

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Tronox LLC Facility, 2009 Phase B Investigation,
Henderson, Nevada

Collection Date: July 14, 2009

LDC Report Date: February 18, 2010

Matrix: Water

Parameters: Organophosphorus Pesticides

***Validation Level:** Stage 4

Laboratory: TestAmerica, Inc.

Sample Delivery Group (SDG): 8304614

Sample Identification

TR-8B

*Changed validation level from Stage 2B to Stage 4

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8141A for Organophosphorus Pesticides.

This review follows the Standard Operating Procedures (SOP) 40, Data Review/Validation (BRC 2009), the Quality Assurance Project Plan Tronox LLC Facility, Henderson, Nevada (June 2009), NDEP guidance (May 2006), and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

The following are definitions of the data qualifiers:

- J+ Data are qualified as estimated, with a high bias likely to occur. False positives or false negatives are unlikely to have been reported.
- J- Data are qualified as estimated, with a low bias likely to occur. False positives or false negatives are unlikely to have been reported.
- J Data are qualified as estimated; it is not possible to assess the direction of the potential bias. False positives or false negatives are unlikely to have been reported.
- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- R Data are qualified as rejected. There is a significant potential for the reporting of false negatives or false positives.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- B The analytical result may be a false positive totally attributable to blank contamination. This qualifier is applicable to radiochemistry analysis only.
- JB The analytical result may be biased high and partially attributable to blank contamination. This qualifier is applicable to radiochemistry analysis only.
- JK The analytical result is an estimated maximum possible concentration (EMPC).
- X The analytical result is not used for reporting because a more accurate and precise result is reported in its place.
- J-TDS The analytical result is estimated based on failure of the Total Dissolved Solids (TDS) correctness check performed in accordance with the Standard Method 1030E.
- J-CAB The analytical result is estimated based on failure of the cation-anion balance correctness check performed in accordance with Standard Method 1030E.
- J-TDS & CAB The analytical result is unreliable based on the failure of the cation-anion balance and TDS correctness check performed in accordance with standard Method 1030E.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for selected compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (r^2) was greater than or equal to 0.990 .

Retention time windows were evaluated and considered technically acceptable.

b. Calibration Verification

Calibration verification was performed at the required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were less than or equal to 20.0%.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
6/26/09	010F1001	1	Naled Disulfoton	40.1 20.6	All samples in SDG 8304614	J- (all detects) UJ (all non-detects) J- (all detects) UJ (all non-detects)	P
6/26/09	010F1001	2	Naled Malathion	47.6 23.2	All samples in SDG 8304614	J- (all detects) UJ (all non-detects) J- (all detects) UJ (all non-detects)	P

Retention time windows were evaluated and considered technically acceptable.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No organophosphorus pesticide contaminants were found in the method blanks.

No field blanks were identified in this SDG.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. The percent recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there was insufficient sample volume for analysis of the matrix spike and matrix spike duplicate.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

All target compound identifications were within validation criteria.

VI. Project Quantitation Limit

All project quantitation limits were within validation criteria.

All compounds reported below the PQL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 8304614	All compounds reported below the PQL.	J (all detects)	A

VII. System Performance

The system performance was acceptable.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

No field duplicates were identified in this SDG.

**Tronox LLC Facility, 2009 Phase B Investigation, Henderson, Nevada
Organophosphorus Pesticides - Data Qualification Summary - SDG 8304614**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
8304614	TR-8B	Naled Disulfoton Malathion	J- (all detects) UJ (all non-detects)	P	Continuing calibration (ICV %D) (c)
8304614	TR-8B	All compounds reported below the PQL.	J (all detects)	A	Project Quantitation Limit (PQL) (sp)

**Tronox LLC Facility, 2009 Phase B Investigation, Henderson, Nevada
Organophosphorus Pesticides - Laboratory Blank Data Qualification Summary - SDG
8304614**

No Sample Data Qualified in this SDG

**Tronox LLC Facility, 2009 Phase B Investigation, Henderson, Nevada
Organophosphorus Pesticides - Field Blank Data Qualification Summary - SDG
8304614**

No Sample Data Qualified in this SDG

Tronox Northgate Henderson

LDC #: 21494N17
 SDG #: 8304614
 Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
 Stage 2B

Date: 9/11/09
 Page: 1 of 1
 Reviewer: *[Signature]*
 2nd Reviewer: *[Signature]*

METHOD: GC Organophosphorus Pesticides (EPA SW 846 Method 8141A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 7/14/09
IIa.	Initial calibration	A	% RSD ≤ 20% r ²
IIb.	Calibration verification/ICV	SW	CCV/ICV ≤ 20%
III.	Blanks	A	
IVa.	Surrogate recovery	A	
IVb.	Matrix spike/Matrix spike duplicates	N	client spec (insufficient sample)
IVc.	Laboratory control samples	A	LCS/D
V.	Target compound identification	N	
VI.	Compound Quantitation and CRQLs	N	
VII.	System Performance	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X.	Field blanks	N	

