

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: January 15, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.1.1
 Sample ID: 387769009
 Matrix: Soil
 Collect Date: 07-DEC-15
 Receive Date: 17-DEC-15
 Collector: Client
 Moisture: 29%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
-----------	-----------	--------	-------------	-----	----	-----	----	-------	----	---------	------	------	-------	------

Gravimetric Solids

ASTM D 2216 % Moisture "As Received"

Moisture		29.0						percent		LYT1	12/18/15	1142	1532297	1
----------	--	------	--	--	--	--	--	---------	--	------	----------	------	---------	---

Rad Gamma Spec Analysis

Gammaspex, Gamma, Solid "Dry Weight Corrected"

Actinium-227	U	-0.145	+/-0.277	0.486	0.230	+/-0.286		pCi/g		RXF2	01/12/16	0850	1532304	2
Antimony-125	U	-0.0256	+/-0.098	0.176	0.0824	+/-0.0987		pCi/g						
Bismuth-212	UI	0.00	+/-0.872	1.16	0.546	+/-1.14		pCi/g						
Bismuth-214		0.700	+/-0.189	0.125	0.0579	+/-0.198		pCi/g						
Cesium-137		0.788	+/-0.0946	0.0675	0.0312	+/-0.114	0.100	pCi/g						
Cobalt-60	U	-0.0156	+/-0.0416	0.0743	0.0334	+/-0.0422		pCi/g						
Europium-154	U	-0.133	+/-0.124	0.204	0.0919	+/-0.139		pCi/g						
Lead-212		1.08	+/-0.121	0.109	0.0519	+/-0.149		pCi/g						
Lead-214		1.27	+/-0.163	0.306	0.149	+/-0.193		pCi/g						
Potassium-40		14.7	+/-1.41	0.532	0.229	+/-1.90		pCi/g						
Protactinium-231	UI	0.00	+/-0.805	0.859	0.405	+/-0.819		pCi/g						
Radium-226		0.700	+/-0.189	0.125	0.0579	+/-0.198		pCi/g						
Radium-228		1.05	+/-0.288	0.233	0.106	+/-0.334		pCi/g						
Thallium-208		0.366	+/-0.0728	0.0623	0.0288	+/-0.0789		pCi/g						
Tin-126	UI	0.00	+/-0.131	0.141	0.067	+/-0.132		pCi/g						

Rad Gas Flow Proportional Counting

GFPC, Gross A/B, solid "Dry Weight Corrected"

Alpha		14.8	+/-3.75	3.95	1.72	+/-4.68	4.00	pCi/g		JXB7	01/07/16	1423	1534688	3
Beta		21.9	+/-2.45	2.41	1.13	+/-3.82	10.0	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	12/18/15	1142	1532297

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE HASL 300, 4 5 2 3/Ga-01-R
3	EPA 900.0/SW846 9310/SM 7110B Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
---------------------------	------	----------	-----------	-------------------

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Report Date: January 15, 2016

Contact: Ms. Lauric Losey
Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.1.1
Sample ID: 387769009

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer	Recovery	Test						Batch ID	Recovery%	Acceptable Limits				

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Technical Services
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: March 9, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Project: MJWC00115
 Client ID: MJWC001

Client Sample ID: 4.5.A.R.1.2
 Sample ID: 392057012
 Matrix: Soil
 Collect Date: 07-DEC-15
 Receive Date: 25-FEB-16
 Collector: Client
 Moisture: 20.5%

Parameter	Qualifier	Result	Uncertainty	MDC	Le	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gamma with Ingrowth "Dry Weight Corrected"</i>														
Acunium-227	U	-0.0919	+/-0.299	0.490	0.230	+/-0.302		pCi/g		MXR1	03/07/16	1206	1547922	1
Antimony-125	U	-0.0661	+/-0.116	0.204	0.0949	+/-0.120		pCi/g						
Bismuth-212	UI	0.00	+/-0.633	1.18	0.544	+/-0.814		pCi/g						
Bismuth-214		0.747	+/-0.162	0.120	0.0543	+/-0.173		pCi/g						
Cesium-137		1.04	+/-0.125	0.0701	0.0318	+/-0.152	0.100	pCi/g						
Cobalt-60	U	0.00349	+/-0.0322	0.0671	0.0282	+/-0.0323		pCi/g						
Europium-154	U	0.0191	+/-0.109	0.221	0.0963	+/-0.109		pCi/g						
Lead-212		1.17	+/-0.125	0.106	0.0498	+/-0.162		pCi/g						
Lead-214		0.951	+/-0.198	0.141	0.0658	+/-0.214		pCi/g						
Potassium-40		14.3	+/-1.59	0.541	0.219	+/-2.02		pCi/g						
Protactinium-231	UI	0.00	+/-0.707	0.862	0.402	+/-0.722		pCi/g						
Radium-226		0.747	+/-0.162	0.120	0.0543	+/-0.173		pCi/g						
Radium-228		1.03	+/-0.301	0.245	0.108	+/-0.340		pCi/g						
Thallium-208		0.327	+/-0.0855	0.0588	0.0264	+/-0.0898		pCi/g						
Tin-126	UI	0.00	+/-0.124	0.151	0.0721	+/-0.126		pCi/g						

Rad Gas Flow Proportional Counting

GFPC, Gross A/B, solid "Dry Weight Corrected"

Alpha		14.1	+/-3.80	3.85	1.63	+/-4.64	4.00	pCi/g		BXF1	03/05/16	1624	1549866	2
Beta		26.5	+/-3.05	2.57	1.18	+/-4.74	10.0	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	02/26/16	1436	1547873

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 900.0/SW846 9310/SM 7110B Modified

Surrogate/Tracer Recovery

Test

Batch ID Recovery% Acceptable Limits

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Technical Services
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Report Date: March 9, 2016

Contact: Ms. Laurie Losey
Project: Soil Radioisotopes

Client Sample ID: 4.5.A.R.1.2
Sample ID: 392057012

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer	Recovery	Test						Batch ID	Recovery%	Acceptable Limits				

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: January 15, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.2.1
 Sample ID: 387769010
 Matrix: Soil
 Collect Date: 07-DEC-15
 Receive Date: 17-DEC-15
 Collector: Client
 Moisture: 26.8%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids														
<i>ASTM D 2216 % Moisture "As Received"</i>														
Moisture		26.8						percent		LYT1	12/18/15	1142	1532297	1
Rad Gamma Spec Analysis														
<i>Gammascpec, Gamma, Solid "Dry Weight Corrected"</i>														
Actinium-227	U	-0.114	+/-0.273	0.486	0.230	+/-0.278		pCi/g		RXF2	01/12/16	0851	1532304	2
Antimony-125	U	0.0809	+/-0.107	0.184	0.0865	+/-0.113		pCi/g						
Bismuth-212	UI	0.00	+/-0.934	1.14	0.535	+/-1.03		pCi/g						
Bismuth-214		0.678	+/-0.176	0.139	0.0653	+/-0.185		pCi/g						
Cesium-137		0.967	+/-0.0992	0.0716	0.0333	+/-0.130	0.100	pCi/g						
Cobalt-60	U	0.0101	+/-0.0427	0.0823	0.0374	+/-0.0429		pCi/g						
Europium-154	U	-0.00255	+/-0.134	0.243	0.111	+/-0.134		pCi/g						
Lead-212		1.16	+/-0.132	0.114	0.0542	+/-0.160		pCi/g						
Lead-214		0.978	+/-0.146	0.142	0.0669	+/-0.165		pCi/g						
Potassium-40		15.4	+/-1.47	0.696	0.311	+/-1.97		pCi/g						
Protactinium-231	U	0.470	+/-0.734	1.07	0.513	+/-0.771		pCi/g						
Radium-226		0.678	+/-0.176	0.139	0.0653	+/-0.185		pCi/g						
Radium-228		1.07	+/-0.255	0.257	0.118	+/-0.279		pCi/g						
Thallium-208		0.320	+/-0.0757	0.0661	0.0308	+/-0.0804		pCi/g						
Tin-126	U	0.0631	+/-0.142	0.183	0.0886	+/-0.143		pCi/g						
Rad Gas Flow Proportional Counting														
<i>GFPC, Gross A-B, solid "Dry Weight Corrected"</i>														
Alpha		11.8	+/-3.51	3.65	1.53	+/-4.22	4.00	pCi/g		JXB7	01/07/16	1425	1534688	3
Beta		40.8	+/-3.94	3.48	1.63	+/-7.06	10.0	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	12/18/15	1142	1532297

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE HASL 300, 4.5.2.3/Ga-01-R
3	EPA 900.0/SW846.9310/SM 7110B Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Report Date: January 15, 2016

Contact: Ms. Laurie Losey
Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.2.1
Sample ID: 387769010

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.	
Surrogate/Tracer Recovery	Test												Batch ID	Recovery%	Acceptable Limits

