CARPENTER
Specialty Alloys

Carpenter Technology Corporation
P.O. Box 14662
Reading, PA 19612-4662

Tel.: 610.208.2000

CERTIFIED MAIL

July 8, 2016

Mr. Stephen Hon Lee
Environmental Engineer, PA/DC Section
United States Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Subject: Carpenter Technology Corrective Action Groundwater Monitoring Results RCRA Corrective Action Permit N0. PAD002344315

Dear Mr. Lee,

In accordance with the Media Cleanup Requirements/Points of Compliance (POC) section of our Corrective Action Permit, I am submitting the attached POC monitoring results for the first of 2016. Data was consistent with previous results. I am also including updated trend data for each POC. The data demonstrates that the remediation system has been effective in reducing contaminant concentrations below or near MCLs.

Sincerely,

Sean McGowan
Manager – Environmental Affairs
smcgowan@cartech.com
(610) 208-3018

Carpenter Technology Corporation
Chemical Technology Group

CARPENTER

Chemical Analysis Report

Sample ID	***E26787***	**Requestor**	*Sean McGowan*
Copies	MReichardt		

Sample Information

Description	West Shore Groundwater Monitoring Well		
Location	West Shore Well #CR 89-01		
Code	R-WE-WEST-89-01X		
Requestor ID	89-01		
Sampled	06/09/2016	**Time**	11:07
Submitted	06/09/2016		
Reported	06/15/2016		
Taken by	D. Kuchinski (S.S.M.)		
Method	Grab		
Volume	2 x 40 mls		
Comments			
Semi-annual sample			

This analysis report was reviewed and approved by: Tim Oswald

Carpenter Technology Corporation
R&D Chemical Laboratory
Volatile Organics Analysis Report

Sample Name:	89-01
Data File Name:	E26787.D
Date Acquired:	6/14/2016 17:12
Sample Multiplier:	1
Operator:	MMB

Compound Name		Analysis Result	Units	LOQ
1,1-Dichloroethene	<	5.0	ug/L	5.0
cis-1,2-Dichloroethene		13.4	ug/L	5.0
1,1,1-Trichloroethane	<	5.0	ug/L	5.0
Trichloroethene	<	5.0	ug/L	5.0
Tetrachloroethene		12.3	ug/L	5.0

GC/MS analysis performed using EPA Method 624 and Limits of Quantitation (LOQ).

Carpenter Technology Corporation
Chemical Technology Group

CARPENTER

Chemical Analysis Report

Sample ID	***E26788***	**Requestor**	*Sean McGowan*
Copies	MReichardt		

Sample Information

Description	West Shore Groundwater Monitoring Well		
Location	West Shore Well #CR 89-07		
Code	R-WE-WEST-89-07X		
Requestor ID	89-07		
Sampled	06/09/2016	**Time**	11:50
Submitted	06/09/2016		
Reported	06/15/2016		
Taken by	D. Kuchinski (S.S.M.)		
Method	Grab		
Volume	2 x 40 mls		
Comments			
Semi-annual sample			

This analysis report was reviewed and approved by: Tim Osmold

Carpenter Technology Corporation
R&D Chemical Laboratory
Volatile Organics Analysis Report

Sample Name:	89-07
Data File Name:	E26788.D
Date Acquired:	6/14/2016 17:39
Sample Multiplier:	1
Operator:	MMB

Compound Name		Analysis Result	Units	LOQ
1,1-Dichloroethene	<	5.0	ug/L	5.0
cis-1,2-Dichloroethene	<	5.0	ug/L	5.0
1,1,1-Trichloroethane	<	5.0	ug/L	5.0
Trichloroethene	<	5.0	ug/L	5.0
Tetrachloroethene	<	5.0	ug/L	5.0

GC/MS analysis performed using EPA Method 624 and Limits of Quantitation (LOQ).

