Bear Run Mine
Precipitation Data
September 2012

Date	Precip (in)
9/1/2012	0.12
9/2/2012	2.44
9/3/2012	0.01
9/4/2012	0.00
9/5/2012	0.60
9/6/2012	0.02
9/7/2012	1.52
9/8/2012	0.06
9/9/2012	0.00
9/10/2012	0.00
9/11/2012	0.00
9/12/2012	0.00
9/13/2012	0.00
9/14/2012	0.05
9/15/2012	0.00
9/16/2012	0.00
9/17/2012	0.24
9/18/2012	0.00
9/19/2012	0.00
9/20/2012	0.19
9/21/2012	0.00
9/22/2012	0.00
9/23/2012	0.00
9/24/2012	0.00
9/25/2012	0.56
9/26/2012	0.90
9/27/2012	0.28
9/28/2012	0.01
9/29/2012	0.00
9/30/2012	0.00

McCOY & McCOY
LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Certificate of Analysis

Robert Pendleton
Peabody Midwest Mining LLC
7100 Eagle Crest Blvd
Evansville IN, 47715

Report Printed: 10/12/2012 10:02

Project Name:	Indiana	Workorder:	2091349

Dear Robert Pendleton

Enclosed are the analytical results for samples received at the lab on 09/07/2012 11:20.

McCoy & McCoy Laboratories, Inc located in Madisonville, Kentucky is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact us at (270) 821-7375.

Please visit us at www.mccoylabs.com for a listing of NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of McCoy & McCoy Laboratories, Inc.

Syd Tate

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Syd Tate, Data Reviewer

McCOY & McCOY
LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
2091349-01	INSB-ALK/1630_BRP018REPA_09062012	Surfacewater	09/06/2012 08:00	09/07/2012 11:20	Forrest Crowe
2091349-02	INSB-ALK/1630_BRP018REPA_09062012	Surfacewater	09/06/2012 08:00	09/07/2012 11:20	Forrest Crowe
2091349-03	INSB-ALK/1630_BRE053EPA_09062012	Surfacewater	09/06/2012 10:45	09/07/2012 11:20	Forrest Crowe
2091349-04	INSB-ALK/1630_BRE053EPA_09062012	Surfacewater	09/06/2012 10:45	09/07/2012 11:20	Forrest Crowe
2091349-05	INSB-ALK/1630_FIELDBLANKEPA_09062012	Surfacewater	09/06/2012 10:45	09/07/2012 11:20	Forrest Crowe

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091349-01**
Description: **INSB-ALK 1630_BRP018REPA_09062012**

Sample Collection Date Time: 09/06/2012 08:00
Sample Received Date Time: 09/07/2012 11:20

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Arsenic	**0.0016**		mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/11/2012 19:34	JCD
Beryllium	ND	U	mg/L	0.0010	0.0005	SW846 6020C	09/11/2012 08:00	09/12/2012 19:31	JCD
Cadmium	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/11/2012 19:34	JCD
Calcium	**67.4**		mg/L	0.20	0.06	SW846 6010B	09/11/2012 08:00	09/12/2012 22:44	MLC
Chromium	**0.001**		mg/L	0.001	0.0003	SW846 6020C	09/11/2012 08:00	09/11/2012 19:34	JCD
Lead	ND	U	mg/L	0.0010	0.0005	SW846 6020C	09/11/2012 08:00	09/11/2012 19:34	JCD
Magnesium	**16.9**		mg/L	0.100	0.045	SW846 6010B	09/11/2012 08:00	09/12/2012 22:44	MLC
Manganese	**0.077**		mg/L	0.003	0.001	SW846 6020C	09/11/2012 08:00	09/11/2012 19:34	JCD
Mercury	**3.6**		ng/L	0.5	0.2	EPA 1631E	09/11/2012 19:28	09/12/2012 13:33	RND
Mercury in Field Blank	**0.3**	**J**	ng/L	0.5	0.2	EPA 1631E	09/11/2012 19:28	09/12/2012 12:35	RND
Potassium	**3.75**		mg/L	0.01	0.01	SW846 6010B	09/11/2012 08:00	09/12/2012 22:44	MLC
Silver	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/11/2012 19:34	JCD
Sodium	**111**	B1	mg/L	0.13	0.05	SW846 6010B	09/11/2012 08:00	09/12/2012 22:44	MLC
Thallium	ND	U	mg/L	0.0010	0.0004	SW846 6020C	09/11/2012 08:00	09/11/2012 19:34	JCD
Vanadium	**0.004**		mg/L	0.002	0.002	SW846 6020C	09/11/2012 08:00	09/12/2012 19:31	JCD
Zinc	ND	U	mg/L	0.010	0.010	SW846 6020C	09/11/2012 08:00	09/11/2012 19:34	JCD

Metals (Dissolved) by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Beryllium	ND	U	mg/L	0.0005	0.0005	SW846 6020C	09/12/2012 16:59	09/14/2012 23:40	JCD
Cadmium	**0.0004**	**J**	mg/L	0.0005	0.0001	SW846 6020C	09/12/2012 16:59	09/14/2012 23:40	JCD
Chromium	ND	U	mg/L	0.002	0.0003	SW846 6020C	09/12/2012 16:59	09/14/2012 23:40	JCD
Iron	ND	U	mg/L	0.02	0.006	SW846 6010B	09/12/2012 16:55	09/19/2012 18:29	MLC
Lead	ND	U	mg/L	0.0020	0.0020	SW846 6020C	09/12/2012 16:59	09/14/2012 23:40	JCD
Silver	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/12/2012 16:59	09/14/2012 23:40	JCD
Thallium	ND	U	mg/L	0.0005	0.0005	SW846 6020C	09/12/2012 16:59	09/14/2012 23:40	JCD
Vanadium	ND	U	mg/L	0.002	0.002	SW846 6020C	09/12/2012 16:59	09/14/2012 23:40	JCD
Zinc	ND	U	mg/L	0.010	0.010	SW846 6020C	09/12/2012 16:59	09/14/2012 23:40	JCD

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Acidity	ND	U	mg/L	1	1	SM2310B	09/10/2012 17:00	09/10/2012 17:00	TLB
Bicarbonate Alkalinity as CaCO3	**129**	B	mg/L	1	1	SM2320B	09/13/2012 09:16	09/13/2012 09:16	DDM
Total Alkalinity	**125**	B	mg/L	1	1	SM2320B	09/10/2012 17:25	09/10/2012 17:25	TLB
Chloride	**7.5**	D	mg/L	1.0	1.0	SW846 9056	09/16/2012 22:44	09/16/2012 22:44	DMH
Specific Conductance (Lab)	**873**		umhos/cm	1	1	SM2510B	09/11/2012 11:02	09/11/2012 14:00	TLB
Hardness as CaCO3	**250**		mg/L	1	1	SM2340C	09/12/2012 09:50	09/12/2012 14:32	JTL
pH (Lab)	**7.82**	H3	Std. Units	0.10	0.10	SM4500H+B	09/11/2012 11:27	09/11/2012 14:45	TLB
Sulfate	**322**	**D**	mg/L	10	2	SW846 9056	09/16/2012 22:44	09/16/2012 22:44	DMH
Total Dissolved Solids	**580**		mg/L	10	10	SM2540C	09/11/2012 10:31	09/11/2012 15:00	DDM
Total Suspended Solids	**15**		mg/L	4	2	SM2540D	09/11/2012 11:22	09/11/2012 12:46	JTL

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091349-01RE1**
Description: **INSB-ALK**

Sample Collection Date Time: 09/06/2012 08:00
Sample Received Date Time: 09/07/2012 11:20

Matrix: Surfacewater
Discharge/Site No:
Regulatory ID:

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	**0.001**	J	mg/L	0.002	0.001	SW846 6020C	09/25/2012 12:08	09/26/2012 04:45	RND
Copper	**0.002**		mg/L	0.002	0.0005	SW846 6020C	09/25/2012 12:08	09/26/2012 04:45	RND
Iron	**1.13**		mg/L	0.06	0.02	SW846 6010B	09/25/2012 12:08	09/27/2012 01:18	MLC
Nickel	**0.0063**		mg/L	0.0015	0.0005	SW846 6020C	09/25/2012 12:08	09/26/2012 04:45	RND
Selenium	**0.0006**	J	mg/L	0.002	0.0005	SW846 6020C	09/25/2012 12:08	09/26/2012 04:45	RND

Metals (Dissolved) by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	**0.009**	J	mg/L	0.02	0.007	SW846 6020C	09/25/2012 17:13	09/26/2012 21:56	RND
Antimony	ND	U	mg/L	0.005	0.001	SW846 6020C	09/25/2012 17:13	09/26/2012 21:56	RND
Arsenic	**0.0010**		mg/L	0.0005	0.0002	SW846 6020C	09/25/2012 17:13	09/26/2012 21:56	RND
Copper	**0.0004**	J	mg/L	0.001	0.0002	SW846 6020C	09/25/2012 17:13	09/26/2012 21:56	RND
Nickel	**0.0039**		mg/L	0.0005	0.0002	SW846 6020C	09/25/2012 17:13	09/26/2012 21:56	RND
Selenium	ND	U	mg/L	0.001	0.0009	SW846 6020C	09/25/2012 17:13	09/26/2012 21:56	RND

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091349-01RE2**
Description: **INSB-ALK**

Sample Collection Date Time: 09/06/2012 08:00
Sample Received Date Time: 09/07/2012 11:20

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	**1.07**	D1	mg/L	0.20	0.07	SW846 6020C	09/25/2012 12:08	10/03/2012 23:22	JCD

Metals (Dissolved) by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Manganese	**0.071**		mg/L	0.004	0.002	SW846 6020C	10/01/2012 13:59	10/03/2012 22:11	JCD

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091349-02**
Description: **INSB-ALK 1630_BRP018REPA_09062012**

Sample Collection Date Time: 09/06/2012 08:00
Sample Received Date Time: 09/07/2012 11:20

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury, dissolved	**2.9**		ng/L	0.5	0.2	EPA 1631E	09/11/2012 19:28	09/12/2012 13:36	RND
Mercury in Field Blank, dissolved	**0.5**		ng/L	0.5	0.2	EPA 1631E	09/11/2012 19:28	09/12/2012 12:38	RND

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091349-03**
Description: **INSB-ALK 1630_BRE053EPA_09062012**

Sample Collection Date Time: 09/06/2012 10:45
Sample Received Date Time: 09/07/2012 11:20

