FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME Bonner Analytical Testing Company

CITY/STATE Hattiesburg / MS

CASE NO. 42562 SDG NO. MF5WC5

SDG NOs. TO FOLLOW MF5WC4, A4, B4

MOD. REF. NO. N/A

CONTRACT NO. EPW09037

SOW NO. ISM01.3

666721

All documents delivered in the Complete SDG File must be original documents where possible. (Reference - Exhibit B Section 2.6)

		PAGE NOs. FROM	PAGE NOs. TO	CHECK LAB	CHECK REGION
1.	Inventory Sheet (DC-2)	1	2	✓	✓
2.	SDG Narrative	3	3	✓	✓
3.	Sample Log-In Sheet (DC-1)	4	4	✓	✓
4.	Traffic Report/Chain of Custody Record(s)	5	6	✓	✓
5.	Cover Page	7	7	✓	✓
Inorganic Analysis					
6.	Data Sheet (Form I-IN)	8	10	✓	✓
7.	Initial & Continuing Calibration Verification (Form IIA-IN)	11	11	✓	✓
8.	Blanks (Form III-IN)	12	12	✓	✓
9.	ICP-AES Interference Check Sample (Form IVA-IN)	N/A	N/A	✓	
10.	ICP-MS Interference Check Sample (Form IVB-IN)	N/A	N/A	✓	
11.	Matrix Spike Sample Recovery (Form VA-IN)	13	13	✓	✓
12.	Post-Digestion Spike Sample Recovery (Form VB-IN)	N/A	N/A	✓	
13.	Duplicates (Form VI-IN)	14	14	✓	✓
14.	Laboratory Control Sample (Form VII-IN)	N/A	N/A	✓	
15.	ICP-AES and ICP-MS Serial Dilutions (Form VIII-IN)	N/A	N/A	✓	
16.	Method Detection Limit (Annually) (Form IX-IN)	15	15	✓	✓
17.	ICP-AES Interelement Correction Factors (Annually) (Form XA-IN)	N/A	N/A	✓	
18.	ICP-AES Interelement Correction Factors (Annually) (Form XB-IN)	N/A	N/A	✓	
19.	Internal Standard Association (Form XI-IN)	N/A	N/A	✓	
20.	Preparation Log (Form XII-IN)	16	16	✓	✓
21.	Analysis Run Log (Form XIII-IN)	17	17	✓	✓
22.	ICP-MS Tune (Form XIV-IN)	N/A	N/A	✓	

FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

	PAGE NOs. FROM	PAGE NOs. TO	CHECK LAB	CHECK REGION
23. ICP-MS Internal Standards Relative Intensity Summary (Form XV-IN)	N/A	N/A	✓	
24. Initial Calibration (Form XVI-IN)	18	20	✓	✓
25. ICP-AES Raw Data	N/A	N/A	✓	
26. ICP-MS Raw Data	N/A	N/A	✓	
27. Mercury Raw Data	N/A	N/A	✓	
28. Cyanide Raw Data	21	25	✓	✓
29. Preparation Logs Raw Data	26	26	✓	✓
30. Percent Solids Determination Log	N/A	N/A	✓	
31. USEPA Shipping/Receiving Documents	N/A	N/A	✓	
Airbill (No. of Shipments 1)	27	27	✓	✓
Sample Tags	N/A	N/A	✓	
Sample Log-In Sheet (Lab)	28	29	✓	✓
32. Misc. Shipping/Receiving Records (list all individual records) Communication Logs	N/A	N/A	✓	
	N/A	N/A	✓	
33. Internal Lab Sample Transfer Records & Tracking Sheets (describe or list) In House / Digestate chains	30	31	✓	✓
	N/A	N/A	✓	
34. Internal Original Sample Prep & Analysis Records (describe or list)	N/A	N/A	✓	
Prep Records	32	41	✓	✓
Analysis Records	42	42	✓	✓
PE Instructions	N/A	N/A	✓	
Description	N/A	N/A	✓	
35. Other Records (describe or list)	N/A	N/A	✓	
Communication Logs e-mails	43	43	✓	✓
Corrective Actions	N/A	N/A	✓	

07/12/12

36. Comments:

Completed by: (CLP Lab) (Signature) Mark Conner, President (Print Name & Title) 6/5/12 (Date)

Audited by: ~~(USEPA)~~ CSAT (Signature) LINDA HOFFMAN / DATA REVIEWER (Print Name & Title) 07/12/12 (Date)

BONNER ANALYTICAL TESTING COMPANY

2703 OAK GROVE ROAD, HATTIESBURG, MS 39402
PHONE: (601) 264-2854 FAX: (601) 268-7084

SDG NARRATIVE:

SDG Number: MF5WC5
Case Number: 42562
Contract Number: EPW09037

Sample Receipt:
On May 16, 2012 we received 3 waters via FedEx air bill 8991 9781 6298. Custody seals were present and intact. Cooler temp was determined to be 5°C. Samples were in good condition with no discrepancies.

Analytes for this case are; Al, Ca, Fe, Mg, K, Na By ICP-AES, Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Ni, Se, Ag, Tl, V, Zn by ICP-MS & Hg, CN.

Cyanide:
No discrepancies

Sample Equation:

Lab ID 1205176-03 EPA Sample # MF5WC6

Date & Time 5-25-12 @ 909

CN: 0.25 µg/L * 1 (Dilution Factor)

0.25 ug/L

Authorized By: Brandon G. Beck
Document Control Officer

SAMPLE LOG-IN SHEET

Lab Name BONNER ANALYTICAL		Page __ of __
Received By (Print Name) Patricia Aiken		Log-in Date 5-16-12
Received By (Signature) Patricia Aiken		
Case Number 42562	Sample Delivery Group No. MF5WC5	Mod. Ref. No. N/A

Remarks:	
1. Custody Seal(s)	Present/Absent* Intact/Broken
2. Custody Seal NOs.	N/A N/A
3. Traffic Reports/Chain of Custody Records or Packing Lists	Present/Absent*
4. Airbill	Airbill/Sticker Present/Absent*
5. Airbill No.	8991 9781 6298 N/A
6. Sample Tags	Present/Absent*
Sample Tag Numbers	Listed/Not Listed on Traffic Report/Chain of Custody Record
7. Sample Condition	Intact/Broken*/Leaking
8. Cooler Temperature Indicator Bottle	Present/Absent*
9. Cooler Temperature	5°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	Yes/No*
11. Date Received at Lab	5-16-12
12. Time Received	0908

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	MF5WC4	14, 14	6-456855 6-456856	1205176-01	Dec Good
2	MF5WC4	1, 1	6-456857 6-456858	1205176-01 ~~1205176-01~~	
3	MF5WC5	14	6-456864	1205176-02 ~~1205176-02~~	
4	MF5WC5	1	6-456866	1205176-02 ~~1205176-02~~	
5	MF5WC6	14	6-456867	1205176-03	
6	MF5WC6	1	6-456873	1205176-03	
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

MRB 6-4-12

Sample Transfer	
Fraction AES/MS/Hg	Fraction CN
Area# CLP01	Area# CLP01
By P. Aik	By P. Aik
On 5-16-12	On 5-16-12

COPY

~~ORIGINAL IN CSF~~ MF5WC4

Signature: P. Aik

PA 5-16-12

* Contact SMO and attach record of resolution

Reviewed By MRB	~~Logbook No.~~
Date 6-4-12	Logbook Page No.