Carpenter Technology Corporation
Chemical Technology Group

CARPENTER

Chemical Analysis Report

Sample ID	***E26789***	**Requestor**	*Sean McGowan*
Copies	MReichardt		

Sample Information

Description	West Shore Groundwater Monitoring Well		
Location	West Shore Well #CR 92-04D		
Code	R-WE-WEST-92-04D		
Requestor ID	92-04D		
Sampled	06/09/2016	**Time**	1:01
Submitted	06/09/2016		
Reported	06/15/2016		
Taken by	D. Kuchinski (S.S.M.)		
Method	Grab		
Volume	2 x 40 mls		
Comments			
Semi-annual sample			

This analysis report was reviewed and approved by: Tim Osold

Carpenter Technology Corporation
R&D Chemical Laboratory
Volatile Organics Analysis Report

Sample Name:	92-04D
Data File Name:	E26789.D
Date Acquired:	6/14/2016 18:07
Sample Multiplier:	1
Operator:	MMB

Compound Name		Analysis Result	Units	LOQ
1,1-Dichloroethene	<	5.0	ug/L	5.0
cis-1,2-Dichloroethene	<	5.0	ug/L	5.0
1,1,1-Trichloroethane	<	5.0	ug/L	5.0
Trichloroethene		6.0	ug/L	5.0
Tetrachloroethene	<	5.0	ug/L	5.0

GC/MS analysis performed using EPA Method 624 and Limits of Quantitation (LOQ).

Carpenter Technology Corporation
Chemical Technology Group

CARPENTER

Chemical Analysis Report

Sample ID	***E26790***	**Requestor**	*Sean McGowan*
Copies	MReichardt		

Sample Information

Description	West Shore Groundwater Monitoring Well		
Location	West Shore Well #CR 92-05D		
Code	R-WE-WEST-92-05D		
Requestor ID	92-05D		
Sampled	06/09/2016	**Time**	10:16
Submitted	06/09/2016		
Reported	06/15/2016		
Taken by	D. Kuchinski (S.S.M.)		
Method	Grab		
Volume	2 x 40 mls		
Comments			
Semi-annual sample			

This analysis report was reviewed and approved by: Jim Oswald

Carpenter Technology Corporation
R&D Chemical Laboratory
Volatile Organics Analysis Report

Sample Name:	92-05D
Data File Name:	E26790.D
Date Acquired:	6/14/2016 18:35
Sample Multiplier:	1
Operator:	MMB

Compound Name		Analysis Result	Units	LOQ
1,1-Dichloroethene	<	5.0	ug/L	5.0
cis-1,2-Dichloroethene		7.6	ug/L	5.0
1,1,1-Trichloroethane		10.0	ug/L	5.0
Trichloroethene	<	5.0	ug/L	5.0
Tetrachloroethene		7.2	ug/L	5.0

GC/MS analysis performed using EPA Method 624 and Limits of Quantitation (LOQ).

Carpenter Technology Corporation
Chemical Technology Group

CARPENTER

Chemical Analysis Report

Sample ID	***E26791***	**Requestor**	*Sean McGowan*
Copies	MReichardt		

Sample Information

Description	West Shore Groundwater Monitoring Well		
Location	West Shore Well #CR 92-07		
Code	R-WE-WEST-92-07X		
Requestor ID	92-07		
Sampled	06/09/2016	**Time**	9:20
Submitted	06/09/2016		
Reported	06/15/2016		
Taken by	D. Kuchinski (S.S.M.)		
Method	Grab		
Volume	2 x 40 mls		
Comments			
Semi-annual sample			

This analysis report was reviewed and approved by: Tim Osenk

Carpenter Technology Corporation
R&D Chemical Laboratory
Volatile Organics Analysis Report

Sample Name:	92-07
Data File Name:	E26791.D
Date Acquired:	6/14/2016 19:03
Sample Multiplier:	1
Operator:	MMB