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Arsenic	**0.0013**		mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/11/2012 19:38	JCD
Beryllium	ND	U	mg/L	0.0010	0.0005	SW846 6020C	09/11/2012 08:00	09/12/2012 19:38	JCD
Cadmium	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/11/2012 19:38	JCD
Calcium	**162**		mg/L	0.20	0.06	SW846 6010B	09/11/2012 08:00	09/12/2012 22:48	MLC
Chromium	**0.0003**	J	mg/L	0.001	0.0003	SW846 6020C	09/11/2012 08:00	09/11/2012 19:38	JCD
Lead	ND	U	mg/L	0.0010	0.0005	SW846 6020C	09/11/2012 08:00	09/11/2012 19:38	JCD
Magnesium	**91.8**		mg/L	0.100	0.045	SW846 6010B	09/11/2012 08:00	09/12/2012 22:48	MLC
Manganese	**0.244**		mg/L	0.003	0.001	SW846 6020C	09/11/2012 08:00	09/11/2012 19:38	JCD
Mercury	**1.4**		ng/L	0.5	0.2	EPA 1631E	09/11/2012 19:28	09/12/2012 13:39	RND
Mercury in Field Blank	**1.9**		ng/L	0.5	0.2	EPA 1631E	09/11/2012 19:28	09/12/2012 12:41	RND
Potassium	**7.38**		mg/L	0.01	0.01	SW846 6010B	09/11/2012 08:00	09/12/2012 22:48	MLC
Silver	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/11/2012 19:38	JCD
Sodium	**304**	B1	mg/L	0.13	0.05	SW846 6010B	09/11/2012 08:00	09/12/2012 22:48	MLC
Thallium	ND	U	mg/L	0.0010	0.0004	SW846 6020C	09/11/2012 08:00	09/11/2012 19:38	JCD
Vanadium	**0.002**		mg/L	0.002	0.002	SW846 6020C	09/11/2012 08:00	09/12/2012 19:38	JCD
Zinc	**0.010**		mg/L	0.010	0.010	SW846 6020C	09/11/2012 08:00	09/11/2012 19:38	JCD

Metals (Dissolved) by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	**0.008**	J	mg/L	0.02	0.007	SW846 6020C	09/12/2012 16:59	09/14/2012 23:47	JCD
Arsenic	**0.0011**		mg/L	0.0005	0.0002	SW846 6020C	09/12/2012 16:59	09/14/2012 23:47	JCD
Beryllium	ND	U	mg/L	0.0005	0.0005	SW846 6020C	09/12/2012 16:59	09/14/2012 23:47	JCD
Cadmium	ND	U	mg/L	0.0005	0.0001	SW846 6020C	09/12/2012 16:59	09/14/2012 23:47	JCD
Chromium	ND	U	mg/L	0.002	0.0003	SW846 6020C	09/12/2012 16:59	09/14/2012 23:47	JCD
Iron	ND	U	mg/L	0.02	0.006	SW846 6010B	09/12/2012 16:55	09/19/2012 18:32	MLC
Lead	ND	U	mg/L	0.0020	0.0020	SW846 6020C	09/12/2012 16:59	09/14/2012 23:47	JCD
Manganese	**0.0005**	J	mg/L	0.004	0.0002	SW846 6020C	09/12/2012 16:59	09/14/2012 23:47	JCD
Selenium	**0.001**		mg/L	0.001	0.0009	SW846 6020C	09/12/2012 16:59	09/14/2012 23:47	JCD
Silver	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/12/2012 16:59	09/14/2012 23:47	JCD
Thallium	ND	U	mg/L	0.0005	0.0005	SW846 6020C	09/12/2012 16:59	09/14/2012 23:47	JCD
Vanadium	ND	U	mg/L	0.002	0.002	SW846 6020C	09/12/2012 16:59	09/14/2012 23:47	JCD
Zinc	ND	U	mg/L	0.010	0.010	SW846 6020C	09/12/2012 16:59	09/14/2012 23:47	JCD

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Acidity	ND	U	mg/L	1	1	SM2310B	09/10/2012 17:00	09/10/2012 17:00	TLB
Bicarbonate Alkalinity as CaCO3	**364**	B	mg/L	1	1	SM2320B	09/13/2012 09:16	09/13/2012 09:16	DDM
Total Alkalinity	**378**	B	mg/L	1	1	SM2320B	09/10/2012 16:40	09/10/2012 16:40	DJK
Chloride	**11.0**	D	mg/L	1.0	1.0	SW846 9056	09/16/2012 23:04	09/16/2012 23:04	DMH
Specific Conductance (Lab)	**2400**		umhos/cm	1	1	SM2510B	09/11/2012 11:02	09/11/2012 14:00	TLB
Hardness as CaCO3	**880**		mg/L	1	1	SM2340C	09/12/2012 09:50	09/12/2012 14:32	JTL
pH (Lab)	**7.66**	H3	Std. Units	0.10	0.10	SM4500H+B	09/11/2012 11:30	09/11/2012 15:00	TLB
Sulfate	**1190**	D	mg/L	10	2	SW846 9056	09/16/2012 23:04	09/16/2012 23:04	DMH
Total Dissolved Solids	**594**		mg/L	10	10	SM2540C	09/11/2012 10:31	09/11/2012 15:02	DDM
Total Suspended Solids	**7**		mg/L	4	2	SM2540D	09/11/2012 11:22	09/11/2012 12:48	JTL

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091349-03RE1**
Description: **INSB-ALK**

Sample Collection Date Time: 09/06/2012 10:45
Sample Received Date Time: 09/07/2012 11:20

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	**0.13**		mg/L	0.02	0.007	SW846 6020C	09/25/2012 12:08	09/26/2012 04:51	RND
Antimony	ND	U	mg/L	0.002	0.001	SW846 6020C	09/25/2012 12:08	09/26/2012 04:51	RND
Copper	**0.001**	J	mg/L	0.002	0.0005	SW846 6020C	09/25/2012 12:08	09/26/2012 04:51	RND
Iron	**0.25**		mg/L	0.06	0.02	SW846 6010B	09/25/2012 12:08	09/27/2012 01:22	MLC
Nickel	**0.0058**		mg/L	0.0015	0.0005	SW846 6020C	09/25/2012 12:08	09/26/2012 04:51	RND
Selenium	**0.0008**	J	mg/L	0.002	0.0005	SW846 6020C	09/25/2012 12:08	09/26/2012 04:51	RND

Metals (Dissolved) by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	U	mg/L	0.005	0.001	SW846 6020C	09/25/2012 17:13	09/26/2012 22:16	RND
Copper	**0.0006**	J	mg/L	0.001	0.0002	SW846 6020C	09/25/2012 17:13	09/26/2012 22:16	RND
Nickel	**0.0052**		mg/L	0.0005	0.0002	SW846 6020C	09/25/2012 17:13	09/26/2012 22:16	RND

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091349-04**
Description: **INSB-ALK 1630_BRE053EPA_09062012**

Sample Collection Date Time: 09/06/2012 10:45
Sample Received Date Time: 09/07/2012 11:20

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury, dissolved	**1.5**		ng/L	0.5	0.2	EPA 1631E	09/11/2012 19:28	09/12/2012 13:42	RND
Mercury in Field Blank, dissolved	**0.9**		ng/L	0.5	0.2	EPA 1631E	09/11/2012 19:28	09/12/2012 12:44	RND

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091349-05**
Description: **INSB-ALK 1630_FIELDBLANKEPA_09062012**

Sample Collection Date Time: 09/06/2012 10:45
Sample Received Date Time: 09/07/2012 11:20

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	ND	U	mg/L	0.02	0.007	SW846 6020C	09/11/2012 08:00	09/12/2012 19:44	JCD
Antimony	ND	U	mg/L	0.002	0.001	SW846 6020C	09/11/2012 08:00	09/12/2012 19:44	JCD
Arsenic	**0.0005**		mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/12/2012 19:44	JCD
Beryllium	ND	U	mg/L	0.0010	0.0005	SW846 6020C	09/11/2012 08:00	09/12/2012 19:44	JCD
Cadmium	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/11/2012 19:42	JCD
Calcium	ND	U	mg/L	0.20	0.06	SW846 6010B	09/11/2012 08:00	09/12/2012 22:51	MLC
Chromium	ND	U	mg/L	0.001	0.0003	SW846 6020C	09/11/2012 08:00	09/12/2012 19:44	JCD
Copper	ND	U	mg/L	0.002	0.0005	SW846 6020C	09/11/2012 08:00	09/11/2012 19:42	JCD
Iron	ND	U	mg/L	0.06	0.02	SW846 6010B	09/11/2012 08:00	09/12/2012 22:51	MLC
Lead	ND	U	mg/L	0.0010	0.0005	SW846 6020C	09/11/2012 08:00	09/11/2012 19:42	JCD
Magnesium	ND	U	mg/L	0.100	0.045	SW846 6010B	09/11/2012 08:00	09/12/2012 22:51	MLC
Manganese	ND	U	mg/L	0.003	0.001	SW846 6020C	09/11/2012 08:00	09/12/2012 19:44	JCD
Nickel	ND	U	mg/L	0.0015	0.0005	SW846 6020C	09/11/2012 08:00	09/12/2012 19:44	JCD
Potassium	**0.24**		mg/L	0.01	0.01	SW846 6010B	09/11/2012 08:00	09/12/2012 22:51	MLC
Selenium	ND	U	mg/L	0.002	0.0005	SW846 6020C	09/11/2012 08:00	09/12/2012 19:44	JCD
Silver	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/11/2012 19:42	JCD
Thallium	ND	U	mg/L	0.0010	0.0004	SW846 6020C	09/11/2012 08:00	09/11/2012 19:42	JCD
Vanadium	**0.007**		mg/L	0.002	0.002	SW846 6020C	09/11/2012 08:00	09/12/2012 19:44	JCD
Zinc	ND	U	mg/L	0.010	0.010	SW846 6020C	09/11/2012 08:00	09/12/2012 19:44	JCD

Metals (Dissolved) by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	**0.007**	J	mg/L	0.02	0.007	SW846 6020C	09/12/2012 16:59	09/15/2012 00:26	JCD
Antimony	ND	U, V1	mg/L	0.005	0.001	SW846 6020C	09/12/2012 16:59	09/15/2012 00:26	JCD
Arsenic	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:26	JCD
Beryllium	ND	U	mg/L	0.0005	0.0005	SW846 6020C	09/12/2012 16:59	09/15/2012 00:26	JCD
Cadmium	ND	U	mg/L	0.0005	0.0001	SW846 6020C	09/12/2012 16:59	09/15/2012 00:26	JCD
Chromium	ND	U	mg/L	0.002	0.0003	SW846 6020C	09/12/2012 16:59	09/15/2012 00:26	JCD
Copper	ND	U	mg/L	0.001	0.0002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:26	JCD
Iron	ND	U	mg/L	0.02	0.006	SW846 6010B	09/12/2012 16:55	09/19/2012 18:43	MLC
Lead	ND	U	mg/L	0.0020	0.0020	SW846 6020C	09/12/2012 16:59	09/15/2012 00:26	JCD
Manganese	**0.0002**	J	mg/L	0.004	0.0002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:26	JCD
Nickel	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:26	JCD
Selenium	ND	U	mg/L	0.001	0.0009	SW846 6020C	09/12/2012 16:59	09/15/2012 00:26	JCD
Silver	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:26	JCD
Thallium	ND	U	mg/L	0.0005	0.0005	SW846 6020C	09/12/2012 16:59	09/15/2012 00:26	JCD
Vanadium	ND	U	mg/L	0.002	0.002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:26	JCD
Zinc	ND	U	mg/L	0.010	0.010	SW846 6020C	09/12/2012 16:59	09/15/2012 00:26	JCD

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Acidity	**16**	B	mg/L	1	1	SM2310B	09/10/2012 17:00	09/10/2012 17:00	TLB
Bicarbonate Alkalinity as CaCO3	**3**	B	mg/L	1	1	SM2320B	09/13/2012 09:16	09/13/2012 09:16	DDM
Total Alkalinity	**5**	B	mg/L	1	1	SM2320B	09/10/2012 16:40	09/10/2012 16:40	DJK
Chloride	ND	U	mg/L	0.1	0.1	SW846 9056	09/17/2012 23:05	09/17/2012 23:05	DMH

