Nuclear Fuel Services, Inc.
1205 Banner Hill Road
Erwin, TN 37650

(423) 743-9141

www.nuclearfuelservices.com

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

21G-04-0114
GOV-01-60
GOV-05-01-03
ACF-04-0250

August 3, 2004

Mr. Winston A. Smith, Director
Waste Management Division
U.S. Environmental Protection Agency, Region IV
61 Forsyth Street, Southwest
Atlanta, Georgia 30303-3104

Mr. Mike Apple, Director
Division of Solid Waste Management
Tennessee Department of Environment and Conservation
Fifth Floor, L & C Tower
401 Church Street
Nashville, Tennessee 37243-1535

Reference: 1) Hazardous Waste Management Permit TNHW-108
Nuclear Fuel Services, Inc., Erwin, Tennessee
EPA ID: TND 00 309 5635
2) NRC Docket No. 70-143; SNM License 124

Dear Messrs. Smith and Apple:

As required by Condition VI.A.d. and Condition VI.F.3.a. of the above referenced permit, Nuclear Fuel Services, Inc. (NFS) hereby encloses the quarterly RCRA Facility Investigation (RFI) and Interim Measures (IM) Progress Reports as Attachments I and II. The next quarterly RFI/IM Progress Reports will be submitted by November 14, 2004.

If you or your staff have any questions, require additional information, or wish to discuss this, please contact me or Ms. Janice Greene, Environmental Safety Manager, at (423) 743-1730. Please reference our unique document identification number (21G-04-0114) in any correspondence concerning this letter.

Sincerely,

NUCLEAR FUEL SERVICES, INC.

B. Marie Moore
Vice President, Safety & Regulatory

NMSS01

RGM/dsf

Attachments

xc:

Mr. Leo Romanowski
Waste Management Division
U.S. Environmental Protection Agency, Region IV
61 Forsyth Street, Southwest
Atlanta, Georgia 30303-3104

Mr. Fred Willingham, Regional Director
Tennessee Department of Environment and Conservation
2305 Silverdale Road
Johnson City, Tennessee 37601-2162

Regional Administrator
U.S. Nuclear Regulatory Commission, Region II
Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, Georgia 30303

Mr. Daniel Rich
Senior Resident Inspector
U.S. Nuclear Regulatory Commission

Ms. Debra Shults, Deputy Director
Division of Radiological Health
Tennessee Department of Environment and Conservation
L&C Annex, Third Floor
401 Church Street
Nashville, Tennessee 37243-1532

Director,
Office of Nuclear Material Safety & Safeguards
U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Mr. Bill Gloersen, Project Inspector
U.S. Nuclear Regulatory Commission, Region II
Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, Georgia 30303

Attachment I to letter
B.M. Moore to Mr. Winston Smith and Mr. Mike Apple

RFI Progress Report

(18 pages to follow)

RCRA FACILITY INVESTIGATION (RFI) PROGRESS REPORT
NUCLEAR FUEL SERVICES, INC. (NFS)
ENVIRONMENTAL PROTECTION AGENCY (EPA) ID NO. TND 00 309 5635

1.0 Off-Site Groundwater Investigation

1.1 Work Completed (May 15, 2004 – August 14, 2004)

The nine off-site monitoring wells were sampled on April 13, 19-21 and June 21-22, 2004 for second quarter 2004. Filtered and unfiltered samples for radiological analyses were collected from Wells 120A and 120B. Only filtered samples for radiological analyses were collected from Wells 116A, 116B, 117A, 117B, 118A, 118B, and 119A. The data from the filtered samples represents the dissolved activity in the water and the data from the unfiltered samples represents the total activity in the water. All samples were analyzed for tetrachloroethylene (PCE), trichloroethylene (TCE), cis-1,2-dichloroethylene (DCE), trans-1,2 DCE, vinyl chloride, gross alpha activity, and gross beta activity. Wells 116A, 116B, 118A, 118B, 119A, 120A, and 120B were analyzed for isotopic uranium (U), thorium (Th), plutonium (Pu), and technetium-99 (Tc-99). Second quarter non-radiological and radiological results are presented in this report.

1.2 Findings and Observations

Second quarter 2004 results for volatile organic compounds in the off-site wells are presented in Table 1. The gross alpha and gross beta results are presented in Table 2. Technetium-99 results are presented in Table 3. Isotopic results for U, Th, and Pu are presented in Table 4. PCE and TCE concentrations for off-site wells were plotted quarterly since second quarter 2002 and are presented in Figure 1.

PCE - Detected concentrations of PCE in the off-site wells during second quarter 2004 ranged from 0.025 mg/L to 2.6 mg/L. PCE was detected in seven of nine wells at concentrations greater than the 0.005 mg/L MCL. Data observed during second quarter 2004 is consistent with historical data.

TCE - Detected concentrations of TCE in the off-site wells during second quarter 2004 ranged from 0.002 mg/L to 0.082 mg/L. TCE was detected in five of nine wells at concentrations greater than the 0.005 mg/L MCL. The data for second quarter 2004 is consistent with historical data.

Cis-1,2 DCE - Detected concentrations of cis-1,2 DCE in the off-site wells during second quarter 2004 ranged from 0.001 mg/L to 0.13 mg/L. Cis-1,2 DCE was detected in two

(Well 116A and 116B) of the nine wells at concentrations greater than the 0.07 mg/L MCL. The data for second quarter 2004 is consistent with historical data.

Trans-1,2 DCE - There were no detected concentrations above the 0.100 mg/L MCL for trans-1,2 DCE during second quarter 2004.

Vinyl Chloride –One well (116A) contained an estimated concentration of vinyl chloride above the MCL (0.002 mg/L). However, detection limits for vinyl chloride are greater than the MCL for wells 116B, 117A, 117B, 120A, and 120B. The data for second quarter 2004 is consistent with historical data with the exception of Well 116A, which increased in concentration. This increase in concentration is suspected to be a result of the well being affected by on-site groundwater remediation being conducted upgradient of Well 116A using the in-situ reactive zone technology. Vinyl Chloride is known to increase as a result of reductive dechlorination of cis-1,2-DCE.

Gross Alpha – Dissolved gross alpha activity in the off-site wells during the second quarter 2004 ranged from an estimated 0.190 pCi/L to an estimated 5 pCi/L. Total gross alpha activity in the off-site wells collected during the second quarter 2004 was an estimated 0.690 pCi/L and 1.4 pCi/L. The filtered and unfiltered data for second quarter 2004 is consistent with historical data.

Gross Beta – Dissolved gross beta activity in the off-site wells during the second quarter 2004 ranged from 1.9 pCi/L to 25 pCi/L. Total gross beta activity in the off-site wells collected during the second quarter 2004 was 14 pCi/L and 16 pCi/L. The filtered and unfiltered data for the second quarter 2004 are similar to historical data.

Technetium-99 – Dissolved technetium-99 activity in the off-site wells during the second quarter 2004 ranged from an estimated -1.8 pCi/L to 47 pCi/L. Total technetium-99 activity in the off-site wells collected during the second quarter 2004 was 27 pCi/L and 32 pCi/L. The detected concentrations were well below the EPA MCL of 900 pCi/L and the filtered and unfiltered data for the second quarter 2004 are similar to historical data.