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Technical Services
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: March 9, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Client Sample ID: 4.5.A.R.2.2
 Sample ID: 392057013
 Matrix: Soil
 Collect Date: 07-DEC-15
 Receive Date: 25-FEB-16
 Collector: Client
 Moisture: 19.5%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gamma with Ingrowth "Dry Weight Corrected"</i>														
Actinium-227	U	-0.203	+/-0.250	0.450	0.209	+/-0.268		pCi/g		MXR1	03/07/16	1206	1547922	1
Antimony-125	UI	0.00	+/-0.241	0.203	0.0941	+/-0.268		pCi/g						
Bismuth-212	UI	0.00	+/-0.690	1.24	0.574	+/-0.840		pCi/g						
Bismuth-214		0.754	+/-0.170	0.122	0.0551	+/-0.181		pCi/g						
Cesium-137		0.370	+/-0.101	0.0652	0.0291	+/-0.105	0.100	pCi/g						
Cobalt-60	U	-0.019	+/-0.0346	0.0618	0.0254	+/-0.0357		pCi/g						
Europium-154	U	0.0309	+/-0.125	0.250	0.110	+/-0.126		pCi/g						
Lead-212	UI	0.00	+/-0.139	0.105	0.0495	+/-0.139		pCi/g						
Lead-214		0.980	+/-0.172	0.132	0.0606	+/-0.191		pCi/g						
Potassium-40		13.7	+/-1.43	0.527	0.210	+/-1.88		pCi/g						
Protactinium-231	U	0.479	+/-0.582	1.09	0.512	+/-0.630		pCi/g						
Radium-226		0.754	+/-0.170	0.122	0.0551	+/-0.181		pCi/g						
Radium-228		0.860	+/-0.251	0.244	0.108	+/-0.282		pCi/g						
Thallium-208		0.323	+/-0.0718	0.0683	0.031	+/-0.0769		pCi/g						
Tin-126	UI	0.00	+/-0.0899	0.179	0.0863	+/-0.105		pCi/g						

Rad Gas Flow Proportional Counting

GFPC, Gross A/B, solid "Dry Weight Corrected"

Alpha		21.5	+/-5.41	3.92	1.49	+/-6.79	4.00	pCi/g		BXF1	03/05/16	1624	1549866	2
Beta		24.9	+/-3.83	3.31	1.48	+/-5.20	10.0	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	02/26/16	1436	1547873

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5 2 3/Ga-01-R
2	EPA 900 0/SW846 9310/SM 7110B Modified

Surrogate/Tracer Recovery Test

Surrogate/Tracer	Recovery	Test	Batch ID	Recovery%	Acceptable Limits
------------------	----------	------	----------	-----------	-------------------

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Technical Services

Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Contact: Ms. Laurie Losey

Project: Soil Radioisotopes

Client Sample ID: 4.5.A.R.2.2

Sample ID: 392057013

Report Date: March 9, 2016

Project: MJWC00115

Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.	
Surrogate/Tracer Recovery	Test												Batch ID	Recovery%	Acceptable Limits

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: January 15, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.2.3
 Sample ID: 387769011
 Matrix: Soil
 Collect Date: 07-DEC-15
 Receive Date: 17-DEC-15
 Collector: Client
 Moisture: 19.5%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids														
<i>ASTM D 2216 % Moisture "As Received"</i>														
Moisture		19.5						percent		L.YTJ	12/18/15	1142	1532297	1
Rad Alpha Spec Analysis														
<i>ASP Plutonium Isotopic, Solid "Dry Weight Corrected"</i>														
Plutonium-238	U	0.00356	+/-0.0373	0.0778	0.0198	+/-0.0373	1.00	pCi/g		JXR1	01/11/16	1427	1532490	2
Plutonium-239/240	U	-0.00865	+/-0.0391	0.0986	0.0302	+/-0.0391	1.00	pCi/g						
<i>ASP Uranium Isotopic, Solid "Dry Weight Corrected"</i>														
Uranium-232	U	-0.0269	+/-0.0379	0.124	0.038	+/-0.038	1.00	pCi/g		JXR1	01/11/16	1519	1532487	3
Uranium-233/234		0.643	+/-0.195	0.0962	0.0262	+/-0.222	1.00	pCi/g						
Uranium-235/236		0.0439	+/-0.0578	0.0439	0.00	+/-0.0583	1.00	pCi/g						
Uranium-238		0.865	+/-0.224	0.0892	0.0227	+/-0.266	1.00	pCi/g						
<i>Alphaspec Np237, Solid "Dry Weight Corrected"</i>														
Neptunium-237	U	-0.128	+/-0.219	0.586	0.210	+/-0.219	1.00	pCi/g		JXR1	01/11/16	0932	1532489	4
<i>Alphaspec Th229 + 228,230,232 Solid "Dry Weight Corrected"</i>														
Thorium-228		0.898	+/-0.481	0.406	0.117	+/-0.509	1.00	pCi/g		JXR1	01/12/16	1015	1532485	5
Thorium-229	U	0.0289	+/-0.161	0.308	0.0706	+/-0.161	1.00	pCi/g						
Thorium-230		0.695	+/-0.410	0.307	0.0705	+/-0.428	1.00	pCi/g						
Thorium-232		0.804	+/-0.436	0.307	0.0702	+/-0.460	1.00	pCi/g						
<i>Am241, Cm Solid "Dry Weight Corrected"</i>														
Americium-241	U	0.0485	+/-0.107	0.188	0.0591	+/-0.108	1.00	pCi/g		JXR1	01/12/16	1537	1532488	6
Curium-242	U	-0.0193	+/-0.0583	0.164	0.0417	+/-0.0585	1.00	pCi/g						
Curium-243/244	U	0.000922	+/-0.0683	0.152	0.0414	+/-0.0684	1.00	pCi/g						
Curium-245/246		0.0736	+/-0.106	0.128	0.0239	+/-0.107	1.00	pCi/g						
<i>Liquid Scint Pu241, Solid "Dry Weight Corrected"</i>														
Plutonium-241	U	-0.608	+/-4.29	7.55	3.62	+/-4.29	15.0	pCi/g		JXR1	01/13/16	1034	1532491	7
Rad Gamma Spec Analysis														
<i>Gamma I129, Solid "Dry Weight Corrected"</i>														
Iodine-129	U	-0.10	+/-0.266	0.467	0.202	+/-0.270	1.00	pCi/g		MJH1	01/12/16	1359	1533089	8
<i>Gammasp. Gamma, Solid "Dry Weight Corrected"</i>														
Actinium-227	U	0.0647	+/-0.257	0.501	0.236	+/-0.259		pCi/g		RXF2	01/12/16	0906	1532304	9
Antimony-125	UI	0.00	+/-0.0935	0.191	0.0884	+/-0.107		pCi/g						
Bismuth-212		1.17	+/-0.803	0.656	0.283	+/-0.812		pCi/g						
Bismuth-214		0.741	+/-0.183	0.129	0.0586	+/-0.194		pCi/g						
Cesium-137		0.0711	+/-0.042	0.0725	0.0329	+/-0.0424	0.100	pCi/g						
Cobalt-60	U	-0.0204	+/-0.035	0.062	0.0259	+/-0.0363		pCi/g						
Europium-154	U	-0.0295	+/-0.111	0.208	0.0899	+/-0.112		pCi/g						
Lead-212		0.976	+/-0.125	0.106	0.050	+/-0.149		pCi/g						
Lead-214		1.17	+/-0.186	0.143	0.0665	+/-0.210		pCi/g						

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228
 Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes
 Client Sample ID: 4.5A.R.2.3
 Sample ID: 387769011

Report Date: January 15, 2016

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Ic	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammaspac, Gamma, Solid "Dry Weight Corrected"</i>														
Potassium-40		13.0	+/-1.53	0.775	0.336	+/-1.91		pCi/g						
Protactinium-231	UI	0.00	+/-0.897	0.842	0.391	+/-0.938		pCi/g						
Radium-226		0.741	+/-0.183	0.129	0.0586	+/-0.194		pCi/g						
Radium-228		0.974	+/-0.340	0.234	0.103	+/-0.370		pCi/g						
Thallium-208		0.297	+/-0.0866	0.0761	0.0351	+/-0.0903		pCi/g						
Tin-126	UI	0.00	+/-0.117	0.128	0.0606	+/-0.119		pCi/g						
Rad Gas Flow Proportional Counting														
<i>GFPC, Gross A.B. solid "Dry Weight Corrected"</i>														
Alpha		13.4	+/-3.63	3.85	1.65	+/-4.49	4.00	pCi/g		JXB7	01/07/16	1425	1534688	10
Beta		22.3	+/-2.98	3.27	1.54	+/-4.28	10.0	pCi/g						
<i>GFPC, Sr90, solid "Dry Weight Corrected"</i>														
Strontium-90	UI	-0.479	+/-0.900	1.82	0.810	+/-0.900	2.00	pCi/g		KSD1	01/06/16	1529	1534450	11
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Dist. Solid "Dry Weight Corrected"</i>														
Tritium		1.94	+/-2.38	4.00	1.93	+/-2.38	6.00	pCi/g		TXJ1	01/07/16	0507	1533793	12
<i>Liquid Scint C14, Solid "Dry Weight Corrected"</i>														
Carbon-14	UI	-0.772	+/-0.788	1.39	0.678	+/-0.788	2.00	pCi/g		TXJ1	01/14/16	0316	1533786	13
<i>Liquid Scint Tc99, Solid "Dry Weight Corrected"</i>														
Technetium-99	U	0.0919	+/-1.52	2.66	1.27	+/-1.52	5.00	pCi/g		MYM	01/11/16	0427	1534429	14

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYTI	12/18/15	1142	1532297

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	ASTM C 1476-00 Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, Am-05-RC Modified
7	DOE EML HASL-300, Pu-11-RC Modified
8	DOE EML HASL-300.I-01 Modified
9	DOE HASL 300, 4.5.2.3/Ga-01-R
10	EPA 900.0/SW846.9310/SM 7110B Modified
11	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
12	EPA 906.0 Modified
13	EPA EERF C-01 Modified

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Report Date: January 15, 2016

