



Seneca Environmental Services

File Name

Senders Initials

CON 12-15
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CON 12-15
Doc # 10546

Mr. Bob Drustrup
Contaminated Sites Section
Iowa Dept. of Natural Resources
Wallace State Office Building
Des Moines, IA 50319

July 21, 2004

Subject: Submittal of the Quarterly Status Report for Free Product Recovery
Former MacMillan Oil Site, 4306 NW 2nd Avenue, Des Moines, Iowa

Dear Mr. Drustrup:

Seneca Environmental Services is pleased to submit the Quarterly Status Report for the above referenced project for the 2nd Quarter of 2004. This report is meant to satisfy the reporting requirements as described in the Addendum to the Final Work Plan dated August 20, 2002, and IDNR response letter to the Addendum dated September 16, 2002. The active free product recovery system at this site has been temporarily shut down as of August 22, 2002. Free product recovery by hand bailing has been performed since this time, and on-site monitoring wells and nearby Wafley Creek are visually monitored. A revised monitoring schedule was approved and was initiated in July 2003, including: monthly product recovery, monthly inspection of Wafley Creek, quarterly creek samples, and quarterly status-reports.

Free product has not previously been detected leaching from bank of Wafley Creek during visual inspections. Monthly product recovery by hand bailing during April through June 2004 yielded approximately 0.7 gallon of product. Free product is normally recovered from monitoring wells MW2 and MW3, and recovery wells RW2, RW3, and RW4. Due to the discovery of product in MW1, MW7 and MW9 in July 2003 during annual groundwater sampling, these wells have been added to the monthly recovery protocol.

Soak Ease adsorbent socks have been used for free product recovery from all regularly monitored wells. Installation entails tying nylon string to one end of the soak ease and lowering it into the well until the wick is within the product. The nylon line is secured and the manway is closed. Recovery entails recovering the Soak Ease from the well, removing the adsorbed product from the Soak Ease, and recovering the liquid for volume measurement. If additional free product is found during scheduled free product checks, manual bailing or skimming procedures will be used.

Surface water samples are collected from three monitoring points along Wafley Creek and sent to a certified laboratory for OA1 (BTEX) analysis. One sample is taken on the subject property downgradient from the area containing free product (Stream A). Two upgradient samples are taken as control samples to the west of the site where two forks in the creek meet. The Stream B sample is collected from the north fork of the creek (flowing from a commercial area) and Stream C sample is collected from the east fork (flowing from a residential area). Quarterly surface water samples were collected on May 27, 2004, and analytical results are

Des Moines

P.O. Box 3360
4140 N.E. 14th Street
Des Moines, Iowa 50316-0360
515-262-3500
800-369-3500
515-262-2469 FAX

Bettendorf

17851 244th Avenue
Bettendorf, Iowa 52722
563-332-2272
800-728-6900
563-332-9465 FAX

DATE STAMP

4836 PM12:04 07/23/04



Seneca Environmental Services

Des Moines • Bettendorf

included as an attachment. Results indicate the samples collected from Wafley Creek at Sample points A, B, and C, did not contain significant amounts of BTEX.

The entire length of Wafley Creek is inspected from the downgradient monitoring location (Stream A) to the fork; then the east fork is inspected about 30 feet upstream, and the north fork is inspected to where it flows under 2nd Avenue on the east side of the road, and where it reappears on the west side of the road north of Hoffman Lane. No non-storm water discharges were apparent along the entire length of the creek during the April and May 2004 visual observations. A slight ribbon sheen was observed in the north fork at the railroad bridge during the June 2004 observation.

If you have any questions concerning this report, please do not hesitate to contact me at 515-261-7720.