MF5WC5

USEPA CLP Inorganics COC (LAB COPY)

DateShipped: 5/15/2012
CarrierName: FedEx
AirbillNo: 899197816298

CHAIN OF CUSTODY RECORD

Case #: 42562
Cooler #: 1 of 2

No: 6-051512-133745-0002

Lab: Bonner Analytical Testing Company
Lab Contact: Patricia Aiken
Lab Phone: 601-264-2854

Inorganic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Organic Sample #	For Lab Use Only
MF5WC4	Ground Water/ Gary Hazelwood	Grab	CN(21), CN(21), TM + Hg(21), TM + Hg(21)	6-456855 (NaOH pH>12), 6-456856 (NaOH pH>12), 6-456857 (HNO3 pH<2), 6-456858 (HNO3 pH<2) (4)	GW-01	05/15/2012 11:27	F5WC4	
MF5WC5	Ground Water/ Gary Hazelwood	Grab	CN(21), TM + Hg(21)	6-456864 (NaOH pH>12), 6-456866 (HNO3 pH<2) (2)	GW-02	05/15/2012 11:45	F5WC5	
MF5WC6	Ground Water/ Gary Hazelwood	Grab	TM + Hg(21), CN(21)	6-456867 (HNO3 pH<2), 6-456873 (NaOH pH>12) (2)	GW-03	05/15/2012 10:14	F5WC6	

Sample(s) to be used for Lab QC: MF5WC4 - Special Instructions: Analytes for ICP-MS: antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, cyanide, lead, manganese, mercury, nickel, selenium, silver, thallium, vanadium, zinc.

Analytes for ICP-AES: aluminum, calcium, iron, magnesium, potassium, sodium.

5°C

Analysis Key: CN=CLP CN ISM01.3, TM + Hg=CLP TAL Metals + Hg ICP AES + MS

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	[illegible]	5/15/12							P. Aiken	5-16-12	0928

COPY

ORIGINAL IN CSF: MF5WC4

Signature: P. Aiken

5

SAMPLE DELIVERY GROUP (SDG)
COVER SHEET

SDG Number: MF5WC5

☐ ICP-AES ☐ Mercury ☒ Cyanide ☐ ICP-MS

☐ VOA ☐ VOA-SIM ☐ Trace-VOA ☐ Trace-VOA-SIM ☐ SVOA ☐ SVOA-SIM ☐ Aroclors ☐ Pesticides

Laboratory Name: Bonner Analytical Testing **Laboratory Code:** BONNER
Contract No.: EPW09037 **Case No.:** 42562
Solicitation No.: N/A **SDG Turnaround:** 21 day
Modified Analysis No(s).: N/A

EPA Sample Nmbers in SDG (Listed in Numerical Order)

1) MF5WC4	7)	13)	19)
2) MF5WC5	8)	14)	20)
3) MF5WC6	9)	15)	21)
4)	10)	16)	22)
5)	11)	17)	23)
6)	12)	18)	24)

PA
5-16-12

MF5WC4	MF5WC6
First Sample in SDG	**Last Sample in SDG**
05/16/2012	05/16/2012
First Sample Receipt Date	**Last Sample Receipt Date**

Note: There are a maximum of 20 samples (excluding PE Sample) in SDG. Attach TRs to this form in alphanumeric order (the order listed above on this form).

Patricia Ack
Signature

5-16-12
Date

USEPA - CLP

COVER PAGE

Lab Name: Bonner Analytical Testing Contract: EPW09037

Lab Code: BONNER Case No.: 42562 Mod. Ref. No.: _____ SDG No.: MF5WC5

SOW No.: ISM01.3

EPA Sample No.	Lab Sample ID
MF5WC4	1205176-01
MF5WC4D	2052223-DUP1
MF5WC4S	2052223-MS1
MF5WC5	1205176-02
MF5WC6	1205176-03

		ICP-AES	ICP-MS
Were ICP-AES and ICP interelement corrections applied?	(Yes/No)		
Were ICP-AES and ICP background corrections applied?	(Yes/No)		
If yes, were raw data generated before application of background corrections?	(Yes/No)		

The laboratory did not receive any instructions with this SDG to modify the SOW standard laboratory sample preparation procedures (e.g., subsampling). To aid in the determination of data usability with respect to project decisions, any modifications performed are described below.

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Brandon G. Beck For Chris Bonner

Date: 6/5/12 Title: CEO

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1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF5WC4

Lab Name: Bonner Analytical Testing Contract: EPW09037

Lab Code: BONNER Case No.: 42562 Mod. Ref. No.: SDG No.: MF5WC5

Matrix: Water Lab Sample ID: 1205176-01

% Solids: Date Received: 05/16/2012

Concentration Units (**ug/L**, **ug**, or **mg/kg** dry weight): ug/L

CAS NO.	Analyte	Concentration	C	Q	M
57-12-5	Cyanide	10	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF5WC5

Lab Name: Bonner Analytical Testing Contract: EPW09037

Lab Code: BONNER Case No.: 42562 Mod. Ref. No.: SDG No.: MF5WC5

Matrix: Water Lab Sample ID: 1205176-02

% Solids: Date Received: 05/16/2012

Concentration Units (**ug/L**, **ug**, or **mg/kg** dry weight): ug/L

CAS NO.	Analyte	Concentration	C	Q	M
57-12-5	Cyanide	10	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF5WC6

Lab Name: Bonner Analytical Testing Contract: EPW09037

Lab Code: BONNER Case No.: 42562 Mod. Ref. No.: SDG No.: MF5WC5

Matrix: Water Lab Sample ID: 1205176-03

% Solids: Date Received: 05/16/2012

Concentration Units (**ug/L**, **ug**, or **mg/kg** dry weight): ug/L

CAS NO.	Analyte	Concentration	C	Q	M
57-12-5	Cyanide	0.25	J		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:

USEPA - CLP

2A-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Contract: EPW09037

Lab Code: BONNER Case No.: 42562 Mod. Ref. No.: _____ SDG No.: MF5WC5

Initial Calibration Verification Source: USEPA, Lot: ICV - 0400

Continuing Calibration Verification Source: Ricca Chemical, Lot: B8A0023

Concentration Units: ug/L

	Initial Calibration Verification			Continuing Calibration Verification					M
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Cyanide	99.000	113	114	250.00	242	97	245	98	AS

(1) Control Limits: Mercury 85-115; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

3-IN
BLANKS

Lab Name: Bonner Analytical Testing Contract: EPW09037

Lab Code: BONNER Case No.: 42562 Mod. Ref. No.: SDG No.: MF5WC5

Preparation Blank Matrix (soil/water/wipe/filter): Water

Preparation Blank Concentration Units (ug/L, ug, or mg/kg): ug/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Cyanide	0.99	J	0.76	J	3.7	J			10	U	AS

USEPA - CLP

5A-IN
MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MF5WC4S

Lab Name: Bonner Analytical Testing Contract: EPW09037

Lab Code: BONNER Case No.: 42562 Mod. Ref. No.: SDG No.: MF5WC5

Matrix: Water

% Solids for Sample:

Concentration Units (ug/L or mg/kg dry weight): ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Cyanide	75-125	107		10	U	100	107		AS

Comments:

USEPA - CLP

6-IN
DUPLICATES

EPA SAMPLE NO.

MF5WC4D

Lab Name: Bonner Analytical Testing Contract: EPW09037

Lab Code: BONNER Case No.: 42562 Mod. Ref. No.: SDG No.: MF5WC5

Matrix: Water

% Solids for Sample:

Concentration Units (ug/L or mg/kg dry weight): ug/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Cyanide		10	U	10	U			AS

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9-IN
METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: Bonner Analytical Testing Contract: EPW09037

Lab Code: BONNER Case No.: 42562 Mod. Ref. No.: SDG No.: MF5WC5

Instrument Type: AS Instrument ID: CN02 Date: 01/19/2012

Preparation Method: Midi-distillation

Concentration Units (ug/L, mg/kg, or ug): ug/L

Analyte	Wavelength/Mass	MDL
Cyanide	578.00 nm	0.0023

Comments:

USEPA - CLP

12-IN
PREPARATION LOG

Lab Name: Bonner Analytical Testing Contract: EPW09037

Lab Code: BONNER Case No.: 42562 Mod. Ref. No.: SDG No.: MF5WC5

Preparation Method: Midi-distillation

EPA Sample No.	Preparation Date	Initial Weight/Volume (g) or (mL)	Final Volume (mL)
S0	05/24/2012	50.00	50.00
S5	05/24/2012	50.00	50.00
S10	05/24/2012	50.00	50.00
S50	05/24/2012	50.00	50.00
S100	05/24/2012	50.00	50.00
S250	05/24/2012	50.00	50.00
S500	05/24/2012	50.00	50.00
ICV01	05/24/2012	50.00	50.00
ICB01	05/24/2012	50.00	50.00
CCV01	05/24/2012	50.00	50.00
CCB01	05/24/2012	50.00	50.00
BASELINE01	05/24/2012	50.00	50.00
PBW01	05/24/2012	50.00	50.00
MF5WC4	05/24/2012	50.00	50.00
MF5WC4D	05/24/2012	50.00	50.00
MF5WC4S	05/24/2012	50.00	50.00
MF5WC5	05/24/2012	50.00	50.00
MF5WC6	05/24/2012	50.00	50.00
CCV02	05/24/2012	50.00	50.00
CCB02	05/24/2012	50.00	50.00
BASELINE02	05/24/2012	50.00	50.00