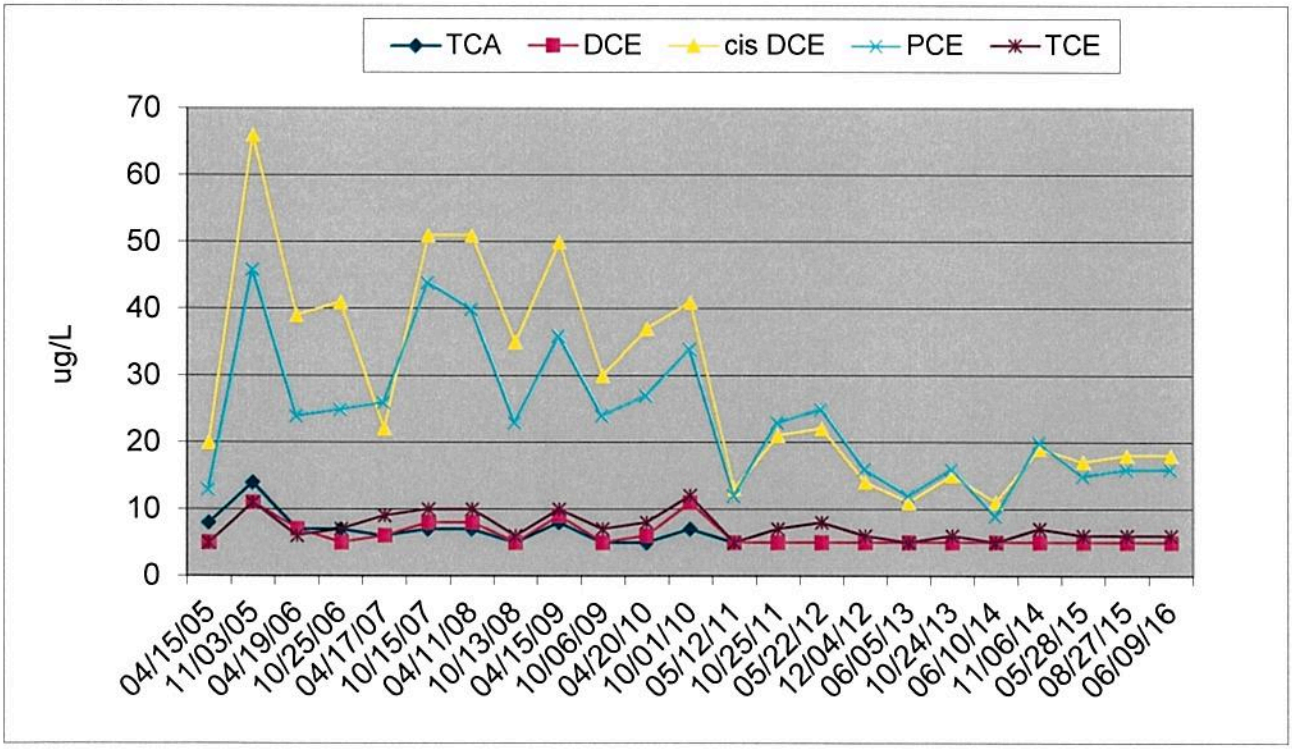
Compound Name		Analysis Result	Units	LOQ
1,1-Dichloroethene		9.6	ug/L	5.0
cis-1,2-Dichloroethene		50.6	ug/L	5.0
1,1,1-Trichloroethane	<	5.0	ug/L	5.0
Trichloroethene		7.7	ug/L	5.0
Tetrachloroethene		22.7	ug/L	5.0

GC/MS analysis performed using EPA Method 624 and Limits of Quantitation (LOQ).

89-01 **ug/l**

Year	TCA	DCE	cis DCE	PCE	TCE
PADEP MSC*	**2000**	**70**	**700**	**50**	**50**
MCL:	**200**	**7**	**70**	**5**	**5**
04/15/05	8	5	20	13	5
11/03/05	14	11	66	46	11
04/19/06	7	7	39	24	6
10/25/06	7	5	41	25	7
04/17/07	6	6	22	26	9
10/15/07	7	8	51	44	10
04/11/08	7	8	51	40	10
10/13/08	5	5	35	23	6
04/15/09	8	9	50	36	10
10/06/09	5	5	30	24	7
04/20/10	5	6	37	27	8
10/01/10	7	11	41	34	12
05/12/11	5	5	13	12	5
10/25/11	5	5	21	23	7
05/22/12	5	5	22	25	8
12/04/12	5	5	14	16	6
06/05/13	5	5	11	12	5
10/24/13	5	5	15	16	6
06/10/14	5	5	11	9	5
11/06/14	5	5	19	20	7
05/28/15	5	5	17	15	6
08/27/15	5	5	18	16	6
06/09/16	5	5	18	16	6
* non-use aquifer	5	5	13	12	5