Sincerely,
Seneca Environmental Services

Beth Curnes, P.E.
Chemical Engineer

Enc. Attachments

cc: Mr. George Milligan, MacMillan Oil Company, 500 Locust Avenue, Des Moines, IA 50309
Mr. Charles Becker, Belin Law Firm, 2000 Financial Center, Des Moines, IA 50309
Seneca Project File 6213004

FREE PRODUCT RECOVERY

Free product recovery was performed mechanically by pumping from recovery wells and treating groundwater until August 22, 2002, when the treatment system was temporarily shut down to attempt recovery by hand bailing. Based on monthly flow meter readings and estimates of free product entering the building, approximately 5 gallons of free product per month were collected by the treatment system excluding hand bailing. Approximately 40 gallons were collected over the eight-month period that the system was operating.

The attached free product recovery totals include free product recovered by hand bailing only. Site totals indicate that approximately 0.7 gallon of free product was manually recovered during the quarterly period of April through June 2004. According to monthly recovery site totals, approximately 36 gallons of product were recovered by hand bailing during the 12-month period from August 2002 through July 2003. Approximately 8 gallons of product were recovered during the 11-month period from August 2003 through June 2004.

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DNR Form 542-1424

Free Product Recovery Information

Tabulate the free product and groundwater volumes removed from each well. List each extraction event chronologically with the oldest data first. The results for all events must be provided. Give all elevations as feet Above Sea Level (ASL). Ground surface elevation must be reported to the nearest 0.1 foot. Top of casing elevation, static water elevations, and free product thickness must be reported to the nearest 0.01 foot. Volume of free product and groundwater removed must be reported to the nearest 0.1 gallon. A separate sheet should be used for each recovery well.

Well Number: MW-2

Ground Surface Elevation: 814.48

Top of Casing Elevation: 817.80

Date Sampled	Static Groundwater Level (feet ASL)	Free Product Thickness (feet)	Volume of Free Product Removed (gallons)	Volume of Groundwater Removed (gallons)
4/22/02	806.02*	0.03	0.05	0.15
7/1/02	805.74*	0.20	--	--
8/30/02	806.58*	0.18	0.01	0.68
9/6/02	806.07*	0.15	<0.01	0.69
9/13/02	805.82*	0.16	<0.01	0.66
9/21/02	806.15*	0.08	<0.01	0.54
9/28/02	805.82*	0.11	<0.01	0.44
10/4/02	806.81	0.00	0.00	0.00
10/11/02	806.30*	0.04	0.00	0.47
10/18/02	805.95*	0.07	0.00	0.05
10/25/02	807.98*	0.01	0.00	0.31
11/1/02	806.57*	0.01	0.00	0.33
11/11/02	805.84*	0.05	0.00	0.37
11/18/02	805.82*	0.04	0.00	0.36
11/24/02	805.46	Sheen	0.00	0.00
12/6/02	805.41	Sheen	0.00	0.01
12/13/02	805.34	0.00	0.00	0.01
12/20/02	805.28	0.00	0.00	0.00
12/27/02	805.24	0.00	Sheen	0.01
1/3/03	805.23	0.00	0.00	0.00
1/10/03	805.17	0.00	0.001	0.00
1/24/03	805.08	0.00	0.001	0.02
2/10/03	805.04	0.00	0.00	0.00
2/24/03	805.57	0.00	0.00	0.00
3/11/03	805.41	0.00	0.00	0.16
3/21/03	806.03	0.00	0.00	0.02
4/3/03	805.79	0.00	0.00	0.02
4/17/03	805.97	0.00	0.00	0.01

*Adjusted for FP

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*Adjusted for FP

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Free Product Recovery Information

Tabulate the free product and groundwater volumes removed from each well. List each extraction event chronologically with the oldest data first. The results for all events must be provided. Give all elevations as feet Above Sea Level (ASL). Ground surface elevation must be reported to the nearest 0.1 foot. Top of casing elevation, static water elevations, and free product thickness must be reported to the nearest 0.01 foot. Volume of free product and groundwater removed must be reported to the nearest 0.1 gallon. A separate sheet should be used for each recovery well.

