

**Region IX Laboratory Data Validation Reports-
Water Analyses**

**Volatile Organics
Base Neutral Acids
Total Petroleum Hydrocarbons-Gas and Diesel
Pesticide/PCBs
Total Metals**

160 Spear Street, Suite 1380
San Francisco, California
94105-1535

415/957-0110

| | |
|------------------|---------------------|
| URS TDMT Only | TDCN: 0680 |
| Project #: 62172 | Loc: 09.71 Type: 71 |



ICF TECHNOLOGY INCORPORATED

MEMORANDUM

DATE: May 11, 1992

SUBJECT: Review of Analytical Data

FROM: Carolyn Studeny *CS*
ESAT Senior Organic Data Reviewer
ICF Technology, Inc.

THROUGH: Jacob Silva
Environmental Scientist
Quality Assurance Management Section
Environmental Services Branch, OPM (P-3-2)

TO: Kevin Mayer
Remedial Project Manager
South Coast Groundwater Section (H-6-4)

URS TECHNOLOGY, INC.

MAY 11 1992

RECEIVED

Attached are comments resulting from Region 9 review of the following analytical data:

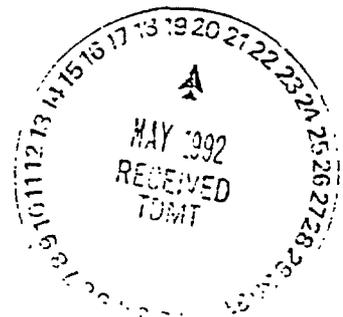
| | |
|-------------------|------------------------------------------|
| SITE: | Newmark |
| EPA SITE ID NO: | J5 |
| CASE/SAS NO.: | LV2S38 Memo #04 |
| SDG NO.: | SY0154 |
| LABORATORY: | Region IX, Las Vegas |
| ANALYSIS: | SAS Volatiles |
| SAMPLE NO.: | SY0153 through SY0172 |
| COLLECTION DATE: | March 10, 11, and 12, 1992 |
| REVIEWER: | Chris Davis ESAT/ICF Technology, Inc. |
| TELEPHONE NUMBER: | (415) 882-3182 |

If there are any questions, please contact the reviewer.

Attachment

TPO: [] For Action [X] FYI

cc: Brenda Bettencourt
Larry Zinky - URS SAC



Data Validation Report

Case No.: LV2S38 Memo #04
Site: Newmark
Laboratory: Region IX, Las Vegas
Reviewer: Chris Davis, ESAT/ICF Technology, Inc.
Date: May 11, 1992

I. Case Summary

SAMPLE INFORMATION:

VOA Sample Numbers: SYO153 through SYO172
Concentration and Matrix: Low Level Water
Analysis: SAS Volatiles
SOW: 3/90 (Revised 7/91)
Collection Date: March 10, 11, and 12, 1992
Sample Receipt Date: March 12 and 13, 1992
Analysis Date: March 18 and 19, 1992

FIELD QC:

Trip Blanks (TB): SYO154
Field Blanks (FB): SYO164, SYO165, and SYO171
Equipment Blanks (EB): None
Background Samples (BG): None
Field Duplicates (D1): SYO161 and SYO162
(D2): SYO166 and SYO167

METHOD BLANKS AND ASSOCIATED SAMPLES:

VBLK1: SYO154 through SYO163, SYO155-MS, and
SYO155-MSD
VBLK2: SYO153 and SYO164 through SYO172

TABLES:

1A: Analytical Results with Qualifications
1B: Data Qualifiers
1C: Tentatively Identified Compounds
2: Sample Quantitation Limits of Target Compound
List (TCL) Analytes

ADDITIONAL COMMENTS:

In order to achieve the low detection limits specified by the SAS request,
a 25 ml purge volume was used.

This report was prepared according to the EPA draft document, "National
Functional Guidelines for Organic Data Review," December, 1990,
6/91 Revision.

MS - Matrix Spike; MSD - Matrix Spike Duplicate

ESATQA9A-6277/CLVS38M4.RPT

II. Validation Summary

| | VOA | | BNA | | PEST | |
|---------------------------|--------------------|-----|--------------------|-----|--------------------|-----|
| | Acceptable/Comment | | Acceptable/Comment | | Acceptable/Comment | |
| HOLDING TIMES | [Y] | [C] | [] | [] | [] | [] |
| GC/MS TUNE/GC PERFORMANCE | [Y] | [] | [] | [] | [] | [] |
| CALIBRATIONS | [N] | [B] | [] | [] | [] | [] |
| FIELD QC | [Y] | [] | [] | [] | [] | [] |
| LABORATORY BLANKS | [Y] | [] | [] | [] | [] | [] |
| SURROGATES | [Y] | [] | [] | [] | [] | [] |
| MATRIX SPIKE/DUPLICATES | [Y] | [] | [] | [] | [] | [] |
| INTERNAL STANDARDS | [Y] | [] | [] | [] | [] | [] |
| COMPOUND IDENTIFICATION | [Y] | [] | [] | [] | [] | [] |
| COMPOUND QUANTITATION | [Y] | [A] | [] | [] | [] | [] |
| SYSTEM PERFORMANCE | [Y] | [D] | [] | [] | [] | [] |

N/A - Not Applicable

III. Validity and Comments

- A. The results reported in Table 1A for the following analytes are considered as estimates (J) and usable for limited purposes only:

- All results below the Contract Required Quantitation Limits (denoted with an "L" qualifier)

Results below the Contract Required Quantitation Limits (CRQL) are considered to be qualitatively acceptable but quantitatively unreliable due to the uncertainty in analytical precision near the limit of detection.

- B. Due to low Relative Response Factors (RRF) in the Initial and Continuing Calibrations, the quantitation limit for the following analyte is considered as an estimate (J) and usable for limited purposes only (see Table 2):

- 2-Hexanone in all samples and all method blanks

Relative Response Factors (RRF) below the 0.050 QC limits were observed for 2-hexanone in the Initial Calibrations performed March 2, 1992, and in the Continuing Calibrations performed March 18 and 19, 1992. These deviations are not expected to affect the quality of the results, except for the analyte listed above.

As the results for 2-hexanone in the sample numbers listed above are non-detected, false negatives may exist.

- C. The 40 CFR 136 technical holding times were not exceeded for any of the samples analyzed.
- D. All other results are considered valid and usable for all purposes. All quality control criteria have been met and are considered acceptable.

ANALYTICAL RESULTS

T. J. LA*

Case No.: LV2S38 Memo #04
 Site: Newmark
 Lab.: Region IX, Las Vegas
 Reviewer: Chris Davis, ESAT/ICF Technology, Inc.
 Date: May 11, 1992

Analysis Type: Low Level Water Samples
 for SAS Volatiles

Concentration in ug/L

| Sample I.D. | SYO153 | | | SYO154 TB | | | SYO155 | | | SYO156 | | | SYO157 | | | SYO158 | | | SYO159 | | | |
|------------------------|--------|-----|-----|-----------|-----|-----|--------|-----|-----|--------|-----|-----|--------|-----|-----|--------|-----|-----|--------|-----|-----|--|
| | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | |
| Methylene Chloride | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 0.2 | L | J A | 2 | U | | 2 | U | | |
| 1,1-Dichloroethane | 2 | U | | 2 | U | | 0.4 | L | J A | 0.6 | L | J A | 0.4 | L | J A | 1 | L | J A | 0.5 | L | J A | |
| cis-1,2-Dichloroethene | 2 | U | | 2 | U | | 0.8 | L | J A | 1 | L | J A | 1 | L | J A | 2 | | | 0.9 | L | J A | |
| Chloroform | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 0.3 | L | J A | 2 | U | | |
| 1,2-Dichloropropane | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 0.2 | L | J A | 2 | U | | |
| Trichloroethene | 2 | U | | 2 | U | | 2 | | | 5 | | | 5 | | | 7 | | | 2 | | | |
| Tetrachloroethene | 2 | U | | 2 | U | | 9 | | | 20 | | | 18 | | | 36 | | | 12 | | | |
| Toluene | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | |
| Ethylbenzene | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | |
| Xylene (total) | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | |

*The other requested analytes were analyzed for, but "Not Detected". The Sample Quantitation Limits are listed in Table 2.

Val-Validity Refer to Data Qualifiers in Table 1B.

Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.

CRQL-Contract Required Quantitation Limits

NA-Not Analyzed

D1, D2, etc.-Field Duplicate Pairs

FB-Field Blank, EB-Equipment Blank, TB-Travel Blank

BG-Background Sample

ANALYTICAL RESULTS

Page 2 of 4

T : 1A*

Case No.: LV2838 Memo #04
 Site: Newmark
 Lab.: Region IX, Las Vegas
 Reviewer: Chris Davis, ESAT/ICF Technology, Inc.
 Date: May 11, 1992

Analysis Type: Low Level Water Samples
 for SAS Volatiles

Concentration in ug/L

| Sample I.D. Compound | SYO160 | | | SYO161 D1 | | | SYO162 D1 | | | SYO163 | | | SYO164 FB | | | SYO165 FB | | | SYO166 D2 | | |
|-------------------------|--------|-----|-----|-----------|-----|-----|-----------|-----|-----|--------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|
| | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com |
| Methylene Chloride | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | |
| 1,1-Dichloroethane | 0.6 | L | J A | 2 | U | | 2 | U | | 0.4 | L | J A | 2 | U | | 2 | U | | 2 | U | |
| cis-1,2-Dichloroethene | 1 | L | J A | 2 | U | | 2 | U | | 1 | L | J A | 2 | U | | 2 | U | | 2 | U | |
| Chloroform | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | |
| 1,2-Dichloropropane | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | |
| Trichloroethene | 4 | | | 2 | U | | 2 | U | | 2 | | | 2 | U | | 2 | U | | 2 | U | |
| Tetrachloroethene | 21 | | | 2 | U | | 2 | U | | 15 | | | 2 | U | | 2 | U | | 2 | U | |
| Toluene | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 14 | | | 12 | | | 2 | U | |
| Ethylbenzene | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | | | 1 | L | J A | 2 | U | |
| Xylene (total) | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 9 | | | 8 | | | 2 | U | |

*The other requested analytes were analyzed for, but "Not Detected". The Sample Quantitation Limits are listed in Table 2.

Val-Validity Refer to Data Qualifiers in Table 1B.

Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.

CRQL-Contract Required Quantitation Limits

NA-Not Analyzed

D1, D2, etc.-Field Duplicate Pairs

FB-Field Blank, EB-Equipment Blank, TB-Travel Blank

BG-Background Sample

ANALYTICAL RESULTS

Page 3 of 4

1 E 1A*

Case No.: LV2838 Memo #04
 Site: Newmark
 Lab.: Region IX, Las Vegas
 Reviewer: Chris Davis, ESAT/ICF Technology, Inc.
 Date: May 11, 1992

Analysis Type: Low Level Water Samples
 for SAS Volatiles

Concentration in ug/L

| Sample I.D. Date Analyzed Compound | SYO167 D2 | | | SYO168 | | | SYO169 | | | SYO170 | | | SYO171 FB | | | SYO172 | | | Method Blank VBLK 1 03/18/92 | | | |
|------------------------------------------|-----------|-----|-----|--------|-----|-----|--------|-----|-----|--------|-----|-----|-----------|-----|-----|--------|-----|-----|------------------------------------|-----|-----|---|
| | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | |
| Methylene Chloride | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 0.2 | L | J | A | 2 | U | | 2 | U | |
| 1,1-Dichloroethane | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | | 0.3 | L | J | A | 2 | U |
| cis-1,2-Dichloroethene | 2 | U | | 0.2 | L | J | A | 2 | U | | 2 | U | | 2 | U | | 0.6 | L | J | A | 2 | U |
| Chloroform | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | | 2 | U | | 2 | U | |
| 1,2-Dichloropropane | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | | 2 | L | J | A | 2 | U |
| Trichloroethene | 2 | U | | 2 | | | 2 | | | 2 | U | | 2 | U | | | 1 | L | J | A | 2 | U |
| Tetrachloroethene | 2 | U | | 3 | | | 3 | | | 2 | U | | 2 | U | | | 10 | | | | 2 | U |
| Toluene | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 12 | | | | 2 | U | | 2 | U | |
| Ethylbenzene | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 1 | L | J | A | 2 | U | | 2 | U | |
| Xylene (total) | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 8 | | | | 2 | U | | 2 | U | |

*The other requested analytes were analyzed for, but "Not Detected". The Sample Quantitation Limits are listed in Table 2.