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Specific Conductance (Lab)	**2**		umhos/cm	1	1	SM2510B	09/11/2012 11:02	09/11/2012 14:00	TLB
Hardness as CaCO3	ND	U	mg/L	1	1	SM2340C	09/12/2012 09:50	09/12/2012 14:32	JTL
pH (Lab)	**5.50**	H3	Std. Units	0.10	0.10	SM4500H+B	09/11/2012 11:30	09/11/2012 15:00	TLB
Sulfate	ND	U	mg/L	1	0.2	SW846 9056	09/17/2012 23:05	09/17/2012 23:05	DMH
Total Dissolved Solids	ND	U	mg/L	10	10	SM2540C	09/11/2012 10:31	09/11/2012 15:04	DDM
Total Suspended Solids	ND	U	mg/L	4	2	SM2540D	09/11/2012 11:22	09/11/2012 12:50	JTL

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091349-05RE1**
Description: **INSB-ALK**

Sample Collection Date Time: 09/06/2012 10:45
Sample Received Date Time: 09/07/2012 11:20

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Sodium	ND	u	mg/L	0.13	0.05	SW846 6010B	09/11/2012 08:00	09/13/2012 18:11	MLC

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Notes for work order 2091349

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

V3	CCV recovery was above method acceptance limits. This target analyte detected in the sample, but the sample not reanalyzed.
V1	CCV recovery was above method acceptance limits. This target analyte not detected in the sample.
U	Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).
M3	The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.
M2	Matrix spike recovery was low; the method control sample recovery was acceptable.
M1	Matrix spike recovery was high; the method control sample recovery was acceptable.
L1	The associated blank spike recovery was above method acceptance limits.
J5	Concentration estimated. Internal standard recoveries did not meet method acceptance criteria.
J4	Concentration estimated. Analyte detected below laboratory minimum reporting level (MRL), but not confirmed by alternate analysis.
J	Estimated value.
H3	Sample received and analyzed past holding time.
D1	Sample required dilution due to high concentration of target analyte.
D	Results reported from dilution.
B1	Target analyte detected in method blank at or above the method reporting limit. Concentration found in the sample was 10 times above the concentration found in the method blank.
B	Target analyte detected in method blank at or above the method reporting limit.

Standard Quallifiers/Acronymns

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than permit limits
<	Less than permit limits

Analyses performed at the Madisonville KY location unless specified with the following location codes.

02	Pikeville, KY
03	Paducah, KY
04	Lexington, KY
05	Louisville, KY

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Certified Analyses included in this Report

Analyte	Certifications
EPA 1631E in Water	
Mercury	VA NELAC (460210)
Mercury, dissolved	VA NELAC (460210)
Mercury in Field Blank	VA NELAC (460210)
Mercury in Field Blank, dissolved	VA NELAC (460210)
SM2320B in Water	
Total Alkalinity	KY Drinking Water (00030) VA NELAC (460210)
Bicarbonate Alkalinity as CaCO3	KY Drinking Water (00030)
SM2340C in Water	
Hardness as CaCO3	KY Drinking Water (00030)
SM2510B in Water	
Specific Conductance (Lab)	KY Drinking Water (00030) VA NELAC (460210)
SM2540C in Water	
Total Dissolved Solids	KY Drinking Water (00030) VA NELAC (460210)
SM4500H+B in Water	
pH (Lab)	KY Drinking Water (00030) VA NELAC (460210)
SW846 9056 in Water	
Chloride	KY Drinking Water (00030)
Sulfate	KY Drinking Water (00030)

Peabody Midwest Mining, LLC. - CHAIN OF CUSTODY

SAMPLER: [illegible] L. Crowe

1630 - Bear Run Mine

2091349

BASIN #	LAB #	DATE	TIME	GRAB	# CONTAINERS	BASE	PRECIP	Flow (GPM)	pH	Temp				TYPE SAMPLE	COMMENTS:
003R	1630BRP03REPA	9/6/12	8:35		ø			0						ALK - EPA	
018R	1630BRP018REPA	"	8:00		6			3	8.0	21.6				ALK - EPA	01-02
044	1630BRE044EPA	"	8:50		ø			0						ALK - EPA	
053	1630BRE053EPA	"	10:45		6			400	7.7	24.7				ALK - EPA	03-04
058	1630BRE058EPA	"	11:15		ø			0						ALK - EPA	
062	1630BRE062EPA	"	10:15		ø			0						ALK - EPA	
	1630FIELDBLANKEPA	"	10:45		3									ALK - EPA	NO TOTAL AND DISSOLVED MERCURY ANALYSIS
	1630DUPLICATEEPA				ø									ALK - EPA	05

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
Forest Crowe	9/6/12	15:10	[illegible]	9-6-12	15:10
[illegible]	9-7-12		[illegible]	9-7-12	0950

[1] pH and TDS are measured using an electrometric pH or TDS meter

[2] Report of Settleable Solids prepared using EPA Method 160.5, and LaMotte Imhoff Cone.

Analysis date, if other than sample date:

ANALYZED BY:

Precip. Event Statistics
Date event Started:
Date event Ended:
Total Rinfall:

ALK-EPA Field
Base - Flow, pH, & Temp.
Precip - Flow, pH, & Temp.

ALK-EPA Lab
Cations - Ca, Mg, Na & K
Anions - Chloride, Sulfate & Bicarbonate
Metals - Metals (total & Dissolved) Al, Cd, Cr, Fe, Mn, Hg*, Se*, V, Zn, Sb, Ar, Be, Cu, Pb, Ni, Ag & Tl (* Low Level Method)
Additional Parameters - TDS, SpC, Acidity, Alkalinity, Hardness & Total Suspended Solids

Relinquished by [illegible] 9-7-12 1120

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Certificate of Analysis

Robert Pendleton
Peabody Midwest Mining LLC
7100 Eagle Crest Blvd
Evansville IN, 47715

Report Printed: 10/08/2012 15:21

Project Name:	Indiana	Workorder:	2091393

Dear Robert Pendleton

Enclosed are the analytical results for samples received at the lab on 09/08/2012 12:15.

McCoy & McCoy Laboratories, Inc located in Madisonville, Kentucky is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact us at (270) 821-7375.

Please visit us at www.mccoylabs.com for a listing of NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of McCoy & McCoy Laboratories, Inc.

Syd Tate

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Syd Tate, Data Reviewer

OCT 11 2012

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
2091393-01	INSB-ALK/1630_BRE044EPA_09082012	Surfacewater	09/08/2012 08:30	09/08/2012 12:15	Forrest Crowe
2091393-02	INSB-ALK/1630_BRE044EPA_09082012	Surfacewater	09/08/2012 08:30	09/08/2012 12:15	Forrest Crowe
2091393-03	INSB-ALK/1630_BRE062EPA_09082012	Surfacewater	09/08/2012 09:50	09/08/2012 12:15	Forrest Crowe
2091393-04	INSB-ALK/1630_BRE062EPA_09082012	Surfacewater	09/08/2012 09:50	09/08/2012 12:15	Forrest Crowe
2091393-05	INSB-ALK/1630_FIELDBLANKEPA_09082012	Surfacewater	09/08/2012 09:50	09/08/2012 12:15	Forrest Crowe

LabNumber	Measurement	Value
2091393-01	Field pH	8.1
	Field Temp (C)	22.4
2091393-03	Field pH	8.4
	Field Temp (C)	25.6
2091393-05	Field pH	8.4
	Field Temp (C)	25.6

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091393-01**
Description: **INSB-ALK 1630_BRE044EPA_09082012**

Sample Collection Date Time: 09/08/2012 08:30
Sample Received Date Time: 09/08/2012 12:15

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	U	mg/L	0.002	0.001	SW846 6020C	09/11/2012 08:00	09/12/2012 19:51	JCD
Beryllium	ND	U	mg/L	0.0010	0.0005	SW846 6020C	09/11/2012 08:00	09/12/2012 19:51	JCD
Cadmium	**0.0006**		mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/11/2012 19:45	JCD
Calcium	**97.9**		mg/L	0.20	0.06	SW846 6010B	09/11/2012 08:00	09/12/2012 22:55	MLC
Chromium	**0.002**		mg/L	0.001	0.0003	SW846 6020C	09/11/2012 08:00	09/11/2012 19:45	JCD
Lead	ND	U	mg/L	0.0010	0.0005	SW846 6020C	09/11/2012 08:00	09/11/2012 19:45	JCD
Magnesium	**65.9**		mg/L	0.100	0.045	SW846 6010B	09/11/2012 08:00	09/12/2012 22:55	MLC
Manganese	**0.563**		mg/L	0.003	0.001	SW846 6020C	09/11/2012 08:00	09/11/2012 19:45	JCD
Potassium	**6.82**		mg/L	0.01	0.01	SW846 6010B	09/11/2012 08:00	09/12/2012 22:55	MLC
Silver	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/11/2012 19:45	JCD
Sodium	**395**	B1	mg/L	0.13	0.05	SW846 6010B	09/11/2012 08:00	09/12/2012 22:55	MLC
Thallium	ND	U	mg/L	0.0010	0.0004	SW846 6020C	09/11/2012 08:00	09/11/2012 19:45	JCD
Vanadium	**0.005**		mg/L	0.002	0.002	SW846 6020C	09/11/2012 08:00	09/12/2012 19:51	JCD
Zinc	**0.023**		mg/L	0.010	0.010	SW846 6020C	09/11/2012 08:00	09/11/2012 19:45	JCD

Metals (Dissolved) by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Beryllium	ND	U	mg/L	0.0005	0.0005	SW846 6020C	09/12/2012 16:59	09/15/2012 00:33	JCD
Chromium	ND	U	mg/L	0.002	0.0003	SW846 6020C	09/12/2012 16:59	09/15/2012 00:33	JCD
Iron	ND	U	mg/L	0.02	0.006	SW846 6010B	09/12/2012 16:55	09/19/2012 18:47	MLC
Lead	ND	U	mg/L	0.0020	0.0020	SW846 6020C	09/12/2012 16:59	09/15/2012 00:33	JCD
Silver	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:33	JCD
Thallium	ND	U	mg/L	0.0005	0.0005	SW846 6020C	09/12/2012 16:59	09/15/2012 00:33	JCD
Vanadium	ND	U	mg/L	0.002	0.002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:33	JCD
Zinc	ND	U	mg/L	0.010	0.010	SW846 6020C	09/12/2012 16:59	09/15/2012 00:33	JCD