Well Number: MW-3

Ground Surface Elevation: 814.44

Top of Casing Elevation: 814.01

Date Sampled	Static Groundwater Level (feet ASL)	Free Product Thickness (feet)	Volume of Free Product Removed (gallons)	Volume of Groundwater Removed (gallons)
3/20/02	806.34*	0.31	0.06	1.95
4/22/02	804.88*	0.52	0.14	0.31
7/1/02	803.94*	0.75	--	--
8/30/02	805.04*	0.66	0.08	0.87
9/6/02	804.64*	0.52	0.03	1.84
9/13/02	804.84*	0.43	0.01	1.68
9/21/02	804.44*	0.38	0.02	1.48
9/28/02	804.36*	0.30	0.01	1.47
10/4/02	805.20*	0.38	0.03	1.42
10/11/02	804.83*	0.33	0.01	1.25
10/18/02	804.56*	0.33	0.01	0.72
10/25/02	805.02*	0.30	0.01	1.27
11/1/02	804.91*	0.34	0.02	1.25
11/11/02	804.25*	0.33	0.02	1.43
11/18/02	804.46*	0.27	0.01	1.09
11/24/02	803.89	sheen	0.06	0.00
12/6/02	803.77	0.00	0.03	0.00
12/13/02	803.89	0.00	0.04	0.00
12/20/02	803.95	0.00	0.02	0.00
12/27/02	803.88	0.00	0.01	0.00
1/3/03	803.97	0.00	0.02	0.00
1/10/03	803.82	0.00	0.02	0.00
1/24/03	803.70	0.00	0.03	0.00
2/10/03	803.67	0.00	0.03	0.00
2/24/03	803.60	0.00	0.05	0.00
3/11/03	803.77	0.00	0.03	0.00
3/21/03	804.10	0.00	0.02	0.00
4/3/03	804.27	0.00	0.01	0.01
4/17/03	804.13	0.00	0.01	0.00

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*Adjusted for FP

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DNR Form 542-1424

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Free Product Recovery Information

Tabulate the free product and groundwater volumes removed from each well. List each extraction event chronologically with the oldest data first. The results for all events must be provided. Give all elevations as feet Above Sea Level (ASL). Ground surface elevation must be reported to the nearest 0.1 foot. Top of casing elevation, static water elevations, and free product thickness must be reported to the nearest 0.01 foot. Volume of free product and groundwater removed must be reported to the nearest 0.1 gallon. A separate sheet should be used for each recovery well.

Well Number: RW-2

Ground Surface Elevation: 814.63

Top of Casing Elevation: 814.64

Date Sampled	Static Groundwater Level (feet ASL)	Free Product Thickness (feet)	Volume of Free Product Removed (gallons)	Volume of Groundwater Removed (gallons)
3/20/02	799.72*	3.30	1.90	0.44
4/22/02	799.78*	3.40	1.20	0.0
7/1/02	799.92*	3.41	--	--
8/30/02	806.51*	1.31	0.98	2.63
9/6/02	805.62*	2.01	4.20	0.0
9/13/02	805.34*	0.39	2.10	0.0
9/21/02	805.47*	0.13	0.83	0.0
9/28/02	805.44*	0.02	0.23	0.0
10/4/02	805.88*	0.02	0.27	0.0
10/11/02	805.97*	0.03	0.24	0.0
10/18/02	805.49*	0.02	0.17	0.0
10/25/02	805.79*	0.02	0.00	0.0
11/1/02	806.11*	0.01	0.12	0.0
11/11/02	805.62*	0.01	0.09	0.0
11/18/02	805.31*	0.02	0.12	0.03
11/24/02	805.10	sheen	0.00	0.00
12/6/02	804.89	0.00	0.02	0.00
12/13/02	804.86	0.00	0.04	0.00
12/20/02	804.79	0.00	0.03	0.00
12/27/02	804.71	0.00	0.02	0.00
1/3/03	804.67	0.00	0.01	0.00
1/10/03	804.65	0.00	0.02	0.00
1/24/03	804.56	0.00	0.02	0.00
2/10/03	804.58	0.00	0.02	0.00
2/24/03	805.05	0.00	0.02	0.00
3/11/03	804.96	0.00	0.02	0.00
3/21/03	805.55	0.00	0.02	0.00
4/3/03	805.57	0.00	0.01	0.00
4/17/03	805.79	0.00	0.03	0.00

