

Apex Labs

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Saturday, April 30, 2016

Rob Ede
Hahn and Associates
434 NW 6th Ave. Suite 203
Portland, OR 97209

RE: Siltronic RI-Doane Creek / 5237-10dc

Enclosed are the results of analyses for work order A6C1124, which was received by the laboratory on 3/30/2016 at 11:49:00AM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

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Philip Nerenberg, Lab Director

Hahn and Associates

434 NW 6th Ave. Suite 203
 Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:
 04/30/16 22:21

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
5237-160329-DC-EMB010G	A6C1124-01	Soil	03/29/16 10:15	03/30/16 11:49
5237-160329-DC-EMB010	A6C1124-02	Soil	03/29/16 10:15	03/30/16 11:49
5237-160329-DC-EMB005G	A6C1124-03	Soil	03/29/16 10:35	03/30/16 11:49
5237-160329-DC-EMB005	A6C1124-04	Soil	03/29/16 10:35	03/30/16 11:49
5237-160329-DC-EMB004G	A6C1124-05	Soil	03/29/16 11:15	03/30/16 11:49
5237-160329-DC-EMB004	A6C1124-06	Soil	03/29/16 11:15	03/30/16 11:49
5237-160329-DC-EMB001G	A6C1124-07	Soil	03/29/16 12:00	03/30/16 11:49
5237-160329-DC-EMB001	A6C1124-08	Soil	03/29/16 12:00	03/30/16 11:49
5237-160329-DC-EMB013G	A6C1124-09	Soil	03/29/16 13:15	03/30/16 11:49
5237-160329-DC-EMB013	A6C1124-10	Soil	03/29/16 13:15	03/30/16 11:49
5237-160329-DC-EMB014G	A6C1124-11	Soil	03/29/16 13:40	03/30/16 11:49
5237-160329-DC-EMB014	A6C1124-12	Soil	03/29/16 13:40	03/30/16 11:49
5237-160329-DC-EMB017G	A6C1124-13	Soil	03/29/16 14:25	03/30/16 11:49
5237-160329-DC-EMB017	A6C1124-14	Soil	03/29/16 14:25	03/30/16 11:49
5237-160329-DC-EMB020G	A6C1124-15	Soil	03/29/16 15:10	03/30/16 11:49
5237-160329-DC-EMB020	A6C1124-16	Soil	03/29/16 15:10	03/30/16 11:49

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB010 (A6C1124-02)			Matrix: Soil		Batch: 6031026			
Diesel	15.2	12.6	25.2	mg/kg dry	1	04/01/16 02:05	NWTPH-Dx	J
Oil	251	25.2	50.4	"	"	"	"	F-03
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 97 %</i>		<i>Limits: 50-150 %</i>		"	
5237-160329-DC-EMB005 (A6C1124-04)			Matrix: Soil		Batch: 6031026			
Diesel	ND	11.5	25.0	mg/kg dry	1	04/01/16 02:45	NWTPH-Dx	
Oil	ND	23.0	50.0	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 89 %</i>		<i>Limits: 50-150 %</i>		"	
5237-160329-DC-EMB004 (A6C1124-06)			Matrix: Soil		Batch: 6031026			
Diesel	ND	12.9	25.8	mg/kg dry	1	04/01/16 03:05	NWTPH-Dx	
Oil	ND	25.8	51.6	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 92 %</i>		<i>Limits: 50-150 %</i>		"	
5237-160329-DC-EMB001 (A6C1124-08)			Matrix: Soil		Batch: 6031010			
Diesel	19.7	11.5	25.0	mg/kg dry	1	04/01/16 03:45	NWTPH-Dx	J
Oil	37.0	23.1	50.0	"	"	"	"	J
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 96 %</i>		<i>Limits: 50-150 %</i>		"	
5237-160329-DC-EMB013 (A6C1124-10)			Matrix: Soil		Batch: 6031010			
Diesel	18.9	12.5	25.1	mg/kg dry	1	04/01/16 04:04	NWTPH-Dx	J
Oil	76.5	25.1	50.1	"	"	"	"	F-03
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 96 %</i>		<i>Limits: 50-150 %</i>		"	
5237-160329-DC-EMB014 (A6C1124-12)			Matrix: Soil		Batch: 6031010			
Diesel	15.1	14.0	28.1	mg/kg dry	1	04/01/16 04:25	NWTPH-Dx	J
Oil	28.7	28.1	56.1	"	"	"	"	J
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 92 %</i>		<i>Limits: 50-150 %</i>		"	
5237-160329-DC-EMB017 (A6C1124-14)			Matrix: Soil		Batch: 6031010			
Diesel	ND	12.4	25.0	mg/kg dry	1	04/01/16 04:44	NWTPH-Dx	
Oil	ND	24.8	50.0	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 93 %</i>		<i>Limits: 50-150 %</i>		"	
5237-160329-DC-EMB020 (A6C1124-16)			Matrix: Soil		Batch: 6031010			
Diesel	ND	13.7	27.5	mg/kg dry	1	04/01/16 05:04	NWTPH-Dx	
Oil	ND	27.5	54.9	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 85 %</i>		<i>Limits: 50-150 %</i>		"	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting		Units	Dilution	Date Analyzed	Method	Notes
			Limit						
5237-160329-DC-EMB010G (A6C1124-01)			Matrix: Soil		Batch: 6031000				
Gasoline Range Organics	ND	4.29	8.58		mg/kg dry	50	03/31/16 22:02	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			Recovery: 87 %		Limits: 50-150 %	1	"	"	
<i>1,4-Difluorobenzene (Sur)</i>			88 %		Limits: 50-150 %	"	"	"	
5237-160329-DC-EMB005G (A6C1124-03)			Matrix: Soil		Batch: 6031000				
Gasoline Range Organics	ND	4.16	8.31		mg/kg dry	50	03/31/16 22:52	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			Recovery: 91 %		Limits: 50-150 %	1	"	"	
<i>1,4-Difluorobenzene (Sur)</i>			89 %		Limits: 50-150 %	"	"	"	
5237-160329-DC-EMB004G (A6C1124-05)			Matrix: Soil		Batch: 6031000				
Gasoline Range Organics	ND	4.64	9.28		mg/kg dry	50	03/31/16 23:16	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			Recovery: 93 %		Limits: 50-150 %	1	"	"	
<i>1,4-Difluorobenzene (Sur)</i>			90 %		Limits: 50-150 %	"	"	"	
5237-160329-DC-EMB001G (A6C1124-07)			Matrix: Soil		Batch: 6031000				
Gasoline Range Organics	ND	3.79	7.57		mg/kg dry	50	03/31/16 23:41	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			Recovery: 92 %		Limits: 50-150 %	1	"	"	
<i>1,4-Difluorobenzene (Sur)</i>			91 %		Limits: 50-150 %	"	"	"	
5237-160329-DC-EMB013G (A6C1124-09)			Matrix: Soil		Batch: 6031000				
Gasoline Range Organics	ND	3.93	7.86		mg/kg dry	50	04/01/16 00:05	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			Recovery: 93 %		Limits: 50-150 %	1	"	"	
<i>1,4-Difluorobenzene (Sur)</i>			90 %		Limits: 50-150 %	"	"	"	
5237-160329-DC-EMB014G (A6C1124-11)			Matrix: Soil		Batch: 6031000				
Gasoline Range Organics	ND	4.42	8.83		mg/kg dry	50	04/01/16 00:30	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			Recovery: 92 %		Limits: 50-150 %	1	"	"	
<i>1,4-Difluorobenzene (Sur)</i>			90 %		Limits: 50-150 %	"	"	"	
5237-160329-DC-EMB017G (A6C1124-13)			Matrix: Soil		Batch: 6031000				
Gasoline Range Organics	ND	4.19	8.38		mg/kg dry	50	04/01/16 00:54	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			Recovery: 91 %		Limits: 50-150 %	1	"	"	
<i>1,4-Difluorobenzene (Sur)</i>			91 %		Limits: 50-150 %	"	"	"	
5237-160329-DC-EMB020G (A6C1124-15)			Matrix: Soil		Batch: 6031000				
Gasoline Range Organics	ND	4.31	8.62		mg/kg dry	50	04/01/16 01:19	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			Recovery: 93 %		Limits: 50-150 %	1	"	"	
<i>1,4-Difluorobenzene (Sur)</i>			92 %		Limits: 50-150 %	"	"	"	

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 Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260B

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB010G (A6C1124-01)			Matrix: Soil		Batch: 6031000			
Benzene	ND	8.58	17.2	ug/kg dry	50	03/31/16 22:02	5035/8260B	
Toluene	ND	42.9	85.8	"	"	"	"	
Ethylbenzene	ND	21.4	42.9	"	"	"	"	
Xylenes, total	ND	64.3	129	"	"	"	"	
<i>Surrogate: Dibromofluoromethane (Surr)</i>			<i>Recovery: 93 %</i>	<i>Limits: 70-130 %</i>	1	"	"	
<i>1,4-Difluorobenzene (Surr)</i>			<i>95 %</i>	<i>Limits: 70-130 %</i>	"	"	"	
<i>Toluene-d8 (Surr)</i>			<i>99 %</i>	<i>Limits: 70-130 %</i>	50	"	"	
<i>4-Bromofluorobenzene (Surr)</i>			<i>101 %</i>	<i>Limits: 70-130 %</i>	1	"	"	
5237-160329-DC-EMB005G (A6C1124-03)			Matrix: Soil		Batch: 6031000			
Benzene	ND	8.31	16.6	ug/kg dry	50	03/31/16 22:52	5035/8260B	
Toluene	ND	41.6	83.1	"	"	"	"	
Ethylbenzene	ND	20.8	41.6	"	"	"	"	
Xylenes, total	ND	62.3	125	"	"	"	"	
<i>Surrogate: Dibromofluoromethane (Surr)</i>			<i>Recovery: 104 %</i>	<i>Limits: 70-130 %</i>	1	"	"	
<i>1,4-Difluorobenzene (Surr)</i>			<i>96 %</i>	<i>Limits: 70-130 %</i>	"	"	"	
<i>Toluene-d8 (Surr)</i>			<i>98 %</i>	<i>Limits: 70-130 %</i>	50	"	"	
<i>4-Bromofluorobenzene (Surr)</i>			<i>101 %</i>	<i>Limits: 70-130 %</i>	1	"	"	
5237-160329-DC-EMB004G (A6C1124-05)			Matrix: Soil		Batch: 6031000			
Benzene	ND	9.28	18.6	ug/kg dry	50	03/31/16 23:16	5035/8260B	
Toluene	ND	46.4	92.8	"	"	"	"	
Ethylbenzene	ND	23.2	46.4	"	"	"	"	
Xylenes, total	ND	69.6	139	"	"	"	"	
<i>Surrogate: Dibromofluoromethane (Surr)</i>			<i>Recovery: 97 %</i>	<i>Limits: 70-130 %</i>	1	"	"	
<i>1,4-Difluorobenzene (Surr)</i>			<i>97 %</i>	<i>Limits: 70-130 %</i>	"	"	"	
<i>Toluene-d8 (Surr)</i>			<i>98 %</i>	<i>Limits: 70-130 %</i>	50	"	"	
<i>4-Bromofluorobenzene (Surr)</i>			<i>99 %</i>	<i>Limits: 70-130 %</i>	1	"	"	
5237-160329-DC-EMB001G (A6C1124-07)			Matrix: Soil		Batch: 6031000			
Benzene	ND	7.57	15.1	ug/kg dry	50	03/31/16 23:41	5035/8260B	
Toluene	ND	37.9	75.7	"	"	"	"	
Ethylbenzene	ND	18.9	37.9	"	"	"	"	
Xylenes, total	ND	56.8	114	"	"	"	"	
<i>Surrogate: Dibromofluoromethane (Surr)</i>			<i>Recovery: 107 %</i>	<i>Limits: 70-130 %</i>	1	"	"	
<i>1,4-Difluorobenzene (Surr)</i>			<i>98 %</i>	<i>Limits: 70-130 %</i>	"	"	"	
<i>Toluene-d8 (Surr)</i>			<i>97 %</i>	<i>Limits: 70-130 %</i>	50	"	"	

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Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260B

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB001G (A6C1124-07)			Matrix: Soil		Batch: 6031000			
<i>Surrogate: 4-Bromofluorobenzene (Surr)</i>			<i>Recovery: 100 %</i>	<i>Limits: 70-130 %</i>	1	"	5035/8260B	
5237-160329-DC-EMB013G (A6C1124-09)			Matrix: Soil		Batch: 6031000			
Benzene	ND	7.86	15.7	ug/kg dry	50	04/01/16 00:05	5035/8260B	
Toluene	ND	39.3	78.6	"	"	"	"	
Ethylbenzene	ND	19.6	39.3	"	"	"	"	
Xylenes, total	ND	58.9	118	"	"	"	"	
<i>Surrogate: Dibromofluoromethane (Surr)</i>			<i>Recovery: 106 %</i>	<i>Limits: 70-130 %</i>	1	"	"	
<i>1,4-Difluorobenzene (Surr)</i>			<i>98 %</i>	<i>Limits: 70-130 %</i>	"	"	"	
<i>Toluene-d8 (Surr)</i>			<i>98 %</i>	<i>Limits: 70-130 %</i>	50	"	"	
<i>4-Bromofluorobenzene (Surr)</i>			<i>100 %</i>	<i>Limits: 70-130 %</i>	1	"	"	
5237-160329-DC-EMB014G (A6C1124-11)			Matrix: Soil		Batch: 6031000			
Benzene	ND	8.83	17.7	ug/kg dry	50	04/01/16 00:30	5035/8260B	
Toluene	ND	44.2	88.3	"	"	"	"	
Ethylbenzene	ND	22.1	44.2	"	"	"	"	
Xylenes, total	ND	66.2	132	"	"	"	"	
<i>Surrogate: Dibromofluoromethane (Surr)</i>			<i>Recovery: 105 %</i>	<i>Limits: 70-130 %</i>	1	"	"	
<i>1,4-Difluorobenzene (Surr)</i>			<i>97 %</i>	<i>Limits: 70-130 %</i>	"	"	"	
<i>Toluene-d8 (Surr)</i>			<i>97 %</i>	<i>Limits: 70-130 %</i>	50	"	"	
<i>4-Bromofluorobenzene (Surr)</i>			<i>100 %</i>	<i>Limits: 70-130 %</i>	1	"	"	
5237-160329-DC-EMB017G (A6C1124-13)			Matrix: Soil		Batch: 6031000			
Benzene	ND	8.38	16.8	ug/kg dry	50	04/01/16 00:54	5035/8260B	
Toluene	ND	41.9	83.8	"	"	"	"	
Ethylbenzene	ND	20.9	41.9	"	"	"	"	
Xylenes, total	ND	62.8	126	"	"	"	"	
<i>Surrogate: Dibromofluoromethane (Surr)</i>			<i>Recovery: 109 %</i>	<i>Limits: 70-130 %</i>	1	"	"	
<i>1,4-Difluorobenzene (Surr)</i>			<i>98 %</i>	<i>Limits: 70-130 %</i>	"	"	"	
<i>Toluene-d8 (Surr)</i>			<i>97 %</i>	<i>Limits: 70-130 %</i>	50	"	"	
<i>4-Bromofluorobenzene (Surr)</i>			<i>98 %</i>	<i>Limits: 70-130 %</i>	1	"	"	
5237-160329-DC-EMB020G (A6C1124-15)			Matrix: Soil		Batch: 6031000			
Benzene	ND	8.62	17.2	ug/kg dry	50	04/01/16 01:19	5035/8260B	
Toluene	ND	43.1	86.2	"	"	"	"	
Ethylbenzene	ND	21.6	43.1	"	"	"	"	
Xylenes, total	ND	64.7	129	"	"	"	"	
<i>Surrogate: Dibromofluoromethane (Surr)</i>			<i>Recovery: 103 %</i>	<i>Limits: 70-130 %</i>	1	"	"	

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 Project Number: 5237-10dc
 Project Manager: Rob Ede


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ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260B

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB020G (A6C1124-15)			Matrix: Soil		Batch: 6031000			
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 99 %</i>	<i>Limits: 70-130 %</i>	1	"	5035/8260B	
<i>Toluene-d8 (Surr)</i>			<i>97 %</i>	<i>Limits: 70-130 %</i>	50	"	"	
<i>4-Bromofluorobenzene (Surr)</i>			<i>98 %</i>	<i>Limits: 70-130 %</i>	1	"	"	

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ANALYTICAL SAMPLE RESULTS

Anions by EPA 300.0/9056A (Ion Chromatography)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160329-DC-EMB010 (A6C1124-02)			Matrix: Soil					
Batch: 6040118								
Sulfate	54.6	13.8	13.8	mg/kg dry	1	04/08/16 19:47	EPA 9056A	
5237-160329-DC-EMB005 (A6C1124-04)			Matrix: Soil					
Batch: 6040118								
Sulfate	ND	13.6	13.6	mg/kg dry	1	04/08/16 20:52	EPA 9056A	
5237-160329-DC-EMB004 (A6C1124-06)			Matrix: Soil					
Batch: 6040118								
Sulfate	ND	14.0	14.0	mg/kg dry	1	04/08/16 21:14	EPA 9056A	
5237-160329-DC-EMB001 (A6C1124-08)			Matrix: Soil					
Batch: 6040118								
Sulfate	ND	13.4	13.4	mg/kg dry	1	04/08/16 22:18	EPA 9056A	
5237-160329-DC-EMB013 (A6C1124-10)			Matrix: Soil					
Batch: 6040118								
Sulfate	ND	13.4	13.4	mg/kg dry	1	04/08/16 22:40	EPA 9056A	
5237-160329-DC-EMB014 (A6C1124-12)			Matrix: Soil					
Batch: 6040118								
Sulfate	ND	14.2	14.2	mg/kg dry	1	04/08/16 23:01	EPA 9056A	
5237-160329-DC-EMB017 (A6C1124-14)			Matrix: Soil					
Batch: 6040118								
Sulfate	ND	13.4	13.4	mg/kg dry	1	04/08/16 23:23	EPA 9056A	
5237-160329-DC-EMB020 (A6C1124-16)			Matrix: Soil					
Batch: 6040118								
Sulfate	ND	14.2	14.2	mg/kg dry	1	04/09/16 00:27	EPA 9056A	

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Philip Nerenberg, Lab Director


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Hahn and Associates 434 NW 6th Ave. Suite 203 Portland, OR 97209	Project: Siltronic RI-Doane Creek Project Number: 5237-10dc Project Manager: Rob Ede	Reported: 04/30/16 22:21
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ANALYTICAL SAMPLE RESULTS

Cyanide - Total (Non-aqueous)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160329-DC-EMB010 (A6C1124-02)			Matrix: Soil	Batch: 6040170				
Cyanide, Total	0.332	0.139	0.139	mg/kg dry	1	04/07/16 15:50	EPA 9013M/9014	
5237-160329-DC-EMB005 (A6C1124-04)			Matrix: Soil	Batch: 6040170				
Cyanide, Total	ND	0.134	0.134	mg/kg dry	1	04/07/16 15:52	EPA 9013M/9014	
5237-160329-DC-EMB004 (A6C1124-06)			Matrix: Soil	Batch: 6040170				
Cyanide, Total	0.152	0.138	0.138	mg/kg dry	1	04/07/16 15:54	EPA 9013M/9014	
5237-160329-DC-EMB001 (A6C1124-08)			Matrix: Soil	Batch: 6040170				
Cyanide, Total	ND	0.136	0.136	mg/kg dry	1	04/07/16 15:56	EPA 9013M/9014	
5237-160329-DC-EMB013 (A6C1124-10)			Matrix: Soil	Batch: 6040170				
Cyanide, Total	ND	0.137	0.137	mg/kg dry	1	04/07/16 15:58	EPA 9013M/9014	
5237-160329-DC-EMB014 (A6C1124-12)			Matrix: Soil	Batch: 6040170				
Cyanide, Total	ND	0.139	0.139	mg/kg dry	1	04/07/16 16:06	EPA 9013M/9014	
5237-160329-DC-EMB017 (A6C1124-14)			Matrix: Soil	Batch: 6040170				
Cyanide, Total	ND	0.135	0.135	mg/kg dry	1	04/07/16 16:08	EPA 9013M/9014	
5237-160329-DC-EMB020 (A6C1124-16)			Matrix: Soil	Batch: 6040170				
Cyanide, Total	ND	0.143	0.143	mg/kg dry	1	04/07/16 16:10	EPA 9013M/9014	



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Project: **Siltronic RI-Doane Creek**
 Project Number: 5237-10dc
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 04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB010 (A6C1124-02RE1)			Matrix: Soil		Batch: 6031018			
Acenaphthene	173	7.37	14.8	ug/kg dry	4	04/01/16 14:06	EPA 8270D	
Acenaphthylene	63.7	7.37	14.8	"	"	"	"	
Anthracene	228	7.37	14.8	"	"	"	"	
Benz(a)anthracene	1360	7.37	14.8	"	"	"	"	
Benzo(a)pyrene	1950	11.1	22.2	"	"	"	"	
Benzo(b)fluoranthene	2550	11.1	22.2	"	"	"	"	M-02
Benzo(k)fluoranthene	936	11.1	22.2	"	"	"	"	M-02
Benzo(g,h,i)perylene	1550	7.37	14.8	"	"	"	"	
Chrysene	1570	7.37	14.8	"	"	"	"	
Dibenz(a,h)anthracene	304	7.37	14.8	"	"	"	"	
Fluoranthene	2060	7.37	14.8	"	"	"	"	
Fluorene	115	7.37	14.8	"	"	"	"	
Indeno(1,2,3-cd)pyrene	1500	7.37	14.8	"	"	"	"	
1-Methylnaphthalene	19.5	14.8	29.5	"	"	"	"	J
2-Methylnaphthalene	28.6	14.8	29.5	"	"	"	"	J
Naphthalene	95.6	14.8	29.5	"	"	"	"	B-02
Phenanthrene	1010	7.37	14.8	"	"	"	"	
Pyrene	2110	7.37	14.8	"	"	"	"	
Carbazole	187	11.1	22.2	"	"	"	"	
Dibenzofuran	54.3	7.37	14.8	"	"	"	"	
4-Chloro-3-methylphenol	ND	73.7	148	"	"	"	"	
2-Chlorophenol	ND	37.0	73.7	"	"	"	"	
2,4-Dichlorophenol	ND	37.0	73.7	"	"	"	"	
2,4-Dimethylphenol	ND	37.0	73.7	"	"	"	"	
2,4-Dinitrophenol	ND	185	370	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	185	370	"	"	"	"	
2-Methylphenol	ND	18.5	37.0	"	"	"	"	
3+4-Methylphenol(s)	ND	18.5	37.0	"	"	"	"	
2-Nitrophenol	ND	73.7	148	"	"	"	"	
4-Nitrophenol	ND	73.7	148	"	"	"	"	
Pentachlorophenol (PCP)	ND	73.7	148	"	"	"	"	
Phenol	19.7	14.8	29.5	"	"	"	"	J
2,3,4,6-Tetrachlorophenol	ND	37.0	73.7	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	37.0	73.7	"	"	"	"	
2,4,5-Trichlorophenol	ND	37.0	73.7	"	"	"	"	
2,4,6-Trichlorophenol	ND	37.0	73.7	"	"	"	"	