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13-IN
ANALYSIS RUN LOG

Lab Name: Bonner Analytical Testing Contract: EPW09037

Lab Code: BONNER Case No.: 42562 Mod. Ref. No.: SDG No.: MF5WC5

Instrument ID: CN02 Analysis Method: AS

Start Date: 05/25/2012 End Date: 05/25/2012

EPA Sample NO.	D/F	Time	Analytes																									
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN		
S0	1.0	0845																								X		
S5	1.0	0846																								X		
S10	1.0	0847																								X		
S50	1.0	0849																								X		
S100	1.0	0850																								X		
S250	1.0	0852																								X		
S500	1.0	0853																								X		
ICV01	1.0	0855																								X		
ICB01	1.0	0856																								X		
CCV01	1.0	0857																								X		
CCB01	1.0	0859																								X		
BASELINE	1.0	0900																								X		
PBW01	1.0	0902																								X		
MF5WC4	1.0	0903																								X		
MF5WC4D	1.0	0904																								X		
MF5WC4S	1.0	0906																								X		
MF5WC5	1.0	0907																								X		
MF5WC6	1.0	0909																								X		
ZZZZZZ	1.0	0910																										
ZZZZZZ	1.0	0912																										
ZZZZZZ	1.0	0913																										
ZZZZZZ	1.0	0914																										
ZZZZZZ	1.0	0916																										
ZZZZZZ	1.0	0917																										
ZZZZZZ	1.0	0919																										
ZZZZZZ	1.0	0920																										
ZZZZZZ	1.0	0921																										
ZZZZZZ	1.0	0923																										
ZZZZZZ	1.0	0924																										
ZZZZZZ	1.0	0926																										
CCV02	1.0	0927																								X		
CCB02	1.0	0929																								X		
BASELINE	1.0	0930																								X		

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16-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Contract: EPW09037

Lab Code: BONNER Case No.: 42562 Mod. Ref. No.: SDG No.: MF5WC5

Instrument ID: CN02 Start Date: 05/25/2012

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Cyanide	0.0	2.1170400					10.0	10.6549	-7

Control Limits +/- 30%

USEPA - CLP

16-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Contract: EPW09037

Lab Code: BONNER Case No.: 42562 Mod. Ref. No.: SDG No.: MF5WC5

Instrument ID: CN02 Start Date: 05/25/2012

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Cyanide	50.0	49.8952	0	100	100.313	0	250	244.347	2

Control Limits +/- 30%

USEPA - CLP

16-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Contract: EPW09037

Lab Code: BONNER Case No.: 42562 Mod. Ref. No.: SDG No.: MF5WC5

Instrument ID: CN02 Start Date: 05/25/2012

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Cyanide	500	502.673	-1						

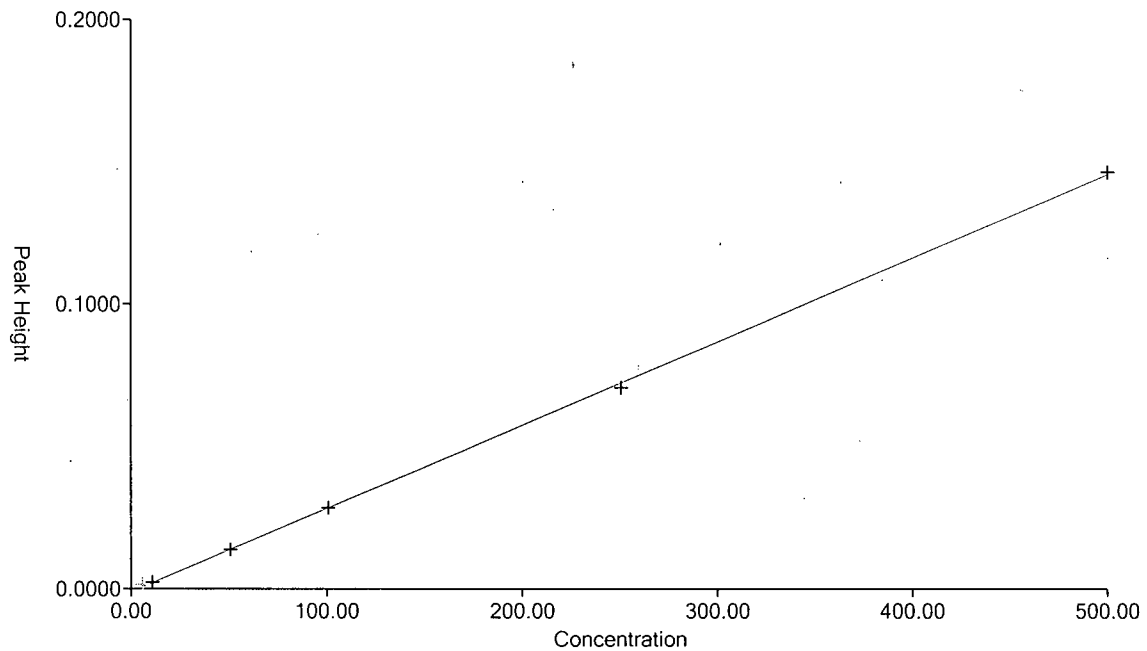
Control Limits +/- 30%

Run Name: C052512A
Configuration: CN02 Water
Run date: 5/25/2012

	Position	Identifier	Type	Date	Time	Cor Ht	CN UG/L	Status
~~1~~	~~SR:1~~	~~SYNC~~	~~SYNC~~	~~5/25/2012~~	~~8:41:44 AM~~	~~0.1441~~	~~495.66~~	
2	SR:2	blk	~~Blank~~	~~5/25/2012~~	8:42:19 AM	0.0002	3.49	NP
3	~~SR:3~~	~~W~~	~~Wash~~	~~5/25/2012~~	~~8:43:44 AM~~	~~0.0000~~	~~2.72~~	~~NP~~ MLC052512
4	SR:4	C1 S0	Calibrant	5/25/2012	8:45:09 AM	-0.0002	2.08	NP
5	SR:5	C2 S5	Calibrant	5/25/2012	8:46:34 AM	0.0014	7.66	NP,DS
6	SR:6	C3 S10	Calibrant	5/25/2012	8:47:59 AM	0.0023	10.62	NP
7	SR:7	C4 S50	Calibrant	5/25/2012	8:49:24 AM	0.0138	49.87	NP
8	SR:8	C5 S100	Calibrant	5/25/2012	8:50:49 AM	0.0285	100.30	
9	SR:9	C6 S250	Calibrant	5/25/2012	8:52:13 AM	0.0706	244.37	
10	SR:10	C7 S500	Calibrant	5/25/2012	8:53:39 AM	0.1461	502.76	AR,RT

Curve #:	1
Curve Type:	Linear
Correlation:	0.99988
Intercept:	-0.00079399
Linear coef:	0.00029228