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Acidity	ND	U	mg/L	1	1	SM2310B	09/10/2012 17:00	09/10/2012 17:00	TLB
Bicarbonate Alkalinity as CaCO3	**220**	B	mg/L	1	1	SM2320B	09/13/2012 09:16	09/13/2012 09:16	DDM
Total Alkalinity	**221**	B	mg/L	1	1	SM2320B	09/10/2012 16:40	09/10/2012 16:40	DJK
Chloride	**11.7**	D	mg/L	1.0	1.0	SW846 9056	09/16/2012 23:25	09/16/2012 23:25	DMH
Specific Conductance (Lab)	**2510**		umhos/cm	1	1	SM2510B	09/11/2012 11:02	09/11/2012 14:00	TLB
Hardness as CaCO3	**590**		mg/L	1	1	SM2340C	09/12/2012 09:50	09/12/2012 14:32	JTL
pH (Lab)	**8.03**	H3	Std. Units	0.10	0.10	SM4500H+B	09/11/2012 11:30	09/11/2012 15:00	TLB
Sulfate	**1350**	D	mg/L	10	2	SW846 9056	09/16/2012 23:25	09/16/2012 23:25	DMH
Total Dissolved Solids	**1850**		mg/L	10	10	SM2540C	09/11/2012 10:31	09/11/2012 15:06	DDM
Total Suspended Solids	**24**		mg/L	4	2	SM2540D	09/11/2012 11:24	09/11/2012 12:34	JTL

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091393-01RE1**
Description: **INSB-ALK**

Sample Collection Date Time: 09/08/2012 08:30
Sample Received Date Time: 09/08/2012 12:15

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	**0.82**		mg/L	0.02	0.007	SW846 6020C	09/25/2012 12:08	09/26/2012 04:58	RND
Arsenic	**0.0007**		mg/L	0.0005	0.0002	SW846 6020C	09/25/2012 12:08	09/26/2012 04:58	RND
Copper	**0.002**		mg/L	0.002	0.0005	SW846 6020C	09/25/2012 12:08	09/26/2012 04:58	RND
Iron	**0.97**		mg/L	0.06	0.02	SW846 6010B	09/25/2012 12:08	09/27/2012 01:25	MLC
Mercury	**3.1**		ng/L	0.5	0.2	EPA 1631E	09/18/2012 19:32	09/19/2012 14:51	JBP
Mercury in Field Blank	ND	U	ng/L	0.5	0.2	EPA 1631E	09/18/2012 19:32	09/19/2012 14:01	JBP
Nickel	**0.0199**		mg/L	0.0015	0.0005	SW846 6020C	09/25/2012 12:08	09/26/2012 04:58	RND

Metals (Dissolved) by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	**0.02**	J4	mg/L	0.02	0.007	SW846 6020C	09/25/2012 17:13	09/26/2012 22:23	RND
Antimony	ND	U	mg/L	0.005	0.001	SW846 6020C	09/25/2012 17:13	09/26/2012 22:23	RND
Cadmium	**0.0004**	J	mg/L	0.0005	0.0001	SW846 6020C	09/25/2012 17:13	09/26/2012 22:23	RND
Copper	**0.0007**	J	mg/L	0.001	0.0002	SW846 6020C	09/25/2012 17:13	09/26/2012 22:23	RND
Iron	ND	U	mg/L	0.02	0.006	SW846 6010B	09/25/2012 17:10	09/28/2012 01:10	MLC
Selenium	**0.007**		mg/L	0.001	0.0009	SW846 6020C	09/25/2012 17:13	09/26/2012 22:23	RND

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091393-01RE2**
Description: **INSB-ALK**

Sample Collection Date Time: 09/08/2012 08:30
Sample Received Date Time: 09/08/2012 12:15

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals (Dissolved) by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Arsenic	**0.0004**	J	mg/L	0.0005	0.0002	SW846 6020C	10/01/2012 13:59	10/03/2012 22:15	JCD
Manganese	**0.560**	Y1	mg/L	0.004	0.002	SW846 6020C	10/01/2012 13:59	10/02/2012 17:35	JCD
Nickel	**0.0186**		mg/L	0.0005	0.0002	SW846 6020C	10/01/2012 13:59	10/02/2012 17:35	JCD

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091393-01RE3**
Description: **INSB-ALK**

Sample Collection Date Time: 09/08/2012 08:30
Sample Received Date Time: 09/08/2012 12:15

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Selenium	**0.006**		mg/L	0.002	0.0005	SW846 6020C	09/25/2012 12:08	10/02/2012 23:08	JCD

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091393-02RE1**
Description: **INSB-ALK**

Sample Collection Date Time: 09/08/2012 08:30
Sample Received Date Time: 09/08/2012 12:15

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury, dissolved	**2.5**		ng/L	0.5	0.2	EPA 1631E	09/18/2012 19:32	09/19/2012 14:53	JBP

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091393-03**
Description: **INSB-ALK 1630_BRE062EPA_09082012**

Sample Collection Date Time: 09/08/2012 09:50
Sample Received Date Time: 09/08/2012 12:15

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	**0.002**		mg/L	0.002	0.001	SW846 6020C	09/11/2012 08:00	09/18/2012 00:24	JCD
Arsenic	**0.0014**		mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/11/2012 19:56	JCD
Beryllium	ND	U	mg/L	0.0010	0.0005	SW846 6020C	09/11/2012 08:00	09/12/2012 20:10	JCD
Cadmium	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/11/2012 19:56	JCD
Calcium	**73.8**		mg/L	0.20	0.06	SW846 6010B	09/11/2012 08:00	09/12/2012 22:59	MLC
Chromium	**0.0004**	J	mg/L	0.001	0.0003	SW846 6020C	09/11/2012 08:00	09/11/2012 19:56	JCD
Lead	ND	U	mg/L	0.0010	0.0005	SW846 6020C	09/11/2012 08:00	09/11/2012 19:56	JCD
Magnesium	**73.7**		mg/L	0.100	0.045	SW846 6010B	09/11/2012 08:00	09/12/2012 22:59	MLC
Manganese	**0.027**		mg/L	0.003	0.001	SW846 6020C	09/11/2012 08:00	09/11/2012 19:56	JCD
Potassium	**9.19**		mg/L	0.01	0.01	SW846 6010B	09/11/2012 08:00	09/12/2012 22:59	MLC
Silver	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/11/2012 19:56	JCD
Thallium	ND	U	mg/L	0.0010	0.0004	SW846 6020C	09/11/2012 08:00	09/11/2012 19:56	JCD
Vanadium	**0.003**		mg/L	0.002	0.002	SW846 6020C	09/11/2012 08:00	09/12/2012 20:10	JCD
Zinc	ND	U	mg/L	0.010	0.010	SW846 6020C	09/11/2012 08:00	09/11/2012 19:56	JCD

Metals (Dissolved) by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	ND	U	mg/L	0.02	0.007	SW846 6020C	09/12/2012 16:59	09/15/2012 00:40	JCD
Arsenic	**0.0009**		mg/L	0.0005	0.0002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:40	JCD
Beryllium	ND	U	mg/L	0.0005	0.0005	SW846 6020C	09/12/2012 16:59	09/15/2012 00:40	JCD
Cadmium	ND	U	mg/L	0.0005	0.0001	SW846 6020C	09/12/2012 16:59	09/15/2012 00:40	JCD
Chromium	ND	U	mg/L	0.002	0.0003	SW846 6020C	09/12/2012 16:59	09/15/2012 00:40	JCD
Iron	ND	U	mg/L	0.02	0.006	SW846 6010B	09/12/2012 16:55	09/19/2012 18:50	MLC
Lead	ND	U	mg/L	0.0020	0.0020	SW846 6020C	09/12/2012 16:59	09/15/2012 00:40	JCD
Nickel	**0.0098**		mg/L	0.0005	0.0002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:40	JCD
Silver	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:40	JCD
Thallium	ND	U	mg/L	0.0005	0.0005	SW846 6020C	09/12/2012 16:59	09/15/2012 00:40	JCD
Vanadium	ND	U	mg/L	0.002	0.002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:40	JCD
Zinc	ND	U	mg/L	0.010	0.010	SW846 6020C	09/12/2012 16:59	09/15/2012 00:40	JCD

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Acidity	ND	U	mg/L	1	1	SM2310B	09/10/2012 17:00	09/10/2012 17:00	TLB
Bicarbonate Alkalinity as CaCO3	**392**	B	mg/L	1	1	SM2320B	09/13/2012 09:16	09/13/2012 09:16	DDM
Total Alkalinity	**404**	B	mg/L	1	1	SM2320B	09/10/2012 16:40	09/10/2012 16:40	DJK
Chloride	**22.3**	D	mg/L	1.0	1.0	SW846 9056	09/16/2012 23:45	09/16/2012 23:45	DMH
Specific Conductance (Lab)	**3560**		umhos/cm	1	1	SM2510B	09/11/2012 11:02	09/11/2012 14:00	TLB
Hardness as CaCO3	**510**		mg/L	1	1	SM2340C	09/12/2012 09:50	09/12/2012 14:32	JTL
pH (Lab)	**8.38**	H3	Std. Units	0.10	0.10	SM4500H+B	09/11/2012 11:30	09/11/2012 15:00	TLB
Sulfate	**1680**	D	mg/L	10	2	SW846 9056	09/16/2012 23:45	09/16/2012 23:45	DMH
Total Dissolved Solids	**2540**		mg/L	10	10	SM2540C	09/11/2012 10:31	09/11/2012 15:08	DDM
Total Suspended Solids	**12**		mg/L	4	2	SM2540D	09/11/2012 11:24	09/11/2012 12:36	JTL

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091393-03RE1**
Description: **INSB-ALK**

Sample Collection Date Time: 09/08/2012 09:50
Sample Received Date Time: 09/08/2012 12:15

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	**0.10**		mg/L	0.02	0.007	SW846 6020C	09/25/2012 12:08	09/26/2012 05:05	RND
Copper	**0.001**	J	mg/L	0.002	0.0005	SW846 6020C	09/25/2012 12:08	09/26/2012 05:05	RND
Iron	**0.20**		mg/L	0.06	0.02	SW846 6010B	09/25/2012 12:08	09/27/2012 01:29	MLC
Mercury	**1.3**		ng/L	0.5	0.2	EPA 1631E	09/18/2012 19:32	09/19/2012 14:56	JBP
Mercury in Field Blank	**0.4**	J	ng/L	0.5	0.2	EPA 1631E	09/18/2012 19:32	09/19/2012 14:07	JBP
Nickel	**0.0036**		mg/L	0.0015	0.0005	SW846 6020C	09/25/2012 12:08	09/26/2012 05:05	RND
Sodium	**815**	D1	mg/L	1.30	0.50	SW846 6010B	09/11/2012 08:00	09/20/2012 13:31	MLC

Metals (Dissolved) by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	**0.001**	J	mg/L	0.005	0.001	SW846 6020C	09/25/2012 17:13	09/26/2012 22:30	RND
Copper	**0.0008**	J	mg/L	0.001	0.0002	SW846 6020C	09/25/2012 17:13	09/26/2012 22:30	RND
Iron	**0.009**	B, J	mg/L	0.02	0.006	SW846 6010B	09/25/2012 17:10	09/28/2012 01:21	MLC
Selenium	**0.002**		mg/L	0.001	0.0009	SW846 6020C	09/25/2012 17:13	09/26/2012 22:30	RND

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091393-03RE2**
Description: **INSB-ALK**

Sample Collection Date Time: 09/08/2012 09:50
Sample Received Date Time: 09/08/2012 12:15

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals (Dissolved) by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Manganese	ND	U	mg/L	0.004	0.002	SW846 6020C	10/01/2012 13:59	10/03/2012 22:20	JCD

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091393-03RE3**
Description: **INSB-ALK**

Sample Collection Date Time: 09/08/2012 09:50
Sample Received Date Time: 09/08/2012 12:15

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Selenium	**0.002**		mg/L	0.002	0.0005	SW846 6020C	09/25/2012 12:08	10/02/2012 23:12	JCD

