KEI fm dispenser (D1 to D6) 6 SS, + 1 SS  
fm piping (PI), all at ~2.5' bgs.

11-20-90 ltr to AlCo fm RP  
"aware of soil contam."  
"intend to remediate soil"

11-26-90 ULR filed by DB  
"3,800 ppm TPH-g"

12-26-90 KEI collected a SS fm below D2 at 6' bgs, bec.  
D2 had a hit. KEI took SS w.o. 9.5' fm w.o. pit at 9.5' bgs.  
w.o. pit overex. to 9.5' bgs

1-3-91 ~~soil sample Report~~ by KEI  
2-1-91 up to 3800 ppm TPH-g under gas USTs  
" 11 ppm benz.

w.oil UST = ND.  
up to 1,200 ppm TPH-g under dispenser D2  
where is D2?

2-1-91 Work plan by KEI  
3 MWS + 2 SBS  
very near MW3  
was this soil remediated? NO

PI + D1 to D6 had ND TPH-g except D2 (45 ppm TPH-g)  
D2 at 6' had 1,200 ppm TPH-g + .24 ppm benzene  
w.o. 9.5' had ND TPH-g, BTEX, TOG, + Pb, 61 ppm Cr, 40 ppm Ni, 20 ppm Zn.