Val-Validity Refer to Data Qualifiers in Table 1B.

Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.

CRQL-Contract Required Quantitation Limits

NA-Not Analyzed

D1, D2, etc.-Field Duplicate Pairs

FB-Field Blank, EB-Equipment Blank, TB-Travel Blank

BG-Background Sample

ANALYTICAL RESULTS

5 E 1A*

Case No.: LV2S38 Memo #04
 Site: Newmark
 Lab.: Region IX, Las Vegas
 Reviewer: Chris Davis, ESAT/ICF Technology, Inc.
 Date: May 11, 1992

Analysis Type: Low Level Water Samples
 for SAS Volatiles

Concentration in ug/L

| Sample I.D. Date Analyzed Compound | Method Blank VBLK 2 03/19/92 | | | CRQL | | | | | | | | | | | | | | |
|------------------------------------------|------------------------------------|-----|-----|--------|-----|-----|--------|-----|-----|--------|-----|-----|--------|-----|-----|--------|-----|-----|
| | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com |
| Methylene Chloride | 2 | U | | 2 | | | | | | | | | | | | | | |
| 1,1-Dichloroethane | 2 | U | | 2 | | | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | 2 | U | | 2 | | | | | | | | | | | | | | |
| Chloroform | 2 | U | | 2 | | | | | | | | | | | | | | |
| 1,2-Dichloropropane | 2 | U | | 2 | | | | | | | | | | | | | | |
| Trichloroethene | 2 | U | | 2 | | | | | | | | | | | | | | |
| Tetrachloroethene | 2 | U | | 2 | | | | | | | | | | | | | | |
| Toluene | 2 | U | | 2 | | | | | | | | | | | | | | |
| Ethylbenzene | 2 | U | | 2 | | | | | | | | | | | | | | |
| Xylene (total) | 2 | U | | 2 | | | | | | | | | | | | | | |

*The other requested analytes were analyzed for, but "Not Detected". The Sample Quantitation Limits are listed in Table 2.

Val-Validity Refer to Data Qualifiers in Table 1B.

Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.

CRQL-Contract Required Quantitation Limits

NA-Not Analyzed

D1, D2, etc.-Field Duplicate Pairs

FB-Field Blank, EB-Equipment Blank, TB-Travel Blank

BG-Background Sample

TABLE 1B
DATA QUALIFIERS

NO QUALIFIERS indicates that the data are acceptable both qualitatively and quantitatively.

- U Indicates that the compound is not detected above the concentration listed.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are considered estimates and usable for limited purposes.
- J Results are estimated and the data are valid for limited purposes. The results are qualitatively acceptable.
- N Presumptive evidence of the presence of the material. The compound identification is considered to be tentative. The data are usable for limited purposes.
- R Results are rejected and data are invalid for all purposes.

TABLE 1C
Detected Tentatively Identified Compounds (TICs)

Case No.: LV2S38 Memo #04
 Site: Newmark
 Laboratory: Region IX, Las Vegas
 Reviewer: Chris Davis
 ESAT/ICF Technology, Inc.
 Date: May 11, 1992

| <u>Sample Number</u> | <u>Compound</u> | <u>Retention Fraction</u> | <u>Time, min.</u> | <u>Concentration (ug/L)</u> | <u>Rating* (Remarks)</u> |
|----------------------|------------------------|---------------------------|-------------------|-----------------------------|--------------------------|
| SY0153 | None Found | VOA | | | |
| SY0154 | None Found | VOA | | | |
| SY0155 | Dichlorofluoromethane | VOA | 3:18 | 2 J | A |
| | Trichlorofluoromethane | VOA | 3:32 | 3 J | A |
| SY0156 | Dichlorofluoromethane | VOA | 3:19 | 5 J | A |
| | Trichlorofluoromethane | VOA | 3:34 | 15 J | A |
| SY0157 | Dichlorofluoromethane | VOA | 3:19 | 5 J | A |
| | Trichlorofluoromethane | VOA | 3:31 | 13 J | A |
| SY0158 | Dichlorofluoromethane | VOA | 3:18 | 10 J | A |
| | Trichlorofluoromethane | VOA | 3:32 | 30 J | A |
| SY0159 | Dichlorofluoromethane | VOA | 3:18 | 3 J | A |
| | Trichlorofluoromethane | VOA | 3:32 | 5 J | A |
| SY0160 | Dichlorofluoromethane | VOA | 3:20 | 5 J | A |
| | Trichlorofluoromethane | VOA | 3:35 | 12 J | A |
| SY0161 | None Found | VOA | | | |
| SY0162 | None Found | VOA | | | |
| SY0163 | Dichlorofluoromethane | VOA | 3:16 | 3 J | A |
| | Trichlorofluoromethane | VOA | 3:30 | 6 J | A |
| | Substituted Benzene | VOA | 19:10 | 1 J | C |
| | Substituted Benzene | VOA | 19:17 | 1 J | C |
| SY0164 | Substituted Benzene | VOA | 17:37 | 5 J | C |
| | Substituted Benzene | VOA | 17:41 | 2 J | C |
| | Substituted Benzene | VOA | 18:03 | 1 J | C |
| | Substituted Benzene | VOA | 18:17 | 3 J | C |

J (estimated): Value is considered usable for limited purposes.

*Rating codes--probability that identification is correct:

A - High B - Moderate C - Low

TABLE 1C
(continued)

| <u>Sample Number</u> | <u>Compound</u> | <u>Fraction</u> | <u>Retention Time, min.</u> | <u>Concentration (ug/L)</u> | <u>Rating^a (Remarks)</u> |
|----------------------|------------------------|-----------------|-----------------------------|-----------------------------|-------------------------------------|
| SY0165 | Substituted Benzene | VOA | 17:41 | 5 J | C |
| | Substituted Benzene | VOA | 17:44 | 1 J | C |
| | Substituted Benzene | VOA | 18:18 | 2 J | C |
| SY0166 | None Found | VOA | | | |
| SY0167 | None Found | VOA | | | |
| SY0168 | Dichlorofluoromethane | VOA | 3:29 | 2 J | A |
| | Trichlorofluoromethane | VOA | 3:41 | 2 J | A |
| SY0169 | Dichlorofluoromethane | VOA | 3:24 | 1 J | A |
| | Trichlorofluoromethane | VOA | 3:35 | 2 J | A |
| SY0171 | Substituted Benzene | VOA | 17:37 | 5 J | C |
| | Substituted Benzene | VOA | 17:41 | 1 J | C |
| | Substituted Benzene | VOA | 18:03 | 1 J | C |
| | Substituted Benzene | VOA | 18:14 | 3 J | C |
| SY0172 | Dichlorofluoromethane | VOA | 3:25 | 2 J | A |
| | Trichlorofluoromethane | VOA | 3:38 | 5 J | A |

J (estimated): Value is considered usable for limited purposes.

^aRating codes--probability that identification is correct:

A - High B - Moderate C - Low

TABLE 2
Sample Quantitation Limits

Case No.: LV2S38 Memo #04
 Site: Newmark
 Laboratory: Region IX, Las Vegas
 Reviewer: Chris Davis
 ESAT/ICF Technology, Inc.
 Date: May 11, 1992

| <u>Volatile Compounds</u> | <u>Units, ug/L</u> | <u>Q</u> | <u>C</u> |
|----------------------------|--------------------|----------|----------|
| Chloromethane | 2 | | |
| Bromomethane | 2 | | |
| Vinyl chloride | 2 | | |
| Chloroethane | 2 | | |
| Methylene chloride | 2 | | |
| Acetone | 10 | | |
| Carbon disulfide | 2 | | |
| 1,1-Dichloroethene | 2 | | |
| 1,1-Dichloroethane | 2 | | |
| 1,2-Dichloroethene (total) | 2 | | |
| Chloroform | 2 | | |
| 1,2-Dichloroethane | 2 | | |
| 2-Butanone | 10 | | |
| 1,1,1-Trichloroethane | 2 | | |
| Carbon tetrachloride | 2 | | |
| Bromodichloromethane | 2 | | |
| 1,1,2,2-Tetrachloroethane | 2 | | |
| 1,2-Dichloropropane | 2 | | |
| trans-1,3-Dichloropropene | 2 | | |
| Trichloroethene | 2 | | |
| Dibromochloromethane | 2 | | |
| 1,1,2-Trichloroethane | 2 | | |
| Benzene | 2 | | |
| cis-1,3-Dichloropropene | 2 | | |
| Bromoform | 2 | | |
| 2-Hexanone | 10 | J | B |
| 4-Methyl-2-pentanone | 10 | | |
| Tetrachloroethene | 2 | | |
| Toluene | 2 | | |
| Chlorobenzene | 2 | | |
| Ethylbenzene | 2 | | |
| Styrene | 2 | | |
| Total Xylenes | 2 | | |

Q - Qualifier
 C - Comment

TABLE 2
(cont'd)

To calculate the sample quantitation limits, multiply CRQL by the following factors:

| <u>Sample No.</u> | <u>Volatiles</u> |
|-------------------|------------------|
| All Samples | 1 |
| Method Blanks | 1 |

TPO: [] ACTION [X] FYI

Region IX

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. LV2S38 Memo #04 LABORATORY Region IX, Las Vegas

SDG NO. SY0154 DATA USER _____

SOW 3/90 (Rev. 7/91) REVIEW COMPLETION DATE May 11, 1992

NO. OF SAMPLES 20 WATER _____ SOIL _____ OTHER _____

REVIEWER [] ESD [X] ESAT [] OTHER, CONTRACT/CONTRACTOR _____

| | VOA | BNA | PEST | OTHER |
|------------------------------|------------|-------|-------|-------|
| 1. HOLDING TIMES | <u>0</u> | _____ | _____ | _____ |
| 2. GC-MS TUNE/GC PERFORMANCE | <u>0</u> | _____ | _____ | _____ |
| 3. INITIAL CALIBRATIONS | <u>0/X</u> | _____ | _____ | _____ |
| 4. CONTINUING CALIBRATIONS | <u>0/X</u> | _____ | _____ | _____ |
| 5. FIELD QC | <u>0</u> | _____ | _____ | _____ |
| 6. LABORATORY BLANKS | <u>0</u> | _____ | _____ | _____ |
| 7. SURROGATES | <u>0</u> | _____ | _____ | _____ |
| 8. MATRIX SPIKE/DUPLICATES | <u>0</u> | _____ | _____ | _____ |
| 9. REGIONAL QC | <u>F</u> | _____ | _____ | _____ |
| 10. INTERNAL STANDARDS | <u>0</u> | _____ | _____ | _____ |
| 11. COMPOUND IDENTIFICATION | <u>0</u> | _____ | _____ | _____ |
| 12. COMPOUND QUANTITATION | <u>0</u> | _____ | _____ | _____ |
| 13. SYSTEM PERFORMANCE | <u>0</u> | _____ | _____ | _____ |
| 14. OVERALL ASSESSMENT | <u>0/X</u> | _____ | _____ | _____ |

- 0 - No problems or minor problems that do not affect data usability.
- X - No more than about 5% of the data points are qualified as either estimated or unusable.
- M - More than about 5% of the data points are qualified as estimated.
- Z - More than about 5% of the data points are qualified as unusable.
- F - Not applicable

TPO ACTION ITEMS: _____
AREAS OF CONCERN: All three field blanks were contaminated with ethylbenzene, toluene, xylene, and various substituted benzenes.

