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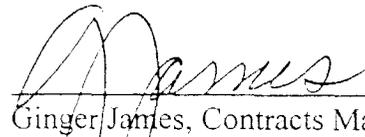
TO: Commanding Officer
Naval Facilities Engineering Command
Southwest Division
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Date: 17 May 96

D.O.: 0006

Location: MCAS El Toro

FROM: _____
Stewart Bornhoft, Program Manager


Ginger James, Contracts Manager

DESCRIPTION OF ENCLOSURE: RWQCB Meeting Minutes of March 22, 1996. Re: Brief RWQCB on Status of Tank 398 Site.

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Subject: To brief the California Regional Water Quality Control Board (CARWQCB) on the followings:

- Status of the Tank 398 site Free Product Recovery Project
- Navy/OHM plans for installing Insitu Treatment Systems at various locations within the MCAS El Toro
- An overview of the Insitu Treatment Systems, UST program, OHM plans dated February 1996

Date: Friday, March 22nd 1996

Time: 9.00 am

Place: MCAS El Toro, OHM Trailer

Attendees: Bill Sedlak, P.E., OHM Project Manager
Dhananjay Dave, OHM Project Engineer
Vince Richards, RG,CEG, OHM Technical Lead
Lynn Hornecker, P.E., SWDIV Navy RPM
Scott Kehe, MCAS ROICC
Larry Vitale, RWQCB
John Broderick, RWQCB

Bill Sedlak opened the meeting by summarizing the Tank 398 Free Product Removal project status.

- Status report being prepared.
- Quarterly groundwater sampling and report.
- Recovery system operational with generally low recovery rates.
- Wells 2, 19, and 10 have pumps and are recovering product.
- Wells 4, 18, 25, and 26 have had the pumps removed, currently have less than one foot of product.
- Wells 4, 18, 25, and 26 are being bailed to remove product from the well.

Vince Richards explained that OHM is monitoring each well very closely. During the first several months of operation, the system produced about 160 gallons of product. The monitoring program at each well indicated that in wells 2, 10 and 19 free product was building up above the pump. After modifying the recovery pump exclusion valve and setting the pump height in the well to recover most of the product. Bill mentioned that the low recovery of product from the wells is due to slow recharge of product into the wells after they are pumped, a lower permeability layer at 195 feet bgs and product recovery pump inlet fixed location valves.

Bill told that OHM is working on a summary report for the Navy describing the status and recommendation on how the system should be run to improve recovery of the product from the ground water.

Vince mentioned that by bailing and manually setting the pump height in the well, OHM is able to remove most of the product that can be removed. Also in last 2 years water table has increased in 2 inches. Bill added that there does not appear to be as much free product as was originally estimated, based upon the thickness currently measured in the wells as compared to measured thickness approximately nine months ago.

John mentioned that from the IT data it was clear that Tank 398 never leaked but the piping, including the supply line from the Tank Farms may have leaked.

Vince and Bill explained the possibility of seismic faults in the geology of the site and the likely extent of a clay layer over the product. The clay layer is believed to have produced a confined condition in what was previously a vadose zone, due to rising water table condition, resulting in elevated thickness of product in some wells.

Bill and Vince explained the bubbler system for the recovery pump which is currently installed from the vendor Clean Environment to observe the pump performance.

Bill told that the 398 wells were dormant for years and video log showed the bacteria on the sand pack and wall. Vince mentioned that the existing wells has bacteria and it would be good idea to knock down the scaling and bacteria using chlorine and then redevelop the well.

John encouraged us to submit a plan or discuss descaling with RWQCB before implementing. John mentioned that RWQCB will give an approval for doing this as long as OHM can recover the chlorine solution and not introduce to the wells.

Bill concluded that OHM will run the free product system with new modifications and recommendation for next 90 days and look at the free product recovery rate. After AS/SVE pilot study most of the other geology issues will be solved to enhance the rate of recovery for the free product.

Bill mentioned the future plans for the tank 398 site of AS/SVE drilling with continuous core sampling for AS and SVE wells.

OHM is planning to conduct a Air Sparge/ Soil Vapor Extraction (AS/SVE) pilot study at the tank 398 site. Bill mentioned that OHM is going to install two new wells since the IT SVE wells were drilled to 160 feet and now it is known that product is existing at 200 feet up to 7000 ppb. Also well no. 5 and 17 has some dissolved product. Lynn said that well no. 5 has Benzene up to 1700 ppb. Bill explained that OHM approach is to go to the capillary fringe for the SVE well, and to implement the well in the clay layer.

Bill continued that the main emphasis of the SVE pilot study is at the main leak area and dry wells. Also OHM is going to install dual wells at different screen intervals 140 to 160 feet and

170 to 200 feet, above and below the clay layer. OHM will initially run the SVE system with Catox unit and based on the concentration removed, switch to carbon system as needed.

During the time of SVE pilot study, OHM will try to bring another system to apply up to 2" Hg vacuum at well no. 18 and 4 to obtain additional data on the product recovery.

Larry asked about drilling methods and mentioned the CPT and SCAPS. John mentioned that sonic drilling method will be applicable at El Toro and told that at March AFB it was successfully used. Lynn and Bill reported that OHM is planning to use sonic rig at a tank farm site.

Lynn and Bill discussed future drilling work at Tank Farm 2, where all the USTs are removed. Bill explained that OHM during the drilling at Tank Farm 2 will convert the soil borings into the SVE wells per field data.

Lynn mentioned that at Tank Farm 5 and 555, OHM will install the Insitu treatment systems after some exploratory field work.