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet
 ND = No compounds detected
 R = Rinsate
 FB = Field blank
 D = Duplicate
 TB = Trip blank
 EB = Equipment blank

Validated Samples:

Water

1	TR-BB	11	21	31
2	9198202-MB	12	22	32
3		13	23	33
4		14	24	34
5		15	25	35
6		16	26	36
7		17	27	37
8		18	28	38
9		19	29	39
10		20	30	40

Notes: _____

LDC #: 21444 N17
 SDG #: See Cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 7
 Reviewer: NG
 2nd Reviewer: [Signature]

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20% or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
V. Blanks				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 21494 N17
 SDG #: See Cover

VALIDATION FINDINGS CHECKLIST

Page: 6 of 7
 Reviewer: JK
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XII. System performance				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
XV. Field blanks				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

VALIDATION FINDINGS WORKSHEET

METHOD: GC HPLC

8310	8330	8151	8141	8141 (Cont'd)	8021B
A. Acenaphthene	A. HMX	A. 2,4-D	A. Dichlorvos	V. Fen硫ofthion	V. Benzene
B. Acenaphthylene	B. RDX	B. 2,4-DB	B. Mevinphos	W. Bohtar	CC. Toluene
C. Anthracene	C. 1,3,5-Trinitrobenzene	C. 2,4,5-T	C. Demeton-O	X. EPN	EE. Ethyl Benzene
D. Benzo(a)anthracene	D. 1,3-Dinitrobenzene	D. 2,4,5-TP	D. Demeton-S	Y. Azinphos-methyl	SSS. O-Xylene
E. Benzo(b)fluoranthene	E. Tetra	E. Dinoseb	E. Ethoprop	Z. Coumaphos	RRR. MP-Xylene
F. Benzo(g,h,i)perylene	F. Nitrobenzene	F. Dichlorprop	F. Naled	AA. Parathion	GG. Total Xylene
G. Benzo(k)fluoranthene	G. 2,4,6-Trinitrotoluene	G. Dicamba	G. Sulfotep	BB. Trichloronate	
H. Chrysene	H. 4-Amino-2,6-dinitrotoluene	H. Dalapon	H. Phorate	CC. Trichlorinate	
I. Dibenz(a,h)anthracene	I. 2-Amino-4,6-dinitrotoluene	I. MCPP	I. Dimethoate	DD. Trifluralin	
J. Fluoranthene	J. 2,4-Dinitrotoluene	J. MCPA	J. Diazinon	EE. Def	
K. Fluorene	K. 2,6-Dinitrotoluene	K. Pentachlorophenol	K. Disulfoton	FF. Prowl	
L. Indeno(1,2,3-cd)pyrene	L. 2-Nitrotoluene	L. 2,4,5-TP (silvex)	L. Parathion-methyl	GG. Ethion	
M. Naphthalene	M. 3-Nitrotoluene	M. Silvex	M. Ronnel	HH. Tetrachlorvinphos	
N. Phenanthrene	N. 4-Nitrotoluene		N. Malathion	II. Sulprofos	
O. Pyrene	O.		O. Chlorpyrifos	JJ. Thionazin	
P.	P.		P. Fenthion	KK. Phosmet	
Q.	Q		Q. Parathion-methyl	LL. O,O-Diethylphosphorothioate	
R.			R. Trichloronate	MM. Famphur	
S.			S. Merphos	NN. Carbo phenathion	
			T. Stirofos	OO. Carbo phenathion - methyl	
			U. Tokuthion		

Notes:

LDC #: 2494 17

SDG #: See Entry

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: JLC

METHOD: GC HPLC

2nd Reviewer: [Signature]

Please see qualifications below for all questions answered "N". Not-applicable questions are identified as "N/A".

What type of continuing calibration calculation was performed? %D or RPD

N N/A

Were continuing calibration standards analyzed at the required frequencies? Y N N/A

Did the continuing calibration standards meet the %D / RPD validation criteria of $\leq 10.0\%$? Y N N/A

Were the retention times for all calibrated compounds within their respective acceptance windows?