Calibration for CN

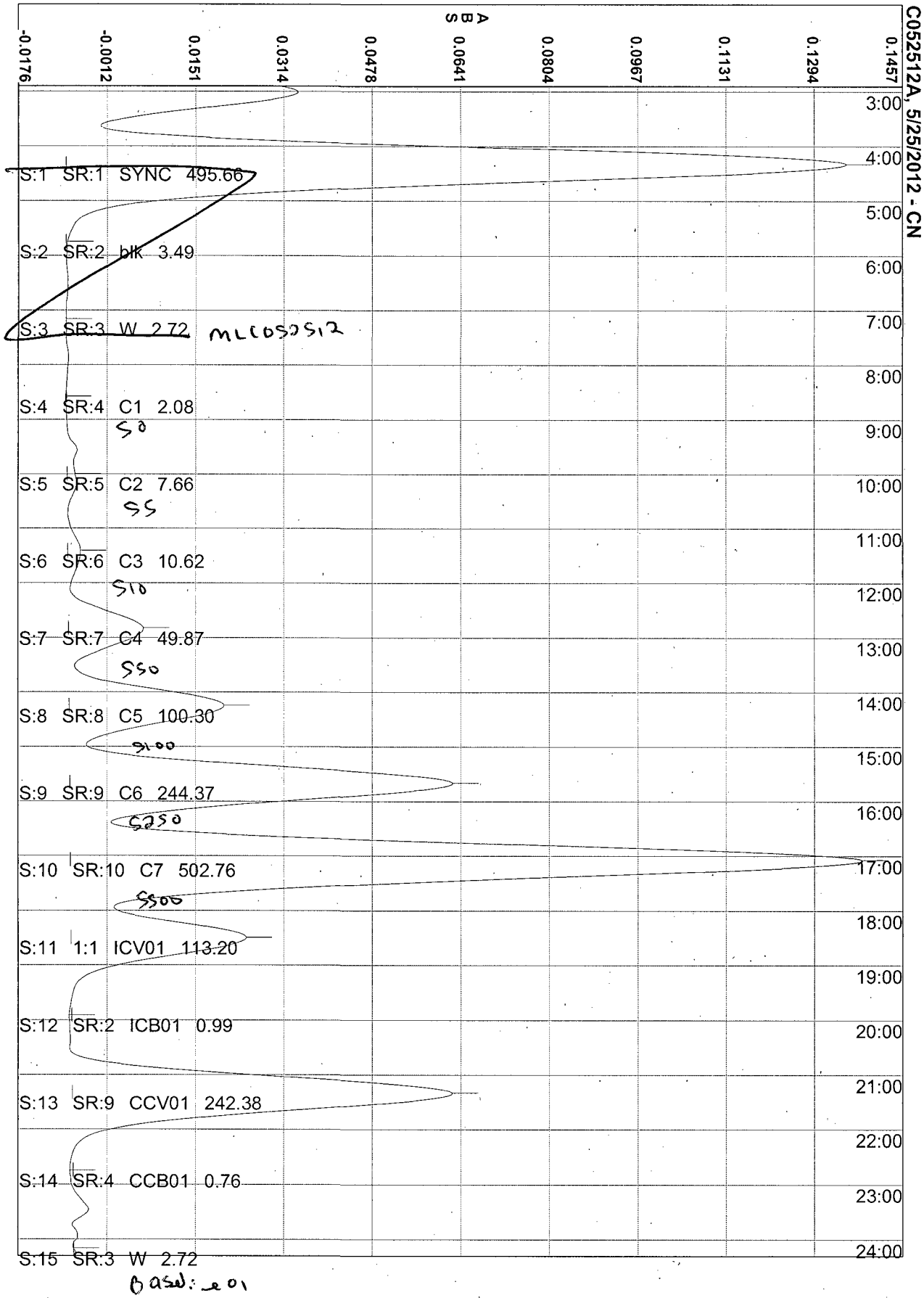


Segment 1: Equation: y = 0.0002923x + -0.0007940 X Range = 0.00 to 500.00
Correlation: 0.9999 Y Range = 0.0000 to 7.2000

Position	Identifier	Type	Date	Time	Cor Ht	CN UG/L	Status

	Position	Identifier	Type	Date	Time	Cor Ht	CN UG/L	Status
11	1:1	ICV01	Unknown	5/25/2012	8:55:04 AM	0.0323	113.20	
12	SR:2	ICB01	Unknown	5/25/2012	8:56:29 AM	-0.0005	0.99	NP
13	SR:9	CCV01	Unknown	5/25/2012	8:57:54 AM	0.0700	242.38	
14	SR:4	CCB01	Unknown	5/25/2012	8:59:19 AM	-0.0006	0.76	NP
15	SR:3	W Basline01	Wash	5/25/2012	9:00:44 AM	0.0000	2.72	NP
16	1:2	PBW01	Unknown	5/25/2012	9:02:09 AM	-0.0011	-0.93	NP
17	1:3	MF5WC4	Unknown	5/25/2012	9:03:34 AM	-0.0013	-1.67	NP
18	1:4	MF5WC4D	Unknown	5/25/2012	9:04:59 AM	-0.0009	-0.25	NP
19	1:5	MF5WC4S	Unknown	5/25/2012	9:06:24 AM	0.0305	107.15	
20	1:6	MF5WC5	Unknown	5/25/2012	9:07:49 AM	-0.0012	-1.24	NP
21	1:7	MF5WC6	Unknown	5/25/2012	9:09:14 AM	-0.0007	0.25	NP
~~22~~	~~1:8~~	~~MD6W92~~	~~Unknown~~	~~5/25/2012~~	~~9:10:39 AM~~	~~0.0128~~	~~46.53~~	~~NP~~
23	1:9	MD6WB1	Unknown	5/25/2012	9:12:04 AM	-0.0013	-1.84	NP
24	1:10	MD6WB2	Unknown	5/25/2012	9:13:29 AM	0.0002	3.34	NP
25	1:11	MD6WB2D	Unknown	5/25/2012	9:14:54 AM	-0.0010	-0.74	NP
26	1:12	MD6WB2S	Unknown	5/25/2012	9:16:19 AM	0.0308	108.12	
27	1:13	MD6WB3	Unknown	5/25/2012	9:17:44 AM	-0.0010	-0.69	NP
28	1:14	MD6WB4	Unknown	5/25/2012	9:19:09 AM	-0.0008	-0.07	NP
29	1:8	MD6W92	Unknown	5/25/2012	9:20:34 AM	0.0138	49.83	NP
30	1:15	1205180-01	Unknown	5/25/2012	9:21:59 AM	-0.0003	1.65	NP
31	1:16	2052405-MS	Unknown	5/25/2012	9:23:24 AM	0.0285	100.27	
32	1:17	HTS 5/24	Unknown	5/25/2012	9:24:49 AM	0.0004	4.10	NP
~~33~~	~~1:18~~	~~2052405-MS~~	~~Unknown~~	~~5/25/2012~~	~~9:26:14 AM~~	~~0.0348~~	~~121.80~~	
34	SR:9	CCV02	Unknown	5/25/2012	9:27:39 AM	0.0709	245.16	
35	SR:4	CCB02	Unknown	5/25/2012	9:29:04 AM	0.0003	3.73	NP
36	SR:3	W Basline02	Wash	5/25/2012	9:30:29 AM	0.0000	2.72	UM,NP