Contact: Ms. Laurie Losey
Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.2.3
Sample ID: 387769011

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
-----------	-----------	--------	-------------	-----	----	-----	----	-------	----	---------	------	------	-------	------

14 DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Plutonium-242 Tracer	ASP Plutonium Isotopic, Solid "Dry Weight Corrected"	1532490	94.3	(15%-125%)
Uranium-232 Tracer	ASP Uranium Isotopic, Solid "Dry Weight Corrected"	1532487	101	(15%-125%)
Uranium-235/236 Tracer	ASP Uranium Isotopic, Solid "Dry Weight Corrected"	1532487	92.2	(15%-125%)
Americium-243 Tracer	Alphaspec Np237, Solid "Dry Weight Corrected"	1532489	101	(15%-125%)
Actinium-227 Tracer	Alphaspec Th229 + 228,230,232 Solid "Dry Weight Corrected"	1532485	90.6	(15%-125%)
Americium-243 Tracer	Am241, Cm Solid "Dry Weight Corrected"	1532488	52.5	(15%-125%)
Plutonium-242 Tracer	Liquid Scint Pu241, Solid "Dry Weight Corrected"	1532491	94.3	(15%-125%)
Strontium Carrier	GFPC, Sr90, solid "Dry Weight Corrected"	1534450	78.2	(25%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Solid "Dry Weight Corrected"	1534429	92.7	(15%-125%)

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228
 Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes
 Client Sample ID: 4.5A.R.2.4
 Sample ID: 387769012
 Matrix: Soil
 Collect Date: 07-DEC-15
 Receive Date: 17-DEC-15
 Collector: Client
 Moisture: 20.4%

Report Date: January 15, 2016

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids														
<i>ASTM D 2216 % Moisture "As Received"</i>														
Moisture		20.4						percent		LYT1	12/18/15	1142	1532297	1
Rad Alpha Spec Analysis														
<i>ASP Plutonium Isotopic, Solid "Dry Weight Corrected"</i>														
Plutonium-238	U	-0.013	+/-0.030	0.089	0.0242	+/-0.0301	1.00	pCi/g		JXR1	01/11/16	1427	1532490	2
Plutonium-239/240	U	0.00108	+/-0.0496	0.109	0.0342	+/-0.0496	1.00	pCi/g						
<i>ASP Uranium Isotopic, Solid "Dry Weight Corrected"</i>														
Uranium-232	U	-0.0153	+/-0.0354	0.105	0.0286	+/-0.0355	1.00	pCi/g		JXR1	01/11/16	1519	1532487	3
Uranium-233/234		0.620	+/-0.192	0.0453	0.00	+/-0.218	1.00	pCi/g						
Uranium-235/236		0.0606	+/-0.0668	0.0455	0.00	+/-0.0676	1.00	pCi/g						
Uranium-238		0.752	+/-0.212	0.0725	0.0136	+/-0.246	1.00	pCi/g						
<i>Alphaspec Np237, Solid "Dry Weight Corrected"</i>														
Neptunium-237	U	-0.0674	+/-0.109	0.346	0.103	+/-0.109	1.00	pCi/g		JXR1	01/11/16	0932	1532489	4
<i>Alphaspec Th229 - 228,230,232 Solid "Dry Weight Corrected"</i>														
Thorium-228		1.25	+/-0.642	0.455	0.112	+/-0.694	1.00	pCi/g		JXR1	01/12/16	1015	1532485	5
Thorium-229	U	-0.0358	+/-0.158	0.413	0.0947	+/-0.159	1.00	pCi/g						
Thorium-230		0.765	+/-0.510	0.455	0.116	+/-0.533	1.00	pCi/g						
Thorium-232		1.19	+/-0.601	0.223	0.00	+/-0.647	1.00	pCi/g						
<i>Am241, Cm Solid "Dry Weight Corrected"</i>														
Americium-241	U	-0.013	+/-0.0573	0.150	0.0343	+/-0.0575	1.00	pCi/g		JXR1	01/11/16	1427	1532488	6
Curium-242	U	-0.00743	+/-0.0641	0.148	0.0278	+/-0.0643	1.00	pCi/g						
Curium-243/244	U	0.0139	+/-0.0772	0.148	0.0339	+/-0.0773	1.00	pCi/g						
Curium-245/246		0.0309	+/-0.0869	0.0927	0.00	+/-0.0871	1.00	pCi/g						
<i>Liquid Scint Pu241, Solid "Dry Weight Corrected"</i>														
Plutonium-241	U	3.56	+/-4.51	7.62	3.65	+/-4.57	15.0	pCi/g		JXR1	01/13/16	1121	1532491	7
Rad Gamma Spec Analysis														
<i>Gamma I129, Solid "Dry Weight Corrected"</i>														
Iodine-129	U	-0.0254	+/-0.361	0.681	0.296	+/-0.361	1.00	pCi/g		MJH1	01/12/16	1400	1533089	8
<i>Gammaspect, Gamma, Solid "Dry Weight Corrected"</i>														
Actinium-227	U	0.0809	+/-0.250	0.472	0.223	+/-0.253		pCi/g		RXF2	01/12/16	0906	1532304	9
Antimony-125	U	-0.0253	+/-0.0811	0.153	0.0704	+/-0.0819		pCi/g						
Bismuth-212	UI	0.00	+/-0.704	1.18	0.551	+/-0.889		pCi/g						
Bismuth-214		0.848	+/-0.188	0.120	0.0547	+/-0.200		pCi/g						
Cesium-137		0.0961	+/-0.0462	0.0638	0.029	+/-0.0469	0.100	pCi/g						
Cobalt-60	U	0.000664	+/-0.0352	0.0685	0.030	+/-0.0352		pCi/g						
Europium-154	U	0.0718	+/-0.114	0.214	0.0953	+/-0.118		pCi/g						
Lead-212		1.11	+/-0.121	0.0995	0.0471	+/-0.156		pCi/g						
Lead-214		1.07	+/-0.164	0.130	0.0606	+/-0.186		pCi/g						

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228
 Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes
 Client Sample ID: 4.5A.R.2.4
 Sample ID: 387769012

Report Date: January 15, 2016

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>GammaSpec, Gamma, Solid "Dry Weight Corrected"</i>														
Potassium-40		14.1	+/-1.37	0.511	0.213	+/-1.84		pCi/g						
Protactinium-231	U	0.00	+/-0.579	0.812	0.380	+/-0.595		pCi/g						
Radium-226		0.848	+/-0.188	0.120	0.0547	+/-0.200		pCi/g						
Radium-228		1.06	+/-0.248	0.227	0.102	+/-0.289		pCi/g						
Thallium-208		0.281	+/-0.0705	0.0672	0.031	+/-0.0741		pCi/g						
Tin-126	U	0.0641	+/-0.112	0.144	0.0698	+/-0.113		pCi/g						
Rad Gas Flow Proportional Counting														
<i>GFPC, Gross A, B, solid "Dry Weight Corrected"</i>														
Alpha		14.3	+/-3.30	3.28	1.42	+/-4.31	4.00	pCi/g		JXB7	01/07/16	1430	1534688	10
Beta		23.7	+/-2.53	2.47	1.16	+/-4.08	10.0	pCi/g						
<i>GFPC, Sr90, solid "Dry Weight Corrected"</i>														
Strontium-90	U	-0.239	+/-0.783	1.56	0.687	+/-0.783	2.00	pCi/g		KSD1	01/06/16	1529	1534450	11
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Dist, Solid "Dry Weight Corrected"</i>														
Tritium	U	0.166	+/-2.36	4.10	1.97	+/-2.36	6.00	pCi/g		TXJ1	01/07/16	0619	1533793	12
<i>Liquid Scint C14, Solid "Dry Weight Corrected"</i>														
Carbon-14	U	-0.868	+/-0.795	1.40	0.686	+/-0.795	2.00	pCi/g		TXJ1	01/14/16	0417	1533786	13
<i>Liquid Scint Tc99, Solid "Dry Weight Corrected"</i>														
Technetium-99	U	-0.137	+/-1.33	2.34	1.12	+/-1.33	5.00	pCi/g		MYM	01/11/16	0444	1534429	14

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	12/18/15	1142	1532297

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	ASTM C 1476-00 Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, Am-05-RC Modified
7	DOE EML HASL-300, Pu-11-RC Modified
8	DOE EML HASL-300, I-01 Modified
9	DOE HASL 300, 4.5.2.3/Ga-01-R
10	EPA 900.0/SW846 9310/SM 7110B Modified
11	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
12	EPA 906.0 Modified
13	EPA EERF C-01 Modified

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Report Date: January 15, 2016

Contact: Ms. Laurie Losey
Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.2.4
Sample ID: 387769012

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
14	DOE EML HASL-300, Te-02-RC Modified													

Surrogate/Tracer	Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Plutonium-242 Tracer		ASP Plutonium Isotopic, Solid "Dry Weight Corrected"	1532490	93.4	(15%-125%)
Uranium-232 Tracer		ASP Uranium Isotopic, Solid "Dry Weight Corrected"	1532487	95.4	(15%-125%)
Uranium-235/236 Tracer		ASP Uranium Isotopic, Solid "Dry Weight Corrected"	1532487	91.4	(15%-125%)
Americium-243 Tracer		Alphaspec Np237, Solid "Dry Weight Corrected"	1532489	101	(15%-125%)
Actinium-227 Tracer		Alphaspec Th229 + 228,230,232 Solid "Dry Weight Corrected"	1532485	75.4	(15%-125%)
Americium-243 Tracer		Am241, Cm Solid "Dry Weight Corrected"	1532488	41.7	(15%-125%)
Plutonium-242 Tracer		Liquid Scint Pu241, Solid "Dry Weight Corrected"	1532491	93.4	(15%-125%)
Strontium Carrier		GPC, Sr90, solid "Dry Weight Corrected"	1534450	74.9	(25%-125%)
Technetium-99m Tracer		Liquid Scint Tc99, Solid "Dry Weight Corrected"	1534429	92.2	(15%-125%)

