

CLEAN ROUTING SLIP

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MCAS EL TORO
SSIC # 5090.3

MC

CTO # 0145

MOD # _____

APPROVAL

OTHER

Govt Comments "DRAFT Soil Gas Survey Technical Memorandum"

ACTION REQUIRED

TITLE: GOV'T. COMMENTS "DRAFT SOIL GAS SURVEY TECHNICAL MEMORANDUM"

WORK AUTHORIZATION (R. Ward)

AUTHOR: SHERRILL BEARD-FACILITY MANAGEMENT BRANCH/DTSC

OTHER

DATE: 09/19/94

CATEGORY: 1.2

CC: SAN DIEGO

PASADENA

OTHER

- PMO File
- E. BANKS (PM)
- B. ROBSON
- S. MONTIJO
- L. JONES
- DATABASE ENTRIES
- J. HUGHES
- J. SHEKER (Tickler)
- H. MONEGUE (Property)
- _____
- _____

- PAS File (distribution)
- R. PORTILLO (LRCM)
- D. LONGPRE (QA)
- D. SMITH (H&S)
- M. MCCLURE (SM)
- M. BELL (CM)
- R. WARD (RFPs)
- CA: _____
- B. MICHELL (PCM)
- K. Spathias (for distr)
- CS/E: _____

- Lead PjM (for Activity) _____ *
- CTO PjM _____ *
- G. Rumford (Interim MTPQC) (JEG)
- S. TSAI (RCM) (IT)
- R. GATES (IT) (for distribution)
- K. TOMEO (CH2M) (RCM)
- M. EMBREE (CH2M) (for distribution)
- TR: _____ *

CTO NOTEBOOK

Dist: RFPs-(PM, LRCM, CM, PCM 280 PJM) Fax initial RFP to R. Ward, CM, LRCM, PCM, & PM. They will review for CP funds and dist. further w/WAF	MODs, Stop Work Orders- (RCMs, CM, CA, LPjM, PjM, PCM, CSE. 280 PJM)	COMMENTS-(Full set to LRCM, RCM(s), LPjM, PjM, TR, MTPQC cover sheet to others noted). PM to receive full sets of Code 185 comments/top copy of all others.	CLOSE-OUT LETTERS-PM, RCM(s), CM, CA, PCM, CSE, MTPQC, LPjM, PjM)
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*LOCATION DESIGNATOR: 1-Pasadena 2-Denver 3-CH2M 4-IT 5-San Diego

***NOTE: Location designator dictates further distribution to applicable RCMs.

TELEFAX TRANSMITTAL
SITE MITIGATION OPERATIONS BRANCH

FAX/ Public (310)590-4922 / CalNet 8-635-4922

TO: <i>Hoodsham Noza FMI</i> EL TORO TEAM	No. PAGES: 8
FROM: JUAN MANUEL JIMENEZ	CONTACT No.: 310 590 4931
SUBJECT: DRAFT SOIL GAS TECH MEMO REVIEW AND COMMENTS	
Enclosed are Ms. Sherril Beards comments on the above mentioned report. This is a partial submittal and i will provide comments by next Monday. The urgency implied in the text of the report for a two week turn around has come into question and as a result I will take a little longer to provide review comments.	
Feel free to contact me at the number above.	
Joseph / SWDU ; Bonnie Arthur / EPA ^{Done}	
John D. / CH2M Hill ; John B / RB	
Dante T. / Bachtel - Please share w/ CH2M Hill	

HAND CARRY:	PER YOUR REQUEST:
CONFIDENTIAL:	PLEASE COMMENT:
INFORMATION:	ORIGINAL WILL/WILL NOT FOLLOW:

ADDRESS: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
REGION 4
245 WEST BROADWAY, SUITE 425
LONG BEACH, CALIFORNIA 90802-4444

Public Telephone #(310)590-4856 / Cal Net 8-635-4856

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Region 4

7 West Broadway, Suite 425
L Beach, CA 90802-4444**M E M O R A N D U M**

JIMENEZ.