MCC052512


C052512A, 5/25/2012 - CN
ABS
-0.0176
-0.0012
0.0151
0.0314
0.0478
0.0641
0.0804
0.0967
0.1131
0.1294
0.1457
3:00
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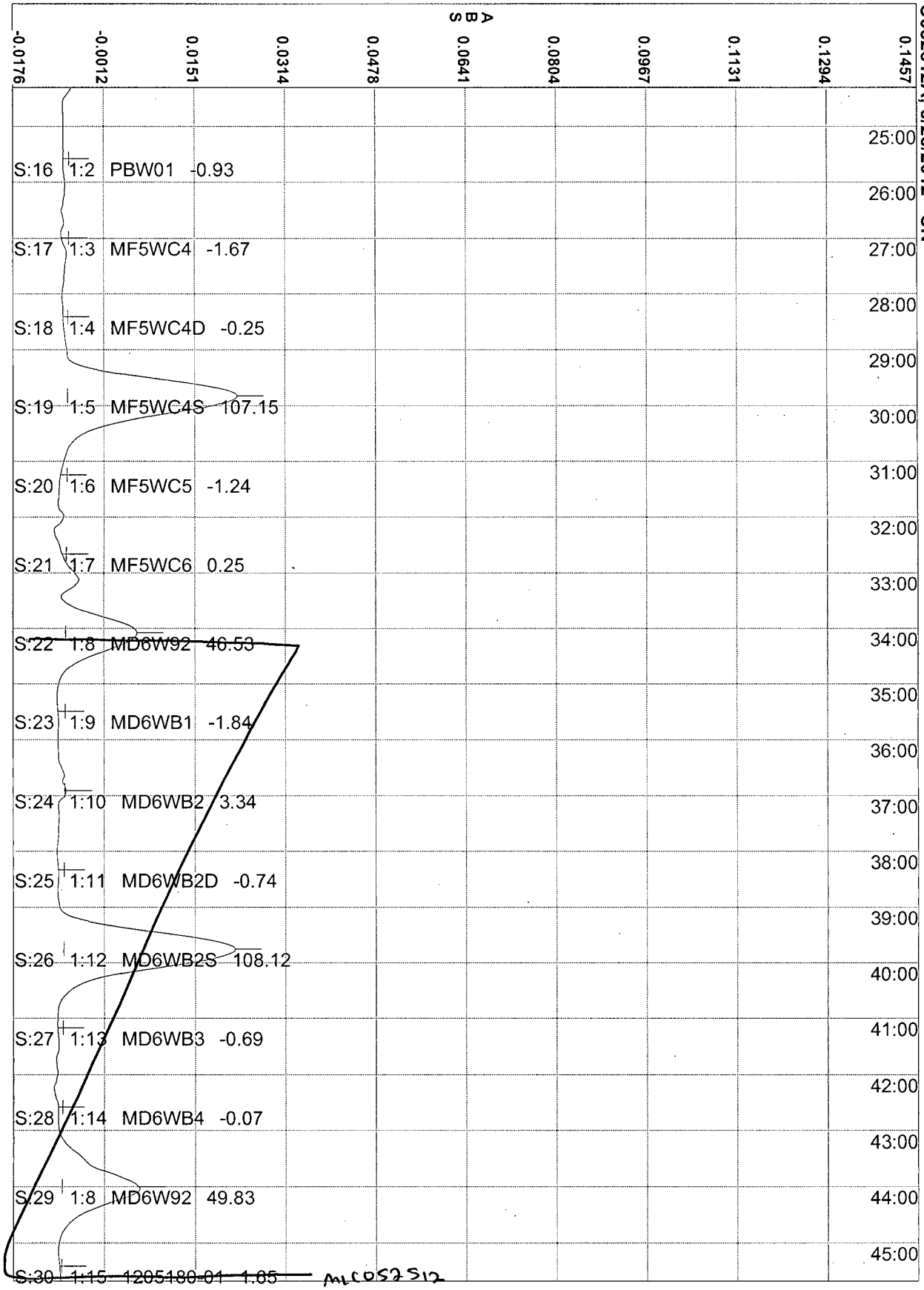
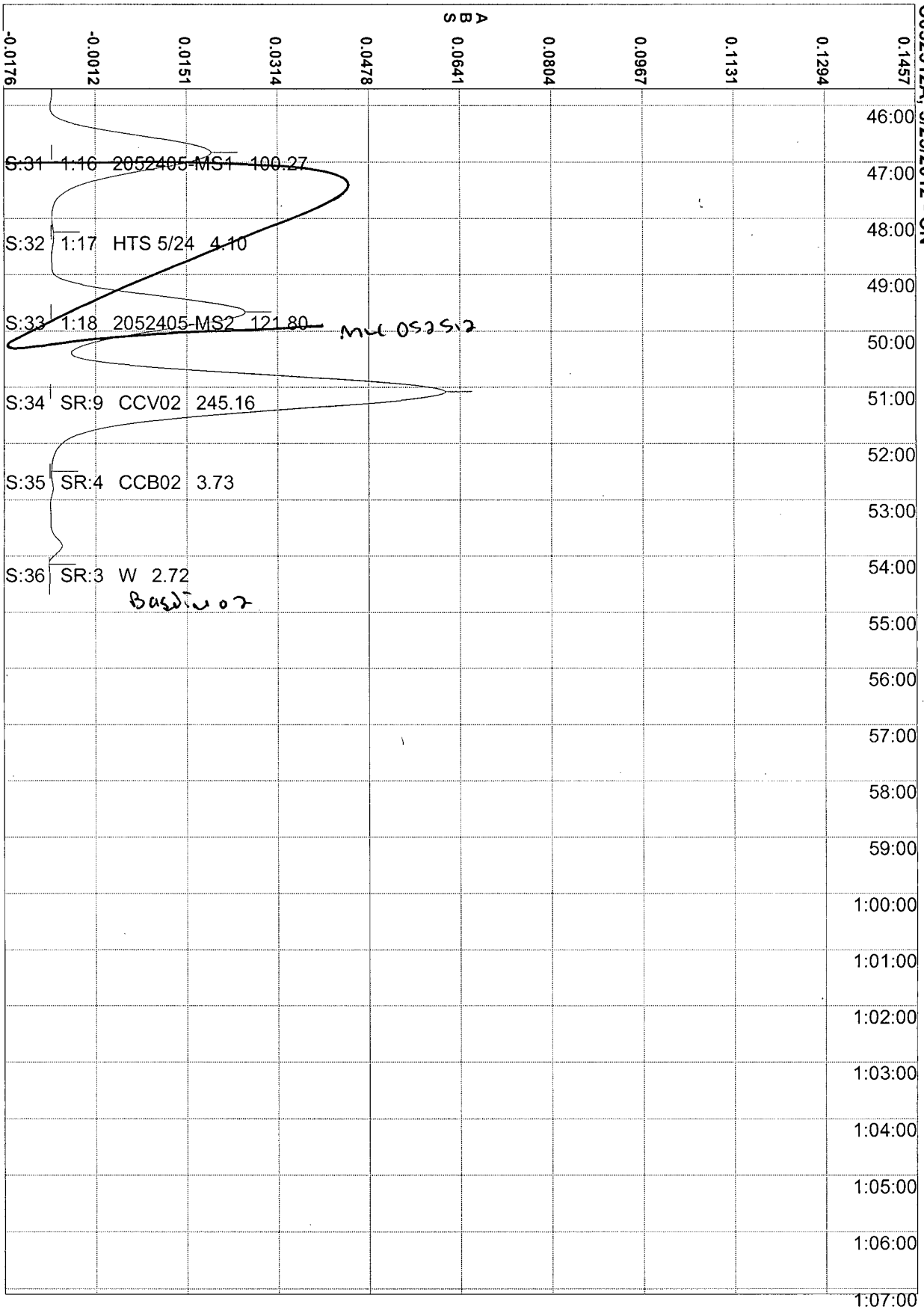
24:00
S:1 SR:1 SYNC 495.66
S:2 SR:2 blk 3.49
S:3 SR:3 W 2.72
MLC052512
S:4 SR:4 C1 2.08
50
S:5 SR:5 C2 7.66
55
S:6 SR:6 C3 10.62
510
S:7 SR:7 C4 49.87
550
S:8 SR:8 C5 100.30
5100
S:9 SR:9 C6 244.37
5250
S:10 SR:10 C7 502.76
5500
S:11 1:1 ICV01 113.20
S:12 SR:2 ICB01 0.99
S:13 SR:9 CCV01 242.38
S:14 SR:4 CCB01 0.76
S:15 SR:3 W 2.72
Basel: 101

C052512A, 5/25/2012 - CN



C052512A, 5/25/2012 - CN



PREPARATION BENCH SHEET

2052223

Bonner Analytical Testing

Analysis: ISM013 - Cyanide

Prepared: 05/24/2012 13:30

Case: 42562

Matrix: Water

ıred using: WETCHEM - Midi-distil

Lab Number	Sample ID	Initial (mL)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)	Color Before	Color After	Clarity Before	Clarity After	pH	
1205176-01	MF5WC4	50	50					colorless	colorless	clear	clear	>12	
1205176-02	MF5WC5	50	50					colorless	colorless	clear	clear	>12	
1205176-03	MF5WC6	50	50					colorless	colorless	clear	clear	>12	
1205246-01	MD6W92	50	50					colorless	colorless	clear	clear	>12	
1205246-02	MD6WB1	50	50					brown	colorless	clear	clear	>12	
1205246-03	MD6WB2	50	50					brown	colorless	clear	clear	>12	
1205246-04	MD6WB3	50	50					brown	colorless	clear	clear	>12	
1205246-05	MD6WB4	50	50					colorless	colorless	clear	clear	>12	
2052223-SRM1	ICV01	50	50					colorless	colorless	clear	clear	>12	
2052223-MS1	MF5WC4S	50	50	B1C0010	500			colorless	colorless	clear	clear	>12	
2052223-MS2	MD6WB2S	50	50	B1C0010	500			brown	colorless	clear	clear	>12	
2052223-DUP1	MF5WC4D	50	50					colorless	colorless	clear	clear	>12	
2052223-DUP2	MD6WB2D	50	50					brown	colorless	clear	clear	>12	
2052223-BLK1	PBW01	50	50					colorless	colorless	clear	clear	>12	

