Ohio Department of Health, Division of Prevention
ODH Laboratory Report

Ohio Department of Health Laboratory
Radiochemistry Section, Building 22
9995 E Main ST
Reynoldsburg, OH 43068

Ted Strickland, Governor
Alvin Jackson M.D., Director of Health

Patriot Water Treatment (CustomerID# water & wa)
7716 Depot Road
Lisbon OH 44432
330-853-9321

Receive Date: 4/13/2010
This Report's Date: 5/11/2010
ODH Lab Order#: R6022

Sample# R6022-01 Collector: Tonya Kuzm Site: Final Client # 1004090085
Collect Date: 4/9/2010 Matrix: Water

Parameter	Result	Units	Analysis Date	Analyzed by
Alpha	<3	pCi/L	5/3/2010	K_Grandfield
Beta	9.0 +/- 4.0	pCi/L	5/3/2010	K_Grandfield

Chemistry Fax: (614) 728-2671 Voice: (614) 466-3600 E-mail: Ram.Chandrasekar@odh.ohio.gov
URL: http://www.ohio.gov/odh/

Attn: Andy Blocksom
Patriot Water Treatment
7716 Depot Road
Lisbon OH 44432

OEPA Analyst #'s
Katherine Grandfield, 1548
Rita Shosky, 1407
Sang H Chung, 2934

OEPA Method#
Total Alpha, 222
Total Beta, 165
Radium-226, 169
Ra-Rium-228, 183
Radon-222, 223
Tritium, 179
Strontium 136
Uranium-Nat, 184
Gamma, 207

CITY OF WARREN, OHIO
WATER POLLUTION CONTROL DEPARTMENT

2323 MAIN AVE. S.W WARREN, OHIO 44481
PHONE 330-841-2591

CHAIN OF CUSTODY FORM

R6017-01

Sample #: 100403005 Address:

Source: Final Date Sample Taken: 4-3-10 Time Sample Taken: 0800

Composite Sample Time Period: Grab: Cr+3, O&G, TOT. or Free CN, Phenolics, PH, H

Date Grab Taken: 0800 Investigator/ Sampler: Andy B.

	Date/ Time		Date/ Time
Relinquished By: Andy Bludsen		Accepted By: Sang Chung	4/6/10
Relinquished By:		Accepted By:	
Relinquished By:		Accepted By:	
Received in Laboratory By:		Analyst:	

PLEASE CHECK PARAMETERS FOR ANALYSIS
RESULTS IN ug/l UNLESS OTHERWISE SPECIFIED *

PRESERVATIVE	SELECTED	PARAMETER	RESULT	EPA TEST METHOD	PRESERVATIVE	SELECTED	PARAMETER	RESULT	EPA TEST METHOD
3		* NH3-N		350.2	1		SILVER		200.7
3		* TKN		351.3	1		ARSENIC		200.7 6010B
3		* COD		410.4	1		LEAD		200.7 6010B
1		CADMIUM		200.7 6010B	1		ZINC		200.7 6010B
1		CHROMIUM		200.7 6010B	4		* TSS		160.2
1		COPPER		200.7 6010B	4		PHENOLICS		420.1
2		* TOT CYANIDE		335.2	4		PH		150.1
2		* FREE CN		4500CN	4		HEX CHROMIUM		3500Cr B
1		MERCURY		1631 245.1 7471A	1		MOLYBDENUM		200.7 6010B
1		NICKEL		200.7 6010A	1		ANTIMONY		200.7 6010B
3		* OIL & GREASE		1664	1		SELENIUM		200.7 6010B
3		* PHOSPHORUS		6010A 4500PE	1		ALUMINUM		200.7 6010B
	✓	Total Uran <3.0 ug/L 05/03/10 KL			✓		Barium		
	✓	Total Beta <4 pCi/L 05/03/10 KL			✓		Strontium		
	✓	Total U <1 pCi/L 4/15/10 SC			✓		Total Chrom Ra-226		

Total Chrom Ra-228

PRESERVATIVES: NITRIC ACID -1, SODIUM HYDROXIDE - 2, SULFURIC ACID - 3, UNPRESERVED 4

Number of sample bottles used on this Chain Of Custody 2 3

COMMENTS: Ra-226 <1 pCi/L 05/03/10 KL Ra-228 <1.0 pCi/L 05/28/10 KL

LABORATORY RESULTS CERTIFIED BY: DATE

DIRECT INQUIRIES AND THIS FORM TO: SAM LUDWICK, CHEMIST, CITY OF WARREN, WATER POLLUTION CONTROL FACILITY
330-841-2591 EXT 112 OR BY E MAIL sludwick@warren.org

Ohio Department of Health, Division of Prevention
ODH Laboratory Report

Ohio Department of Health Laboratory
Radiochemistry Section, Building 22
8995 E Main ST
Reynoldsburg, OH 43068

Ted Strickland, Governor
Alvin Jackson M.D., Director of Health

Patriot Water Treatment (CustomerID# water & wa)
7716 Depot Road
Lisbon OH 44432
330-853-9321

Receive Date: 4/6/2010
This Report's Date: 6/7/2010
ODH-Lab Order#: R6017

Sample# R6017-01 Collector: Andy Blocks Site: Client # 1004020075
Collect Date: 4/2/2010 Matrix: Water

Parameter	Result	Units	Analysis Date	Analyzed by
Alpha	**<3**	pCi/L	5/3/2010	K_Grandfield
Beta	**<4**	pCi/L	5/3/2010	K_Grandfield
Ra-226	**<1**	pCi/L	6/3/2010	K_Grandfield
Ra-228	**2.14 +/- 0.79**	pCi/L	5/28/2010	K_Grandfield
U-Natural	**<1**	pCi/L	4/15/2010	SChung

Chemistry Fax: (614) 728-2071 Voice: (614) 466-5600 E-mail: Ram.Chandrasekar@odh.ohio.gov
URL: http://www.ohio.gov/odh/

Attn: Andy Blacksom
Patriot Water Treatment
7716 Depot Road
Lisbon OH 44432

OEPA Analyst #'s
Katherine Grandfield, 1948
Amy Shooley, 1407
Sung H Chung, 2324

OEPA Method#
Total Alpha, 302
Total Beta, 165
Radium-226, 169
Radium-228, 133
Radon-222, 203
Tritium, 168
Strontium, 156
Uranium-Nat, 184
Gamma, 207

CITY OF WARREN, OHIO
WATER POLLUTION CONTROL DEPARTMENT

2323 MAIN AVE. S.W WARREN, OHIO 44481
PHONE 330-841-2591

CHAIN OF CUSTODY FORM R6011-02

Sample #: 100326000[illegible] Address:

Source: AWWTF - Final Date Sample Taken: 3-26-10 Time Sample Taken:

Composite Sample Time Period: ~~Sunday~~ 0700 Grab: Cr+6, O&G, TOT. or Free CN, Phenolics, PH, Hg

Date Grab Taken: 3-26-10 Investigator/ Sampler: Andy Bluestein

Relinquished By: [signature] Date/ Time

Relinquished By: Accepted By: S. Chung Date/ Time 3/30/10 16[illegible]

Relinquished By: Accepted By:

Received in Laboratory By: S. Chung Accepted By:

Analyst:

PLEASE CHECK PARAMETERS FOR ANALYSIS
RESULTS IN ug/l UNLESS OTHERWISE SPECIFIED *

Preservative	SELECTED	PARAMETER	RESULT	EPA TEST METHOD	Preservative	SELECTED	PARAMETER	RESULT	EPA TEST METHOD
3		* NH3-N		350.2	1		SILVER		200.7 6010B
3		* TKN		351.3	1		ARSENIC		200.7 6010B
3		* COD		410.4	1		LEAD		200.7 6010B
1		CADMIUM		200.7 6010B	1		ZINC		200.7 6010B
1		CHROMIUM		200.7 6010B	4		* TSS		160.2
1		COPPER		200.7 6010B	4		PHENOLICS		420.1
2		* TOT CYANIDE		335.2	4		PH		150.1
2		* FREE CN		4500CN	4		HEX CHROMIUM		3500CrB
1		MERCURY		1631 245.1 7471A	1		MOLYBDENUM		200.7 6010B
1		NICKEL		200.7 6010A	1		ANTIMONY		200.7 6010B
3		* OIL & GREASE		1664	1		SELENIUM		200.7 6010B
3		* PHOSPHORUS		6010A 4500PE	1	✓	~~ALUMINUM~~ STRONTIUM		200.7 6010B
	✓	TOTAL ALPHA	43 pCi/L	05/03/10 KH	✓		TOTAL BARIUM		
	✓	TOTAL BETA	24.4 ± 2.5 pCi/L	05/6/10 KH			TOTAL THORIUM		
	✓	TOTAL U	2.1 pCi/L	4/15/10 SC	✓		TOTAL		

PRESERVATIVES: NITRIC ACID -1, SODIUM HYDROXIDE - 2, SULFURIC ACID - 3, UNPRESERVED -4

Number of sample bottles used on this Chain Of Custody 14

Ra-228 = 1.08 ± 1.00 pCi/L 05/12/10 KH

COMMENTS: SC: U 2664 pCi/L 05/25/10 KH

LABORATORY RESULTS CERTIFIED BY: DATE

DIRECT INQUIRIES AND THIS FORM TO: SAM LUDWICK, CHEMIST, CITY OF WARREN, WATER POLLUTION CONTROL FACILITY
330-841-2591 EXT 112 OR BY E-MAIL sludwick@warren.org

CITY OF WARREN, OHIO
WATER POLLUTION CONTROL DEPARTMENT

~~2323 MAIN AVE S.W. WARREN, OHIO 44481~~
~~PHONE 330-841-2591~~

BILL TO PARENT

CHAIN OF CUSTODY FORM

~~R6011~~ R6011_01

Sample # 10031900SY Address _____

Source: Final Date Sample Taken: 3-19-10 Time Sample Taken: 0300

Composite Sample Time Period: _____ Grab: Cr+6, O&G, TOT. or Free CN, Phenolics, PH, Hg

Date Grab Taken: 3-19-10 Investigator/ Sampler: Andy Gluckson

	Date/ Time		Date/ Time
Relinquished By: Andy Gluckson		Accepted By: S. Chung	3/20/10 1600
Relinquished By:		Accepted By:	
Relinquished By:		Accepted By:	
Received in Laboratory By: S. Chung		Analyst:	

PLEASE CHECK PARAMETERS FOR ANALYSIS
RESULTS IN ug/l UNLESS OTHERWISE SPECIFIED *

PRESERVATIVE	SELECTED	PARAMETER	RESULT	EPA TEST METHOD	PRESERVATIVE	SELECTED	PARAMETER	RESULT	EPA TEST METHOD
3		* NH3-N		350.2	1		SILVER		200.7
3		* TKN		351.3	1		ARSENIC		200.7 6010B
3		* COD		410.4	1		LEAD		200.7 6010B
1		CADMIUM		200.7 6010B	1		ZINC		200.7 6010B
1		CHROMIUM		200.7 6010B	4		* TSS		160.2
1		COPPER		200.7 6010B	4		PHENOLICS		420.1
2		* TOT CYANIDE		335.2	4	K	[redacted] Strontium		150.1 DL 57644
2		* FREE CN		4500CN-	4		HEX CHROMIUM		3500CrB
1		MERCURY		1631 245.1 7471A	1		MOLYBDENUM		200.7 6010B
1		NICKEL		200.7 6010A	1		ANTIMONY		200.7 6010B
3		* OIL & GREASE		1664	1		SELENIUM		200.7 6010B
3		* PHOSPHORUS		6010A 4500PE	1		ALUMINUM		200.7 6010B
	K	Total Ra-226 3 pCi/L 05/02/10 KG				K	Total Uranium		
	K	Total Ra-228 6.6 ± 2.9 pCi/L 05/02/10 KG					Total Thorium		
	K	Total U 1 pCi/L 4/15/10 SC				K	Thorium		DL 57644

*PRESERVATIVES: NITRIC ACID -1, SODIUM HYDROXIDE - 2, SULFURIC ACID - 3, UNPRESERVED -4

Ra-228 2.1 pCi/L 05/12/10 KG
Ra-226 2.3 pCi/L 05/12/10 KG

Number of sample bottles used on this Chain Of Custody _____

COMMENTS: _____

LABORATORY RESULTS CERTIFIED BY: _____ DATE _____

DIRECT INQUIRIES AND THIS FORM TO: SAM LUDWICK, CHEMIST, CITY OF WARREN, WATER POLLUTION CONTROL FACILITY
330-841-2591 EXT 112 OR BY E MAIL sludwick@warren.org

Ohio Department of Health, Division of Prevention
ODH Laboratory Report

Ohio Department of Health Laboratory
Radiochemistry Section, Building 22
8995 E Main ST
Reynoldsburg, OH 43068

Ted Strickland, Governor
Alvin Jackson M.D., Director of Health

Patriot Water Treatment (CustomerID# water & wa)
7716 Depot Road
Lisbon OH 44432
330-853-9321

Receive Date: 3/30/2010
This Report's Date: 6/7/2010
ODH-Lab Order#: R6011

Sample# R6011-01 Collector: Site: Client # 1003190054
Collect Date: 3/19/2010 Matrix: Water

Parameter	Result	Units	Analysis Date	Analyzed by
Alpha	<3	pCi/L	5/3/2010	K_Grandfield
Beta	6.6 +/- 2.9	pCi/L	5/3/2010	K_Grandfield
Ra-226	<1	pCi/L	5/25/2010	K_Grandfield
Ra-228	<1	pCi/L	5/12/2010	K_Grandfield
U-Natural	<1	pCi/L	4/15/2010	SChung

Sample# R6011-02 Collector: Site: Client # 1003260064
Collect Date: 3/26/2010 Matrix: Water