Isotopic Pu, Th, and U – During the second quarter 2004, all of the offsite wells were analyzed for isotopic U, Th, and Pu except wells 117A and 117B. Total U, total Th, and total Pu was calculated by adding the result of their respective isotopes. Dissolved total U concentrations ranged from an estimated 0.217 pCi/L to an estimated 3.48 pCi/L. Total total U concentrations were an estimated 0.883 pCi/L and an estimated 1.14 pCi/L. Dissolved total Th concentrations ranged from an estimated 0.78 pCi/L to an estimated 1.301 pCi/L. Total total Th concentrations were an estimated 0.79 pCi/L and an estimated 0.82 pCi/L. Dissolved total Pu concentrations ranged from an estimated 0.11 pCi/L to an estimated 0.646 pCi/L. Total total Pu concentrations were an estimated 0.27 pCi/L and an estimated 0.61 pCi/L. The total isotopic concentration (total U + total Th + total Pu) is less than the gross alpha EPA drinking water MCL of 15 pCi/L.

1.3 Work Projected (August 15, 2004 – November 14, 2004)

Third quarter 2004 off-site sampling occurred on July 13, 15 and 16, 2004. The analytical data will be received from an off-site laboratory and validated. The results will be reported in next quarter's report.

2.0 General Information

Full-scale activities continued at the maintenance shop area utilizing the in-situ reactive zone technology. Activities included reagent injections, down-hole monitoring, and the second quarter 2004 performance monitoring. Six of the fifteen observation wells that contained PCE concentrations greater than the 0.005 mg/L MCL at baseline have had reductions of PCE concentrations below the MCL. Three of the five observation wells that contained total or dissolved uranium concentrations greater than the 0.030 mg/L MCL at baseline have had reductions of total and dissolved uranium concentrations below the MCL.

Table 1. Second Quarter 2004 Offsite Groundwater Analytical Results for Volatile Organic Compounds

Location	Tetrachloroethylene mg/l	Trichloroethylene mg/l	1,2-Dichloroethylene (DCE) cis-1,2-DCE mg/l	trans-1,2-DCE mg/l	Total 1,2-DCE mg/l	Vinyl Chloride mg/l
Well 116A	0.230	0.010	0.120	U< 0.005	ND	J 0.016
Well 116B	2.600	0.082	0.130	U< 0.050	ND	U< 0.100
Well 117A	0.055	U< 0.004	U< 0.004	U< 0.004	ND	U< 0.004
Well 117B	0.403	0.016	0.024	U< 0.004	ND	U< 0.004
Well 118A	U< 0.001	0.002	0.005	U< 0.001	ND	U< 0.001
Well 118B	U< 0.001	0.003	0.008	U< 0.001	ND	U< 0.001
Well 119A	0.025	0.002	0.001	U< 0.001	ND	U< 0.001
Well 120A	0.280	0.013	0.011	U< 0.005	ND	U< 0.010
Well 120B	0.320	0.014	0.013	U< 0.005	ND	U< 0.010
Mean	**0.435**	**0.016**	**0.035**	**0.008**		**0.016**
Standard Deviation	**0.826**	**0.026**	**0.051**	**0.016**		**0.032**
Observations	**9**	**9**	**9**	**9**		**9**
t-value	**1.860**	**1.860**	**1.860**	**1.860**		**1.860**
95% Upper Confidence Limit	**0.947**	**0.032**	**0.067**	**0.018**		**0.036**
MCL	**0.005**	**0.005**	**0.07**	**0.1**		**0.002**

Produced by: Kelli McKinney 7/21/04

KEY:
MCL - Maximum Contaminant Level (EPA, 1996)
< = Less than the detection limit; value given is the quantitation limit.
J = Estimated Result
U = Below Lab Detection Limits
ND - No Data

Table 2
Second Quarter 2004 Offsite Groundwater
Analytical Results for Gross Alpha and Gross Beta

Dissolved (Filtered)

		Gross Alpha (pCi/l)				Gross Beta (pCi/l)		
		Result	Error	MDC		Result	Error	MDC
Well 116A	U	0.190	0.490	0.930		3.100	0.740	0.740
Well 116B		1.000	0.640	0.770		25.000	2.900	0.720
Well 117A	J	3.000	4.000	0.000	J	10.000	3.000	4.000
Well 117B	J	5.000	4.000	0.000	J	21.000	3.000	4.000
Well 118A		4.500	1.400	1.000		6.100	1.100	1.100
Well 118B		0.930	0.640	0.840		4.300	0.860	0.730
Well 119A	U	0.220	0.410	0.740		1.900	0.590	0.720
Well 120A	U	0.730	0.580	0.820		18.000	2.300	1.000
Well 120B		1.700	0.810	0.850		14.000	1.900	1.000
Mean		1.919				11.489		
Standard Deviation		1.819				8.418		
Observations		9				9		
t-Value		1.860				1.860		
95% Upper Confidence Limit		3.047				16.708		
Internal NFS Action Level		15.000				50.000		

KEY:
MDC - Minimum Detectable Concentration.
Negative results are considered "0" when calculating statistics.

Validation Qualifiers:
J = Estimated Result
U = Below Lab Detection Limits

Produced by: Robbi Mckinney 7/19/04

Printed: 07/19/2004

NFS - EDMS

Table 2
Second Quarter 2004 Offsite Groundwater
Analytical Results for Gross Alpha and Gross Beta

Total (Unfiltered)

		Gross Alpha (pCi/l)			Gross Beta (pCi/l)		
		Result	Error	MDC	Result	Error	MDC
Well 120A		1.400	0.700	0.720	16.000	2.000	0.710
Well 120B	U	0.690	0.590	0.860	14.000	1.900	1.000
Mean		1.045			15.000		
Standard Deviation		0.502			1.414		
Observations		2			2		
t-Value		6.314			6.314		
95% Upper Confidence Limit		3.286			21.314		
Internal NFS Action Level		15.000			50.000		

KEY:
MDC - Minimum Detectable Concentration.
Negative results are considered "0" when calculating statistics.

Validation Qualifiers:
J = Estimated Result
U = Below Lab Detection Limits

Produced by: Robbi McKinney 7/19/04

Table 3
Second Quarter 2004 Offsite Groundwater Analytical Results for Technetium-99

Dissolved (Filtered)
Technetium (pCi/l)

		Result	Error	MDC
Well 116A	U	0.990	2.500	4.300
Well 116B		47.000	8.900	4.400
Well 118A	U	-0.210	2.500	4.400
Well 118B	U	-1.800	2.400	4.200
Well 119A	U	1.500	2.600	4.400
Well 120A		34.000	6.700	4.200
Well 120B		36.000	7.000	4.100
Mean		16.783		
Standard Deviation		21.197		
Observations		7		
t-Value		1.943		
95% Upper Confidence Limit		32.350		
MCL		900 pCi/l		

Total (Unfiltered)
Technetium (pCi/l)

		Result	Error	MDC
Well 120A		32.000	6.300	4.100
Well 120B		27.000	7.200	8.600
Mean		29.500		
Standard Deviation		3.536		
Observations		2		
t-Value		6.314		
95% Upper Confidence Limit		45.285		
MCL		900 pCi/l		

KEY:
MDC - Minimum Detectable Concentration.
Negative results are considered "0" when calculating statistics.