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*Adjusted for FP

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Free Product Recovery Information

Tabulate the free product and groundwater volumes removed from each well. List each extraction event chronologically with the oldest data first. The results for all events must be provided. Give all elevations as feet Above Sea Level (ASL). Ground surface elevation must be reported to the nearest 0.1 foot. Top of casing elevation, static water elevations, and free product thickness must be reported to the nearest 0.01 foot. Volume of free product and groundwater removed must be reported to the nearest 0.1 gallon. A separate sheet should be used for each recovery well.

Well Number: RW-3

Ground Surface Elevation: 814.56

Top of Casing Elevation: 814.85

Date Sampled	Static Groundwater Level (feet ASL)	Free Product Thickness (feet)	Volume of Free Product Removed (gallons)	Volume of Groundwater Removed (gallons)
3/20/02	805.25*	0.59	0.18	2.03
4/22/02	805.87*	0.53	0.19	0.23
7/1/02	799.13*	0.82	--	--
8/30/02	805.83*	0.48	0.23	1.21
9/6/02	805.67*	0.42	3.15	0.0
9/13/02	805.35*	0.29	2.10	0.0
9/21/02	805.65*	0.11	0.99	0.0
9/28/02	805.35*	0.06	0.50	0.0
10/4/02	806.65*	0.03	0.37	0.0
10/11/02	805.95*	0.01	0.10	0.0
10/18/02	805.52*	0.01	0.05	0.0
10/25/02	806.07*	0.03	0.00	0.0
11/1/02	806.13*	0.04	0.37	0.0
11/11/02	805.34*	0.02	0.32	0.0
11/18/02	805.36*	0.03	0.19	0.0
11/24/02	805.03	sheen	0.04	0.0
12/6/02	804.96	0.06	0.43	0.00
12/13/02	804.90	0.00	0.09	0.00
12/20/02	804.83	0.00	0.07	0.00
12/27/02	804.75	0.00	0.03	0.00
1/3/03	804.74	0.00	0.03	0.00
1/10/03	804.68	0.00	0.03	0.00
1/24/03	804.63*	0.02	0.25	0.00
2/10/03	804.62*	0.02	0.13	0.00
2/24/03	804.90*	0.01	0.09	0.00
3/11/03	804.92	0.00	0.04	0.00
3/21/03	805.58	0.00	0.05	0.00
4/3/03	805.57	0.00	0.03	0.00
4/17/03	805.71	0.00	0.03	0.00

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*Adjusted for FP

Free Product Recovery Information

Tabulate the free product and groundwater volumes removed from each well. List each extraction event chronologically with the oldest data first. The results for all events must be provided. Give all elevations as feet Above Sea Level (ASL). Ground surface elevation must be reported to the nearest 0.1 foot. Top of casing elevation, static water elevations, and free product thickness must be reported to the nearest 0.01 foot. Volume of free product and groundwater removed must be reported to the nearest 0.1 gallon. A separate sheet should be used for each recovery well.

Well Number: RW-3

Ground Surface Elevation: 814.56

Top of Casing Elevation: 814.85

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*Adjusted for FP

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Free Product Recovery Information

Tabulate the free product and groundwater volumes removed from each well. List each extraction event chronologically with the oldest data first. The results for all events must be provided. Give all elevations as feet Above Sea Level (ASL). Ground surface elevation must be reported to the nearest 0.1 foot. Top of casing elevation, static water elevations, and free product thickness must be reported to the nearest 0.01 foot. Volume of free product and groundwater removed must be reported to the nearest 0.1 gallon. A separate sheet should be used for each recovery well.