5 = <5 ug/l

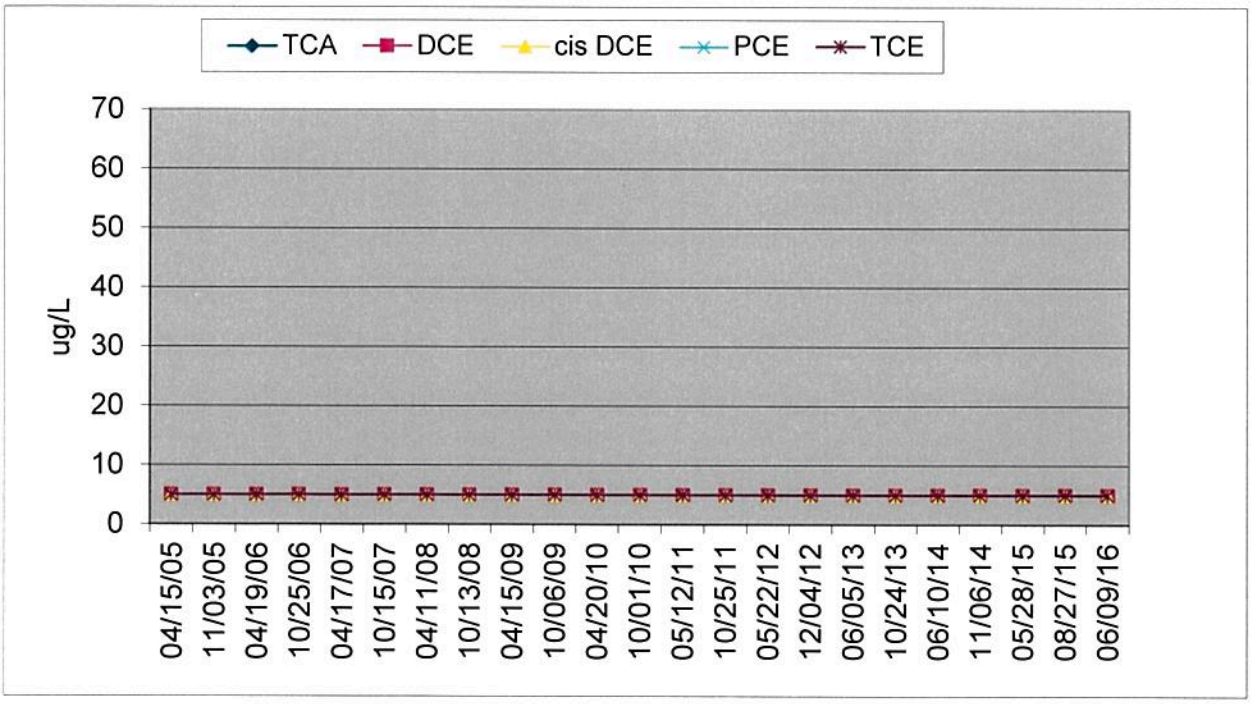


89-07 ug/l

Year	TCA	DCE	cis DCE	PCE	TCE
PADEP MSC*	2000	70	700	50	50
MCL:	200	7	70	5	5
04/15/05	5	5	5	5	5
11/03/05	5	5	5	5	5
04/19/06	5	5	5	5	5
10/25/06	5	5	5	5	5
04/17/07	5	5	5	5	5
10/15/07	5	5	5	5	5
04/11/08	5	5	5	5	5
10/13/08	5	5	5	5	5
04/15/09	5	5	5	5	5
10/06/09	5	5	5	5	5
04/20/10	5	5	5	5	5
10/01/10	5	5	5	5	5
05/12/11	5	5	5	5	5
10/25/11	5	5	5	5	5
05/22/12	5	5	5	5	5
12/04/12	5	5	5	5	5
06/05/13	5	5	5	5	5
10/24/13	5	5	5	5	5
06/10/14	5	5	5	5	5
11/06/14	5	5	5	5	5
05/28/15	5	5	5	5	5
08/27/15	5	5	5	5	5
06/09/16	5	5	5	5	5