160 Spear Street, Suite 1380
San Francisco, California
94105-1535

415/957-0110

URS TDMT Only TDCN: C 689
Project #: 62172 Loc: 09.71 Type: 71



ICF TECHNOLOGY INCORPORATED

MEMORANDUM

DATE: May 20, 1992

SUBJECT: Review of Analytical Data

FROM: Carolyn Studeny
ESAT Senior Organic Data Reviewer
ICF Technology, Inc.

THROUGH: Jacob Silva
Environmental Scientist
Quality Assurance Management Section
Environmental Services Branch, OPM (P-3-2)

TO: Kevin Mayer
Remedial Project Manager
South Coast Groundwater Section (H-6-4)



Attached are comments resulting from Region 9 review of the following analytical data:

| | |
|-------------------|---------------------------------------------|
| SITE: | Newmark |
| EPA SITE ID NO: | J5 |
| CASE/SAS NO.: | LV2S38 Memo #11 |
| SDG NO.: | SY0193 |
| LABORATORY: | Region IX, Las Vegas |
| ANALYSIS: | SAS Volatiles |
| SAMPLE NO.: | SY0193 through SY0202 and YK606 |
| COLLECTION DATE: | March 23, 25, 26, April 6 and 7, 1992 |
| REVIEWER: | Barbara Gordon ESAT/ICF Technology, Inc. |
| TELEPHONE NUMBER: | (415) 882-3051 |

If there are any questions, please contact the reviewer.

Attachment

TPO: [] For Action [X] FYI

cc: Brenda Bettencourt
Larry Zinky - URS SAC

Data Validation Report

Case No.: LV2S38 Memo #11
Site: Newmark
Laboratory: Region IX, Las Vegas
Reviewer: Barbara Gordon, ESAT/ICF Technology, Inc.
Date: May 18, 1992

I. Case Summary

SAMPLE INFORMATION:

VOA Sample Numbers: SY0193 through SY0202 and YK606
Concentration and Matrix: Low Level Waters
Analysis: SAS Volatiles
SOW: 3/90 (Revision 7/91)
Collection Date: March 23, 25, 26, April 6 and 7, 1992
Sample Receipt Date: March 26, 27 and April 8, 1992
Analysis Date: March 31 and April 10, 1992

FIELD QC:

Trip Blanks (TB): SY0193, SY0197 and SY0200
Field Blanks (FB): None
Equipment Blanks (EB): SY0194, SY0199 and YK606
Background Samples (BG): None
Field Duplicates (D1): SY0195 and SY0196
(D2): SY0201 and SY0202

METHOD BLANKS AND ASSOCIATED SAMPLES:

VBLK1: SY0193 through SY0197 and YK606
VBLK2: SY0198 through SY0202, SY0201MS and SY0201DS

TABLES:

1A: Analytical Results with Qualifications
1B: Data Qualifiers
1C: Tentatively Identified Compounds
2: Sample Quantitation Limits of Target Compound List (TCL) Analytes

ADDITIONAL COMMENTS:

The SAS request specified for the use of a 25 ml purge volume to achieve low detection limits.

This report was prepared according to the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

MS - Matrix Spike; DS - Duplicate Spike

ESATQA9A-6336/BLVS3811.RPT

II. Validation Summary

| | VOA | | BNA | | PEST | |
|---------------------------|--------------------|-----|--------------------|-----|--------------------|-----|
| | Acceptable/Comment | | Acceptable/Comment | | Acceptable/Comment | |
| HOLDING TIMES | [Y] | [D] | [] | [] | [] | [] |
| GC/MS TUNE/GC PERFORMANCE | [Y] | [] | [] | [] | [] | [] |
| CALIBRATIONS | [N] | [C] | [] | [] | [] | [] |
| FIELD QC | [Y] | [B] | [] | [] | [] | [] |
| LABORATORY BLANKS | [Y] | [] | [] | [] | [] | [] |
| SURROGATES | [Y] | [] | [] | [] | [] | [] |
| MATRIX SPIKE/DUPLICATES | [Y] | [] | [] | [] | [] | [] |
| INTERNAL STANDARDS | [Y] | [] | [] | [] | [] | [] |
| COMPOUND IDENTIFICATION | [Y] | [] | [] | [] | [] | [] |
| COMPOUND QUANTITATION | [Y] | [A] | [] | [] | [] | [] |
| SYSTEM PERFORMANCE | [Y] | [E] | [] | [] | [] | [] |

N/A - Not Applicable

III. Validity and Comments

A. The results reported in Table 1A for the following analytes are considered as estimates (J) and usable for limited purposes only:

- All results below the Contract Required Quantitation Limits (denoted with an "L" qualifier)

Results below the Contract Required Quantitation Limits (CRQL) are considered to be qualitatively acceptable but quantitatively unreliable due to the uncertainty in analytical precision near the limit of detection.

B. Due to equipment and travel blank contamination problems, the results reported in Table 1A for the following analytes are considered as estimates (J) and usable for limited purposes only:

- Toluene in sample numbers SY0195 and SY0196

Toluene was found in equipment blanks SY0194, SY0199 and travel blank SY0200 at concentrations of 0.8, 1.0 and 0.3 ug/L, respectively. The results for the samples listed above are considered as non-detected and estimated (U,J) and the quantitation limits have been increased where appropriate, according to the blank qualification rules.

C. Due to a low Relative Response Factor (RRF) in the Initial and Continuing Calibrations, the quantitation limit for the following analyte is considered as an estimate (J) and usable for limited purposes only (see Table 2):

- 2-Hexanone in all samples and method blanks

Average Relative Response Factors (RRF) of 0.043 and 0.041, respectively, were observed for 2-hexanone in the Initial Calibrations performed March 2 and April 10, 1992. Relative

Response Factors of 0.046 and 0.042, respectively, were observed in the Continuing Calibrations performed March 31 and April 9, 1992. These values were below the 0.05 advisory QC limit.

Since the results for this analyte are non-detected, false negatives may exist.

- D. The 40 CFR 136 technical holding times were not exceeded for any of the samples analyzed.
- E. All other results are considered valid and usable for all purposes. All quality control criteria have been met and are considered acceptable.

ANALYTICAL RESULTS
TABLE 1A*

Case No.: LV2838 Memo #11
Site: Newmark
Lab.: Region IX, Las Vegas
Reviewer: Barbara Gordon, ESAT/ICF Technology, Inc.
Date: May 18, 1992

Analysis Type: Low Level Water Samples
for SAS Volatiles

Concentration in ug/L

| Sample Location Sample I.D. | SY0193 TB | | | SY0194 EB | | | SY0195 D1 | | | SY0196 D1 | | | SY0197 TB | | | SY0198 | | | SY0199 EB | | |
|--------------------------------|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------------------|-----|-----|-----------------------|-----|-----|-----------|-----|-----|
| Compound | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com |
| Methylene Chloride | 2 U | | | 2 U | | | 0.2 L J A | | | 0.2 L J A | | | 2 U | | | 2 U | | | 2 U | | |
| 1,1-Dichloroethane | 2 U | | | 2 U | | | 0.9 L J A | | | 0.9 L J A | | | 2 U | | | 2 U | | | 2 U | | |
| cis-1,2-Dichloroethane | 2 U | | | 2 U | | | 2 | | | 2 | | | 2 U | | | 2 U | | | 2 U | | |
| Chloroform | 2 U | | | 2 U | | | 0.2 L J A | | | 0.2 L J A | | | 2 U | | | 2 U | | | 2 U | | |
| 1,1,1-Trichloroethane | 2 U | | | 0.3 L J A | | | 2 U | | | 2 U | | | 2 U | | | 2 U | | | 2 U | | |
| Trichloroethane | 2 U | | | 2 U | | | 4 | | | 4 | | | 2 U | | | 2 U | | | 2 U | | |
| Tetrachloroethane | 2 U | | | 0.2 L J A | | | 19 | | | 19 | | | 2 U | | | 0.2 L J A | | | 2 U | | |
| Toluene | 2 U | | | 0.8 L J A | | | 2 U J B | | | 2 U J B | | | 2 U | | | 2 U | | | 2 U | | |
| Sample Location Sample I.D. | SY0200 TB | | | SY0201 D2 | | | SY0202 D2 | | | YK606 EB | | | Method Blank VBLK1 | | | Method Blank VBLK2 | | | CRQL | | |
| Compound | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com |
| Methylene Chloride | 2 U | | | 2 U | | | 2 U | | | 2 U | | | 2 U | | | 2 U | | | 2 U | | |
| 1,1-Dichloroethane | 2 U | | | 0.6 L J A | | | 0.6 L J A | | | 2 U | | | 2 U | | | 2 U | | | 2 | | |
| cis-1,2-Dichloroethane | 2 U | | | 2 | | | 2 | | | 2 U | | | 2 U | | | 2 U | | | 2 | | |
| Chloroform | 2 U | | | 2 U | | | 2 U | | | 2 U | | | 2 U | | | 2 U | | | 2 | | |
| 1,1,1-Trichloroethane | 2 U | | | 2 U | | | 2 U | | | 2 U | | | 2 U | | | 2 U | | | 2 | | |
| Trichloroethane | 2 U | | | 3 | | | 3 | | | 2 U | | | 2 U | | | 2 U | | | 2 | | |
| Tetrachloroethane | 2 U | | | 16 | | | 16 | | | 2 U | | | 2 U | | | 2 U | | | 2 | | |
| Toluene | 0.3 L J A | | | 2 U | | | 2 U | | | 2 U | | | 2 U | | | 2 U | | | 2 | | |

*The other requested analytes were analyzed for, but "Not Detected". The Sample Quantitation Limits are listed in Table 2.

Val-Validity Refer to Data Qualifiers in Table 1B.

Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.

CRQL-Contract Required Quantitation Limits

NA-Not Analyzed

D1, D2, etc.-Field Duplicate Pairs

FB-Field Blank, EB-Equipment Blank, TB-Travel Blank

BG-Background Sample

TABLE 1B
DATA QUALIFIERS

NO QUALIFIERS indicates that the data are acceptable both qualitatively and quantitatively.

U Indicates that the compound is not detected above the concentration listed.

L Indicates results which fall below the Contract Required Quantitation Limit. Results are considered estimates and usable for limited purposes.

J Results are estimated and the data are valid for limited purposes. The results are qualitatively acceptable.

N Presumptive evidence of the presence of the material. The compound identification is considered to be tentative. The data are usable for limited purposes.

R Results are rejected and data are invalid for all purposes.

TABLE 1C
Detected Tentatively Identified Compounds (TICs)

Case No.: LV2S38 Memo #11
 Site: Newmark
 Laboratory: Region IX, Las Vegas
 Reviewer: Barbara Gordon
 ESAT/ICF Technology, Inc.
 Date: May 18, 1992

| Sample Number | Compound | Fraction | Retention Time, min. | Concentration (ug/L) | Rating* (Remarks) |
|---------------|------------------------|----------|----------------------|----------------------|-------------------|
| SY0193 | None found | VOA | | | |
| SY0194 | Ethylhexenal | VOA | 18:23 | 3 J | B |
| | Unknown | VOA | 18:37 | 11 | |
| SY0195 | Dichlorofluoromethane | VOA | 3:08 | 5 J | A |
| | Trichlorofluoromethane | VOA | 3:22 | 11 J | |
| SY0196 | Dichlorofluoromethane | VOA | 3:06 | 4 J | A |
| | Trichlorofluoromethane | VOA | 3:22 | 11 J | |
| SY0197 | None found | VOA | | | |
| SY0198 | None found | VOA | | | |
| SY0199 | Ethylhexenal | VOA | 18:24 | 2 J | B |
| | Unknown | VOA | 18:37 | 8 | |
| SY0200 | None found | VOA | | | |
| SY0201 | Dichlorofluoromethane | VOA | 3:26 | 5 J | A |
| | Trichlorofluoromethane | VOA | 3:40 | 8 J | |
| SY0202 | Dichlorofluoromethane | VOA | 3:27 | 5 J | A |
| | Trichlorofluoromethane | VOA | 3:41 | 9 J | |
| YK606 | None found | VOA | | | |

J (estimated): Value is considered usable for limited purposes.