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Philip Nerenberg, Lab Director

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

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ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Units	Dilution	Date Analyzed	Method	Notes
			Limit	Matrix: Soil					
5237-160329-DC-EMB010 (A6C1124-02RE1)			Matrix: Soil		Batch: 6031018				
Bis(2-ethylhexyl)phthalate	ND	111	222		ug/kg dry	4	"	EPA 8270D	
Butyl benzyl phthalate	ND	73.7	148		"	"	"	"	
Diethylphthalate	ND	73.7	148		"	"	"	"	
Dimethylphthalate	ND	73.7	148		"	"	"	"	
Di-n-butylphthalate	ND	73.7	148		"	"	"	"	
Di-n-octyl phthalate	ND	73.7	148		"	"	"	"	
N-Nitrosodimethylamine	ND	18.5	37.0		"	"	"	"	
N-Nitroso-di-n-propylamine	ND	18.5	37.0		"	"	"	"	
N-Nitrosodiphenylamine	ND	18.5	37.0		"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	18.5	37.0		"	"	"	"	
Bis(2-Chloroethyl) ether	ND	18.5	37.0		"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	18.5	37.0		"	"	"	"	
Hexachlorobenzene	ND	7.37	14.8		"	"	"	"	
Hexachlorobutadiene	ND	18.5	37.0		"	"	"	"	
Hexachlorocyclopentadiene	ND	37.0	73.7		"	"	"	"	
Hexachloroethane	ND	18.5	37.0		"	"	"	"	
2-Chloronaphthalene	ND	7.37	14.8		"	"	"	"	
1,2-Dichlorobenzene	ND	18.5	37.0		"	"	"	"	
1,3-Dichlorobenzene	ND	18.5	37.0		"	"	"	"	
1,4-Dichlorobenzene	ND	18.5	37.0		"	"	"	"	
1,2,4-Trichlorobenzene	ND	18.5	37.0		"	"	"	"	
4-Bromophenyl phenyl ether	ND	18.5	37.0		"	"	"	"	
4-Chlorophenyl phenyl ether	ND	18.5	37.0		"	"	"	"	
Aniline	ND	37.0	73.7		"	"	"	"	
4-Chloroaniline	ND	18.5	37.0		"	"	"	"	
2-Nitroaniline	ND	148	295		"	"	"	"	
3-Nitroaniline	ND	148	295		"	"	"	"	
4-Nitroaniline	ND	148	295		"	"	"	"	
Nitrobenzene	ND	73.7	148		"	"	"	"	
2,4-Dinitrotoluene	ND	73.7	148		"	"	"	"	
2,6-Dinitrotoluene	ND	73.7	148		"	"	"	"	
Benzoic acid	ND	925	1850		"	"	"	"	
Benzyl alcohol	ND	37.0	73.7		"	"	"	"	
Isophorone	ND	18.5	37.0		"	"	"	"	
Azobenzene (1,2-DPH)	ND	18.5	37.0		"	"	"	"	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

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ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting			Dilution	Date Analyzed	Method	Notes
			Limit	Units					
5237-160329-DC-EMB010 (A6C1124-02RE1)			Matrix: Soil		Batch: 6031018				
Bis(2-Ethylhexyl) adipate	ND	185	370	ug/kg dry	4	"	EPA 8270D		
3,3'-Dichlorobenzidine	ND	73.7	148	"	"	"	"		
1,2-Dinitrobenzene	ND	185	370	"	"	"	"		
1,3-Dinitrobenzene	ND	185	370	"	"	"	"		
1,4-Dinitrobenzene	ND	185	370	"	"	"	"		
Pyridine	ND	37.0	73.7	"	"	"	"		
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>			<i>Recovery: 73 %</i>		<i>Limits: 37-122 %</i>		"	"	
<i>2-Fluorobiphenyl (Surr)</i>			<i>81 %</i>		<i>Limits: 44-115 %</i>		"	"	
<i>Phenol-d6 (Surr)</i>			<i>79 %</i>		<i>Limits: 33-122 %</i>		"	"	
<i>p-Terphenyl-d14 (Surr)</i>			<i>101 %</i>		<i>Limits: 54-127 %</i>		"	"	
<i>2-Fluorophenol (Surr)</i>			<i>74 %</i>		<i>Limits: 35-115 %</i>		"	"	
<i>2,4,6-Tribromophenol (Surr)</i>			<i>110 %</i>		<i>Limits: 39-132 %</i>		"	"	
5237-160329-DC-EMB005 (A6C1124-04RE2)			Matrix: Soil		Batch: 6031018				
Acenaphthene	7.49	1.82	3.66	ug/kg dry	1	04/08/16 15:59	EPA 8270D		
Acenaphthylene	ND	1.82	3.66	"	"	"	"		
Anthracene	7.39	1.82	3.66	"	"	"	"		
Benz(a)anthracene	55.1	1.82	3.66	"	"	"	"		
Benzo(a)pyrene	80.2	2.74	5.48	"	"	"	"		
Benzo(b)fluoranthene	109	2.74	5.48	"	"	"	"	M-02	
Benzo(k)fluoranthene	36.4	2.74	5.48	"	"	"	"	M-02	
Benzo(g,h,i)perylene	66.4	1.82	3.66	"	"	"	"		
Chrysene	65.3	1.82	3.66	"	"	"	"		
Dibenz(a,h)anthracene	13.3	1.82	3.66	"	"	"	"		
Fluoranthene	89.4	1.82	3.66	"	"	"	"		
Fluorene	3.71	1.82	3.66	"	"	"	"		
Indeno(1,2,3-cd)pyrene	62.5	1.82	3.66	"	"	"	"		
1-Methylnaphthalene	ND	3.66	7.30	"	"	"	"		
2-Methylnaphthalene	ND	3.66	7.30	"	"	"	"		
Naphthalene	ND	3.66	7.30	"	"	"	"		
Phenanthrene	39.2	1.82	3.66	"	"	"	"		
Pyrene	88.3	1.82	3.66	"	"	"	"		
Carbazole	8.42	2.74	5.48	"	"	"	"		
Dibenzofuran	1.95	1.82	3.66	"	"	"	"	J	
4-Chloro-3-methylphenol	ND	18.2	36.6	"	"	"	"		
2-Chlorophenol	ND	9.14	18.2	"	"	"	"		

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

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ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB005 (A6C1124-04RE2)			Matrix: Soil		Batch: 6031018			
2,4-Dichlorophenol	ND	9.14	18.2	ug/kg dry	1	"	EPA 8270D	
2,4-Dimethylphenol	ND	9.14	18.2	"	"	"	"	
2,4-Dinitrophenol	ND	45.6	91.4	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	45.6	91.4	"	"	"	"	
2-Methylphenol	ND	4.56	9.14	"	"	"	"	
3+4-Methylphenol(s)	ND	4.56	9.14	"	"	"	"	
2-Nitrophenol	ND	18.2	36.6	"	"	"	"	
4-Nitrophenol	ND	18.2	36.6	"	"	"	"	
Pentachlorophenol (PCP)	ND	18.2	36.6	"	"	"	"	
Phenol	ND	7.30	7.30	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	9.14	18.2	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	9.14	18.2	"	"	"	"	
2,4,5-Trichlorophenol	ND	9.14	18.2	"	"	"	"	
2,4,6-Trichlorophenol	ND	9.14	18.2	"	"	"	"	
Bis(2-ethylhexyl)phthalate	27.4	27.4	54.8	"	"	"	"	J
Butyl benzyl phthalate	ND	18.2	36.6	"	"	"	"	
Diethylphthalate	ND	18.2	36.6	"	"	"	"	
Dimethylphthalate	ND	18.2	36.6	"	"	"	"	
Di-n-butylphthalate	ND	18.2	36.6	"	"	"	"	
Di-n-octyl phthalate	ND	18.2	36.6	"	"	"	"	
N-Nitrosodimethylamine	ND	4.56	9.14	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	4.56	9.14	"	"	"	"	
N-Nitrosodiphenylamine	ND	4.56	9.14	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	4.56	9.14	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	4.56	9.14	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	4.56	9.14	"	"	"	"	
Hexachlorobenzene	ND	1.82	3.66	"	"	"	"	
Hexachlorobutadiene	ND	4.56	9.14	"	"	"	"	
Hexachlorocyclopentadiene	ND	9.14	18.2	"	"	"	"	
Hexachloroethane	ND	4.56	9.14	"	"	"	"	
2-Chloronaphthalene	ND	1.82	3.66	"	"	"	"	
1,2-Dichlorobenzene	ND	4.56	9.14	"	"	"	"	
1,3-Dichlorobenzene	ND	4.56	9.14	"	"	"	"	
1,4-Dichlorobenzene	ND	4.56	9.14	"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.56	9.14	"	"	"	"	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

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04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB005 (A6C1124-04RE2)			Matrix: Soil		Batch: 6031018			
4-Bromophenyl phenyl ether	ND	4.56	9.14	ug/kg dry	1	"	EPA 8270D	
4-Chlorophenyl phenyl ether	ND	4.56	9.14	"	"	"	"	
Aniline	ND	9.14	18.2	"	"	"	"	
4-Chloroaniline	ND	4.56	9.14	"	"	"	"	
2-Nitroaniline	ND	36.6	73.0	"	"	"	"	
3-Nitroaniline	ND	36.6	73.0	"	"	"	"	
4-Nitroaniline	ND	36.6	73.0	"	"	"	"	
Nitrobenzene	ND	18.2	36.6	"	"	"	"	
2,4-Dinitrotoluene	ND	18.2	36.6	"	"	"	"	
2,6-Dinitrotoluene	ND	18.2	36.6	"	"	"	"	
Benzoic acid	ND	229	456	"	"	"	"	
Benzyl alcohol	ND	9.14	18.2	"	"	"	"	
Isophorone	ND	4.56	9.14	"	"	"	"	
Azobenzene (1,2-DPH)	ND	4.56	9.14	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	45.6	91.4	"	"	"	"	
3,3'-Dichlorobenzidine	ND	18.2	36.6	"	"	"	"	
1,2-Dinitrobenzene	ND	45.6	91.4	"	"	"	"	
1,3-Dinitrobenzene	ND	45.6	91.4	"	"	"	"	
1,4-Dinitrobenzene	ND	45.6	91.4	"	"	"	"	
Pyridine	ND	9.14	18.2	"	"	"	"	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 85 %</i>		<i>Limits: 37-122 %</i>	"	"	"	
<i>2-Fluorobiphenyl (Surr)</i>		<i>87 %</i>		<i>Limits: 44-115 %</i>	"	"	"	
<i>Phenol-d6 (Surr)</i>		<i>89 %</i>		<i>Limits: 33-122 %</i>	"	"	"	
<i>p-Terphenyl-d14 (Surr)</i>		<i>93 %</i>		<i>Limits: 54-127 %</i>	"	"	"	
<i>2-Fluorophenol (Surr)</i>		<i>81 %</i>		<i>Limits: 35-115 %</i>	"	"	"	
<i>2,4,6-Tribromophenol (Surr)</i>		<i>99 %</i>		<i>Limits: 39-132 %</i>	"	"	"	

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Project: **Siltronic RI-Doane Creek**
 Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:
 04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB004 (A6C1124-06RE1)			Matrix: Soil		Batch: 6031018			
Acenaphthene	64.3	7.33	14.7	ug/kg dry	4	04/04/16 13:49	EPA 8270D	
Acenaphthylene	ND	7.33	14.7	"	"	"	"	
Anthracene	71.8	7.33	14.7	"	"	"	"	
Benz(a)anthracene	401	7.33	14.7	"	"	"	"	
Benzo(a)pyrene	561	11.0	22.1	"	"	"	"	
Benzo(b)fluoranthene	707	11.0	22.1	"	"	"	"	M-02
Benzo(k)fluoranthene	235	11.0	22.1	"	"	"	"	M-02
Benzo(g,h,i)perylene	426	7.33	14.7	"	"	"	"	
Chrysene	444	7.33	14.7	"	"	"	"	
Dibenz(a,h)anthracene	84.9	7.33	14.7	"	"	"	"	
Fluoranthene	639	7.33	14.7	"	"	"	"	
Fluorene	30.1	7.33	14.7	"	"	"	"	
Indeno(1,2,3-cd)pyrene	405	7.33	14.7	"	"	"	"	
1-Methylnaphthalene	ND	14.7	29.4	"	"	"	"	
2-Methylnaphthalene	ND	14.7	29.4	"	"	"	"	
Naphthalene	24.1	14.7	29.4	"	"	"	"	J
Phenanthrene	305	7.33	14.7	"	"	"	"	
Pyrene	627	7.33	14.7	"	"	"	"	
Carbazole	60.7	11.0	22.1	"	"	"	"	
Dibenzofuran	17.8	7.33	14.7	"	"	"	"	
4-Chloro-3-methylphenol	ND	73.3	147	"	"	"	"	
2-Chlorophenol	ND	36.8	73.3	"	"	"	"	
2,4-Dichlorophenol	ND	36.8	73.3	"	"	"	"	
2,4-Dimethylphenol	ND	36.8	73.3	"	"	"	"	
2,4-Dinitrophenol	ND	184	368	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	184	368	"	"	"	"	
2-Methylphenol	ND	18.4	36.8	"	"	"	"	
3+4-Methylphenol(s)	ND	18.4	36.8	"	"	"	"	
2-Nitrophenol	ND	73.3	147	"	"	"	"	
4-Nitrophenol	ND	73.3	147	"	"	"	"	
Pentachlorophenol (PCP)	ND	73.3	147	"	"	"	"	
Phenol	ND	14.7	29.4	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	36.8	73.3	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	36.8	73.3	"	"	"	"	
2,4,5-Trichlorophenol	ND	36.8	73.3	"	"	"	"	
2,4,6-Trichlorophenol	ND	36.8	73.3	"	"	"	"	

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Philip Nerenberg, Lab Director

Hahn and Associates

434 NW 6th Ave. Suite 203
Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Units	Dilution	Date Analyzed	Method	Notes
			Limit						
5237-160329-DC-EMB004 (A6C1124-06RE1)			Matrix: Soil		Batch: 6031018				
Bis(2-ethylhexyl)phthalate	ND	110	221		ug/kg dry	4	"	EPA 8270D	
Butyl benzyl phthalate	ND	73.3	147		"	"	"	"	
Diethylphthalate	ND	73.3	147		"	"	"	"	
Dimethylphthalate	ND	73.3	147		"	"	"	"	
Di-n-butylphthalate	ND	73.3	147		"	"	"	"	
Di-n-octyl phthalate	ND	73.3	147		"	"	"	"	
N-Nitrosodimethylamine	ND	18.4	36.8		"	"	"	"	
N-Nitroso-di-n-propylamine	ND	18.4	36.8		"	"	"	"	
N-Nitrosodiphenylamine	ND	18.4	36.8		"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	18.4	36.8		"	"	"	"	
Bis(2-Chloroethyl) ether	ND	18.4	36.8		"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	18.4	36.8		"	"	"	"	
Hexachlorobenzene	ND	7.33	14.7		"	"	"	"	
Hexachlorobutadiene	ND	18.4	36.8		"	"	"	"	
Hexachlorocyclopentadiene	ND	36.8	73.3		"	"	"	"	
Hexachloroethane	ND	18.4	36.8		"	"	"	"	
2-Chloronaphthalene	ND	7.33	14.7		"	"	"	"	
1,2-Dichlorobenzene	ND	18.4	36.8		"	"	"	"	
1,3-Dichlorobenzene	ND	18.4	36.8		"	"	"	"	
1,4-Dichlorobenzene	ND	18.4	36.8		"	"	"	"	
1,2,4-Trichlorobenzene	ND	18.4	36.8		"	"	"	"	
4-Bromophenyl phenyl ether	ND	18.4	36.8		"	"	"	"	
4-Chlorophenyl phenyl ether	ND	18.4	36.8		"	"	"	"	
Aniline	ND	36.8	73.3		"	"	"	"	
4-Chloroaniline	ND	18.4	36.8		"	"	"	"	
2-Nitroaniline	ND	147	294		"	"	"	"	
3-Nitroaniline	ND	147	294		"	"	"	"	
4-Nitroaniline	ND	147	294		"	"	"	"	
Nitrobenzene	ND	73.3	147		"	"	"	"	
2,4-Dinitrotoluene	ND	73.3	147		"	"	"	"	
2,6-Dinitrotoluene	ND	73.3	147		"	"	"	"	
Benzoic acid	ND	921	1840		"	"	"	"	
Benzyl alcohol	ND	36.8	73.3		"	"	"	"	
Isophorone	ND	18.4	36.8		"	"	"	"	
Azobenzene (1,2-DPH)	ND	18.4	36.8		"	"	"	"	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting			Date Analyzed	Method	Notes
			Limit	Units	Dilution			
5237-160329-DC-EMB004 (A6C1124-06RE1)			Matrix: Soil		Batch: 6031018			
Bis(2-Ethylhexyl) adipate	ND	184	368	ug/kg dry	4	"	EPA 8270D	
3,3'-Dichlorobenzidine	ND	73.3	147	"	"	"	"	
1,2-Dinitrobenzene	ND	184	368	"	"	"	"	
1,3-Dinitrobenzene	ND	184	368	"	"	"	"	
1,4-Dinitrobenzene	ND	184	368	"	"	"	"	
Pyridine	ND	36.8	73.3	"	"	"	"	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>			<i>Recovery: 82 %</i>		<i>Limits: 37-122 %</i>		"	"
<i>2-Fluorobiphenyl (Surr)</i>			<i>89 %</i>		<i>Limits: 44-115 %</i>		"	"
<i>Phenol-d6 (Surr)</i>			<i>85 %</i>		<i>Limits: 33-122 %</i>		"	"
<i>p-Terphenyl-d14 (Surr)</i>			<i>95 %</i>		<i>Limits: 54-127 %</i>		"	"
<i>2-Fluorophenol (Surr)</i>			<i>75 %</i>		<i>Limits: 35-115 %</i>		"	"
<i>2,4,6-Tribromophenol (Surr)</i>			<i>111 %</i>		<i>Limits: 39-132 %</i>		"	"
5237-160329-DC-EMB001 (A6C1124-08RE2)			Matrix: Soil		Batch: 6031018			
Acenaphthene	9.18	1.77	3.55	ug/kg dry	1	04/08/16 14:44	EPA 8270D	
Acenaphthylene	4.46	1.77	3.55	"	"	"	"	
Anthracene	11.6	1.77	3.55	"	"	"	"	
Benz(a)anthracene	77.7	1.77	3.55	"	"	"	"	
Benzo(a)pyrene	124	2.66	5.32	"	"	"	"	
Benzo(b)fluoranthene	157	2.66	5.32	"	"	"	"	M-02
Benzo(k)fluoranthene	58.1	2.66	5.32	"	"	"	"	M-02
Benzo(g,h,i)perylene	127	1.77	3.55	"	"	"	"	
Chrysene	106	1.77	3.55	"	"	"	"	
Dibenz(a,h)anthracene	19.5	1.77	3.55	"	"	"	"	
Fluoranthene	145	1.77	3.55	"	"	"	"	
Fluorene	4.26	1.77	3.55	"	"	"	"	
Indeno(1,2,3-cd)pyrene	106	1.77	3.55	"	"	"	"	
1-Methylnaphthalene	ND	3.55	7.09	"	"	"	"	
2-Methylnaphthalene	ND	3.55	7.09	"	"	"	"	
Naphthalene	14.9	3.55	7.09	"	"	"	"	
Phenanthrene	61.9	1.77	3.55	"	"	"	"	
Pyrene	174	1.77	3.55	"	"	"	"	
Carbazole	10.1	2.66	5.32	"	"	"	"	
Dibenzofuran	2.41	1.77	3.55	"	"	"	"	J
4-Chloro-3-methylphenol	ND	17.7	35.5	"	"	"	"	
2-Chlorophenol	ND	8.88	17.7	"	"	"	"	