Parameter	Result	Units	Analysis Date	Analyzed by
Alpha	<3	pCi/L	5/3/2010	K_Grandfield
Beta	4.4 +/- 2.5	pCi/L	5/3/2010	K_Grandfield
Ra-226	<1	pCi/L	5/25/2010	K_Grandfield
Ra-228	1.08 +/- 1.00	pCi/L	5/12/2010	K_Grandfield
U-Natural	<1	pCi/L	4/15/2010	SChung

Chemistry Fax: (614) 728-2671 Voice: (614) 466-5600 E-mail: Ram.Chandrasekar@odh.ohio.gov
URL: http://www.ohio.gov/ohio/

Attn: Andy Blocksom
Patriot Water Treatment
7716 Depot Road
Lisbon OH 44432

OEPA Analyst #'s
Katharina Grandfield, 3548
Rita Shesky, 1407
Sang H Chung, 2934

OEPA Method#
Total Alpha, 222
Total Beta, 165
Radium-226, 169
Radium-228, 183
Radon-222, 233
Tritium, 198
Strontium, 196
Uranium-Nat, 194
Gamma, 207

CITY OF WARREN, OHIO
WATER POLLUTION CONTROL DEPARTMENT

~~2323 MAIN AVE. S.W. WARREN, OHIO 44481~~
~~PHONE 330-841-2894~~

Bill to Parent

CHAIN OF CUSTODY FORM

R5999-01

Sample # [illegible] Address _____

Source: Final Date Sample Taken: 3-12-10 Time Sample Taken: 2:30

Composite Sample Time Period: _____ Grab: Cr+6, O&G, TOT. or Free CN, Phenolics, PH, Hg

Date Grab Taken: 3-12-10 Investigator/ Sampler: Andy B

	Date/ Time		Date/ Time
Relinquished By: Andrew Blackburn		Accepted By: S. Chung	3/15/10 15:30
Relinquished By:		Accepted By:	
Relinquished By:		Accepted By:	
Received in Laboratory By:		Analyst:	

PLEASE CHECK PARAMETERS FOR ANALYSIS
RESULTS IN ug/l UNLESS OTHERWISE SPECIFIED *

PRESERVATIVE	SELECTED	PARAMETER	RESULT	EPA TEST METHOD	MIN VOLUME	SELECTED	PARAMETER	RESULT	EPA TEST METHOD
3		* NH3-N		350.2	1		SILVER		200.7
3		* TKN		351.3	1		ARSENIC		200.7 6010B
3		* COD		410.4	1		LEAD		200.7 6010B
1		CADMIUM		200.7 6010B	1		ZINC		200.7 6010B
1		CHROMIUM		200.7 6010B	4		* TSS		160.2
1		COPPER		200.7 6010B	4		PHENOLICS		420.1
2		* TOT CYANIDE		335.2	4		PH		150.1
2		* FREE CN		4500CN	4		HEX CHROMIUM		3500Cr
1		MERCURY		1631 245.1 7471A	1		MOLYBDENUM		200.7 6010B
1		NICKEL		200.7 6010A	1		ANTIMONY		200.7 6010B
3		* OIL & GREASE		1664	1		SELENIUM		200.7 6010B
3		* PHOSPHORUS		6010A 4500PE	1		ALUMINUM		200.7 6010B
	✓	TOTAL RADIUM	<3 pCi/L 03/29/10 KG			✓	TOTAL RADIUM	Ra-228 <1 pCi/L 03/29/10 KG	
	✓	TOTAL GROSS	<4 pCi/L 04/20/10 KG			✓	TOTAL URANIUM	Ra-226 <1 pCi/L 3/30/10 SC	
	✓	TOTAL U	<1 pCi/L 4/5/10 SC						

PRESERVATIVES NITRIC ACID -1, SODIUM HYDROXIDE - 2, SULFURIC ACID - 3, UNPRESERVED -4

Number of sample bottles used on this Chain Of Custody _____

COMMENTS: _____

LABORATORY RESULTS CERTIFIED BY: _____ DATE _____

DIRECT INQUIRIES AND THIS FORM TO: SAM LUDWICK, CHEMIST, CITY OF WARREN, WATER POLLUTION CONTROL FACILITY
330-841-2591 EXT 112 OR BY E-MAIL sludwick@warren.org

Ohio Department of Health, Division of Prevention
ODH Laboratory Report

Ohio Department of Health Laboratory
Radiochemistry Section, Building 22
8995 E Main ST
Reynoldsburg, OH 43068

Ted Strickland, Governor
Alvin Jackson M.D., Director of Health

Patriot Water Treatment (CustomerID# water & wa)
7716 Depot Road
Lisbon OH 44432
330-853-9321

Receive Date: 3/15/2010
This Report's Date: 4/27/2010
ODH-Lab Order#: R5999

Sample# R5999-01 Collector: Andy Blocks Site: Final Client # 1003120052
Collect Date: 3/12/2010 Matrix: Water

Parameter	Result	Units	Analysis Date	Analyzed by
Alpha	**<3**	pCi/L	3/29/2010	K_Grandfield
Beta	**<4**	pCi/L	4/26/2010	K_Grandfield
Ra-226	**<1**	pCi/L	3/30/2010	SChung
Ra-228	**<1**	pCi/L	3/24/2010	K_Grandfield
U-Natural	**<1**	pCi/L	4/5/2010	SChung

Chemistry Fax: (614) 728-2671 Voice: (614) 466-5600 E-mail: Ram.Chandrasekar@odh.ohio.gov
URL: http://www.ohio.gov/ohio/

Attn: Andy Blocksom
Patriot Water Treatment
7716 Depot Road
Lisbon OH 44432

OEPA Analyst #'s
Katherine Grandfield, 3548
Rita Shesky, 1407
Sang H Chung, 2934

OEPA Method#
Total Alpha, 222
Total Beta, 165
Radium-226, 189
Radium-228, 183
Radon-222, 223
Tritium, 198
Strontium, 196
Uranium-Nat, 184
Gamma, 207

CITY OF WARREN, OHIO
WATER POLLUTION CONTROL DEPARTMENT

~~2323 MAIN AVE. S.W. WARREN, OHIO 44481~~
~~PHONE 330-841-2594~~

CHAIN OF CUSTODY FORM

R5993-01

Sample # _____ Address _____

Source: Final Date Sample Taken 3/9/10 Time Sample Taken 1430

Composite Sample Time Period _____ Grab Cr+6, CAG, TOT or Free CN, Phenolics, PH, Hg

Date Grab Taken 3/9/10 Investigator/ Sampler Warren Richardson

	Date/ Time		Date/ Time
Relinquished By: Warren Richardson	3/9/10	Accepted By:	
Relinquished By:		Accepted By:	
Relinquished By:		Accepted By:	
Received in Laboratory By: S Chung	3/10/10 0700	Analyst:	

PLEASE CHECK PARAMETERS FOR ANALYSIS
RESULTS IN mg/l UNLESS OTHERWISE SPECIFIED *

QUANTITY	SELECTED	PARAMETER	RESULT	EPA TEST METHOD	QUANTITY	SELECTED	PARAMETER	RESULT	EPA TEST METHOD
3		* NH3-N		350.2	1		SILVER		200.7
3		* TKN		351.3	1		ARSENIC		200.7 6010B
3		* COD		410.4	1		LEAD		200.7 6010B
1		CADMIUM		200.7 6010B	1		ZINC		200.7 6010B
1		CHROMIUM		200.7 6010B	1		* TSS		160.2
1		COPPER		200.7 6010B	4		PHENOLICS		420.1
2		* TOT CYANIDE		335.2	4		PH		150.1
2		* FREE CN		4500CN I	4		HEX CHROMIUM		3500Cr B
1		MERCURY		1631 245.1 7471A	1		MOLYBDENUM		200.7 6010B
1		NICKEL		200.7 6010A	1		ANTIMONY		200.7 6010B
3		* OIL & GREASE		1664	1		SELENIUM		200.7 6010B
3		* PHOSPHORUS		6010A 4500PE	1		ALUMINUM		200.7 6010B
	✓	Total Alkalinity				✓	Total Boron		
	✓	Total Cyanide				✓	Total Iron		
	✓	Total Cl							

PRESERVATIVES: NITRIC ACID - 1, SODIUM HYDROXIDE - 2, SULFURIC ACID - 3, UNPRESERVED 4

Number of sample bottles used on this Chain Of Custody 2

COMMENTS: _____

LABORATORY RESULTS CERTIFIED BY: _____ DATE _____

DIRECT INQUIRIES AND THIS FORM TO: SAM LUDWICK, CHEMIST, CITY OF WARREN, WATER POLLUTION CONTROL FACILITY
330-841-2591 EXT 112 OR BY E MAIL sludwick@warren.org

Sample Chain of Custody Record

Site Name: Patriot Water Treatment
Site Address: 7716 Depot Road, Lisbon, Ohio 44432
Project #: WC
Project Name:

Sample Date	Sample Time	Comp.	Grab	Sample Location/site ID	Number of Containers	Analysis / Preservative: Total Uranium (pCi/L)	Total Radium 226 (pCi/L)	Total Radium 228 (pCi/L)	Total Alpha Radiation (pCi/L)	Total Beta Radiation (pCi/L)	Sample Comments	Lab #
						X	X	X	X	X		R5993-01
R5993-01	Gross Alpha <3 pCi/L 03/29/10 KG											
	Gross + Beta <4 pCi/L 04/26/10 KG											
	Ra-228 <1 pCi/L 05/24/10 KG											
	Ra-226 <1 pCi/L 3/3=/10 SC											
	U - Nat <1 pCi/L 4/5/10 SC											

Water & Wastewater Laboratories, Inc.
2779 Rockefeller Avenue
Cleveland, Ohio 44115
Phone (216)696-0290
Fax (216)696-6831

Phone: 614-644-4658
Attn: John
Ohio Department of Health
Building 22
8995 E. Main Street
Reynoldsburg, Ohio 43068

Sampler(s) [print name(s)-sign below]

Relinquished by: (sampler signature)	Date/Time	Received by: (signature or shipper)
Relinquished by: (signature)	Date/Time	Received by: (signature or shipper)
Relinquished by: (signature)	Date/Time	Received by: (signature or shipper)
Relinquished by: (signature)	Date/Time:	Received by: (signature or shipper)

Report to: Andy Blocksom
Patriot Water Treatment
7716 Depot Road
Lisbon, Ohio 44432
Phone:
Fax:

P.O.# Verbal-Andy
Bill to: Patriot Water Treatment
7716 Depot Road
Lisbon, Ohio 44432

Sample Chain of Custody Record

Site Name: Patriot Water Treatment

Site Address: 7716 Depot Road
Lisbon, Ohio 44432

Project #

Project Name

Number of Containers

Analysis / Preservative

Water & Wastewater Laboratories, Inc.
2779 Rockefeller Avenue
Cleveland, Ohio 44115
Phone (216)696-0280
Fax (216)696-6831

Sample Date	Sample Time	Comp.	Grab	Sample Location/site ID	Number of Containers	Analysis / Preservative	Sample Comments	Lab #
			✓		2	★ ✓	(W - list)	R5981-01

R5981-01 alpha <3pCi/L 03/29/10 KG
beta = 9.2 ± 4.3 pCi/L 04/26/10 KG

Sampler(s) [print name(s)-sign below]:

Relinquished by	Date/Time	Received by: (signature or shipper)
Relinquished by: (sampler signature)	Date/Time: 2/19/10 1700	Received by: (signature or shipper)
Relinquished by: (signature)	Date/Time: 2/21/10	Received by: (signature or shipper)
Relinquished by: (signature)	Date/Time:	Received by: (signature or shipper)
Relinquished by: (signature)	Date/Time:	Received by: (signature or shipper)

Report to: **Andy Blocksom**
Patriot Water Treatment
7716 Depot Road
Lisbon, Ohio 44432

Phone:

Fax:

P.O.#: Verbal-Andy

Bill to: Patriot Water Treatment
7716 Depot Road
Lisbon, Ohio 44432

Ohio Department of Health, Division of Prevention
ODH Laboratory Report

Ohio Department of Health Laboratory
Radiochemistry Section, Building 22
8995 E Main ST
Reynoldsburg, OH 43068

Ted Strickland, Governor
Alvin Jackson M.D., Director of Health

Patriot Water Treatment (CustomerID# water & wa)
7716 Depot Road
Lisbon OH 44432
330-853-9321

Receive Date: 2/25/2010
This Report's Date: 4/27/2010
ODH-Lab Order#: R5981

Sample# R5981-01 Collector: Site: Client #
Collect Date: 2/12/2010 Matrix: Water

Parameter	Result	Units	Analysis Date	Analyzed by
Alpha	**<3**	pCi/L	3/29/2010	K_Grandfield
Beta	**9.2 +/- 4.3**	pCi/L	4/26/2010	K_Grandfield

Chemistry Fax: (614) 728-2671 Voice: (614) 466-5600 E-mail: Ram.Chandrasekar@odh.ohio.gov
URL: http://www.ohio.gov/ohio/

Attn: Andy Blocksom
Patriot Water Treatment
7716 Depot Road
Lisbon OH 44432

OEPA Analyst #'s
Katherine Grandfield, 3548
Rita Shesky, 1407
Sang H Chung, 2934

OEPA Method#
Total Alpha, 222
Total Beta, 165
Radium-226, 169
Radium-228, 183
Radon-222, 223
Tritium, 196
Strontium, 196
Uranium-Nat, 184
Gamma, 207

From Chuck McCracken **Date** Tuesday, June 22, 2010 2:25:37 PM
To virginia.wilson@epa.state.oh.us
Cc Stephen Helmer; Michael Snee; Kenneth Barnhart; Robert Leidy
Subject WWTP lab results

LAB results WWTP 1.pdf (1.2 MB HTML) **WWTP lab results 2.pdf** (1.4 MB HTML)

Virginia:

I just got this message from our guy in the Akron office and wanted to make sure you knew they were sent directly to us from the lab.
We will evaluate them to the acceptance criteria established for this project and get back with you.