#	Date	Standard ID	Detector/ Column	Compound	%D / RPD (Limit ≤ 10.0)	RT (limit)	Associated Samples	Qualifications
	6/26/09	0.16 F 1001 (10A)	Col. 1	C (-)	137.8	()	All + B.I.K	J- / UT / P J- / UT / P J- / UT / P J- / UT / P J- / UT / P J- / UT / P
				F (-)	40.1	()		
				D (-)	83.1	()		
				K (-)	20.6	()		
			Col. 2	S (-)	215.0	()		
				F (-)	47.6	()		
				D (-)	85.2	()		
				N (-)	23.7	()		
	7/21/09	0.18 F 1001 (60A)						

LDC #: 21414 N17

SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 2

Reviewer: Ma

2nd Reviewer: S

METHOD: GC HPLC

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

- CF = A/C
- average CF = sum of the CF/number of standards
- %RSD = $100 * (S/X)$
- A = Area of compound,
- C = Concentration of compound,
- S = Standard deviation of the CF
- X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported		Recalculated		Reported		Recalculated	
				CF (std)	CF (std)	Average CF (initial)	Average CF (initial)	%RSD	%RSD		
1	1CAL	6/26/09	A (8141-1)	1.76364	1.76364	1.74977	1.74977	7.99554	7.99554	7.99566	7.99566
			H	1.82370	1.82370	1.81476	1.81476	5.60961	5.60961	5.60927	5.60927
			N	see next page							
2			A (8141-2)	2.17503	2.17503	2.01995	2.01995	7.32345	7.32345	7.32345	7.32345
			H	1.69691	1.69691	1.76315	1.76315	8.53946	8.53946	8.53963	8.53963
			N	1.17724	1.17724	1.20369	1.20369	3.60999	3.60999	3.60500	3.60500
3											
4											

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC # 21994A17
 SDG# See Gen

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 2 of 2
 Reviewer: JVG
 2nd Reviewer: R

METHOD: GC EPA SW 846 Method 8141A

Parameter: Malathion

Date	Column	Compound	Y Area ratio	X Conc ratio	X ²
06/26/2009	(8141A-1)	Malathion	0.14584	0.100	
			0.29331	0.250	
			0.55883	0.500	
			0.89027	1.000	
			1.76202	1.500	
			2.36769	2.000	
			2.77727	2.500	

Regression Output:		Reported
Constant	-0.02062	c = -0.02066
Std Err of Y Est	0.12319	
R Squared	0.99000	r ² = 0.99783
No. of Observations	7.00000	
Degrees of Freedom	5.00000	
X Coefficient(s)	1.1388	a
Std Err of Coef.	0.054985	1.14436E+000

IS = TOCP = 2.0ug/mL
 Lab used weighted linear regression

LDC #: 21494 N17
 SDG #: See Copy

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
 Reviewer: JMG
 2nd Reviewer: R

METHOD: GC ✓ HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$ Where: ave. CF = initial calibration average CF
 CF = continuing calibration CF
 A = Area of compound
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(lcal)/CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	018 F1801	7/21/09	A (8141-1)	2.5340	1.4	2.5340	1.4	
			H	2.2783	4.9	2.3783	4.9	
			N	2.2781	8.9	2.2781	8.9	
2			A (8141-2)	2.4391	5.6	2.6391	5.6	
			H	2.4548	1.8	2.4548	1.8	
			N	2.2620	9.5	2.2620	9.5	
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 21494 N17
 SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
 Reviewer: JMG
 2nd reviewer: S

METHOD: GC HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100
 Where: SF = Surrogate Found
 SS = Surrogate Spiked

Sample ID: # 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	
TPP	Col. 1	1.00	0.67409	67	67	0
Chloroform	↓	↓	0.49078	49	49	↓

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

METHOD: GC HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = $100 * ((SC - SA) / SA)$ Where SSC = Spiked sample concentration SC = Sample concentration
SA = Spike added

RPD = $(((SSCLCS - SSCLCSD) * 2) / ((SSCLCS + SSCLCSD))) * 100$ LCS = Laboratory Control Sample LCS = Laboratory Control Sample duplicate

LCS/LCSD samples: 9198202 - LCS / D

Compound	Spike Added (ug/L)		Spike Sample Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
Dichlorvos (814)	4.00	4.00	3.557	3.224	89	89	48	81	9.8	9.8
Malathion	↓	↓	2.872	2.665	72	72	67	67	7.5	7.5

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 21494 N17
 SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
 Reviewer: JW
 2nd Reviewer: R

METHOD: GC HPLC

Y N N/A
Y N N/A

Were all reported results recalculated and verified for all level IV samples?
 Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration = $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

Example:

Sample ID: _____ Compound Name MD

A= Area or height of the compound to be measured
 Fv= Final Volume of extract
 Df= Dilution Factor

RF= Average response factor of the compound
 in the initial calibration

Vs= Initial volume of the sample
 Ws= Initial weight of the sample
 %S= Percent Solid

Concentration = _____

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications

Comments: _____