* non-use aquifer

5 = <5 ug/l

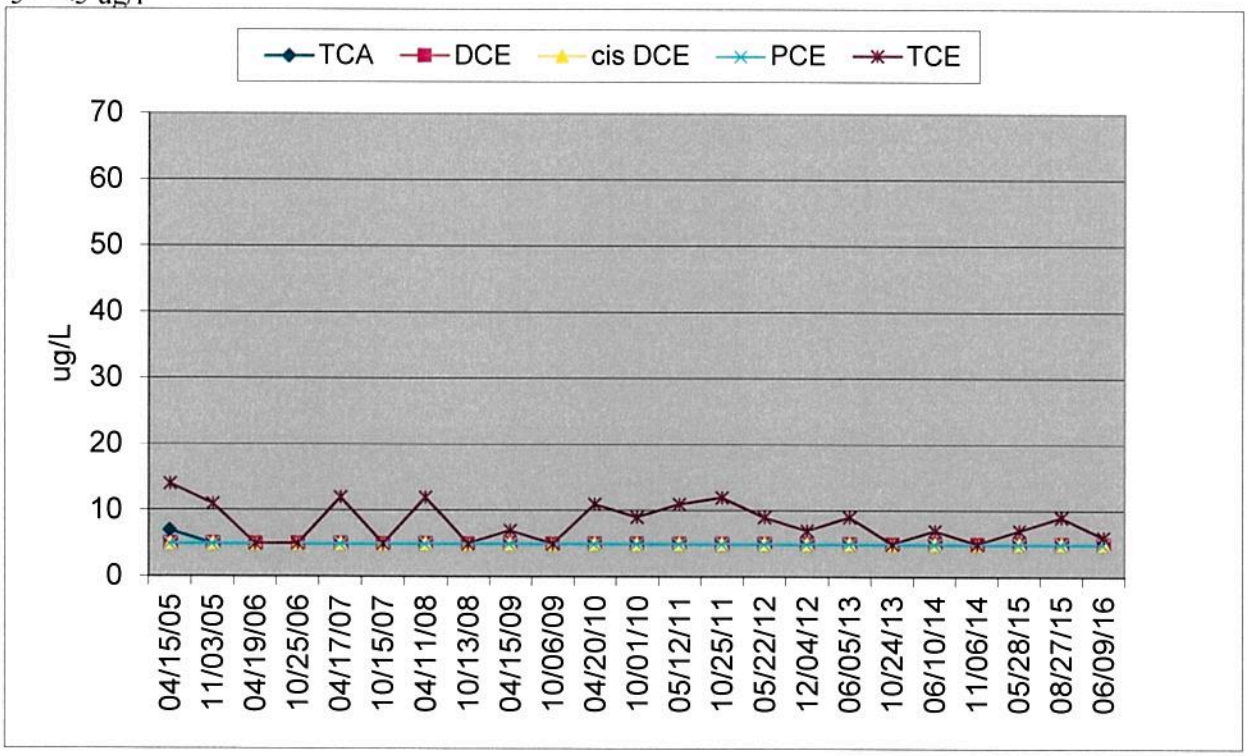


92-04D ug/l

Year	TCA	DCE	cis DCE	PCE	TCE
PADEP MSC*	2000	70	700	50	50
MCL:	200	7	70	5	5
04/15/05	7	5	5	5	14
11/03/05	5	5	5	5	11
04/19/06	5	5	5	5	5
10/25/06	5	5	5	5	5
04/17/07	5	5	5	5	12
10/15/07	5	5	5	5	5
04/11/08	5	5	5	5	12
10/13/08	5	5	5	5	5
04/15/09	5	5	5	5	7
10/06/09	5	5	5	5	5
04/20/10	5	5	5	5	11
10/01/10	5	5	5	5	9
05/12/11	5	5	5	5	11
10/25/11	5	5	5	5	12
05/22/12	5	5	5	5	9
12/04/12	5	5	5	5	7
06/05/13	5	5	5	5	9
10/24/13	5	5	5	5	5
06/10/14	5	5	5	5	7
11/06/14	5	5	5	5	5
05/28/15	5	5	5	5	7
08/27/15	5	5	5	5	9
06/09/16	5	5	5	5	6