Thanks,

Chuck McCracken

Supervisor, Bureau of Radiation Protection
Ohio Department of Health
Ph: 614.466.5136
Fx: 614.466.0381

From: Robert Leidy
Sent: Tuesday, June 22, 2010 2:14 PM
To: Chuck McCracken
Cc: Stephen Helmer
Subject: WWTP lab results

Chuck,

I received two packages of environmental data from the lab yesterday and WWTP results were included. I have attached copies of all the WWTP results I received.

Let me know if you need me to send hard copies down to you.

Thanks

From Chuck McCracken **Date** Tuesday, June 22, 2010 2:21:17 PM
To Robert Leidy
Cc Stephen Helmer; Michael Snee; Kenneth Barnhart
Subject FW: WWTP lab results

LAB results WWTP 1.pdf (1.2 MB HTML) **WWTP lab results 2.pdf** (1.4 MB HTML)

Rob:

Keep the hard copies for now.
I will be forwarding these to OEPA-NEOD as well so that they know we got them.

Thanks,

Chuck McCracken
Supervisor, Bureau of Radiation Protection
Ohio Department of Health
Ph: 614.466.5136
Fx: 614.466.0381

From: Robert Leidy
Sent: Tuesday, June 22, 2010 2:14 PM
To: Chuck McCracken
Cc: Stephen Helmer
Subject: WWTP lab results

Chuck,

I received two packages of environmental data from the lab yesterday and WWTP results were included. I have attached copies of all the WWTP results I received.

Let me know if you need me to send hard copies down to you.

Thanks

From Robert Leidy **Date** Wednesday, March 31, 2010 3:57:00 PM
To donna.kniss@epa.state.oh.us
Cc Stephen Helmer; Chuck McCracken
Subject Warren WWTP follow-up

Donna,

I would like to thank-you for allowing me to accompany you and your fellow colleagues to the Warren Wastewater Treatment plant on March the 17th. It was a valuable opportunity to gain a better understanding of the process and set-up while collecting information and meeting the people involved.

Throughout this process several concerns have emerged. Specifically, Mr. Blocksom of Patriot Water and Treatment demonstrated use of the radiation survey meter was not consistent with typical protocol. His selection of the 100X range would prevent the sensitivity needed to allow for additional radioactivity to be distinguishable from background radiation levels. Mr. Blocksom identified Mr. Tom Weber of Wastewater Management, Inc as Patriots radiation consultant who provided instruction and training in the use of the radiation survey instrument.

On March 30th, I had the opportunity to speak to Mr. Weber. He confirmed that he is not licensed or registered pursuant to the Ohio Administrative Code as a Radiation Safety Officer or Radiation Expert. He indicated for him to be considered and radiation consultant would be a stretch. He has been involved with 10-15 projects at nuclear power plants but the plants chemists would handle any radiological issues.

Currently I have received the results for a sludge and liquid sample. The liquid sample was collected on 1.27.10. It is my understanding that four more liquid samples are currently being analyzed and thorium, a requirement of parameter 001, is not currently being evaluated for. Until thorough results are known I would recommend that a conservative approach in the approval of any additional increase in brine would be prudent and consistent with your study.

If you have any questions or comments, please contact Charles D. McCracken, Supervisor, Bureau of Radiation Protection at 614.466.5136 or via e-mail at Chuck.McCracken@odh.ohio.gov

Sincerely,

Robert Leidy
Ohio Department of Health
Bureau of Radiation Protection
330.643.3290

From Sang Chung **Date** Wednesday, March 31, 2010 11:37:09 AM
To Robert Leidy
Cc
Subject RE: Warren WWTP

Hi Rob,

We got 5 samples from them and we just finished one of them.

The results (collected 1/27/10) are; Gross-Alpha; <3 pCi/L,
Gross-Beta; 45.2 +/- 5.1 pCi/L, Ra-226; <1 pCi/L, Ra-228; U-Nat; <1 pCi/L.

The official paper is on the way.

Have a great day!

Sang

-----Original Message-----
From: Robert Leidy
Sent: Wednesday, March 31, 2010 10:49 AM
To: Sang Chung
Subject: Warren WWTP

Hi sang,

I hear you are here until the 23rd before moving into your new position? Counting down I assume.

The reason for my e-mail is I'm looking for any and all results you have for the liquid samples submitted by Patriot for the Warren WWTP.

Could you please send me the results for what samples you have completed and also a total of how many are still under analysis?

Thanks and have a great day!

Rob

From Robert Leidy **Date** Wednesday, March 31, 2010 10:48:00 AM

To Sang Chung

Cc

Subject Warren WWTP

Hi sang,

I hear you are here until the 23rd before moving into your new position? Counting down I assume.

The reason for my e-mail is I'm looking for any and all results you have for the liquid samples submitted by Patriot for the Warren WWTP.

Could you please send me the results for what samples you have completed and also a total of how many are still under analysis?

Thanks and have a great day!

Rob

From Robert Leidy

To Stephen Helmer

Cc

Subject Lab meeting -Warren

Date Wednesday, March 31, 2010 8:26:00 AM

Steve,

Were the liquid results complete and did we review the results? If so, considering what was tested for were there any levels or quantities of concern? How is the GEL information going to be introduced and to who, OEPA and/or Patriot?

Thanks

For additional guidance on Ohio radioactive waste services applications or if you have any questions and/or comments on the enclosed information, please contact Jim Colleli in the Decommissioning / Waste Management Program of the Bureau of Radiation Protection at 614-644-2727 or by email at Jim.Colleli@odh.ohio.gov.

2 of 2

This category includes decontamination services provided to licensees for the clean up of contaminated sites which may include, but is not limited to, buildings, soils, or scrap metals. Packaging radioactive waste for transportation is included in this category.

• • • •

Specific for Decommissioning sites only Must notify ODH/BRP **15** days before start and within **30** days when done Authorized for transportation of radioactive material, not radioactive waste Must have PUCO Hazardous Waste Permit for radioactive material or waste transportation in Ohio

Reciprocity

Out of State Licenses

Licenses from another agreement state or NARM licensing state, or the United States Nuclear Regulatory Commission and who maintains an office from which the licensee directs the licensed activity and retains radiation safety records in accordance with OAC 3701:1-40-28 or equivalent.

•

Must have PUCO Hazardous Waste Permit for radioactive material or waste transportation in Ohio

Exempt

Common Carrier

Common and contract carriers, freight forwarders, warehousemen, and the United States postal service are exempt to the extent that they only transport or store byproduct or accelerator produced material in the regular course of carriage for another or storage incident to transportation.

•

• • •

Must have a Motor Carrier # that can be verified by the Federal Motor Carrier Safety Administration (FMCSA) at the following website: **http://www.fmcsa.dot.gov** FMCSA requires proof of liability and proof of insurance Must have PUCO Hazardous Waste Permit for radioactive material or waste transportation in Ohio Must be licensed under 03225 or obtain Reciprocity if packaging radioactive material

License applications may be downloaded from the ODH website: **http://www.ODH.ohio.gov.** Follow the sequence: Programs Radiation Protection Forms Nuclear Material Safety. Form HEA 5133 is the form number for license applications.

For further information on Hazardous Waste Permit requirements in Ohio contact PUCO at 614-728-9126 or 614-466-3392

Receipt of Packaged Waste Only Collection, Transportation, Temporarily Store (via carriage or storage incident to transportation) Possession of radioactive waste is not included Must have Public Utilities Commission of Ohio (PUCO) Hazardous Waste Permit for radioactive material or radioactive waste transportation in Ohio

03234

Waste Disposal Service Processing / Repackaging

Waste Disposal Service and/or Repackaging licenses authorize the receipt of packaged wastes from other persons, opening of the packages, compacting and repackaging of wastes, and transportation to an authorized waste disposal facility.

• • • • • •

Receipt of Packaged Waste Only Collection, Transportation, Temporarily Store Processing and/or Repackaging in accordance with OAC 3701:1-54-05 Possession of radioactive waste is not included Financial Assurance May be Required Must have PUCO Hazardous Waste Permit for radioactive material or waste transportation in Ohio

03225

Other Services

Other Service licenses are issued to service organizations (those that offer their services to other licensees) for the possession and use of radioactive material for commercial services that are not covered in the descriptions for License Categories 03320-03224 *et seq.* This category also includes services provided by an individual or company to a licensee for the surveying and packaging of materials in preparation for transportation. The individual or company provides this service but does not take possession of the materials.

• • •

Provides for Commercial Services to Licensees Allows for possession and use of radioactive materials for commercial services Provides Services for surveying and packaging of radioactive materials in preparation for transportation, but does not allow for possession of radioactive waste

1 of 2

Ohio Licensure Requirements for Radioactive Waste Services

03219

Decontamination Services

Decontamination Service licenses authorize the cleaning and release of contaminated material.

of radioactive with non-radioactive material; substitute longer-lived with shorter-lived radionuclides; decontamination; compaction; incineration; decay-in-storage; process changes. NCRP Report 143 "Management Techniques for Laboratories and Other Small Institutional Generators to Minimize Off-Site Disposal of **Low-Level Radioactive Waste**" may provide additional information of use to generators.

Generator Certification of Processed Waste

This section is for LLRW sent to a processor with the **radioactive waste** residue either returned to the generator or disposed of on behalf of the generator.

A common form of LLRW processing to be entered on this table includes incineration of LLRW at a commercial facility. For the fuel blending and incineration of scintillation vials, the final volume is normally zero. For the incineration of dry active waste, the final volume is the volume of the ash either returned to the generator or disposed on behalf of the generator.

If you have comments and/or suggestions on how to improve the report form, please contact the Decommissioning and Waste Management Section of the Bureau of Radiation Protection at 614-644-2727.

Ohio Licensure Requirements for Radioactive Waste Services

Pursuant to Ohio Revised Code Chapter 3748 and the rules adopted there under, a license is required from the Ohio Department of Health / Bureau of Radiation Protection (ODH/BRP) for those organizations offering radioactive waste services. Ohio licensees are to ensure appropriate requirements are met (as indicated below) for radioactive waste services they obtain. ODH/BRP may request confirmation records for radioactive waste services used by licensees in order to ensure compliance. Licensees offering radioactive waste services may have more than one radioactive materials license. The following license categories and titles apply.

Category

License Title

03232

Waste Disposal Service, Prepackaged Only

Waste Disposal Service Prepackaged Only licenses authorize the pick-up, Transportation, and temporary storage of only already packaged wastes. This license does not authorize the opening of the packages.

....

For the purposes of this report, the return of nuclear medicine radioactive materials to the originating pharmacy, or returning a sealed source or device to the manufacturer, is considered a transfer of radioactive material and not a waste generation or a waste shipment.

Questions regarding the accounting of satellite waste accumulation are occasionally raised. The **radioactive waste** at satellite accumulation sites must be accounted for and reported, but when it is accounted for and reported depends on the licensees operation. It is the responsibility of the licensee to verify that all the waste is accounted for, whether the waste is included in the current year's report or the following year's report. Therefore, if the satellite accumulation containers are partially filled, then the **low-level radioactive waste** does not need to be reported in the current year, if it will be reported in the following year when the waste container is closed and/or collected for disposal.

LLRW Shipment Information

Calculate by carrier/broker and destination/disposal site the subtotals of the waste class and type shipped in 2009. Do not list more than one disposal location in a single table. If the destination of the shipment is not the final disposal site, also list the land disposal facility.

A licensed land disposal facility available to most Ohio generators is EnergySolutions in Utah. The EnergySolutions Barnwell, S.C. facility closed to Ohio generators in July, 2008.

The LLRW shipments to be reported in this section are those that required completion of a manifest in accordance with OAC 3701:1-38-19 Appendix A when shipped for ultimate disposal.

Licensees should ensure carriers of LLRW are permitted by Ohio PUCO to transport hazardous materials.

LLRW General Information

Methods used to treat, or dispose of LLRW may include, but are not limited to, decay-instorage; compaction; incineration; freeze dry; fuel blending; evaporation; distillation; vitrification; digestion; sewer disposal; decontamination; and solidification/ stabilization.

Methods used to store LLRW may include, but are not limited to, seal in steel drums; hold in waste container; hold in liquid waste container; hold in "structurally stable" high integrity container (HIC) for land disposal; keep frozen in a freezer.

Methods used to reduce the volume of LLRW requiring off-site disposal or production of LLRW may include, but are not limited to, reuse or recycle contaminated item; substitute use

not be listed in Table 1b, or vice versa.

Table 1a is for LLRW generated and disposed in the current reporting year.

Table 1b is for LLRW generated and placed for storage awaiting disposal. LLRW held in storage more than forty-two months are subject to fees in accordance with OAC 3701:1-5402 (B)(2). Licensees that continue to hold LLRW beyond five years may be subject to additional conditions as found in OAC 3701:1-54-03, the Assured Isolation Facility rule.

The table "Pre-2009 LLRW Remaining in Storage" requests information on the volume and activity of LLRW remaining in storage as of December 31, 2009, that was generated before January 1, 2009. The information is to be broken down by its waste class and waste type with the calculated radionuclide activity of the waste as of December 31, 2009, and subtotaled by the year that the waste was placed into storage.

LLRW class descriptions of Class A, B, and C may be referenced in OAC 3701:1-54-10.

All **radioactive waste** containing exclusively radionuclides with a half-life of less than five years is class A waste regardless of the activity.