*Rating codes--probability that identification is correct:

A - High B - Moderate C - Low

TABLE 2
Sample Quantitation Limits

Case No.: LV2S38 Memo #11
 Site: Newmark
 Laboratory: Region IX, Las Vegas
 Reviewer: Barbara Gordon
 ESAT/ICF Technology, Inc.
 Date: May 18, 1992

| <u>Volatile Compounds</u> | <u>Units, ug/L</u> | <u>Q</u> | <u>C</u> |
|----------------------------|--------------------|----------|----------|
| Chloromethane | 2 | | |
| Bromomethane | 2 | | |
| Vinyl chloride | 2 | | |
| Chloroethane | 2 | | |
| Methylene chloride | 2 | | |
| Acetone | 10 | | |
| Carbon disulfide | 2 | | |
| 1,1-Dichloroethene | 2 | | |
| 1,1-Dichloroethane | 2 | | |
| 1,2-Dichloroethene (total) | 2 | | |
| Chloroform | 2 | | |
| 1,2-Dichloroethane | 2 | | |
| 2-Butanone | 10 | | |
| 1,1,1-Trichloroethane | 2 | | |
| Carbon tetrachloride | 2 | | |
| Bromodichloromethane | 2 | | |
| 1,2-Dichloropropane | 2 | | |
| 1,1,2,2-Tetrachloroethane | 2 | | |
| trans-1,3-Dichloropropene | 2 | | |
| Trichloroethene | 2 | | |
| Dibromochloromethane | 2 | | |
| 1,1,2-Trichloroethane | 2 | | |
| Benzene | 2 | | |
| cis-1,3-Dichloropropene | 2 | | |
| Bromoform | 2 | | |
| 2-Hexanone | 10 | J | C |
| 4-Methyl-2-pentanone | 10 | | |
| Tetrachloroethene | 2 | | |
| Toluene | 2 | | |
| Chlorobenzene | 2 | | |
| Ethylbenzene | 2 | | |
| Styrene | 2 | | |
| Total Xylenes | 2 | | |

Q - Qualifier
 C - Comment

TABLE 2
(cont'd)

To calculate the sample quantitation limits, multiply CRQL by the following factors:

| <u>Sample No.</u> | <u>Volatiles</u> |
|-------------------|------------------|
| SY0193 | 1.00 |
| SY0194 | 1.00 |
| SY0195 | 1.00 |
| SY0196 | 1.00 |
| SY0197 | 1.00 |
| SY0198 | 1.00 |
| SY0199 | 1.00 |
| SY0200 | 1.00 |
| SY0201 | 1.00 |
| SY0202 | 1.00 |
| YK606 | 1.00 |
| VBLK1 | 1.00 |
| VBLK2 | 1.00 |

TPO: [] ACTION [X] FYI

Region IX

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. LV2S38 Memo #11 LABORATORY Region IX, Las Vegas

SDG NO. SY0193 DATA USER _____

SOW 3/90 REVIEW COMPLETION DATE May 18, 1992

NO. OF SAMPLES 11 WATER _____ SOIL _____ OTHER _____

REVIEWER [] ESD [X] ESAT [] OTHER, CONTRACT/CONTRACTOR _____

| | VOA | BNA | PEST | OTHER |
|------------------------------|------------|-------|-------|-------|
| 1. HOLDING TIMES | <u>0</u> | _____ | _____ | _____ |
| 2. GC-MS TUNE/GC PERFORMANCE | <u>0</u> | _____ | _____ | _____ |
| 3. INITIAL CALIBRATIONS | <u>0/X</u> | _____ | _____ | _____ |
| 4. CONTINUING CALIBRATIONS | <u>0/X</u> | _____ | _____ | _____ |
| 5. FIELD QC | <u>0</u> | _____ | _____ | _____ |
| 6. LABORATORY BLANKS | <u>0/X</u> | _____ | _____ | _____ |
| 7. SURROGATES | <u>0</u> | _____ | _____ | _____ |
| 8. MATRIX SPIKE/DUPLICATES | <u>0</u> | _____ | _____ | _____ |
| 9. REGIONAL QC | <u>F</u> | _____ | _____ | _____ |
| 10. INTERNAL STANDARDS | <u>0</u> | _____ | _____ | _____ |
| 11. COMPOUND IDENTIFICATION | <u>0</u> | _____ | _____ | _____ |
| 12. COMPOUND QUANTITATION | <u>0</u> | _____ | _____ | _____ |
| 13. SYSTEM PERFORMANCE | <u>0</u> | _____ | _____ | _____ |
| 14. OVERALL ASSESSMENT | <u>0/X</u> | _____ | _____ | _____ |

0 - No problems or minor problems that do not affect data usability.
X - No more than about 5% of the data points are qualified as either estimated or unusable.
M - More than about 5% of the data points are qualified as estimated.
Z - More than about 5% of the data points are qualified as unusable.
F - Not applicable.

TPO ACTION ITEMS: _____

AREAS OF CONCERN: _____

TO: Jerry Vail, ESAT Team Manager
FROM: Terry Stumph, ESAT Regional Project Officer

Terry Stumph

9/28/92

For Completion by EPA

- Request for Unvalidated Data Summary Report (Table 1A)
- Request for Data Validation

Program: \$F 110-034 Non-\$F 110-035
 Lab Reg. 9 Case # _____ SAS # LV2538 SDG # 540193

Tracking Dates

Data Package Received at Region 9: 04/28/92
 Table 1A/Validation Requested: _____
 Date Due: 04/22/92
 Table 1A/Data Validation Report Received: _____
 Days Late: _____
 Completed and Sent to RPM/PM: _____

EPA Work-Unit Requestor: JACOB SILVA

For Completion by ESAT

(Please complete and return this form with the completed task.)

Site Newmark Project \$F
 Site ID # _____ Memo # 11
 Analyses SAS-OR Matrix W Number 11

List the Sample Numbers:
SY0193 → SY0202, YK606

Describe the Analyses:
Low level for SAS Volatile

Blanks: YK606(EB), SY0193(TB), SY0194(EB), SY0197(TB), SY0199(EB), SY0200(TI)
 Background: None

Date(s) Sampled:
03/23, 25, 26 & 04/6, 7/92

Duplicates: SY0196 & SY0195, SY0202 & SY0200

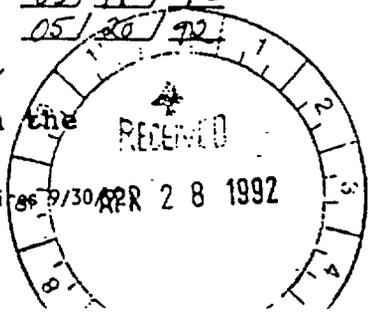
EPA Project Officer/Mail Code: Kern Mayer / 14-6-4
 Sampler/Agency: Larry Zinky / URS

Date Table 1A/Validation Assigned: 04/28/92 04/28/92
 Date Table 1A/Validation Completed: 05/01/92 05/15/92
 Date Table 1A/Validation Sent to EPA: _____ 05/20/92
 Reviewer/Staff: Subera Jindal Due: 05/22/92

Please indicate if the laboratory did not comply with the contract, and/or if the SAS request was not adequate.

Table 1A's to sampler

Version B (expired 9/30/92) APR 28 1992



160 Spear Street, Suite 1380
San Francisco, California
94105-1535

415/957-0110

URS TDMT Only TDCN: 0684
Project #: 62172 Loc: 09.71 Type: 71



ICF TECHNOLOGY INCORPORATED

MAY 22 1992

MEMORANDUM

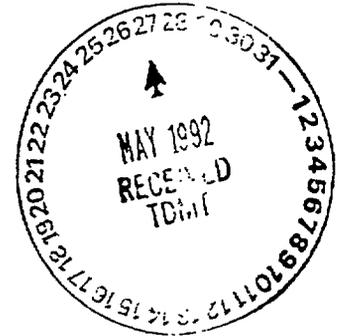
DATE: May 20, 1992

SUBJECT: Review of Analytical Data

FROM: Carolyn Studeny
ESAT Senior Organic Data Reviewer
ICF Technology, Inc.

THROUGH: Jacob Silva
Environmental Scientist
Quality Assurance Management Section
Environmental Services Branch, OPM (P-3-2)

TO: Kevin Mayer
Remedial Project Manager
South Coast Groundwater Section (H-6-4)



Attached are comments resulting from Region 9 review of the following analytical data:

SITE: Newmark
EPA SITE ID NO: J5
CASE/SAS NO.: LV2S38 Memo #16
SDG NO.: SY0203

LABORATORY: Region IX, Las Vegas
ANALYSIS: SAS Volatiles

SAMPLE NO.: SY0203 through SY0208

COLLECTION DATE: April 9, 20 and 21, 1992

REVIEWER: Barbara Gordon
ESAT/ICF Technology, Inc.

TELEPHONE NUMBER: (415) 882-3051

If there are any questions, please contact the reviewer.

Attachment

TPO: [] For Action [X] FYI

cc: Brenda Bettencourt
Larry Zinky - URS SAC

Data Validation Report

Case No.: LV2S38 Memo #16
Site: Newmark
Laboratory: Region IX, Las Vegas
Reviewer: Barbara Gordon, ESAT/ICF Technology, Inc.
Date: May 20, 1992

I. Case Summary

SAMPLE INFORMATION:

VOA Sample Numbers: SY0203 through SY0208
Concentration and Matrix: Low Level Water
Analysis: SAS Volatiles
SOW: 3/90 (Revision 7/91)
Collection Date: April 9, 20 and 21, 1992
Sample Receipt Date: April 10 and 22, 1992
Analysis Date: April 13 and 22, 1992

FIELD QC:

Trip Blanks (TB): SY0205 and SY0206
Field Blanks (FB): SY0204
Equipment Blanks (EB): None
Background Samples (BG): None
Field Duplicates (DL): None

METHOD BLANKS AND ASSOCIATED SAMPLES:

VBLK1: SY0203, SY0204 and SY0205
VBLK2: SY0206, SY0207, SY0208, SY0208MS and SY0208DS

TABLES:

1A: Analytical Results with Qualifications
1B: Data Qualifiers
2: Sample Quantitation Limits of Target Compound List (TCL) Analytes

ADDITIONAL COMMENTS:

In order to achieve the low detection limits requested, a 25 ml purge volume was used.

No Tentatively Identified Compounds were detected in any of the samples analyzed.

This report was prepared according to the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

- 1 Quantitation limits for 2-hexanone in the samples listed above
2 questionable and false negatives may exist.

- 3 CFR 136 technical holding time was not exceeded for any of
4 samples analyzed.

- 5 All other results are considered valid and usable for all purposes.
6 Quality control criteria, other than those discussed above, have
7 been met and are considered acceptable.