Well Number: RW-4

Ground Surface Elevation: 812.06

Top of Casing Elevation: 812.10

Date Sampled	Static Groundwater Level (feet ASL)	Free Product Thickness (feet)	Volume of Free Product Removed (gallons)	Volume of Groundwater Removed (gallons)
3/20/02	7.16* from TOC	0.65	0.71	5.59
7/1/02	7.28* from TOC	0.74	--	--
9/6/02	7.15* from TOC	0.59	3.57	0.0
9/13/02	7.35* from TOC	0.19	1.05	0.0
9/21/02	7.17* from TOC	0.09	0.66	0.0
9/28/02	7.33* from TOC	0.04	0.39	0.0
10/4/02	805.17*	0.01	0.05	0.0
10/11/02	805.03*	0.03	0.24	0.0
10/18/02	804.84*	0.02	0.08	0.0
10/25/02	805.06	0.00	0.00	0.0
11/1/02	805.13	0.00	0.00	0.0
11/11/02	804.89*	0.01	0.04	0.0
11/18/02	804.77*	0.02	0.03	0.13
11/24/02	804.69	sheen	0.02	0.0
12/6/02	804.64	0.00	0.01	0.00
12/13/02	804.60	0.00	0.01	0.00
12/20/02	804.61	0.00	0.01	0.00
12/27/02	804.57	0.00	0.16	0.00
1/3/03	804.53*	0.08	0.72	0.00
1/10/03	804.58*	0.06	0.51	0.00
1/24/03	804.52	0.00	0.01	0.00
2/10/03	804.48*	0.28	2.46	0.00
2/24/03	804.83*	0.06	0.36	0.00
3/11/03	804.66*	0.04	0.32	0.00
3/22/03	805.01	0.00	0.07	0.00
4/3/03	804.86	0.00	0.03	0.01
4/17/03	805.02	0.00	0.06	0.00

*Adjusted for FP

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Free Product Recovery - Site Totals

Tabulate the total groundwater volume and total free product volume removed from all the recovery wells at the site. Volume of free product and groundwater recovered must be reported to the nearest 0.1 gallon. List the site totals starting with the first month the recovery was initiated. The results for all events must be provided.

Volume of Water Recovered

Month / Year - Gallons	Month / Year - Gallons	Month / Year - Gallons
3/02 - 10.01	7/03 - 2.55	-
4/02 - 0.69	8/03 - 1.5	-
7/02 - 0.0	9-10/03 - 0.46	-
8/02 - 5.39	11-12/03 - 0.0	-
9/02 - 8.80	1/04 - 0.0	-
10/02 - 5.49	2/04 - 0.0	-
11/02 - 4.99	3/04 - 0.0	-
12/02 - 0.03	4/04 - 0.0	-
1/03 - 0.02	5/04 - 0.0	-
2/03 - 0.0	6/04 - 0.0	-
3/03 - 0.18	-	-
4/03 - 0.05	-	-
5/03 - 0.16	-	-
6/03 - 0.01	-	-

Volume of Free Product Recovered

Month / Year - Gallons	Month / Year - Gallons	Month / Year - Gallons
3/02 - 2.85	7/03 - 1.24	-
4/02 - 1.58	8/03 - 5.2	-
7/02 - 0.0	9-10/03 - 0.71	-
8/02 - 1.30	11-12/03 - 0.51	-
9/02 - 19.84	1/04 - 0.23	-
10/02 - 1.63	2/04 - 0.12	-
11/02 - 1.45	3/04 - 0.18	-
12/02 - 1.02	4/04 - 0.18	-
1/03 - 1.67	5/04 - 0.22	-
2/03 - 3.16	6/04 - 0.26	-
3/03 - 0.57	-	-
4/03 - 0.21	-	-
5/03 - 3.75	-	-
6/03 - 0.41	-	-