Typical waste types include, but are not limited to; animal carcass; bulk aqueous liquid; bulk scintillation fluid; construction debris; dry/solid or dry active waste (less than 0.5% free standing liquid); liquid mixed waste (radioactive and hazardous); scintillation vials; sealed sources and devices; biological or pathological media; ion exchange resin and media; and contaminated soils.

The activity of the **radioactive waste** is the activity contained within the waste container when the container is segregated for disposal or it has been closed to preclude further additions of radioactive materials and waste.

Mixed hazardous waste is waste that contains radioactive and hazardous waste. Scintillation fluid and scintillation vials are a special category of mixed radioactive / hazardous that should be entered separately as bulk scintillation fluid or scintillation vials. (Note: mixed

---

wastes must be maintained in accordance with EPA regulations and guidelines. Contact Ohio EPA for the current regulation and policy on handling mixed waste.)

The volume after commercial **treatment** may be estimated from the **treatment** of generated waste in prior years if this information is not available from the commercial facility at the time of reporting.

Processed Waste

Each report page has its own instructions on how to complete the table for that page. If the table does not apply to your facility, mark the box indicating that you have no data to report. The following information is intended to clarify potential or common questions that generators may have when completing the reports. Address specific questions with the LLRW Generator Report to the Bureau of Radiation Protection, Decommissioning and Waste Management.

Who needs to file a LLRW generator report?

A LLRW generator report needs to be completed if:

any LLRW as defined in OAC 3701:1-38-01(89) was generated, possessed, stored, or shipped during CY 2009

Facilities may be exempted from low level **radioactive waste** generator reporting requirements under OAC 3701:1-45-02 if they exclusively generate and dispose of LLRW in accordance with paragraphs (D) to (G) of OAC 3701:1-38-19. Those wastes include decay in storage (DIS), sewerage, and incinerated wastes which were previously reportable.

Licensee Information

The organization classification is determined by the licensee. Licensees that are both medical and academic facilities can choose whether they want to identify themselves as academic or medical or both, depending on how they interpret their waste streams. All commercial facilities that do not have a general category are listed under "Industrial". Utilities can be any electrical power generator (including coal), and water and sewer **treatment** facilities.

Page 1

Supplemental Information to the 2009 LLRW Generator Report

LLRW Generation and Storage Information

NORM and NARM **radioactive wastes** do not meet the definition of LLRW and are not required to be reported, and should not be reported. Reporting of such wastes may artificially increase the volume of **low-level radioactive waste** generated. NARM and NORM radioactive materials are defined in OAC 3701:1-38-01. Examples of NORM/NARM material include F-18, Tl-201, Ga-68, Gd-153, and Ra-226.

Tables 1a and 1b request information on the activity and volumes of waste generated in calendar year 2009 and their final volume after **treatment**. The two tables segregate the listing of waste based on the disposition (storage vs. disposal) of the waste. Any waste listed in Table 1a should

Radiation Protection Radioactive Materials License Number: _____

Generator Certification of Processed Waste [OAC 3701:1-54-02(E)]

Was any **low- level radioactive waste** sent to a processor for the purpose of treating the **low-level radioactive waste**, and either returning the waste to the generator or disposing of the waste on behalf of the generator?

[__] Yes [__] No

If yes, complete the following table for low level **radioactive waste** that was sent out for volume reduction. The date is the date shipped. The volume shipped is the initial volume of the shipment being sent out for volume reduction. Indicate who the processor was and what **treatment** was used (e.g. compaction, incineration). Indicate for that particular shipment the volume of waste returned or disposed on behalf of the generator. If the waste was returned to the generator, include the date of the return by the processor.

Date

Volume Shipped

Processor

Process Technique

Volume Returned or Disposed

Return Date

Supplemental Information to the 2009 LLRW Generator Report

Introduction

The enclosed forms consisting of questions and tables are provided on behalf of the director. Requested information is required for the annual LLRW report submission. Efforts were taken to minimize the required effort on the part of the waste generator while fulfilling the information collection requirements in accordance with Ohio Administrative Code (OAC) rule 3701:1-54-02.

The contents of the annual LLRW report are: Licensee Information (with generator information) Table 1a - 2009 LLRW Generated and Not Placed in Storage Table 1b - 2009 LLRW Generated and Placed Into Storage Pre-2009 LLRW Remaining in Storage LLRW Shipment Information LLRW General Information Anticipated LLRW Generation Generator Certification of

Describe actions taken, or planned to be taken, to reduce the LLRW volume or production [OAC 3701:1-54-02(A)(7)]

2009 **Low- Level Radioactive Waste** Generator Report Ohio Department of Health - Bureau of Radiation Protection Radioactive Materials License Number: _____

Anticipated 2010 LLRW Generation [OAC 3701:1-54-02(A)(8)]

If the anticipated types and amount of waste to be generated or placed in storage during CY 2010 will be approximately the same as CY 2009, check the box below. Otherwise, complete the table below estimating the type and amount of LLRW to be generated or placed in storage during CY 2010.

[_] Approximately the same as CY 2009.

Waste Class

Waste Type

Radionuclide

Activity [_] Ci [_] mCi [_] MBq

Volume (cu ft)

2009 **Low- Level Radioactive Waste** Generator Report Ohio Department of Health - Bureau of

[_] public highway [_] air [_] vessel [_] rail

Truck carrier permitted by Ohio PUCO to transport hazardous materials

Waste Class

Waste Type

Radionuclide

Activity [_] Ci [_] mCi [_] MBq

Volume (cu ft)

2009 **Low- Level Radioactive Waste** Generator Report Ohio Department of Health - Bureau of Radiation Protection Radioactive Materials License Number: _____

LLRW General Information

Was any LLRW stored or shipped in CY 2008 that was not reported in last year's report?

[_] Yes

[_] No

[OAC 3701:1-54-02(A)(5)]

If yes, describe the types and amounts.

_____

_____

Describe the methods used to treat, store and dispose of LLRW. [OAC 3701:1-54-02(A)(6)]

_____

_____

_____

_____

_____

Waste Type

Radionuclide(s)

Activity (12/31) Volume [_] Ci [_] mCi (cu ft) [_] MBq

2009 **Low- Level Radioactive Waste** Generator Report Ohio Department of Health - Bureau of Radiation Protection Radioactive Materials License Number: ____________

LLRW Shipment Information [OAC 3701:1-54-02(A)(4)]

Identify the types and amount of LLRW shipped in CY 2009, including carrier or broker, shipment dates and modes of transportation. Provide a summary of the information from your individual waste manifest forms. The summaries may be subtotaled by carrier and destination for a shipment period in lieu of specifying individual dates. For example, a period may be a calendar quarter or a year. Make additional copies of this page if needed. In the column "Waste Class," enter the waste classification of A, B or C as defined in OAC 3701:1-54-10.

In the column "Waste Type," enter the waste type as a generic description of the physical characteristics of the waste as entered on your waste manifest (ref. OAC 3701:1-38-19 Appendix A, OAC 3701:1-50-05). In the column "Radionuclide," enter the predominant radionuclides contained in each waste class and type. Enter the total radionuclide activity in the column labeled "Activity" for each waste class and type. Indicate by check mark the units of activity that are being used. In the column labeled "Volume," enter the volume of waste transported by the carrier/broker in cubic feet. (Note: there are 35.3 cu. ft. in a cubic meter.) Enter the *final* destination/disposal site (e.g. Energy Solutions). List only one disposal site per table. Make as many copies of this page as needed.

[__] Does not apply - no data to report for this table.

Carrier/Broker:____________ Shipment date(s)/period:____________

Final Destination:

Disposal Site:

Mode of Transportation (OAC 3701:1-50-05)

Waste Type

Radionuclide

Activity [_] Ci [_] mCi [_] MBq

Volume generated (cu ft)

Volume after **treatment** (cu ft)

2009 **Low- Level Radioactive Waste** Generator Report Ohio Department of Health - Bureau of Radiation Protection Radioactive Materials License Number: _____

Pre-2009 LLRW Remaining in Storage [OAC 3701:1-54-02(A)(3)]

Complete the following table for the types and amounts of LLRW that was placed in storage before Jan. 1, 2009, and continued to be held in storage as of Dec. 31, 2009. Summarize from your records, subtotal based on the waste class and type by year, the information requested in the table below.

In the column labeled "Year Generated," enter the year that the waste was placed into storage. Enter the waste classification of A, B or C as defined in OAC 3701:1-54-10 in the column labeled "Waste Class." Enter the waste type as a description of the physical characteristics of the waste in the column labeled "Waste Type." Examples of the generic descriptions include dry solid, aqueous liquid, scintillation vials, biological (animal carcasses) or high-volume, **low-level radioactive waste** (HV-LLRW) from decommissioning or decontamination. HV-LLRW is defined in OAC 3701:1-54-02(C). In the column "Radionuclide," enter the predominant radionuclides remaining in the waste as of December 31, 2009. Enter the decay corrected activity of the waste remaining in storage as of Dec. 31, 2009, in the column labeled "Activity." Indicate by check mark the units of activity that are being used. In the column "Volume," enter the volume (in cubic feet) of waste held in storage after any **treatment** techniques were used.

[___] Does not apply - no data to report for this table.

Year Generated

Waste Class

Waste Type

Radionuclide

Activity [_] Ci [_] mCi [_] MBq

Volume Generated (cu ft)

Volume after Type of **treatment** Disposal (cu ft)

2009 **Low- Level Radioactive Waste** Generator Report Ohio Department of Health - Bureau of Radiation Protection Radioactive Materials License Number: _____

Table 1b - 2009 LLRW Generated and Placed into Storage [OAC 3701:1-54-02(A)(2), -02 (A)(3), -02(E)]

Complete the following table for the types and amount of waste generated in the CY 2009 and placed into storage. Summarize, from your records, and subtotal, based on the waste class and type, the information requested in the table below.

In the column "Waste Class," enter the waste classification of A, B or C as defined in OAC 3701:1-54-10. In the column "Waste Type," enter the waste type as a generic description of the physical characteristics of the waste. Examples of generic descriptions include dry solid, aqueous liquid, scintillation vials, biological (animal carcasses) or high- volume, **low- level radioactive waste** (HV-LLRW) from decommissioning or decontamination. HV-LLRW is defined in OAC 3701:1-54-02(C). Enter the predominant radionuclides for the waste class and type in the column labeled "Radionuclide." Enter the total radionuclide activity for the waste class and type in the column labeled "Activity." Indicate by check mark the units of activity that are being used. In the column labeled "Volume Generated," enter the volume in cubic feet of waste generated before treating the waste. If the waste was treated, enter the volume of waste (in cubic feet) placed into storage after **treatment** in the column labeled "Volume After **Treatment**." [Complete information on the processor in table "Generator Certification of Processed Waste" as applicable.] **Treatment** is defined in OAC 3701:1-54-01.

[___] Does not apply - no data to report for this table.

Waste Class

Radioactive Material License Number: _____

Generator Reporting Exemption [__] This facility is exempt from **low- level radioactive waste** generator reporting requirements under Ohio Administrative Code (OAC) rule 3701:1-54-02(D) since this facility exclusively generates and disposes of LLRW in accordance with paragraphs (D) to (G) of OAC rule 3701:1-38-19.

2009 **Low- Level Radioactive Waste** Generator Report Ohio Department of Health - Bureau of Radiation Protection Radioactive Materials License Number: _____

Table 1a - 2009 LLRW Generated and Not Placed in Storage [OAC 3701:1-54-02(A)(2), -02(E)]

Complete the following table for the types and amount of waste generated in CY 2009 and not placed into storage. Summarize from your records, and subtotal based on waste class and type, the information requested in the table below.

In the column "Waste Class," enter the waste classification of A, B or C as defined in OAC 3701:1-54-10. In the column "Waste Type," enter the waste type as a generic description of the physical characteristics of the waste. Examples of generic descriptions are dry solid, aqueous liquid, scintillation vials, biological (animal carcasses) or high-volume, **low-level radioactive waste** (HV-LLRW) from decommissioning or decontamination. HV-LLRW is defined in OAC 3701:1-54-02(C). Enter the predominant radionuclides contained in each waste class and type in the column labeled "Radionuclide." Enter the total radionuclide activity for each waste class and type in the column labeled "Activity." Indicate by check mark the units of activity that are being used. In the column labeled "Volume Generated," enter the volume of waste generated in cubic feet before using waste **treatment** techniques. If the waste was treated, enter the volume of waste after **treatment** in cubic feet in the column labeled "Volume after **Treatment**." [Complete information on the processor in table "Generator Certification of Processed Waste" as applicable.] **Treatment** is defined in OAC 3701:1-54-01. In the column labeled "Type of Disposal," indicate the disposition of the waste as land burial, vitrification, etc.

[__] Does not apply - no data to report for this table.

Waste Class

2009 **Low- Level Radioactive Waste** Generator Report Ohio Department of Health – Bureau of Radiation Protection

Licensee Information

Licensee Name Street Address

_____ _____
_____ _____

Telephone number (_____) _____ - _____ Federal Tax ID number
_____

Organization Classification [__] Academic [__] Industrial [__] Medical [__] Utility [__] Government Office [__] Uranium Enrichment [__] Academic and Medical

[__]

I/We did not generate, possess, or store any **low-level radioactive waste** in CY 2009.