II. Validation Summary

| | VOA | | BNA | | PEST | |
|---------------------------|--------------------|-----|--------------------|-----|--------------------|-----|
| | Acceptable/Comment | | Acceptable/Comment | | Acceptable/Comment | |
| HOLDING TIMES | [Y] | [D] | [] | [] | [] | [] |
| GC/MS TUNE/GC PERFORMANCE | [Y] | [] | [] | [] | [] | [] |
| CALIBRATIONS | [N] | [C] | [] | [] | [] | [] |
| FIELD QC | [N] | [B] | [] | [] | [] | [] |
| LABORATORY BLANKS | [Y] | [] | [] | [] | [] | [] |
| SURROGATES | [Y] | [] | [] | [] | [] | [] |
| MATRIX SPIKE/DUPLICATES | [Y] | [] | [] | [] | [] | [] |
| INTERNAL STANDARDS | [Y] | [] | [] | [] | [] | [] |
| COMPOUND IDENTIFICATION | [Y] | [] | [] | [] | [] | [] |
| COMPOUND QUANTITATION | [Y] | [A] | [] | [] | [] | [] |
| SYSTEM PERFORMANCE | [Y] | [E] | [] | [] | [] | [] |

N/A - Not Applicable

III. Validity and Comments

- A. The results reported in Table 1A for the following analytes are considered as estimates (J) and usable for limited purposes only:

- All results below the Contract Required Quantitation Limits (denoted with an "L" qualifier)

Results below the Contract Required Quantitation Limits (CRQL) are considered to be qualitatively acceptable but quantitatively unreliable due to the uncertainty in analytical precision near the limit of detection.

- B. Due to field blank and travel blank contamination problems, the result reported in Table 1A for the following analyte is considered as an estimate (J) and usable for limited purposes only:

- Toluene in sample number SY0203

Toluene was found in field blank sample number SY0204 and travel blank sample number SY0205 at concentrations of 0.3 ug/L. The result for the sample listed above is considered as nondetected and estimated (U,J) according to the blank qualification rules.

- C. Due to low Relative Response Factors (RRF) in the Initial and Continuing Calibrations, the quantitation limits for the following analyte are considered as estimates (J) and usable for limited purposes only (see Table 2):

- 2-Hexanone in all samples and method blanks

Average Relative Response Factors (RRF) of 0.041 and 0.044 were observed for 2-hexanone in the Initial Calibrations performed April 9 and 10, 1992,³ respectively. RRFs of 0.039 and 0.047 were observed for 2-hexanone in the Continuing Calibrations performed April 13 and 22, 1992, respectively. These RRFs fall below the 0.050 QC limit.

ANALYTICAL RESULTS

Page 1 of 1

TAI 1A*

Case No.: LV2S38 Memo #16
 Site: Newmark
 Lab.: Region IX, Las Vegas
 Reviewer: Barbara Gordon, ESAT/ICF Technology, Inc.
 Date: May 20, 1992

Analysis Type: Low Level Water Samples
 for SAS Volatiles (LDL)

Concentration in ug/L

| Sample Location Sample I.D. | SY0203 | | | SY0204 FB | | | SY0205 TB | | | SY0206 TB | | | SY0207 | | | SY0208 | | | Method Blank VBLK1 | | |
|--------------------------------|-----------------------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|--------|-----|-----|--------|-----|-----|-----------------------|-----|-----|
| Compound | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com |
| Tetrachloroethene | 0.3 | L | J A | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | |
| Toluene | 2 | U | J B | 0.3 | L | J A | 0.3 | L | J A | 2 | U | | 2 | U | | 2 | U | | 2 | U | |
| Sample Location Sample I.D. | Method Blank VBLK2 | | | CRQL | | | | | | | | | | | | | | | | | |
| Compound | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com |
| Tetrachloroethene | 2 | U | | 2 | | | | | | | | | | | | | | | | | |
| Toluene | 2 | U | | 2 | | | | | | | | | | | | | | | | | |

*The other requested analytes were analyzed for, but "Not Detected". The Sample Quantitation Limits are listed in Table 2.

Val-Validity Refer to Data Qualifiers in Table 1B.

Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.

CRQL-Contract Required Quantitation Limits

NA-Not Analyzed

D1, D2, etc.-Field Duplicate Pairs

FB-Field Blank, EB-Equipment Blank, TB-Travel Blank

BG-Background Sample

TABLE 1B
DATA QUALIFIERS

NO QUALIFIERS indicates that the data are acceptable both qualitatively and quantitatively.

U Indicates that the compound is not detected above the concentration listed.

L Indicates results which fall below the Contract Required Quantitation Limit. Results are considered estimates and usable for limited purposes.

J Results are estimated and the data are valid for limited purposes. The results are qualitatively acceptable.

N Presumptive evidence of the presence of the material. The compound identification is considered to be tentative. The data are usable for limited purposes.

R Results are rejected and data are invalid for all purposes.

TABLE 2
Sample Quantitation Limits

Case No.: LV2S38 Memo #16
 Site: Newmark
 Laboratory: Region IX, Las Vegas
 Reviewer: Barbara Gordon
 ESAT/ICF Technology, Inc.
 Date: May 20, 1992

| <u>Volatile Compounds</u> | <u>Units. ug/L</u> | <u>Q</u> | <u>C</u> |
|----------------------------|--------------------|----------|----------|
| Chloromethane | 2 | | |
| Bromomethane | 2 | | |
| Vinyl chloride | 2 | | |
| Chloroethane | 2 | | |
| Methylene chloride | 2 | | |
| Acetone | 10 | | |
| Carbon disulfide | 2 | | |
| 1,1-Dichloroethene | 2 | | |
| 1,1-Dichloroethane | 2 | | |
| 1,2-Dichloroethene (total) | 2 | | |
| Chloroform | 2 | | |
| 1,2-Dichloroethane | 2 | | |
| 2-Butanone | 10 | | |
| 1,1,1-Trichloroethane | 2 | | |
| Carbon tetrachloride | 2 | | |
| Bromodichloromethane | 2 | | |
| 1,1,2,2-Tetrachloroethane | 2 | | |
| 1,2-Dichloropropane | 2 | | |
| trans-1,3-Dichloropropene | 2 | | |
| Trichloroethene | 2 | | |
| Dibromochloromethane | 2 | | |
| 1,1,2-Trichloroethane | 2 | | |
| Benzene | 2 | | |
| cis-1,3-Dichloropropene | 2 | | |
| Bromoform | 2 | | |
| 2-Hexanone | 10 | J | C |
| 4-Methyl-2-pentanone | 10 | | |
| Tetrachloroethene | 2 | | |
| Toluene | 2 | | |
| Chlorobenzene | 2 | | |
| Ethylbenzene | 2 | | |
| Styrene | 2 | | |
| Total Xylenes | 2 | | |

Q - Qualifier
 C - Comment

TABLE 2
(cont'd)

To calculate the sample quantitation limits, multiply CRQL by the following factors:

| <u>Sample No.</u> | <u>Volatiles</u> |
|-------------------|------------------|
| SY0203 | 1.00 |
| SY0204 | 1.00 |
| SY0205 | 1.00 |
| SY0206 | 1.00 |
| SY0207 | 1.00 |
| SY0208 | 1.00 |
| VBLK1 | 1.00 |
| VBLK2 | 1.00 |

TPO: [] ACTION [X] FYI

Region IX

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. LV2S38 Memo #16 LABORATORY Region IX, Las Vegas

SDG NO. SY0203 DATA USER _____

SOW 3/90 (Revision 7/91) REVIEW COMPLETION DATE May 20, 1992

NO. OF SAMPLES 6 WATER _____ SOIL _____ OTHER _____

REVIEWER [] ESD [X] ESAT [] OTHER, CONTRACT/CONTRACTOR _____

| | VOA | BNA | PEST | OTHER |
|------------------------------|----------|-------|-------|-------|
| 1. HOLDING TIMES | <u>0</u> | _____ | _____ | _____ |
| 2. GC-MS TUNE/GC PERFORMANCE | <u>0</u> | _____ | _____ | _____ |
| 3. INITIAL CALIBRATIONS | <u>X</u> | _____ | _____ | _____ |
| 4. CONTINUING CALIBRATIONS | <u>X</u> | _____ | _____ | _____ |
| 5. FIELD QC | <u>X</u> | _____ | _____ | _____ |
| 6. LABORATORY BLANKS | <u>0</u> | _____ | _____ | _____ |
| 7. SURROGATES | <u>0</u> | _____ | _____ | _____ |
| 8. MATRIX SPIKE/DUPLICATES | <u>0</u> | _____ | _____ | _____ |
| 9. REGIONAL QC | <u>F</u> | _____ | _____ | _____ |
| 10. INTERNAL STANDARDS | <u>0</u> | _____ | _____ | _____ |
| 11. COMPOUND IDENTIFICATION | <u>0</u> | _____ | _____ | _____ |
| 12. COMPOUND QUANTITATION | <u>0</u> | _____ | _____ | _____ |
| 13. SYSTEM PERFORMANCE | <u>0</u> | _____ | _____ | _____ |
| 14. OVERALL ASSESSMENT | <u>X</u> | _____ | _____ | _____ |

0 - No problems or minor problems that do not affect data usability.
X - No more than about 5% of the data points are qualified as either estimated or unusable.
M - More than about 5% of the data points are qualified as estimated.
Z - More than about 5% of the data points are qualified as unusable.
F - Not applicable.

TPO ACTION ITEMS: _____

AREAS OF CONCERN: _____

160 Spear Street, Suite 1380
San Francisco, California
94105-1535

415/957-0110

| | |
|------------------|---------------------|
| URS TDMT Only | TDCN: 0853 |
| Project #: 62172 | Loc: 09.71 Type: 71 |



ICF TECHNOLOGY INCORPORATED

MEMORANDUM

DATE: July 30, 1992

SUBJECT: Review of Analytical Data

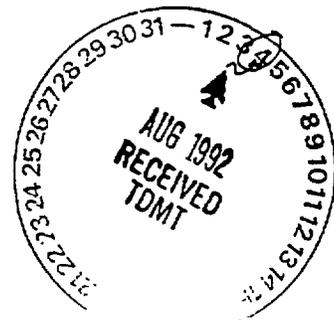
FROM: Carolyn Studeny
ESAT Senior Organic Data Reviewer
ICF Technology, Inc.

THROUGH: Roseanne Sakamoto
Environmental Protection Specialist
Quality Assurance Management Section
Environmental Services Branch, OPM (P-3-2)

TO: Kevin Mayer
Remedial Project Manager
South Coast Ground Water Section (H-6-4)

Attached are comments resulting from Region 9 review of the following analytical data:

| | |
|-------------------|-----------------------------------------|
| SITE: | Newmark |
| EPA SITE ID NO: | J5 |
| CASE/SAS NO.: | LV2S38 Memo #26 |
| SDG NO.: | SY0213 |
| LABORATORY: | Region IX, Las Vegas |
| ANALYSIS: | SAS Volatiles |
| SAMPLE NO.: | SY0209 through SY0225 |
| COLLECTION DATE: | June 24 through 28, 1992 |
| REVIEWER: | Ian Jensen ESAT/ICF Technology, Inc. |
| TELEPHONE NUMBER: | (415) 882-3187 |



If there are any questions, please contact the reviewer.