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434 NW 6th Ave. Suite 203
 Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB001 (A6C1124-08RE2)			Matrix: Soil		Batch: 6031018			
2,4-Dichlorophenol	ND	8.88	17.7	ug/kg dry	1	"	EPA 8270D	
2,4-Dimethylphenol	ND	8.88	17.7	"	"	"	"	
2,4-Dinitrophenol	ND	44.3	88.8	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	44.3	88.8	"	"	"	"	
2-Methylphenol	ND	4.43	8.88	"	"	"	"	
3+4-Methylphenol(s)	ND	4.43	8.88	"	"	"	"	
2-Nitrophenol	ND	17.7	35.5	"	"	"	"	
4-Nitrophenol	ND	17.7	35.5	"	"	"	"	
Pentachlorophenol (PCP)	ND	17.7	35.5	"	"	"	"	
Phenol	ND	7.32	7.32	"	"	"	"	R-02
2,3,4,6-Tetrachlorophenol	ND	8.88	17.7	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	8.88	17.7	"	"	"	"	
2,4,5-Trichlorophenol	ND	8.88	17.7	"	"	"	"	
2,4,6-Trichlorophenol	ND	8.88	17.7	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	26.6	53.2	"	"	"	"	
Butyl benzyl phthalate	ND	17.7	35.5	"	"	"	"	
Diethylphthalate	ND	17.7	35.5	"	"	"	"	
Dimethylphthalate	ND	17.7	35.5	"	"	"	"	
Di-n-butylphthalate	ND	17.7	35.5	"	"	"	"	
Di-n-octyl phthalate	ND	17.7	35.5	"	"	"	"	
N-Nitrosodimethylamine	ND	4.43	8.88	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	4.43	8.88	"	"	"	"	
N-Nitrosodiphenylamine	ND	4.43	8.88	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	4.43	8.88	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	4.43	8.88	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	4.43	8.88	"	"	"	"	
Hexachlorobenzene	ND	1.77	3.55	"	"	"	"	
Hexachlorobutadiene	ND	4.43	8.88	"	"	"	"	
Hexachlorocyclopentadiene	ND	8.88	17.7	"	"	"	"	
Hexachloroethane	ND	4.43	8.88	"	"	"	"	
2-Chloronaphthalene	ND	1.77	3.55	"	"	"	"	
1,2-Dichlorobenzene	ND	4.43	8.88	"	"	"	"	
1,3-Dichlorobenzene	ND	4.43	8.88	"	"	"	"	
1,4-Dichlorobenzene	ND	4.43	8.88	"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.43	8.88	"	"	"	"	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB001 (A6C1124-08RE2)			Matrix: Soil		Batch: 6031018			
4-Bromophenyl phenyl ether	ND	4.43	8.88	ug/kg dry	1	"	EPA 8270D	
4-Chlorophenyl phenyl ether	ND	4.43	8.88	"	"	"	"	
Aniline	ND	8.88	17.7	"	"	"	"	
4-Chloroaniline	ND	8.88	8.88	"	"	"	"	
2-Nitroaniline	ND	35.5	70.9	"	"	"	"	
3-Nitroaniline	ND	35.5	70.9	"	"	"	"	
4-Nitroaniline	ND	35.5	70.9	"	"	"	"	
Nitrobenzene	ND	17.7	35.5	"	"	"	"	
2,4-Dinitrotoluene	ND	17.7	35.5	"	"	"	"	
2,6-Dinitrotoluene	ND	17.7	35.5	"	"	"	"	
Benzoic acid	ND	222	443	"	"	"	"	
Benzyl alcohol	39.8	8.88	17.7	"	"	"	"	
Isophorone	ND	4.43	8.88	"	"	"	"	
Azobenzene (1,2-DPH)	ND	4.43	8.88	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	44.3	88.8	"	"	"	"	
3,3'-Dichlorobenzidine	ND	17.7	35.5	"	"	"	"	
1,2-Dinitrobenzene	ND	44.3	88.8	"	"	"	"	
1,3-Dinitrobenzene	ND	44.3	88.8	"	"	"	"	
1,4-Dinitrobenzene	ND	44.3	88.8	"	"	"	"	
Pyridine	ND	8.88	17.7	"	"	"	"	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 77 %</i>		<i>Limits: 37-122 %</i>	"	"	"	
<i>2-Fluorobiphenyl (Surr)</i>		<i>78 %</i>		<i>Limits: 44-115 %</i>	"	"	"	
<i>Phenol-d6 (Surr)</i>		<i>75 %</i>		<i>Limits: 33-122 %</i>	"	"	"	
<i>p-Terphenyl-d14 (Surr)</i>		<i>80 %</i>		<i>Limits: 54-127 %</i>	"	"	"	
<i>2-Fluorophenol (Surr)</i>		<i>71 %</i>		<i>Limits: 35-115 %</i>	"	"	"	
<i>2,4,6-Tribromophenol (Surr)</i>		<i>85 %</i>		<i>Limits: 39-132 %</i>	"	"	"	

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Philip Nerenberg, Lab Director

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Hahn and Associates
 434 NW 6th Ave. Suite 203
 Portland, OR 97209

Project: **Siltronic RI-Doane Creek**
 Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:
 04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB013 (A6C1124-10RE1)			Matrix: Soil		Batch: 6031018			
Acenaphthene	18.6	7.06	14.2	ug/kg dry	4	04/04/16 15:05	EPA 8270D	
Acenaphthylene	ND	7.06	14.2	"	"	"	"	
Anthracene	22.5	7.06	14.2	"	"	"	"	
Benz(a)anthracene	145	7.06	14.2	"	"	"	"	
Benzo(a)pyrene	236	10.6	21.2	"	"	"	"	
Benzo(b)fluoranthene	294	10.6	21.2	"	"	"	"	M-02
Benzo(k)fluoranthene	98.3	10.6	21.2	"	"	"	"	M-02
Benzo(g,h,i)perylene	212	7.06	14.2	"	"	"	"	
Chrysene	185	7.06	14.2	"	"	"	"	
Dibenz(a,h)anthracene	32.9	7.06	14.2	"	"	"	"	
Fluoranthene	265	7.06	14.2	"	"	"	"	
Fluorene	8.45	7.06	14.2	"	"	"	"	J
Indeno(1,2,3-cd)pyrene	187	7.06	14.2	"	"	"	"	
1-Methylnaphthalene	ND	14.2	28.3	"	"	"	"	
2-Methylnaphthalene	ND	14.2	28.3	"	"	"	"	
Naphthalene	ND	14.2	28.3	"	"	"	"	
Phenanthrene	109	7.06	14.2	"	"	"	"	
Pyrene	292	7.06	14.2	"	"	"	"	
Carbazole	19.8	10.6	21.2	"	"	"	"	J
Dibenzofuran	ND	7.06	14.2	"	"	"	"	
4-Chloro-3-methylphenol	ND	70.6	142	"	"	"	"	
2-Chlorophenol	ND	35.4	70.6	"	"	"	"	
2,4-Dichlorophenol	ND	35.4	70.6	"	"	"	"	
2,4-Dimethylphenol	ND	35.4	70.6	"	"	"	"	
2,4-Dinitrophenol	ND	177	354	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	177	354	"	"	"	"	
2-Methylphenol	ND	17.7	35.4	"	"	"	"	
3+4-Methylphenol(s)	ND	17.7	35.4	"	"	"	"	
2-Nitrophenol	ND	70.6	142	"	"	"	"	
4-Nitrophenol	ND	70.6	142	"	"	"	"	
Pentachlorophenol (PCP)	ND	70.6	142	"	"	"	"	
Phenol	ND	14.2	28.3	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	35.4	70.6	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	35.4	70.6	"	"	"	"	
2,4,5-Trichlorophenol	ND	35.4	70.6	"	"	"	"	
2,4,6-Trichlorophenol	ND	35.4	70.6	"	"	"	"	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB013 (A6C1124-10RE1)			Matrix: Soil		Batch: 6031018			
Bis(2-ethylhexyl)phthalate	ND	106	212	ug/kg dry	4	"	EPA 8270D	
Butyl benzyl phthalate	ND	70.6	142	"	"	"	"	
Diethylphthalate	ND	70.6	142	"	"	"	"	
Dimethylphthalate	ND	70.6	142	"	"	"	"	
Di-n-butylphthalate	ND	70.6	142	"	"	"	"	
Di-n-octyl phthalate	ND	70.6	142	"	"	"	"	
N-Nitrosodimethylamine	ND	17.7	35.4	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	17.7	35.4	"	"	"	"	
N-Nitrosodiphenylamine	ND	17.7	35.4	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	17.7	35.4	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	17.7	35.4	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	17.7	35.4	"	"	"	"	
Hexachlorobenzene	ND	7.06	14.2	"	"	"	"	
Hexachlorobutadiene	ND	17.7	35.4	"	"	"	"	
Hexachlorocyclopentadiene	ND	35.4	70.6	"	"	"	"	
Hexachloroethane	ND	17.7	35.4	"	"	"	"	
2-Chloronaphthalene	ND	7.06	14.2	"	"	"	"	
1,2-Dichlorobenzene	ND	17.7	35.4	"	"	"	"	
1,3-Dichlorobenzene	ND	17.7	35.4	"	"	"	"	
1,4-Dichlorobenzene	ND	17.7	35.4	"	"	"	"	
1,2,4-Trichlorobenzene	ND	17.7	35.4	"	"	"	"	
4-Bromophenyl phenyl ether	ND	17.7	35.4	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	17.7	35.4	"	"	"	"	
Aniline	ND	35.4	70.6	"	"	"	"	
4-Chloroaniline	ND	17.7	35.4	"	"	"	"	
2-Nitroaniline	ND	142	283	"	"	"	"	
3-Nitroaniline	ND	142	283	"	"	"	"	
4-Nitroaniline	ND	142	283	"	"	"	"	
Nitrobenzene	ND	70.6	142	"	"	"	"	
2,4-Dinitrotoluene	ND	70.6	142	"	"	"	"	
2,6-Dinitrotoluene	ND	70.6	142	"	"	"	"	
Benzoic acid	ND	887	1770	"	"	"	"	
Benzyl alcohol	ND	35.4	70.6	"	"	"	"	
Isophorone	ND	17.7	35.4	"	"	"	"	
Azobenzene (1,2-DPH)	ND	17.7	35.4	"	"	"	"	

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Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede


Reported:
04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting			Date Analyzed	Method	Notes	
			Limit	Units	Dilution				
5237-160329-DC-EMB013 (A6C1124-10RE1)			Matrix: Soil		Batch: 6031018				
Bis(2-Ethylhexyl) adipate	ND	177	354	ug/kg dry	4	"	EPA 8270D		
3,3'-Dichlorobenzidine	ND	70.6	142	"	"	"	"		
1,2-Dinitrobenzene	ND	177	354	"	"	"	"		
1,3-Dinitrobenzene	ND	177	354	"	"	"	"		
1,4-Dinitrobenzene	ND	177	354	"	"	"	"		
Pyridine	ND	35.4	70.6	"	"	"	"		
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>			<i>Recovery: 85 %</i>			<i>Limits: 37-122 %</i>			
<i>2-Fluorobiphenyl (Surr)</i>			<i>92 %</i>			<i>Limits: 44-115 %</i>			
<i>Phenol-d6 (Surr)</i>			<i>87 %</i>			<i>Limits: 33-122 %</i>			
<i>p-Terphenyl-d14 (Surr)</i>			<i>99 %</i>			<i>Limits: 54-127 %</i>			
<i>2-Fluorophenol (Surr)</i>			<i>77 %</i>			<i>Limits: 35-115 %</i>			
<i>2,4,6-Tribromophenol (Surr)</i>			<i>112 %</i>			<i>Limits: 39-132 %</i>			
5237-160329-DC-EMB014 (A6C1124-12RE1)			Matrix: Soil		Batch: 6031018				
Acenaphthene	14.2	7.59	15.2	ug/kg dry	4	04/04/16 14:27	EPA 8270D	J	
Acenaphthylene	14.1	7.59	15.2	"	"	"	"	J	
Anthracene	27.8	7.59	15.2	"	"	"	"		
Benz(a)anthracene	140	7.59	15.2	"	"	"	"		
Benzo(a)pyrene	202	11.4	22.8	"	"	"	"		
Benzo(b)fluoranthene	259	11.4	22.8	"	"	"	"	M-02	
Benzo(k)fluoranthene	103	11.4	22.8	"	"	"	"	M-02	
Benzo(g,h,i)perylene	182	7.59	15.2	"	"	"	"		
Chrysene	175	7.59	15.2	"	"	"	"		
Dibenz(a,h)anthracene	32.9	7.59	15.2	"	"	"	"		
Fluoranthene	248	7.59	15.2	"	"	"	"		
Fluorene	9.30	7.59	15.2	"	"	"	"	J	
Indeno(1,2,3-cd)pyrene	157	7.59	15.2	"	"	"	"		
1-Methylnaphthalene	ND	15.2	30.4	"	"	"	"		
2-Methylnaphthalene	ND	15.2	30.4	"	"	"	"		
Naphthalene	ND	15.2	30.4	"	"	"	"		
Phenanthrene	111	7.59	15.2	"	"	"	"		
Pyrene	271	7.59	15.2	"	"	"	"		
Carbazole	18.8	11.4	22.8	"	"	"	"	J	
Dibenzofuran	ND	7.59	15.2	"	"	"	"		
4-Chloro-3-methylphenol	ND	75.9	152	"	"	"	"		
2-Chlorophenol	ND	38.0	75.9	"	"	"	"		

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Philip Nerenberg, Lab Director

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Hahn and Associates

434 NW 6th Ave. Suite 203
 Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:
 04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Units	Dilution	Date Analyzed	Method	Notes
			Limit	Matrix: Soil					
5237-160329-DC-EMB014 (A6C1124-12RE1)			Matrix: Soil		Batch: 6031018				
2,4-Dichlorophenol	ND	38.0	75.9		ug/kg dry	4	"	EPA 8270D	
2,4-Dimethylphenol	ND	38.0	75.9		"	"	"	"	
2,4-Dinitrophenol	ND	190	380		"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	190	380		"	"	"	"	
2-Methylphenol	ND	19.0	38.0		"	"	"	"	
3+4-Methylphenol(s)	ND	19.0	38.0		"	"	"	"	
2-Nitrophenol	ND	75.9	152		"	"	"	"	
4-Nitrophenol	ND	75.9	152		"	"	"	"	
Pentachlorophenol (PCP)	ND	75.9	152		"	"	"	"	
Phenol	ND	15.2	30.4		"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	38.0	75.9		"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	38.0	75.9		"	"	"	"	
2,4,5-Trichlorophenol	ND	38.0	75.9		"	"	"	"	
2,4,6-Trichlorophenol	ND	38.0	75.9		"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	114	228		"	"	"	"	
Butyl benzyl phthalate	ND	75.9	152		"	"	"	"	
Diethylphthalate	ND	75.9	152		"	"	"	"	
Dimethylphthalate	ND	75.9	152		"	"	"	"	
Di-n-butylphthalate	ND	75.9	152		"	"	"	"	
Di-n-octyl phthalate	ND	75.9	152		"	"	"	"	
N-Nitrosodimethylamine	ND	19.0	38.0		"	"	"	"	
N-Nitroso-di-n-propylamine	ND	19.0	38.0		"	"	"	"	
N-Nitrosodiphenylamine	ND	19.0	38.0		"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	19.0	38.0		"	"	"	"	
Bis(2-Chloroethyl) ether	ND	19.0	38.0		"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	19.0	38.0		"	"	"	"	
Hexachlorobenzene	ND	7.59	15.2		"	"	"	"	
Hexachlorobutadiene	ND	19.0	38.0		"	"	"	"	
Hexachlorocyclopentadiene	ND	38.0	75.9		"	"	"	"	
Hexachloroethane	ND	19.0	38.0		"	"	"	"	
2-Chloronaphthalene	ND	7.59	15.2		"	"	"	"	
1,2-Dichlorobenzene	ND	19.0	38.0		"	"	"	"	
1,3-Dichlorobenzene	ND	19.0	38.0		"	"	"	"	
1,4-Dichlorobenzene	ND	19.0	38.0		"	"	"	"	
1,2,4-Trichlorobenzene	ND	19.0	38.0		"	"	"	"	

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Hahn and Associates

434 NW 6th Ave. Suite 203
 Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:
 04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB014 (A6C1124-12RE1)			Matrix: Soil		Batch: 6031018			
4-Bromophenyl phenyl ether	ND	19.0	38.0	ug/kg dry	4	"	EPA 8270D	
4-Chlorophenyl phenyl ether	ND	19.0	38.0	"	"	"	"	
Aniline	ND	38.0	75.9	"	"	"	"	
4-Chloroaniline	ND	19.0	38.0	"	"	"	"	
2-Nitroaniline	ND	152	304	"	"	"	"	
3-Nitroaniline	ND	152	304	"	"	"	"	
4-Nitroaniline	ND	152	304	"	"	"	"	
Nitrobenzene	ND	75.9	152	"	"	"	"	
2,4-Dinitrotoluene	ND	75.9	152	"	"	"	"	
2,6-Dinitrotoluene	ND	75.9	152	"	"	"	"	
Benzoic acid	ND	953	1900	"	"	"	"	
Benzyl alcohol	ND	38.0	75.9	"	"	"	"	
Isophorone	ND	19.0	38.0	"	"	"	"	
Azobenzene (1,2-DPH)	ND	19.0	38.0	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	190	380	"	"	"	"	
3,3'-Dichlorobenzidine	ND	75.9	152	"	"	"	"	
1,2-Dinitrobenzene	ND	190	380	"	"	"	"	
1,3-Dinitrobenzene	ND	190	380	"	"	"	"	
1,4-Dinitrobenzene	ND	190	380	"	"	"	"	
Pyridine	ND	38.0	75.9	"	"	"	"	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 83 %</i>		<i>Limits: 37-122 %</i>	"	"	"	
<i>2-Fluorobiphenyl (Surr)</i>		<i>89 %</i>		<i>Limits: 44-115 %</i>	"	"	"	
<i>Phenol-d6 (Surr)</i>		<i>88 %</i>		<i>Limits: 33-122 %</i>	"	"	"	
<i>p-Terphenyl-d14 (Surr)</i>		<i>98 %</i>		<i>Limits: 54-127 %</i>	"	"	"	
<i>2-Fluorophenol (Surr)</i>		<i>74 %</i>		<i>Limits: 35-115 %</i>	"	"	"	
<i>2,4,6-Tribromophenol (Surr)</i>		<i>109 %</i>		<i>Limits: 39-132 %</i>	"	"	"	

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Philip Nerenberg, Lab Director

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Hahn and Associates
 434 NW 6th Ave. Suite 203
 Portland, OR 97209

Project: **Siltronic RI-Doane Creek**
 Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:
 04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB017 (A6C1124-14RE2)			Matrix: Soil		Batch: 6031018			
Acenaphthene	10.6	1.75	3.52	ug/kg dry	1	04/08/16 15:21	EPA 8270D	
Acenaphthylene	3.23	1.75	3.52	"	"	"	"	J
Anthracene	13.8	1.75	3.52	"	"	"	"	
Benz(a)anthracene	89.1	1.75	3.52	"	"	"	"	
Benzo(a)pyrene	136	2.63	5.27	"	"	"	"	
Benzo(b)fluoranthene	162	2.63	5.27	"	"	"	"	M-02
Benzo(k)fluoranthene	54.6	2.63	5.27	"	"	"	"	M-02
Benzo(g,h,i)perylene	118	1.75	3.52	"	"	"	"	
Chrysene	110	1.75	3.52	"	"	"	"	
Dibenz(a,h)anthracene	18.8	1.75	3.52	"	"	"	"	
Fluoranthene	159	1.75	3.52	"	"	"	"	
Fluorene	4.67	1.75	3.52	"	"	"	"	
Indeno(1,2,3-cd)pyrene	103	1.75	3.52	"	"	"	"	
1-Methylnaphthalene	ND	3.52	7.02	"	"	"	"	
2-Methylnaphthalene	ND	3.52	7.02	"	"	"	"	
Naphthalene	5.89	3.52	7.02	"	"	"	"	J
Phenanthrene	65.2	1.75	3.52	"	"	"	"	
Pyrene	174	1.75	3.52	"	"	"	"	
Carbazole	13.0	2.63	5.27	"	"	"	"	
Dibenzofuran	2.32	1.75	3.52	"	"	"	"	J
4-Chloro-3-methylphenol	ND	17.5	35.2	"	"	"	"	
2-Chlorophenol	ND	8.78	17.5	"	"	"	"	
2,4-Dichlorophenol	ND	8.78	17.5	"	"	"	"	
2,4-Dimethylphenol	ND	8.78	17.5	"	"	"	"	
2,4-Dinitrophenol	ND	43.8	87.8	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	43.8	87.8	"	"	"	"	
2-Methylphenol	ND	4.38	8.78	"	"	"	"	
3+4-Methylphenol(s)	ND	4.38	8.78	"	"	"	"	
2-Nitrophenol	ND	17.5	35.2	"	"	"	"	
4-Nitrophenol	ND	17.5	35.2	"	"	"	"	
Pentachlorophenol (PCP)	ND	17.5	35.2	"	"	"	"	
Phenol	ND	3.52	7.02	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	8.78	17.5	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	8.78	17.5	"	"	"	"	
2,4,5-Trichlorophenol	ND	8.78	17.5	"	"	"	"	
2,4,6-Trichlorophenol	ND	8.78	17.5	"	"	"	"	

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Philip Nerenberg, Lab Director

Hahn and Associates

434 NW 6th Ave. Suite 203
Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Units	Dilution	Date Analyzed	Method	Notes
			Limit	Matrix: Soil					
5237-160329-DC-EMB017 (A6C1124-14RE2)			Matrix: Soil		Batch: 6031018				
Bis(2-ethylhexyl)phthalate	ND	26.3	52.7		ug/kg dry	1	"	EPA 8270D	
Butyl benzyl phthalate	ND	17.5	35.2		"	"	"	"	
Diethylphthalate	ND	17.5	35.2		"	"	"	"	
Dimethylphthalate	ND	17.5	35.2		"	"	"	"	
Di-n-butylphthalate	ND	17.5	35.2		"	"	"	"	
Di-n-octyl phthalate	ND	17.5	35.2		"	"	"	"	
N-Nitrosodimethylamine	ND	4.38	8.78		"	"	"	"	
N-Nitroso-di-n-propylamine	ND	4.38	8.78		"	"	"	"	
N-Nitrosodiphenylamine	ND	4.38	8.78		"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	4.38	8.78		"	"	"	"	
Bis(2-Chloroethyl) ether	ND	4.38	8.78		"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	4.38	8.78		"	"	"	"	
Hexachlorobenzene	ND	1.75	3.52		"	"	"	"	
Hexachlorobutadiene	ND	4.38	8.78		"	"	"	"	
Hexachlorocyclopentadiene	ND	8.78	17.5		"	"	"	"	
Hexachloroethane	ND	4.38	8.78		"	"	"	"	
2-Chloronaphthalene	ND	1.75	3.52		"	"	"	"	
1,2-Dichlorobenzene	ND	4.38	8.78		"	"	"	"	
1,3-Dichlorobenzene	ND	4.38	8.78		"	"	"	"	
1,4-Dichlorobenzene	ND	4.38	8.78		"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.38	8.78		"	"	"	"	
4-Bromophenyl phenyl ether	ND	4.38	8.78		"	"	"	"	
4-Chlorophenyl phenyl ether	ND	4.38	8.78		"	"	"	"	
Aniline	ND	8.78	17.5		"	"	"	"	
4-Chloroaniline	ND	4.38	8.78		"	"	"	"	
2-Nitroaniline	ND	35.2	70.2		"	"	"	"	
3-Nitroaniline	ND	35.2	70.2		"	"	"	"	
4-Nitroaniline	ND	35.2	70.2		"	"	"	"	
Nitrobenzene	ND	17.5	35.2		"	"	"	"	
2,4-Dinitrotoluene	ND	17.5	35.2		"	"	"	"	
2,6-Dinitrotoluene	ND	17.5	35.2		"	"	"	"	
Benzoic acid	ND	220	438		"	"	"	"	
Benzyl alcohol	ND	8.78	17.5		"	"	"	"	
Isophorone	ND	4.38	8.78		"	"	"	"	
Azobenzene (1,2-DPH)	ND	4.38	8.78		"	"	"	"	