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091393-04RE1**
Description: **INSB-ALK**

Sample Collection Date Time: 09/08/2012 09:50
Sample Received Date Time: 09/08/2012 12:15

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury, dissolved	**1.5**		ng/L	0.5	0.2	EPA 1631E	09/18/2012 19:32	09/19/2012 14:59	JBP
Mercury in Field Blank, dissolved	**0.6**		ng/L	0.5	0.2	EPA 1631E	09/18/2012 19:32	09/19/2012 14:10	JBP

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091393-05**
Description: **INSB-ALK 1630_FIELDBLANKEPA_09082012**

Sample Collection Date Time: 09/08/2012 09:50
Sample Received Date Time: 09/08/2012 12:15

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	ND	U	mg/L	0.02	0.007	SW846 6020C	09/11/2012 08:00	09/12/2012 20:17	JCD
Antimony	ND	U	mg/L	0.002	0.001	SW846 6020C	09/11/2012 08:00	09/12/2012 20:17	JCD
Arsenic	**0.0005**		mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/12/2012 20:17	JCD
Beryllium	ND	U	mg/L	0.0010	0.0005	SW846 6020C	09/11/2012 08:00	09/12/2012 20:17	JCD
Cadmium	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/12/2012 20:17	JCD
Calcium	**0.06**	**J**	mg/L	0.20	0.06	SW846 6010B	09/11/2012 08:00	09/12/2012 23:02	MLC
Chromium	ND	U	mg/L	0.001	0.0003	SW846 6020C	09/11/2012 08:00	09/12/2012 20:17	JCD
Copper	ND	U	mg/L	0.002	0.0005	SW846 6020C	09/11/2012 08:00	09/11/2012 20:00	JCD
Iron	ND	U	mg/L	0.06	0.02	SW846 6010B	09/11/2012 08:00	09/12/2012 23:02	MLC
Lead	ND	U	mg/L	0.0010	0.0005	SW846 6020C	09/11/2012 08:00	09/11/2012 20:00	JCD
Magnesium	ND	U	mg/L	0.100	0.045	SW846 6010B	09/11/2012 08:00	09/12/2012 23:02	MLC
Manganese	ND	U	mg/L	0.003	0.001	SW846 6020C	09/11/2012 08:00	09/12/2012 20:17	JCD
Nickel	ND	U	mg/L	0.0015	0.0005	SW846 6020C	09/11/2012 08:00	09/12/2012 20:17	JCD
Potassium	**0.60**		mg/L	0.01	0.01	SW846 6010B	09/11/2012 08:00	09/12/2012 23:02	MLC
Selenium	ND	U	mg/L	0.002	0.0005	SW846 6020C	09/11/2012 08:00	09/12/2012 20:17	JCD
Silver	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/11/2012 08:00	09/12/2012 20:17	JCD
Thallium	ND	U	mg/L	0.0010	0.0004	SW846 6020C	09/11/2012 08:00	09/11/2012 20:00	JCD
Vanadium	**0.006**		mg/L	0.002	0.002	SW846 6020C	09/11/2012 08:00	09/12/2012 20:17	JCD
Zinc	ND	U	mg/L	0.010	0.010	SW846 6020C	09/11/2012 08:00	09/12/2012 20:17	JCD

Metals (Dissolved) by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	ND	U	mg/L	0.02	0.007	SW846 6020C	09/12/2012 16:59	09/15/2012 00:46	JCD
Antimony	ND	U, V1	mg/L	0.005	0.001	SW846 6020C	09/12/2012 16:59	09/15/2012 00:46	JCD
Arsenic	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:46	JCD
Beryllium	ND	U	mg/L	0.0005	0.0005	SW846 6020C	09/12/2012 16:59	09/15/2012 00:46	JCD
Cadmium	ND	U	mg/L	0.0005	0.0001	SW846 6020C	09/12/2012 16:59	09/15/2012 00:46	JCD
Chromium	ND	U	mg/L	0.002	0.0003	SW846 6020C	09/12/2012 16:59	09/15/2012 00:46	JCD
Copper	ND	U	mg/L	0.001	0.0002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:46	JCD
Iron	ND	U	mg/L	0.02	0.006	SW846 6010B	09/12/2012 16:55	09/19/2012 18:54	MLC
Lead	ND	U	mg/L	0.0020	0.0020	SW846 6020C	09/12/2012 16:59	09/15/2012 00:46	JCD
Manganese	ND	U	mg/L	0.004	0.0002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:46	JCD
Nickel	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:46	JCD
Selenium	ND	U	mg/L	0.001	0.0009	SW846 6020C	09/12/2012 16:59	09/15/2012 00:46	JCD
Silver	ND	U	mg/L	0.0005	0.0002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:46	JCD
Thallium	ND	U	mg/L	0.0005	0.0005	SW846 6020C	09/12/2012 16:59	09/15/2012 00:46	JCD
Vanadium	ND	U	mg/L	0.002	0.002	SW846 6020C	09/12/2012 16:59	09/15/2012 00:46	JCD
Zinc	ND	U	mg/L	0.010	0.010	SW846 6020C	09/12/2012 16:59	09/15/2012 00:46	JCD

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Acidity	ND	U	mg/L	1	1	SM2310B	09/10/2012 17:00	09/10/2012 17:00	TLB
Bicarbonate Alkalinity as CaCO3	**3**	B	mg/L	1	1	SM2320B	09/13/2012 09:16	09/13/2012 09:16	DDM
Total Alkalinity	**4**	B	mg/L	1	1	SM2320B	09/10/2012 16:40	09/10/2012 16:40	DJK
Chloride	ND	U	mg/L	0.1	0.1	SW846 9056	09/17/2012 00:06	09/17/2012 00:06	DMH

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Specific Conductance (Lab)	**2**		umhos/cm	1	1	SM2510B	09/11/2012 11:02	09/11/2012 14:00	TLB
Hardness as CaCO3	ND	U	mg/L	1	1	SM2340C	09/12/2012 09:50	09/12/2012 14:32	JTL
pH (Lab)	**4.78**	H3	Std. Units	0.10	0.10	SM4500H+B	09/11/2012 11:30	09/11/2012 15:00	TLB
Sulfate	**0.7**	J	mg/L	1	0.2	SW846 9056	09/17/2012 00:06	09/17/2012 00:06	DMH
Total Dissolved Solids	ND	U	mg/L	10	10	SM2540C	09/11/2012 10:31	09/11/2012 15:10	DDM
Total Suspended Solids	ND	U	mg/L	4	2	SM2540D	09/11/2012 11:24	09/11/2012 12:38	JTL

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2091393-05RE1**
Description: **INSB-ALK**

Sample Collection Date Time: 09/08/2012 09:50
Sample Received Date Time: 09/08/2012 12:15

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Sodium	ND	u	mg/L	0.13	0.05	SW846 6010B	09/11/2012 08:00	09/13/2012 18:25	MLC

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Notes for work order 2091393

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

L1	The associated blank spike recovery was above method acceptance limits.
B1	Target analyte detected in method blank at or above the method reporting limit. Concentration found in the sample was 10 times above the concentration found in the method blank.
D	Results reported from dilution.
D1	Sample required dilution due to high concentration of target analyte.
H3	Sample received and analyzed past holding time.
J	Estimated value.
B	Target analyte detected in method blank at or above the method reporting limit.
J5	Concentration estimated. Internal standard recoveries did not meet method acceptance criteria.
Y1	Sample RPD exceeded the method control limit.
M1	Matrix spike recovery was high; the method control sample recovery was acceptable.
M2	Matrix spike recovery was low; the method control sample recovery was acceptable.
M3	The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.
U	Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).
V1	CCV recovery was above method acceptance limits. This target analyte not detected in the sample.
V3	CCV recovery was above method acceptance limits. This target analyte detected in the sample, but the sample not reanalyzed.
J4	Concentration estimated. Analyte detected below laboratory minimum reporting level (MRL), but not confirmed by alternate analysis.

Standard Quallifiers/Acronymns

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than permit limits
<	Less than permit limits

Analyses performed at the Madisonville KY location unless specified with the following location codes.

02	Pikeville, KY
03	Paducah, KY
04	Lexington, KY
05	Louisville, KY

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Certified Analyses included in this Report

Analyte	Certifications
EPA 1631E in Water	
Mercury	VA NELAC (460210)
Mercury, dissolved	VA NELAC (460210)
Mercury in Field Blank	VA NELAC (460210)
Mercury in Field Blank, dissolved	VA NELAC (460210)
SM2320B in Water	
Total Alkalinity	KY Drinking Water (00030) VA NELAC (460210)
Bicarbonate Alkalinity as CaCO3	KY Drinking Water (00030)
SM2340C in Water	
Hardness as CaCO3	KY Drinking Water (00030)
SM2510B in Water	
Specific Conductance (Lab)	KY Drinking Water (00030) VA NELAC (460210)
SM2540C in Water	
Total Dissolved Solids	KY Drinking Water (00030) VA NELAC (460210)
SM4500H+B in Water	
pH (Lab)	KY Drinking Water (00030) VA NELAC (460210)
SW846 9056 in Water	
Chloride	KY Drinking Water (00030)
Sulfate	KY Drinking Water (00030)

Peabody Midwest Mining, LLC. - CHAIN OF CUSTODY

SAMPLER: Forrest L. Crowe 2091393

1630 - Bear Run Mine

BASIN #	LAB #	DATE	TIME	GRAB	# CONTAINERS	BASE	PRECIP	Flow (GPM)	pH [1]	Temp				TYPE SAMPLE	COMMENTS
		9/8/12													
003R	1630BRP03REPA	"	9:10		4			0	—					ALK - EPA	
018R	1630BRP018REPA				6									ALK - EPA	
044	1630BRE044EPA	"	8:30		6		1.58	800	8.1	22.4				ALK - EPA	01-02
053	1630BRE053EPA				6									ALK - EPA	
058	1630BRE058EPA	"	10:20		6			0	—					ALK - EPA	1.5' Below Spillway
062	1630BRE062EPA	"	9:50		6			1500	8.4	25.6				ALK - EPA	03-04
	1630FIELDBLANKEPA	"	9:50		3				—					ALK - EPA	NO TOTAL AND DISSOLVED MERCURY ANALYSIS 05
	1630DUPLICATEEPA				6									ALK - EPA	

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
Forrest Crowe	9/8/12	10:50	[illegible]	9-8-12	10:50
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
[illegible]	9-8-12	1230	James D Kenney	9-8-12	1230

[1] pH and TDS are measured using an electrometric pH or TDS meter

[2] Report of Settleable Solids prepared using EPA Method 160.5, and LaMotte Imhoff Cone.

Analysis date, if other than sample date:

ANALYZED BY:

REL: James D Kenney / 9/8/12 /

Precip. Event Statistics
Date event Started: 9/7 7:30 PM
Date event Ended: 9/7
Total Rinfall: 1.58

ALK- EPA Field
Base - Flow, pH, & Temp.
Precip - Flow, pH, & Temp.