Reagent ID	Concentration	Vendor	Lot Number
Sulfuric Acid	18.0 N	BATCO	BA040912KLP-3
Sulfamic Acid	NA	BATCO	NA
Sodium Hydroxide	0.25 N	BATCO	BA050212 MLC-1
Magnesium Chloride	2.5 M	BATCO	BA050212MLC-2
Lead Carbonate	Neat	NA	NA
Ascorbic Acid	Neat	NA	NA
DI Water	Neat	BATCO	NA

EPA ID	Std. Discription	Spike V. (uL)	F.V. (mL)
S0/ICB/CCB	Cal Blank/ICB/CCB	0	50
S5	Cal Std 5 ppb	250	50
S10	Cal Std 10 ppb	500	50
S50	Cal Std 50 ppb	2500	50
S100	Cal Std 100 ppb	5000	50
S250/CCV	Cal Std/CCV 250 ppb	12500	50
S500	Cal Std 500 ppb	25000	50

Block ID		02		03		04	
Temp. Start	Temp. Stop	125	125	125	125	125	125
Time Start	Time Stop	1405	1535	1405	1535	1405	1535

Comments:

Negative for sulfides and oxidizing agents

~~KLP~~ MLC 05/24/2012 13:30 6/5/12

Perpared By Date Preparation Reviewed By Date

"COPY" original in MFSWC4 07/12/12

27

FedEx Express **NEW** Package US Airbill

FedEx Tracking Number 8991 9781 6298

Form ID No. 0200 Recipient's Co

1 From

Date 5/15/12 [redacted]

Sender's Name Clay Wells Phone 512 731-2604

Company TCEQ

Address 12100 Park 35 Circle MC 136 Dept./Floor/Suite/Room

City Austin State TX ZIP 78753

2 Your Internal Billing Reference 12-10479/4441/70635

3 To

Recipient's Name Patricia Aiken Phone 601 264 2854

Company Bonner Analytical Testing Co

Address 2703 Oak Grove Rd Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Hattiesburg State MS ZIP 39402

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

P. Aiken 5-16-12 0908

8991 9781 6298

4 Express Package Service * To most locations.

NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs. For packages over 150 lbs., use the new FedEx Express Freight US Airbill

Next Business Day

- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [x] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- [ ] NEW FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

- [ ] FedEx Envelope*
- [ ] FedEx Pak*
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

6 Special Handling and Delivery Signature Options

- [ ] SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.
- [ ] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

- [ ] Cargo Aircraft Only

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Che

[redacted]

Total Packages	Total Weight	Total Declared Value†	Credit Card Auth.
1	67 lbs.	$ 100.00	

†Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

612

Rev. Date 11/10 • Part #163135 • ©1994–2010 FedEx • PRINTED IN U.S.A. SRF

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Signature [signature] Date 5/15/12

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Signature [signature] Date 05/15/2012

WORK ORDER

Printed: 5/16/2012 10:39:[illegible]AM

1205176

Bonner Analytical Testing

Client: Environmental Protection Agency, Region 6
Project: 42562

Project Manager: Chris Bonner
Project Number: 42562

Report To:
Environmental Protection Agency, Region 6
Ray Flores
10625 Fallstone Road
Houston, TC 77099-4303
Phone: (281) 983-2139
Fax: (281) 983-2248

Invoice To:
Environmental Protection Agency, Region 6
Ray Flores
10625 Fallstone Road
Houston, TC 77099-4303
Phone :(281) 983-2139
Fax: (281) 983-2248

Date Due: 06/05/2012 15:00 (14 day TAT)

Received By: Trisha Aiken
Date Received: 05/16/2012 09:08

Logged In By: Trisha Aiken
Date Logged In: 05/16/2012 10:36

Samples Received at: 5°C

Custody Seals	Yes	Received On Ice	Yes
Containers Intact	Yes		
COC/Labels Agree	Yes		
Preservation Confirm	Yes		

Analysis	Due	TAT	Expires	Comments
1205176-01 MF5WC4 [Water] Sampled 05/15/2012 11:27 Central				**QC**
ISM013 - Cyanide	06/05/2012 12:00	14	05/27/2012 11:27	
1205176-02 MF5WC5 [Water] Sampled 05/15/2012 11:45 Central				
ISM013 - Cyanide	06/05/2012 12:00	14	05/27/2012 11:45	
1205176-03 MF5WC6 [Water] Sampled 05/15/2012 10:14 Central				
ISM013 - Cyanide	06/05/2012 12:00	14	05/27/2012 10:14	

M Hornsby
Reviewed By

6-4-12
Date

Bonner Analytical Testing Company

SAMPLE RECEIPT FORM

23051

Client: CLP Date: 5-16-12

Sample Type: Grab Composite SDG#: MF5WC5 Case#: 42562

Matrix: SW (stormwater) GW (groundwater) W/W (wastewater) DW (drinkingwater) SL (sludge)

SO (soil) AS (asbestos) PE (petroleum) other _____

1) Does this project fall under NPDES, RCRA, CLP, Litigation or other EPA guidelines?	NA	YES	NO
2) Did Cooler come with airbill/sticker? Circle carrier: UPS, FedEx, other: _____ If YES, enter airbill number here: 8991 9781 6298	NA	YES	NO
3) Are custody seals intact? Custody Seal#: N/A Custody Seal#: N/A	NA	YES	NO
4) Are all bottles sealed in separate plastic bags?	NA	YES	NO
5) Are samples requiring no headspace, headspace free?	NA	YES	NO
6) Packing Material: Bubblewrap, peanuts, vermiculite, ice, other: _____		YES	NO
7) Are chains of custody filled out properly? (ink, signed, dates, QC listed, etc.)		YES	NO
8) Are all bottle labels complete and agree with COC? (ID, time, date, preservation)		YES	NO
9) Were all bottles received intact?		YES	NO
10) Were correct containers used for the tests indicated? Who's: BATCO/Client		YES	NO
11) Was a sufficient aliquot of sample sent for tests indicated?		YES	NO
12) Are samples within holding times for requested analysis?		YES	NO
13) Sample Preservation?			
A) If samples were collected within 6 hours of receipt, has chilling begun?	NA	YES	NO
B) If samples were received beyond 6 hours of collection:			
1) Is there a temperature blank?	NA	YES	NO
2) Temperature 5°C			
C) Were correct preservatives added to sample/s?	NA	YES	NO

14) Describe "NO" items for the above if # 1) response is NA or YES

N/A

15) Is there a Corrective Action and/or Client Contact form attached? YES NO

Signature: Patricia Aik

COPY

ORIGINAL IN CSF: MF5WC4

Signature: P. Aik

Rev No. 1.4

Date: 07/15/05

Bonner Analytical Testing Co.
Inhouse Chain of Custody
for Samples

SDG Number: MF5WC5 **Case No.:** 42562

Work Order Number: 1205176

1) MF5WC4	7)	13)	19)
2) MF5WC5	8)	14)	20)
3) MF5WC6	9)	15)	21)
4)	10)	16)	22)
5)	11)	17)	23)
6)	12)	18)	24)

Sample to be used for QC: MF5WC4

Name: [illegible] Signature: [illegible] Date &Time 5-16-12 1624 Purpose: S
Name: Michelle Crawford Signature: Michelle Crawford Date &Time 5-24-12 1317 Purpose: W
Name: Michelle Crawford Signature: Michelle Crawford Date &Time 5-24-12 1330 Purpose: S
Name: Signature: Date &Time Purpose:
Name: Signature: Date &Time Purpose:
Name: Signature: Date &Time Purpose:
Name: Signature: Date &Time Purpose:
Name: Signature: Date &Time Purpose:
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Name: Signature: Date &Time Purpose:
Name: Signature: Date &Time Purpose:
Name: Signature: Date &Time Purpose:

Purpose: S - Storage; W - Weigh; DP - Disposal; TS - Total Solids; P - Pour

Bonner Analytical Testing Co.
Digestate Chain of Custody
for Samples

SDG Number: MF5WC5 **Case No.:** 42562

Work Order Number: 1205176

1) MF5WC4	7)	13)	19)
2) MF5WC5	8)	14)	20)
3) MF5WC6	9)	15)	21)
4)	10)	16)	22)
5)	11)	17)	23)
6)	12)	18)	24)

Sample to be used for QC: MF5WC4

Name: Michelle Crawford Signature: Michelle Crawford Date &Time 5-24-12 1317 Purpose: Pour
Name: Michelle Crawford Signature: Michelle Crawford Date &Time 5-24-12 1330 Purpose: digest
Name: Michelle Crawford Signature: Michelle Crawford Date &Time 5-24-12 1600 Purpose: S
Name: Michelle Crawford Signature: Michelle Crawford Date &Time 5-25-12 837 Purpose: A
Name: Michelle Crawford Signature: Michelle Crawford Date &Time 5-25-12 1500 Purpose: DP
Name: Signature: Date &Time Purpose:
Name: Signature: Date &Time Purpose:
Name: Signature: Date &Time Purpose:
Name: Signature: Date &Time Purpose:
Name: Signature: Date &Time Purpose:
Name: Signature: Date &Time Purpose:
Name: Signature: Date &Time Purpose:
Name: Signature: Date &Time Purpose:
Name: Signature: Date &Time Purpose:
Name: Signature: Date &Time Purpose:

Purpose: S - Storage; A - Analyze; DP - Disposal; D - Digest; W - Weigh; P-Pour

W 25

CN Weekly Distiller Block Temperature Verification

Date	4/19/12		4-26-12		5-3-12		5-18-12	
Initials	KS		MLC		MLC		MLC	
	Temp Read Out	**Thermometer**	**Temp Read Out**	**Thermometer**	**Temp Read Out**	**Thermometer**	**Temp Read Out**	**Thermometer**
CN Distiller 01	125	125	126	127	127	127	125	125
CN Distiller 02	124	125	125	125	124	123	123	123
CN Distiller 03	125	126	125	125	125	125	125	125
CN Distiller 04	125	125	125	125			125	126
CN Distiller 05	Not in use		—	—				
Reviewed/Date:	4/25/12		4/26/12		5/7/12		5/24/12	

Date	5-21-12							
Initials	MLC							
	Temp Read Out	**Thermometer**	**Temp Read Out**	**Thermometer**	**Temp Read Out**	**Thermometer**	**Temp Read Out**	**Thermometer**
CN Distiller 01	125	125						
CN Distiller 02	125	125						
CN Distiller 03	125	127						
CN Distiller 04	125	126						
CN Distiller 05								
Reviewed/Date:	5/24/12							

If temperature does not agree with the certified thermometer than either recalibrate the digestion block or use the thermometer to regulate the digestion block and record the thermometer temperature on digestion logs.

A copy of this page must accompany each SDG digested during the week.

Date of certified thermometer: 7/8/11
**Cannot exceed 1 year

Revision 1
12/12/11 MLC

STANDARDS LOG

for C052412 Astoria 01 / 02 Daily Analysis

Analyst: Michelle Cranford Date: 5-24-12

Description	EPA ID	Amount Spiked	Volume Made	Manufacturer	Initial Conc.	Lot#	Date Lot Expires	Final Conc.
Initial Calibration Working Standard	S-WS-A	1.0 mL	100 mL	Inorganic Ventures	1000 ppm	Ø2-MEB ~~351081~~ E 391088	Feb-12	10 ppm
Initial Calibration Working Standard	S-WS-B	10.0 mL	100 mL	S-WS-A	10 ppm	NA	24 hours	1 ppm
Initial Calibration Blank	S0	NA	50 mL	In-house	NA	BA- 051712 MLC-1	NA	NA
Initial Calibration	S5	0.25 mL	50 mL	S-WS-B	1 ppm	NA	24 hours	5.0 ppb
Initial Calibration	S10	0.50 mL	50 mL	S-WS-B	1 ppm	NA	24 hours	10 ppb
Initial Calibration	S50	2.5 mL	50 mL	S-WS-B	1 ppm	NA	24 hours	50 ppb
Initial Calibration	S100	5.0 mL	50 mL	S-WS-B	1 ppm	NA	24 hours	100 ppb
Initial Calibration	S250	12.5 mL	50 mL	S-WS-B	1 ppm	NA	24 hours	250 ppb
Initial Calibration	S500	25.0 mL	50 mL	S-WS-B	1 ppm	NA	24 hours	500 ppb
Initial Calibration Verification	ICV	0.5 mL	50 mL	EPA	9900 ppb	0400	NA	99 ppb
Initial Calibration Blank	ICB	NA	50 mL	In-house	NA	BA- 051712 MLC-1	Weekly	NA
Continuing Calibration Verification	CCV	12.5 mL	50 mL	S-WS-B	1 ppm	NA	24 hours	250 ppb
Continuing Calibration Blank	CCB	NA	50 mL	In-house	NA	BA- 051712 MLC-1	Weekly	NA
Laboratory Control Standard - Soil B9H0171	LCSS	1 gram	1 gram	EPA	9.6 mg/kg	LCS-CN (0899)	NA	9.6 mg/kg

Reviewed By: [signature] Supervisor Date: 5/29/12

REAGENTS PREPARATION LOG

0.25N Sodium Hydroxide Solution

LIMS B2E0172

Preparation Date: 5-17-12 Prepared By: Michelle Crawford Batch No.: BA-051712MLC-1

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	9000mL	BATCO	NA	NA	NA
Sodium Hydroxide	Neat	90.00g	Fisher	115786	2-27-12	6-30-13

Balance ID: Mettler IV

Instrument: CN01/CN02 & Distillation

Final Volume: 9L

Concentration: 0.25N

Used For: Cyanide Distillation & Development

Expiration Date: NA

Comments: 10 grams to 1 Liter Filter.

Reviewed By: [signature] 5/24/12
Supervisor/Date

REAGENTS PREPARATION LOG

1.25N Sodium Hydroxide Solution

LIMS B2E0173

Preparation Date: 5-17-12 Prepared By: Michelle Crawford Batch No.: BA-051712MLC-2

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	100mL	BATCO	NA	NA	NA
Sodium Hydroxide	Neat	5.00g	Fisher	115786	2-27-12	6-30-13

Balance ID: Mettler 1V

Instrument: CN01 / CN02 & Distillation

Final Volume: 100 mL

Concentration: 1.25 N

Used For: Standards Preparation

Expiration Date: NA

Comments: 5.0 grams to 100 mL = 1.25N.

Reviewed By: [signature] 5/24/12
Supervisor/Date

REAGENTS PREPARATION LOG

18N Sulfuric Acid Solution

Preparation Date: 4/9/12 Prepared By: Kurt Perron Batch No.: BA- 040912 KP.3

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	1000 ml.	BATCO	NA	NA	NA
Sulfuric Acid	Neat	1000 ml.	Mallinckrodt	509F01	4/15/11	

Balance ID: NA

Instrument: Distillation

Final Volume: 2L

Concentration: 18 Normal / 50%

Used For: Cyanide Distillation

Expiration Date: 6 Months

Comments: ***Add 500 mL Acid to 500 mL Water***

Reviewed By: 4/14/12

Supervisor/Date

REAGENTS PREPARATION LOG

Chloramine-T Solution

LIMS BK0178

Preparation Date: 5-25-12 Prepared By: Michelle Crawford Batch No.: BA- 052512MLC-1

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	100mL	BATCO	NA	NA	NA
Chloramine	Neat	0.40g	Aldrich	13031CD	10-5-05	6-30-13

Balance ID: Sartorius 1

Instrument: CN01/CN02

Final Volume: 100 mL

Concentration: 0.40%

Used For: Cyanide Development

Expiration Date NA

Comments: 0.4 grams to 100mL

Reviewed By: [signature]
Supervisor/Date

REAGENTS PREPARATION LOG

Magnesium Chloride Solution

Preparation Date: 5-7-12 Prepared By: Michelle Crawford Batch No.: BA-050212MLC-2

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	980mL	BATCO	NA	NA	NA
Magnesium Chloride - 6 H20	Neat	500.00g	Fisher	103009	9-30-10	11-30-10

Balance ID: _____

Instrument: Distillation

Final Volume: _____

Concentration: NA

Used For: Cyanide Distillation

Expiration Date: 3 Months

Comments: Add 500 grams to 980 mLs of DI Water.