----------Remainder for Generators Only ----------

Person completing LLRW annual report

Name _____ Title _____ Phone number (_____) _____ - _____

Radiation Safety Officer

Name (printed)

_____ Title _____

RSO Signature

_____ Date _____

Notes:

1. Sludge after dewatering, before processing
2. Metals (for sludge see note 5): aluminum, antimony, silver, ~~barium~~, beryllium, boron, cadmium, chromium, copper, iron, nickel, lead, selenium, ~~strontium~~, zinc
3. Calculated endpoint
4. Conduct analyses on WET test samples
5. To develop a brine specific TDS/specific conductivity ratio
6. Metals regulated by 40 CFR 503
7. Required if there is a significant increase in total alpha or total beta radiation
8. During 100,000 gpd weeks

Warren WWTP Test Study: Oil and Gas Well Production Wastewater
Required Analyses

B - Beginning of eight week test period T - End of eight week test
D - Daily W - End of each Monday-Friday 5 day test period
A - As needed, or non-routine (e.g., after rain event)

Parameter	001	Influent after return streams	801	901	Sludge[1]
Acute toxicity, *ceriodaphia dubia*	W[3]		W[3]	W[3]	
Acute toxicity, *pimephales promelas*	T[3]		T[3]	T[3]	
Chronic toxicity, *ceriodaphia dubia*	W		W	W	
Chronic toxicity, *pimephales promelas*	T		T	T	
Specific conductivity	D, A[5]	D, A[5]	W, A	W, A	
Total dissolved solids	W, A[4, 5]	W, A[4, 5]	W, A[4]	W, A[4]	
Chlorides	W, A[4]	W, A[4]	W, A[4]	W, A[4]	B, T
Fluorides	T, A	T, A	T, A	T, A	B, T
Sulfates	T, A	T, A	T, A	T, A	
total alkalinity	T, A	T, A	T, A	T, A	
total suspended solids	T, A	T, A	T, A	T, A	
total phosphorus	T, A	T, A	T, A	T, A	
pH	W	W	W	W	
HEM oil and grease	T	T	T	T	
SGT-HEM oil and grease	T	T	T	T	
Metals[2]	T				B, T[6]
Barium, Strontium[8]	W	W			
Low level mercury	T				
Hexavalent chromium	T				
Volatile organic compounds	T				
Base neutral organic compounds	T				
Acid organic compounds, including pesticides and total phenols	T				
MBAS	T				
$CBOD_5$	T				
COD	T				
total organic carbon (TOC)	T				
Total nitrogen	T				
Ammonia-nitrogen	T				
Nitrate/nitrite nitrogen	T				
Total alpha radiation in pCi/l	W, T B				B, T
Total beta radiation in pCi/l	W, T B				B, T
Total uranium in pCi/l	T, W, B				~~B~~ T
Total radium in pCi/l (or Ra 226 + Ra 228),	T, W, B				~~B~~ T
Total thorium in pCi/l	T, W, B				~~B~~ T

pCi/g
"
"
"

* ADD study requirements to

3. Provide a detailed physical description of the subject material including, but not limited to:

   - Physical size (provide dimensions)
   - Photographs (provide a 360 degree view)
   - MSDS sheets (if any)
   - Physical amount (volume, weight, number of pieces)

4. Provide a detailed radiological analysis of subject material including, but not limited to:

   - Radiological survey results (activity in ccpm and/or dose rates on contact and at 30 cm)
   - Supporting quality assurance (calibration records, source checks, surveyor credentials)
   - Radioisotopic analysis of material (HPGe Gamma specific printout or alpha spectroscopy with radionuclide identifications and concentrations)
   - Supporting quality assurance (calibration records, results, spikes, duplicates, operator credentials)

Upon receipt of a request for regulatory concurrence, ODH/BRP will evaluate the documentation submitted and make a determination of whether or not we agree that the subject material is exempt from the cited OAC licensing requirement. Upon completion of our review, a letter of regulatory concurrence or non-concurrence will be issued to each requesting organization.

If you have any question, please contact Jim Colleli of my staff at 614-728-0882 direct or E-mail: Jim.Colleli@ odh.ohio.gov .

Sincerely,

Chuck McCracken, Supervisor
Decommissioning & waste Management
Ohio Department of Health
Bureau of Radiation Protection

Rev 08/2009

OHIO DEPARTMENT OF HEALTH

246 North High Street
Columbus, Ohio 43215

(614) 466-1743
www.odh.ohio.gov

Ted Strickland/Governor

Nicole D. Jackson, M.D./Director of Health

To: Requesting Organization / Representative

Subject: Request for Regulatory Concurrence

Chapter 3748 of the Ohio Revised Code (ORC) and Ohio Administrative Code (OAC) rules adopted there under establish that the Ohio Department of Health, Bureau of Radiation Protection (ODH/BRP) is the State of Ohio Radiation Control Agency and the licensing agency for possession and use of radioactive materials. However, there are certain types and quantities of radioactive materials that are exempt from ODH/BRP licensing requirements. Individuals or organizations seeking to dispose of radioactive materials that they have determined are exempt from ODH/BRP licensure may elect to submit a written request for ODH/BRP regulatory concurrence. Please be advised that the disposal facility owner/operator has the final decision on whether or not a waste is acceptable for disposal at their facility. ODH/BRP will render a regulatory position on subject materials provided by the requesting organization. The minimum required information is as follows:

1. Identify the specific OAC regulations that you have determined applies to the material in question.

   - OAC 3701-39-02.1, **Standards for Handling Radioactive Material**
   - OAC 3701:1-44-09, **Unimportant Quantities of Source Material**
   - OAC 3701;1-40-08, Exempt Concentrations and Appendix
   - OAC 3701:1-40-09, Certain Items Containing Byproduct or Accelerator Produced Material
   - OAC 3701:1-40-11, Exempt Quantities and Appendix
   - OAC 3701:1-40-12, Self-Luminous products
   - OAC 3701:1-40-13, Gas and Aerosol Detectors Containing Byproduct or Accelerator Produced Material

2. Provide a detailed history of the subject material including but not limited to:

   - Where did it come from?
   - What was it used for?
   - Who currently possesses it or controls access to it? (Name, address, phone)
   - Where is the subject material physically located right now?
   - If it's not physically located in Ohio, what (if any) has been the host state's involvement thus far? (include host state contact information)

to the processing of natural gas or crude oil or the manufacture of natural gas products or crude oil products containing NORM.

(5) Possession of produced waters from crude oil or natural gas production provided that the produced waters are reinjected in a well approved by the United States environmental protection agency or discharged under the authority of the United States environmental protection agency.

(6) The possession, storage, use, transportation or commercial distribution of compressed gases and compressed gas products containing NORM. The exemptions contained in this paragraph do not apply to the processing of compressed gas or compressed gas products containing NORM.

(C) Information provided by a licensee or applicant for a license or license renewal that constitutes a "trade secret" as defined in section 1333.61 of the Revised Code is not subject to public disclosure in accordance with sections 1333.61 to 1333.69 of the Revised Code.

Effective: 12/22/2008

R.C. 119.032 review dates: 09/15/2008 and 12/01/2013

CERTIFIED ELECTRONICALLY

Certification

12/12/2008

Date

Promulgated Under:	119.03
Statutory Authority:	3748.02
Rule Amplifies:	3748.04
Prior Effective Dates:	6/6/1997, 10/19/98, 7/22/01, 10/20/02, 4/14/03, 8/15/05, 2/6/06

centimeters of soil below the surface is five becquerels (one hundred thirty-five picocuries) per gram or less;

(f) Media, other than soil, containing NORM other than technologically enhanced radium-226 or radium-228 provided that the concentration of NORM is five becquerels (one hundred thirty-five picocuries) per gram or less; or

(g) Materials in the recycling process contaminated with scale or residue not otherwise exempted or other equipment containing NORM with a radiation exposure level that does not exceed 0.25 micrograys (twenty-five microrads) per hour above background at any accessible point.

(2) The manufacture, wholesale or retail commercial distribution, use, or disposal of the following products or materials, or the recycling of equipment used to produce, contain, or transport the following:

(a) Potassium or potassium compounds that have not been isotopically enriched in the radionuclide potassium-40;

(b) Fossil fuel or byproducts from fossil fuel combustion, including bottom ash, fly ash, and flue-gas emission control byproducts; or

(c) Material used for building construction, industrial processing, sandblasting, metal casings, or other NORM in which the radionuclide content has not been concentrated to a level higher than is found in its natural state, or zirconium-bearing sands and products produced from those sands provided that the radioactive constituent is consistent with the radioactive levels stated in the material safety data sheet accompanying the zirconium-bearing materials,

(3) The wholesale and retail commercial distribution, including custom blending, possession, and use of the following products or materials or the recycling of equipment or containers used to produce, contain, or transport these products as follows:

(a) Phosphate or potash fertilizer;

(b) Phosphogypsum for agricultural uses if such commercial distribution and uses meet the requirements of 40 C.F.R. 61.204, 40 C.F.R. 61.207, and 40 C.F.R. 61.208 as specified in appendix E to this rule; or

(c) Materials used for building construction if the materials contain NORM that has not been concentrated to higher levels than found in its natural state.

The exemptions contained in this paragraph do not apply to the manufacture of phosphate or potash fertilizer.

(4) The possession, storage, use, transportation, or commercial distribution of natural gas and natural gas products or of crude oil and crude oil products containing NORM. The exemptions contained in this paragraph do not apply

3701-39-02.1 **Standards for handling radioactive material.**

(A) In accordance with section 3748.21 of the Revised Code, this rule does not apply to any person to the extent that the person is subject to regulation by the United States nuclear regulatory commission. As used in this rule, naturally occurring radioactive material (NORM) means any nuclide that is radioactive in its natural physical state, but does not include source material, byproduct material, or special nuclear material. As used in this rule, technologically enhanced means the chemical properties or physical state of natural sources of radiation have been altered or the potential exposure pathways of natural sources of radiation to humans have been altered to increase the human radiation exposure. In all cases where special nuclear material is referenced, that term shall refer to quantities not sufficient to form a critical mass.

(B) The following activities are exempt from licensure, unless the director determines that the dose received by an average member of the critical group would exceed the dose limit specified in rule 3701:1-38-22(B) of the Administrative Code:

(1) The handling, distribution, or processing of:

(a) Soil containing technologically enhanced radium-226 or radium-228 with a radon emanation rate less than 0.74 becquerels (twenty picocuries) per square meter per second, provided that the concentration of technologically enhanced radium-226 or radium-228 in the soil, averaged over any one hundred square meters, and averaged over the first fifteen centimeters of soil below the surface, does not exceed one becquerel (twenty-seven picocuries) per gram;

(b) Soil containing technologically enhanced radium-226 or radium-228 with a radon emanation rate equal to or greater than 0.74 becquerels (twenty picocuries) per square meter per second provided that the concentration of technologically enhanced radium-226 or radium-228 in the soil, averaged over any one hundred square meters, and averaged over the first fifteen centimeters of soil below the surface does not exceed 0.185 becquerel (five picocuries) per gram;

(c) Media, other than soil, containing technologically enhanced radium-226 or radium-228 with a radon emanation rate less than 0.74 becquerels (twenty picocuries) per square meter per second provided that the concentration of technologically enhanced radium-226 or radium-228 does not exceed one becquerel (twenty-seven picocuries) per gram;

(d) Media, other than soil, containing technologically enhanced radium-226 or radium-228 with a radon emanation rate is equal to or greater than 0.74 becquerels (twenty picocuries) per square meter per second provided that the concentration of technologically enhanced radium-226 or radium-228 does not exceed 0.185 becquerel (five picocuries) per gram;

(e) Soil containing NORM other than technologically enhanced radium-226 or radium-228 provided that the concentration of NORM averaged over any one hundred square meters, and averaged over the first fifteen

Ph: 614.466.5136
Fx: 614.466.0381

If you have any questions about this email, you can call me. Or, If you'd like to have a teleconference where you, Steve Helmer and the other members of our team can talk, let Steve know.

Thanks,

Charles D. McCracken

Supervisor, Bureau of Radiation Protection
Ohio Department of Health
Ph: 614.466.5136
Fx: 614.466.0381

From: Chuck McCracken
Sent: Thursday, February 25, 2010 3:03 PM
To: 'donna.kniss@epa.state.oh.us'
Cc: Stephen Helmer; Michael Snee; Jim Colleli; David Lipp; Kenneth Barnhart
Subject: Warren WWTP Study

02.25.2010

Donna:

After discussing the issue with other members of our team, we came to the conclusion that although it would be a more concise study of the radiological effect of introducing Oil & Gas Well Production Wastewater into the Warren WWTP, it was not necessary to make them clean out the sludge tank before restarting the test study. The premise of using "real life scenario" test conditions to do the study under is indeed justified.

That said, we a requesting that the radiological parameters be modified (see attached Warren WWTP Test Study.pdf) to help us better determine the radiological consequence (if any) of the addition of this waste stream.

Also attached is a copy of the criteria that must be met in order for the sludge to be considered "exempt from licensure" by ODH (see attached OAC 3701-39-02.1.pdf). Warren WWTP will need to have the post test sludge analyzed to demonstrate compliance with rule OAC 3701-39-02.1 (B)(1)(c) or OAC 3701-39-02.1 (B)(1)(d).

Finally, to help with your requests for approval of use of a waste stream (i.e., incinerator ash), I have attached a document that we provide to waste brokers and/or Ohio landfill permit holders that outlines the process that they must use to request our official regulatory position on the exempt disposal of a waste stream. If your requestor was directed to get ODH's regulatory position, this would be the process they would follow.

Any questions on any of the above, please call.

Charles D. McCracken

Supervisor, Bureau of Radiation Protection
Ohio Department of Health

Robert Leidy

From: Stephen Helmer
Sent: Tuesday, March 30, 2010 4:24 PM
To: Ram Chandrasekar
Cc: Robert Leidy
Subject: FW: Warren WWTP Study
Attachments: OAC 3701-39-02.1.pdf; Request for Reg Concurence.pdf; Warren WWTP Test Study.pdf

RC,

See third attachment of what BRP would need for analysis from Warrant WWTP study.