Validation Qualifiers:
U = Below Lab Detection Limits

Produced by: Robbi Mahoney

Printed: 07/19/2004

NFS - EDMS

7/19/04

Table 4

Second Quarter 2004 Offsite Groundwater Analytical Results for Isotopic Uranium (U), Isotopic Plutonium (Pu) and Isotopic Thorium (Th)

Dissolved (Filtered)

	U-233/234 (pCi/l)				U-235 (pCi/l)				U-238 (pCi/l)			Isotopic Uranium (pCi/l)
	Result	Error	MDC		Result	Error	MDC		Result	Error	MDC	Result
Well 116A	0.410	0.220	0.058	U	0.013	0.059	0.160		0.190	0.140	0.058	0.613
Well 116B	0.500	0.260	0.150	U	0.052	0.075	0.070	U	0.021	0.066	0.150	0.573
Well 118A	2.400	0.860	0.160	U	0.120	0.140	0.200		0.960	0.430	0.160	3.480
Well 118B	0.940	0.570	0.430	U	0.073	0.150	0.200		0.380	0.340	0.350	1.393
Well 119A U	0.160	0.140	0.170	U	0.000	0.000	0.076	U	0.057	0.083	0.140	0.217
Well 120A	0.320	0.190	0.120	U	0.000	0.063	0.190		0.250	0.160	0.056	0.570
Well 120B	0.550	0.330	0.230	U	0.070	0.140	0.280		0.260	0.210	0.100	0.880
Mean	0.754				0.047				0.303			1.104
Standard Deviation	0.765				0.045				0.315			1.109
Observations	7				7				7			7
t-Value	1.943				1.943				1.943			1.943
95% Upper Confidence Limit	1.316				0.080				0.534			1.918

KEY:
MDC - Minimum Detectable Concentration.
Negative results are considered "0" when calculating isotopic results and statistics.

Validation Qualifiers:
U = Below Lab Detection Limits

Produced by: Robbi McKenney 7/19/04

Table 4

Second Quarter 2004 Offsite Groundwater Analytical Results for Isotopic Uranium (U), Isotopic Plutonium (Pu) and Isotopic Thorium (Th)

Total (Unfiltered)

	U-233/234 (pCi/l)				U-235 (pCi/l)			U-238 (pCi/l)			Isotopic Uranium (pCi/l)
	Result	Error	MDC		Result	Error	MDC	Result	Error	MDC	Result
Well 120A	0.680	0.320	0.130	U	0.120	0.130	0.160	0.340	0.200	0.130	1.140
Well 120B	0.510	0.250	0.056	U	0.063	0.093	0.150	0.310	0.180	0.055	0.883
Mean	0.595				0.092			0.325			1.011
Standard Deviation	0.120				0.040			0.021			0.182
Observations	2				2			2			2
t-Value	6.314				6.314			6.314			6.314
95% Upper Confidence Limit	1.132				0.271			0.420			1.823

KEY:
MDC - Minimum Detectable Concentration.
Negative results are considered "0" when calculating isotopic results and statistics.

Validation Qualifiers:
U = Below Lab Detection Limits

Produced by: Robin McKinney 7/19/04

Table 4

Second Quarter 2004 Offsite Groundwater Analytical Results for Isotopic Uranium (U), Isotopic Plutonium (Pu) and Isotopic Thorium (Th)

Dissolved (Filtered)

		Th-228 (pCi/l)				Th-230 (pCi/l)				Th-232 (pCi/l)			Isotopic Thorium (pCi/l)
		Result	Error	MDC		Result	Error	MDC		Result	Error	MDC	Result
Well 116A	U	0.011	0.100	0.240	B	1.100	0.440	0.130	B	0.190	0.150	0.150	1.301
Well 116B	U	0.020	0.081	0.190	B	0.770	0.330	0.055	B	0.260	0.160	0.055	1.050
Well 118A	U	0.053	0.078	0.130	B	0.690	0.320	0.130	U	0.190	0.160	0.230	0.933
Well 118B	U	0.021	0.099	0.230	B	0.900	0.390	0.150	B	0.150	0.120	0.057	1.071
Well 119A	U	0.031	0.062	0.120	B	0.630	0.300	0.150	B	0.160	0.120	0.055	0.821
Well 120A	U	0.000	0.072	0.190	B	0.790	0.360	0.260	B	0.210	0.150	0.150	1.000
Well 120B	U	0.000	0.100	0.250	B	0.670	0.320	0.250	U	0.110	0.110	0.120	0.780
Mean		0.019				0.793				0.181			0.994
Standard Deviation		0.019				0.163				0.048			0.175
Observations		7				7				7			7
t-Value		1.943				1.943				1.943			1.943
95% Upper Confidence Limit		0.033				0.912				0.217			1.122

KEY:
MDC - Minimum Detectable Concentration.
Negative results are considered "0" when calculating isotopic results and statistics.

Validation Qualifiers:
B = Sample Result < 5 times activity detected in the blank
U = Below Lab Detection Limits

Produced by: Robbie Nakamura 7/19/04

Table 4

Second Quarter 2004 Offsite Groundwater Analytical Results for Isotopic Uranium (U), Isotopic Plutonium (Pu) and Isotopic Thorium (Th)

Total (Unfiltered)

		Th-228 (pCi/l)				Th-230 (pCi/l)				Th-232 (pCi/l)			Isotopic Thorium (pCi/l)
		Result	Error	MDC		Result	Error	MDC		Result	Error	MDC	Result
Well 120A	U	0.010	0.084	0.020	B	0.560	0.270	0.120	B	0.250	0.160	0.120	0.820
Well 120B	U	0.030	0.120	0.250	B	0.630	0.290	0.120	B	0.130	0.110	0.120	0.790
Mean		0.020				0.595				0.190			0.805
Standard Deviation		0.014				0.049				0.085			0.021
Observations		2				2				2			2
t-Value		6.314				6.314				6.314			6.314
95% Upper Confidence Limit		0.083				0.816				0.569			0.900

KEY:
MDC - Minimum Detectable Concentration.
Negative results are considered "0" when calculating isotopic results and statistics.

Validation Qualifiers:
B = Sample Result < 5 times activity detected in the blank
U = Below Lab Detection Limits

Produced by: Kelli McKinney 7/19/04

Table 4

Second Quarter 2004 Offsite Groundwater Analytical Results for Isotopic Uranium (U), Isotopic Plutonium (Pu) and Isotopic Thorium (Th)

Dissolved (Filtered)

		Pu-238 (pCi/l)				Pu-239/240 (pCi/l)			Isotopic Pu (pCi/l)
		Result	Error	MDC		Result	Error	MDC	Result
Well 116A	U	0.063	0.100	0.190	B	0.150	0.130	0.150	0.213
Well 116B	U	0.011	0.048	0.130	B	0.310	0.200	0.180	0.321
Well 118A	U	0.032	0.064	0.130	B	0.330	0.200	0.130	0.362
Well 118B	U	0.096	0.130	0.210		0.550	0.270	0.058	0.646
Well 119A	U	-0.011	0.057	0.180	U	0.110	0.110	0.160	0.110
Well 120A	U	0.095	0.110	0.180	B	0.260	0.170	0.130	0.355
Well 120B	U	-0.010	0.072	0.200	B	0.130	0.110	0.120	0.130
Mean		0.042				0.263			0.305
Standard Deviation		0.042				0.154			0.182
Observations		7				7			7
t-Value		1.943				1.943			1.943
95% Upper Confidence Limit		0.074				0.376			0.439

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KEY:
MDC - Minimum Detectable Concentration.
Negative results are considered "0" when calculating isotopic results and statistics.