Reviewed By: [signature] 5/7/12
Supervisor/Date

REAGENTS PREPARATION LOG

Phosphate Buffer

LIMS B2E0179

Preparation Date: 5-18-12 Prepared By: Michelle Crawford Batch No.: BA-051812MCC-2

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	500mL	BATCO	NA	NA	NA
Sodium Phosphate	Neat	69.00g	Fisher	101168	9-2-10	6-30-12
Brig-35	30%	3 mL	Astoria Pacific	240702	NA	6-30-12

Balance ID: Sartorios 1

Instrument: CN01 /CN02

Final Volume: 503 mL

Concentration: NA

Used For: Cyanide Development

Expiration Date 3 Months

Comments: Add 69 g. to 500 mL DI H2O. Filter with 0.45 Nylon then add 3 ml Brij-35

Reviewed By: [signature] 5/29/12
Supervisor/Date

REAGENTS PREPARATION LOG

Pyridine-barbituric Acid Solution

LIMS 82E0181

Preparation Date: 5-25-12 Prepared By: Michelle Crawford Batch No.: BA-052512ML C-2

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	455mL	BATCO	NA	NA	NA
Barbituric Acid	Neat	7.50g	Fisher	085272A	NA	6-30-13
Pyridine	Neat	37.5 mL	Fisher	K056G9	1-23-12	1-23-14
Hydrochloric Acid	Neat	7.5mL	Fisher	411080	12-7-11	12-7-13

Balance ID: Satorius 1

Instrument: CN01 / CN02

Final Volume: 500mL

Concentration: NA

Used For: Cyanide Development

Expiration Date: 1 Week

Comments: Dissolve 7.5g Barbituric to minimal DI water. Add 37.5 ml Pyridine then 7.5 ml HCl Dilute to 500 mLs. Filter.

Reviewed By: [signature] 5/24/12
Supervisor/Date

REAGENTS PREPARATION LOG

Start Up Solution

LIMS B2C0182

Preparation Date: 5-18-12 Prepared By: Michelle Crawford Batch No.: BA-051812 MCC-4

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	500 mL	BATCO	NA	NA	NA
Brij - 35	30%	3 mL	Astoria Pacific	240702	NA	6-30-13

Balance ID: NA

Instrument: CN01 / CN02

Final Volume : 503 mL

Concentration: NA

Used For: Development

Expiration Date 1 Month

Comments Add 3 mLs Brij-35 to 500 ml DI Water

Reviewed By: 5/29/12
Supervisor/Date

Bonner Analytical Testing Co

Metals Analytical Run Log

File Name: C052512A SDG No.: MF5WC5 Standards Prep Date: 5/24/12

Instrument: CN02 Case No.: 42562 Standards Log Page No.: 35

Analyst: MLF

Lab ID	EPA Sample #	Date&Time	Elements circled for S0-S# were used throughout this run unless otherwised noted. CN
BE22909-CAL1	S0	5/25/12 8:45	
BE22909-CAL2	S5	5/25/12 8:46	Not Reported
BE22909-CAL3	S10	5/25/12 8:47	
BE22909-CAL4	S50	5/25/12 8:49	
BE22909-CAL5	S100	5/25/12 8:50	
BE22909-CAL6	S250	5/25/12 8:52	
BE22909-CAL7	S500	5/25/12 8:53	
BE22909-ICV1	ICV01	5/25/12 8:55	
BE22909-ICB1	ICB01	5/25/12 8:56	
BE22909-CCV1	CCV01	5/25/12 8:57	
BE22909-CCB1	CCB01	5/25/12 8:59	
BE22909-RES1	BASELINE01	5/25/12 9:00	
2052223-BLK1	PBW01	5/25/12 9:02	
1205176-01	MF5WC4	5/25/12 9:03	
2052223-DUP1	MF5WC4D	5/25/12 9:04	
2052223-MS1	MF5WC4S	5/25/12 9:06	
1205176-02	MF5WC5	5/25/12 9:07	
1205176-03	MF5WC6	5/25/12 9:09	
BE22909-IBL1	ZZZZZZ	5/25/12 9:10	
1205246-02	~~MB0WZZ~~	5/25/12 9:12	
1205246-03	~~MB0WZZ~~	5/25/12 9:13	
2052223-DUP2	~~MB0WZZ~~	5/25/12 9:14	
2052223-MS2	~~MB0WZZ~~	5/25/12 9:16	
1205246-04	~~MB0WZZ~~	5/25/12 9:17	
1205246-05	~~MB0WZZ~~	5/25/12 9:19	
1205246-01	~~MB0WZZ~~	5/25/12 9:20	
BE22909-IBL2	ZZZZZZ	5/25/12 9:21	
BE22909-IBL3	ZZZZZZ	5/25/12 9:23	
BE22909-IBL4	ZZZZZZ	5/25/12 9:24	
BE22909-IBL5	ZZZZZZ	5/25/12 9:26	
BE22909-CCV2	CCV02	5/25/12 9:27	
BE22909-CCB2	CCB02	5/25/12 9:29	
BE22909-RES2	BASELINE02	5/25/12 9:30	

Trisha Aiken

From: Trisha Aiken <taiken@batco.com>
Sent: Wednesday, May 16, 2012 10:56 AM
To: Jackie Blackmon (jblackmon3@fedcsc.com)
Cc: maxbonner@batco.com
Subject: Region 6 | Case 42562 | Sample Receipt

Jackie;

On May 16, 2012 we received 3 waters via FedEx air bill 8991 9781 6298. Custody seals were present and intact. Cooler temp was determined to be 5°C. Samples were in good condition with no discrepancies.

Thanks;
Tricia Aiken
Bonner Analytical

USEPA CLP Inorganics COC (REGION COPY)
DateShipped: 5/15/2012
CarrierName: FedEx
AirbillNo: 899197816298

CHAIN OF CUSTODY RECORD
MSI
Case #: 42562
Cooler #: 1 of 2

No: 6-051512-133745-0002
Lab: Bonner Analytical Testing Company
Lab Contact: Patricia Aiken
Lab Phone: 601-264-2854

Inorganic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Organic Sample #	Sample Type
MF5WC4	Ground Water/ Gary Hazelwood	Grab	CN(21), CN(21), TM + Hg(21), TM + Hg(21)	6-456855 (NaOH pH>12), 6-456856 (NaOH pH>12), 6-456857 (HNO3 pH<2), 6-456858 (HNO3 pH<2) (4)	GW-01	05/15/2012 11:27	F5WC4	Field Sample
MF5WC5	Ground Water/ Gary Hazelwood	Grab	CN(21), TM + Hg(21)	6-456864 (NaOH pH>12), 6-456866 (HNO3 pH<2) (2)	GW-02	05/15/2012 11:45	F5WC5	Field Duplicate
MF5WC6	Ground Water/ Gary Hazelwood	Grab	TM + Hg(21), CN(21)	6-456867 (HNO3 pH<2), 6-456873 (NaOH pH>12) (2)	GW-03	05/15/2012 10:14	F5WC6	Field Sample

Sample(s) to be used for Lab QC: MF5WC4 - Special Instructions: Analytes for ICP-MS: antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, cyanide, lead, manganese, mercury, nickel, selenium, silver, thallium, vanadium, zinc.

Analytes for ICP-AES: aluminum, calcium, iron, magnesium, potassium, sodium.

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: CN=CLP CN ISM01.3, TM + Hg=CLP TAL Metals + Hg ICP AES + MS

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	Cary Watts	5/15/12									