ALK - EPA Lab
Cations - Ca, Mg, Na & K
Anions - Chloride, Sulfate & Bicarbonate
Metals - Metals (total & Dissolved) Al, Cd, Cr, Fe, Mn, Hg*, Se*, V, Zn, Sb, As, Be, Cu, Pb, Ni, Ag & Tl (* Low Level Method)
Additional Parameters - TDS, SpC, Acidity, Alkalinity, Hardness & Total Suspended Solids

McCOY & McCOY
LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Certificate of Analysis

Robert Pendleton
Peabody Midwest Mining LLC
7100 Eagle Crest Blvd
Evansville IN, 47715

Report Printed: 10/12/2012 15:59

Project Name:	Indiana	Workorder:	2092480

Dear Robert Pendleton

Enclosed are the analytical results for samples received at the lab on 09/25/2012 07:39.

McCoy & McCoy Laboratories, Inc located in Madisonville, Kentucky is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact us at (270) 821-7375.

Please visit us at www.mccoylabs.com for a listing of NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of McCoy & McCoy Laboratories, Inc.

Syd Tate

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Syd Tate, Data Reviewer

McCOY & McCOY
LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
2092480-01	INSB-ALK/1630_BRE053EPA_09242012	Surfacewater	09/24/2012 10:55	09/25/2012 7:39	Forrest Crowe
2092480-02	INSB-ALK/1630_BRE053EPA_09242012	Surfacewater	09/24/2012 10:55	09/25/2012 7:39	Forrest Crowe
2092480-03	INSB-ALK/1630_FIELDBLANKEPA_09242012	Surfacewater	09/24/2012 10:55	09/25/2012 7:39	Forrest Crowe

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092480-01**
Description: **INSB-ALK 1630_BRE053EPA_09242012**

Sample Collection Date Time: 09/24/2012 10:55
Sample Received Date Time: 09/25/2012 07:39

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury	**4.2**		ng/L	0.5	0.2	EPA 1631E	09/26/2012 08:09	09/27/2012 18:18	JBP
Mercury in Field Blank	ND	U	ng/L	0.5	0.2	EPA 1631E	09/26/2012 08:09	09/27/2012 12:41	JBP

Metals by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	**0.04**		mg/L	0.02	0.007	EPA 200.8	09/25/2012 12:08	09/26/2012 05:18	RND
Antimony	ND	L1, U	mg/L	0.002	0.001	EPA 200.8	09/25/2012 12:08	09/26/2012 05:18	RND
Arsenic	**0.0011**		mg/L	0.0005	0.0002	EPA 200.8	09/25/2012 12:08	09/26/2012 05:18	RND
Beryllium	ND	V1, U	mg/L	0.0010	0.0005	EPA 200.8	09/25/2012 12:08	10/08/2012 01:57	JCD
Cadmium	ND	U	mg/L	0.0005	0.0002	EPA 200.8	09/25/2012 12:08	09/26/2012 05:18	RND
Calcium	**192**		mg/L	0.20	0.06	EPA 200.7	09/25/2012 12:08	09/27/2012 01:43	MLC
Chromium	ND	U	mg/L	0.001	0.0003	EPA 200.8	09/25/2012 12:08	09/26/2012 05:18	RND
Copper	**0.0009**	J	mg/L	0.002	0.0005	EPA 200.8	09/25/2012 12:08	09/26/2012 05:18	RND
Iron	**0.14**		mg/L	0.06	0.02	EPA 200.7	09/25/2012 12:08	09/27/2012 01:43	MLC
Lead	ND	U	mg/L	0.0010	0.0005	EPA 200.8	09/25/2012 12:08	09/26/2012 05:18	RND
Manganese	**0.348**		mg/L	0.003	0.001	EPA 200.8	09/25/2012 12:08	09/26/2012 05:18	RND
Nickel	**0.0063**		mg/L	0.0015	0.0005	EPA 200.8	09/25/2012 12:08	09/26/2012 05:18	RND
Selenium	**0.0007**	J	mg/L	0.002	0.0005	EPA 200.8	09/25/2012 12:08	09/26/2012 05:18	RND
Silver	ND	L2, U	mg/L	0.0005	0.0002	EPA 200.8	09/25/2012 12:08	09/26/2012 05:18	RND
Thallium	ND	U	mg/L	0.0010	0.0004	EPA 200.8	09/25/2012 12:08	09/26/2012 05:18	RND
Vanadium	ND	U	mg/L	0.002	0.002	EPA 200.8	09/25/2012 12:08	09/26/2012 05:18	RND
Zinc	ND	U	mg/L	0.010	0.010	EPA 200.8	09/25/2012 12:08	09/26/2012 05:18	RND

Metals (Dissolved) by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	**0.02**		mg/L	0.02	0.007	EPA 200.8	09/26/2012 08:15	10/03/2012 23:31	JCD
Antimony	ND	U	mg/L	0.005	0.001	EPA 200.8	09/26/2012 08:15	10/02/2012 23:34	JCD
Arsenic	**0.0011**		mg/L	0.0005	0.0002	EPA 200.8	09/26/2012 08:15	10/02/2012 23:34	JCD
Beryllium	ND	U	mg/L	0.0005	0.0005	EPA 200.8	09/26/2012 08:15	10/02/2012 23:34	JCD
Cadmium	ND	U	mg/L	0.0005	0.0001	EPA 200.8	09/26/2012 08:15	10/02/2012 23:34	JCD
Chromium	ND	U	mg/L	0.002	0.0003	EPA 200.8	09/26/2012 08:15	10/02/2012 23:34	JCD
Copper	ND	U	mg/L	0.001	0.0002	EPA 200.8	09/26/2012 08:15	10/02/2012 23:34	JCD
Iron	**0.05**		mg/L	0.02	0.006	EPA 200.7	09/26/2012 08:18	09/29/2012 11:06	MLC
Lead	ND	U	mg/L	0.0020	0.0020	EPA 200.8	09/26/2012 08:15	10/02/2012 23:34	JCD
Manganese	**0.267**		mg/L	0.002	0.0001	EPA 200.8	09/26/2012 08:15	10/02/2012 23:34	JCD
Nickel	**0.0003**	J	mg/L	0.0005	0.0002	EPA 200.8	09/26/2012 08:15	10/02/2012 23:34	JCD
Selenium	**0.001**		mg/L	0.001	0.0009	EPA 200.8	09/26/2012 08:15	10/02/2012 23:34	JCD
Silver	ND	U	mg/L	0.0005	0.0002	EPA 200.8	09/26/2012 08:15	10/02/2012 23:34	JCD
Thallium	ND	U	mg/L	0.0005	0.0005	EPA 200.8	09/26/2012 08:15	10/02/2012 23:34	JCD
Vanadium	ND	U	mg/L	0.002	0.002	EPA 200.8	09/26/2012 08:15	10/02/2012 23:34	JCD
Zinc	ND	U	mg/L	0.010	0.010	EPA 200.8	09/26/2012 08:15	10/02/2012 23:34	JCD

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Acidity	ND	U	mg/L	1	1	SM2310B	09/28/2012 15:00	09/28/2012 15:00	TLB

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Bicarbonate Alkalinity as CaCO3	**431**	B	mg/L	1	1	SM2320B	09/27/2012 08:13	09/27/2012 08:13	DDM
Total Alkalinity	**431**	B	mg/L	1	1	SM2320B	09/27/2012 08:13	09/27/2012 08:13	DDM
Chloride	**12.2**		mg/L	0.1	0.1	EPA 300.0	10/02/2012 21:06	10/02/2012 21:06	DMH
Specific Conductance (Lab)	**2740**		umhos/cm	1	1	SM2510B	09/28/2012 09:22	10/01/2012 09:00	TLB
Hardness as CaCO3	**920**		mg/L	1	1	SM2340C	09/26/2012 08:09	09/26/2012 15:40	JTL
pH (Lab)	**7.81**	H3	Std. Units	0.10	0.10	SM4500H+B	09/28/2012 16:00	09/28/2012 16:00	TLB
Total Dissolved Solids	**2120**		mg/L	10	10	SM2540C	09/27/2012 10:26	09/27/2012 15:12	DDM
Total Suspended Solids	**6**		mg/L	4	2	SM2540D	09/26/2012 10:16	09/26/2012 10:31	JTL

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092480-01RE1**
Description: **INSB-ALK**

Sample Collection Date Time: 09/24/2012 10:55
Sample Received Date Time: 09/25/2012 07:39

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Magnesium	**109**		mg/L	0.100	0.045	EPA 200.7	09/25/2012 12:08	09/27/2012 15:24	MLC

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Sulfate	**1360**	D	mg/L	20	4	EPA 300.0	10/05/2012 02:46	10/05/2012 02:46	DMH

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092480-01RE2**
Description: **INSB-ALK**

Sample Collection Date Time: 09/24/2012 10:55
Sample Received Date Time: 09/25/2012 07:39

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Potassium	**9.94**	B1, B	mg/L	0.01	0.01	EPA 200.7	09/25/2012 12:08	09/28/2012 18:20	MLC
Sodium	**378**	B1, B, E	mg/L	0.13	0.05	EPA 200.7	09/25/2012 12:08	09/28/2012 18:20	MLC

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092480-02RE1**
Description: **INSB-ALK**

Sample Collection Date Time: 09/24/2012 10:55
Sample Received Date Time: 09/25/2012 07:39

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury, dissolved	**1.8**		ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 19:35	JBP
Mercury in Field Blank, dissolved	**0.6**		ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 19:01	JBP

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092480-03**
Description: **INSB-ALK 1630_FIELDBLANKEPA_09242012**

Sample Collection Date Time: 09/24/2012 10:55
Sample Received Date Time: 09/25/2012 07:39

Metals by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	ND	U	mg/L	0.02	0.007	EPA 200.8	09/25/2012 12:08	09/26/2012 05:25	RND
Antimony	ND	U, L1	mg/L	0.002	0.001	EPA 200.8	09/25/2012 12:08	09/26/2012 05:25	RND
Arsenic	ND	U	mg/L	0.0005	0.0002	EPA 200.8	09/25/2012 12:08	09/26/2012 05:25	RND
Beryllium	ND	U	mg/L	0.0010	0.0005	EPA 200.8	09/25/2012 12:08	10/02/2012 23:56	JCD
Cadmium	ND	U	mg/L	0.0005	0.0002	EPA 200.8	09/25/2012 12:08	09/26/2012 05:25	RND
Calcium	**0.14**	J	mg/L	0.20	0.06	EPA 200.7	09/25/2012 12:08	09/27/2012 01:47	MLC
Chromium	ND	U	mg/L	0.001	0.0003	EPA 200.8	09/25/2012 12:08	09/26/2012 05:25	RND
Copper	ND	U	mg/L	0.002	0.0005	EPA 200.8	09/25/2012 12:08	09/26/2012 05:25	RND
Iron	ND	U	mg/L	0.06	0.02	EPA 200.7	09/25/2012 12:08	09/27/2012 01:47	MLC
Lead	ND	U	mg/L	0.0010	0.0005	EPA 200.8	09/25/2012 12:08	09/26/2012 05:25	RND
Manganese	ND	U	mg/L	0.003	0.001	EPA 200.8	09/25/2012 12:08	09/26/2012 05:25	RND
Nickel	ND	U	mg/L	0.0015	0.0005	EPA 200.8	09/25/2012 12:08	09/26/2012 05:25	RND
Selenium	ND	U	mg/L	0.002	0.0005	EPA 200.8	09/25/2012 12:08	09/26/2012 05:25	RND
Silver	ND	L2, U	mg/L	0.0005	0.0002	EPA 200.8	09/25/2012 12:08	10/02/2012 23:56	JCD
Thallium	ND	U	mg/L	0.0010	0.0004	EPA 200.8	09/25/2012 12:08	09/26/2012 05:25	RND
Vanadium	ND	U	mg/L	0.002	0.002	EPA 200.8	09/25/2012 12:08	09/26/2012 05:25	RND
Zinc	ND	U	mg/L	0.010	0.010	EPA 200.8	09/25/2012 12:08	09/26/2012 05:25	RND