Stephen Helmer
Program Administrator
Bureau of Radiation Protection
Phone: 614-728-3611

From: Chuck McCracken
Sent: Monday, March 15, 2010 3:23 PM
To: Robert Leidy
Cc: Stephen Helmer; Kenneth Barnhart; Michael Snee; David Lipp; Jim Colleli
Subject: Warren WWTP Study

03/15/2010
Rob:

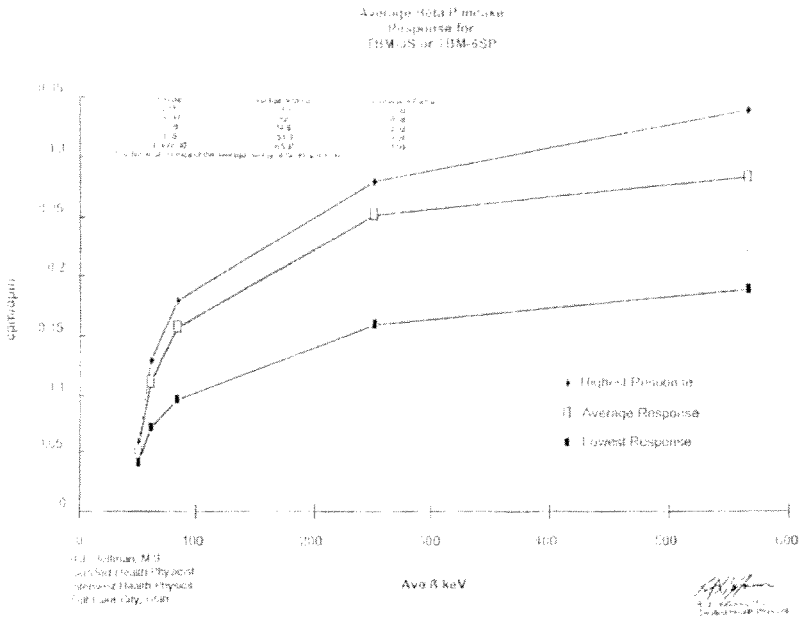
Thanks for making time to do this visit with OEPA-NEDO.

One of the things I would like you to check on is if the Warren WWTP is using the updated test parameters (see attached Warren WWTP Test Study.pdf).

Assuming they are, there should be "Parameter 001" liquid discharge beginning (B) rad data to review and weekly (W) liquid data to review as well.
In addition, there should be beginning (B) Sludge rad analysis to review. If possible, get copies of all rad analysis for our review back here as well.

If they are NOT using the updated parameters, then OEPA needs to find out why they are not.

Another issue that Donna may ask about (since there are multiple locations in the process) is where we want the sludge sampled. I already advised her that wherever OEPA is requiring sludge to be sampled for Chlorides, Fluorides and Metals (see WWTP test study) is where we would want rad analysis done as well. Based on what you see when you're there, you may have a different opinion – let us know. That being said, it important to note there is a difference between the WWPT Test Study and the OAC 3701-39-02.1 requirement for any and all sludge leaving the facility. The test study is to determine the effect of introducing radioactivity in the brine on the subsequent sludge, thus wherever OEPA is requiring sampling works for us. The OAC requirement is for determining whether any of the sludge leaving the facility is licensable. Clear as mud?



TECHNICAL ASSOCIATES
7051 ETON AVENUE * CANOGA PARK, CA 91303
TELEPHONE (818) 887-7033 * FAX (818) 887-6103
e-mail: tagnldo@pacbell.net www.tech-associates.com

FBM-3S & FBM-3SR: 2-1/2" Recessed.
- **Ranges:** Five scales linear (0-500, 0-5k, 0-50k, 0-500k, 0-5M) cpm (0-15, 0-150, 0-1500 mR/hr).*
- **Switch Positions:** Off, Battery Test, X1, X10, X100.
- **Audio:**
  FBM-3: Internally mounted speaker.
  FBM-3S & FBM-3SR: Speaker with Volume Control.
- **Detector:** LND 7311 "pancake GM tube"
- **Diameter:** 2" 5 cm.
- **Window Diameter:** 1-1/4", 4.5 cm.
- **Window Thickness:** 1.5 mg/cm²
- **Quench Gas:** Halogen for long life.
- **Background:** Typical 50 cpm. Thin Profile of tube (1.0mm) gives low background.
- **Efficiency:** 1500's for all **Betas** and **Alphas** that have the energy to penetrate the thin window. **Gamma** sensitivity nominal is 1 cpm/μ R/h (based on Cs 137).
- **Physical dimensions:**
  5" Wide x 9-1/4" Long x 2-1/4" High. Excluding meter and handle.
  (7.6 cm x 13.3 cm x 6 cm)
- **Beta Shield: FBM-3SR Model Only**. Methacrylate 0.125", 3.1 mm
- **Calibration:** Single master calibration pot as well as individual cal pots for each range.
- **Power:** 9 volt "transistor" battery; Eveready 1222, or equivalent.
- **Battery Life:** 100 hours in normal operation.
- **Handle:**
  Swivel type, polished anodized aluminum.
  (**Optional** Detachable Handle **FBM-3SR(DL)** Upon Request.)
- **Weight:** 22 oz. 625 gm

* Option c.c. μ Sv/hr meter scale (SI Units)

See "Beta Pancake Response" specification (BETA PANCAKE RESPONSE).

Fire Fighters: **FBM-3SR** is available with the Background x 10 meter, replacing the mR/hour or a single Counts Per Minute Scale or mR/hr Scale. (Upon Request)

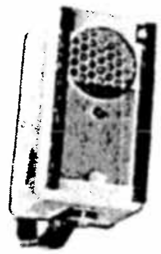
TA TECHNICAL ASSOCIATES
7051 ETON AVENUE * CANOGA PARK, CA 91303
TELEPHONE (818) 883-7043 * FAX (818) 883-6103
e-mail: tagold@anwc.net www.tech-associates.com

SURFACE CONTAMINATION MONITOR

Model # FBM-3
Model # FBM-3S
Model # FBM-3SR

SURFACE CONTAMINATION MONITOR

Model # TBM-3
Model # TBM-3S
Model # TBM-3SR



CE

FEATURES:

- SENSITIVE TO ALPHA, BETA & GAMMA
- ONE HAND OPERATION
- BUILT-IN SPEAKER
- ANTI SATURATION CIRCUIT
- LARGE 2" PANCAKE DETECTOR
- BETA SHIELD/WINDOW PROTECTION (**TBM-3SR** Only)

DESCRIPTION: Small three range Ratemeter with built-in 2" diameter pancake tube and speaker. Reads out in counts per minute and mR/h. Thin window recessed and protected by sturdy grid. **TBM-3SR** has sliding methacrylate beta shield which also acts as additional protection for thin GM tube window. Instrument will see alpha, beta, and gamma radiation. Anti saturation circuit will not fall below full scale high fields, tested to [illegible] R/h.

APPLICATION: Its small size, light weight, one hand operation, and large detector area make this a very useful monitor for surveying bench tops or checking hands, clothes, and fingertips for almost any radioactive contamination. Excellent for Fire Department, Ambulance, Police, First Response, and U.S. Custom Personnel use for surveying people, cars, luggage, surface of rooms, etc.

Experts Recommend the TBM-3SR for Fire Department use on every fire engine.

CE

TBM-3SR

T A TECHNICAL ASSOCIATES
[illegible] AVENUE • CANOGA PARK, CA [illegible]
TELEPHONE [illegible] • FAX [illegible]
E-MAIL [illegible] • www.tech-associates.com

SURFACE CONTAMINATION MONITOR

Model # TBM-3
Model # TBM-3S
Model # TBM-3SR

SPECIFICATIONS:

- Meter
  TBM-3 [illegible]

Ohio Department of Health, Division of Prevention
ODH Laboratory Report

Ohio Department of Health Laboratory
Radiochemistry Section, Building 22
3995 E Main ST
Reynoldsburg, OH 43068

Ted Strickland, Governor
Alan G. Hoon M.D., Director of Health

Patriot Water Treatment (CustomerID# water & wa)
7716 Depot Road
Lisbon OH 44432
330 853 9321

Receive Date: 2/25/2010
Lab Report Date: 3/8/2010
ODH Lab Order#: RS982

Sample# RS982-01 Collector: Site:
Collect Date: 2/17/2010

Client #: D0021 (0010)
Matrix: Other Raw/Finished

Parameter	Result	Units	Analysis Date	Analyzed By
Gamma Scan	**All other nuclides <LLD**	pCi/L	3/2010	M Imus
K-40	**2.6E+02 +/- 2.6E+01**	pCi/L	3/2010	M Imus

Columbus Phone (614) 728-7671 Toll Free (614) 466-5000
URL http://www.ohio.gov/odh/

Attn: Andy Blocksom
Patriot Water Treatment
7716 Depot Road
Lisbon OH 44432

CITY OF WARREN, OHIO
WATER POLLUTION CONTROL DEPARTMENT
2323 MAIN AVE. S.W WARREN, OHIO 44481
PHONE 330-841-2581

CHAIN OF CUSTODY FORM

R5982-01

Sample # ____________ Address ____________

Source: ____________ Date Sample Taken: ____________ Time Sample Taken ____________

Composite Sample Time Period ____________ Grab: O&G, TOT or Free CN, Phenolics, PH, Hg

Date Grab Taken ____________ Investigator/ Sampler ____________

Date/ Time | Date/ Time

Relinquished By ____________ Accepted By ____________

Relinquished By: Tom [illegible] 2/21 0140 Accepted By ____________

Relinquished By ____________ Accepted By ____________

Received in Laboratory By: ____________ Analyst ____________

PLEASE CHECK PARAMETERS FOR ANALYSIS
RESULTS IN ug/l UNLESS OTHERWISE SPECIFIED *

[illegible]	SELECTED	PARAMETER	RESULT	EPA TEST METHOD	[illegible]	SELECTED	PARAMETER	RESULT	EPA TEST METHOD
3		* NH3-N		350.2	1		SILVER		200.7
3		* TKN		351.3	1		ARSENIC		200.7, 6010B
3		* COD		410.4	1		LEAD		200.7, 6010B
1		CADMIUM		200.7, 6010B	1		ZINC		200.7, 6010B
1		CHROMIUM		200.7, 6010B	4		* TSS		160.2
1		COPPER		200.7, 6010B	4		PHENOLICS		420.1
2		* TOT CYANIDE		335.2	4		PH		150.1
2		* FREE CN		4500CN	4		HEX CHROMIUM		3500Cr-B
1		MERCURY		1631, 245.1, 7471A	1		MOLYBDENUM		200.7, 6010B
1		NICKEL		200.7, 6010A	1		ANTIMONY		200.7, 6010B
3		* OIL & GREASE		1664	1		SELENIUM		200.7, 6010B
3		* PHOSPHORUS		6010A, 4500PE	1		ALUMINUM		200.7, 6010B

PRESERVATIVES: NITRIC ACID -1, SODIUM HYDROXIDE - 2, SULFURIC ACID - 3, UNPRESERVED -4

Number of sample bottles used on this Chain Of Custody 1

COMMENTS: K-40 2.6E+02 +/- 2.6E+01 pCi/kg Gamma [illegible] all other nuclides < LLD 3/4/10 ST

LABORATORY RESULTS CERTIFIED BY: ____________ DATE ____________

DIRECT INQUIRIES AND THIS FORM TO: SAM LUDWICK, CHEMIST, CITY OF WARREN, WATER POLLUTION CONTROL FACILITY
330-841-2591 EXT 112 OR BY E-MAIL sludwick@warren.org

Notes:

1. Sludge after dewatering, before processing
2. Metals (for sludge see note 5): aluminum, antimony, silver, ~~barium~~, beryllium, boron, cadmium, chromium, copper, iron, nickel, lead, selenium, ~~strontium~~, zinc
3. Calculated endpoint
4. Conduct analyses on WET test samples
5. To develop a brine specific TDS/specific conductivity ratio
6. Metals regulated by 40 CFR 503
7. Required if there is a significant increase in total alpha or total beta radiation
8. During 100,000 gpd weeks

Warren WWTP Test Study: Oil and Gas Well Production Wastewater
Required Analyses

B - Beginning of eight week test period **T - End of eight week test**
D - Daily **W - End of each Monday-Friday 5 day test period**
A - As needed, or non-routine (e.g., after rain event)

Parameter	001	Influent after return streams	801	901	Sludge[1]
Acute toxicity, *ceriodaphia dubia*	W[3]		W[3]	W[3]	
Acute toxicity, *pimephales promelas*	T[3]		T[3]	T[3]	
Chronic toxicity, *ceriodaphia dubia*	W		W	W	
Chronic toxicity, *pimephales promelas*	T		T	T	
Specific conductivity	D, A[5]	D, A[5]	W, A	W, A	
Total dissolved solids	W, A[4,5]	W, A[4,5]	W, A[4]	W, A[4]	
Chlorides	W, A[4]	W, A[4]	W, A[4]	W, A[4]	B, T
Fluorides	T, A	T, A	T, A	T, A	B, T
Sulfates	T, A	T, A	T, A	T, A	
total alkalinity	T, A	T, A	T, A	T, A	
total suspended solids	T, A	T, A	T, A	T, A	
total phosphorus	T, A	T, A	T, A	T, A	
pH	W	W	W	W	
HEM oil and grease	T	T	T	T	
SGT-HEM oil and grease	T	T	T	T	
Metals[2]	T				B, T[6]
Barium, Strontium[8]	**W**	**W**			
Low level mercury	T				
Hexavalent chromium	T				
Volatile organic compounds	T				
Base neutral organic compounds	T				
Acid organic compounds, including pesticides and total phenols	T				
MBAS	T				
$CBOD_5$	T				
COD	T				
total organic carbon (TOC)	T				
Total nitrogen	T				
Ammonia-nitrogen	T				
Nitrate/nitrite nitrogen	T				
Total alpha radiation in pCi/l	W, T				B, T
Total beta radiation in pCi/l	W, T				B, T
Total uranium in pCi/l	T, A[7]				A[7]
Total radium in pCi/l (or Ra 226 + Ra 228),	T, A[7]				A[7]
Total thorium in pCi/l	T, A[7]				A[7]

Shipping manifests were very basic with little detail. Only water type such as frack or drill water would be identified along with the load quantity. If shipments were previously surveyed for radioactivity it was not identified on the shipping manifest. They have used several different shippers but to date Stallion has not been used.