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434 NW 6th Ave. Suite 203
Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:
04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting			Date Analyzed	Method	Notes
			Limit	Units	Dilution			
5237-160329-DC-EMB017 (A6C1124-14RE2)			Matrix: Soil		Batch: 6031018			
Bis(2-Ethylhexyl) adipate	ND	43.8	87.8	ug/kg dry	1	"	EPA 8270D	
3,3'-Dichlorobenzidine	ND	17.5	35.2	"	"	"	"	
1,2-Dinitrobenzene	ND	43.8	87.8	"	"	"	"	
1,3-Dinitrobenzene	ND	43.8	87.8	"	"	"	"	
1,4-Dinitrobenzene	ND	43.8	87.8	"	"	"	"	
Pyridine	ND	8.78	17.5	"	"	"	"	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>			<i>Recovery: 87 %</i>		<i>Limits: 37-122 %</i>		"	
<i>2-Fluorobiphenyl (Surr)</i>			<i>88 %</i>		<i>Limits: 44-115 %</i>		"	
<i>Phenol-d6 (Surr)</i>			<i>90 %</i>		<i>Limits: 33-122 %</i>		"	
<i>p-Terphenyl-d14 (Surr)</i>			<i>95 %</i>		<i>Limits: 54-127 %</i>		"	
<i>2-Fluorophenol (Surr)</i>			<i>83 %</i>		<i>Limits: 35-115 %</i>		"	
<i>2,4,6-Tribromophenol (Surr)</i>			<i>103 %</i>		<i>Limits: 39-132 %</i>		"	
5237-160329-DC-EMB020 (A6C1124-16RE2)			Matrix: Soil		Batch: 6031018			
Acenaphthene	8.37	1.86	3.74	ug/kg dry	1	04/08/16 16:36	EPA 8270D	
Acenaphthylene	2.57	1.86	3.74	"	"	"	" J	
Anthracene	10.1	1.86	3.74	"	"	"	"	
Benz(a)anthracene	73.2	1.86	3.74	"	"	"	"	
Benzo(a)pyrene	107	2.80	5.60	"	"	"	"	
Benzo(b)fluoranthene	137	2.80	5.60	"	"	"	" M-02	
Benzo(k)fluoranthene	51.3	2.80	5.60	"	"	"	" M-02	
Benzo(g,h,i)perylene	86.0	1.86	3.74	"	"	"	"	
Chrysene	87.7	1.86	3.74	"	"	"	"	
Dibenz(a,h)anthracene	15.8	1.86	3.74	"	"	"	"	
Fluoranthene	123	1.86	3.74	"	"	"	"	
Fluorene	3.92	1.86	3.74	"	"	"	"	
Indeno(1,2,3-cd)pyrene	78.6	1.86	3.74	"	"	"	"	
1-Methylnaphthalene	ND	3.74	7.46	"	"	"	"	
2-Methylnaphthalene	ND	3.74	7.46	"	"	"	"	
Naphthalene	ND	3.74	7.46	"	"	"	"	
Phenanthrene	50.4	1.86	3.74	"	"	"	"	
Pyrene	128	1.86	3.74	"	"	"	"	
Carbazole	11.5	2.80	5.60	"	"	"	"	
Dibenzofuran	ND	1.86	3.74	"	"	"	"	
4-Chloro-3-methylphenol	ND	18.6	37.4	"	"	"	"	
2-Chlorophenol	ND	9.34	18.6	"	"	"	"	

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Philip Nerenberg, Lab Director

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434 NW 6th Ave. Suite 203
 Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Units	Dilution	Date Analyzed	Method	Notes
			Limit	Matrix: Soil					
5237-160329-DC-EMB020 (A6C1124-16RE2)			Matrix: Soil		Batch: 6031018				
2,4-Dichlorophenol	ND	9.34	18.6		ug/kg dry	1	"	EPA 8270D	
2,4-Dimethylphenol	ND	9.34	18.6		"	"	"	"	
2,4-Dinitrophenol	ND	46.6	93.4		"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	46.6	93.4		"	"	"	"	
2-Methylphenol	ND	4.66	9.34		"	"	"	"	
3+4-Methylphenol(s)	ND	4.66	9.34		"	"	"	"	
2-Nitrophenol	ND	18.6	37.4		"	"	"	"	
4-Nitrophenol	ND	18.6	37.4		"	"	"	"	
Pentachlorophenol (PCP)	ND	18.6	37.4		"	"	"	"	
Phenol	ND	3.74	7.46		"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	9.34	18.6		"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	9.34	18.6		"	"	"	"	
2,4,5-Trichlorophenol	ND	9.34	18.6		"	"	"	"	
2,4,6-Trichlorophenol	ND	9.34	18.6		"	"	"	"	
Bis(2-ethylhexyl)phthalate	128	28.0	56.0		"	"	"	"	
Butyl benzyl phthalate	ND	18.6	37.4		"	"	"	"	
Diethylphthalate	ND	18.6	37.4		"	"	"	"	
Dimethylphthalate	ND	18.6	37.4		"	"	"	"	
Di-n-butylphthalate	ND	18.6	37.4		"	"	"	"	
Di-n-octyl phthalate	ND	18.6	37.4		"	"	"	"	
N-Nitrosodimethylamine	ND	4.66	9.34		"	"	"	"	
N-Nitroso-di-n-propylamine	ND	4.66	9.34		"	"	"	"	
N-Nitrosodiphenylamine	ND	4.66	9.34		"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	4.66	9.34		"	"	"	"	
Bis(2-Chloroethyl) ether	ND	4.66	9.34		"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	4.66	9.34		"	"	"	"	
Hexachlorobenzene	ND	1.86	3.74		"	"	"	"	
Hexachlorobutadiene	ND	4.66	9.34		"	"	"	"	
Hexachlorocyclopentadiene	ND	9.34	18.6		"	"	"	"	
Hexachloroethane	ND	4.66	9.34		"	"	"	"	
2-Chloronaphthalene	ND	1.86	3.74		"	"	"	"	
1,2-Dichlorobenzene	ND	4.66	9.34		"	"	"	"	
1,3-Dichlorobenzene	ND	4.66	9.34		"	"	"	"	
1,4-Dichlorobenzene	ND	4.66	9.34		"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.66	9.34		"	"	"	"	

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Philip Nerenberg, Lab Director

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Hahn and Associates

434 NW 6th Ave. Suite 203
Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB020 (A6C1124-16RE2)			Matrix: Soil		Batch: 6031018			
4-Bromophenyl phenyl ether	ND	4.66	9.34	ug/kg dry	1	"	EPA 8270D	
4-Chlorophenyl phenyl ether	ND	4.66	9.34	"	"	"	"	
Aniline	ND	9.34	18.6	"	"	"	"	
4-Chloroaniline	ND	4.66	9.34	"	"	"	"	
2-Nitroaniline	ND	37.4	74.6	"	"	"	"	
3-Nitroaniline	ND	37.4	74.6	"	"	"	"	
4-Nitroaniline	ND	37.4	74.6	"	"	"	"	
Nitrobenzene	ND	18.6	37.4	"	"	"	"	
2,4-Dinitrotoluene	ND	18.6	37.4	"	"	"	"	
2,6-Dinitrotoluene	ND	18.6	37.4	"	"	"	"	
Benzoic acid	ND	234	466	"	"	"	"	
Benzyl alcohol	ND	9.34	18.6	"	"	"	"	
Isophorone	ND	4.66	9.34	"	"	"	"	
Azobenzene (1,2-DPH)	ND	4.66	9.34	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	46.6	93.4	"	"	"	"	
3,3'-Dichlorobenzidine	ND	18.6	37.4	"	"	"	"	
1,2-Dinitrobenzene	ND	46.6	93.4	"	"	"	"	
1,3-Dinitrobenzene	ND	46.6	93.4	"	"	"	"	
1,4-Dinitrobenzene	ND	46.6	93.4	"	"	"	"	
Pyridine	ND	9.34	18.6	"	"	"	"	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 81 %</i>		<i>Limits: 37-122 %</i>	"	"	"	
<i>2-Fluorobiphenyl (Surr)</i>		<i>80 %</i>		<i>Limits: 44-115 %</i>	"	"	"	
<i>Phenol-d6 (Surr)</i>		<i>83 %</i>		<i>Limits: 33-122 %</i>	"	"	"	
<i>p-Terphenyl-d14 (Surr)</i>		<i>99 %</i>		<i>Limits: 54-127 %</i>	"	"	"	
<i>2-Fluorophenol (Surr)</i>		<i>75 %</i>		<i>Limits: 35-115 %</i>	"	"	"	
<i>2,4,6-Tribromophenol (Surr)</i>		<i>108 %</i>		<i>Limits: 39-132 %</i>	"	"	"	

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434 NW 6th Ave. Suite 203
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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB010 (A6C1124-02RE1)			Matrix: Soil		Batch: 6031018			
C1-Chrysenes/Benz(a)anthracenes	754	73.9	73.9	ug/kg dry	4	04/01/16 14:06	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	869	73.9	73.9	"	"	"	"	
C1-Fluorenes	ND	384	384	"	"	"	"	R-02
C1-Phenanthrenes/Anthracenes	462	73.9	73.9	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	326	73.9	73.9	"	"	"	"	
C2-Fluorenes	ND	73.9	73.9	"	"	"	"	
C2-Naphthalenes	ND	73.9	73.9	"	"	"	"	
C2-Phenanthrenes/Anthracenes	260	73.9	73.9	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	207	73.9	73.9	"	"	"	"	
C3-Fluorenes	ND	73.9	73.9	"	"	"	"	
C3-Naphthalenes	95.4	73.9	73.9	"	"	"	"	
C3-Phenanthrenes/Anthracenes	141	73.9	73.9	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	293	148	148	"	"	"	"	
C4-Naphthalenes	ND	73.9	73.9	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	148	148	"	"	"	"	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>			Recovery: 96 %		Limits: 40-120 %		"	"
<i>Benzo(a)pyrene-d12 (Surr)</i>			99 %		Limits: 40-120 %		"	"
5237-160329-DC-EMB005 (A6C1124-04RE2)			Matrix: Soil		Batch: 6031018			
C1-Chrysenes/Benz(a)anthracenes	28.8	18.3	18.3	ug/kg dry	1	04/08/16 15:59	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	33.9	18.3	18.3	"	"	"	"	
C1-Fluorenes	ND	18.3	18.3	"	"	"	"	
C1-Phenanthrenes/Anthracenes	ND	18.3	18.3	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	ND	18.3	18.3	"	"	"	"	
C2-Fluorenes	ND	18.3	18.3	"	"	"	"	
C2-Naphthalenes	ND	18.3	18.3	"	"	"	"	
C2-Phenanthrenes/Anthracenes	ND	18.3	18.3	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	18.3	18.3	"	"	"	"	
C3-Fluorenes	ND	18.3	18.3	"	"	"	"	
C3-Naphthalenes	ND	18.3	18.3	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	18.3	18.3	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	36.5	36.5	"	"	"	"	
C4-Naphthalenes	ND	18.3	18.3	"	"	"	"	

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Philip Nerenberg, Lab Director

Hahn and Associates

434 NW 6th Ave. Suite 203
 Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:
 04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB005 (A6C1124-04RE2)			Matrix: Soil		Batch: 6031018			
C4-Phenanthrenes/Anthracenes	ND	36.5	36.5	ug/kg dry	1	"	GC/MS Scan	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>			Recovery: 89 %		Limits: 40-120 %		"	"
<i>Benzo(a)pyrene-d12 (Surr)</i>			87 %		Limits: 40-120 %		"	"
5237-160329-DC-EMB004 (A6C1124-06RE1)			Matrix: Soil		Batch: 6031018			
C1-Chrysenes/Benz(a)anthracenes	209	73.5	73.5	ug/kg dry	4	04/04/16 13:49	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	246	73.5	73.5	"	"	"	"	
C1-Fluorenes	ND	73.5	73.5	"	"	"	"	
C1-Phenanthrenes/Anthracenes	118	73.5	73.5	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	78.9	73.5	73.5	"	"	"	"	
C2-Fluorenes	ND	73.5	73.5	"	"	"	"	
C2-Naphthalenes	ND	73.5	73.5	"	"	"	"	
C2-Phenanthrenes/Anthracenes	ND	73.5	73.5	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	73.5	73.5	"	"	"	"	
C3-Fluorenes	ND	73.5	73.5	"	"	"	"	
C3-Naphthalenes	ND	73.5	73.5	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	73.5	73.5	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	147	147	"	"	"	"	
C4-Naphthalenes	ND	73.5	73.5	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	147	147	"	"	"	"	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>			Recovery: 84 %		Limits: 40-120 %		"	"
<i>Benzo(a)pyrene-d12 (Surr)</i>			91 %		Limits: 40-120 %		"	"
5237-160329-DC-EMB001 (A6C1124-08RE2)			Matrix: Soil		Batch: 6031018			
C1-Chrysenes/Benz(a)anthracenes	43.7	17.7	17.7	ug/kg dry	1	04/08/16 14:44	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	52.5	17.7	17.7	"	"	"	"	
C1-Fluorenes	ND	23.5	23.5	"	"	"	"	R-02
C1-Phenanthrenes/Anthracenes	30.6	17.7	17.7	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	20.3	17.7	17.7	"	"	"	"	
C2-Fluorenes	ND	17.7	17.7	"	"	"	"	
C2-Naphthalenes	ND	17.7	17.7	"	"	"	"	
C2-Phenanthrenes/Anthracenes	19.2	17.7	17.7	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	17.7	17.7	"	"	"	"	
C3-Fluorenes	ND	17.7	17.7	"	"	"	"	

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Hahn and Associates

434 NW 6th Ave. Suite 203
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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting		Units	Dilution	Date Analyzed	Method	Notes
			Limit	Matrix: Soil					
5237-160329-DC-EMB001 (A6C1124-08RE2)			Matrix: Soil		Batch: 6031018				
C3-Naphthalenes	ND	17.7	17.7		ug/kg dry	1	"	GC/MS Scan	
C3-Phenanthrenes/Anthracenes	ND	17.7	17.7		"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	35.5	35.5		"	"	"	"	
C4-Naphthalenes	ND	17.7	17.7		"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	35.5	35.5		"	"	"	"	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>			Recovery: 73 %		Limits: 40-120 %		"	"	"
<i>Benzo(a)pyrene-d12 (Surr)</i>			73 %		Limits: 40-120 %		"	"	"
5237-160329-DC-EMB013 (A6C1124-10RE1)			Matrix: Soil		Batch: 6031018				
C1-Chrysenes/Benz(a)anthracenes	79.1	70.8	70.8		ug/kg dry	4	04/04/16 15:05	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	94.9	70.8	70.8		"	"	"	"	
C1-Fluorenes	ND	70.8	70.8		"	"	"	"	
C1-Phenanthrenes/Anthracenes	ND	70.8	70.8		"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	ND	70.8	70.8		"	"	"	"	
C2-Fluorenes	ND	70.8	70.8		"	"	"	"	
C2-Naphthalenes	ND	70.8	70.8		"	"	"	"	
C2-Phenanthrenes/Anthracenes	ND	70.8	70.8		"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	70.8	70.8		"	"	"	"	
C3-Fluorenes	ND	70.8	70.8		"	"	"	"	
C3-Naphthalenes	ND	70.8	70.8		"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	70.8	70.8		"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	142	142		"	"	"	"	
C4-Naphthalenes	ND	70.8	70.8		"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	142	142		"	"	"	"	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>			Recovery: 93 %		Limits: 40-120 %		"	"	"
<i>Benzo(a)pyrene-d12 (Surr)</i>			99 %		Limits: 40-120 %		"	"	"
5237-160329-DC-EMB014 (A6C1124-12RE1)			Matrix: Soil		Batch: 6031018				
C1-Chrysenes/Benz(a)anthracenes	76.2	76.1	76.1		ug/kg dry	4	04/04/16 14:27	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	92.8	76.1	76.1		"	"	"	"	
C1-Fluorenes	ND	76.1	76.1		"	"	"	"	
C1-Phenanthrenes/Anthracenes	ND	76.1	76.1		"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	ND	76.1	76.1		"	"	"	"	
C2-Fluorenes	ND	76.1	76.1		"	"	"	"	
C2-Naphthalenes	ND	76.1	76.1		"	"	"	"	

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434 NW 6th Ave. Suite 203
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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:
04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB014 (A6C1124-12RE1)			Matrix: Soil		Batch: 6031018			
C2-Phenanthrenes/Anthracenes	ND	76.1	76.1	ug/kg dry	4	"	GC/MS Scan	
C3-Chrysenes/Benz(a)anthracenes	ND	76.1	76.1	"	"	"	"	
C3-Fluorenes	ND	76.1	76.1	"	"	"	"	
C3-Naphthalenes	ND	76.1	76.1	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	76.1	76.1	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	152	152	"	"	"	"	
C4-Naphthalenes	ND	76.1	76.1	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	152	152	"	"	"	"	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>			Recovery: 93 %		Limits: 40-120 %	"	"	"
<i>Benzo(a)pyrene-d12 (Surr)</i>			96 %		Limits: 40-120 %	"	"	"
5237-160329-DC-EMB017 (A6C1124-14RE2)			Matrix: Soil		Batch: 6031018			
C1-Chrysenes/Benz(a)anthracenes	47.5	17.6	17.6	ug/kg dry	1	04/08/16 15:21	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	57.3	17.6	17.6	"	"	"	"	
C1-Fluorenes	ND	17.6	17.6	"	"	"	"	
C1-Phenanthrenes/Anthracenes	25.8	17.6	17.6	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	18.0	17.6	17.6	"	"	"	"	
C2-Fluorenes	ND	17.6	17.6	"	"	"	"	
C2-Naphthalenes	ND	17.6	17.6	"	"	"	"	
C2-Phenanthrenes/Anthracenes	ND	17.6	17.6	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	17.6	17.6	"	"	"	"	
C3-Fluorenes	ND	17.6	17.6	"	"	"	"	
C3-Naphthalenes	ND	17.6	17.6	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	17.6	17.6	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	35.1	35.1	"	"	"	"	
C4-Naphthalenes	ND	17.6	17.6	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	35.1	35.1	"	"	"	"	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>			Recovery: 94 %		Limits: 40-120 %	"	"	"
<i>Benzo(a)pyrene-d12 (Surr)</i>			98 %		Limits: 40-120 %	"	"	"
5237-160329-DC-EMB020 (A6C1124-16RE2)			Matrix: Soil		Batch: 6031018			
C1-Chrysenes/Benz(a)anthracenes	39.7	18.7	18.7	ug/kg dry	1	04/08/16 16:36	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	47.0	18.7	18.7	"	"	"	"	
C1-Fluorenes	ND	18.7	18.7	"	"	"	"	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

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04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
5237-160329-DC-EMB020 (A6C1124-16RE2)			Matrix: Soil		Batch: 6031018			
C1-Phenanthrenes/Anthracenes	21.5	18.7	18.7	ug/kg dry	1	"	GC/MS Scan	
C2-Chrysenes/Benz(a)anthracenes	ND	18.7	18.7	"	"	"	"	
C2-Fluorenes	ND	18.7	18.7	"	"	"	"	
C2-Naphthalenes	ND	18.7	18.7	"	"	"	"	
C2-Phenanthrenes/Anthracenes	ND	18.7	18.7	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	18.7	18.7	"	"	"	"	
C3-Fluorenes	ND	18.7	18.7	"	"	"	"	
C3-Naphthalenes	ND	18.7	18.7	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	18.7	18.7	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	37.3	37.3	"	"	"	"	
C4-Naphthalenes	ND	18.7	18.7	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	37.3	37.3	"	"	"	"	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 85 %</i>		<i>Limits: 40-120 %</i>		"	"	"
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>97 %</i>		<i>Limits: 40-120 %</i>		"	"	"

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

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04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160329-DC-EMB010 (A6C1124-02)			Matrix: Soil					
Batch: 6040228								
Aluminum	10200	37.9	75.7	mg/kg dry	10	04/12/16 12:13	EPA 6020A	
Antimony	ND	0.757	1.51	"	"	"	"	
Arsenic	1.89	0.757	1.51	"	"	"	"	
Barium	127	0.757	1.51	"	"	"	"	
Beryllium	0.500	0.151	0.303	"	"	"	"	
Cadmium	0.394	0.151	0.303	"	"	"	"	
Calcium	3060	75.7	151	"	"	"	"	
Chromium	13.9	0.757	1.51	"	"	"	"	
Copper	16.0	0.757	1.51	"	"	"	"	
Iron	25300	37.9	75.7	"	"	"	"	
Lead	13.2	0.151	0.303	"	"	"	"	
Magnesium	1920	37.9	75.7	"	"	"	"	
Manganese	559	0.757	1.51	"	"	"	"	
Mercury	ND	0.0606	0.121	"	"	"	"	
Nickel	9.63	0.757	1.51	"	"	"	"	
Potassium	397	75.7	151	"	"	"	"	
Selenium	ND	0.757	1.51	"	"	"	"	
Silver	ND	0.151	0.303	"	"	"	"	
Sodium	180	75.7	151	"	"	"	"	
Thallium	ND	0.151	0.303	"	"	"	"	
Vanadium	89.1	0.757	1.51	"	"	"	"	
Zinc	82.5	3.03	6.06	"	"	"	"	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

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 04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160329-DC-EMB005 (A6C1124-04)		Matrix: Soil						
Batch: 6040228								
Aluminum	19000	36.0	72.0	mg/kg dry	10	04/12/16 12:16	EPA 6020A	
Antimony	ND	0.720	1.44	"	"	"	"	
Arsenic	14.1	0.720	1.44	"	"	"	"	
Barium	177	0.720	1.44	"	"	"	"	
Beryllium	0.778	0.144	0.288	"	"	"	"	
Cadmium	0.302	0.144	0.288	"	"	"	"	
Calcium	3990	72.0	144	"	"	"	"	
Chromium	23.3	0.720	1.44	"	"	"	"	
Copper	28.2	0.720	1.44	"	"	"	"	
Iron	37200	36.0	72.0	"	"	"	"	
Lead	17.6	0.144	0.288	"	"	"	"	
Magnesium	6240	36.0	72.0	"	"	"	"	
Manganese	817	0.720	1.44	"	"	"	"	
Mercury	ND	0.0576	0.115	"	"	"	"	
Nickel	21.1	0.720	1.44	"	"	"	"	
Potassium	1470	72.0	144	"	"	"	"	
Selenium	ND	0.720	1.44	"	"	"	"	
Silver	ND	0.144	0.288	"	"	"	"	
Sodium	147	72.0	144	"	"	"	"	
Thallium	0.230	0.144	0.288	"	"	"	"	J
Vanadium	90.2	0.720	1.44	"	"	"	"	
Zinc	91.6	2.88	5.76	"	"	"	"	