TO: Juan Jimenez
Office of Military Facilities
Base Closure Unit
245 West Broadway, Suite 425
Long Beach, California 90802

FROM: Facility Management Branch
Geological Support Unit
245 West Broadway, Suite 425
Long Beach, California 90802

DATE: September 19, 1994

SUBJECT: COMMENTS ON MARINE CORPS AIR STATION EL TORO, CALIFORNIA,
INSTALLATION RESTORATION PROGRAM, REMEDIAL
INVESTIGATION/FEASIBILITY STUDY, DRAFT SOIL GAS SURVEY
TECHNICAL MEMORANDUM SITES 24 AND 25

INTRODUCTION

As requested, the Geological Support Unit (GSU) of the Department of Toxic Substances Control (DTSC) has reviewed the document entitled *Marine Corps Air Station (MCAS) El Toro, California, Installation Restoration Program, Remedial Investigation/Feasibility Study, Draft Soil Gas Survey Technical Memorandum Sites 24 and 25 (draft report)*, dated September 5, 1994. The draft report was prepared by Southwest Division, Naval Facilities Engineering Command, in conjunction with Jacobs Engineering Group, Inc. and CH2M Hill.

The purpose of the soil gas survey is to identify vadose zone sources of volatile organic compounds (VOCs) in the southwest quadrant of the Station at Sites 24 and 25 that may be the cause of, or contributing to, groundwater contamination. This soil gas survey was originally designed as a reconnaissance or gross analysis for identification of potential VOCs sources. The data are to be integrated into the Phase II RI/FS workplan to act as a foundation for the second phase of the soil gas survey. This second phase is to better define the extent of contamination, both



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vertically and laterally and also help to identify boring locations. The second phase of the soil gas survey should precede other field activities in areas where soil gas is the primary method used to determine extent of contamination.

As discussed extensively, with the Clean I contractors, GSU would like to inform the Clean II contractors that the second phase of the soil gas survey must incorporate flexibility into the design. Predetermined sampling locations and depths may be subject to on-site field changes.

GSU recommends that DTSC is ensured by the Clean II contractors that the first round of soil gas survey results are used for the intended purposes.

Listed below are general issues directed to MCAS El Toro and the Clean I and Clean II contractors. Before approval of this document, GSU recommends that the following concerns be addressed.

GENERAL ISSUES

1. Executive Summary

If soil data are to be used for future risk assessments and feasibility studies as stated, ensure that the Clean II contractor utilizes the information by integrating it into existing data.

2. Section 2.1.4 - Air Knife Nondestructive Drilling Utility Clearance

Although the QA/QC test results demonstrated that the air knife did not affect the integrity of the soil gas sample, in practice the air knife is not applicable at MCAS El Toro. The shallow soils beneath the Station tend to be fined-grained and often moist, making the air knife less effective than originally anticipated. During each of the three visits GSU staff made to sites where the air knife crew was working, boreholes were being hand augered because the air knife was unable to advance through the soil. At each visit GSU staff was informed by the air knife field crew that many of the utility clearance boreholes were hand augered due to air knife failure.

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3. Section 2.3.4 - Field Audits

Attached are the concentrations for the Performance Evaluation (PE) samples provide by the USEPA. The final report should include a table comparing the PE samples with the field results and an accompanying discussion regarding the discrepancies.

4. Section 2.5.3 - Soil Gas Analytical Method / Section 3.3.2 - Halogenated Hydrocarbons

The draft report should flag Freon 113 soil gas results that were estimated using an average FID response factor.

Provide a discussion comparing the estimated Freon 113 results to quantified Freon 113 results (initial calibration performed).

5. Section 4.2 - Methanol Sample Preservation Comparison Results

The approach to use methanol preservation for VOC soil samples must be re-evaluated. As stated in the draft report, there were an insufficient number of samples collected to draw definitive conclusions on the advantages of a methanol preservation method. It is suggested that the BCT collectively gather data and information that may be available from other facilities regarding methanol preservation. If conclusive studies from other sites cannot be obtained, GSU suggests that either soils be collected and preserved using the standard CLP approach or that an on-site pilot study be conducted.

It is recommended that further technical discussions occur in the near future in regard to the purpose of the soil gas results and the impact to the Phase II RI/FS workplan.

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Thank you for the opportunity to review and comment on this document. If you have any questions, please contact me at extension 5528.