Mr. Blocksom indicated that a sludge sample and liquid samples had been taken and sent to the lab for analysis. The lab results for the sludge were available but the liquid results had not been received. I asked which lab the samples were sent to and he indicated the Ohio State Lab. The data sheet for the sludge sample confirmed the lab as The Ohio Department of Health, Radiochemistry Section. I spoke to Sang at the lab this morning and he confirmed that he had two or three water samples currently under analysis from the Warren WWTP for Patriot Water Treatment. He indicated the alphas are less then <3 and that the remaining results should be known by the end of next week.

Sang stated he did not want anymore sludge samples. He used the gamma detector and once complete could not get rid of the smell in the room or in the Marinelli sample container also he could not dump the sample down the drain. Sang feels if the samples do continue beyond the 8 week test period the evaluation could be scaled back to just gross alpha and gross beta. Radium would be captured under the gross beta and uranium under the gross alpha.

Mr. Moody was taking pictures that he is forward to me. Also, I have some pictures on my phone I need to download. I will forward once I have both.

On a personal note I am concerned if there is any possible appearance of the Department requiring specific samples then referring our lab as the company to benefit by the to performance of the analysis.

Robert Leidy

From: Stephen Helmer
Sent: Tuesday, March 30, 2010 4:22 PM
To: Ram Chandrasekar
Cc: Robert Leidy
Subject: FW: Warren WWTP
Attachments: Warren WWTP.pdf; Warren WWTP sludge.pdf; rad meter in use at WWTP.pdf

RC,

The email below, see at very end our concern with ODH lab doing the analysis.
Also, the prescriptive requirement of from BRP included checking for thorium, but initial results did not include thorium.

Stephen Helmer
Program Administrator
Bureau of Radiation Protection
Phone: 614-728-3611

From: Robert Leidy
Sent: Thursday, March 18, 2010 2:51 PM
To: Stephen Helmer; Chuck McCracken
Cc: Kenneth Barnhart
Subject: Warren WWTP

Steve and Chuck,

On March 17th, I met four members from the Ohio Environmental Protection Agency (OEPA) at their North East District Office (NEDO) located in Twinsburg, OH. The members included, Donna Kniss, Chris Moody, Erm Gomes and Greg Orr. We traveled together to the Warren Waste Water Treatment Plant (WWTP) where we met with the Superintendent, Jim Wilden and Keith Folman the Pre-Treatment Coordinator. Donna provided a schematic of the plant layout and the facility provided a tour which included observing the compositor where the effluent sample is taken prior to leaving the plant and where the plant empties into the Mahoning River. OEPA performed conductivity tests at the falls into the river and at the water path entrance to the screening building.

The Main Avenue Pump Station is the area where the liquid of concern is introduced into the process. There are approximately a dozen large storage containers that are connected together and when active pump their reserve into the screening building. They are currently ramping up to 100,000 gallons a day, 5 days a week. The storage containers are replenished by shippers. When a truck arrives it is evaluated by Mr. Andy Blocksom of Patriot Water Treatment. He performs several tests on the in-coming loads including an air test, flash test and a radiological survey. He documents the tests upon completion.

The radiological survey is performed with a hand held Technical Associates Surface Contamination Monitor, model TBM-3S (cal due date 2.15.11). It has a range multiplier of three decades (1X, 10X and 100X) allowing for measurements from 1-50,000cpm (0-15mR/hr). I asked how he used the unit and Mr. Blocksom indicated he sets it to 100X and surveys the entire truck. I asked why 100X and he stated he did not know why it's just how their Rad Consultant, Tom Weber demonstrated to use it. At the time of the visit he did not have any procedures for the use of the meter. A second radiation meter was available an Atomic Producers Corp, model 069-705, but I was informed it is not utilized. It did not have a cal due date sticker or calibration paperwork. Mr. Blocksom did not anticipate any radiological concerns as the loads they have received are from the SW and it was his understanding the radiological issues were from loads originating in the NE.

Wadsworth	Mr. Robert Mohr	Wadsworth WWTP 120 Maple Street Wadsworth, Ohio 44281	330-336-2894	
Wapakoneta	Mr. Robert Burns	Wapakoneta Sewer Treatment Plant P.O. Box 269 Wapakoneta, Ohio 45895	419-738-2418	Email
Warren	Mr. Keith Folman	Warren WWTP 2323 Main Avenue S.W. Warren, Ohio 44481	330-841-2591 2646	Email
Wauseon	Mr. Tim Hausch	Wauseon WWTP 230 Clinton Street Wauseon, Ohio 43567	419-335-3026	Email
West Carrollton	Mr. Tom Scherack	City of West Carrollton WWTP 300 East Central Avenue West Carrollton, Ohio 45449	937-847-6070	
Willard	Mr. Stephen Koch	Willard WWTP 631 South Myrtle Avenue Willard, Ohio 44890	419-933-7515	Email
Willoughby-Eastlake	Mr. John Gorka	Willoughby-Eastlake WWTP 221 Erie Road Eastlake, Ohio 44095	440-953-4186	Email
Wilmington	Mr. Eric Green	City of Wilmington WWTP 475 S. Nelson Avenue Wilmington, Ohio 45177	937-382-2413	Email
Wooster	Mr. Lee Troyer	Wooster Water Pollution Control Plant 1123 Old Columbus Road Wooster, Ohio 44691	330-263-5290	Email
Xenia	Mr. Jason Tincu	City of Xenia 101 North Detroit Street Xenia, Ohio 45385	937-376-7271	
Youngstown	Mr. Thaddeus Suchy	Youngstown WWTP 725 Poland Avenue Youngstown, Ohio 44502	330-742-8820	Email
Zanesville	Mr. Kevin Allender	Zanesville WWTP 1730 Moxahala Avenue Zanesville, Ohio 43701	740-455-0641	Email

OhioEPA

Contact the Division of Surface Water
Mailing Address: P.O. Box 1049, Columbus, OH 43216-1049
Street Address: 50 West Town Street, Suite 700 Columbus, OH 43215
Phone: (614) 644-2001 ~ Fax: 644-2745 ~ E-mail
Emergency Response Hotline (800) 282-9378

Spoke to Karen 3 30 18

330 984 8586

Keith Folman Cell

North Olmsted	Ms. Sharon Schlemmer	North Olmsted WWTP 23775 Mastick Road North Olmsted, Ohio 44070	440-777-4175	Email
North Ridgeville	Mr. Donald Daley	French Creek WWTP 2350 Abbe Road Sheffield, Ohio 44054	440-934-5251	Email
Norwalk	Mr. Robert Butler	Norwalk WWTP 201 Woodlawn Avenue Norwalk, Ohio 44857	419-663-6725	Email
Oregon	Mr. Paul Roman	Oregon WWTP 5350 Seaman Road Oregon, Ohio 43616-0541	419-698-7042	Email
Orrville	Mr. Robert Austen	Orrville POTW 1530 N. Main Street Orrville, Ohio 44667	330-684-5166	Email
Painesville	Mr. Jeffrey Tressel	Painesville Water Pollution Control Plant P.O. Box 601 Painesville, Ohio 44077	440-639-4829	Email
Piqua	Mr. Chris Melvin	Piqua WWTP 121 Bridge Street Piqua, Ohio 45356	937-778-2088	Email
Ravenna	Mr. Carl Ganocy	Ravenna WWTP 210 Parkway, P. O. Box 1215 Ravenna, Ohio 44266	330-297-2168	Email
Rocky River	Mr. Arthur Stolze	Rocky River WWTP 22303 Lake Road Rocky River, Ohio 44116	440-356-5640	Email
Salem	Mr. Matt Hoopes	City of Salem 231 South Broadway Salem, OH 44460	330-337-3214	Email
Sandusky	Mr. Rich Simwald	Sandusky WWTP 222 Mlega Street Sandusky, Ohio 44870	419-627-5907	Email
Scippo Sewer District	Mr. Brent Hayes	Scippo Sewer District P. O. Box 151 Circleville, Ohio 43113	614-481-4150	
Sidney	Mr. Rob Guisinger	Sidney WWTP 201 West Poplar Street Sidney, Ohio 45365	937-498-8120	Email
Solon	Mr. Ron DiBacco	Solon WWTP 8315 S.O.M Center Road Solon, Ohio 44139	440-337-1513	Email
Springfield	Mr. Bill Young	Springfield WWTP 965 Dayton Avenue Springfiled, Ohio 45506	937-324-7626	
Summit Co.	Mr. Don Weaver	Summit County Environmental Services 2910 N. River Road Stowe, Ohio 44224	330-688-7634	Email
Tiffin	Mr. Dan McElhatten	Tiffin Water Pollution Control 961 North Water Street Tiffin, Ohio 44883	419-448-5440	Email
Toledo	Mr. Charles Campbell	Toledo Division of Environmental Services 348 S. Erie Street Toledo, Ohio 43604	419-936-3762	
Tri Cities North	Ms. Holly Weatherhead	Tri-Cities North Regional Wastewater Authority 3777 Old Needmore Road Dayton, Ohio 45424	937-236-6558	Email
Troy	Mr. Mark Livengood	Troy WWTP 100 South Market Street Troy, Ohio 45373	937-339-5554	Email
Trumbull Co.	Mr. Art Bain	Trumbull County 7500 Anderson Avenue N.E. Warren, Ohio 44484	330-675-2776	Email
Twinsburg	Mr. Ted Marten	Twinsburg WWTP 10231 Ravenna Road Twinsburg, Ohio 44087	330-963-6260	Email
Urbana	Mr. Shawn Darden	City of Urbana WWTP 1547 Muzzy Road Urbana, Ohio 43078	513-653-7245	Email
Van Wert	Mr. Doug Clark	Van Wert WWTP 515 East Main Street Van Wert, Ohio 45891	419-238-9666	Email

Jackson	Ms. Joan Waugh	City of Jackson 145 Broadway Street Jackson, Ohio 45640	740-288-1137	
Kent	Mr. John Bradshaw	Kent WWTP 651 Middlebury Road Kent, Ohio 44240	330-678-8109	Email
Lake Co.	Mr. Michael McGlothin	Lake County Department of Utilities 105 Main Street Painesville, Ohio 44077	440-257-5506	
Lancaster	Mr. Jason Westfall	Lancaster WWTP 800 South Lawrence Street Lancaster, Ohio 43130	740-687-6684	
Lima	Mr. Wade Leimester	Lima WWTP 50 Town Square Lima, Ohio 45802	419-221-5294	
London	Mr. Dan Leavett	City of London WWTP 4080 Slrt 56 S.E. London, Ohio 43140		
Lorain	Mr. Timothy Baxter	City of Lorain 1106 First Street Lorain, Ohio 44052	440-204-2270	
Lucas County	Mr. Thomas Vanden-Eynden	Lucas County 5758 North River Road Waterville, Ohio 43566	419-878-3075	Email
Mahoning Co.	Mr. Michael Szanborn	Mahoning County WWTP 761 Industrial Road Youngstown, Ohio 44509	330-793-5514	
Mansfield	Ms. Carline Curry	Mansfield WWTP 385 South Illinois Avenue Mansfield, Ohio 44905	419-589-2830	Email
Marietta	Mr. Steve Elliot	Marietta WWTP 440 East 8th Street Marietta, OH 45750	740-373-3858	
Marion	Ms. Sue Foust	Marion WWTP 1810 Marion-Agosta Road Marion, Ohio 43302	740-383-6051	Email
Marysville	Mr. Rick Varner	City of Marysville WWTP 620 N. Main Street Marysville, Ohio 43040	937-642-1036	Email
Mason	Mr. Robert Beyer	City of Mason 3920 N. State Route 42 Mason, Ohio 45040	513-573-3388	Email
Massillon	Mr. Daniel Ackerman	Massillon Wastewater Treatment Department 2700 Treatment Road Massillon, Ohio 44646	330-833-3304	
MCD Franklin	Ms. Mary Needels		937-746-17113	
Medina County	Ms. Jennifer Moncrief	Medina County Sanitary Engineer 791 West Smith Road Medina, Ohio 44256	330-225-3113	Email
Middletown	Mr. Paul Fraley	Middletown WWTP 300 Oxford State Road Middletown, Ohio 45044	513-425-7989	Email
Montgomery Co.	Mr. Don Tucker	Montgomery County Sanitary Department 4257 Dryden Road Dayton, Ohio 45439	937-781-2562	Email
Mount Vernon	Mr. William Cordle	Mount Vernon Wastewater Department 3 North Gay Street Mount Vernon, Ohio 43050		
NEORSD	Mr. Scott Broski	Northeast Ohio Regional Sewer District 4747 E. 49th Street Cuyhoga Heights, Ohio 44125	216-641-6000	Email
New Philadelphia	Mr. Thomas Alpeter	New Philadelphia WWTP 166 East High Avenue New Philadelphia, Ohio 44663	330-339-3573	Email
Newark	Ms. Nancy Taylor	City of Newark WWTP 40 West Main Street Newark, Ohio 43055	740-349-6735	Email
Niles	Mr. Randy Fabrizio	Niles WWTP 34 West State Street Niles, Ohio 44446	330-544-9000	