Validation Qualifiers:
B = Sample Result < 5 times activity detected in the blank
U = Below Lab Detection Limits

Produced by: [signature] 7/19/04

Table 4

Second Quarter 2004 Offsite Groundwater Analytical Results for Isotopic Uranium (U), Isotopic Plutonium (Pu) and Isotopic Thorium (Th)

Total (Unfiltered)

		Pu-238 (pCi/l)				Pu-239/240 (pCi/l)			Isotopic Pu (pCi/l)
		Result	Error	MDC		Result	Error	MDC	Result
Well 120A	U	-0.020	0.056	0.180		0.610	0.280	0.053	0.610
Well 120B	U	-0.040	0.064	0.210	B	0.270	0.170	0.120	0.270
Mean		0.000				0.440			0.440
Standard Deviation		0.000				0.240			0.240
Observations		2				2			2
t-Value		6.314				6.314			6.314
95% Upper Confidence Limit		0.000				1.513			1.513

KEY:
MDC - Minimum Detectable Concentration.
Negative results are considered "0" when calculating isotopic results and statistics.

Validation Qualifiers:
B = Sample Result < 5 times activity detected in the blank
U = Below Lab Detection Limits

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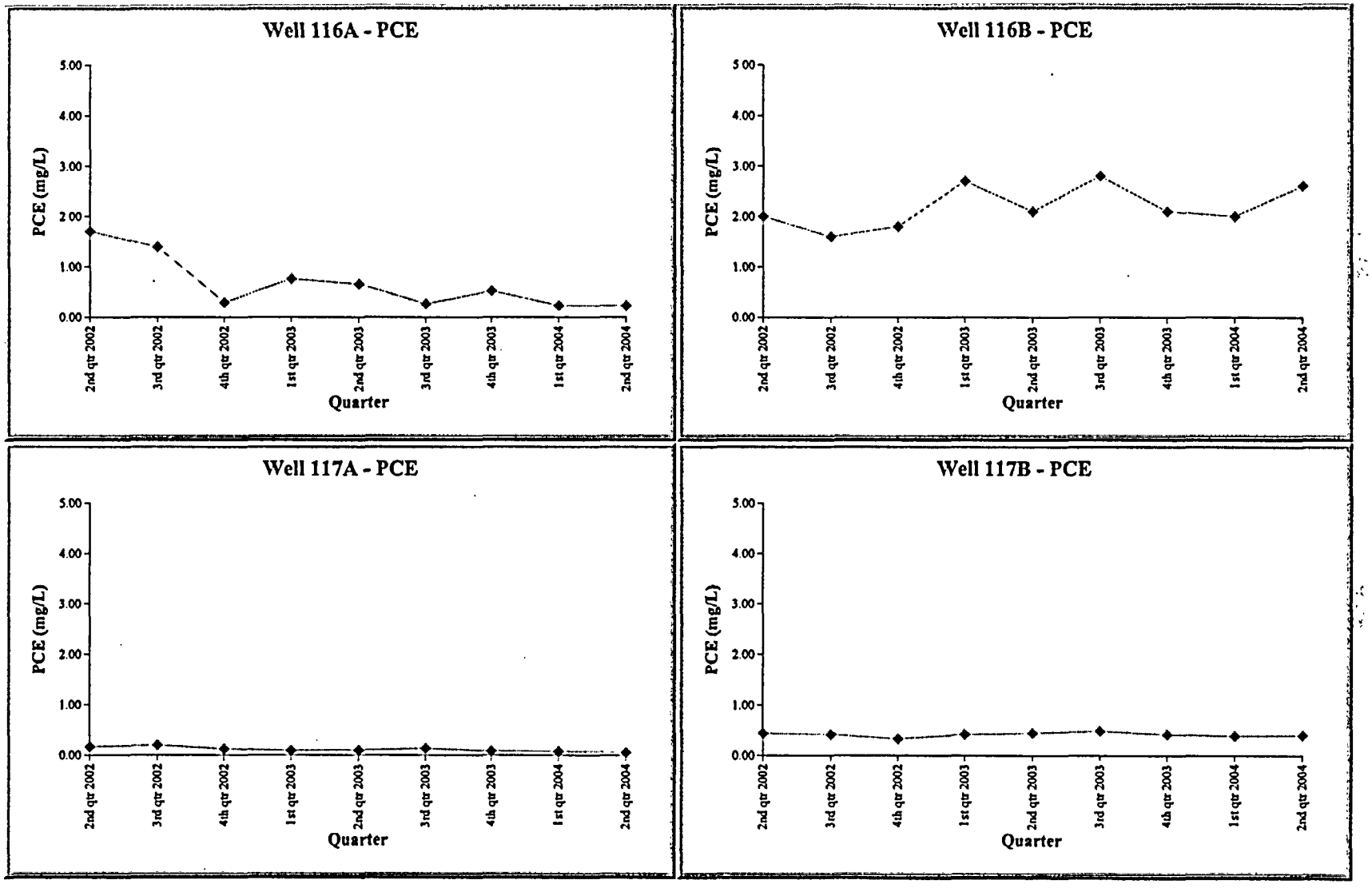
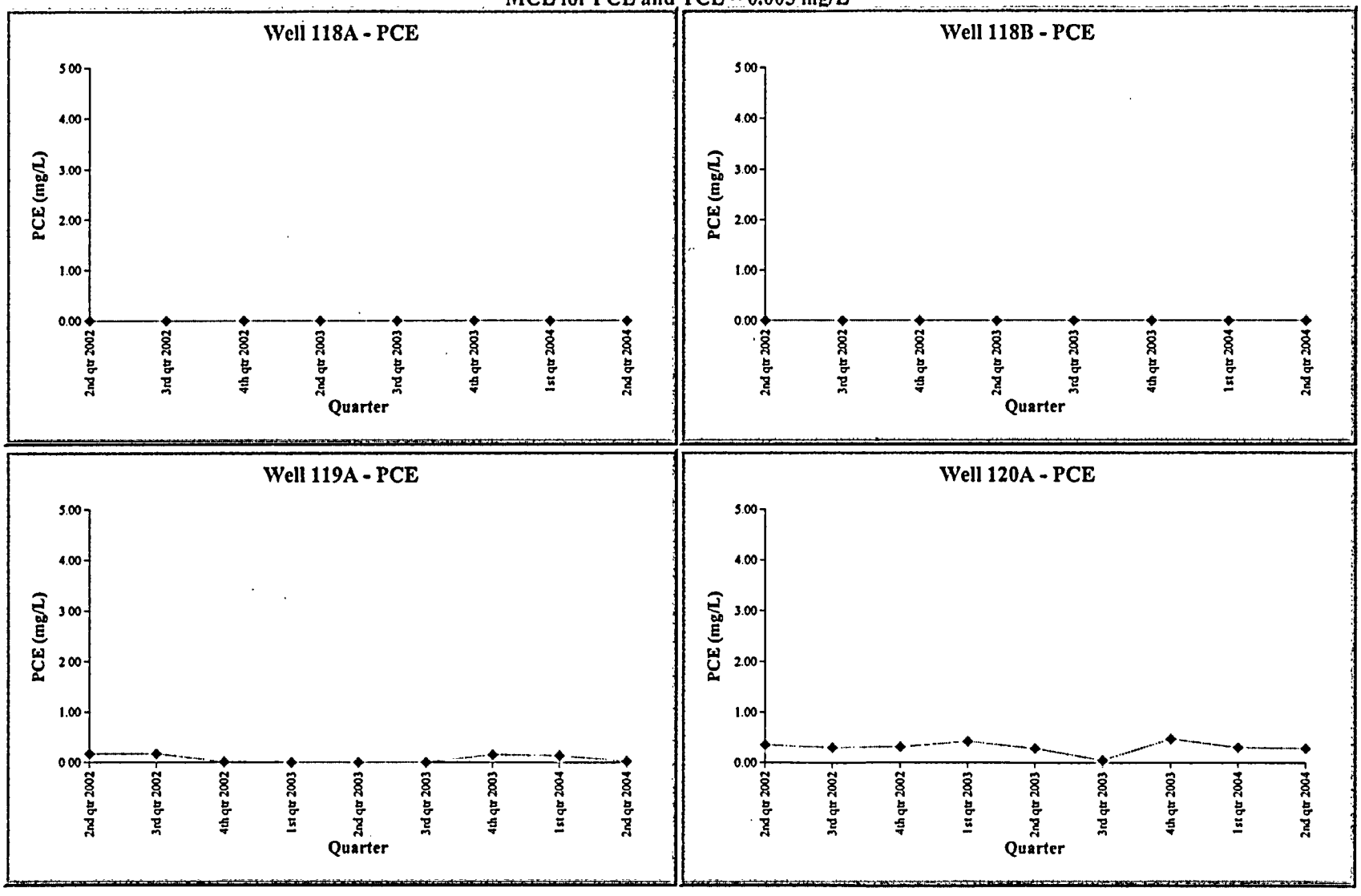
Produced by: Robbi McKinney 7/19/04

