May 26, 2007

MEMORANDUM

SUBJECT: Review of Analytical Data
TO: Carl Brickner
Environmental Scientist
USEPA Region 9 Quality Assurance Office (PMD-3)
75 Hawthorne Street
San Francisco, CA 94105-3901

FROM: Jana Dawson
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Chantilly, VA 20151-1101

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

SITE:	Omega Chemical OU2
CERCLIS ID NO.:	Not Available
CASE NO.:	R06S80
SDG NO(S).:	06254A
SAMPLE NO.:	9 Groundwater Samples
COLLECTION DATE(S):	September 8, 2006 and September 11, 2006
LABORATORY:	USEPA Region 9 Laboratory, Richmond CA
ANALYSES:	1,4-Dioxane (Semi-Volatile Organic Compound Analysis) by USEPA Region 9 Laboratory Standard Operating Procedure(s) 275, Rev. 2, 315 Rev. 4 and USEPA SW-846 Manual Method 8270C
REVIEWER(S):	Kimberly M. Gould Staff Consultant TechLaw, Inc.

If there are any questions, please contact Kimberly M. Gould via telephone at 304-830-1436 or via e-mail at kgould@techlawinc.com.
Attachment(s)

USEPA Project Officer Attention:	Rejected Data:	[ ] Yes	[X] No
	Estimated Data:	[X] Yes	[ ] No
	Sampling Issues:	[X] Yes	[ ] No

DATA VALIDATION REPORT

SITE:	Omega Chemical OU2
CERCLIS ID NO.:	Not Available
CASE NO.:	R06S80
SDG NO(S).:	06254A
LABORATORY:	USEPA Region 9 Laboratory, Richmond CA
REVIEWER(S):	Kimberly M. Gould Staff Consultant TechLaw, Inc.
DATE:	May 26, 2007

I. Case Summary

Sample Information:

Sample Numbers:	OC2-MW13M-W-0-253, OC2-MW-12-W-0-254, OC2-MW1B-W-0-255, OC2-MW1A-W-0-256, OC2-MW23D-W-0-259, OC2-MW23B-W-0-260, OC2-MW23C-W-0-261, OC2-MW23C-W-1-262, OC2-MW14-W-0-263
Concentration and Matrix:	Aqueous
Analysis:	Semi-Volatile Organic Compound Analysis
SOW/SOP:	1,4-Dioxane (Semi-Volatile Organic Compound Analysis) by USEPA Region 9 Laboratory Standard Operating Procedure(s) 275, Rev. 2, 315 Rev. 4 and USEPA Test Methods for Evaluating Solid Waste (SW-846) Revision 0, Method 8270C
Collection Dates:	September 8, 2006 and September 11, 2006
Sample Receipt Dates:	September 9, 2006 and September 12, 2006
Analysis Dates:	September 14, 2006 and September 15, 2006

Field QC Samples:

Field Blank (FB):	None
Equipment Blank (EB1):	None
Equipment Blank (EB2):	None
Equipment Blank (EB3):	None
Background Sample (BG):	None
Field Duplicate Pair (D1):	OC2-MW23C-W-0-261 and OC2-MW23C-W-1-262
Field Duplicate Pair (D2):	None
Field Duplicate Pair (D3):	None

Method Blanks and Associated Samples:

B6I0056-BLK1 (3/12/06): OC2-MW13M-W-0-253, OC2-MW-12-W-0-254, OC2-MW1B W-0-255, OC2-MW1A-W-0-256, OC2-MW23D-W-0-259, OC2-MW23B-W-0-260, OC2-MW23C-W-0-261, OC2-MW23C-W-1-262, OC2-MW14-W-0-263

Tables:

1A: Analytical Results with Qualifications
1B: Data Qualifier Definitions

USEPA Project Officer Attention:

Rejected Data: No rejected sample results were associated with this SDG.
Estimated Data: 1,4-Dioxane results were qualified as estimated in this SDG.
Sampling Issues: Minor temperature issues were associated with this SDG.

Additional Comments:

This data validation report was prepared in accordance with laboratory SOPs and by adhering to guidance provided in the "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review" (CLP NFGs) (EPA-540/R-99-008, October 1999).

The following methods were also referenced:

USEPA Test Methods for Evaluating Solid Waste (SW-846) Revision 0, 8270C

II. Validation Summary

	Acceptable	Comment
Holding Times and Sample Preservation	Yes	A
GC/MS Performance	Yes	
Calibration(s)	Yes	
System Performance	Yes	
Laboratory Blank(s)	Yes	
Laboratory Control Sample(s)	Yes	B
Matrix Spike Sample(s)	Yes	C
Matrix Spike Duplicate Sample(s)	Yes	C
Surrogates	Yes	D
Compound Identification	Yes	
Compound Quantitation	Yes	E
Field QC	Yes	F

III. Validity and Comments

A) Laboratory personnel noted that sample cooler temperatures were 1 ^{o}C and 1.1 ^{o}C upon receipt at the laboratory. Although protocol indicates that samples should be shipped and stored at 4^{o} C (+/- 2^{o} C), it is highly unlikely that the samples were adversely affected by a temperature non-compliance of approximately one degree. Therefore, the data validator did not qualify the data based upon this issue.

B) The laboratory did not use the laboratory control sample (LCS) quality control (QC) limits of 74 – 126 %R set forth in the applicable SOP, but utilized the QC limits of 59 - 130 %R when determining if recoveries were acceptable. All applicable LCS %R results were acceptable when compared to either set of QC limits.

C) The laboratory did not use the matrix spike (MS)/matrix spike duplicate (MSD) quality control (QC) limits of 54 - 141 %R set forth in the applicable SOP, but utilized the QC limits of 64 - 130 %R when determining if recoveries were acceptable. All MS/MSD %R results were acceptable when compared to either set of QC limits.

D) The laboratory did not use the surrogate spike quality control (QC) limits of 10 - 129 %R set forth in the applicable SOP, but utilized the QC limits of 18 - 130 %R when determining if sample surrogate spike recoveries were acceptable. All applicable sample surrogate spike %R results were acceptable when compared to either set of QC limits.

E) The following result is qualified as estimated (L) (see Table 1A) because results were below the Laboratory Quantitation Limits:

- 1,4-Dioxane in samples OC2-MW1A-W-0-256 and OC2-MW23B-W-0-260.

F) Sample OC2-MW23C-W-1-262 was collected as a duplicate of sample OC2-MW23C-W-0-261. The relative percent difference for 1,4-dioxane (8.6%) was within the QC limits of 20%.

Table 1B. Data Qualifier Definitions

The following data qualifier definitions are based upon the "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review" (CLP NFGs) (EPA-540/R-99-008, October 1999) and have been modified to comply with EPA Region IX requirements.

No qualifiers	Indicate the data are acceptable both qualitatively and quantitatively.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
L	Indicates results which fall below the Laboratory Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in analytical precision near the limits of detection.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.