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434 NW 6th Ave. Suite 203
 Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160329-DC-EMB004 (A6C1124-06)			Matrix: Soil					
Batch: 6040228								
Aluminum	18000	35.4	70.8	mg/kg dry	10	04/12/16 12:19	EPA 6020A	
Antimony	ND	0.708	1.42	"	"	"	"	
Arsenic	10.4	0.708	1.42	"	"	"	"	
Barium	174	0.708	1.42	"	"	"	"	
Beryllium	0.821	0.142	0.283	"	"	"	"	
Cadmium	0.354	0.142	0.283	"	"	"	"	
Calcium	4000	70.8	142	"	"	"	"	
Chromium	19.9	0.708	1.42	"	"	"	"	
Copper	27.9	0.708	1.42	"	"	"	"	
Iron	40000	35.4	70.8	"	"	"	"	
Lead	15.8	0.142	0.283	"	"	"	"	
Magnesium	5450	35.4	70.8	"	"	"	"	
Manganese	1160	0.708	1.42	"	"	"	"	
Mercury	ND	0.0566	0.113	"	"	"	"	
Nickel	20.5	0.708	1.42	"	"	"	"	
Potassium	1010	70.8	142	"	"	"	"	
Selenium	ND	0.708	1.42	"	"	"	"	
Silver	ND	0.142	0.283	"	"	"	"	
Sodium	149	70.8	142	"	"	"	"	
Thallium	0.184	0.142	0.283	"	"	"	"	J
Vanadium	96.3	0.708	1.42	"	"	"	"	
Zinc	86.0	2.83	5.66	"	"	"	"	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160329-DC-EMB001 (A6C1124-08)			Matrix: Soil					
Batch: 6040228								
Aluminum	18300	33.7	67.4	mg/kg dry	10	04/12/16 12:39	EPA 6020A	
Antimony	ND	0.674	1.35	"	"	"	"	
Arsenic	10.1	0.674	1.35	"	"	"	"	
Barium	168	0.674	1.35	"	"	"	"	
Beryllium	0.741	0.135	0.269	"	"	"	"	
Cadmium	0.310	0.135	0.269	"	"	"	"	
Calcium	3670	67.4	135	"	"	"	"	
Chromium	23.0	0.674	1.35	"	"	"	"	
Copper	24.1	0.674	1.35	"	"	"	"	
Iron	33100	33.7	67.4	"	"	"	"	
Lead	18.2	0.135	0.269	"	"	"	"	
Magnesium	5110	33.7	67.4	"	"	"	"	
Manganese	780	0.674	1.35	"	"	"	"	
Mercury	ND	0.0539	0.108	"	"	"	"	
Nickel	20.4	0.674	1.35	"	"	"	"	
Potassium	1350	67.4	135	"	"	"	"	
Selenium	ND	0.674	1.35	"	"	"	"	
Silver	ND	0.135	0.269	"	"	"	"	
Sodium	100	67.4	135	"	"	"	"	J
Thallium	0.175	0.135	0.269	"	"	"	"	J
Vanadium	88.3	0.674	1.35	"	"	"	"	
Zinc	87.2	2.69	5.39	"	"	"	"	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160329-DC-EMB013 (A6C1124-10)		Matrix: Soil						
Batch: 6040228								
Aluminum	14300	34.4	68.7	mg/kg dry	10	04/12/16 12:42	EPA 6020A	
Antimony	ND	0.687	1.37	"	"	"	"	
Arsenic	9.24	0.687	1.37	"	"	"	"	
Barium	140	0.687	1.37	"	"	"	"	
Beryllium	0.646	0.137	0.275	"	"	"	"	
Cadmium	0.234	0.137	0.275	"	"	"	"	J
Calcium	3380	68.7	137	"	"	"	"	
Chromium	20.6	0.687	1.37	"	"	"	"	
Copper	17.1	0.687	1.37	"	"	"	"	
Iron	30700	34.4	68.7	"	"	"	"	
Lead	17.8	0.137	0.275	"	"	"	"	
Magnesium	4550	34.4	68.7	"	"	"	"	
Manganese	748	0.687	1.37	"	"	"	"	
Mercury	ND	0.0550	0.110	"	"	"	"	
Nickel	16.4	0.687	1.37	"	"	"	"	
Potassium	1420	68.7	137	"	"	"	"	
Selenium	0.687	0.687	1.37	"	"	"	"	J
Silver	ND	0.137	0.275	"	"	"	"	
Sodium	104	68.7	137	"	"	"	"	J
Thallium	0.151	0.137	0.275	"	"	"	"	J
Vanadium	85.9	0.687	1.37	"	"	"	"	
Zinc	79.0	2.75	5.50	"	"	"	"	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160329-DC-EMB014 (A6C1124-12)			Matrix: Soil					
Batch: 6040228								
Aluminum	17000	38.3	76.6	mg/kg dry	10	04/12/16 12:45	EPA 6020A	
Antimony	ND	0.766	1.53	"	"	"	"	
Arsenic	9.63	0.766	1.53	"	"	"	"	
Barium	159	0.766	1.53	"	"	"	"	
Beryllium	0.690	0.153	0.307	"	"	"	"	
Cadmium	0.276	0.153	0.307	"	"	"	"	J
Calcium	3750	76.6	153	"	"	"	"	
Chromium	20.5	0.766	1.53	"	"	"	"	
Copper	25.0	0.766	1.53	"	"	"	"	
Iron	35600	38.3	76.6	"	"	"	"	
Lead	19.9	0.153	0.307	"	"	"	"	
Magnesium	5290	38.3	76.6	"	"	"	"	
Manganese	739	0.766	1.53	"	"	"	"	
Mercury	0.0690	0.0613	0.123	"	"	"	"	J
Nickel	19.0	0.766	1.53	"	"	"	"	
Potassium	1330	76.6	153	"	"	"	"	
Selenium	ND	0.766	1.53	"	"	"	"	
Silver	ND	0.153	0.307	"	"	"	"	
Sodium	87.2	76.6	153	"	"	"	"	J
Thallium	0.169	0.153	0.307	"	"	"	"	J
Vanadium	98.0	0.766	1.53	"	"	"	"	
Zinc	91.4	3.07	6.13	"	"	"	"	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160329-DC-EMB017 (A6C1124-14)			Matrix: Soil					
Batch: 6040228								
Aluminum	14300	34.7	69.4	mg/kg dry	10	04/12/16 12:48	EPA 6020A	
Antimony	ND	0.694	1.39	"	"	"	"	
Arsenic	7.99	0.694	1.39	"	"	"	"	
Barium	142	0.694	1.39	"	"	"	"	
Beryllium	0.666	0.139	0.277	"	"	"	"	
Cadmium	0.264	0.139	0.277	"	"	"	"	J
Calcium	4120	69.4	139	"	"	"	"	
Chromium	18.1	0.694	1.39	"	"	"	"	
Copper	21.8	0.694	1.39	"	"	"	"	
Iron	30800	34.7	69.4	"	"	"	"	
Lead	20.1	0.139	0.277	"	"	"	"	
Magnesium	5200	34.7	69.4	"	"	"	"	
Manganese	769	0.694	1.39	"	"	"	"	
Mercury	ND	0.0555	0.111	"	"	"	"	
Nickel	17.6	0.694	1.39	"	"	"	"	
Potassium	1300	69.4	139	"	"	"	"	
Selenium	ND	0.694	1.39	"	"	"	"	
Silver	ND	0.139	0.277	"	"	"	"	
Sodium	103	69.4	139	"	"	"	"	J
Thallium	0.180	0.139	0.277	"	"	"	"	J
Vanadium	86.8	0.694	1.39	"	"	"	"	
Zinc	78.0	2.77	5.55	"	"	"	"	

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Project: Siltronic RI-Doane Creek

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160329-DC-EMB020 (A6C1124-16)			Matrix: Soil					
Batch: 6040228								
Aluminum	18400	38.5	77.1	mg/kg dry	10	04/12/16 12:51	EPA 6020A	
Antimony	ND	0.771	1.54	"	"	"	"	
Arsenic	9.85	0.771	1.54	"	"	"	"	
Barium	172	0.771	1.54	"	"	"	"	
Beryllium	0.879	0.154	0.308	"	"	"	"	
Cadmium	0.416	0.154	0.308	"	"	"	"	
Calcium	4750	77.1	154	"	"	"	"	
Chromium	22.2	0.771	1.54	"	"	"	"	
Copper	29.7	0.771	1.54	"	"	"	"	
Iron	41300	38.5	77.1	"	"	"	"	
Lead	21.1	0.154	0.308	"	"	"	"	
Magnesium	6500	38.5	77.1	"	"	"	"	
Manganese	839	0.771	1.54	"	"	"	"	
Mercury	ND	0.0617	0.123	"	"	"	"	
Nickel	21.3	0.771	1.54	"	"	"	"	
Potassium	1130	77.1	154	"	"	"	"	
Selenium	ND	0.771	1.54	"	"	"	"	
Silver	ND	0.154	0.308	"	"	"	"	
Sodium	151	77.1	154	"	"	"	"	J
Thallium	0.200	0.154	0.308	"	"	"	"	J
Vanadium	105	0.771	1.54	"	"	"	"	
Zinc	93.0	3.08	6.17	"	"	"	"	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160329-DC-EMB010 (A6C1124-02)			Matrix: Soil					
Batch: 6040121								
Total Organic Carbon	24000	100	200	mg/kg	1	04/08/16 13:30	SM 5310B MOD	
5237-160329-DC-EMB005 (A6C1124-04)			Matrix: Soil					
Batch: 6040121								
Total Organic Carbon	6400	100	200	mg/kg	1	04/08/16 13:30	SM 5310B MOD	
5237-160329-DC-EMB004 (A6C1124-06)			Matrix: Soil					
Batch: 6040121								
Total Organic Carbon	9000	100	200	mg/kg	1	04/08/16 13:30	SM 5310B MOD	
5237-160329-DC-EMB001 (A6C1124-08)			Matrix: Soil					
Batch: 6040121								
Total Organic Carbon	13000	100	200	mg/kg	1	04/08/16 13:30	SM 5310B MOD	
5237-160329-DC-EMB013 (A6C1124-10)			Matrix: Soil					
Batch: 6040121								
Total Organic Carbon	13000	100	200	mg/kg	1	04/08/16 13:30	SM 5310B MOD	
5237-160329-DC-EMB014 (A6C1124-12)			Matrix: Soil					
Batch: 6040121								
Total Organic Carbon	17000	100	200	mg/kg	1	04/08/16 13:30	SM 5310B MOD	
5237-160329-DC-EMB017 (A6C1124-14)			Matrix: Soil					
Batch: 6040121								
Total Organic Carbon	7500	100	200	mg/kg	1	04/08/16 13:30	SM 5310B MOD	
5237-160329-DC-EMB020 (A6C1124-16)			Matrix: Soil					
Batch: 6040121								
Total Organic Carbon	5100	100	200	mg/kg	1	04/08/16 13:30	SM 5310B MOD	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Ammonia by UV Digestion/Gas Diffusion/Colorimetric Detection

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160329-DC-EMB010 (A6C1124-02)			Matrix: Soil		Batch: 6040053			
Ammonia as N	8.44	0.141	0.283	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160329-DC-EMB005 (A6C1124-04)			Matrix: Soil		Batch: 6040053			
Ammonia as N	2.05	0.138	0.275	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160329-DC-EMB004 (A6C1124-06)			Matrix: Soil		Batch: 6040053			
Ammonia as N	0.373	0.124	0.249	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160329-DC-EMB001 (A6C1124-08)			Matrix: Soil		Batch: 6040053			
Ammonia as N	2.71	0.137	0.274	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160329-DC-EMB013 (A6C1124-10)			Matrix: Soil		Batch: 6040053			
Ammonia as N	5.86	0.137	0.274	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160329-DC-EMB014 (A6C1124-12)			Matrix: Soil		Batch: 6040053			
Ammonia as N	3.86	0.144	0.287	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160329-DC-EMB017 (A6C1124-14)			Matrix: Soil		Batch: 6040053			
Ammonia as N	2.70	0.137	0.274	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160329-DC-EMB020 (A6C1124-16)			Matrix: Soil		Batch: 6040053			
Ammonia as N	1.43	0.137	0.275	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	

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Project: Siltronic RI-Doane Creek

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160329-DC-EMB010G (A6C1124-01)			Matrix: Soil	Batch: 6040069				
% Solids	70.7	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160329-DC-EMB010 (A6C1124-02)			Matrix: Soil	Batch: 6040032				
% Solids	70.7	1.00	1.00	% by Weight	1	04/04/16 07:40	EPA 8000C	
5237-160329-DC-EMB005G (A6C1124-03)			Matrix: Soil	Batch: 6040069				
% Solids	72.3	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160329-DC-EMB005 (A6C1124-04)			Matrix: Soil	Batch: 6040032				
% Solids	72.3	1.00	1.00	% by Weight	1	04/04/16 07:40	EPA 8000C	
5237-160329-DC-EMB004G (A6C1124-05)			Matrix: Soil	Batch: 6040069				
% Solids	70.8	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160329-DC-EMB004 (A6C1124-06)			Matrix: Soil	Batch: 6040032				
% Solids	70.8	1.00	1.00	% by Weight	1	04/04/16 07:40	EPA 8000C	
5237-160329-DC-EMB001G (A6C1124-07)			Matrix: Soil	Batch: 6040069				
% Solids	72.9	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160329-DC-EMB001 (A6C1124-08)			Matrix: Soil	Batch: 6040032				
% Solids	72.9	1.00	1.00	% by Weight	1	04/04/16 07:40	EPA 8000C	
5237-160329-DC-EMB013G (A6C1124-09)			Matrix: Soil	Batch: 6040069				
% Solids	71.9	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160329-DC-EMB013 (A6C1124-10)			Matrix: Soil	Batch: 6040032				
% Solids	71.9	1.00	1.00	% by Weight	1	04/04/16 07:40	EPA 8000C	
5237-160329-DC-EMB014G (A6C1124-11)			Matrix: Soil	Batch: 6040069				
% Solids	69.2	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160329-DC-EMB014 (A6C1124-12)			Matrix: Soil	Batch: 6040032				
% Solids	69.2	1.00	1.00	% by Weight	1	04/04/16 07:40	EPA 8000C	
5237-160329-DC-EMB017G (A6C1124-13)			Matrix: Soil	Batch: 6040069				
% Solids	71.9	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160329-DC-EMB017 (A6C1124-14)			Matrix: Soil	Batch: 6040032				
% Solids	71.9	1.00	1.00	% by Weight	1	04/04/16 07:40	EPA 8000C	
5237-160329-DC-EMB020G (A6C1124-15)			Matrix: Soil	Batch: 6040069				
% Solids	69.6	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160329-DC-EMB020 (A6C1124-16)			Matrix: Soil	Batch: 6040032				
% Solids	69.6	1.00	1.00	% by Weight	1	04/04/16 07:40	EPA 8000C	

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Project: **Siltronic RI-Doane Creek**
Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:
04/30/16 22:21

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
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Philip Nerenberg, Lab Director

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Hahn and Associates

434 NW 6th Ave. Suite 203
Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:

04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031010 - EPA 3546 (Fuels)						Soil						
Blank (6031010-BLK1)						Prepared: 03/31/16 10:07 Analyzed: 03/31/16 20:39						
NWTPH-Dx												
Diesel	ND	8.33	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	16.7	50.0	"	"	---	---	---	---	---	---	
Surr: <i>o</i> -Terphenyl (Surr)		Recovery: 95 %		Limits: 50-150 %		Dilution: 1x						
LCS (6031010-BS1)						Prepared: 03/31/16 10:07 Analyzed: 03/31/16 20:59						
NWTPH-Dx												
Diesel	115	10.0	25.0	mg/kg wet	1	125	---	92	76-115%	---	---	
Surr: <i>o</i> -Terphenyl (Surr)		Recovery: 97 %		Limits: 50-150 %		Dilution: 1x						
Batch 6031026 - EPA 3546 (Fuels)						Soil						
Blank (6031026-BLK1)						Prepared: 03/31/16 15:16 Analyzed: 04/01/16 00:25						
NWTPH-Dx												
Diesel	ND	8.33	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	16.7	50.0	"	"	---	---	---	---	---	---	
Mineral Oil	ND	16.7	33.3	"	"	---	---	---	---	---	---	
Surr: <i>o</i> -Terphenyl (Surr)		Recovery: 93 %		Limits: 50-150 %		Dilution: 1x						
LCS (6031026-BS1)						Prepared: 03/31/16 15:16 Analyzed: 04/01/16 00:45						
NWTPH-Dx												
Diesel	104	10.0	25.0	mg/kg wet	1	125	---	83	76-115%	---	---	
Surr: <i>o</i> -Terphenyl (Surr)		Recovery: 94 %		Limits: 50-150 %		Dilution: 1x						
Duplicate (6031026-DUP2)						Prepared: 03/31/16 15:16 Analyzed: 04/01/16 03:25						
QC Source Sample: 5237-160329-DC-EMB004 (A6C1124-06)												
NWTPH-Dx												
Diesel	ND	13.7	27.5	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	27.5	55.0	"	"	---	ND	---	---	---	30%	
Surr: <i>o</i> -Terphenyl (Surr)		Recovery: 91 %		Limits: 50-150 %		Dilution: 1x						

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031000 - EPA 5035A						Soil						
Blank (6031000-BLK1)						Prepared: 03/31/16 09:00 Analyzed: 03/31/16 15:51						
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2.50	5.00	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 93 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		91 %		50-150 %		"						
LCS (6031000-BS2)						Prepared: 03/31/16 09:00 Analyzed: 03/31/16 15:26						
NWTPH-Gx (MS)												
Gasoline Range Organics	20.6	2.50	5.00	mg/kg wet	50	25.0	---	82	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 88 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		97 %		50-150 %		"						
Duplicate (6031000-DUP2)						Prepared: 03/29/16 10:15 Analyzed: 03/31/16 22:27						
QC Source Sample: 5237-160329-DC-EMB010G (A6C1124-01)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	4.74	9.47	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 95 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		89 %		50-150 %		"						



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QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031000 - EPA 5035A						Soil						
Blank (6031000-BLK1)						Prepared: 03/31/16 09:00 Analyzed: 03/31/16 15:51						
5035/8260B												
Benzene	ND	5.00	10.0	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Xylenes, total	ND	37.5	75.0	"	"	---	---	---	---	---	---	
<i>Surr: Dibromofluoromethane (Surr)</i>			<i>Recovery: 105 %</i>		<i>Limits: 70-130 %</i>		<i>Dilution: 1x</i>					
<i>1,4-Difluorobenzene (Surr)</i>			<i>98 %</i>		<i>70-130 %</i>		<i>"</i>					
<i>Toluene-d8 (Surr)</i>			<i>97 %</i>		<i>70-130 %</i>		<i>50x</i>					
<i>4-Bromofluorobenzene (Surr)</i>			<i>103 %</i>		<i>70-130 %</i>		<i>1x</i>					
LCS (6031000-BS1)						Prepared: 03/31/16 09:00 Analyzed: 03/31/16 15:01						
5035/8260B												
Benzene	807	5.00	10.0	ug/kg wet	50	1000	---	81	65-135%	---	---	
Toluene	878	25.0	50.0	"	"	"	---	88	"	---	---	
Ethylbenzene	868	12.5	25.0	"	"	"	---	87	"	---	---	
Xylenes, total	2590	37.5	75.0	"	"	3000	---	86	"	---	---	
<i>Surr: Dibromofluoromethane (Surr)</i>			<i>Recovery: 98 %</i>		<i>Limits: 70-130 %</i>		<i>Dilution: 1x</i>					
<i>1,4-Difluorobenzene (Surr)</i>			<i>96 %</i>		<i>70-130 %</i>		<i>"</i>					
<i>Toluene-d8 (Surr)</i>			<i>97 %</i>		<i>70-130 %</i>		<i>50x</i>					
<i>4-Bromofluorobenzene (Surr)</i>			<i>97 %</i>		<i>70-130 %</i>		<i>1x</i>					
Duplicate (6031000-DUP2)						Prepared: 03/29/16 10:15 Analyzed: 03/31/16 22:27						
QC Source Sample: 5237-160329-DC-EMB010G (A6C1124-01)												
5035/8260B												
Benzene	ND	9.47	18.9	ug/kg dry	50	---	ND	---	---	---	---	30%
Toluene	ND	47.4	94.7	"	"	---	ND	---	---	---	---	30%
Ethylbenzene	ND	23.7	47.4	"	"	---	ND	---	---	---	---	30%
Xylenes, total	ND	71.1	142	"	"	---	ND	---	---	---	---	30%
<i>Surr: Dibromofluoromethane (Surr)</i>			<i>Recovery: 102 %</i>		<i>Limits: 70-130 %</i>		<i>Dilution: 1x</i>					
<i>1,4-Difluorobenzene (Surr)</i>			<i>96 %</i>		<i>70-130 %</i>		<i>"</i>					
<i>Toluene-d8 (Surr)</i>			<i>96 %</i>		<i>70-130 %</i>		<i>50x</i>					
<i>4-Bromofluorobenzene (Surr)</i>			<i>100 %</i>		<i>70-130 %</i>		<i>1x</i>					

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QUALITY CONTROL (QC) SAMPLE RESULTS

Anions by EPA 300.0/9056A (Ion Chromatography)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040118 - Method Prep: Non-Aq						Soil						
Blank (6040118-BLK1)						Prepared: 04/05/16 17:05 Analyzed: 04/08/16 13:41						
EPA 9056A												
Sulfate	ND	10.0	10.0	mg/kg wet	1	---	---	---	---	---	---	---
LCS (6040118-BS1)						Prepared: 04/05/16 17:05 Analyzed: 04/08/16 14:02						
EPA 9056A												
Sulfate	79.1	10.0	10.0	mg/kg wet	1	80.0	---	99	90-110%	---	---	---
Duplicate (6040118-DUP2)						Prepared: 04/05/16 17:05 Analyzed: 04/08/16 20:09						
QC Source Sample: 5237-160329-DC-EMB010 (A6C1124-02)												
EPA 9056A												
Sulfate	46.8	13.9	13.9	mg/kg dry	1	---	54.6	---	---	15	15%	---
Matrix Spike (6040118-MS2)						Prepared: 04/05/16 17:05 Analyzed: 04/08/16 20:30						
QC Source Sample: 5237-160329-DC-EMB010 (A6C1124-02)												
EPA 9056A												
Sulfate	144	13.8	13.8	mg/kg dry	1	110	54.6	82	80-120%	---	---	---