Figure 1
Graphs of PCE and TCE Concentrations for the Offsite Wells
MCL for PCE and TCE = 0.005 mg/L



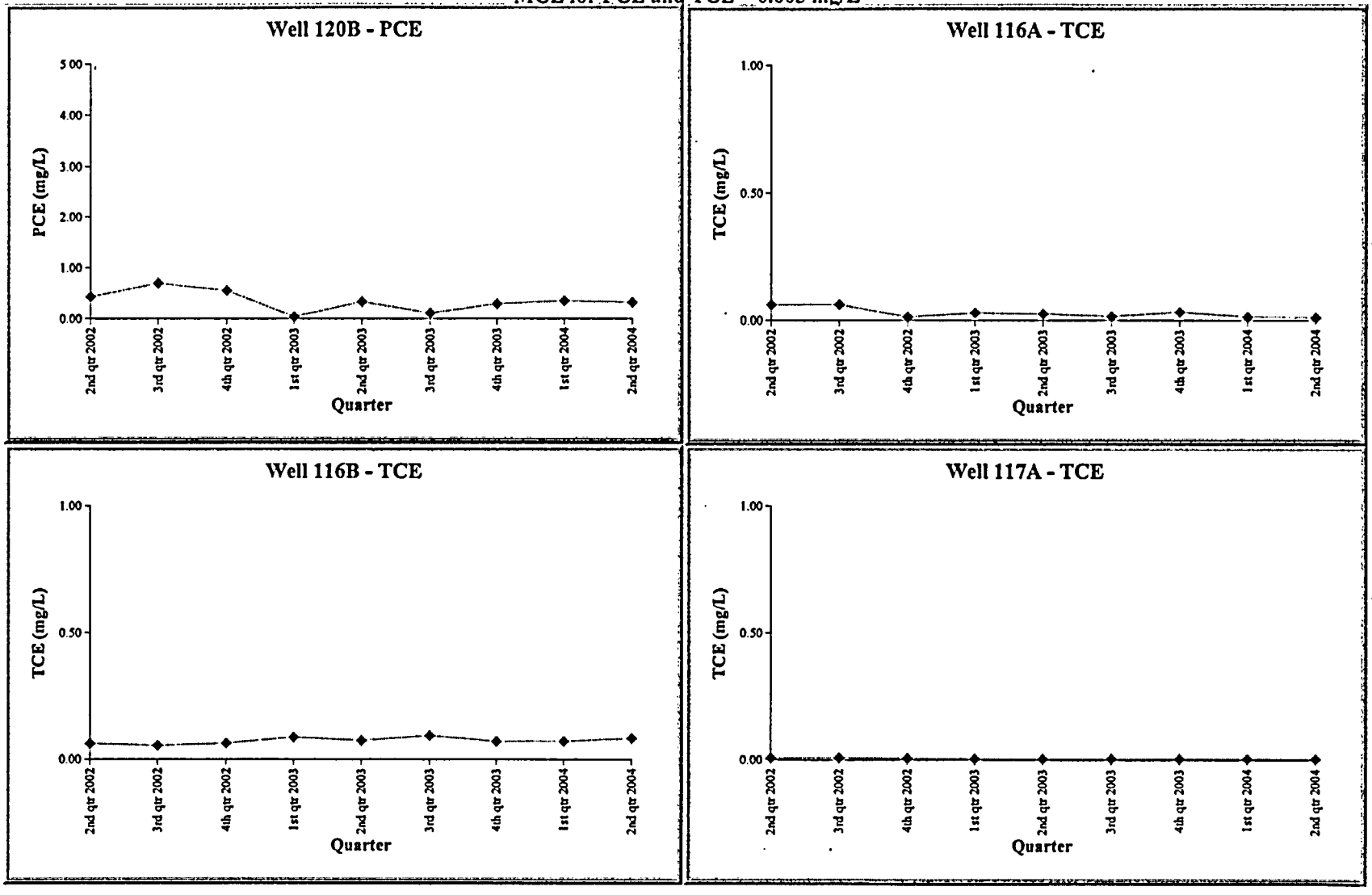
7/21/04

Figure 1
Graphs of PCE and TCE Concentrations for the Offsite Wells
MCL for PCE and TCE = 0.005 mg/L



7/19/04

Figure 1
Graphs of PCE and TCE Concentrations for the Offsite Wells
MCL for PCE and TCE = 0.005 mg/L