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: January 15, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.2.5
 Sample ID: 387769013
 Matrix: Soil
 Collect Date: 07-DEC-15
 Receive Date: 17-DEC-15
 Collector: Client
 Moisture: 19.8%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids														
<i>ASTM D 2216 % Moisture "As Received"</i>														
Moisture		19.8						percent		LYT1	12/18/15	1142	1532297	1
Rad Alpha Spec Analysis														
<i>ASP Plutonium Isotopic, Solid "Dry Weight Corrected"</i>														
Plutonium-238	U	0.00687	+/-0.0382	0.0732	0.0168	+/-0.0382	1.00	pCi/g		JXR1	01/11/16	1427	1532490	2
Plutonium-239/240	U	0.0169	+/-0.0465	0.0807	0.0205	+/-0.0466	1.00	pCi/g						
<i>ASP Uranium Isotopic, Solid "Dry Weight Corrected"</i>														
Uranium-232	U	-0.0418	+/-0.0404	0.142	0.0471	+/-0.0404	1.00	pCi/g		JXR1	01/11/16	1519	1532487	3
Uranium-233/234		0.841	+/-0.231	0.0485	0.00	+/-0.272	1.00	pCi/g						
Uranium-235/236		0.0285	+/-0.0561	0.0778	0.0146	+/-0.0563	1.00	pCi/g						
Uranium-238		1.01	+/-0.254	0.0775	0.0145	+/-0.307	1.00	pCi/g						
<i>Alphaspec Np237, Solid "Dry Weight Corrected"</i>														
Neptunium-237	U	0.0164	+/-0.171	0.358	0.091	+/-0.171	1.00	pCi/g		JXR1	01/11/16	0932	1532489	4
<i>Alphaspec Th229 + 228,230,232 Solid "Dry Weight Corrected"</i>														
Thorium-228		1.08	+/-0.580	0.539	0.168	+/-0.621	1.00	pCi/g		JXR1	01/12/16	1015	1532485	5
Thorium-229	U	0.0495	+/-0.186	0.312	0.0584	+/-0.186	1.00	pCi/g						
Thorium-230		0.896	+/-0.515	0.455	0.130	+/-0.545	1.00	pCi/g						
Thorium-232		0.730	+/-0.462	0.396	0.101	+/-0.484	1.00	pCi/g						
<i>Am241, Cm Solid "Dry Weight Corrected"</i>														
Americium-241	U	-0.0152	+/-0.0674	0.176	0.0403	+/-0.0677	1.00	pCi/g		JXR1	01/11/16	1427	1532488	6
Curium-242		0.00	+/-0.0734	0.109	0.00	+/-0.0737	1.00	pCi/g						
Curium-243/244	U	0.0239	+/-0.0895	0.151	0.0282	+/-0.0897	1.00	pCi/g						
Curium-245/246		0.0727	+/-0.125	0.109	0.00	+/-0.125	1.00	pCi/g						
<i>Liquid Scint Pu241, Solid "Dry Weight Corrected"</i>														
Plutonium-241	U	1.77	+/-4.92	8.47	4.06	+/-4.93	15.0	pCi/g		JXR1	01/13/16	1207	1532491	7
Rad Gamma Spec Analysis														
<i>Gamma I129, Solid "Dry Weight Corrected"</i>														
Iodine-129	U	-0.0792	+/-0.215	0.342	0.126	+/-0.218	1.00	pCi/g		MJH1	01/12/16	1400	1533089	8
<i>Gammaspect, Gamma, Solid "Dry Weight Corrected"</i>														
Actinium-227	U	0.111	+/-0.249	0.481	0.227	+/-0.255		pCi/g		RXF2	01/12/16	0906	1532304	9
Antimony-125	U	-0.118	+/-0.119	0.172	0.0792	+/-0.131		pCi/g						
Bismuth-212		1.46	+/-0.872	0.851	0.379	+/-0.883		pCi/g						
Bismuth-214		0.899	+/-0.181	0.120	0.054	+/-0.197		pCi/g						
Cesium-137		0.154	+/-0.0809	0.0708	0.032	+/-0.0819	0.100	pCi/g						
Cobalt-60	U	-0.0025	+/-0.0408	0.0794	0.0344	+/-0.0408		pCi/g						
Europium-154	U	0.0469	+/-0.123	0.252	0.112	+/-0.125		pCi/g						
Lead-212		1.21	+/-0.122	0.098	0.0462	+/-0.192		pCi/g						
Lead-214		0.930	+/-0.161	0.135	0.0626	+/-0.179		pCi/g						

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228
 Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes
 Client Sample ID: 4.5A.R.2.5
 Sample ID: 387769013

Report Date: January 15, 2016

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>GammaSpec, Gamma, Solid "Dry Weight Corrected"</i>														
Potassium-40		15.7	+/-1.62	0.756	0.325	+/-2.23		pCi/g						
Protactinium-231	UI	0.00	+/-0.718	0.903	0.424	+/-0.736		pCi/g						
Radium-226		0.899	+/-0.181	0.120	0.054	+/-0.197		pCi/g						
Radium-228		1.43	+/-0.318	0.285	0.128	+/-0.369		pCi/g						
Thallium-208		0.355	+/-0.0711	0.069	0.0315	+/-0.0773		pCi/g						
Tin-126	UI	0.00	+/-0.0866	0.0927	0.0444	+/-0.0895		pCi/g						
Rad Gas Flow Proportional Counting														
<i>GFPC, Gross A/B, solid "Dry Weight Corrected"</i>														
Alpha		17.8	+/-3.72	2.86	1.17	+/-5.09	4.00	pCi/g		JXB7	01/07/16	1430	1534688	10
Beta		29.2	+/-2.93	2.81	1.33	+/-5.00	10.0	pCi/g						
<i>GFPC, Sr90, solid "Dry Weight Corrected"</i>														
Sr-90	U	0.0242	+/-0.839	1.62	0.701	+/-0.839	2.00	pCi/g		KSD1	01/06/16	1527	1534450	11
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Dist, Solid "Dry Weight Corrected"</i>														
Tritium	U	-1.46	+/-2.34	4.20	2.02	+/-2.34	6.00	pCi/g		TXJ1	01/07/16	0732	1533793	12
<i>Liquid Scint C14, Solid "Dry Weight Corrected"</i>														
Carbon-14	U	-0.729	+/-0.776	1.37	0.667	+/-0.776	2.00	pCi/g		TXJ1	01/14/16	0518	1533786	13
<i>Liquid Scint Tc99, Solid "Dry Weight Corrected"</i>														
Technetium-99	U	-0.541	+/-1.50	2.67	1.28	+/-1.50	5.00	pCi/g		MYM	01/11/16	0500	1534429	14

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYT1	12/18/15	1142	1532297

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	ASTM C 1476-00 Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, Am-05-RC Modified
7	DOE EML HASL-300, Pu-11-RC Modified
8	DOE EML HASL-300, I-01 Modified
9	DOE HASL 300, 4 5 2.3/Ga-01-R
10	EPA 900.0/SW846 9310/SM 7110B Modified
11	EPA 905.0 Modified/DOE RP501 Rev. 1 Modified
12	EPA 906.0 Modified
13	EPA EERF C-01 Modified

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Contact: Ms. Laurie Losey
Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.2.5
Sample ID: 387769013

Report Date: January 15, 2016

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
14	DOE EML HASL-300, Te-02-RC Modified													

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Plutonium-242 Tracer	ASP Plutonium Isotopic, Solid "Dry Weight Corrected"	1532490	82.3	(15%-125%)
Uranium-232 Tracer	ASP Uranium Isotopic, Solid "Dry Weight Corrected"	1532487	86.3	(15%-125%)
Uranium-235/236 Tracer	ASP Uranium Isotopic, Solid "Dry Weight Corrected"	1532487	88.3	(15%-125%)
Americium-243 Tracer	Alphaspec Np237, Solid "Dry Weight Corrected"	1532489	103	(15%-125%)
Actinium-227 Tracer	Alphaspec Th229 + 228,230,232 Solid "Dry Weight Corrected"	1532485	80.3	(15%-125%)
Americium-243 Tracer	Am241, Cm Solid "Dry Weight Corrected"	1532488	35.8	(15%-125%)
Plutonium-242 Tracer	Liquid Scint Pu241, Solid "Dry Weight Corrected"	1532491	82.3	(15%-125%)
Strontium Carrier	GFPC, Sr90, solid "Dry Weight Corrected"	1534450	81.4	(25%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Solid "Dry Weight Corrected"	1534429	90.2	(15%-125%)