		1250 Fairwood Avenue Room 186 Columbus, Ohio 43206		
Conneaut	Mr. Bob DeMarco	Conneaut WWTP Foot of Broad Street Conneaut, Ohio 44030	440-593-7434	Email
Coshocton	Mr. Michael Zeigler	Coshocton WWTP 2742 C.R. 271 Coshocton, Ohio 43812	740-622-1684	Email
Dayton	Ms. Sharon Vaughn	City of Dayton WWTP 2800 Guthrie Road Dayton, Ohio 45418	937-333-1501	Email
Defiance	Mr. Mark Lehnert	Defiance Water Pollution Control Division State Route 281 East Defiance, Ohio 43512	419-782-0841	Email
Delaware	Mr. Greg Doublikin	Delaware WWTP 225 Cherry Street Delaware, Ohio 43015	740-368-1506	Email
Delaware Co.	Mr. Bell Martin	Olentangy Environmental Control Center 91 North Sandusky Street Delaware, Ohio 43015		
Delphos	Ms. Kim Riddell	Delphos WWTP 608 North Canal Street Delphos, Ohio 45833	419-692-0991	Email
East Liverpool	Mr. Ray Sullivan	East Liverpool WWTP 126 West Sixth Street East Liverpool, Ohio 43920	330-386-5525	Email
Eaton	Mr. Andy Eddy	City of Eaton WWTP 901 South Barron Street Eaton, Ohio 45320	937-456-7157	Email
Elyria	Mr. Terry Korzan	Elyria Wastewater Pollution Control Plant 1194 Gulf Road Elyria, Ohio 44035	440-366-2211	Email
Euclid	Ms. Jean Fresenko	City of Euclid 585 East 222nd Street Euclid, Ohio 44123	216-289-2810	Email
Findlay	Mr. Randy Greeno	Findlay WWTP 1201 South River Road Findlay, Ohio 45840	419-424-7187	Email
Fostoria	Mr. Lon Shank	Fostoria WWTP P. O. Box 1007 Fostoria, Ohio 44830	419-435-4132	
Fremont	Mr. Jeff Lamson	Fremont Division of Water Pollution Control 1019 Sand Road Fremont, Ohio 43420	419-334-3878	Email
Galion	Mr. Rick Kent	Galion WWTP 6374 Hosford Road Galion, Ohio 44833	419-468-5010	Email
Geneva	Mr. Mike Parker	Geneva WWTP 44 North Forest Street Geneva, Ohio 44041	440-466-4228	Email
Girard	Ms. Elaine Barney	Girard WWTP 945 South State Street Girard, Ohio 44420	330-545-3949	Email
Greene Co.	Mr. Ronald Volkerding	Greene County Sanitary Engineering Department 667 Dayton-Xenia Road Xenia, Ohio 45385	937-376-7450	Email
Greenville	Mr. Shawn Holton	City of Greenville WWTP 209 North Ohio Street Greenville, Ohio 45331	937-548-3530	Email
Hamilton	Ms. Darla S. Bokeno	Hamilton Dept. of Public Works 345 High Street Hamilton, Ohio 45011	513-785-7211	Email
Harrison	Mr. Gene Allen	City of Harrison WWTP 10999 Campbell Road Harrison, OH 45030	513-367-3725	
Heath	Mr. John Geßer	Heath WWTP 70 Dorsey Mill Road Heath, Ohio 43056	740-522-1433	
Hebron	Mr. Jerry Turner	Hebron WWTP 116 W. Main Street Hebron, Ohio 43025	614-761-1661	Email

Division of Surface Water Approved Pretreatment Programs

Program Links
Program Description
Contacts
Forms
Guidance
Frequently Asked Questions
Pretreatment Home

Division Links
Division Forms and Publications
Division Rules and Laws
Policies and Guidance
Surface Water Programs
Related Sites
Interactive Maps
Do Business Online
What's New (March 26, 2010)
DSW Intranet (OEPA staff only)
About Us
Division Contacts
Division Home

Agency Links
Divisions and Offices
Topic Index
Regulatory Ombudsman
Rules and Laws
Pollution Prevention
Funding Sources
Publications
Public Records
Public Participation
Jobs
Ohio EPA Home

Learn More About...
Stimulus Projects
Great Lakes Restoration Initiative
Compliance Assistance Conference
Climate Change
ToxMinus
E-Check
High-Interest Sites

Ohio Approved Pretreatment Programs

Contact information for approved pretreatment programs can be viewed in the below table, or downloaded to an Excel Spreadsheet.

Program	Name	Address	Phone	Email
Akron	Mr. Fred Neugebauer	Akron Water Pollution Control 2460 Akron Peninsula Road Akron, Ohio 44313	330-926-1164	Email
Alliance	Mr. Joseph Amabell	Alliance Wastewater Treatment Plant 12251 Rockhill Avenue N.E. Alliance, Ohio 44601	330-829-2220	Email
Archbold	Mr. Frank D'Ambrosia	Archbold Wastewater Department 515 Short Buehrer Road Archbold, Ohio 43502	419-445-6401	Email
Ashland	Mr. Jim Portner	Ashland Water Pollution Control 206 Claremont Avenue Ashland, Ohio 44805	419-289-1392	Email
Ashtabula	Mr. Michael Mearini	Ashtabula Water Pollution Control 303 Woodland Avenue Ashtabula, Ohio 44004	440-964-3030	
Avon Lake	Mr. Rick Eberle	Avon Lake WWTP 33370 Lake Road Avon Lake, Ohio 44012	440-933-6226	Email
Barberton	Mr. Rob Burkhard	Barberton WWTP 576 West Park Avenue Barberton, Ohio 44203	330-848-6745	Email
Bedford Heights	Ms. Theresa Schleiden	Bedford Heights WWTP 25301 Solon Road Bedford Heights, Ohio 44146	440-439-5343	Email
Bellefontaine	Mr. Charlie Knotts	City of Bellefontaine WWTP 610 South Troy Road Bellefontaine, Ohio 43311	937-593-9095	
Bellevue	Mr. Thomas Burnett	Bellevue WWTP 117 North Sandusky Street Bellevue, Ohio 44811	419-483-7514	Email
Bryan	Mr. Ric Homier	Bryan WWTP P.O. Box 190 Bryan, Ohio 43506	419-636-8741	Email
Butler Co.	Mr. Adam Sackenheim	Butler County Department of Environmental Services 130 High Street Hamilton, OH 45011	513-785-5282	
Cambridge	Mr. John Hickenbottom	Cambridge POTW 1700 Burgess Avenue Cambridge, Ohio 43725	740-680-2005	Email
Canton	Mr. George Rohde	Canton Water Reclamation Facility 3530 Central Avenue SE Canton, Ohio 44707	330-484-7920	Email
Chillicothe	Mr. Bruce Tyo	Chillicothe WWTP 405 Environmental Way Chillicothe, Ohio 45601	740-774-1223	Email
Cincinnati MSD	Ms. Beverly Head	Cincinnati Metropolitan Sewer District 1600 East Street Cincinnati, Ohio 45204	513-557-7003	Email
Circleville	Mr. Rodney Lagerstam	Circleville WWTP P.O. Box 209 Circleville, Ohio 43113	740-477-8230	Email
Clermont Co.	Mr. Rick Fueston	Clermont County Sewer District 4386 Haskell Lane Batavia, Ohio 45103	513-965-4800	Email
Columbus	Mr. Jeff Bertacchi	Columbus Division of Sewerage & Drainage	614-645-5875	Email

Blacksom

Tom Weber [illegible]
3-2-19

LIC water 39-12

Name Company phone #

Credentials

KAREN - Patriot

Keith FOLMAN 11-12

Wade Karen -

ANDY Blacksom - Patriot
Patriot water, LLC
TREATMENT

WASTEWATER MANAGEMENT, INC.
TOM WEBER
LAD
ELECTRICITY OUTAGE
216 696-0280 - ELECTRIC DOWN
216 409 1567 SPARE
↓ DEBBIE
Cell Phone - 216 789-4540

330.10 -

ANDY BLOCKSOM

RAD CONSULTANT -

TOM

WEBER

OHIO ✕ PARKER -

RAD CONSULTANT - STUCK — WORK WATER

CONSULTANT — TREATMENT SYSTEM —

REACTOR HEAD REPLACED —

PROJECT - DB - 2001,

EQUIPMENT HATCH + STEAM GENERATOR

OUT FOR REPLACE 2 WEEKS CONTAINMENT

CUT

HEAD QTR LABORATORY STANDARD OIL -

BUILDING - REFINERY -

NO POWER

11 25,000 PSI - WATER

3 DAYS DIRECTLY

10 - 15 COUNTY -

WORK WATER

TREATMENT.

TOXIC RAD CHEMISTRY.

DID THE EVAPORATOR

H_3 -

NO SPECIALIST

IN RAD WORK -

ANDY BLACKSOM

330 . 853 - 9321

33010

PER STEVES REQUEST CONTACTED -

TOM WEBER OF WASTEWATER MANAGEMENT, INC

OFFICE IN THE OLD STANDARD OIL LABORATORY
PHONE - 216-696-0280 -
OFFICE TEMPORARILY CLOSED DUE TO ELECTRICAL OUTAGE -
TEMPORARY PHONE # 216-409-1567
SPOKE TO DEBBIE @ 1567 #.
SHE INDICATED IT WAS FREEZING AND PROVIDE TOMS #.
TOMS CELL # 216 789-4540

SPOKE TO TOM - EXPLAINED WHO I WAS - THAT I ACCOMPANIED ORDA TO WARREN WWTP - SAID I HAD A FEW QUESTIONS - OF PATRIOT WATER treatm. I EXPLAINED THAT ANDY BLOCKSOM INDICATED TO ME THAT TOM WEBER ~~SECTION~~ WAS PATRIOTS ~~WATER~~ RAD CONSULTANT -

TOM INDICATED ~~HE~~ THAT HIM BEING A RAD CONSULTANT WAS A STRETCH - HE HAS WORKED ON BETWEEN 10-15 NUCLEAR POWER PLANT PROJECTS BEGINNING W/ DB - 2001 ~~REM~~ Replacement OF THE REACTOR HEAD BUT HE DEALT W/ THE WASTE WATER TREATMENT THE UTILITY RAD CHEMIST DEALT W/ ANY RADIOLOGICAL ISSUES

SENT TO SH + CM
3/30/10

Steve,

As requested I spoke to Tom Weber of Wastewater Management, Inc. I identified myself and expressed that I had accompanied OEPA to the Warren WWTP a week and a half ago. I mentioned to Tom that Andy Blocksom of Patriot Water Treatment identified Tom as their rad consultant. Tom stopped me there by saying that considering himself a rad consultant was a stretch. Tom stated he has worked on projects including reactor head replacement at between 10-15 nuclear power plants beginning with DB in 2001. He also stated that during these projects the plants chemists dealt with any radiological issues including H3 he only dealt with the wastewater.

Wastewater Management, Inc. 216.696.0280 temporary number 216.409.1567
Debbie from Wastewater Management provided Tom's cell 216.789.4540

Tom provided Any Blocksom's number 330.853.9321

FYI
While looking for Andy's number I found many articles concerning Patriot Water Treatment (Andy Blocksom) attempts to open water treatment facilities in N.Y. and P.A.
A couple of the links are below:

http://www.stargazette.com/article/20091228/NEWS01/912280331/-1/news11/Tioga+County+planners+await+new+Marcellus+treatment+plan

www.sungazette.com/page/content.detail/id/539051.html

Treatment Plant
525 East Lawrence Avenue, Elwood City, PA - (724) 758-4749

Treatment Plant-24 Hours
725 Poland Avenue, Youngstown, OH - (330) 742-8820

Report a problem

Google maps **water treatment plants**

To see all the details that are visible on the screen,use the "Print" link next to the map.

Print Send Link

Get Directions My Maps

Treatment Facilities - HopeBy TheSea.com - Affordable Rehab Center 30, 60, and 90 Residential Rehab. - New Yorker < >

A. Grove City Borough **Water** and Electric **Plant**
123 West Main Street, Grove City, PA - (724) 458-9440

B. Steco Sales
129 Main Street West, Girard, PA - (814) 774-5020

C. City of Sharon: Waste **Water Treatment Plant**
155 West Connelly Boulevard, Sharon, PA - (724) 983-3239

D. Darlington Equipment Company
51621 Darlington Road, Negley, OH - (330) 426-2552

E. Ellwood City Borough: **Wastewater**

F. City of Youngstown: Waste **Water**

Marcellus Shale Meeting
OEPA/ODNR/ODH

Tuesday, October 19, 2010,
1:30 p.m. - 3:30 p.m.
DRAFT AGENDA

Welcome/Introductions	C. Butler, L. Stevenson, OEPA
Highlights from Pittsburgh GWPC Meeting/Shale	T. Tomastik, ODNR L. Stevenson, OEPA Others
Drilling/Wastewater Update	
• Activity in the Marcellus	T. Tomastik, R. Simmers, ODNR
• Projections for drilling in the Utica	
• UIC disposal capacity in Ohio (current/projected)	ODNR
• Projections for water withdrawal	
• Update on POTW disposal in Ohio	B. Hall, OEPA
• Pipeline projects	R. Bournique, OEPA
• Natural gas transmission capacity	
Regulatory/Policy Update	
• SB 165/Rules	T. Tugend, ODNR
• State/Federal Water Quality Standards/Rules	B. Hall, OEPA
• TENORM Rules update	G. Phillips, M. Snee, B. Owen, ODH
• Management of drill cuttings at sites (solid waste)	OEPA
Public Outreach/Education	
• Rep. Bolon Meeting/Summary	R. Simmers, M. McCormac, ODNR
• Web site/fact sheet development	M. Settles, K. Weiss, OEPA
• Media Relations Update	M. Settles, OEPA, M. Shelton, ODNR, Jen House, ODH
Next Steps	All