APPENDIX G

RESULTS AND CHAIN-OF-CUSTODY FORMS FOR SUBSTRATE UTILIZATION STUDY AND THEORETICAL ACETATE REQUIREMENT CALCULATIONS

THEORETICAL ACETATE REQUIREMENT CALCULATIONS

Equations for reactions of acetate ($C_2H_3O_2^-$) with competing electron acceptors oxygen (O_2), nitrate (NO_3^-) and ClO_4^- are as follows [Coates, J. D. et. al. 2000. The diverse microbiology of (per)chlorate reduction. pp 257-270 *In*: E.T. Urbansky (ed.) Perchlorate in the Environment. *Environmental Science Research*, Vol. 57. Kluwer Academic/Plenum: New York]:

1) $CH_3COO^- + ClO_4^- \rightarrow 2\ HCO_3^- + H^+ + Cl^-$

2) $5\ CH_3COO^- + 8\ NO_3^- + 3\ H^+ \rightarrow 10\ HCO_3^- + 4\ H_2O + 4\ N_2$

3) $CH_3COO^- + 2\ O_2 \rightarrow 2\ HCO_3^- + H^+$

Based on influent [ClO_4-] of 10 mg/L, influent [NO_3^-] of 50 mg/L, and influent [O_2] of 8 mg/L, acetate (abbreviated Ac^- here) requirements are as follows:

1) 10 mg/L ClO_4^-/L x 1 mmol Ac-/1mmol ClO_4^- x 59 mg Ac-/mmolAc- x 1 mmol ClO_4-/99.5 mg ClO_4- = <u>5.9 mg Ac-/L</u>

Where 59 mg and 99.5 mg are the molecular weights of 1 mmol of acetate and ClO_4^-, respectively.

2) 50 mg NO_3^-/L x 1 mmol NO_3^-/62 mg NO_3^- x 5 mmol Ac^-/8 mmol NO_3^- x 59 mg Ac^- /1 mmol Ac^- = <u>29.7 mg Ac^-/L</u>

Where 62 mg is the molecular weight of 1 mmol of NO_3^-.

3) 8 mg O_2/L x 1 mmol O_2/32 mg O_2 x 1 mmol Ac^-/2 mmol O_2 x 59 mg Ac^-/1 mmol Ac- = <u>7.4 mg Ac^-/L</u>

Where 32 mg is the molecular weight of 1 mmol of O_2.

The total theoretical Ac- requirement based on the above-listed concentrations of electron acceptors is thus 5.9 mg/L + 29.3 mg/L + 7.4 mg/L = <u>42.6 mg/L.</u>

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EPA 8015B - Methanol

Client:	Center for Env. Microbiology	Date Sampled:	04/03/03
Project:	Acenol Study	Date Received:	04/04/03
Job No.:	22108	Date Analyzed:	04/07/03
Matrix:	Water	Batch Number:	GC28015W0226
Analyst:	TPW		

	Detection Limit	Methanol
Sample ID	mg/L	mg/L
Method Blank	1.0	ND
7-1-0	1.0	ND
7-2-0	1.0	ND
8-1-0	1.0	28
8-2-0	1.0	30
9-1-0	1.0	59
9-2-0	1.0	61
10-1-0	1.0	110
10-2-0	1.0	77
11-1-0	1.0	160
11-2-0	1.0	140
12-1-0	1.0	200
12-2-0	1.0	140
7-1-24	1.0	ND
7-2-24	1.0	ND
8-1-24	1.0	26
8-2-24	1.0	29

Centrum Analytical Laboratories, Inc.

EPA 8015B - Methanol

Client:	Center for Env. Microbiology	Date Sampled:	04/03/03
Project:	Acenol Study	Date Received:	04/04/03
Job No.:	22108	Date Analyzed:	04/07/03
Matrix:	Water	Batch Number:	GC28015W0227
Analyst:	TPW		

	Detection Limit	Methanol
Sample ID	mg/L	mg/L
Method Blank	1.0	ND
9-1-24	1.0	ND
9-2-24	1.0	1.9
10-1-24	1.0	120
10-2-24	1.0	100
11-1-24	1.0	150
11-2-24	1.0	130
12-1-24	1.0	220
12-2-24	1.0	180

Centrum Analytical Laboratories, Inc.