Sherrill Beard

Sherrill Beard
Hazardous Substances
Engineering Geologist
Geological Service Unit

Concur: Karen Thomas Baker, CEG
Unit Chief
Geological Services Unit

18/07/94 08:20 510 412 2304
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EPA REG. 9 LAB →→ REG NINE

CYL 2 "TRUE VALUES"

Calculated Values

Compound	CAS RN	Primary Ion	Conc ppbv	Molecular Weight
Vinyl chloride	75-01-4	62	4000.000	62.5
1,3-Butadiene	106-99-0	50	4000.000	54.09
Methylene chloride	75-09-2	49	4000.000	84.93
1,1-Dichloroethane	75-34-3	61	4000.000	98.96
Chloroform	67-66-3	83	4000.000	119.38
Benzene	71-43-2	78	4000.000	78.12
Trichloroethylene	79-01-6	130	4000.000	131.39
1,1-Dichloropropane	78-27-3	63	4000.000	112.99
Toluene	108-28-3	91	4000.000	92.15
Tetrachloroethylene	127-18-4	164	4000.000	183.83
1,2-Dibromoethane	106-93-4	107	4000.000	187.87
Chlorobenzene	108-90-7	112	4000.000	112.86

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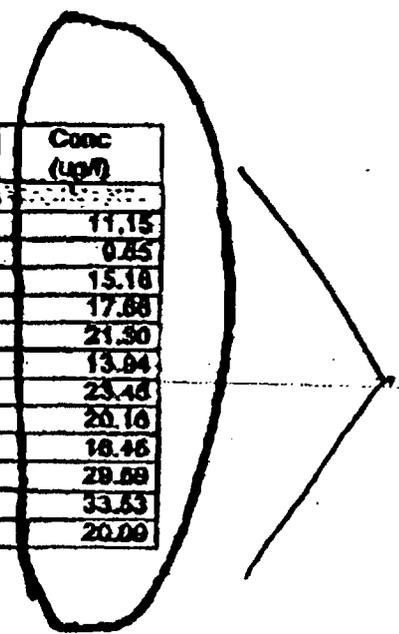
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1st PE "True Values"

Calculated Values

Compound	CAS RN	Primary Ion	Conc ppbv	Molecular Weight	Conc (ug/l)
Vinyl chloride	75-01-4	62	4000.000	62.5	11.15
1,3-Dioxolane	106-99-0	39	4000.000	84.09	0.45
Methylene chloride	75-09-2	49	4000.000	84.93	15.18
1,1-Dichloroethane	75-34-3	61	4000.000	98.96	17.68
Chloroform	67-66-3	83	4000.000	118.98	21.30
Benzene	71-43-2	78	4000.000	78.12	13.84
Trichloroethylene	79-01-6	130	4000.000	131.39	23.48
1,2-Dichloropropane	78-87-5	63	4000.000	112.99	20.16
Toluene	108-88-3	91	4000.000	92.15	16.46
Tetrachloroethylene	127-18-4	164	4000.000	165.83	29.89
1,2-Dibromoethane	106-93-4	107	4000.000	187.87	33.63
Chlorobenzene	108-90-7	112	4000.000	112.56	20.09



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EPA REG. 9 LAB →→ REG NINE

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CYL3: "TRUE" VALUES

Compound	CAS RN	Conc	Molecular Weight	Conc (ug/l)
Propylene	115-07-1	4000.000	42.08	7.50872824
Chloroethane	75-00-3	4000.000	64.52	11.5144377
Trichlorofluoromethane (Halo 11)	75-69-4	4000.000	84.62	11.5144377
n-Pentane	109-66-0	4000.000	72.15	12.8761109
1,1-Dichloroethene	75-35-4	4000.000	96.94	17.3002108
3-Chloro-1-propene	107-05-1	4000.000	78.53	13.6577792
trans-1,2-Dichloroethene	156-60-5	4000.000	96.94	17.3002108
cis-1,2-Dichloroethene	156-59-2	4000.000	96.94	17.3002108
Hexane	110-54-3	4000.000	86.18	16.3799479
Carbon tetrachloride	56-23-5	4000.000	153.82	27.4511903
Heptane	142-82-5	4000.000	100.21	17.8837848
1,1,2-Trichloroethane	79-06-5	4000.000	133.41	23.808759
1,1,2,2-Tetrachloroethane	79-43-5	4000.000	167.85	29.9550273