ANALYTICAL REPORT

Beth Curnes
SENECA ENVIRONMENTAL
SERVICES, INC.
4140 N.E. 14th St.
Des Moines, IA 50313

06/04/2004

TestAmerica Job: 04.06925

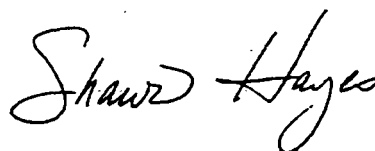
Project Number: 6213004
Project: McMillan Oil-2nd Ave.

Enclosed is the Analytical Reports for the following samples submitted to the Cedar Falls Division of TestAmerica Analytical Testing Corporation for analysis.

Sample Number	Sample Description	Date Taken	Date Received
802356	A	05/27/2004	05/28/2004
802357	B	05/27/2004	05/28/2004
802358	C	05/27/2004	05/28/2004

TestAmerica Analytical Testing Corporation certifies that the analytical results contained herein apply only to the specific samples analyzed.

Reproduction of this analytical report is permitted only in its entirety.



Shawn Hayes
Project Manager

ANALYTICAL REPORT

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Beth Curnes
SENECA ENVIRONMENTAL
SERVICES, INC.
4140 N.E. 14th St.
Des Moines, IA 50313
800-369-3500

06/04/2004

Job Number: 04.06925

Sample Number: 802356

Collected by: James Carolus

Collectors Phone No.: 800-369-3500

Job Description: MCMILLAN OIL - 2ND AVE.
6213004

Date Taken: 05/27/2004

Sample ID: A

Date Received: 05/28/2004

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Result</u>		<u>Date</u>		<u>Quantitation</u>	
			<u>Flag</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Method</u>	<u>Limit</u>	<u>Matrix</u>
VOLATILES - BTEX (WATER)								
Benzene	<2.0	ug/L		mmk	06/03/2004	IA-OA1	2.0	WATER
Toluene	<2.0	ug/L		mmk	06/03/2004	IA-OA1	2.0	WATER
Ethylbenzene	<2.0	ug/L		mmk	06/03/2004	IA-OA1	2.0	WATER
Xylenes, Total	<3.0	ug/L		mmk	06/03/2004	IA-OA1	3.0	WATER
VOA Preservation pH	<2	units		dmd	06/04/2004	SW 9041A		WATER

All results are calculated on a wet weight basis.

ANALYTICAL REPORT

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Beth Curnes
SENECA ENVIRONMENTAL
SERVICES, INC.
4140 N.E. 14th St.
Des Moines, IA 50313
800-369-3500

06/04/2004

Job Number: 04.06925

Sample Number: 802357

Collected by: James Carolus

Collectors Phone No.: 800-369-3500

Job Description: MCMILLAN OIL - 2ND AVE.
6213004

Date Taken: 05/27/2004

Sample ID: B

Date Received: 05/28/2004

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Result</u>		<u>Date</u>		<u>Quantitation</u>	
			<u>Flag</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Method</u>	<u>Limit</u>	<u>Matrix</u>
VOLATILES - BTEX (WATER)								
Benzene	<2.0	ug/L		mmk	06/03/2004	IA-OA1	2.0	WATER
Toluene	<2.0	ug/L		mmk	06/03/2004	IA-OA1	2.0	WATER
Ethylbenzene	<2.0	ug/L		mmk	06/03/2004	IA-OA1	2.0	WATER
Xylenes, Total	<3.0	ug/L		mmk	06/03/2004	IA-OA1	3.0	WATER
VOA Preservation pH	<2	units		dmd	06/04/2004	SW 9041A		WATER

All results are calculated on a wet weight basis.