Methanol by EPA 8015B

Client:	Center for Env. Microbiology	Date Sampled:	04/03/03
Project:	Acenol Study	Date Received:	05/12/03
Job No.:	22307	Date Analyzed:	05/12-15/03
Matrix:	Water	Batch Number:	GC28015W0236
Analyst:	TPW		GC28015W0237
			GC28015W0238
			GC28015W0239

Sample ID	Reporting Limit mg/L	Methanol mg/L
Method Blank	1.0	ND
7-1-4	1.0	ND
7-2-4	1.0	ND
8-1-4	1.0	26
8-2-4	1.0	28
9-1-4	1.0	46
9-2-4	1.0	55
10-1-4	1.0	120
10-2-4	1.0	98
11-1-4	1.0	150
11-2-4	1.0	110
12-1-4	1.0	210
12-2-4	1.0	180
7-1-8	1.0	ND
7-2-8	1.0	ND
8-1-8	1.0	26
8-2-8	1.0	13
9-1-8	1.0	45
9-2-8	1.0	50
10-1-8	1.0	110
10-2-8	1.0	87

Centrum Analytical Laboratories, Inc.

Methanol by EPA 8015B

Client:	Center for Env. Microbiology	Date Sampled:	04/03/03
Project:	Acenol Study	Date Received:	05/12/03
Job No.:	22307	Date Analyzed:	05/12-15/03
Matrix:	Water	Batch Number:	GC28015W0236
Analyst:	TPW		GC28015W0237
			GC28015W0238
			GC28015W0239

Sample ID	Reporting Limit mg/L	Methanol mg/L
Method Blank	1.0	ND
11-1-8	1.0	140
11-2-8	1.0	150
12-1-8	1.0	220
12-2-8	1.0	150
7-1-12	1.0	ND
7-2-12	1.0	ND
8-1-12	1.0	25
8-2-12	1.0	24
9-1-12	1.0	51
9-2-12	1.0	36
10-1-12	1.0	77
10-2-12	1.0	100
11-1-12	1.0	96
11-2-12	1.0	150
12-1-12	1.0	200
12-2-12	1.0	210
7-1-16	1.0	ND
7-2-16	1.0	ND
8-1-16	1.0	22
8-2-16	1.0	22

Centrum Analytical Laboratories, Inc.

Methanol by EPA 8015B

Client:	Center for Env. Microbiology	Date Sampled:	04/03/03
Project:	Acenol Study	Date Received:	05/12/03
Job No.:	22307	Date Analyzed:	05/12-15/03
Matrix:	Water	Batch Number:	GC28015W0236
Analyst:	TPW		GC28015W0237
			GC28015W0238
			GC28015W0239

Sample ID	Reporting Limit mg/L	Methanol mg/L
Method Blank	1.0	ND
9-1-16	1.0	52
9-2-16	1.0	37
10-1-16	1.0	75
10-2-16	1.0	60
11-1-16	1.0	96
11-2-16	1.0	120
12-1-16	1.0	160
12-2-16	1.0	180
7-1-20	1.0	ND
7-2-20	1.0	ND
8-1-20	1.0	19
8-2-20	1.0	28
9-1-20	1.0	53
9-2-20	1.0	41
10-1-20	1.0	98
10-2-20	1.0	110
11-1-20	1.0	140
11-2-20	1.0	120
12-1-20	1.0	130
12-2-20	1.0	170

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Centrum Job #

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ACENOL STUDY

Project No: FWENC

Project Name:

Project Manager:

Phone:

Fax:

Client Name: (Report and Billing) CEM

Address: (Report and Billing)

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions

Turn-Around Time

- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☐ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

1) Relinquished by: (Sampler's Signature)	Date:	Time:	3) Relinquished by:	Date:	Time:
2) Received by:	Date:	Time:	4) Received by:	Date:	Time:
			5) Relinquished by:	Date:	Time:
			6) Received for Laboratory by:	Date:	Time:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:

Samples chilled? ☐ Yes ☐ No ☐ From Field

Custody seals? ☐ Yes ☐ No

All sample containers intact? ☐ Yes ☐ No

☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal

- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Laboratory Notes:

Sample Locator No.