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: January 15, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.2.6
 Sample ID: 387769014
 Matrix: Soil
 Collect Date: 07-DEC-15
 Receive Date: 17-DEC-15
 Collector: Client
 Moisture: 19.4%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids														
<i>ASTM D 2216 % Moisture "As Received"</i>														
Moisture		19.4						percent		LYTI	12/18/15	1142	1532297	1
Rad Alpha Spec Analysis														
<i>ASP Plutonium Isotopic, Solid "Dry Weight Corrected"</i>														
Plutonium-238	U	0.0321	+/-0.0633	0.107	0.0328	+/-0.0635	1.00	pCi/g		JXR1	01/11/16	1427	1532490	2
Plutonium-239/240	U	0.0105	+/-0.0394	0.0662	0.0124	+/-0.0394	1.00	pCi/g						
<i>ASP Uranium Isotopic, Solid "Dry Weight Corrected"</i>														
Uranium-232	U	-0.0134	+/-0.0578	0.140	0.0474	+/-0.0579	1.00	pCi/g		JXR1	01/11/16	1519	1532487	3
Uranium-233/234		0.586	+/-0.194	0.104	0.0284	+/-0.218	1.00	pCi/g						
Uranium-235/236		0.0597	+/-0.0704	0.0761	0.0142	+/-0.0711	1.00	pCi/g						
Uranium-238		0.854	+/-0.230	0.0475	0.00	+/-0.271	1.00	pCi/g						
<i>Alphaspec Np237, Solid "Dry Weight Corrected"</i>														
Neptunium-237	U	0.0757	+/-0.220	0.411	0.134	+/-0.220	1.00	pCi/g		JXR1	01/11/16	0932	1532489	4
<i>Alphaspec Th229 - 228,230,232 Solid "Dry Weight Corrected"</i>														
Thorium-228		1.13	+/-0.492	0.381	0.117	+/-0.536	1.00	pCi/g		JXR1	01/12/16	1015	1532485	5
Thorium-229	U	0.00189	+/-0.140	0.312	0.085	+/-0.141	1.00	pCi/g						
Thorium-230		0.686	+/-0.373	0.262	0.060	+/-0.393	1.00	pCi/g						
Thorium-232		0.848	+/-0.403	0.141	0.00	+/-0.432	1.00	pCi/g						
<i>Am241, Cm Solid "Dry Weight Corrected"</i>														
Americium-241		0.0209	+/-0.0481	0.0763	0.0175	+/-0.0482	1.00	pCi/g		JXR1	01/11/16	1427	1532488	6
Curium-242	U	0.012	+/-0.045	0.0758	0.0142	+/-0.0451	1.00	pCi/g						
Curium-243/244	U	0.00709	+/-0.0394	0.0755	0.0173	+/-0.0394	1.00	pCi/g						
Curium-245/246		0.00	+/-0.0318	0.0473	0.00	+/-0.0318	1.00	pCi/g						
<i>Liquid Scint Pu241, Solid "Dry Weight Corrected"</i>														
Plutonium-241	U	0.510	+/-5.31	9.25	4.43	+/-5.31	15.0	pCi/g		JXR1	01/13/16	1253	1532491	7
Rad Gamma Spec Analysis														
<i>Gamma I129, Solid "Dry Weight Corrected"</i>														
Iodine-129	U	0.098	+/-0.289	0.707	0.272	+/-0.293	1.00	pCi/g		MJH1	01/12/16	1401	1533089	8
<i>Gammasespec, Gamma, Solid "Dry Weight Corrected"</i>														
Actinium-227	U	0.0583	+/-0.206	0.404	0.189	+/-0.207		pCi/g		RXF2	01/12/16	0907	1532304	9
Antimony-125	U	0.0479	+/-0.0809	0.160	0.074	+/-0.0838		pCi/g						
Bismuth-212		0.946	+/-0.614	0.860	0.392	+/-0.621		pCi/g						
Bismuth-214		0.776	+/-0.158	0.111	0.0505	+/-0.171		pCi/g						
Cesium-137		0.113	+/-0.0649	0.0664	0.0305	+/-0.0655	0.100	pCi/g						
Cobalt-60	U	-0.00432	+/-0.0321	0.0615	0.0266	+/-0.0322		pCi/g						
Europium-154	U	-0.023	+/-0.102	0.190	0.0837	+/-0.102		pCi/g						
Lead-212		0.856	+/-0.152	0.112	0.0533	+/-0.172		pCi/g						
Lead-214		0.871	+/-0.170	0.132	0.0619	+/-0.185		pCi/g						

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228
 Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes
 Client Sample ID: 4.5A.R.2.6
 Sample ID: 387769014

Report Date: January 15, 2016

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gammaspac, Gamma, Solid "Dry Weight Corrected"</i>														
Potassium-40		14.4	+/-1.35	0.568	0.242	+/-1.85		pCi/g						
Protactinium-231	U	0.00	+/-0.638	0.788	0.369	+/-0.657		pCi/g						
Radium-226		0.776	+/-0.158	0.111	0.0505	+/-0.171		pCi/g						
Radium-228		0.898	+/-0.233	0.223	0.100	+/-0.265		pCi/g						
Thallium-208		0.287	+/-0.0644	0.0666	0.0308	+/-0.0686		pCi/g						
Tin-126	U	0.00	+/-0.114	0.107	0.0512	+/-0.116		pCi/g						
Rad Gas Flow Proportional Counting														
<i>GFPC, Gross A-B, solid "Dry Weight Corrected"</i>														
Alpha		15.9	+/-3.69	3.97	1.76	+/-4.84	4.00	pCi/g		JXB7	01/07/16	1424	1534688	10
Beta		22.6	+/-2.50	2.55	1.20	+/-3.96	10.0	pCi/g						
<i>GFPC, Sr90, solid "Dry Weight Corrected"</i>														
Strontium-90	U	-0.386	+/-0.633	1.42	0.600	+/-0.634	2.00	pCi/g		KSD1	01/06/16	1529	1534450	11
Rad Liquid Scintillation Analysis														
<i>LSC, Tritium Dist, Solid "Dry Weight Corrected"</i>														
Tritium	U	0.327	+/-2.44	4.23	2.04	+/-2.44	6.00	pCi/g		TXJ1	01/07/16	0844	1533793	12
<i>Liquid Scint C14, Solid "Dry Weight Corrected"</i>														
Carbon-14	U	-1.07	+/-0.920	1.65	0.801	+/-0.920	2.00	pCi/g		TXJ1	01/15/16	0629	1533786	13
<i>Liquid Scint Tc99, Solid "Dry Weight Corrected"</i>														
Technetium-99	U	0.739	+/-1.41	2.41	1.15	+/-1.41	5.00	pCi/g		MYM	01/11/16	0517	1534429	14

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LYTI	12/18/15	1142	1532297

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	ASTM C 1476-00 Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, Am-05-RC Modified
7	DOE EML HASL-300, Pu-11-RC Modified
8	DOE EML HASL-300, I-01 Modified
9	DOE HASL 300, 4 5 2.3/Ga-01-R
10	EPA 900.0/SW846 9310/SM 7110B Modified
11	EPA 905.0 Modified/DOE RP501 Rev 1 Modified
12	EPA 906.0 Modified
13	EPA EERF C-01 Modified

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228
Contact: Ms. Laurie Losey
Project: Soil Radioisotopes
Client Sample ID: 4.5A.R.2.6
Sample ID: 387769014

Report Date: January 15, 2016

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Le	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
14	DOE EML HASL-300, Tc-02-RC Modified													
Surrogate/Tracer Recovery	Test							Batch ID	Recovery%	Acceptable Limits				
Plutonium-242 Tracer	ASP Plutonium Isotopic, Solid "Dry Weight Corrected"							1532490	78.1	(15%-125%)				
Uranium-232 Tracer	ASP Uranium Isotopic, Solid "Dry Weight Corrected"							1532487	90.6	(15%-125%)				
Uranium-235/236 Tracer	ASP Uranium Isotopic, Solid "Dry Weight Corrected"							1532487	92.3	(15%-125%)				
Americium-243 Tracer	Alphaspec Np237, Solid "Dry Weight Corrected"							1532489	101	(15%-125%)				
Actinium-227 Tracer	Alphaspec Th229 + 228.230.232 Solid "Dry Weight Corrected"							1532485	94.2	(15%-125%)				
Americium-243 Tracer	Am241, Cm Solid "Dry Weight Corrected"							1532488	80.8	(15%-125%)				
Plutonium-242 Tracer	Liquid Scint Pu241, Solid "Dry Weight Corrected"							1532491	78.1	(15%-125%)				
Strontium Carrier	GFPC, Sr90, solid "Dry Weight Corrected"							1534450	76	(25%-125%)				
Technetium-99m Tracer	Liquid Scint Tc99, Solid "Dry Weight Corrected"							1534429	91.2	(15%-125%)				

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: January 5, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.3.1
 Sample ID: 387022016
 Matrix: Soil
 Collect Date: 01-DEC-15
 Receive Date: 08-DEC-15
 Collector: Client
 Moisture: 28.8%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
-----------	-----------	--------	-------------	-----	----	-----	----	-------	----	---------	------	------	-------	------

Gravimetric Solids

ASTM D 2216 % Moisture "As Received"

Moisture		28.8						percent		DRS1	12/09/15	1328	1529597	1
----------	--	------	--	--	--	--	--	---------	--	------	----------	------	---------	---

Rad Gamma Spec Analysis

Gammascpec, Gamma, Solid "Dry Weight Corrected"