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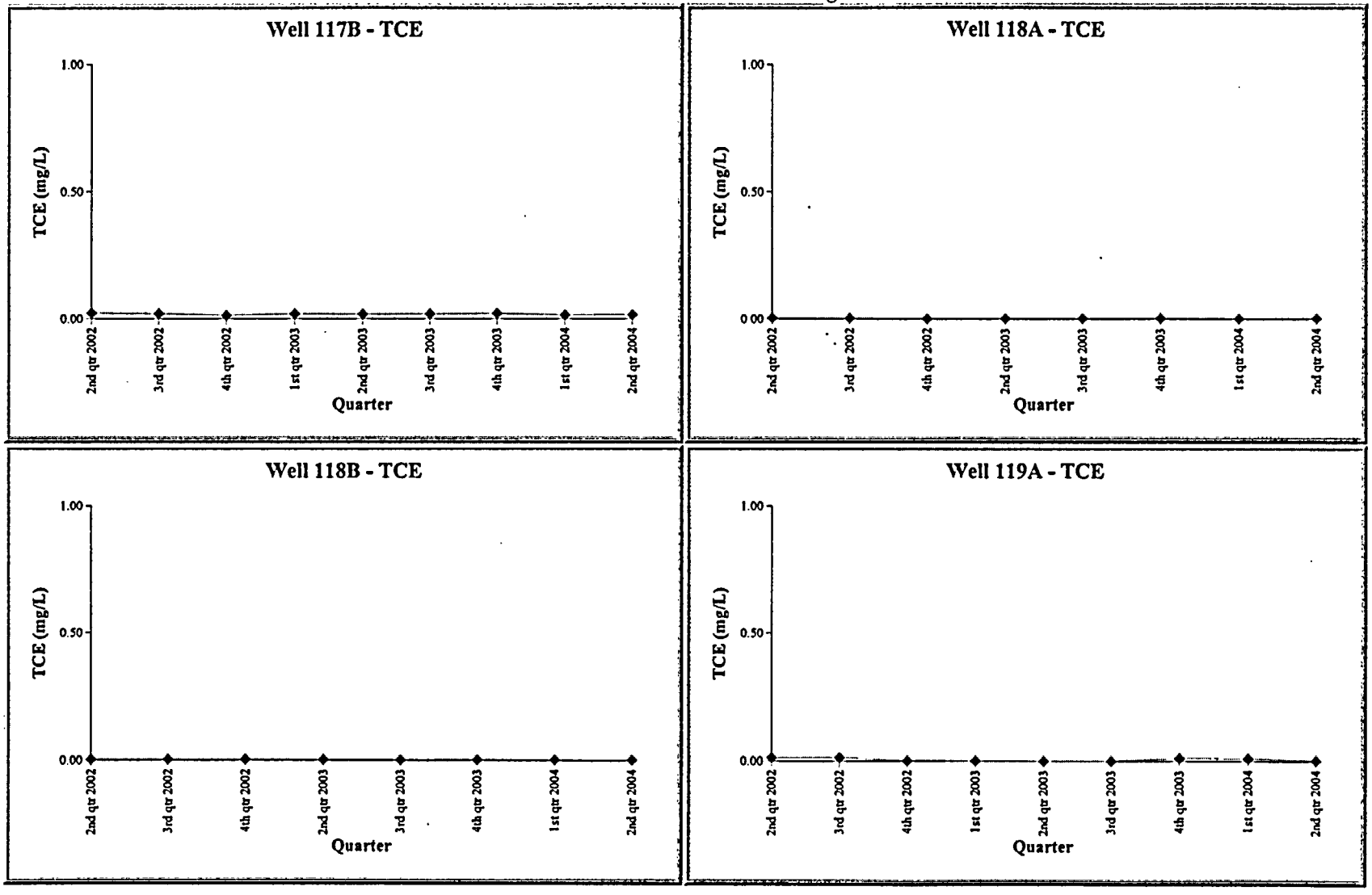
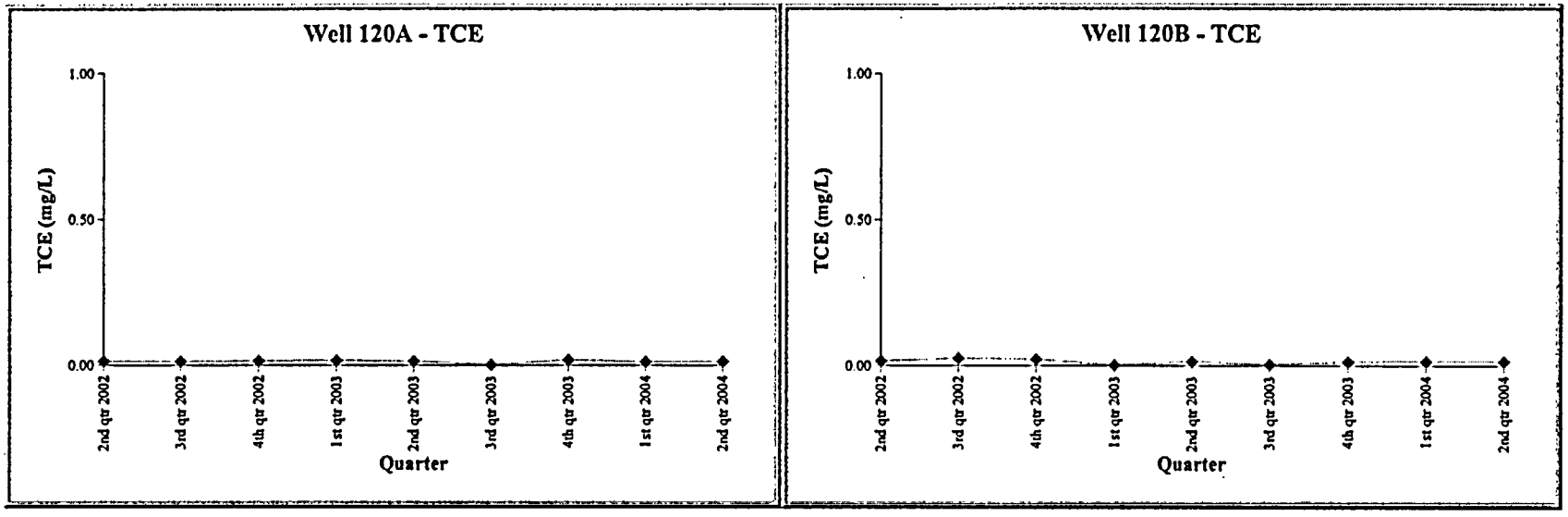
7/28/04

Figure 1
Graphs of PCE and TCE Concentrations for the Offsite Wells
MCL for PCE and TCE = 0.005 mg/L



7/28/04

Figure 1
Graphs of PCE and TCE Concentrations for the Offsite Wells
MCL for PCE and TCE = 0.005 mg/L



7/19/04

Attachment II to letter
B. M. Moore to Mr. Winston Smith and Mr. Mike Apple

Interim Measures Progress Report

(6 pages to follow)

INTERIM MEASURES (IM) PROGRESS REPORT
SOLID WASTE MANAGEMENT UNITS (SWMU) 2, 4, 6, 7, 9 and 10
NUCLEAR FUEL SERVICES, INC. (NFS)
ENVIRONMENTAL PROTECTION AGENCY (EPA) ID. NO. TND 00 309 5635

1.0 Work Completed

From May 14, 2004 (the date of the last IM Progress Report), to July 16, 2004, 88,410 cubic feet of soil and debris was excavated from the North Site Radiological Burial Ground (RBG) and North Site and approximately 68,050 cubic feet of low-level radioactive waste (LLRW) has been shipped in 132 intermodal shipping containers.

2.0 Findings and Observations

2.1 Groundwater Data

2.1.1 Pond 4 Downgradient Wells (Wells 101A and 102A)

Sampling has continued for Wells 101A and 102A that are located along the western perimeter of the NFS site and downgradient of Pond 4. Wells 101A and 102A were sampled monthly. Beginning July 9, 2004, samples are now collected from these wells on a quarterly basis. Second quarter 2004 analytical results for PCE, vinyl chloride, and tributyl phosphate (TBP) from Wells 101A and 102A are presented in Table 1.

PCE, vinyl chloride, and TBP results were plotted for both wells (April 2002 - June 2004). The corresponding graphs are presented in Figure 1 and discussed below.