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QUALITY CONTROL (QC) SAMPLE RESULTS

Cyanide - Total (Non-aqueous)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040170 - Method Prep: Non-Aq						Soil						
Blank (6040170-BLK1)						Prepared: 04/07/16 09:31 Analyzed: 04/07/16 15:40						
EPA 9013M/9014												
Cyanide, Total	ND	0.100	0.100	mg/kg wet	1	---	---	---	---	---	---	
LCS (6040170-BS1)						Prepared: 04/07/16 09:31 Analyzed: 04/07/16 15:42						
EPA 9013M/9014												
Cyanide, Total	4.03	0.100	0.100	mg/kg wet	1	4.00	---	101	85-115%	---	---	

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Reported:

04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031018 - EPA 3546						Soil						
Blank (6031018-BLK1)						Prepared: 03/31/16 11:53 Analyzed: 03/31/16 17:08						
EPA 8270D												
Acenaphthene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Anthracene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	1.87	3.75	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	1.87	3.75	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	1.87	3.75	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Chrysene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Fluoranthene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Fluorene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	2.50	5.00	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	2.50	5.00	"	"	---	---	---	---	---	---	
Naphthalene	ND	2.50	5.00	"	"	---	---	---	---	---	---	
Phenanthrene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Pyrene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Carbazole	ND	1.87	3.75	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	1.25	2.50	"	"	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	12.5	25.0	"	"	---	---	---	---	---	---	
2-Chlorophenol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	31.2	62.5	"	"	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	31.2	62.5	"	"	---	---	---	---	---	---	
2-Methylphenol	ND	3.12	6.25	"	"	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	3.12	6.25	"	"	---	---	---	---	---	---	
2-Nitrophenol	ND	12.5	25.0	"	"	---	---	---	---	---	---	
4-Nitrophenol	ND	12.5	25.0	"	"	---	---	---	---	---	---	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031018 - EPA 3546						Soil						
Blank (6031018-BLK1)						Prepared: 03/31/16 11:53 Analyzed: 03/31/16 17:08						
Pentachlorophenol (PCP)	ND	12.5	25.0	ug/kg wet	"	---	---	---	---	---	---	
Phenol	ND	2.50	5.00	"	"	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
2,3,5,6-Tetrachlorophenol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	18.7	37.5	"	"	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Diethylphthalate	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Dimethylphthalate	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	12.5	25.0	"	"	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	3.12	6.25	"	"	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	3.12	6.25	"	"	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	3.12	6.25	"	"	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	3.12	6.25	"	"	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	3.12	6.25	"	"	---	---	---	---	---	---	
Bis(2-Chloroisopropyl) ether	ND	3.12	6.25	"	"	---	---	---	---	---	---	
Hexachlorobenzene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	3.12	6.25	"	"	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	6.25	12.5	"	"	---	---	---	---	---	---	
Hexachloroethane	ND	3.12	6.25	"	"	---	---	---	---	---	---	
2-Chloronaphthalene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	3.12	6.25	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	3.12	6.25	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	3.12	6.25	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	3.12	6.25	"	"	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	3.12	6.25	"	"	---	---	---	---	---	---	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

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04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031018 - EPA 3546						Soil						
Blank (6031018-BLK1)						Prepared: 03/31/16 11:53 Analyzed: 03/31/16 17:08						
4-Chlorophenyl phenyl ether	ND	3.12	6.25	ug/kg wet	"	---	---	---	---	---	---	
Aniline	ND	6.25	12.5	"	"	---	---	---	---	---	---	
4-Chloroaniline	ND	3.12	6.25	"	"	---	---	---	---	---	---	
2-Nitroaniline	ND	25.0	50.0	"	"	---	---	---	---	---	---	
3-Nitroaniline	ND	25.0	50.0	"	"	---	---	---	---	---	---	
4-Nitroaniline	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Nitrobenzene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Benzoic acid	ND	157	312	"	"	---	---	---	---	---	---	
Benzyl alcohol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
Isophorone	ND	3.12	6.25	"	"	---	---	---	---	---	---	
Azobenzene (1,2-DPH)	ND	3.12	6.25	"	"	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	31.2	62.5	"	"	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	12.5	25.0	"	"	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	31.2	62.5	"	"	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	31.2	62.5	"	"	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	31.2	62.5	"	"	---	---	---	---	---	---	
Pyridine	ND	6.25	12.5	"	"	---	---	---	---	---	---	

<i>Surr: Nitrobenzene-d5 (Surr)</i>	<i>Recovery: 85 %</i>	<i>Limits: 37-122 %</i>	<i>Dilution: 1x</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>75 %</i>	<i>44-115 %</i>	<i>"</i>
<i>Phenol-d6 (Surr)</i>	<i>74 %</i>	<i>33-122 %</i>	<i>"</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>104 %</i>	<i>54-127 %</i>	<i>"</i>
<i>2-Fluorophenol (Surr)</i>	<i>71 %</i>	<i>35-115 %</i>	<i>"</i>
<i>2,4,6-Tribromophenol (Surr)</i>	<i>72 %</i>	<i>39-132 %</i>	<i>"</i>

LCS (6031018-BS1)

Prepared: 03/31/16 11:53 Analyzed: 03/31/16 17:45

EPA 8270D												
Acenaphthene	509	1.33	2.67	ug/kg wet	1	533	---	95	40-122%	---	---	
Acenaphthylene	483	1.33	2.67	"	"	"	---	91	32-132%	---	---	
Anthracene	518	1.33	2.67	"	"	"	---	97	47-123%	---	---	
Benz(a)anthracene	534	1.33	2.67	"	"	"	---	100	49-126%	---	---	

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Philip Nerenberg, Lab Director

Hahn and Associates
 434 NW 6th Ave. Suite 203
 Portland, OR 97209

Project: **Siltronic RI-Doane Creek**
 Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:
 04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031018 - EPA 3546						Soil						
LCS (6031018-BS1)						Prepared: 03/31/16 11:53 Analyzed: 03/31/16 17:45						
Benzo(a)pyrene	532	2.00	4.00	ug/kg wet	"	"	---	100	45-129%	---	---	
Benzo(b)fluoranthene	591	2.00	4.00	"	"	"	---	111	45-132%	---	---	
Benzo(k)fluoranthene	552	2.00	4.00	"	"	"	---	104	47-132%	---	---	
Benzo(g,h,i)perylene	546	1.33	2.67	"	"	"	---	102	43-134%	---	---	
Chrysene	540	1.33	2.67	"	"	"	---	101	50-124%	---	---	
Dibenz(a,h)anthracene	519	1.33	2.67	"	"	"	---	97	45-134%	---	---	
Fluoranthene	549	1.33	2.67	"	"	"	---	103	50-127%	---	---	
Fluorene	526	1.33	2.67	"	"	"	---	99	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	507	1.33	2.67	"	"	"	---	95	45-133%	---	---	
1-Methylnaphthalene	518	2.67	5.33	"	"	"	---	97	40-120%	---	---	
2-Methylnaphthalene	515	2.67	5.33	"	"	"	---	97	38-122%	---	---	
Naphthalene	485	2.67	5.33	"	"	"	---	91	35-123%	---	---	
Phenanthrene	502	1.33	2.67	"	"	"	---	94	50-121%	---	---	
Pyrene	537	1.33	2.67	"	"	"	---	101	47-127%	---	---	
Carbazole	518	2.00	4.00	"	"	"	---	97	50-122%	---	---	
Dibenzofuran	504	1.33	2.67	"	"	"	---	94	44-120%	---	---	
4-Chloro-3-methylphenol	573	13.3	26.7	"	"	"	---	107	45-122%	---	---	
2-Chlorophenol	553	6.67	13.3	"	"	"	---	104	34-121%	---	---	
2,4-Dichlorophenol	559	6.67	13.3	"	"	"	---	105	40-122%	---	---	
2,4-Dimethylphenol	569	6.67	13.3	"	"	"	---	107	30-127%	---	---	
2,4-Dinitrophenol	466	33.3	66.7	"	"	"	---	87	5-137%	---	---	
4,6-Dinitro-2-methylphenol	489	33.3	66.7	"	"	"	---	92	29-132%	---	---	
2-Methylphenol	616	3.33	6.67	"	"	"	---	116	32-122%	---	---	
3+4-Methylphenol(s)	650	3.33	6.67	"	"	"	---	122	34-120%	---	---	Q-29
2-Nitrophenol	502	13.3	26.7	"	"	"	---	94	36-123%	---	---	
4-Nitrophenol	504	13.3	26.7	"	"	"	---	95	30-132%	---	---	
Pentachlorophenol (PCP)	515	13.3	26.7	"	"	"	---	97	25-133%	---	---	
Phenol	584	2.67	5.33	"	"	"	---	109	34-120%	---	---	
2,3,4,6-Tetrachlorophenol	519	6.67	13.3	"	"	"	---	97	44-125%	---	---	
2,3,5,6-Tetrachlorophenol	507	6.67	13.3	"	"	"	---	95	40-120%	---	---	
2,4,5-Trichlorophenol	521	6.67	13.3	"	"	"	---	98	41-124%	---	---	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031018 - EPA 3546						Soil						
LCS (6031018-BS1)						Prepared: 03/31/16 11:53 Analyzed: 03/31/16 17:45						
2,4,6-Trichlorophenol	504	6.67	13.3	ug/kg wet	"	"	---	94	39-126%	---	---	
Bis(2-ethylhexyl)phthalate	562	20.0	40.0	"	"	"	---	105	51-133%	---	---	
Butyl benzyl phthalate	576	13.3	26.7	"	"	"	---	108	48-132%	---	---	
Diethylphthalate	526	13.3	26.7	"	"	"	---	99	50-124%	---	---	
Dimethylphthalate	514	13.3	26.7	"	"	"	---	96	48-124%	---	---	
Di-n-butylphthalate	550	13.3	26.7	"	"	"	---	103	51-128%	---	---	
Di-n-octyl phthalate	567	13.3	26.7	"	"	"	---	106	44-140%	---	---	
N-Nitrosodimethylamine	515	3.33	6.67	"	"	"	---	97	23-120%	---	---	
N-Nitroso-di-n-propylamine	607	3.33	6.67	"	"	"	---	114	36-120%	---	---	
N-Nitrosodiphenylamine	531	3.33	6.67	"	"	"	---	100	38-127%	---	---	
Bis(2-Chloroethoxy) methane	507	3.33	6.67	"	"	"	---	95	36-121%	---	---	
Bis(2-Chloroethyl) ether	524	3.33	6.67	"	"	"	---	98	31-120%	---	---	
Bis(2-Chloroisopropyl) ether	490	3.33	6.67	"	"	"	---	92	33-131%	---	---	
Hexachlorobenzene	499	1.33	2.67	"	"	"	---	94	44-122%	---	---	
Hexachlorobutadiene	474	3.33	6.67	"	"	"	---	89	32-123%	---	---	
Hexachlorocyclopentadiene	451	6.67	13.3	"	"	"	---	84	5-140%	---	---	
Hexachloroethane	481	3.33	6.67	"	"	"	---	90	28-120%	---	---	
2-Chloronaphthalene	480	1.33	2.67	"	"	"	---	90	41-120%	---	---	
1,2-Dichlorobenzene	473	3.33	6.67	"	"	"	---	89	33-120%	---	---	
1,3-Dichlorobenzene	464	3.33	6.67	"	"	"	---	87	30-120%	---	---	
1,4-Dichlorobenzene	469	3.33	6.67	"	"	"	---	88	31-120%	---	---	
1,2,4-Trichlorobenzene	472	3.33	6.67	"	"	"	---	89	34-120%	---	---	
4-Bromophenyl phenyl ether	529	3.33	6.67	"	"	"	---	99	46-124%	---	---	
4-Chlorophenyl phenyl ether	530	3.33	6.67	"	"	"	---	99	45-121%	---	---	
Aniline	498	6.67	13.3	"	"	"	---	93	7-120%	---	---	
4-Chloroaniline	310	3.33	6.67	"	"	"	---	58	16-120%	---	---	
2-Nitroaniline	505	26.7	53.3	"	"	"	---	95	44-127%	---	---	
3-Nitroaniline	431	26.7	53.3	"	"	"	---	81	33-120%	---	---	

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 Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:
 04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031018 - EPA 3546												
						Soil						
LCS (6031018-BS1) Prepared: 03/31/16 11:53 Analyzed: 03/31/16 17:45												
4-Nitroaniline	502	26.7	53.3	ug/kg wet	"	"	---	94	35-120%	---	---	
Nitrobenzene	548	13.3	26.7	"	"	"	---	103	34-122%	---	---	
2,4-Dinitrotoluene	555	13.3	26.7	"	"	"	---	104	48-126%	---	---	
2,6-Dinitrotoluene	530	13.3	26.7	"	"	"	---	99	46-124%	---	---	
Benzoic acid	421	167	333	"	"	1070	---	39	5-140%	---	---	
Benzyl alcohol	614	6.67	13.3	"	"	533	---	115	29-122%	---	---	
Isophorone	547	3.33	6.67	"	"	"	---	103	30-122%	---	---	
Azobenzene (1,2-DPH)	484	3.33	6.67	"	"	"	---	91	39-125%	---	---	
Bis(2-Ethylhexyl) adipate	546	33.3	66.7	"	"	"	---	102	60-121%	---	---	
3,3'-Dichlorobenzidine	1400	13.3	26.7	"	"	1070	---	132	22-121%	---	---	Q-29
1,2-Dinitrobenzene	545	33.3	66.7	"	"	533	---	102	44-120%	---	---	
1,3-Dinitrobenzene	529	33.3	66.7	"	"	"	---	99	42-127%	---	---	
1,4-Dinitrobenzene	538	33.3	66.7	"	"	"	---	101	37-132%	---	---	
Pyridine	491	6.67	13.3	"	"	"	---	92	5-120%	---	---	

<i>Surr: Nitrobenzene-d5 (Surr)</i>	<i>Recovery: 99 %</i>	<i>Limits: 37-122 %</i>	<i>Dilution: 1x</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>91 %</i>	<i>44-115 %</i>	<i>"</i>
<i>Phenol-d6 (Surr)</i>	<i>111 %</i>	<i>33-122 %</i>	<i>"</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>105 %</i>	<i>54-127 %</i>	<i>"</i>
<i>2-Fluorophenol (Surr)</i>	<i>94 %</i>	<i>35-115 %</i>	<i>"</i>
<i>2,4,6-Tribromophenol (Surr)</i>	<i>91 %</i>	<i>39-132 %</i>	<i>"</i>

Duplicate (6031018-DUP3)

Prepared: 03/31/16 11:53 Analyzed: 04/01/16 14:42

QC Source Sample: 5237-160329-DC-EMB010 (A6C1124-02RE1)

EPA 8270D												
Acenaphthene	175	7.47	15.0	ug/kg dry	4	---	173	---	---	1	30%	
Acenaphthylene	51.2	7.47	15.0	"	"	---	63.7	---	---	22	30%	
Anthracene	209	7.47	15.0	"	"	---	228	---	---	9	30%	
Benz(a)anthracene	1380	7.47	15.0	"	"	---	1360	---	---	1	30%	
Benzo(a)pyrene	2030	11.2	22.5	"	"	---	1950	---	---	4	30%	
Benzo(b)fluoranthene	2690	11.2	22.5	"	"	---	2550	---	---	5	30%	M-02
Benzo(k)fluoranthene	938	11.2	22.5	"	"	---	936	---	---	0.2	30%	M-02
Benzo(g,h,i)perylene	1560	7.47	15.0	"	"	---	1550	---	---	0.2	30%	

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Project: **Siltronic RI-Doane Creek**

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Project Manager: Rob Ede

Reported:
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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031018 - EPA 3546												
						Soil						
Duplicate (6031018-DUP3)						Prepared: 03/31/16 11:53 Analyzed: 04/01/16 14:42						
QC Source Sample: 5237-160329-DC-EMB010 (A6C1124-02RE1)												
Chrysene	1600	7.47	15.0	ug/kg dry	"	---	1570	---	---	2	30%	
Dibenz(a,h)anthracene	326	7.47	15.0	"	"	---	304	---	---	7	30%	
Fluoranthene	2020	7.47	15.0	"	"	---	2060	---	---	2	30%	
Fluorene	90.9	7.47	15.0	"	"	---	115	---	---	23	30%	
Indeno(1,2,3-cd)pyrene	1560	7.47	15.0	"	"	---	1500	---	---	4	30%	
1-Methylnaphthalene	16.8	15.0	29.9	"	"	---	19.5	---	---	15	30%	J
2-Methylnaphthalene	29.2	15.0	29.9	"	"	---	28.6	---	---	2	30%	J
Naphthalene	83.7	15.0	29.9	"	"	---	95.6	---	---	13	30%	B-02
Phenanthrene	895	7.47	15.0	"	"	---	1010	---	---	12	30%	
Pyrene	2040	7.47	15.0	"	"	---	2110	---	---	3	30%	
Carbazole	191	11.2	22.5	"	"	---	187	---	---	2	30%	
Dibenzofuran	41.3	7.47	15.0	"	"	---	54.3	---	---	27	30%	
4-Chloro-3-methylphenol	ND	74.7	150	"	"	---	ND	---	---	---	30%	
2-Chlorophenol	ND	37.4	74.7	"	"	---	ND	---	---	---	30%	
2,4-Dichlorophenol	ND	37.4	74.7	"	"	---	ND	---	---	---	30%	
2,4-Dimethylphenol	ND	37.4	74.7	"	"	---	ND	---	---	---	30%	
2,4-Dinitrophenol	ND	187	374	"	"	---	ND	---	---	---	30%	
4,6-Dinitro-2-methylphenol	ND	187	374	"	"	---	ND	---	---	---	30%	
2-Methylphenol	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
3+4-Methylphenol(s)	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
2-Nitrophenol	ND	74.7	150	"	"	---	ND	---	---	---	30%	
4-Nitrophenol	ND	74.7	150	"	"	---	ND	---	---	---	30%	
Pentachlorophenol (PCP)	ND	74.7	150	"	"	---	ND	---	---	---	30%	
Phenol	22.1	15.0	29.9	"	"	---	19.7	---	---	11	30%	J
2,3,4,6-Tetrachlorophenol	ND	37.4	74.7	"	"	---	ND	---	---	---	30%	
2,3,5,6-Tetrachlorophenol	ND	37.4	74.7	"	"	---	ND	---	---	---	30%	
2,4,5-Trichlorophenol	ND	37.4	74.7	"	"	---	ND	---	---	---	30%	
2,4,6-Trichlorophenol	ND	37.4	74.7	"	"	---	ND	---	---	---	30%	
Bis(2-ethylhexyl)phthalate	ND	112	225	"	"	---	ND	---	---	---	30%	
Butyl benzyl phthalate	ND	74.7	150	"	"	---	ND	---	---	---	30%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031018 - EPA 3546						Soil						
Duplicate (6031018-DUP3)						Prepared: 03/31/16 11:53 Analyzed: 04/01/16 14:42						
QC Source Sample: 5237-160329-DC-EMB010 (A6C1124-02RE1)												
Diethylphthalate	ND	74.7	150	ug/kg dry	"	---	ND	---	---	---	30%	
Dimethylphthalate	ND	74.7	150	"	"	---	ND	---	---	---	30%	
Di-n-butylphthalate	ND	74.7	150	"	"	---	ND	---	---	---	30%	
Di-n-octyl phthalate	ND	74.7	150	"	"	---	ND	---	---	---	30%	
N-Nitrosodimethylamine	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
N-Nitroso-di-n-propylamine	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
N-Nitrosodiphenylamine	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
Bis(2-Chloroethoxy) methane	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
Bis(2-Chloroethyl) ether	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
Bis(2-Chloroisopropyl) ether	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
Hexachlorobenzene	ND	7.47	15.0	"	"	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
Hexachlorocyclopentadiene	ND	37.4	74.7	"	"	---	ND	---	---	---	30%	
Hexachloroethane	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
2-Chloronaphthalene	ND	7.47	15.0	"	"	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
4-Bromophenyl phenyl ether	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
4-Chlorophenyl phenyl ether	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
Aniline	ND	37.4	74.7	"	"	---	ND	---	---	---	30%	
4-Chloroaniline	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
2-Nitroaniline	ND	150	299	"	"	---	ND	---	---	---	30%	
3-Nitroaniline	ND	150	299	"	"	---	ND	---	---	---	30%	
4-Nitroaniline	ND	150	299	"	"	---	ND	---	---	---	30%	
Nitrobenzene	ND	74.7	150	"	"	---	ND	---	---	---	30%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031018 - EPA 3546												
Soil												
Duplicate (6031018-DUP3)						Prepared: 03/31/16 11:53 Analyzed: 04/01/16 14:42						
QC Source Sample: 5237-160329-DC-EMB010 (A6C1124-02RE1)												
2,4-Dinitrotoluene	ND	74.7	150	ug/kg dry	"	---	ND	---	---	---	30%	
2,6-Dinitrotoluene	ND	74.7	150	"	"	---	ND	---	---	---	30%	
Benzoic acid	ND	938	1870	"	"	---	ND	---	---	---	30%	
Benzyl alcohol	ND	37.4	74.7	"	"	---	ND	---	---	---	30%	
Isophorone	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
Azobenzene (1,2-DPH)	ND	18.7	37.4	"	"	---	ND	---	---	---	30%	
Bis(2-Ethylhexyl) adipate	ND	187	374	"	"	---	ND	---	---	---	30%	
3,3'-Dichlorobenzidine	ND	74.7	150	"	"	---	ND	---	---	---	30%	
1,2-Dinitrobenzene	ND	187	374	"	"	---	ND	---	---	---	30%	
1,3-Dinitrobenzene	ND	187	374	"	"	---	ND	---	---	---	30%	
1,4-Dinitrobenzene	ND	187	374	"	"	---	ND	---	---	---	30%	
Pyridine	ND	37.4	74.7	"	"	---	ND	---	---	---	30%	