Actinium-227	U	0.0107	+/-0.293	0.535	0.252	+/-0.293		pCi/g		RXF2	01/04/16	1000	1529718	2
Antimony-125	U	-0.00868	+/-0.106	0.199	0.0914	+/-0.106		pCi/g						
Bismuth-212	UI	0.00	+/-1.27	1.55	0.722	+/-1.49		pCi/g						
Bismuth-214		0.814	+/-0.155	0.148	0.067	+/-0.170		pCi/g						
Cesium-137		1.27	+/-0.142	0.0819	0.037	+/-0.177	0.100	pCi/g						
Cobalt-60	U	0.0343	+/-0.049	0.105	0.0463	+/-0.0515		pCi/g						
Europium-154	U	0.078	+/-0.162	0.328	0.147	+/-0.166		pCi/g						
Lead-212		1.12	+/-0.131	0.116	0.0547	+/-0.189		pCi/g						
Lead-214		1.16	+/-0.191	0.354	0.172	+/-0.215		pCi/g						
Potassium-40		13.8	+/-1.70	0.898	0.386	+/-2.17		pCi/g						
Protactinium-231	UI	0.00	+/-0.672	1.15	0.542	+/-0.732		pCi/g						
Radium-226		0.814	+/-0.155	0.148	0.067	+/-0.170		pCi/g						
Radium-228		0.961	+/-0.277	0.265	0.115	+/-0.305		pCi/g						
Thallium-208		0.356	+/-0.101	0.0733	0.0331	+/-0.105		pCi/g						
Tin-126	UI	0.00	+/-0.0945	0.096	0.0457	+/-0.0978		pCi/g						

Rad Gas Flow Proportional Counting

GFPC, Gross A/B, solid "Dry Weight Corrected"

Alpha		16.5	+/-3.62	3.74	1.65	+/-4.91	4.00	pCi/g		JXB7	01/02/16	1439	1532750	3
Beta		22.0	+/-2.68	3.00	1.42	+/-4.09	10.0	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DRS1	12/09/15	1328	1529597

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE HASL 300, 4.5.2.3/Ga-01-R
3	EPA 900.0/SW846.9310/SM 7110B Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
---------------------------	------	----------	-----------	-------------------

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Report Date: January 5, 2016

Contact: Ms. Laurie Losey
Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.3.1
Sample ID: 387022016

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.	
Surrogate/Tracer Recovery	Test												Batch ID	Recovery%	Acceptable Limits

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Technical Services
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: March 8, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Client Sample ID: 4.5.A.R.3.2
 Sample ID: 392031022
 Matrix: Soil
 Collect Date: 01-DEC-15
 Receive Date: 25-FEB-16
 Collector: Client
 Moisture: 21.4%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
-----------	-----------	--------	-------------	-----	----	-----	----	-------	----	---------	------	------	-------	------

Rad Gamma Spec Analysis

Gamma with Ingrowth "Dry Weight Corrected"

Actinium-227	U	0.113	+/-0.306	0.590	0.278	+/-0.311		pCi/g		MXR1	03/07/16	1035	1547792	1
Antimony-125	U	-0.0622	+/-0.130	0.240	0.112	+/-0.133		pCi/g						
Bismuth-212	UI	0.00	+/-0.660	1.38	0.636	+/-0.755		pCi/g						
Bismuth-214		0.790	+/-0.176	0.164	0.0754	+/-0.188		pCi/g						
Cesium-137		0.867	+/-0.114	0.0881	0.0402	+/-0.136	0.100	pCi/g						
Cobalt-60	U	-0.00296	+/-0.0445	0.0869	0.0373	+/-0.0445		pCi/g						
Europium-154	U	-0.0809	+/-0.143	0.249	0.108	+/-0.148		pCi/g						
Lead-212		1.03	+/-0.148	0.136	0.0643	+/-0.178		pCi/g						
Lead-214		0.867	+/-0.177	0.168	0.0785	+/-0.194		pCi/g						
Potassium-40		14.0	+/-1.62	0.613	0.246	+/-2.01		pCi/g						
Protactinium-231	UI	0.00	+/-0.742	1.05	0.490	+/-0.753		pCi/g						
Radium-226		0.790	+/-0.176	0.164	0.0754	+/-0.188		pCi/g						
Radium-228		0.654	+/-0.326	0.290	0.128	+/-0.339		pCi/g						
Thallium-208		0.356	+/-0.0744	0.0776	0.0354	+/-0.0805		pCi/g						
Tin-126	UI	0.00	+/-0.128	0.187	0.0898	+/-0.135		pCi/g						

Rad Gas Flow Proportional Counting

GFPC, Gross A/B, solid "Dry Weight Corrected"

Alpha		9.10	+/-3.37	3.87	1.60	+/-3.79	4.00	pCi/g		JXB7	03/03/16	1600	1547853	2
Beta		19.4	+/-3.03	2.98	1.36	+/-4.08	10.0	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	02/25/16	1513	1547785

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 900.0/SW846 9310/SM 7110B Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
---------------------------	------	----------	-----------	-------------------

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Technical Services
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Report Date: March 8, 2016

Contact: Ms. Laurie Losey
Project: Soil Radioisotopes

Client Sample ID: 4.5.A.R.3.2
Sample ID: 392031022

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.	
Surrogate/Tracer Recovery	Test												Batch ID	Recovery%	Acceptable Limits

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: January 5, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.4.1
 Sample ID: 387022017
 Matrix: Soil
 Collect Date: 01-DEC-15
 Receive Date: 08-DEC-15
 Collector: Client
 Moisture: 29.1%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Le	TPU	RI	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids														
<i>ASTM D 2216 % Moisture "As Received"</i>														
Moisture		29.1						percent		DRS1	12/09/15	1328	1529597	1
Rad Gamma Spec Analysis														
<i>Gammascpec, Gamma, Solid "Dry Weight Corrected"</i>														
Actinium-227	U	-0.00348	+/-0.252	0.470	0.221	+/-0.252		pCi/g		RXF2	01/04/16	1001	1529718	2
Antimony-125	U	0.00629	+/-0.0966	0.178	0.082	+/-0.0966		pCi/g						
Bismuth-212	UI	0.00	+/-0.822	1.24	0.576	+/-0.923		pCi/g						
Bismuth-214		0.784	+/-0.149	0.128	0.0582	+/-0.162		pCi/g						
Cesium-137		0.252	+/-0.105	0.0771	0.0353	+/-0.107	0.100	pCi/g						
Cobalt-60	U	-6.83E-05	+/-0.0378	0.0733	0.0317	+/-0.0378		pCi/g						
Europium-154	U	0.0208	+/-0.125	0.244	0.109	+/-0.126		pCi/g						
Lead-212		1.02	+/-0.123	0.103	0.0484	+/-0.155		pCi/g						
Lead-214		1.15	+/-0.160	0.330	0.160	+/-0.186		pCi/g						
Potassium-40		14.8	+/-1.46	0.643	0.273	+/-1.95		pCi/g						
Protactinium-231	U	-0.011	+/-0.593	0.958	0.450	+/-0.593		pCi/g						
Radium-226		0.784	+/-0.149	0.128	0.0582	+/-0.162		pCi/g						
Radium-228		1.05	+/-0.269	0.253	0.113	+/-0.308		pCi/g						
Thallium-208		0.271	+/-0.072	0.065	0.0295	+/-0.0754		pCi/g						
Tin-126	UI	0.00	+/-0.113	0.128	0.0612	+/-0.114		pCi/g						
Rad Gas Flow Proportional Counting														
<i>GFPC, Gross A/B, solid "Dry Weight Corrected"</i>														
Alpha		15.1	+/-4.10	3.99	1.66	+/-5.11	4.00	pCi/g		JXB7	01/02/16	1441	1532750	3
Beta		26.4	+/-3.32	3.32	1.55	+/-4.98	10.0	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DRS1	12/09/15	1328	1529597

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE HASL 300, 4.5.2.3/Ga-01-R
3	EPA 900.0/SW846 9310/SM 7110B Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Report Date: January 5, 2016

Contact: Ms. Laurie Losey
Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.4.1
Sample ID: 387022017

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.	
Surrogate/Tracer Recovery	Test												Batch ID	Recovery%	Acceptable Limits

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Technical Services
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: March 8, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Client Sample ID: 4.5.A.R.4.2
 Sample ID: 392031023
 Matrix: Soil
 Collect Date: 01-DEC-15
 Receive Date: 25-FEB-16
 Collector: Client
 Moisture: 22.4%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
-----------	-----------	--------	-------------	-----	----	-----	----	-------	----	---------	------	------	-------	------

Rad Gamma Spec Analysis

Gamma with Ingrowth "Dry Weight Corrected"

Actinium-227	U	0.121	+/-0.288	0.556	0.260	+/-0.293		pCi/g		MXR1	03/07/16	1036	1547792	1
Antimony-125	U	-0.00932	+/-0.0933	0.182	0.0819	+/-0.0934		pCi/g						
Bismuth-212	UI	0.00	+/-0.683	1.45	0.669	+/-0.892		pCi/g						
Bismuth-214		0.826	+/-0.178	0.139	0.0624	+/-0.191		pCi/g						
Cesium-137		0.0736	+/-0.0453	0.0774	0.0347	+/-0.0458	0.100	pCi/g						
Cobalt-60	U	-0.00181	+/-0.0534	0.103	0.045	+/-0.0534		pCi/g						
Europium-154	U	-0.0794	+/-0.115	0.200	0.0823	+/-0.120		pCi/g						
Lead-212		1.13	+/-0.144	0.136	0.0643	+/-0.173		pCi/g						
Lead-214		1.02	+/-0.189	0.345	0.167	+/-0.208		pCi/g						
Potassium-40		14.6	+/-1.68	0.768	0.321	+/-2.09		pCi/g						
Protactinium-231	UI	0.00	+/-1.02	0.995	0.461	+/-1.03		pCi/g						
Radium-226		0.826	+/-0.178	0.139	0.0624	+/-0.191		pCi/g						
Radium-228		1.48	+/-0.344	0.302	0.134	+/-0.407		pCi/g						
Thallium-208		0.358	+/-0.0987	0.0666	0.0297	+/-0.103		pCi/g						
Tin-126	U	0.0532	+/-0.121	0.212	0.102	+/-0.123		pCi/g						