ANALYTICAL REPORT

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Beth Curnes
SENECA ENVIRONMENTAL
SERVICES, INC.
4140 N.E. 14th St.
Des Moines, IA 50313
800-369-3500

06/04/2004

Job Number: 04.06925

Sample Number: 802358

Collected by: James Carolus

Collectors Phone No.: 800-369-3500

Job Description: MCMILLAN OIL - 2ND AVE.
6213004

Date Taken: 05/27/2004

Sample ID: C

Date Received: 05/28/2004

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Result		Date		Quantitation	
			<u>Flag</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Method</u>	<u>Limit</u>	<u>Matrix</u>
VOLATILES - BTEX (WATER)								
Benzene	<2.0	ug/L		mmk	06/03/2004	IA-OA1	2.0	WATER
Toluene	<2.0	ug/L		mmk	06/03/2004	IA-OA1	2.0	WATER
Ethylbenzene	<2.0	ug/L		mmk	06/03/2004	IA-OA1	2.0	WATER
Xylenes, Total	<3.0	ug/L		mmk	06/03/2004	IA-OA1	3.0	WATER
VOA Preservation pH	<2	units		dmd	06/04/2004	SW 9041A		WATER

All results are calculated on a wet weight basis.

QUALITY CONTROL REPORT

SENECA ENVIRONMENTAL
SERVICES, INC.
4140 N.E. 14th St.
Des Moines, IA 50313
Beth Curnes

06/04/2004

Job Number: 04.06925

Enclosed is the Quality Control data for the following samples submitted to TestAmerica, Inc. - Cedar Falls for analysis:

Sample Number	Sample Description	Date Taken	Date Received
802356	A	05/27/2004	05/28/2004
802357	B	05/27/2004	05/28/2004
802358	C	05/27/2004	05/28/2004

This Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Iowa Laboratory Certification number - 7

QUALITY CONTROL REPORT

SENECA ENVIRONMENTAL
SERVICES, INC.
4140 N.E. 14th St.
Des Moines, IA 50313
Beth Curnes

06/04/2004

Job Number: 04.06925

	Result	Units	Date Analyzed	Prep Batch Number	Run Batch Number	Analysis Method	Quantitation Limit
802356 A			05/27/2004				
VOLATILES - BTEX (WATER)							
Benzene	<2.0	ug/L	06/03/2004		10526	IA-OA1	2.0
Toluene	<2.0	ug/L	06/03/2004		10526	IA-OA1	2.0
Ethylbenzene	<2.0	ug/L	06/03/2004		10526	IA-OA1	2.0
Xylenes, Total	<3.0	ug/L	06/03/2004		10526	IA-OA1	3.0
4-Bromofluorobenzene (surr.)	89.2	μ	06/03/2004		10526	IA-OA1	1
VOA Preservation pH	<2	units	06/04/2004		974	SW 9041A	
802357 B			05/27/2004				
VOLATILES - BTEX (WATER)							
Benzene	<2.0	ug/L	06/03/2004		10526	IA-OA1	2.0
Toluene	<2.0	ug/L	06/03/2004		10526	IA-OA1	2.0
Ethylbenzene	<2.0	ug/L	06/03/2004		10526	IA-OA1	2.0
Xylenes, Total	<3.0	ug/L	06/03/2004		10526	IA-OA1	3.0
4-Bromofluorobenzene (surr.)	87.8	μ	06/03/2004		10526	IA-OA1	1
VOA Preservation pH	<2	units	06/04/2004		974	SW 9041A	
802358 C			05/27/2004				
VOLATILES - BTEX (WATER)							
Benzene	<2.0	ug/L	06/03/2004		10526	IA-OA1	2.0
Toluene	<2.0	ug/L	06/03/2004		10526	IA-OA1	2.0
Ethylbenzene	<2.0	ug/L	06/03/2004		10526	IA-OA1	2.0
Xylenes, Total	<3.0	ug/L	06/03/2004		10526	IA-OA1	3.0
4-Bromofluorobenzene (surr.)	89.4	μ	06/03/2004		10526	IA-OA1	1
VOA Preservation pH	<2	units	06/04/2004		974	SW 9041A	