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Centrum duplicate Gold Copy - Client Copy

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Centrum Job #

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FWENC

ACENOL STUDY

Project No: [illegible]	Project Name: [illegible]
Project Manager: [illegible]	Phone: Fax:
Client Name: (Report and Billing) [illegible]	Address: (Report and Billing)

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664	[illegible]	GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
[illegible]	[illegible]	[illegible]		[illegible]							[illegible]											
[illegible]	[illegible]										[illegible]											
[illegible]	9-1-24										[illegible]											
[illegible]	[illegible]										[illegible]											
[illegible]	9-1-24										[illegible]											
[illegible]	[illegible]										[illegible]											
[illegible]	9-1-24										[illegible]											
[illegible]	[illegible]										[illegible]											
[illegible]	[illegible]										[illegible]											
[illegible]	[illegible]										[illegible]											

Turn-Around Time

- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☒ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

1) Relinquished by: (Sampler's Signature) [illegible]	Date: [illegible]	Time:	3) Relinquished by:	Date:	Time:
2) Received by:	Date:	Time:	4) Received by:	Date:	Time:
The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.			5) Relinquished by:	Date:	Time:
			6) Received for Laboratory by:	Date:	Time:

To be completed by Laboratory personnel:

Samples chilled? ☒ Yes ☐ No ☐ From Field

Custody seals? ☐ Yes ☒ No

All sample containers intact? ☐ Yes ☐ No

☐ Courier ☐ UPS/Fed Ex ☒ Hand carried

Sample Disposal

- ☐ Client will pick up
- ☐ Return to client
- ☒ Lab disposal

Laboratory Notes:

Sample Locator No.

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ACENOL STUDY

Project No: FWENC [illegible]

Project Name: [illegible]

Project Manager: [illegible]

Phone:

Fax:

Client Name: (Report and Billing) [illegible]

Address: (Report and Billing)

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
	11-1-24	[illegible]		[illegible]							X											
	11-2-24	[illegible]		[illegible]							X											
	11-1-24	[illegible]									X											
	11-2-24	[illegible]		[illegible]							X											
											X											

Turn-Around Time

- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☒ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

1) Relinquished by: (Sampler's Signature) [illegible]	Date:	Time:	3) Relinquished by:	Date:	Time:
2) Received by:	Date:	Time:	4) Received by:	Date:	Time:
			5) Relinquished by:	Date:	Time:
			6) Received for Laboratory by:	Date:	Time:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:

Samples chilled? ☒ Yes ☐ No ☐ From Field

Custody seals? ☐ Yes ☒ No

All sample containers intact? ☒ Yes ☐ No

☐ Courier ☐ UPS/Fed Ex ☒ Hand carried

Sample Disposal

- ☐ Client will pick up
- ☐ Return to client
- ☒ Lab disposal

Laboratory Notes:

Sample Locator No.

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Chain of Custody Record

Centrum Job #

Project No: FWLNG

Project Name:

Project Manager: MILES

Phone:

Fax:

Client Name: (Report and Billing) CCM

Address: (Report and Billing)

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
	7-1-4	4/3		W							X											
	7-2-4										X											
	8-1-4										X											
	8-2-4										X											
	9-1-4										X											
	9-2-4										X											
	10-1-4										X											
	10-2-4										X											
	11-1-4										X											
	11-2-4										X											

Turn-Around Time

- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☐ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

	Date:	Time:		Date:	Time:
1) Relinquished by: (Sampler's Signature) EM			3) Relinquished by:		
2) Received by:			4) Received by:		
			5) Relinquished by:		
			6) Received for Laboratory by:		

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:

Samples chilled? ☐ Yes ☐ No ☐ From Field

Custody seals? ☐ Yes ☐ No

All sample containers intact? ☐ Yes ☐ No

☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal

- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Laboratory Notes:

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Project No: TDENC

Project Name: ACENTE STUDY

Project Manager: M Lisi

Phone:

Fax:

Client Name: (Report and Billing) CCM

Address: (Report and Billing)

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664	Methanol	GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
"	12-1-4	4/3		W							X											
"	12-2-4										X											
"	7-1-8										X											
"	7-2-8										X											
"	8-1-8										X											
"	8-2-8										X											
"	9-1-8										X											
"	9-2-8										X											
"	10-1-8										X											
"	10-2-8										X											

Turn-Around Time

- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☐ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

1) Relinquished by: (Sampler's Signature) RCM	Date:	Time:	3) Relinquished by:	Date:	Time:
2) Received by:	Date:	Time:	4) Received by:	Date:	Time:
			5) Relinquished by:	Date:	Time:
			6) Received for Laboratory by:	Date:	Time:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:

Samples chilled? ☑ Yes ☐ No ☐ From Field

Custody seals? ☐ Yes ☐ No

All sample containers intact? ☑ Yes ☐ No

☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal

- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Laboratory Notes:

Sample Locator No.