Attachment

TPO: [] For Action [] For Attention [X] FYI

cc: Brenda Bettencourt, Chief, Laboratory Support Section (P-3-1)
Larry Zinky URS SAC

Data Validation Report

Case No.: LV2S38 Memo #26
Site: Newmark
Laboratory: Region IX, Las Vegas
Reviewer: Ian Jensen, ESAT/ICF Technology, Inc.
Date: July 30, 1992

I. Case Summary

SAMPLE INFORMATION:

VOA Sample Numbers: SY0209 through SY0225
Concentration and Matrix: Low Level Water
Analysis: SAS Volatiles
SOW: N/A
Collection Date: June 24 through 28, 1992
Sample Receipt Date: June 26 through 30, 1992
Analysis Date: June 29 through July 1, 1992

FIELD QC:

Trip Blanks (TB): SY0220, SY0221 and SY0225
Field Blanks (FB): None
Equipment Blanks (EB): None
Background Samples (BG): None
Field Duplicates (D1): SY0215 and SY0216
(D2): SY0222 and SY0224

METHOD BLANKS AND ASSOCIATED SAMPLES:

VBLK1: SY0213, SY0216 and SY0217
VBLK2: SY0209 through SY0211, SY0214, SY0215,
SY0219, SY0220, SY0219MS and SY0219DS
VBLK3: SY0212, SY0218 and SY0221 through SY0225

TABLES:

1A: Analytical Results with Qualifications
1B: Data Qualifiers
1C: Tentatively Identified Compounds
2: Sample Quantitation Limits of Target Compound
List (TCL) Analytes

ADDITIONAL COMMENTS:

The SAS request specified the use of a 25 mL purge volume to obtain the required low detection limits.

This report was prepared according to the SAS request for low level waters and the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

II. Validation Summary

| | VOA | | BNA | | PEST | |
|---------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | Acceptable/Comment | Acceptable/Comment | Acceptable/Comment | Acceptable/Comment | Acceptable/Comment | Acceptable/Comment |
| HOLDING TIMES | [Y] | [B] | [] | [] | [] | [] |
| GC/MS TUNE/GC PERFORMANCE | [Y] | [] | [] | [] | [] | [] |
| CALIBRATIONS | [Y] | [] | [] | [] | [] | [] |
| FIELD QC | [Y] | [] | [] | [] | [] | [] |
| LABORATORY BLANKS | [Y] | [] | [] | [] | [] | [] |
| SURROGATES | [Y] | [] | [] | [] | [] | [] |
| MATRIX SPIKE/DUPLICATES | [Y] | [] | [] | [] | [] | [] |
| INTERNAL STANDARDS | [Y] | [] | [] | [] | [] | [] |
| COMPOUND IDENTIFICATION | [Y] | [] | [] | [] | [] | [] |
| COMPOUND QUANTITATION | [Y] | [A] | [] | [] | [] | [] |
| SYSTEM PERFORMANCE | [Y] | [C] | [] | [] | [] | [] |

N/A - Not Applicable

III. Validity and Comments

A. The results reported in Table 1A for the following analytes are considered as estimates (J) and usable for limited purposes only (see Table 1A):

- All results below the Contract Required Quantitation Limits (denoted with an "L" qualifier)

Results below the Contract Required Quantitation Limits (CRQL) are considered to be qualitatively acceptable but quantitatively unreliable due to the uncertainty in analytical precision near the limit of detection.

- B. The 40 CFR 136 technical holding time was not exceeded for any of the samples analyzed.
- C. All other results are considered valid and usable for all purposes. All quality control criteria have been met and are considered acceptable.

ANALY SL RESULTS
TABLE 1A*

Case No.: LV2S38 Memo #26
Site: Newmark
Lab.: Region IX, Las Vegas
Reviewer: Ian Jensen, ESAT/ICF Technology, Inc.
Date: July 30, 1992

Analysis Type: Low Level Water Samples
for SAS Volatiles (LDL)

Concentration in ug/L

| Sample Location Sample I.D. | SY0209 | | | SY0210 | | | SY0211 | | | SY0212 | | | SY0213 | | | SY0214 | | | SY0215 D1 | | | | | |
|--------------------------------|--------|-----|-----|--------|-----|-----|--------|-----|-----|--------|-----|-----|--------|-----|-----|--------|-----|-----|-----------|-----|-----|-----|---|-----|
| | Result | Val | Com | Result | Val | Com | | | |
| Methylene Chloride | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | |
| 1,1-Dichloroethane | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | |
| cis-1,2-Dichloroethene | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | |
| Carbon Tetrachloride | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | |
| Trichloroethene | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | |
| Tetrachloroethene | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | |
| Toluene | 0.4 | L | J A | 2 | U | | 2 | U | | 0.2 | L | J A | 0.3 | L | J A | 2 | U | | 2 | U | | 0.2 | L | J A |

*The other requested analytes were analyzed for, but "Not Detected". The Sample Quantitation Limits are listed in Table 2.

Val-Validity Refer to Data Qualifiers in Table 1B.

Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.

CRQL-Contract Required Quantitation Limits

NA-Not Analyzed

D1, D2, etc.-Field Duplicate Pairs

FB-Field Blank, EB-Equipment Blank, TB-Travel Blank

BG-Background Sample

ANALYTICAL RESULTS

Page 2 of 3

TABLE 1A*

Case No.: LV2S38 Memo #26

Site: Newmark

Lab.: Region IX, Las Vegas

Reviewer: Ian Jensen, ESAT/ICP Technology, Inc.

Date: July 30, 1992

Analysis Type: Low Level Water Samples
for SAS Volatiles (LDL)

Concentration in ug/L

| Sample Location Sample I.D. | SY0216 D1 | | | SY0217 | | | SY0218 | | | SY0219 | | | SY0220 TB | | | SY0221 TB | | | SY0222 D2 | | |
|--------------------------------|-----------|-----|-----|--------|-----|-----|--------|-----|-----|--------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|
| | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com |
| Methylene Chloride | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 0.2 | L | J A |
| 1,1-Dichloroethane | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 0.7 | L | J A |
| cis-1,2-Dichloroethene | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 3 | | |
| Carbon Tetrachloride | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 0.3 | L | J A |
| Trichloroethene | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 4 | | |
| Tetrachloroethene | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 16 | | |
| Toluene | 0.3 | L | J A | 0.4 | L | J A | 0.4 | L | J A | 0.3 | L | J A | 2 | U | | 2 | U | | 2 | U | |

*The other requested analytes were analyzed for, but "Not Detected". The Sample Quantitation Limits are listed in Table 2.

Val-Validity Refer to Data Qualifiers in Table 1B.

Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.

CRQL-Contract Required Quantitation Limits

NA-Not Analyzed

D1, D2, etc.-Field Duplicate Pairs

FB-Field Blank, EB-Equipment Blank, TB-Travel Blank

BG-Background Sample

ANALYTICAL RESULTS

Page 3 of 3

TABLE 1A*

Case No.: LV2S38 Memo #26
 Site: Newmark
 Lab.: Region IX, Las Vegas
 Reviewer: Ian Jensen, ESAT/ICF Technology, Inc.
 Date: July 30, 1992

Analysis Type: Low Level Water Samples
 for SAS Volatiles (LDL)

Concentration in ug/L

| Sample Location Sample I.D. Compound | SY0223 | | | SY0224 D2 | | | SY0225 TB | | | Method Blank VBLK1 | | | Method Blank VBLK2 | | | Method Blank VBLK3 | | | CRQL | | |
|--------------------------------------------|--------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------------------|-----|-----|-----------------------|-----|-----|-----------------------|-----|-----|--------|-----|-----|
| | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com |
| Methylene Chloride | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | | |
| 1,1-Dichloroethane | 0.6 | L | J A | 0.6 | L | J A | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | | |
| cis-1,2-Dichloroethene | 0.8 | L | J A | 0.8 | L | J A | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | | |
| Carbon Tetrachloride | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | | |
| Trichloroethene | 3 | | | 3 | | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | | |
| Tetrachloroethene | 16 | | | 16 | | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | | |
| Toluene | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | U | | 2 | | |

*The other requested analytes were analyzed for, but "Not Detected". The Sample Quantitation Limits are listed in Table 2.

Val-Validity Refer to Data Qualifiers in Table 1B.

Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.

CRQL-Contract Required Quantitation Limits

NA-Not Analyzed

D1, D2, etc.-Field Duplicate Pairs

FB-Field Blank, EB-Equipment Blank, TB-Travel Blank

BG-Background Sample

TABLE 1B
DATA QUALIFIERS

NO QUALIFIERS indicates that the data are acceptable both qualitatively and quantitatively.

- U Indicates that the compound is not detected above the concentration listed.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are considered estimates and usable for limited purposes.
- J Results are estimated and the data are valid for limited purposes. The results are qualitatively acceptable.
- N Presumptive evidence of the presence of the material. The compound identification is considered to be tentative. The data are usable for limited purposes.
- R Results are rejected and data are invalid for all purposes.

TABLE 1C
Detected Tentatively Identified Compounds (TICs)

Case No.: LV2S38 Memo #26
 Site: Newmark
 Laboratory: Region IX, Las Vegas
 Reviewer: Ian Jensen
 ESAT/ICF Technology, Inc.
 Date: July 30, 1992

| <u>Sample Number</u> | <u>Compound</u> | <u>Fraction</u> | <u>Retention Time, min.</u> | <u>Concentration (ug/L)</u> | <u>Rating* (Remarks)</u> |
|----------------------|------------------------|-----------------|-----------------------------|-----------------------------|--------------------------|
| SY0209 | None found | VOA | | | |
| SY0210 | None found | VOA | | | |
| SY0211 | None found | VOA | | | |
| SY0212 | None found | VOA | | | |
| SY0213 | None found | VOA | | | |
| SY0214 | None found | VOA | | | |
| SY0215 | None found | VOA | | | |
| SY0216 | None found | VOA | | | |
| SY0217 | Butene | VOA | 2:30 | 2 J | A |
| SY0218 | Butene | VOA | 2:32 | 1 J | A |
| SY0219 | Butene | VOA | 2:34 | 2 J | A |
| | Unknown | VOA | 2:45 | 180 J | |
| SY0220 | None found | VOA | | | |
| SY0221 | None found | VOA | | | |
| SY0222 | Dichlorofluoromethane | VOA | 3:22 | 7 J | A |
| | Trichlorofluoromethane | VOA | 3:33 | 5 J | A |
| SY0223 | Dichlorofluoromethane | VOA | 3:22 | 7 J | A |
| | Trichlorofluoromethane | VOA | 3:35 | 8 J | A |
| SY0224 | Dichlorofluoromethane | VOA | 3:22 | 7 J | A |
| | Trichlorofluoromethane | VOA | 3:35 | 7 J | A |

J (estimated): Value is considered usable for limited purposes.

*Rating codes--probability that identification is correct:

A - High B - Moderate C - Low

TABLE 1C
(continued)

| <u>Sample Number</u> | <u>Compound</u> | <u>Fraction</u> | <u>Retention Time, min.</u> | <u>Concentration (ug/L)</u> | <u>Rating^a (Remarks)</u> |
|----------------------|-----------------|-----------------|-----------------------------|-----------------------------|-------------------------------------|
| SY0224 (con't) | Unknown | VOA | 18:18 | 1 | J |
| | Unknown | VOA | 18:32 | 1 | J |
| SY0225 | None found | VOA | | | |

J (estimated): Value is considered usable for limited purposes.