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

SENECA ENVIRONMENTAL
SERVICES, INC.
4140 N.E. 14th St.
Des Moines, IA 50313
Beth Curnes

06/04/2004

Job Number: 04.06925

Analyte	Prep Batch Number	Run Batch Number	CCV True Concentration	Concentration Found	Percent Recovery
VOLATILES - BTEX (WATER)					
Benzene		10526	100.	84.0	84.0
Toluene		10526	100.	95.1	95.1
Ethylbenzene		10526	100.	95.8	95.8
Xylenes, Total		10526	300	285	95.0
4-Bromofluorobenzene (surr.)		10526	100.0	93.2	93.2

CCV - Continuing Calibration Verification

QUALITY CONTROL REPORT BLANKS

SENECA ENVIRONMENTAL
SERVICES, INC.
4140 N.E. 14th St.
Des Moines, IA 50313
Beth Curnes

06/04/2004

Job Number: 04.06925

Analyte	Prep Batch Number	Run Batch Number	Blank Analysis	Units
VOLATILES - BTEX (WATER)				
Benzene		10526	<2.0	ug/L
Toluene		10526	<2.0	ug/L
Ethylbenzene		10526	<2.0	ug/L
Xylenes, Total		10526	<3.0	ug/L

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

06/04/2004

Beth Curnes
SENECA ENVIRONMENTAL
SERVICES, INC.
4140 N.E. 14th St.
Des Moines, IA 50313

Job No: 04.06925

Analyte	Prep	Run	LCS		LCS	LCSD	LCS	LCSD	Control	RPD Max.	
	Batch	Batch	Amount	Units	Result	Result	% Rec	% Rec	Limits	RPD	Limit
VOLATILES - BTEX (WATER)											
Benzene		10526	20.0	ug/L	17.4		87.0		47 - 114		20
Toluene		10526	20.0	ug/L	19.5		97.5		69 - 113		20
Ethylbenzene		10526	20.0	ug/L	19.9		99.5		74 - 121		20
Xylenes, Total		10526	60.0	ug/L	59.9		99.8		72 - 114		20
4-Bromofluorobenzene (surr		10526	100.0	%	93.5		93.5		78 - 124		20

TestAmerica Job Number: 04.06925

ATTACHMENTS

Following are the sample receipt log and the chain of custody applicable to this analytical report.

Any abnormalities or departures from sample acceptance policy shall be documented on the "Sample Receipt and Temperature Log Form" and Sample Non-Conformance Form" (if applicable) included with this report.

For information concerning certifications of this facility or another TestAmerica facility please visit our website at www.TestAmericaInc.com.

This data has been produced in compliance with 2001 NELAC Standards (July 2003), except where noted.

Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) and are sampled in accordance with TA-CF SOP CF09-01.

This report shall not be reproduced, except in full, without written approval of the laboratory.

For questions regarding this report, please contact the individual who signed the analytical report.

ANALYTICAL TESTING CORPORATION

Phone 319-277-2401 or 800-750-2401
Fax 319-277-2425

Compliance Monitoring

Client Name Seneca Environmental Client #: 40200

Address: 4140 NE 14th Street

City/State/Zip Code: Des Moines, IA 50316-0360

Project Manager: Both Culas

Telephone Number: 515-262-3500 Fax: _____

Sampler Name: (Print Name) James Carpio

Sampler Signature: W. J. [Signature]

Email Address: _____

Project Name: *McMillan oil 2nd Ave.*

Project #: 6213004

Site/Location ID: _____ State: Iowa

Report To: Seneca Environmental

Invoice To: Seneca Environmental

Quote #: PO#: 177557

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