Metals (Dissolved) by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	ND	U	mg/L	0.02	0.007	EPA 200.8	09/26/2012 08:15	10/02/2012 23:56	JCD
Antimony	ND	U	mg/L	0.005	0.001	EPA 200.8	09/26/2012 08:15	10/02/2012 23:56	JCD
Arsenic	ND	U	mg/L	0.0005	0.0002	EPA 200.8	09/26/2012 08:15	10/02/2012 23:56	JCD
Beryllium	ND	U	mg/L	0.0005	0.0005	EPA 200.8	09/26/2012 08:15	10/02/2012 23:56	JCD
Cadmium	ND	U	mg/L	0.0005	0.0001	EPA 200.8	09/26/2012 08:15	10/02/2012 23:56	JCD
Chromium	ND	U	mg/L	0.002	0.0003	EPA 200.8	09/26/2012 08:15	10/02/2012 23:56	JCD
Copper	**0.003**		mg/L	0.001	0.0002	EPA 200.8	09/26/2012 08:15	10/02/2012 23:56	JCD
Iron	ND	U	mg/L	0.02	0.006	EPA 200.7	09/26/2012 08:18	09/29/2012 11:23	MLC
Lead	ND	U	mg/L	0.0020	0.0020	EPA 200.8	09/26/2012 08:15	10/02/2012 23:56	JCD
Manganese	ND	U	mg/L	0.002	0.0001	EPA 200.8	09/26/2012 08:15	10/02/2012 23:56	JCD
Nickel	ND	U	mg/L	0.0005	0.0002	EPA 200.8	09/26/2012 08:15	10/02/2012 23:56	JCD
Selenium	ND	U	mg/L	0.001	0.0009	EPA 200.8	09/26/2012 08:15	10/05/2012 21:10	JCD
Silver	ND	U	mg/L	0.0005	0.0002	EPA 200.8	09/26/2012 08:15	10/02/2012 23:56	JCD
Thallium	ND	U	mg/L	0.0005	0.0005	EPA 200.8	09/26/2012 08:15	10/02/2012 23:56	JCD
Vanadium	ND	U	mg/L	0.002	0.002	EPA 200.8	09/26/2012 08:15	10/02/2012 23:56	JCD
Zinc	ND	U	mg/L	0.010	0.010	EPA 200.8	09/26/2012 08:15	10/02/2012 23:56	JCD

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Acidity	**15**	B	mg/L	1	1	SM2310B	09/28/2012 15:00	09/28/2012 15:00	TLB
Bicarbonate Alkalinity as CaCO3	**3**	B	mg/L	1	1	SM2320B	09/27/2012 08:13	09/27/2012 08:13	DDM
Total Alkalinity	**3**	B	mg/L	1	1	SM2320B	09/27/2012 08:13	09/27/2012 08:13	DDM
Chloride	ND	U	mg/L	0.1	0.1	EPA 300.0	10/02/2012 22:49	10/02/2012 22:49	DMH
Specific Conductance (Lab)	**2**		umhos/cm	1	1	SM2510B	09/28/2012 09:22	10/01/2012 09:00	TLB
Hardness as CaCO3	ND	U	mg/L	1	1	SM2340C	09/26/2012 08:09	09/26/2012 15:40	JTL

McCOY & McCOY
LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	**5.28**	H3	Std. Units	0.10	0.10	SM4500H+B	09/28/2012 16:00	09/28/2012 16:00	TLB
Sulfate	**0.7**	J	mg/L	1	0.2	EPA 300.0	10/02/2012 22:49	10/02/2012 22:49	DMH
Total Dissolved Solids	ND	U	mg/L	10	10	SM2540C	09/27/2012 10:26	09/27/2012 15:14	DDM
Total Suspended Solids	ND	U	mg/L	4	2	SM2540D	09/26/2012 10:16	09/26/2012 10:33	JTL

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092480-03RE1**
Description: **INSB-ALK**

Sample Collection Date Time: 09/24/2012 10:55
Sample Received Date Time: 09/25/2012 07:39

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Magnesium	**0.045**	J	mg/L	0.100	0.045	EPA 200.7	09/25/2012 12:08	09/27/2012 15:27	MLC

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092480-03RE2**
Description: **INSB-ALK**

Sample Collection Date Time: 09/24/2012 10:55
Sample Received Date Time: 09/25/2012 07:39

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Potassium	**1.61**	B	mg/L	0.01	0.01	EPA 200.7	09/25/2012 12:08	09/28/2012 18:24	MLC
Sodium	**2.88**	B	mg/L	0.13	0.05	EPA 200.7	09/25/2012 12:08	09/28/2012 18:24	MLC

Notes for work order 2092480

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

V1	CCV recovery was above method acceptance limits. This target analyte not detected in the sample.
U	Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).
M3	The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.
M2	Matrix spike recovery was low; the method control sample recovery was acceptable.
L2	The associated blank spike recovery was below method acceptance limits.
L1	The associated blank spike recovery was above method acceptance limits.
J	Estimated value.
H3	Sample received and analyzed past holding time.
E	Concentration exceeds calibration range
D	Results reported from dilution.
B1	Target analyte detected in method blank at or above the method reporting limit. Concentration found in the sample was 10 times above the concentration found in the method blank.
B	Target analyte detected in method blank at or above the method reporting limit.

Standard Quallifiers/Acronymns

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than permit limits
<	Less than permit limits

Analyses performed at the Madisonville KY location unless specified with the following location codes.

02	Pikeville, KY
03	Paducah, KY
04	Lexington, KY
05	Louisville, KY

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Certified Analyses included in this Report

Analyte	Certifications
EPA 1631E in Water	
Mercury	VA NELAC (460210)
Mercury, dissolved	VA NELAC (460210)
Mercury in Field Blank	VA NELAC (460210)
Mercury in Field Blank, dissolved	VA NELAC (460210)
EPA 200.7 in Water	
Calcium	VA NELAC (460210)
Magnesium	VA NELAC (460210)
Potassium	VA NELAC (460210)
Sodium	VA NELAC (460210)
EPA 200.8 in Water	
Aluminum	VA NELAC (460210)
Beryllium	KY Drinking Water (00030)
Antimony	VA NELAC (460210)
Arsenic	VA NELAC (460210)
Beryllium	VA NELAC (460210)
Cadmium	VA NELAC (460210)
Chromium	VA NELAC (460210)
Copper	VA NELAC (460210)
Lead	VA NELAC (460210)
Manganese	VA NELAC (460210)
Nickel	VA NELAC (460210)
Selenium	VA NELAC (460210)
Silver	VA NELAC (460210)
Thallium	VA NELAC (460210)
Vanadium	VA NELAC (460210)
Zinc	VA NELAC (460210)
EPA 300.0 in Water	
Chloride	KY Drinking Water (00030) VA NELAC (460210)
Sulfate	KY Drinking Water (00030) VA NELAC (460210)
SM2320B in Water	
Total Alkalinity	KY Drinking Water (00030) VA NELAC (460210)
Bicarbonate Alkalinity as CaCO3	KY Drinking Water (00030)
SM2340C in Water	
Hardness as CaCO3	KY Drinking Water (00030)
SM2510B in Water	
Specific Conductance (Lab)	KY Drinking Water (00030) VA NELAC (460210)
SM2540C in Water	
Total Dissolved Solids	KY Drinking Water (00030) VA NELAC (460210)
SM4500H+B in Water	
pH (Lab)	KY Drinking Water (00030) VA NELAC (460210)

Peabody Midwest Mining, LLC. - CHAIN OF CUSTODY

SAMPLER: Forrest L. Crowe 2092480

1630 - Bear Run Mine

BASIN #	LAB #	DATE	TIME	GRAB	# CONTAINERS	BASE	PRECIP	Flow (GPM)	pH [1]	Temp				TYPE SAMPLE	COMMENTS
003R	1630BRP03REPA	9/24/12	9:35		6			0						ALK - EPA	
018R	1630BRP018REPA	"	9:20		6			0						ALK - EPA	
044	1630BRE044EPA	"	8:50		6			0						ALK - EPA	
053	1630BRE053EPA	"	10:35	X	6	X		300	7.9	16.7				ALK - EPA	01/02
058	1630BRE058EPA	"	11:10		6			0						ALK - EPA	
062	1630BRE062EPA	"	10:10		6			0						ALK - EPA	
	1630FIELDBLANKEPA	"	10:35	X	3									ALK - EPA	NO TOTAL AND DISSOLVED MERCURY ANALYSIS
	1630DUPLICATEEPA				6									ALK - EPA	03

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
Forrest Crowe	9/24/12	12:14	Monty Parke	9/24/12	12:14
Monty Parke	9/24/12	13:50	[illegible]	9-24-12	13:50

[1] pH and TDS are measured using an electrometric pH or TDS meter

[2] Report of Settleable Solids prepared using EPA Method 160.5, and LaMotte Imhoff Cone.

Analysis date, if other than sample date:

ANALYZED BY: [illegible] 9/25/12 7:39 Tawana Duncan 9/25/12 0739

Precip. Event Statistics
Date event Started:
Date event Ended:
Total Rinfall:

ALK-EPA Field
Base - Flow, pH, & Temp.
Precip - Flow, pH, & Temp.

ALK - EPA Lab
Cations - Ca, Mg, Na & K
Anions - Chloride, Sulfate & Bicarbonate
Metals - Metals (total & Dissolved) Al, Cd, Cr, Fe, Mn, Hg*, Se*, V, Zn, Sb, Ar, Be, Cu, Pb, Ni, Ag & Tl (* Low Level Method)
Additional Parameters - TDS, SpC, Acidity, Alkalinity, Hardness & Total Suspended Solids

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Certificate of Analysis

Robert Pendleton
Peabody Midwest Mining LLC
7100 Eagle Crest Blvd
Evansville IN, 47715

Report Printed: 10/19/2012 14:42

Project Name:	Indiana	Workorder:	2092733

Dear Robert Pendleton

Enclosed are the analytical results for samples received at the lab on 09/28/2012 11:00.

McCoy & McCoy Laboratories, Inc located in Madisonville, Kentucky is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact us at (270) 821-7375.

Please visit us at www.mccoylabs.com for a listing of NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of McCoy & McCoy Laboratories, Inc.