Rad Gas Flow Proportional Counting

GFPC, Gross A, B, solid "Dry Weight Corrected"

Alpha		9.87	+/-3.61	3.94	1.60	+/-4.08	4.00	pCi/g		JXB7	03/03/16	1600	1547853	2
Beta		19.0	+/-3.17	3.11	1.41	+/-4.12	10.0	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	02/25/16	1513	1547785

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 900.0/SW846.9310/SM 7110B Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
---------------------------	------	----------	-----------	-------------------

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Technical Services
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Report Date: March 8, 2016

Contact: Ms. Laurie Losey
Project: Soil Radioisotopes

Client Sample ID: 4.5.A.R.4.2
Sample ID: 392031023

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer	Recovery	Test						Batch ID	Recovery%	Acceptable Limits				

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: January 5, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.5.1
 Sample ID: 387022018
 Matrix: Soil
 Collect Date: 01-DEC-15
 Receive Date: 08-DEC-15
 Collector: Client
 Moisture: 26.8%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids														
<i>ASTM D 2216 % Moisture "As Received"</i>														
Moisture		26.8						percent		DRS1	12/09/15	1328	1529597	1
Rad Gamma Spec Analysis														
<i>Gammascpec, Gamma, Solid "Dry Weight Corrected"</i>														
Actinium-227	U	-0.188	+/-0.334	0.510	0.238	+/-0.346		pCi/g		RXF2	01/04/16	1001	1529718	2
Antimony-125	UI	0.00	+/-0.121	0.250	0.117	+/-0.151		pCi/g						
Bismuth-212	UI	0.00	+/-0.976	1.57	0.732	+/-1.50		pCi/g						
Bismuth-214		1.01	+/-0.168	0.151	0.0691	+/-0.188		pCi/g						
Cesium-137		0.900	+/-0.128	0.086	0.0392	+/-0.147	0.100	pCi/g						
Cobalt-60	U	-0.0576	+/-0.0447	0.0394	0.014	+/-0.0519		pCi/g						
Europium-154	UI	0.00	+/-0.129	0.287	0.128	+/-0.145		pCi/g						
Lead-212		1.15	+/-0.137	0.118	0.0556	+/-0.163		pCi/g						
Lead-214		1.16	+/-0.190	0.154	0.0713	+/-0.211		pCi/g						
Potassium-40		15.3	+/-1.59	0.488	0.187	+/-2.12		pCi/g						
Protactinium-231	U	0.220	+/-0.642	1.16	0.547	+/-0.651		pCi/g						
Radium-226		1.01	+/-0.168	0.151	0.0691	+/-0.188		pCi/g						
Radium-228		1.34	+/-0.358	0.290	0.129	+/-0.402		pCi/g						
Thallium-208		0.344	+/-0.0865	0.0761	0.0346	+/-0.0911		pCi/g						
Tin-126	UI	0.00	+/-0.129	0.180	0.0861	+/-0.131		pCi/g						
Rad Gas Flow Proportional Counting														
<i>GFPC, Gross A-B, solid "Dry Weight Corrected"</i>														
Alpha		17.2	+/-4.50	3.95	1.60	+/-5.60	4.00	pCi/g		JXB7	01/02/16	1444	1532750	3
Beta		23.5	+/-3.35	2.94	1.33	+/-4.78	10.0	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DRS1	12/09/15	1328	1529597

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE HASL 300, 4.5.2.3/Ga-01-R
3	EPA 900.0/SW846.9310/SM 7110B Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
---------------------------	------	----------	-----------	-------------------

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Report Date: January 5, 2016

Contact: Ms. Laurie Losey
Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.5.1
Sample ID: 387022018

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.	
Surrogate/Tracer Recovery	Test												Batch ID	Recovery%	Acceptable Limits

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Technical Services
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228
 Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Report Date: March 8, 2016

Client Sample ID: 4.5.A.R.5.2
 Sample ID: 392062001
 Matrix: Soil
 Collect Date: 01-DEC-15
 Receive Date: 25-FEB-16
 Collector: Client
 Moisture: 22.8%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
-----------	-----------	--------	-------------	-----	----	-----	----	-------	----	---------	------	------	-------	------

Rad Gamma Spec Analysis

Gamma with Ingrowth "Dry Weight Corrected"

Actinium-227	U	-0.216	+/-0.309	0.544	0.254	+/-0.325		pCi/g		MXR1	03/07/16	1406	1547923	1
Antimony-125	U	0.0284	+/-0.112	0.222	0.102	+/-0.113		pCi/g						
Bismuth-212	UI	0.00	+/-0.708	1.45	0.669	+/-0.783		pCi/g						
Bismuth-214		0.796	+/-0.197	0.166	0.0759	+/-0.209		pCi/g						
Cesium-137		0.310	+/-0.099	0.0804	0.0362	+/-0.102	0.100	pCi/g						
Cobalt-60	U	-0.0168	+/-0.0561	0.0875	0.0374	+/-0.0566		pCi/g						
Europium-154	U	-0.0142	+/-0.140	0.268	0.117	+/-0.140		pCi/g						
Lead-212		1.10	+/-0.145	0.131	0.0618	+/-0.173		pCi/g						
Lead-214		0.945	+/-0.197	0.164	0.0758	+/-0.213		pCi/g						
Potassium-40		14.7	+/-1.70	0.691	0.283	+/-2.11		pCi/g						
Protactinium-231	UI	0.00	+/-0.584	1.11	0.521	+/-0.713		pCi/g						
Radium-226		0.796	+/-0.197	0.166	0.0759	+/-0.209		pCi/g						
Radium-228		0.968	+/-0.292	0.269	0.117	+/-0.325		pCi/g						
Thallium-208		0.327	+/-0.0832	0.0683	0.0305	+/-0.0878		pCi/g						
Tin-126	U	0.0631	+/-0.160	0.203	0.0971	+/-0.161		pCi/g						

Rad Gas Flow Proportional Counting

GFPC, Gross A-B, solid "Dry Weight Corrected"

Alpha		15.6	+/-3.77	3.82	1.65	+/-4.89	4.00	pCi/g		JXB7	03/02/16	1649	1548369	2
Beta		24.4	+/-2.40	2.33	1.10	+/-4.24	10.0	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GI.-RAD-A-021	CXC1	02/26/16	1449	1547874

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300.4 5 2.3/Ga-01-R
2	EPA 900.0/SW846 9310/SM 7110B Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
---------------------------	------	----------	-----------	-------------------

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Technical Services
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Report Date: March 8, 2016

Contact: Ms. Laurie Losey
Project: Soil Radioisotopes

Client Sample ID: 4.5.A.R.5.2
Sample ID: 392062001

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.	
Surrogate/Tracer Recovery	Test												Batch ID	Recovery%	Acceptable Limits

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: January 5, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.6.1
 Sample ID: 387022019
 Matrix: Soil
 Collect Date: 01-DEC-15
 Receive Date: 08-DEC-15
 Collector: Client
 Moisture: 25.5%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids														
<i>ASTM D 2216 % Moisture "As Received"</i>														
Moisture		25.5						percent		DRS1	12/09/15	1328	1529597	1
Rad Gamma Spec Analysis														
<i>Gammuspec, Gamma, Solid "Dry Weight Corrected"</i>														
Actinium-227	U	-0.0441	+/-0.434	0.716	0.332	+/-0.435		pCi/g		RXF2	01/04/16	1002	1529718	2
Antimony-125	U	0.0221	+/-0.163	0.306	0.140	+/-0.164		pCi/g						
Bismuth-212	UI	0.00	+/-1.30	2.02	0.920	+/-1.48		pCi/g						
Bismuth-214		0.812	+/-0.214	0.228	0.103	+/-0.225		pCi/g						
Cesium-137		0.973	+/-0.158	0.126	0.0566	+/-0.177	0.100	pCi/g						
Cobalt-60	U	-0.0197	+/-0.0526	0.0984	0.0394	+/-0.0534		pCi/g						
Europium-154	U	0.102	+/-0.187	0.402	0.174	+/-0.193		pCi/g						
Lead-212		1.17	+/-0.180	0.166	0.0777	+/-0.213		pCi/g						
Lead-214		1.30	+/-0.270	0.464	0.223	+/-0.291		pCi/g						
Potassium-40		13.0	+/-1.88	0.970	0.387	+/-2.17		pCi/g						
Protactinium-231	U	0.746	+/-0.864	1.67	0.783	+/-0.942		pCi/g						
Radium-226		0.812	+/-0.214	0.228	0.103	+/-0.225		pCi/g						
Radium-228		1.07	+/-0.363	0.315	0.130	+/-0.381		pCi/g						
Thallium-208		0.376	+/-0.130	0.117	0.0527	+/-0.134		pCi/g						
Tin-126	UI	0.00	+/-0.131	0.170	0.0813	+/-0.133		pCi/g						
Rad Gas Flow Proportional Counting														
<i>GFPC, Gross A/B, solid "Dry Weight Corrected"</i>														
Alpha		8.64	+/-3.53	3.92	1.55	+/-3.90	4.00	pCi/g		JXB7	01/02/16	1452	1532750	3
Beta		23.9	+/-3.97	4.24	1.96	+/-5.22	10.0	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DRS1	12/09/15	1328	1529597