<i>Surr: Nitrobenzene-d5 (Surr)</i>	<i>Recovery: 72 %</i>	<i>Limits: 37-122 %</i>	<i>Dilution: 4x</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>80 %</i>	<i>44-115 %</i>	<i>"</i>
<i>Phenol-d6 (Surr)</i>	<i>77 %</i>	<i>33-122 %</i>	<i>"</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>97 %</i>	<i>54-127 %</i>	<i>"</i>
<i>2-Fluorophenol (Surr)</i>	<i>73 %</i>	<i>35-115 %</i>	<i>"</i>
<i>2,4,6-Tribromophenol (Surr)</i>	<i>106 %</i>	<i>39-132 %</i>	<i>"</i>

Matrix Spike (6031018-MS1)

Prepared: 03/31/16 11:53 Analyzed: 04/04/16 18:14


QC Source Sample: 5237-160329-DC-EMB020 (A6C1124-16RE1)

EPA 8270D

Acenaphthene	613	7.38	14.8	ug/kg dry	4	740	8.51	82	40-122%	---	---
Acenaphthylene	631	7.38	14.8	"	"	"	ND	85	32-132%	---	---
Anthracene	709	7.38	14.8	"	"	"	10.6	94	47-123%	---	---
Benz(a)anthracene	759	7.38	14.8	"	"	"	72.7	93	49-126%	---	---
Benzo(a)pyrene	810	11.1	22.2	"	"	"	114	94	45-129%	---	---
Benzo(b)fluoranthene	863	11.1	22.2	"	"	"	127	99	45-132%	---	---
Benzo(k)fluoranthene	770	11.1	22.2	"	"	"	44.0	98	47-132%	---	---
Benzo(g,h,i)perylene	812	7.38	14.8	"	"	"	88.1	98	43-134%	---	---
Chrysene	764	7.38	14.8	"	"	"	85.9	92	50-124%	---	---

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Philip Nerenberg, Lab Director

Hahn and Associates

434 NW 6th Ave. Suite 203
 Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031018 - EPA 3546						Soil						
Matrix Spike (6031018-MS1)						Prepared: 03/31/16 11:53 Analyzed: 04/04/16 18:14						
QC Source Sample: 5237-160329-DC-EMB020 (A6C1124-16RE1)												
Dibenz(a,h)anthracene	682	7.38	14.8	ug/kg dry	"	"	17.0	90	45-134%	---	---	
Fluoranthene	869	7.38	14.8	"	"	"	125	101	50-127%	---	---	
Fluorene	679	7.38	14.8	"	"	"	ND	92	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	727	7.38	14.8	"	"	"	75.2	88	45-133%	---	---	
1-Methylnaphthalene	606	14.8	29.6	"	"	"	ND	82	40-120%	---	---	
2-Methylnaphthalene	600	14.8	29.6	"	"	"	ND	81	38-122%	---	---	
Naphthalene	563	14.8	29.6	"	"	"	ND	76	35-123%	---	---	
Phenanthrene	721	7.38	14.8	"	"	"	50.8	90	50-121%	---	---	
Pyrene	894	7.38	14.8	"	"	"	137	102	47-127%	---	---	
Carbazole	741	11.1	22.2	"	"	"	ND	100	50-122%	---	---	
Dibenzofuran	649	7.38	14.8	"	"	"	ND	88	44-120%	---	---	
4-Chloro-3-methylphenol	690	73.8	148	"	"	"	ND	93	45-122%	---	---	
2-Chlorophenol	600	37.0	73.8	"	"	"	ND	81	34-121%	---	---	
2,4-Dichlorophenol	639	37.0	73.8	"	"	"	ND	86	40-122%	---	---	
2,4-Dimethylphenol	683	37.0	73.8	"	"	"	ND	92	30-127%	---	---	
2,4-Dinitrophenol	757	185	370	"	"	"	ND	102	5-137%	---	---	
4,6-Dinitro-2-methylphenol	714	185	370	"	"	"	ND	96	29-132%	---	---	
2-Methylphenol	641	18.5	37.0	"	"	"	ND	87	32-122%	---	---	
3+4-Methylphenol(s)	658	18.5	37.0	"	"	"	ND	89	34-120%	---	---	
2-Nitrophenol	599	73.8	148	"	"	"	ND	81	36-123%	---	---	
4-Nitrophenol	705	73.8	148	"	"	"	ND	95	30-132%	---	---	
Pentachlorophenol (PCP)	802	73.8	148	"	"	"	ND	108	25-133%	---	---	
Phenol	569	14.8	29.6	"	"	"	ND	77	34-120%	---	---	
2,3,4,6-Tetrachlorophenol	818	37.0	73.8	"	"	"	ND	111	44-125%	---	---	
2,3,5,6-Tetrachlorophenol	782	37.0	73.8	"	"	"	ND	106	40-120%	---	---	
2,4,5-Trichlorophenol	704	37.0	73.8	"	"	"	ND	95	41-124%	---	---	
2,4,6-Trichlorophenol	708	37.0	73.8	"	"	"	ND	96	39-126%	---	---	
Bis(2-ethylhexyl)phthalate	834	111	222	"	"	"	114	97	51-133%	---	---	
Butyl benzyl phthalate	682	73.8	148	"	"	"	ND	92	48-132%	---	---	
Diethylphthalate	733	73.8	148	"	"	"	ND	99	50-124%	---	---	

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Philip Nerenberg, Lab Director

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031018 - EPA 3546												
Soil												
Matrix Spike (6031018-MS1)						Prepared: 03/31/16 11:53 Analyzed: 04/04/16 18:14						
QC Source Sample: 5237-160329-DC-EMB020 (A6C1124-16RE1)												
Dimethylphthalate	674	73.8	148	ug/kg dry	"	"	ND	91	48-124%	---	---	
Di-n-butylphthalate	767	73.8	148	"	"	"	ND	104	51-128%	---	---	
Di-n-octyl phthalate	740	73.8	148	"	"	"	ND	100	44-140%	---	---	
N-Nitrosodimethylamine	475	18.5	37.0	"	"	"	ND	64	23-120%	---	---	
N-Nitroso-di-n-propylamine	612	18.5	37.0	"	"	"	ND	83	36-120%	---	---	
N-Nitrosodiphenylamine	706	18.5	37.0	"	"	"	ND	95	38-127%	---	---	
Bis(2-Chloroethoxy) methane	558	18.5	37.0	"	"	"	ND	75	36-121%	---	---	
Bis(2-Chloroethyl) ether	509	18.5	37.0	"	"	"	ND	69	31-120%	---	---	
Bis(2-Chloroisopropyl) ether	533	18.5	37.0	"	"	"	ND	72	33-131%	---	---	
Hexachlorobenzene	648	7.38	14.8	"	"	"	ND	88	44-122%	---	---	
Hexachlorobutadiene	547	18.5	37.0	"	"	"	ND	74	32-123%	---	---	
Hexachlorocyclopentadiene	495	37.0	73.8	"	"	"	ND	67	5-140%	---	---	
Hexachloroethane	517	18.5	37.0	"	"	"	ND	70	28-120%	---	---	
2-Chloronaphthalene	581	7.38	14.8	"	"	"	ND	79	41-120%	---	---	
1,2-Dichlorobenzene	517	18.5	37.0	"	"	"	ND	70	33-120%	---	---	
1,3-Dichlorobenzene	494	18.5	37.0	"	"	"	ND	67	30-120%	---	---	
1,4-Dichlorobenzene	487	18.5	37.0	"	"	"	ND	66	31-120%	---	---	
1,2,4-Trichlorobenzene	535	18.5	37.0	"	"	"	ND	72	34-120%	---	---	
4-Bromophenyl phenyl ether	667	18.5	37.0	"	"	"	ND	90	46-124%	---	---	
4-Chlorophenyl phenyl ether	645	18.5	37.0	"	"	"	ND	87	45-121%	---	---	
Aniline	375	37.0	73.8	"	"	"	ND	51	7-120%	---	---	
4-Chloroaniline	305	18.5	37.0	"	"	"	ND	41	16-120%	---	---	
2-Nitroaniline	629	148	296	"	"	"	ND	85	44-127%	---	---	
3-Nitroaniline	371	148	296	"	"	"	ND	50	33-120%	---	---	
4-Nitroaniline	410	148	296	"	"	"	ND	55	35-120%	---	---	
Nitrobenzene	560	73.8	148	"	"	"	ND	76	34-122%	---	---	
2,4-Dinitrotoluene	675	73.8	148	"	"	"	ND	91	48-126%	---	---	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031018 - EPA 3546												
Soil												
Matrix Spike (6031018-MS1)						Prepared: 03/31/16 11:53 Analyzed: 04/04/16 18:14						
QC Source Sample: 5237-160329-DC-EMB020 (A6C1124-16RE1)												
2,6-Dinitrotoluene	670	73.8	148	ug/kg dry	"	"	ND	91	46-124%	---	---	
Benzoic acid	2110	927	1850	"	"	1480	ND	143	5-140%	---	---	Q-01, Q-31
Benzyl alcohol	635	37.0	73.8	"	"	740	ND	86	29-122%	---	---	
Isophorone	636	18.5	37.0	"	"	"	ND	86	30-122%	---	---	
Azobenzene (1,2-DPH)	660	18.5	37.0	"	"	"	ND	89	39-125%	---	---	
Bis(2-Ethylhexyl) adipate	720	185	370	"	"	"	ND	97	60-121%	---	---	
3,3'-Dichlorobenzidine	389	73.8	148	"	"	1480	ND	26	22-121%	---	---	
1,2-Dinitrobenzene	648	185	370	"	"	740	ND	88	44-120%	---	---	
1,3-Dinitrobenzene	655	185	370	"	"	"	ND	88	42-127%	---	---	
1,4-Dinitrobenzene	607	185	370	"	"	"	ND	82	37-132%	---	---	
Pyridine	238	37.0	73.8	"	"	"	ND	32	5-120%	---	---	

<i>Surr: Nitrobenzene-d5 (Surr)</i>	<i>Recovery: 71 %</i>	<i>Limits: 37-122 %</i>	<i>Dilution: 4x</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>78 %</i>	<i>44-115 %</i>	<i>"</i>
<i>Phenol-d6 (Surr)</i>	<i>79 %</i>	<i>33-122 %</i>	<i>"</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>93 %</i>	<i>54-127 %</i>	<i>"</i>
<i>2-Fluorophenol (Surr)</i>	<i>70 %</i>	<i>35-115 %</i>	<i>"</i>
<i>2,4,6-Tribromophenol (Surr)</i>	<i>104 %</i>	<i>39-132 %</i>	<i>"</i>

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Hahn and Associates

434 NW 6th Ave. Suite 203
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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:

04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031018 - EPA 3546						Soil						
Blank (6031018-BLK1)						Prepared: 03/31/16 11:53 Analyzed: 03/31/16 17:08						
GC/MS Scan												
C1-Chrysenes/Benz(a)anthracenes	ND	12.5	12.5	ug/kg wet	1	---	---	---	---	---	---	
C1-Fluoranthrenes/Pyrenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C1-Fluorenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C1-Phenanthrenes/Anthracenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C2-Chrysenes/Benz(a)anthracenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C2-Fluorenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C2-Naphthalenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C2-Phenanthrenes/Anthracenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C3-Chrysenes/Benz(a)anthracenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C3-Fluorenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C3-Naphthalenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C3-Phenanthrenes/Anthracenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C4-Chrysenes/Benz(a)anthracenes	ND	25.0	25.0	"	"	---	---	---	---	---	---	
C4-Naphthalenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C4-Phenanthrenes/Anthracenes	ND	25.0	25.0	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	6.25	12.5	"	"	---	---	---	---	---	---	
2,6-Dimethylnaphthalene	ND	6.25	12.5	"	"	---	---	---	---	---	---	
1,6,7-Trimethylnaphthalene	ND	6.25	12.5	"	"	---	---	---	---	---	---	
Fluorene	ND	6.25	12.5	"	"	---	---	---	---	---	---	
1-Methylphenanthrene	ND	6.25	12.5	"	"	---	---	---	---	---	---	
Pyrene	ND	6.25	12.5	"	"	---	---	---	---	---	---	
Chrysene	ND	6.25	12.5	"	"	---	---	---	---	---	---	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 78 %		Limits: 40-120 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		85 %		40-120 %		"						

LCS (6031018-BS2)

Prepared: 03/31/16 11:53 Analyzed: 03/31/16 18:23

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Reported:

04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031018 - EPA 3546												
Soil												
LCS (6031018-BS2)												
						Prepared: 03/31/16 11:53 Analyzed: 03/31/16 18:23						
GC/MS Scan												
2-Methylnaphthalene	522	6.67	13.3	ug/kg wet	1	533	---	98	38-122%	---	---	
2,6-Dimethylnaphthalene	476	6.67	13.3	"	"	"	---	89	40-125%	---	---	
1,6,7-Trimethylnaphthalene	532	6.67	13.3	"	"	"	---	100	45-125%	---	---	
Fluorene	516	6.67	13.3	"	"	"	---	97	43-125%	---	---	
1-Methylphenanthrene	571	6.67	13.3	"	"	"	---	107	45-125%	---	---	
Pyrene	585	6.67	13.3	"	"	"	---	110	47-127%	---	---	
Chrysene	557	6.67	13.3	"	"	"	---	104	50-124%	---	---	

Surr: Acenaphthylene-d8 (Surr) Recovery: 100 % Limits: 40-120 % Dilution: 1x
 Benzo(a)pyrene-d12 (Surr) 97 % 40-120 % "

Duplicate (6031018-DUP3)

Prepared: 03/31/16 11:53 Analyzed: 04/01/16 14:42

QC Source Sample: 5237-160329-DC-EMB010 (A6C1124-02RE1)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
GC/MS Scan												
C1-Chrysenes/Benz(a)anthracenes	755	74.9	74.9	ug/kg dry	4	---	754	---	---	0.04	30%	
C1-Fluoranthrenes/Pyrenes	853	74.9	74.9	"	"	---	869	---	---	2	30%	
C1-Fluorenes	ND	217	217	"	"	---	ND	---	---	---	30%	R-02
C1-Phenanthrenes/Anthracenes	400	74.9	74.9	"	"	---	462	---	---	14	30%	
C2-Chrysenes/Benz(a)anthracenes	273	74.9	74.9	"	"	---	326	---	---	18	30%	
C2-Fluorenes	ND	74.9	74.9	"	"	---	ND	---	---	---	30%	
C2-Naphthalenes	ND	74.9	74.9	"	"	---	ND	---	---	---	30%	
C2-Phenanthrenes/Anthracenes	217	74.9	74.9	"	"	---	260	---	---	18	30%	
C3-Chrysenes/Benz(a)anthracenes	181	74.9	74.9	"	"	---	207	---	---	13	30%	
C3-Fluorenes	ND	74.9	74.9	"	"	---	ND	---	---	---	30%	
C3-Naphthalenes	89.7	74.9	74.9	"	"	---	95.4	---	---	6	30%	
C3-Phenanthrenes/Anthracenes	113	74.9	74.9	"	"	---	141	---	---	22	30%	
C4-Chrysenes/Benz(a)anthracenes	327	150	150	"	"	---	293	---	---	11	30%	
C4-Naphthalenes	ND	74.9	74.9	"	"	---	ND	---	---	---	30%	

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04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6031018 - EPA 3546												
Soil												
Duplicate (6031018-DUP3)						Prepared: 03/31/16 11:53 Analyzed: 04/01/16 14:42						
QC Source Sample: 5237-160329-DC-EMB010 (A6C1124-02RE1)												
C4-Phenanthrenes/Anthracenes	ND	150	150	ug/kg dry	"	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	37.4	74.9	"	"	---	ND	---	---	---	30%	
2,6-Dimethylnaphthalene	ND	37.4	74.9	"	"	---	ND	---	---	---	30%	
1,6,7-Trimethylnaphthalene	ND	37.4	74.9	"	"	---	ND	---	---	---	30%	
Fluorene	93.4	37.4	74.9	"	"	---	118	---	---	23	30%	
1-Methylphenanthrene	60.5	37.4	74.9	"	"	---	66.0	---	---	9	30%	J
Pyrene	2070	37.4	74.9	"	"	---	2140	---	---	3	30%	
Chrysene	1620	37.4	74.9	"	"	---	1570	---	---	3	30%	
<i>Surr: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 94 %</i>		<i>Limits: 40-120 %</i>		<i>Dilution: 4x</i>						
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>96 %</i>		<i>40-120 %</i>		<i>"</i>						

Matrix Spike (6031018-MS2)						Prepared: 03/31/16 11:53 Analyzed: 04/04/16 18:50						
QC Source Sample: 5237-160329-DC-EMB020 (A6C1124-16RE1)												
GC/MS Scan												
2-Methylnaphthalene	703	74.9	74.9	ug/kg dry	4	749	ND	94	38-122%	---	---	
2,6-Dimethylnaphthalene	682	74.9	74.9	"	"	"	ND	91	40-125%	---	---	
1,6,7-Trimethylnaphthalene	714	74.9	74.9	"	"	"	ND	95	45-125%	---	---	
Fluorene	718	74.9	74.9	"	"	"	ND	96	43-125%	---	---	
1-Methylphenanthrene	765	74.9	74.9	"	"	"	ND	102	45-125%	---	---	
Pyrene	1050	74.9	74.9	"	"	"	135	122	47-127%	---	---	
Chrysene	894	74.9	74.9	"	"	"	87.1	108	50-124%	---	---	
<i>Surr: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 96 %</i>		<i>Limits: 40-120 %</i>		<i>Dilution: 4x</i>						
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>96 %</i>		<i>40-120 %</i>		<i>"</i>						

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040228 - EPA 3051A						Soil						
Blank (6040228-BLK1)						Prepared: 04/08/16 12:24 Analyzed: 04/12/16 11:58						
EPA 6020A												
Aluminum	ND	25.0	50.0	mg/kg wet	10	---	---	---	---	---	---	---
Antimony	ND	0.500	1.00	"	"	---	---	---	---	---	---	---
Arsenic	ND	0.500	1.00	"	"	---	---	---	---	---	---	---
Barium	ND	0.500	1.00	"	"	---	---	---	---	---	---	---
Beryllium	ND	0.100	0.200	"	"	---	---	---	---	---	---	---
Cadmium	ND	0.100	0.200	"	"	---	---	---	---	---	---	---
Calcium	ND	50.0	100	"	"	---	---	---	---	---	---	---
Chromium	ND	0.500	1.00	"	"	---	---	---	---	---	---	---
Copper	ND	0.500	1.00	"	"	---	---	---	---	---	---	---
Iron	ND	25.0	50.0	"	"	---	---	---	---	---	---	---
Lead	ND	0.100	0.200	"	"	---	---	---	---	---	---	---
Magnesium	ND	25.0	50.0	"	"	---	---	---	---	---	---	---
Manganese	ND	0.500	1.00	"	"	---	---	---	---	---	---	---
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	---
Nickel	ND	0.500	1.00	"	"	---	---	---	---	---	---	---
Potassium	ND	50.0	100	"	"	---	---	---	---	---	---	---
Selenium	ND	0.500	1.00	"	"	---	---	---	---	---	---	---
Silver	ND	0.100	0.200	"	"	---	---	---	---	---	---	---
Sodium	ND	50.0	100	"	"	---	---	---	---	---	---	---
Thallium	ND	0.100	0.200	"	"	---	---	---	---	---	---	---
Vanadium	ND	0.500	1.00	"	"	---	---	---	---	---	---	---
Zinc	ND	2.00	4.00	"	"	---	---	---	---	---	---	---

LCS (6040228-BS1)

Prepared: 04/08/16 12:24 Analyzed: 04/12/16 12:01

EPA 6020A												
Aluminum	4920	25.0	50.0	mg/kg wet	10	5000	---	98	80-120%	---	---	---
Antimony	25.7	0.500	1.00	"	"	25.0	---	103	"	---	---	---
Arsenic	51.4	0.500	1.00	"	"	50.0	---	103	"	---	---	---
Barium	51.3	0.500	1.00	"	"	"	---	103	"	---	---	---
Beryllium	23.8	0.100	0.200	"	"	25.0	---	95	"	---	---	---

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Philip Nerenberg, Lab Director

Hahn and Associates

434 NW 6th Ave. Suite 203
Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:

04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040228 - EPA 3051A						Soil						
LCS (6040228-BS1)						Prepared: 04/08/16 12:24 Analyzed: 04/12/16 12:01						
Cadmium	49.5	0.100	0.200	mg/kg wet	"	50.0	---	99	"	---	---	
Calcium	5220	50.0	100	"	"	5000	---	104	"	---	---	
Chromium	50.2	0.500	1.00	"	"	50.0	---	100	"	---	---	
Copper	51.1	0.500	1.00	"	"	"	---	102	"	---	---	
Iron	5100	25.0	50.0	"	"	5000	---	102	"	---	---	
Lead	51.7	0.100	0.200	"	"	50.0	---	103	"	---	---	
Magnesium	4720	25.0	50.0	"	"	5000	---	94	"	---	---	
Manganese	51.0	0.500	1.00	"	"	50.0	---	102	"	---	---	
Mercury	1.07	0.0400	0.0800	"	"	1.00	---	107	"	---	---	
Nickel	51.2	0.500	1.00	"	"	50.0	---	102	"	---	---	
Potassium	5100	50.0	100	"	"	5000	---	102	"	---	---	
Selenium	29.3	0.500	1.00	"	"	25.0	---	117	"	---	---	
Silver	24.4	0.100	0.200	"	"	"	---	98	"	---	---	
Sodium	4820	50.0	100	"	"	5000	---	96	"	---	---	
Thallium	24.6	0.100	0.200	"	"	25.0	---	98	"	---	---	
Vanadium	52.0	0.500	1.00	"	"	50.0	---	104	"	---	---	
Zinc	56.1	2.00	4.00	"	"	"	---	112	"	---	---	

Duplicate (6040228-DUP1)

Prepared: 04/08/16 12:24 Analyzed: 04/12/16 12:22

QC Source Sample: 5237-160329-DC-EMB004 (A6C1124-06)

EPA 6020A

Aluminum	18000	34.7	69.4	mg/kg dry	10	---	18000	---	---	0.04	40%
Antimony	ND	0.694	1.39	"	"	---	ND	---	---	---	40%
Arsenic	9.53	0.694	1.39	"	"	---	10.4	---	---	9	40%
Barium	175	0.694	1.39	"	"	---	174	---	---	0.8	40%
Beryllium	0.777	0.139	0.277	"	"	---	0.821	---	---	5	40%
Cadmium	0.361	0.139	0.277	"	"	---	0.354	---	---	2	40%
Calcium	3720	69.4	139	"	"	---	4000	---	---	7	40%
Chromium	21.7	0.694	1.39	"	"	---	19.9	---	---	9	40%
Copper	27.1	0.694	1.39	"	"	---	27.9	---	---	3	40%
Iron	37400	34.7	69.4	"	"	---	40000	---	---	7	40%