Tetrachloroethylene – PCE was not detected above the detection limit in Well 101A or 102A during second quarter 2004. The PCE concentrations in Well 101A and Well 102A remain consistent with historical data.

Vinyl Chloride – In the second quarter of 2004, Vinyl Chloride was detected above the detection limit and MCL in Well 101A. Vinyl Chloride was not detected above the detection limit in 102A during second quarter 2004. However, the detection limit is greater than the MCL (0.002 mg/l). The vinyl chloride concentrations in Well 101A is slightly elevated in comparison to historical results. This well does not appear to be reflecting reductive dechlorination as it is located outside of the IRZ radius of influence. Results of Well 102A remain consistent with historical data.

Tributyl Phosphate (TBP) - TBP was not detected above the detection limit in Well 101A or Well 102A during the second quarter 2004. The TBP concentrations in Well 101A and Well 102A remain consistent with historical data.

3.0 Deviations from Workplan

There have been no deviations from the workplan during this reporting period.

4.0 Work Projected (August 15, 2004 – November 14, 2004)

Work projected for next reporting period:

PCE, vinyl chloride, and TBP data will continue to be evaluated to determine trends in groundwater quality from Wells 101A and 102A that are downgradient from Pond 4.

Table 1. Second Quarter 2004 Analytical Results for Wells 101A and 102A

Results are reported as mg/L

	Tetrachloroethylene				Vinyl Chloride				Tributyl Phosphate			
Date	**Well 101A**		**Well 102A**		**Well 101A**		**Well 102A**		**Well 101A**		**Well 102A**	
April-2004	U<	0.004	U<	0.004	U<	0.004	U<	0.004	U<	0.030	U<	0.030
May-2004	U<	0.004	U<	0.005		0.006	U<	0.005	U<	0.030	U<	0.030
June-2004	U<	0.004	U<	0.004		0.035	U<	0.004	U<	0.030	U<	0.030
Mean		**0.004**		**0.004**		**0.015**		**0.004**		**0.030**		**0.030**
MCL		**0.005**		**0.005**		**0.002**		**0.002**		**0.2***		**0.2***

Produced by: Robbi McCann 7/20/04

KEY:
US EPA Maximum Contaminant Levels (MCL) for drinking water (February 1996)
mg/L - milligram per liter
U = Below Lab Detection Limits
< - Less than detection limit
NS = No sample collected for well because this well is sampled quarterly
* - Provisional action level based on Issue Paper (1992), verified with USEPA RCRA Health Assessment Office (May 1996)
All analysis performed by NFS Laboratory

Figure 1
Graphs of Analytical Results for Wells 101A and 102A
MCL for Tetrachloroethylene (PCE) = 0.005 mg/L, Vinyl Chloride (VC) = 0.002 mg/L and Tributyl Phosphate(TBP) = 0.2 mg/L