^aRating codes--probability that identification is correct:

A - High B - Moderate C - Low

TABLE 2
Sample Quantitation Limits

Case No.: LV2S38 Memo #26.
 Site: Newmark
 Laboratory: Region IX, Las Vegas
 Reviewer: Ian Jensen
 ESAT/ICF Technology, Inc.
 Date: July 30, 1992

| <u>Volatile Compounds</u> | <u>Units, ug/L</u> | <u>Q</u> | <u>C</u> |
|----------------------------|--------------------|----------|----------|
| Chloromethane | 2 | | |
| Bromomethane | 2 | | |
| Vinyl chloride | 2 | | |
| Chloroethane | 2 | | |
| Methylene chloride | 2 | | |
| Acetone | 10 | | |
| Carbon disulfide | 2 | | |
| 1,1-Dichloroethene | 2 | | |
| 1,1-Dichloroethane | 2 | | |
| 1,2-Dichloroethene (total) | 2 | | |
| Chloroform | 2 | | |
| 1,2-Dichloroethane | 2 | | |
| 2-Butanone | 10 | | |
| 1,1,1-Trichloroethane | 2 | | |
| Carbon tetrachloride | 2 | | |
| Bromodichloromethane | 2 | | |
| 1,1,2,2-Tetrachloroethane | 2 | | |
| 1,2-Dichloropropane | 2 | | |
| trans-1,3-Dichloropropene | 2 | | |
| Trichloroethene | 2 | | |
| Dibromochloromethane | 2 | | |
| 1,1,2-Trichloroethane | 2 | | |
| Benzene | 2 | | |
| cis-1,3-Dichloropropene | 2 | | |
| Bromoform | 2 | | |
| 2-Hexanone | 10 | | |
| 4-Methyl-2-pentanone | 10 | | |
| Tetrachloroethene | 2 | | |
| Toluene | 2 | | |
| Chlorobenzene | 2 | | |
| Ethylbenzene | 2 | | |
| Styrene | 2 | | |
| Total Xylenes | 2 | | |

Q - Qualifier

C - Comment

TABLE 2
(cont'd)

To calculate the sample quantitation limits, multiply CRQL by the following factors:

| <u>Sample No.</u> | <u>Volatiles</u> |
|-------------------|------------------|
| All Samples | 1.00 |
| Method Blanks | 1.00 |

TPO: ACTION ATTENTION FYI

Region IX

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. LV2S38 Memo #26 LABORATORY Region IX, Las Vegas

SDG NO. SYO213 DATA USER _____

SOW 3/90 REVIEW COMPLETION DATE July 30, 1992

NO. OF SAMPLES 17 WATER _____ SOIL _____ OTHER _____

REVIEWER ESD ESAT OTHER, CONTRACT/CONTRACTOR _____

| | VOA | BNA | PEST | OTHER |
|---------------------------------------|----------|-------|-------|-------|
| 1. HOLDING TIMES | <u>0</u> | _____ | _____ | _____ |
| 2. GC-MS TUNE/GC PERFORMANCE | <u>0</u> | _____ | _____ | _____ |
| 3. INITIAL CALIBRATIONS | <u>0</u> | _____ | _____ | _____ |
| 4. CONTINUING CALIBRATIONS | <u>0</u> | _____ | _____ | _____ |
| 5. FIELD QC | <u>0</u> | _____ | _____ | _____ |
| 6. LABORATORY BLANKS | <u>0</u> | _____ | _____ | _____ |
| 7. SURROGATES | <u>0</u> | _____ | _____ | _____ |
| 8. MATRIX SPIKE/DUPLICATES | <u>0</u> | _____ | _____ | _____ |
| 9. REGIONAL QC ("F" - not applicable) | <u>F</u> | _____ | _____ | _____ |
| 10. INTERNAL STANDARDS | <u>0</u> | _____ | _____ | _____ |
| 11. COMPOUND IDENTIFICATION | <u>0</u> | _____ | _____ | _____ |
| 12. COMPOUND QUANTITATION | <u>0</u> | _____ | _____ | _____ |
| 13. SYSTEM PERFORMANCE | <u>0</u> | _____ | _____ | _____ |
| 14. OVERALL ASSESSMENT | <u>0</u> | _____ | _____ | _____ |

O - No problems or minor problems that do not affect data usability.

X - No more than about 5% of the data points are qualified as either estimated or unusable.

M - More than about 5% of the data points are qualified as estimated.

Z - More than about 5% of the data points are qualified as unusable.

TPO ACTION ITEMS: _____

AREAS OF CONCERN: _____



ICF TECHNOLOGY INCORPORATED

MEMORANDUM

TO: Kevin Mayer
Remedial Project Manager
South Coast Ground Water Section (H-6-4)

THROUGH: Roseanne Sakamoto
Environmental Protection Specialist
Quality Assurance Management Section, (P-3-2)

FROM: Carolyn Studeny
Senior Organic Data Reviewer
Environmental Services Assistance Team (ESAT)

DATE: August 11, 1992

SUBJECT: Review of Analytical Data

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

SITE: Newmark
EPA SITE ID NO: J5
CASE/SAS NO.: LV2S38 Memo #29
SDG NO.: SY0226

LABORATORY: Region IX, Las Vegas
ANALYSIS: SAS Volatiles

SAMPLE NO.: SY0226 through SY0228

COLLECTION DATE: July 9, 1992

REVIEWER: Ian Jensen
ESAT/ICF Technology, Inc.

If there are any questions, please contact Carolyn Studeny at (415) 882-3184.

Attachment

cc: Brenda Bettencourt, Chief, Laboratory Support Section (P-3-1)
Larry Zinky, URS SAC

TPO: FYI Attention For Action

Data Validation Report

Case No.: LV2S38 Memo #29
Site: Newmark
Laboratory: Region IX, Las Vegas
Reviewer: Ian Jensen, ESAT/ICF Technology, Inc.
Date: August 11, 1992

I. Case Summary

SAMPLE INFORMATION:

VOA Sample Numbers: SY0226 through SY0228
Concentration and Matrix: Low Level Water
Analysis: SAS Volatiles
SOW: N/A
Collection Date: July 9, 1992
Sample Receipt Date: July 10, 1992
Analysis Date: July 14, 1992

FIELD QC:

Trip Blanks (TB): SY0228
Field Blanks (FB): None
Equipment Blanks (EB): None
Background Samples (BG): None
Field Duplicates (DI): None

METHOD BLANK AND ASSOCIATED SAMPLES:

VBLK1: SY0226 through SY0228, SY0226-MS and
SY0226-DS

TABLES:

1A: Analytical Results with Qualifications
1B: Data Qualifiers
1C: Tentatively Identified Compounds
2: Sample Quantitation Limits of Target Compound
List (TCL) Analytes

ADDITIONAL COMMENTS:

The SAS request specified a 25 mL purge to obtain the required low detection limits.

This report was prepared according to the SAS requirements and the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

II. Validation Summary

| | VOA | |
|---------------------------|--------------------|-----|
| | Acceptable/Comment | |
| HOLDING TIMES | [Y] | [B] |
| GC/MS TUNE/GC PERFORMANCE | [Y] | [] |
| CALIBRATIONS | [Y] | [] |
| FIELD QC | [Y] | [] |
| LABORATORY BLANKS | [Y] | [] |
| SURROGATES | [Y] | [] |
| MATRIX SPIKE/DUPLICATES | [Y] | [] |
| INTERNAL STANDARDS | [Y] | [] |
| COMPOUND IDENTIFICATION | [Y] | [] |
| COMPOUND QUANTITATION | [Y] | [A] |
| SYSTEM PERFORMANCE | [Y] | [C] |

N/A - Not Applicable

III. Validity and Comments

- A. The results reported in Table 1A for the following analytes are considered estimates (J) and usable for limited purposes only:

- All results below the Contract Required Quantitation Limits (denoted with an "L" qualifier)

Results below the Contract Required Quantitation Limits (CRQL) are considered to be qualitatively acceptable, but quantitatively unreliable, due to the uncertainty in analytical precision near the limit of detection.

- B. The 40 CFR 136 technical holding time was not exceeded for any of the samples analyzed.
- C. All other results are considered valid and usable for all purposes. All other quality control criteria have been met and are considered acceptable.

ANALYT RESULTS
TABLE 1A*

Case No.: LV2838 Memo #29
Site: Newmark
Lab.: Region IX, Las Vegas
Reviewer: Ian Jensen, ESAT/ICP Technology, Inc.
Date: August 11, 1992

Analysis Type: Low Level Water Samples
for SAS Volatiles (LDL)

Concentration in ug/L

| Sample Location Sample I.D. | SY0226 | | | SY0227 | | | SY0228 TB | | | Method Blank VBLK1 | | | CRQL | | | | | | | | | |
|--------------------------------|--------|-----|-----|--------|-----|-----|-----------|-----|-----|-----------------------|-----|-----|--------|-----|-----|--------|-----|-----|--------|-----|-----|--|
| | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | Result | Val | Com | |
| Methylene Chloride | 2 | U | | 0.2 | L | J A | 2 | U | | 2 | U | | 2 | | | | | | | | | |
| 1,1-Dichloroethane | 2 | U | | 0.7 | L | J A | 2 | U | | 2 | U | | 2 | | | | | | | | | |
| total-1,2-Dichloroethene | 2 | U | | 3 | | | 2 | U | | 2 | U | | 2 | | | | | | | | | |
| Carbon Tetrachloride | 0.7 | L | J A | 2 | U | | 2 | U | | 2 | U | | 2 | | | | | | | | | |
| Trichloroethene | 2 | U | | 3 | | | 2 | U | | 2 | U | | 2 | | | | | | | | | |
| Tetrachloroethene | 0.3 | L | J A | 25 | | | 2 | U | | 2 | U | | 2 | | | | | | | | | |

*The other requested analytes were analyzed for, but "Not Detected" The Sample Quantitation Limits are listed in Table 2.

Val-Validity Refer to Data Qualifiers in Table 1B.

Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.

CRQL-Contract Required Quantitation Limits

NA-Not Analyzed

D1, D2, etc.-Field Duplicate Pairs

FB-Field Blank, EB-Equipment Blank, TB-Travel Blank

BG-Background Sample

TABLE 1B
DATA QUALIFIERS

NO QUALIFIERS indicates that the data are acceptable both qualitatively and quantitatively.

- U Indicates that the compound is not detected above the concentration listed.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are considered estimates and usable for limited purposes.
- J Results are estimated and the data are valid for limited purposes. The results are qualitatively acceptable.
- N Presumptive evidence of the presence of the material. Compound identification is considered to be tentative. The data are usable for limited purposes.
- R Results are rejected and data are invalid for all purposes.

TABLE 1C
Detected Tentatively Identified Compounds (TICs)

Case No.: LV2S38 Memo #29
 Site: Newmark
 Laboratory: Region IX, Las Vegas
 Reviewer: Ian Jensen
 ESAT/ICF Technology, Inc.
 Date: August 11, 1992

| <u>Sample Number</u> | <u>Compound</u> | <u>Fraction</u> | <u>Retention Time, min.</u> | <u>Concentration (ug/L)</u> | <u>Rating* (Remarks)</u> |
|----------------------|------------------------|-----------------|-----------------------------|-----------------------------|--------------------------|
| SY0226 | None found | VOA | | | |
| SY0227 | Dichlorofluoromethane | VOA | 3.27 | 6 J | A |
| | Trichlorofluoromethane | VOA | 3.40 | 7 J | B |
| SY0228 | None found | VOA | | | |

J (estimated): Value is usable for limited purposes.