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE HASL 300, 4.5 2.3/Ga-01-R
3	EPA 900.0/SW846 9310/SM 7110B Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
---------------------------	------	----------	-----------	-------------------

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Report Date: January 5, 2016

Contact: Ms. Laurie Losey
Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.6.1
Sample ID: 387022019

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lo	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.	
Surrogate/Tracer Recovery	Test												Batch ID	Recovery%	Acceptable Limits

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Technical Services
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: March 8, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Client Sample ID: 4.5.A.R.6.2
 Sample ID: 392062002
 Matrix: Soil
 Collect Date: 01-DEC-15
 Receive Date: 25-FEB-16
 Collector: Client
 Moisture: 24.1%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gamma with Ingrowth "Dry Weight Corrected"</i>														
Actinium-227	U	-0.0186	+/-0.259	0.492	0.231	+/-0.260		pCi/g		MXR1	03/07/16	1406	1547923	1
Antimony-125	U	-0.00937	+/-0.108	0.198	0.0915	+/-0.108		pCi/g						
Bismuth-212		0.997	+/-0.690	1.05	0.476	+/-0.697		pCi/g						
Bismuth-214		0.940	+/-0.172	0.131	0.0594	+/-0.188		pCi/g						
Cesium-137		0.631	+/-0.0869	0.0675	0.0304	+/-0.100	0.100	pCi/g						
Cobalt-60	U	-0.0138	+/-0.0374	0.0694	0.0293	+/-0.0379		pCi/g						
Europtium-154	U	-0.0732	+/-0.133	0.230	0.101	+/-0.137		pCi/g						
Lead-212		1.22	+/-0.132	0.106	0.0498	+/-0.168		pCi/g						
Lead-214		1.03	+/-0.182	0.325	0.158	+/-0.201		pCi/g						
Potassium-40		13.2	+/-1.42	0.729	0.313	+/-1.82		pCi/g						
Protactinium-231	U	0.381	+/-0.544	0.972	0.456	+/-0.577		pCi/g						
Radium-226		0.940	+/-0.172	0.131	0.0594	+/-0.188		pCi/g						
Radium-228		1.37	+/-0.296	0.351	0.161	+/-0.357		pCi/g						
Thallium-208		0.417	+/-0.0772	0.0629	0.0284	+/-0.0844		pCi/g						
Tin-126	UI	0.00	+/-0.112	0.125	0.0593	+/-0.113		pCi/g						

Rad Gas Flow Proportional Counting

GFPC, Gross A/B, solid "Dry Weight Corrected"

Alpha		13.0	+/-3.43	3.64	1.57	+/-4.25	4.00	pCi/g		JXB7	03/02/16	1637	1548369	2
Beta		22.1	+/-3.30	4.12	1.97	+/-4.53	10.0	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	02/26/16	1449	1547874

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 900 0/SW846 9310/SM 7110B Modified

Surrogate/Tracer Recovery Test

Batch ID Recovery% Acceptable Limits

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Technical Services
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Report Date: March 8, 2016

Contact: Ms. Laurie Losey
Project: Soil Radioisotopes

Client Sample ID: 4.5.A.R.6.2
Sample ID: 392062002

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Surrogate/Tracer	Recovery	Test						Batch ID	Recovery%	Acceptable Limits				

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: January 5, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.7.1
 Sample ID: 387022020
 Matrix: Soil
 Collect Date: 01-DEC-15
 Receive Date: 08-DEC-15
 Collector: Client
 Moisture: 32.2%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids														
<i>ASTM D 2216 % Moisture "As Received"</i>														
Moisture		32.2						percent		DRS1	12/09/15	1328	1529597	1
Rad Gamma Spec Analysis														
<i>Gammascpec, Gamma, Solid "Dry Weight Corrected"</i>														
Actinium-227	U	0.00702	+/-0.354	0.645	0.303	+/-0.354		pCi/g		RXF2	01/04/16	1002	1529718	2
Antimony-125	U	0.0224	+/-0.127	0.233	0.107	+/-0.128		pCi/g						
Bismuth-212	UI	0.00	+/-0.863	1.35	0.614	+/-1.03		pCi/g						
Bismuth-214		1.00	+/-0.207	0.148	0.0663	+/-0.226		pCi/g						
Cesium-137		0.784	+/-0.125	0.0836	0.0375	+/-0.144	0.100	pCi/g						
Cobalt-60	U	-0.0222	+/-0.045	0.0817	0.034	+/-0.0462		pCi/g						
Europium-154	UI	0.00	+/-0.163	0.343	0.153	+/-0.186		pCi/g						
Lead-212		1.10	+/-0.150	0.147	0.0694	+/-0.182		pCi/g						
Lead-214		1.04	+/-0.210	0.380	0.184	+/-0.230		pCi/g						
Potassium-40		16.3	+/-1.84	0.764	0.313	+/-2.31		pCi/g						
Protactinium-231	UI	0.00	+/-0.888	1.17	0.546	+/-0.905		pCi/g						
Radium-226		1.00	+/-0.207	0.148	0.0663	+/-0.226		pCi/g						
Radium-228		1.19	+/-0.302	0.255	0.109	+/-0.355		pCi/g						
Thallium-208		0.171	+/-0.0914	0.0829	0.0375	+/-0.0927		pCi/g						
Tin-126	U	0.0224	+/-0.121	0.228	0.109	+/-0.121		pCi/g						
Rad Gas Flow Proportional Counting														
<i>GFPC, Gross A/B, solid "Dry Weight Corrected"</i>														
Alpha		10.4	+/-3.72	3.89	1.58	+/-4.28	4.00	pCi/g		JXB7	01/02/16	1517	1532750	3
Beta		22.1	+/-3.26	2.87	1.29	+/-4.51	10.0	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DRS1	12/09/15	1328	1529597

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE HASL 300, 4 5 2 3/Ga-01-R
3	EPA 900.0/SW846 9310/SM 7110B Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
---------------------------	------	----------	-----------	-------------------

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Corporation
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228

Report Date: January 5, 2016

Contact: Ms. Laurie Losey
Project: Soil Radioisotopes

Client Sample ID: 4.5A.R.7.1
Sample ID: 387022020

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.	
Surrogate/Tracer Recovery	Test												Batch ID	Recovery%	Acceptable Limits

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Technical Services
 Address : 15 Hazelwood Drive
 Suite 112
 Buffalo, New York 14228

Report Date: March 8, 2016

Contact: Ms. Laurie Losey
 Project: Soil Radioisotopes

Client Sample ID: 4.5.A.R.7.2
 Sample ID: 392062003
 Matrix: Soil
 Collect Date: 01-DEC-15
 Receive Date: 25-FEB-16
 Collector: Client
 Moisture: 24.1%

Project: MJWC00115
 Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
<i>Gamma with Ingrowth "Dry Weight Corrected"</i>														
Actinium-227	U	-0.204	+/-0.262	0.461	0.213	+/-0.279		pCi/g		MXR1	03/07/16	1407	1547923	1
Antimony-125	U	-0.0478	+/-0.109	0.191	0.0874	+/-0.111		pCi/g						
Bismuth-212	UI	0.00	+/-0.791	1.53	0.711	+/-1.19		pCi/g						
Bismuth-214		0.971	+/-0.152	0.136	0.0612	+/-0.172		pCi/g						
Cesium-137		0.693	+/-0.0895	0.0764	0.0344	+/-0.106	0.100	pCi/g						
Cobalt-60	U	0.00143	+/-0.0463	0.0913	0.0395	+/-0.0463		pCi/g						
Europium-154	U	-0.0804	+/-0.130	0.229	0.0979	+/-0.135		pCi/g						
Lead-212		1.18	+/-0.134	0.113	0.0529	+/-0.170		pCi/g						
Lead-214		1.16	+/-0.215	0.355	0.172	+/-0.237		pCi/g						
Potassium-40		17.4	+/-1.73	0.729	0.304	+/-2.30		pCi/g						
Protactinium-231	UI	0.00	+/-0.632	0.945	0.439	+/-0.650		pCi/g						
Radium-226		0.971	+/-0.152	0.136	0.0612	+/-0.172		pCi/g						
Radium-228		0.913	+/-0.267	0.320	0.144	+/-0.301		pCi/g						
Thallium-208		0.334	+/-0.0903	0.0765	0.0348	+/-0.0945		pCi/g						
Tin-126	UI	0.00	+/-0.148	0.139	0.0661	+/-0.151		pCi/g						

Rad Gas Flow Proportional Counting

GFPC, Gross A-B, solid "Dry Weight Corrected"

Alpha		13.4	+/-3.31	3.55	1.56	+/-4.24	4.00	pCi/g		JXB7	03/02/16	1649	1548369	2
Beta		23.2	+/-2.76	2.88	1.36	+/-4.49	10.0	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	02/26/16	1449	1547874

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	EPA 900.0/SW846.9310/SM 7110B Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
---------------------------	------	----------	-----------	-------------------

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MJW Technical Services
Address : 15 Hazelwood Drive
Suite 112
Buffalo, New York 14228
Contact: Ms. Laurie Losey
Project: Soil Radioisotopes
Client Sample ID: 4.5.A.R.7.2
Sample ID: 392062003

Report Date: March 8, 2016

Project: MJWC00115
Client ID: MJWC001

Parameter	Qualifier	Result	Uncertainty	MDC	Lc	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.	
Surrogate/Tracer	Recovery	Test											Batch ID	Recovery%	Acceptable Limits

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).