* non-use aquifer

5 = <5 ug/l

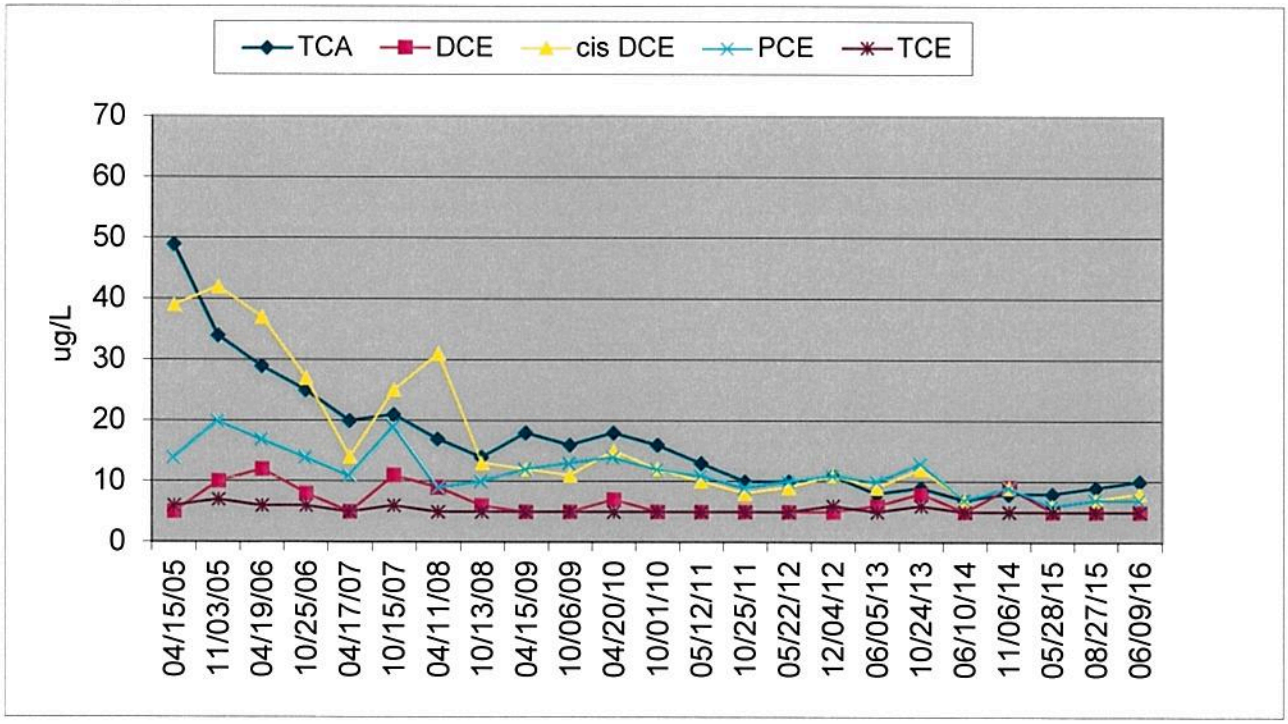


92-05D ug/l

Year	TCA	DCE	cis DCE	PCE	TCE
PADEP MSC*	**2000**	**70**	**700**	**50**	**50**
MCL:	**200**	**7**	**70**	**5**	**5**
04/15/05	49	5	39	14	6
11/03/05	34	10	42	20	7
04/19/06	29	12	37	17	6
10/25/06	25	8	27	14	6
04/17/07	20	5	14	11	5
10/15/07	21	11	25	19	6
04/11/08	17	9	31	9	5
10/13/08	14	6	13	10	5
04/15/09	18	5	12	12	5
10/06/09	16	5	11	13	5
04/20/10	18	7	15	14	5
10/01/10	16	5	12	12	5
05/12/11	13	5	10	11	5
10/25/11	10	5	8	9	5
05/22/12	10	5	9	10	5
12/04/12	11	5	11	11	6
06/05/13	8	6	9	10	5
10/24/13	9	8	12	13	6
06/10/14	7	5	7	7	5
11/06/14	8	9	9	9	5
05/28/15	8	5	6	6	5
08/27/15	9	5	7	7	5
06/09/16	10	5	8	7	5