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Project Number: 5237-10dc
Project Manager: Rob Ede

Reported:

04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040228 - EPA 3051A												
Soil												
Duplicate (6040228-DUP1)						Prepared: 04/08/16 12:24 Analyzed: 04/12/16 12:22						
QC Source Sample: 5237-160329-DC-EMB004 (A6C1124-06)												
Lead	19.1	0.139	0.277	mg/kg dry	"	---	15.8	---	---	19	40%	
Magnesium	5280	34.7	69.4	"	"	---	5450	---	---	3	40%	
Manganese	1030	0.694	1.39	"	"	---	1160	---	---	12	40%	
Mercury	ND	0.0555	0.111	"	"	---	ND	---	---	---	40%	
Nickel	19.3	0.694	1.39	"	"	---	20.5	---	---	6	40%	
Potassium	993	69.4	139	"	"	---	1010	---	---	2	40%	
Selenium	ND	0.694	1.39	"	"	---	ND	---	---	---	40%	
Silver	ND	0.139	0.277	"	"	---	ND	---	---	---	40%	
Sodium	196	69.4	139	"	"	---	149	---	---	27	40%	
Thallium	0.194	0.139	0.277	"	"	---	0.184	---	---	5	40%	J
Vanadium	96.6	0.694	1.39	"	"	---	96.3	---	---	0.3	40%	
Zinc	83.3	2.77	5.55	"	"	---	86.0	---	---	3	40%	

Matrix Spike (6040228-MS1)

Prepared: 04/08/16 12:24 Analyzed: 04/12/16 12:25

QC Source Sample: 5237-160329-DC-EMB004 (A6C1124-06)

EPA 6020A												
Aluminum	23300	35.6	71.2	mg/kg dry	10	7120	18000	74	75-125%	---	---	Q-03
Antimony	30.8	0.712	1.42	"	"	35.6	ND	87	"	---	---	
Arsenic	78.4	0.712	1.42	"	"	71.2	10.4	95	"	---	---	
Barium	246	0.712	1.42	"	"	"	174	101	"	---	---	
Beryllium	33.3	0.142	0.285	"	"	35.6	0.821	91	"	---	---	
Cadmium	71.6	0.142	0.285	"	"	71.2	0.354	100	"	---	---	
Calcium	10500	71.2	142	"	"	7120	4000	91	"	---	---	
Chromium	90.7	0.712	1.42	"	"	71.2	19.9	99	"	---	---	
Copper	96.7	0.712	1.42	"	"	"	27.9	97	"	---	---	
Iron	41000	35.6	71.2	"	"	7120	40000	14	"	---	---	Q-03
Lead	86.2	0.142	0.285	"	"	71.2	15.8	99	"	---	---	
Magnesium	11400	35.6	71.2	"	"	7120	5450	83	"	---	---	
Manganese	901	0.712	1.42	"	"	71.2	1160	-365	"	---	---	Q-03
Mercury	1.52	0.0570	0.114	"	"	1.42	ND	107	"	---	---	

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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:
 04/30/16 22:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040228 - EPA 3051A						Soil						
Matrix Spike (6040228-MS1)						Prepared: 04/08/16 12:24 Analyzed: 04/12/16 12:25						
QC Source Sample: 5237-160329-DC-EMB004 (A6C1124-06)												
Nickel	90.0	0.712	1.42	mg/kg dry	"	71.2	20.5	98	"	---	---	
Potassium	7570	71.2	142	"	"	7120	1010	92	"	---	---	
Selenium	37.0	0.712	1.42	"	"	35.6	ND	104	"	---	---	
Silver	34.2	0.142	0.285	"	"	"	ND	96	"	---	---	
Sodium	6480	71.2	142	"	"	7120	149	89	"	---	---	
Thallium	33.1	0.142	0.285	"	"	35.6	0.184	93	"	---	---	
Vanadium	159	0.712	1.42	"	"	71.2	96.3	89	"	---	---	
Zinc	151	2.85	5.70	"	"	"	86.0	92	"	---	---	



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QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040121 - PSEP TOC						Sediment						
Blank (6040121-BLK1)						Prepared: 04/05/16 18:15 Analyzed: 04/08/16 13:30						
SM 5310B MOD												
Total Organic Carbon	ND	100	200	mg/kg	1	---	---	---	---	---	---	
LCS (6040121-BS1)						Prepared: 04/05/16 18:15 Analyzed: 04/08/16 13:30						
SM 5310B MOD												
Total Organic Carbon	9700			mg/kg	1	10000	---	97	85-115%	---	---	
Duplicate (6040121-DUP1)						Prepared: 04/05/16 18:15 Analyzed: 04/08/16 13:30						
QC Source Sample: 5237-160329-DC-EMB010 (A6C1124-02)												
SM 5310B MOD												
Total Organic Carbon	15000	100	200	mg/kg	1	---	24000	---	---	43	20%	Q-04



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QUALITY CONTROL (QC) SAMPLE RESULTS

Ammonia by UV Digestion/Gas Diffusion/Colorimetric Detection

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040053 - Method Prep: Non-Aq						Soil						
Blank (6040053-BLK1)						Prepared: 04/04/16 10:05 Analyzed: 04/06/16 19:15						
SM4500-NH3 Mod												
Ammonia as N	ND	0.100	0.200	mg/kg wet	1	---	---	---	---	---	---	
LCS (6040053-BS1)						Prepared: 04/04/16 10:05 Analyzed: 04/06/16 19:15						
SM4500-NH3 Mod												
Ammonia as N	1.92	0.100	0.200	mg/kg wet	1	2.00	---	96	90-110%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040032 - Total Solids (Dry Weight)						Soil						
Duplicate (6040032-DUP1)						Prepared: 04/01/16 13:25 Analyzed: 04/04/16 07:40						
QC Source Sample: 5237-160329-DC-EMB013 (A6C1124-10)												
EPA 8000C												
% Solids	71.0	1.00	1.00	% by Weight	1	---	71.9	---	---	1	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.



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Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
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Reported:

04/30/16 22:21

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6031010							
A6C1124-08	Soil	NWTPH-Dx	03/29/16 12:00	03/31/16 15:13	11.88g/5mL	10g/5mL	0.84
A6C1124-10	Soil	NWTPH-Dx	03/29/16 13:15	03/31/16 15:13	11.1g/5mL	10g/5mL	0.90
A6C1124-12	Soil	NWTPH-Dx	03/29/16 13:40	03/31/16 15:13	10.29g/5mL	10g/5mL	0.97
A6C1124-14	Soil	NWTPH-Dx	03/29/16 14:25	03/31/16 15:13	11.2g/5mL	10g/5mL	0.89
A6C1124-16	Soil	NWTPH-Dx	03/29/16 15:10	03/31/16 15:13	10.46g/5mL	10g/5mL	0.96
Batch: 6031026							
A6C1124-02	Soil	NWTPH-Dx	03/29/16 10:15	03/31/16 15:16	11.22g/5mL	10g/5mL	0.89
A6C1124-04	Soil	NWTPH-Dx	03/29/16 10:35	03/31/16 15:16	12g/5mL	10g/5mL	0.83
A6C1124-06	Soil	NWTPH-Dx	03/29/16 11:15	03/31/16 15:16	10.95g/5mL	10g/5mL	0.91

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6031000							
A6C1124-01	Soil	NWTPH-Gx (MS)	03/29/16 10:15	03/29/16 10:15	5.44g/5mL	5g/5mL	0.92
A6C1124-03	Soil	NWTPH-Gx (MS)	03/29/16 10:35	03/29/16 10:35	5.4g/5mL	5g/5mL	0.93
A6C1124-05	Soil	NWTPH-Gx (MS)	03/29/16 11:15	03/29/16 11:15	4.89g/5mL	5g/5mL	1.02
A6C1124-07	Soil	NWTPH-Gx (MS)	03/29/16 12:00	03/29/16 12:00	6g/5mL	5g/5mL	0.83
A6C1124-09	Soil	NWTPH-Gx (MS)	03/29/16 13:15	03/29/16 13:15	5.89g/5mL	5g/5mL	0.85
A6C1124-11	Soil	NWTPH-Gx (MS)	03/29/16 13:40	03/29/16 13:40	5.46g/5mL	5g/5mL	0.92
A6C1124-13	Soil	NWTPH-Gx (MS)	03/29/16 14:25	03/29/16 14:25	5.41g/5mL	5g/5mL	0.92
A6C1124-15	Soil	NWTPH-Gx (MS)	03/29/16 15:10	03/29/16 15:10	5.58g/5mL	5g/5mL	0.90

BTEX Compounds by EPA 8260B

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6031000							
A6C1124-01	Soil	5035/8260B	03/29/16 10:15	03/29/16 10:15	5.44g/5mL	5g/5mL	0.92
A6C1124-03	Soil	5035/8260B	03/29/16 10:35	03/29/16 10:35	5.4g/5mL	5g/5mL	0.93
A6C1124-05	Soil	5035/8260B	03/29/16 11:15	03/29/16 11:15	4.89g/5mL	5g/5mL	1.02
A6C1124-07	Soil	5035/8260B	03/29/16 12:00	03/29/16 12:00	6g/5mL	5g/5mL	0.83
A6C1124-09	Soil	5035/8260B	03/29/16 13:15	03/29/16 13:15	5.89g/5mL	5g/5mL	0.85
A6C1124-11	Soil	5035/8260B	03/29/16 13:40	03/29/16 13:40	5.46g/5mL	5g/5mL	0.92

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 Project Manager: Rob Ede

Reported:
 04/30/16 22:21

SAMPLE PREPARATION INFORMATION

BTEX Compounds by EPA 8260B

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A6C1124-13	Soil	5035/8260B	03/29/16 14:25	03/29/16 14:25	5.41g/5mL	5g/5mL	0.92
A6C1124-15	Soil	5035/8260B	03/29/16 15:10	03/29/16 15:10	5.58g/5mL	5g/5mL	0.90

Anions by EPA 300.0/9056A (Ion Chromatography)

Prep: Method Prep: Non-Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040118							
A6C1124-02	Soil	EPA 9056A	03/29/16 10:15	04/05/16 17:05	5.1441g/50mL	5g/50mL	0.97
A6C1124-04	Soil	EPA 9056A	03/29/16 10:35	04/05/16 17:05	5.0766g/50mL	5g/50mL	0.99
A6C1124-06	Soil	EPA 9056A	03/29/16 11:15	04/05/16 17:05	5.0306g/50mL	5g/50mL	0.99
A6C1124-08	Soil	EPA 9056A	03/29/16 12:00	04/05/16 17:05	5.1113g/50mL	5g/50mL	0.98
A6C1124-10	Soil	EPA 9056A	03/29/16 13:15	04/05/16 17:05	5.1729g/50mL	5g/50mL	0.97
A6C1124-12	Soil	EPA 9056A	03/29/16 13:40	04/05/16 17:05	5.0806g/50mL	5g/50mL	0.98
A6C1124-14	Soil	EPA 9056A	03/29/16 14:25	04/05/16 17:05	5.1699g/50mL	5g/50mL	0.97
A6C1124-16	Soil	EPA 9056A	03/29/16 15:10	04/05/16 17:05	5.0775g/50mL	5g/50mL	0.99

Cyanide - Total (Non-aqueous)

Prep: Method Prep: Non-Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040170							
A6C1124-02	Soil	EPA 9013M/9014	03/29/16 10:15	04/07/16 09:31	2.5383g/50mL	2.5g/50mL	0.99
A6C1124-04	Soil	EPA 9013M/9014	03/29/16 10:35	04/07/16 09:31	2.5798g/50mL	2.5g/50mL	0.97
A6C1124-06	Soil	EPA 9013M/9014	03/29/16 11:15	04/07/16 09:31	2.5612g/50mL	2.5g/50mL	0.98
A6C1124-08	Soil	EPA 9013M/9014	03/29/16 12:00	04/07/16 09:31	2.5123g/50mL	2.5g/50mL	1.00
A6C1124-10	Soil	EPA 9013M/9014	03/29/16 13:15	04/07/16 09:31	2.5351g/50mL	2.5g/50mL	0.99
A6C1124-12	Soil	EPA 9013M/9014	03/29/16 13:40	04/07/16 09:31	2.5882g/50mL	2.5g/50mL	0.97
A6C1124-14	Soil	EPA 9013M/9014	03/29/16 14:25	04/07/16 09:31	2.5785g/50mL	2.5g/50mL	0.97
A6C1124-16	Soil	EPA 9013M/9014	03/29/16 15:10	04/07/16 09:31	2.5092g/50mL	2.5g/50mL	1.00

Semivolatile Organic Compounds by EPA 8270D

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6031018							

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04/30/16 22:21

SAMPLE PREPARATION INFORMATION

Semivolatile Organic Compounds by EPA 8270D

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A6C1124-02RE1	Soil	EPA 8270D	03/29/16 10:15	03/31/16 11:53	15.32g/2mL	15g/2mL	0.98
A6C1124-04RE2	Soil	EPA 8270D	03/29/16 10:35	03/31/16 11:53	15.13g/2mL	15g/2mL	0.99
A6C1124-06RE1	Soil	EPA 8270D	03/29/16 11:15	03/31/16 11:53	15.37g/2mL	15g/2mL	0.98
A6C1124-08RE2	Soil	EPA 8270D	03/29/16 12:00	03/31/16 11:53	15.46g/2mL	15g/2mL	0.97
A6C1124-10RE1	Soil	EPA 8270D	03/29/16 13:15	03/31/16 11:53	15.72g/2mL	15g/2mL	0.95
A6C1124-12RE1	Soil	EPA 8270D	03/29/16 13:40	03/31/16 11:53	15.19g/2mL	15g/2mL	0.99
A6C1124-14RE2	Soil	EPA 8270D	03/29/16 14:25	03/31/16 11:53	15.84g/2mL	15g/2mL	0.95
A6C1124-16RE2	Soil	EPA 8270D	03/29/16 15:10	03/31/16 11:53	15.4g/2mL	15g/2mL	0.97

Alkylated PAH Homologs by 8270D Modified

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6031018							
A6C1124-02RE1	Soil	GC/MS Scan	03/29/16 10:15	03/31/16 11:53	15.32g/2mL	10g/2mL	0.65
A6C1124-04RE2	Soil	GC/MS Scan	03/29/16 10:35	03/31/16 11:53	15.13g/2mL	10g/2mL	0.66
A6C1124-06RE1	Soil	GC/MS Scan	03/29/16 11:15	03/31/16 11:53	15.37g/2mL	10g/2mL	0.65
A6C1124-08RE2	Soil	GC/MS Scan	03/29/16 12:00	03/31/16 11:53	15.46g/2mL	10g/2mL	0.65
A6C1124-10RE1	Soil	GC/MS Scan	03/29/16 13:15	03/31/16 11:53	15.72g/2mL	10g/2mL	0.64
A6C1124-12RE1	Soil	GC/MS Scan	03/29/16 13:40	03/31/16 11:53	15.19g/2mL	10g/2mL	0.66
A6C1124-14RE2	Soil	GC/MS Scan	03/29/16 14:25	03/31/16 11:53	15.84g/2mL	10g/2mL	0.63
A6C1124-16RE2	Soil	GC/MS Scan	03/29/16 15:10	03/31/16 11:53	15.4g/2mL	10g/2mL	0.65

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040228							
A6C1124-02	Soil	EPA 6020A	03/29/16 10:15	04/08/16 12:24	0.467g/50mL	0.5g/50mL	1.07
A6C1124-04	Soil	EPA 6020A	03/29/16 10:35	04/08/16 12:24	0.48g/50mL	0.5g/50mL	1.04
A6C1124-06	Soil	EPA 6020A	03/29/16 11:15	04/08/16 12:24	0.499g/50mL	0.5g/50mL	1.00
A6C1124-08	Soil	EPA 6020A	03/29/16 12:00	04/08/16 12:24	0.509g/50mL	0.5g/50mL	0.98
A6C1124-10	Soil	EPA 6020A	03/29/16 13:15	04/08/16 12:24	0.506g/50mL	0.5g/50mL	0.99
A6C1124-12	Soil	EPA 6020A	03/29/16 13:40	04/08/16 12:24	0.471g/50mL	0.5g/50mL	1.06
A6C1124-14	Soil	EPA 6020A	03/29/16 14:25	04/08/16 12:24	0.501g/50mL	0.5g/50mL	1.00
A6C1124-16	Soil	EPA 6020A	03/29/16 15:10	04/08/16 12:24	0.466g/50mL	0.5g/50mL	1.07

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Philip Nerenberg, Lab Director

Hahn and Associates

434 NW 6th Ave. Suite 203
 Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

SAMPLE PREPARATION INFORMATION

Conventional Chemistry Parameters

Prep: PSEP TOC

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040121							
A6C1124-02	Soil	SM 5310B MOD	03/29/16 10:15	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1124-04	Soil	SM 5310B MOD	03/29/16 10:35	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1124-06	Soil	SM 5310B MOD	03/29/16 11:15	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1124-08	Soil	SM 5310B MOD	03/29/16 12:00	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1124-10	Soil	SM 5310B MOD	03/29/16 13:15	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1124-12	Soil	SM 5310B MOD	03/29/16 13:40	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1124-14	Soil	SM 5310B MOD	03/29/16 14:25	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1124-16	Soil	SM 5310B MOD	03/29/16 15:10	04/05/16 18:15	5g/5g	5g/5g	NA

Ammonia by UV Digestion/Gas Diffusion/Colorimetric Detection

Prep: Method Prep: Non-Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040053							
A6C1124-02	Soil	SM4500-NH3 Mod	03/29/16 10:15	04/04/16 10:05	5.0016g/50mL	5g/50mL	1.00
A6C1124-04	Soil	SM4500-NH3 Mod	03/29/16 10:35	04/04/16 10:05	5.0204g/50mL	5g/50mL	1.00
A6C1124-06	Soil	SM4500-NH3 Mod	03/29/16 11:15	04/04/16 10:05	5.6763g/50mL	5g/50mL	0.88
A6C1124-08	Soil	SM4500-NH3 Mod	03/29/16 12:00	04/04/16 10:05	5.0134g/50mL	5g/50mL	1.00
A6C1124-10	Soil	SM4500-NH3 Mod	03/29/16 13:15	04/04/16 10:05	5.082g/50mL	5g/50mL	0.98
A6C1124-12	Soil	SM4500-NH3 Mod	03/29/16 13:40	04/04/16 10:05	5.0292g/50mL	5g/50mL	0.99
A6C1124-14	Soil	SM4500-NH3 Mod	03/29/16 14:25	04/04/16 10:05	5.0784g/50mL	5g/50mL	0.99
A6C1124-16	Soil	SM4500-NH3 Mod	03/29/16 15:10	04/04/16 10:05	5.229g/50mL	5g/50mL	0.96

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040032							
A6C1124-02	Soil	EPA 8000C	03/29/16 10:15	04/01/16 13:25	1N/A/1N/A	1N/A/1N/A	NA
A6C1124-04	Soil	EPA 8000C	03/29/16 10:35	04/01/16 13:25	1N/A/1N/A	1N/A/1N/A	NA
A6C1124-06	Soil	EPA 8000C	03/29/16 11:15	04/01/16 13:25	1N/A/1N/A	1N/A/1N/A	NA
A6C1124-08	Soil	EPA 8000C	03/29/16 12:00	04/01/16 13:25	1N/A/1N/A	1N/A/1N/A	NA
A6C1124-10	Soil	EPA 8000C	03/29/16 13:15	04/01/16 13:25	1N/A/1N/A	1N/A/1N/A	NA
A6C1124-12	Soil	EPA 8000C	03/29/16 13:40	04/01/16 13:25	1N/A/1N/A	1N/A/1N/A	NA

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Hahn and Associates

434 NW 6th Ave. Suite 203
 Portland, OR 97209

Project: **Siltronic RI-Doane Creek**

Project Number: 5237-10dc
 Project Manager: Rob Ede

Reported:

04/30/16 22:21

SAMPLE PREPARATION INFORMATION

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A6C1124-14	Soil	EPA 8000C	03/29/16 14:25	04/01/16 13:25	1N/A/1N/A	1N/A/1N/A	NA
A6C1124-16	Soil	EPA 8000C	03/29/16 15:10	04/01/16 13:25	1N/A/1N/A	1N/A/1N/A	NA
Batch: 6040069							
A6C1124-01	Soil	EPA 8000C	03/29/16 10:15	04/04/16 14:17	1N/A/1N/A	1N/A/1N/A	NA
A6C1124-03	Soil	EPA 8000C	03/29/16 10:35	04/04/16 14:17	1N/A/1N/A	1N/A/1N/A	NA
A6C1124-05	Soil	EPA 8000C	03/29/16 11:15	04/04/16 14:17	1N/A/1N/A	1N/A/1N/A	NA
A6C1124-07	Soil	EPA 8000C	03/29/16 12:00	04/04/16 14:17	1N/A/1N/A	1N/A/1N/A	NA
A6C1124-09	Soil	EPA 8000C	03/29/16 13:15	04/04/16 14:17	1N/A/1N/A	1N/A/1N/A	NA
A6C1124-11	Soil	EPA 8000C	03/29/16 13:40	04/04/16 14:17	1N/A/1N/A	1N/A/1N/A	NA
A6C1124-13	Soil	EPA 8000C	03/29/16 14:25	04/04/16 14:17	1N/A/1N/A	1N/A/1N/A	NA
A6C1124-15	Soil	EPA 8000C	03/29/16 15:10	04/04/16 14:17	1N/A/1N/A	1N/A/1N/A	NA



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Notes and Definitions

Qualifiers:

- A-01 % solids data copied from corresponding even numbered sample IDs to allow dry wt. correction of 5035 Gx analysis.
- B-02 Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
- F-03 The result for this hydrocarbon range is elevated due to the presence of individual analyte peaks in the quantitation range that are not representative of the fuel pattern reported.
- J Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- M-02 Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated.
- Q-01 Spike recovery and/or RPD is outside acceptance limits.
- Q-03 Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
- Q-04 Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- Q-29 Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-31 Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- R-02 The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.

Notes and Conventions:

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry' designation are not dry weight corrected.
- RPD Relative Percent Difference
- MDL If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
- WMSC Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
- Batch QC Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
- Blank Policy Apex assesses blank data for potential high bias down to a level equal to 1/2 the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses.
- For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor.
- Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.

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--- QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

*** Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).