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Chain of Custody Record

Centrum Job #

Project No: FWENC

Project Name: ACCNIL STUDY

Project Manager: M. Lisi

Phone:

Fax:

Client Name: (Report and Billing) CCM

Address: (Report and Billing)

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664	Methanol	GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
	11-1-8	4/3		W							X											
	11-2-8										X											
	12-1-8										X											
	12-2-8										X											
	7-1-12										X											
	7-2-12										X											
	8-1-12										X											
	8-2-12										X											
	9-1-12										X											
	9-2-12										X											

Turn-Around Time
- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☒ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

1) Relinquished by: (Sampler's Signature) [signature]	Date:	Time:	3) Relinquished by:	Date:	Time:
2) Received by:	Date:	Time:	4) Received by:	Date:	Time:
			5) Relinquished by:	Date:	Time:
			6) Received for Laboratory by:	Date:	Time:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Samples chilled? ☒ Yes ☐ No ☐ From Field
Custody seals? ☐ Yes ☐ No
All sample containers intact? ☐ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Laboratory Notes:

Sample Locator No.

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Chain of Custody Record

Centrum Job #

Project No: FNCNC
Project Name: [illegible]
Project Manager: [illegible]
Phone:
Fax:
Client Name: (Report and Billing) [illegible]
Address: (Report and Billing)

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664	[illegible]	GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
[illegible]	10-1-12	4/3		W							X											
[illegible]	10-2-12										X											
[illegible]	11-1-12										X											
[illegible]	11-2-12										X											
[illegible]	12-1-12										X											
[illegible]	12-2-12										X											
[illegible]	7-1-16										X											
[illegible]	7-2-16										X											
[illegible]	8-1-16										X											
[illegible]	8-2-16										X											

Turn-Around Time
- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☐ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

1) Relinquished by: (Sampler's Signature) [signature]	Date:	Time:	3) Relinquished by:	Date:	Time:
2) Received by:	Date:	Time:	4) Received by:	Date:	Time:
			5) Relinquished by:	Date:	Time:
			6) Received for Laboratory by:	Date:	Time:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Samples chilled? ☑ Yes ☐ No ☐ From Field
Custody seals? ☐ Yes ☐ No
All sample containers intact? ☑ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☑ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Laboratory Notes:

Sample Locator No.

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 ● 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90755
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com lab@centrum-labs.com

Chain of Custody Record

Centrum Job #

Project No: FWENC

Project Name: ACENEL STUDY

Project Manager: M. Lesi

Phone:

Fax:

Client Name: (Report and Billing) CEM

Address: (Report and Billing)

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664	[illegible]	GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
	9-1-16	4/3		W							X											
	9-2-16										X											
	10-1-16										X											
	10-2-16										X											
	11-1-16										X											
	11-2-16										X											
	12-1-16										X											
	12-2-16										X											
	7-1-20										X											
	7-2-20										X											

Turn-Around Time

- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☑ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

1) Relinquished by: (Sampler's Signature) Ben	Date:	Time:	3) Relinquished by:	Date:	Time:
2) Received by:	Date:	Time:	4) Received by:	Date:	Time:
			5) Relinquished by:	Date:	Time:
			6) Received for Laboratory by:	Date:	Time:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:

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Custody seals? ☐ Yes ☐ No

All sample containers intact? ☐ Yes ☐ No

☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal

- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Laboratory Notes:

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Chain of Custody Record

Centrum Job #

Page 6 of 6

Project No: [illegible]
Project Name: [illegible]
Project Manager: [illegible]
Phone:
Fax:
Client Name: (Report and Billing) [illegible]
Address: (Report and Billing)

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664	[illegible]	GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
[illegible]	8-1-20	4/3		W							+											
[illegible]	8-2-20										+											
[illegible]	9-1-20										+											
[illegible]	9-2-20										+											
[illegible]	10-1-20										+											
[illegible]	10-2-20										+											
[illegible]	11-1-20										+											
[illegible]	11-2-20										+											
[illegible]	12-1-20										+											
[illegible]	12-2-20										+											

Turn-Around Time
- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☑ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

1) Relinquished by: (Sampler's Signature) [illegible]	Date:	Time:	3) Relinquished by:	Date:	Time:
2) Received by:	Date:	Time:	4) Received by:	Date:	Time:
			5) Relinquished by:	Date:	Time:
			6) Received for Laboratory by:	Date:	Time:

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To be completed by Laboratory personnel:
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Custody seals? ☐ Yes ☑ No
All sample containers intact? ☐ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Laboratory Notes:

Sample Locator No.

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Centrum duplicate Gold Copy - Client Copy