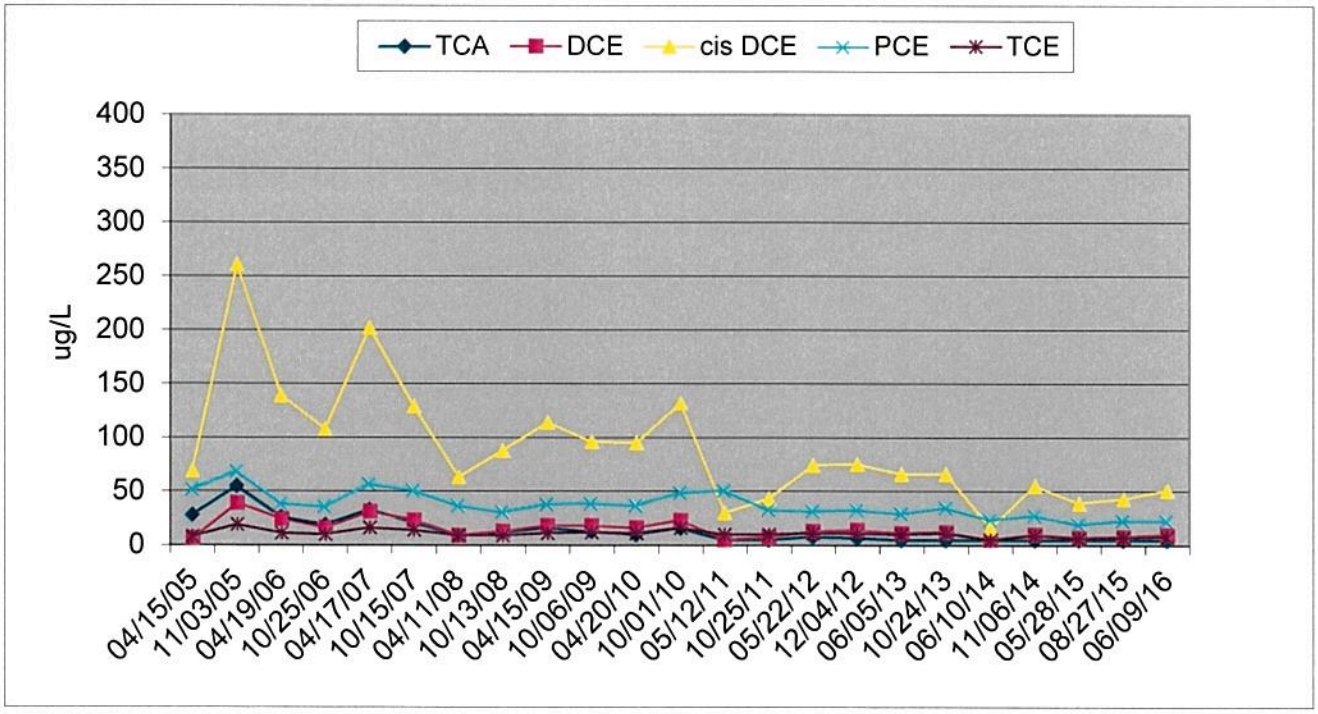
* non-use aquifer

5 = <5 ug/l



92-07 ug/l

Year	TCA	DCE	cis DCE	PCE	TCE
PADEP MSC*	2000	70	700	50	50
MCL:	200	7	70	5	5
04/15/05	28	6	69	52	8
11/03/05	55	39	261	69	19
04/19/06	26	24	139	39	11
10/25/06	19	16	108	36	10
04/17/07	33	31	202	57	16
10/15/07	21	23	129	51	14
04/11/08	9	9	63	37	9
10/13/08	12	13	88	31	9
04/15/09	16	18	114	38	11
10/06/09	13	18	96	39	12
04/20/10	10	16	95	37	11
10/01/10	16	23	132	49	16
05/12/11	5	5	30	51	10
10/25/11	5	7	43	33	10
05/22/12	8	13	74	32	11
12/04/12	7	14	75	33	11
06/05/13	5	11	66	30	10
10/24/13	5	12	66	35	11
06/10/14	5	5	16	24	5
11/06/14	5	10	55	28	9
05/28/15	5	7	39	20	6
08/27/15	5	8	43	23	7
06/09/16	5	10	51	23	8

* non-use aquifer

5 = <5 ug/l