*Rating codes--probability that identification is correct:

A - High B - Moderate C - Low

TABLE 2
Sample Quantitation Limits

Case No.: LV2S38 Memo #29
 Site: Newmark
 Laboratory: Region IX, Las Vegas
 Reviewer: Ian Jensen
 ESAT/ICF Technology, Inc.
 Date: August 11, 1992

| <u>Volatile Compounds</u> | <u>Units, ug/L</u> | <u>Q</u> | <u>C</u> |
|----------------------------|--------------------|----------|----------|
| Chloromethane | 2 | | |
| Bromomethane | 2 | | |
| Vinyl chloride | 2 | | |
| Chloroethane | 2 | | |
| Methylene chloride | 2 | | |
| Acetone | 10 | | |
| Carbon disulfide | 2 | | |
| 1,1-Dichloroethene | 2 | | |
| 1,1-Dichloroethane | 2 | | |
| 1,2-Dichloroethene (Total) | 2 | | |
| Chloroform | 2 | | |
| 1,2-Dichloroethane | 2 | | |
| 2-Butanone | 10 | | |
| 1,1,1-Trichloroethane | 2 | | |
| Carbon tetrachloride | 2 | | |
| Bromodichloromethane | 2 | | |
| 1,1,2,2-Tetrachloroethane | 2 | | |
| 1,2-Dichloropropane | 2 | | |
| trans-1,3-Dichloropropene | 2 | | |
| Trichloroethene | 2 | | |
| Dibromochloromethane | 2 | | |
| 1,1,2-Trichloroethane | 2 | | |
| Benzene | 2 | | |
| cis-1,3-Dichloropropene | 2 | | |
| Bromoform | 2 | | |
| 2-Hexanone | 10 | | |
| 4-Methyl-2-pentanone | 10 | | |
| Tetrachloroethene | 2 | | |
| Toluene | 2 | | |
| Chlorobenzene | 2 | | |
| Ethylbenzene | 2 | | |
| Styrene | 2 | | |
| Xylenes (Total) | 2 | | |

Q - Qualifier

C - Comment

TABLE 2
(cont'd)

To calculate the sample quantitation limits, multiply CRQL by the following factors:

| <u>Sample No.</u> | <u>Volatiles</u> |
|-------------------|------------------|
| All Samples | 1.00 |
| Method Blanks | 1.00 |

TPO: FYI Attention For Action Region IX
ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. LV2S38 Memo #29 LABORATORY Region IX, Las Vegas
SDG NO. SY0226 DATA USER _____
SOW N/A REVIEW COMPLETION DATE August 11, 1992
NO. OF SAMPLES 3 WATER _____ SOIL _____ OTHER _____
REVIEWER ESD ESAT OTHER, CONTRACT/CONTRACTOR _____

| | VOA | BNA | PEST | OTHER |
|---------------------------------------|----------|-------|-------|-------|
| 1. HOLDING TIMES | <u>0</u> | _____ | _____ | _____ |
| 2. GC-MS TUNE/GC PERFORMANCE | <u>0</u> | _____ | _____ | _____ |
| 3. INITIAL CALIBRATIONS | <u>0</u> | _____ | _____ | _____ |
| 4. CONTINUING CALIBRATIONS | <u>0</u> | _____ | _____ | _____ |
| 5. FIELD QC | <u>0</u> | _____ | _____ | _____ |
| 6. LABORATORY BLANKS | <u>0</u> | _____ | _____ | _____ |
| 7. SURROGATES | <u>0</u> | _____ | _____ | _____ |
| 8. MATRIX SPIKE/DUPLICATES | <u>0</u> | _____ | _____ | _____ |
| 9. REGIONAL QC ("F" - not applicable) | <u>F</u> | _____ | _____ | _____ |
| 10. INTERNAL STANDARDS | <u>0</u> | _____ | _____ | _____ |
| 11. COMPOUND IDENTIFICATION | <u>0</u> | _____ | _____ | _____ |
| 12. COMPOUND QUANTITATION | <u>0</u> | _____ | _____ | _____ |
| 13. SYSTEM PERFORMANCE | <u>0</u> | _____ | _____ | _____ |
| 14. OVERALL ASSESSMENT | <u>0</u> | _____ | _____ | _____ |

O - No problems or minor problems that do not affect data usability.
X - No more than about 5% of the data points are qualified as either estimated or unusable.
M - More than about 5% of the data points are qualified as estimated.
Z - More than about 5% of the data points are qualified as unusable.

TPO ACTION ITEMS: _____
AREAS OF CONCERN: _____



ICF TECHNOLOGY INCORPORATED

MEMORANDUM

DATE: May 11, 1992

SUBJECT: Review of Analytical Data

FROM: Carolyn Studeny *CS*
ESAT Senior Organic Data Reviewer
ICF Technology, Inc.

THROUGH: Jacob Silva
Environmental Scientist
Quality Assurance Management Section
Environmental Services Branch, OPM (P-3-2)

TO: Kevin Mayer
Remedial Project Manager
South Coast Groundwater Section (H-6-4)

Attached are comments resulting from Region 9 review of the following analytical data:

SITE: Newmark
EPA SITE ID NO: J5
CASE/SAS NO.: LV2S38 Memo #08
SDG NO.: SY0173

LABORATORY: Region IX, Las Vegas
ANALYSIS: SAS Volatiles

SAMPLE NO.: SY0173 through SY0192

COLLECTION DATE: March 11, 12, 13, 23, 24, and 25, 1992

REVIEWER: Chris Davis
ESAT/ICF Technology, Inc.

TELEPHONE NUMBER: (415) 882-3182

If there are any questions, please contact the reviewer.

Attachment

TPO: [] For Action [X] FYI

cc: Brenda Bettencourt
Larry Zinky - URS SAC

Data Validation Report

Case No.: LV2S38 Memo #08
Site: Newmark
Laboratory: Region IX, Las Vegas
Reviewer: Chris Davis, ESAT/ICF Technology, Inc.
Date: May 11, 1992

I. Case Summary

SAMPLE INFORMATION:

VOA Sample Numbers: SY0173 through SY0192
Concentration and Matrix: Low Level Water
Analysis: SAS Volatiles
SOW: 3/90 (revised 7/91)
Collection Date: March 11, 12, 13, 23, 24, and 25, 1992
Sample Receipt Date: March 13, 14, 25, and 26, 1992
Analysis Date: March 18, 19, and 31, 1992

FIELD QC:

Trip Blanks (TB): SY0183 and SY0186
Field Blanks (FB): SY0177 and SY0189
Equipment Blanks (EB): None
Background Samples (BG): None
Field Duplicates (D1): None

METHOD BLANKS AND ASSOCIATED SAMPLES:

VBLK1: SY0174 through SY0180, SY0182, and SY0183
VBLK2: SY0173, SY0181, SY0181MS, and SY0181MSD
VBLK3: SY0184 through SY0192

TABLES:

1A: Analytical Results with Qualifications
1B: Data Qualifiers
1C: Tentatively Identified Compounds
2: Sample Quantitation Limits of Target Compound List (TCL) Analytes

ADDITIONAL COMMENTS:

In order to achieve the low detection limits specified by the SAS request, a 25 ml purge was used.

This report was prepared according to the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990, 6/91 Revision.

MS - Matrix Spike; MSD - Matrix Spike Duplicate

ESATQA9A-6278/CLVS3848.RPT

II. Validation Summary

| | VOA | | BNA | | PEST | |
|---------------------------|--------------------|-------|--------------------|-----|--------------------|-----|
| | Acceptable/Comment | | Acceptable/Comment | | Acceptable/Comment | |
| HOLDING TIMES | [Y] | [E] | [] | [] | [] | [] |
| GC/MS TUNE/GC PERFORMANCE | [Y] | [] | [] | [] | [] | [] |
| CALIBRATIONS | [N] | [C,D] | [] | [] | [] | [] |
| FIELD QC | [Y] | [B] | [] | [] | [] | [] |
| LABORATORY BLANKS | [Y] | [] | [] | [] | [] | [] |
| SURROGATES | [Y] | [] | [] | [] | [] | [] |
| MATRIX SPIKE/DUPLICATES | [Y] | [] | [] | [] | [] | [] |
| INTERNAL STANDARDS | [Y] | [] | [] | [] | [] | [] |
| COMPOUND IDENTIFICATION | [Y] | [] | [] | [] | [] | [] |
| COMPOUND QUANTITATION | [Y] | [A] | [] | [] | [] | [] |
| SYSTEM PERFORMANCE | [Y] | [F] | [] | [] | [] | [] |

N/A - Not Applicable

III. Validity and Comments

- A. The results reported in Table 1A for the following analytes are considered as estimates (J) and usable for limited purposes only:

- All results below the Contract Required Quantitation Limits (denoted with an "L" qualifier)

Results below the Contract Required Quantitation Limits (CRQL) are considered to be qualitatively acceptable but quantitatively unreliable due to the uncertainty in analytical precision near the limit of detection.

- B. Due to field blank contamination problems, the results reported in Table 1A for the following analytes are considered as estimates (J) and usable for limited purposes only:

- Toluene in sample numbers SY0184 and SY0185

Toluene was found in field blank SY0177 at a concentration of 15 ug/L, and in field blank SY0189 at a concentration of 11 ug/L. Ethylbenzene, xylene, and various substituted benzenes were also found in these field blanks. The results for the samples listed above are considered as non-detected and estimated (U,J) and the quantitation limits have been increased where appropriate, according to the blank qualification rules.

- C. Due to low Relative Response Factors (RRF) in the Initial and Continuing Calibrations, the quantitation limit for the following analyte is considered as an estimate (J) and usable for limited purposes only (see Table 2):

- 2-Hexanone in sample numbers SY0184 through SY0192 and method blank VBLK3

An average Relative Response Factor (\overline{RRF}) of 0.043 was observed for the analyte 2-hexanone in the Initial Calibrations performed March 2, 1992, and an RRF of 0.046 was observed in the Continuing Calibration performed March 31, 1992. These RRFs are below the 0.050 QC limit. These deviations are not expected to affect the quality of the results, except for the analyte listed above.

As the results for 2-hexanone in the sample numbers listed above are non-detected, false negatives may exist.

D. Due to a large percent Difference (%D) in the Continuing Calibration, the quantitation limit for the following analyte is considered as an estimate (J) and usable for limited purposes only (see Table 2):

- Chloroethane in sample numbers SY0184 through SY0192 and method blank VBLK3

A 32.3 %D, which exceeds the $\leq \pm 25\%$ advisory QC limit, was observed for chloroethane in the Continuing Calibration performed March 31, 1992. This deviation is not expected to affect the quality of the results, except for the analyte listed above.

E. The 40 CFR 136 technical holding times were not exceeded for any of the samples analyzed.

F. All other results are considered valid and usable for all purposes. All quality control criteria have been met and are considered acceptable.

TPO: [] ACTION [X] FYI

Region IX

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. LV2S38 Memo #7 LABORATORY Region IX, Las Vegas

SDG NO. YK600 DATA USER _____

SOW 3/90 REVIEW COMPLETION DATE May 15, 1992

NO. OF SAMPLES _____ WATER 7 SOIL _____ OTHER _____

REVIEWER [] ESD [X] ESAT [] OTHER, CONTRACT/CONTRACTOR _____

| | VOA | BNA | PEST | OTHER |
|---------------------------------------|-------|----------|-------|-------|
| 1. HOLDING TIMES | _____ | <u>0</u> | _____ | _____ |
| 2. GC-MS TUNE/GC PERFORMANCE | _____ | <u>0</u> | _____ | _____ |
| 3. INITIAL CALIBRATIONS | _____ | <u>0</u> | _____ | _____ |
| 4. CONTINUING CALIBRATIONS | _____ | <u>0</u> | _____ | _____ |
| 5. FIELD QC ("F" - not applicable) | _____ | <u>F</u> | _____ | _____ |
| 6. LABORATORY BLANKS | _____ | <u>0</u> | _____ | _____ |
| 7. SURROGATES | _____ | <u>0</u> | _____ | _____ |
| 8. MATRIX SPIKE/DUPLICATES | _____ | <u>0</u> | _____ | _____ |
| 9. REGIONAL QC ("F" - not applicable) | _____ | <u>F</u> | _____ | _____ |
| 10. INTERNAL STANDARDS | _____ | <u>0</u> | _____ | _____ |
| 11. COMPOUND IDENTIFICATION | _____ | <u>0</u> | _____ | _____ |
| 12. COMPOUND QUANTITATION | _____ | <u>0</u> | _____ | _____ |
| 13. SYSTEM PERFORMANCE | _____ | <u>0</u> | _____ | _____ |
| 14. OVERALL ASSESSMENT | _____ | <u>0</u> | _____ | _____ |

- O - No problems or minor problems that do not affect data usability.
- X - No more than about 5% of the data points are qualified as either estimated or unusable.
- M - More than about 5% of the data points are qualified as estimated.
- Z - More than about 5% of the data points are qualified as unusable.

TPO ACTION ITEMS: _____

AREAS OF CONCERN: _____