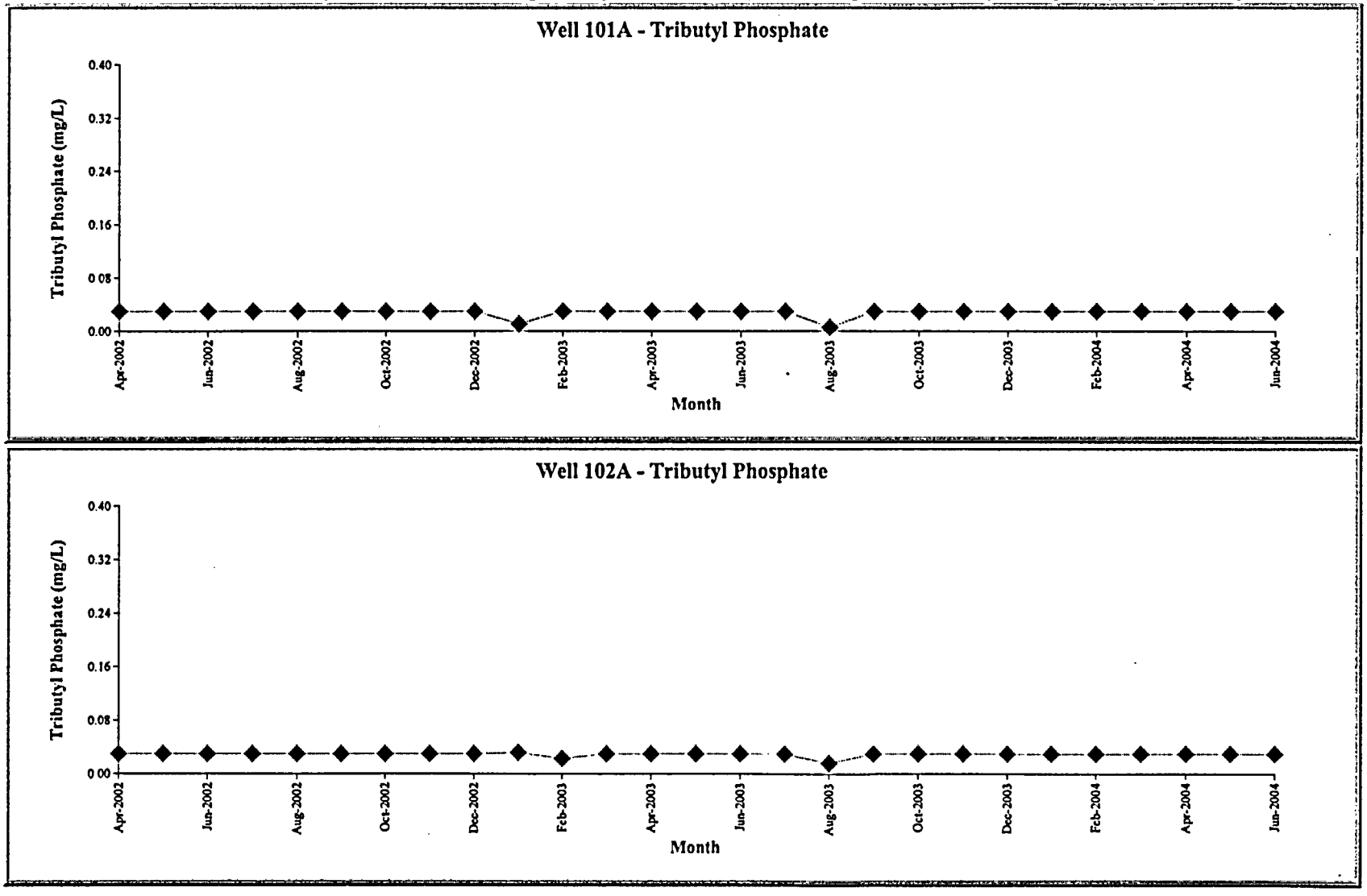


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Figure 1
Graphs of Analytical Results for Wells 101A and 102A
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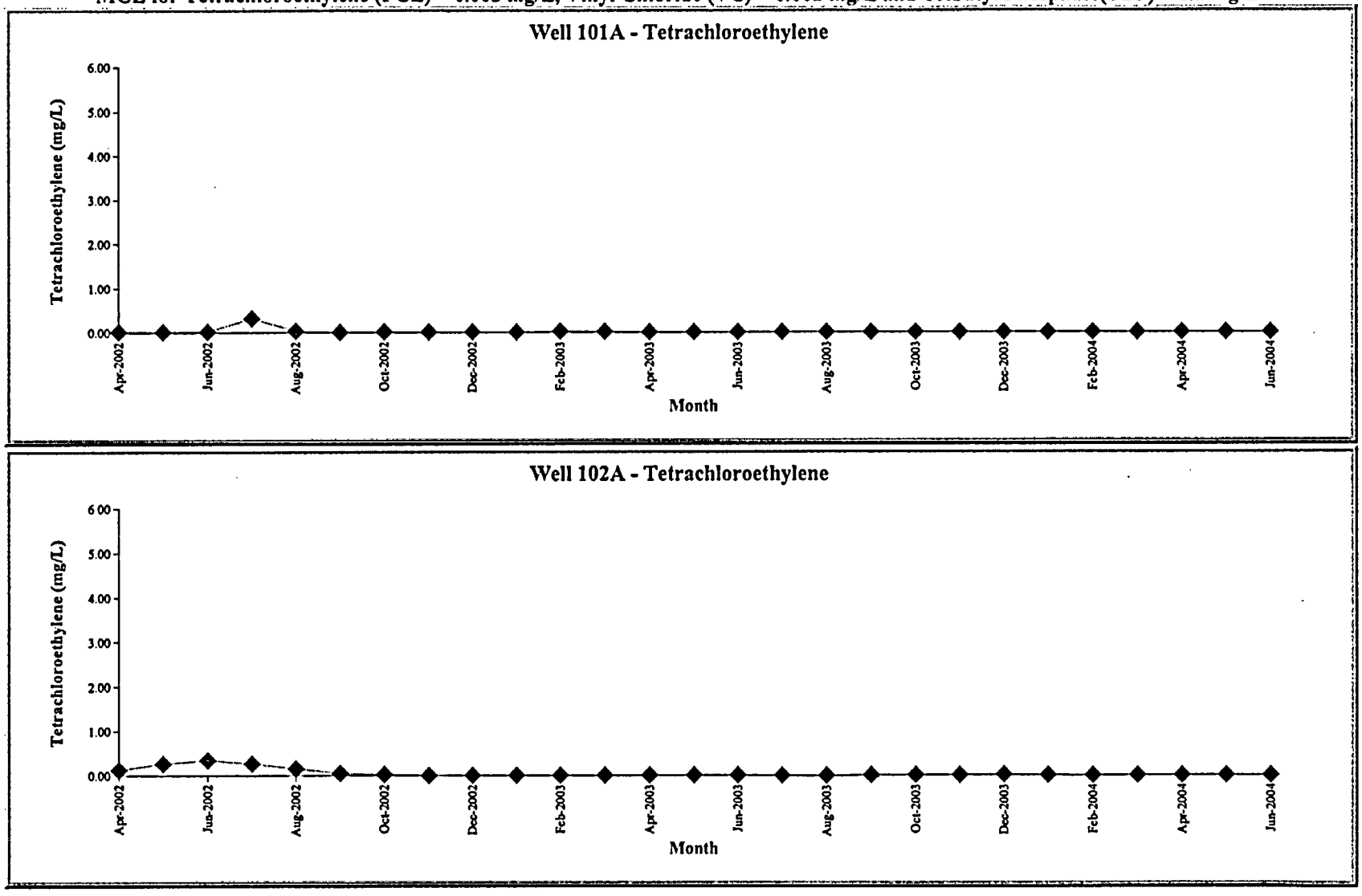

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Figure 1
Graphs of Analytical Results for Wells 101A and 102A
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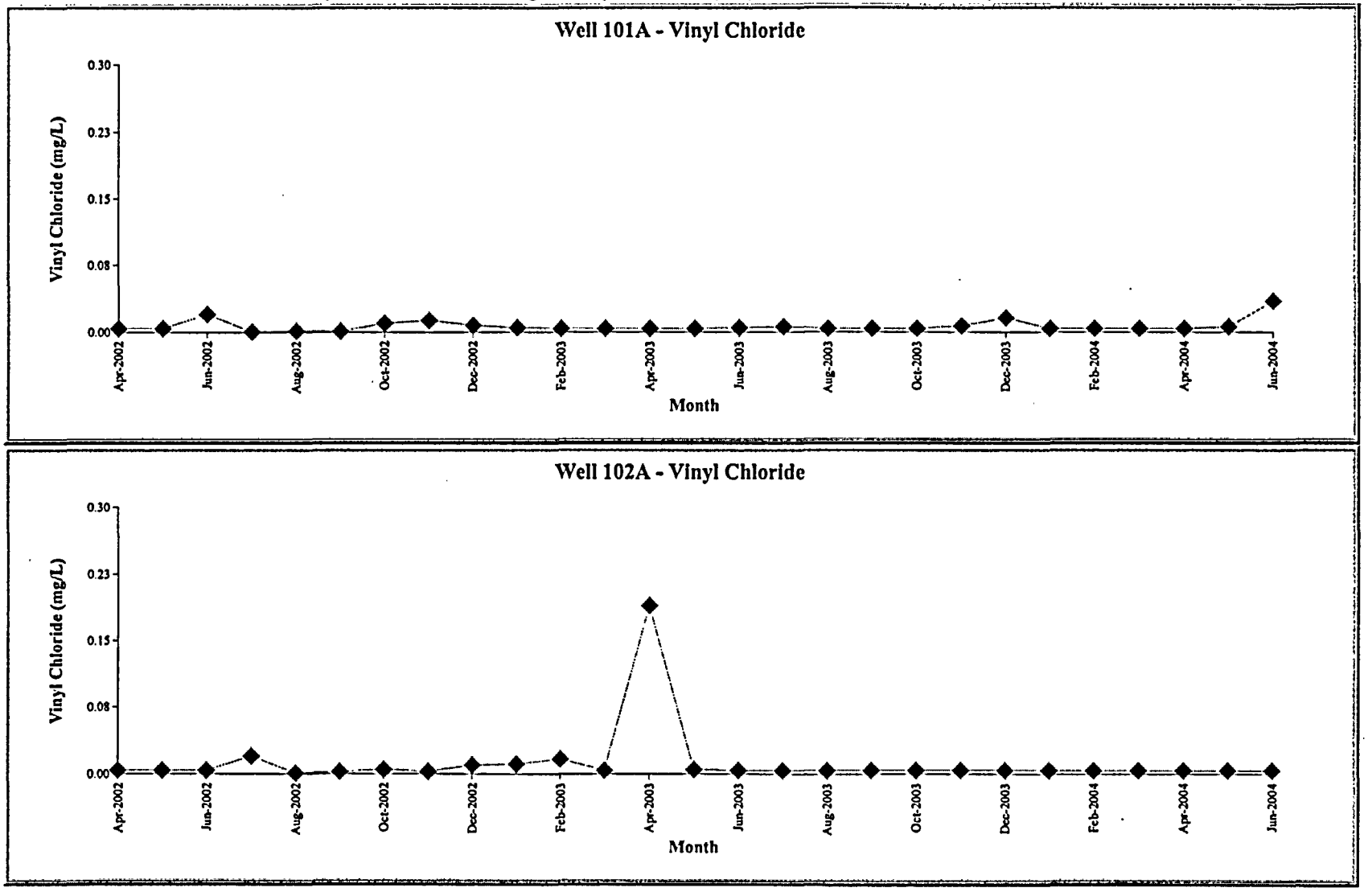

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