Syd Tate

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Syd Tate, Data Reviewer

RECEIVED
OCT 24 2012
BY

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
2092733-01	INSB-ALK/1630_BRP018REPA_09272012	Surfacewater	09/27/2012 10:10	09/28/2012 11:00	Forrest Crowe
2092733-02	INSB-ALK/1630_BRP018REPA_09272012	Surfacewater	09/27/2012 10:10	09/28/2012 11:00	Forrest Crowe
2092733-03	INSB-ALK/1630_BRE044EPA_09272012	Surfacewater	09/27/2012 11:00	09/28/2012 11:00	Forrest Crowe
2092733-04	INSB-ALK/1630_BRE044EPA_09272012	Surfacewater	09/27/2012 11:00	09/28/2012 11:00	Forrest Crowe
2092733-05	INSB-ALK/1630_BRE053EPA_09272012	Surfacewater	09/27/2012 12:00	09/28/2012 11:00	Forrest Crowe
2092733-06	INSB-ALK/1630_BRE053EPA_09272012	Surfacewater	09/27/2012 12:00	09/28/2012 11:00	Forrest Crowe
2092733-07	INSB-ALK/1630_BRE062EPA_09272012	Surfacewater	09/27/2012 08:00	09/28/2012 11:00	Forrest Crowe
2092733-08	INSB-ALK/1630_BRE062EPA_09272012	Surfacewater	09/27/2012 08:00	09/28/2012 11:00	Forrest Crowe
2092733-09	INSB-ALK/1630_FIELDBLANKEPA_09272012	Surfacewater	09/27/2012 08:00	09/28/2012 11:00	Forrest Crowe
2092733-10	INSB-ALK/1630_DUPLICATEEPA_09272012	Surfacewater	09/27/2012 08:00	09/28/2012 11:00	Forrest Crowe
2092733-11	INSB-ALK/1630_DUPLICATEEPA_09272012	Surfacewater	09/27/2012 08:00	09/28/2012 11:00	Forrest Crowe

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092733-01**
Description: **INSB-ALK 1630_BRP018REPA_09272012**

Sample Collection Date Time: 09/27/2012 10:10
Sample Received Date Time: 09/28/2012 11:00

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury	**3.2**		ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 16:01	JBP
Mercury in Field Blank	ND	U	ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 12:05	JBP

Metals by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	**3.18**		mg/L	0.02	0.007	EPA 200.8	10/02/2012 10:00	10/03/2012 23:27	JCD
Antimony	ND	L1, V1, U	mg/L	0.002	0.001	EPA 200.8	10/02/2012 10:00	10/05/2012 16:05	JCD
Arsenic	**0.0018**		mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/03/2012 23:27	JCD
Beryllium	ND	U	mg/L	0.0010	0.0005	EPA 200.8	10/02/2012 10:00	10/03/2012 23:27	JCD
Cadmium	ND	U	mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/03/2012 23:27	JCD
Calcium	**27.6**		mg/L	0.20	0.06	EPA 200.7	10/02/2012 10:00	10/12/2012 21:40	MLC
Chromium	**0.004**		mg/L	0.001	0.0003	EPA 200.8	10/02/2012 10:00	10/03/2012 23:27	JCD
Copper	**0.006**		mg/L	0.002	0.0005	EPA 200.8	10/02/2012 10:00	10/03/2012 23:27	JCD
Iron	**3.81**	A-01	mg/L	0.06	0.02	EPA 200.7	10/02/2012 10:00	10/08/2012 21:55	JCD
Lead	**0.0016**		mg/L	0.0010	0.0005	EPA 200.8	10/02/2012 10:00	10/03/2012 23:27	JCD
Magnesium	**10.8**		mg/L	0.100	0.045	EPA 200.7	10/02/2012 10:00	10/12/2012 21:40	MLC
Manganese	**0.046**		mg/L	0.003	0.001	EPA 200.8	10/02/2012 10:00	10/03/2012 23:27	JCD
Nickel	**0.0055**		mg/L	0.0015	0.0005	EPA 200.8	10/02/2012 10:00	10/03/2012 23:27	JCD
Potassium	**2.93**	B1, B	mg/L	0.01	0.01	EPA 200.7	10/02/2012 10:00	10/12/2012 21:40	MLC
Selenium	**0.005**		mg/L	0.002	0.0005	EPA 200.8	10/02/2012 10:00	10/05/2012 16:05	JCD
Silver	**0.0003**	J	mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/03/2012 23:27	JCD
Sodium	**61.7**		mg/L	0.13	0.05	EPA 200.7	10/02/2012 10:00	10/12/2012 21:40	MLC
Thallium	ND	U	mg/L	0.0010	0.0004	EPA 200.8	10/02/2012 10:00	10/09/2012 22:06	JCD
Vanadium	**0.006**		mg/L	0.002	0.002	EPA 200.8	10/02/2012 10:00	10/03/2012 23:27	JCD
Zinc	**0.047**		mg/L	0.010	0.010	EPA 200.8	10/02/2012 10:00	10/05/2012 16:05	JCD

Metals (Dissolved) by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	ND	U	mg/L	0.02	0.007	EPA 200.8	10/01/2012 13:59	10/02/2012 17:53	JCD
Antimony	ND	U	mg/L	0.005	0.001	EPA 200.8	10/01/2012 13:59	10/02/2012 17:53	JCD
Arsenic	**0.0005**	J4	mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 17:53	JCD
Beryllium	ND	U	mg/L	0.0005	0.0005	EPA 200.8	10/01/2012 13:59	10/02/2012 17:53	JCD
Cadmium	ND	U	mg/L	0.0005	0.0001	EPA 200.8	10/01/2012 13:59	10/02/2012 17:53	JCD
Chromium	ND	U	mg/L	0.002	0.0003	EPA 200.8	10/01/2012 13:59	10/02/2012 17:53	JCD
Copper	ND	U	mg/L	0.001	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 17:53	JCD
Iron	ND	U	mg/L	0.02	0.006	EPA 200.7	10/01/2012 13:56	10/10/2012 17:57	MLC
Lead	ND	U	mg/L	0.0020	0.0020	EPA 200.8	10/01/2012 13:59	10/02/2012 17:53	JCD
Manganese	**0.0003**	J	mg/L	0.002	0.0001	EPA 200.8	10/01/2012 13:59	10/02/2012 17:53	JCD
Nickel	ND	U	mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 17:53	JCD
Selenium	ND	V1, U	mg/L	0.001	0.0009	EPA 200.8	10/01/2012 13:59	10/02/2012 17:53	JCD
Silver	ND	U	mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 17:53	JCD
Thallium	ND	U	mg/L	0.0005	0.0005	EPA 200.8	10/01/2012 13:59	10/02/2012 17:53	JCD
Vanadium	ND	U	mg/L	0.002	0.002	EPA 200.8	10/01/2012 13:59	10/02/2012 17:53	JCD
Zinc	ND	U	mg/L	0.010	0.010	EPA 200.8	10/01/2012 13:59	10/02/2012 17:53	JCD

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Acidity	ND	U	mg/L	1	1	SM2310B	10/02/2012 11:45	10/02/2012 11:45	DDM
Bicarbonate Alkalinity as CaCO3	**77**	B	mg/L	1	1	SM2320B	10/01/2012 13:52	10/01/2012 13:52	DDM
Total Alkalinity	**77**	B	mg/L	1	1	SM2320B	10/01/2012 13:52	10/01/2012 13:52	DDM
Chloride	**6.5**	D	mg/L	1.0	1.0	EPA 300.0	10/04/2012 22:18	10/04/2012 22:18	DMH
Specific Conductance (Lab)	**481**		umhos/cm	1	1	SM2510B	10/02/2012 12:00	10/02/2012 12:00	TLB
Hardness as CaCO3	**140**		mg/L	1	1	SM2340C	10/03/2012 12:06	10/03/2012 16:44	JTL
pH (Lab)	**7.91**	H3	Std. Units	0.10	0.10	SM4500H+B	10/02/2012 13:00	10/02/2012 14:00	DDM
Sulfate	**147**	D	mg/L	10	2	EPA 300.0	10/04/2012 22:18	10/04/2012 22:18	DMH
Total Dissolved Solids	**272**		mg/L	10	10	SM2540C	10/01/2012 09:02	10/02/2012 10:32	DDM
Total Suspended Solids	**73**		mg/L	5	2	SM2540D	10/02/2012 09:21	10/02/2012 12:32	JTL

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092733-02**
Description: **INSB-ALK 1630_BRP018REPA_09272012**

Sample Collection Date Time: 09/27/2012 10:10
Sample Received Date Time: 09/28/2012 11:00

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury, dissolved	**4.6**		ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 19:38	JBP
Mercury in Field Blank, dissolved	ND	U	ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 19:03	JBP

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092733-03**
Description: **INSB-ALK 1630_BRE044EPA_09272012**

Sample Collection Date Time: 09/27/2012 11:00
Sample Received Date Time: 09/28/2012 11:00

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury	**1.4**		ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 16:04	JBP
Mercury in Field Blank	ND	U	ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 12:08	JBP

Metals by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	**0.49**	M3	mg/L	0.02	0.007	EPA 200.8	10/02/2012 10:00	10/03/2012 23:39	JCD
Antimony	ND	L1, V1, U	mg/L	0.002	0.001	EPA 200.8	10/02/2012 10:00	10/05/2012 16:17	JCD
Arsenic	**0.0011**		mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/03/2012 23:39	JCD
Beryllium	ND	U	mg/L	0.0010	0.0005	EPA 200.8	10/02/2012 10:00	10/03/2012 23:39	JCD
Cadmium	ND	U	mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/03/2012 23:39	JCD
Calcium	**144**		mg/L	0.20	0.06	EPA 200.7	10/02/2012 10:00	10/12/2012 21:44	MLC
Chromium	**0.0008**	J	mg/L	0.001	0.0003	EPA 200.8	10/02/2012 10:00	10/03/2012 23:39	JCD
Copper	**0.002**	J4	mg/L	0.002	0.0005	EPA 200.8	10/02/2012 10:00	10/03/2012 23:39	JCD
Iron	**0.64**	A-01	mg/L	0.06	0.02	EPA 200.7	10/02/2012 10:00	10/08/2012 22:00	JCD
Lead	ND	U	mg/L	0.0010	0.0005	EPA 200.8	10/02/2012 10:00	10/03/2012 23:39	JCD
Magnesium	**90.0**		mg/L	0.100	0.045	EPA 200.7	10/02/2012 10:00	10/12/2012 21:44	MLC
Manganese	**0.243**		mg/L	0.003	0.001	EPA 200.8	10/02/2012 10:00	10/03/2012 23:39	JCD
Nickel	**0.0059**		mg/L	0.0015	0.0005	EPA 200.8	10/02/2012 10:00	10/03/2012 23:39	JCD
Potassium	**7.62**	B1, B	mg/L	0.01	0.01	EPA 200.7	10/02/2012 10:00	10/12/2012 21:44	MLC
Selenium	**0.012**		mg/L	0.002	0.0005	EPA 200.8	10/02/2012 10:00	10/05/2012 16:17	JCD
Silver	**0.0002**	J	mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/03/2012 23:39	JCD
Thallium	ND	U	mg/L	0.0010	0.0004	EPA 200.8	10/02/2012 10:00	10/09/2012 22:36	JCD
Vanadium	ND	U	mg/L	0.002	0.002	EPA 200.8	10/02/2012 10:00	10/03/2012 23:39	JCD
Zinc	ND	U	mg/L	0.010	0.010	EPA 200.8	10/02/2012 10:00	10/05/2012 16:17	JCD

Metals (Dissolved) by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	ND	U	mg/L	0.02	0.007	EPA 200.8	10/01/2012 13:59	10/02/2012 18:06	JCD
Antimony	**0.001**	J	mg/L	0.005	0.001	EPA 200.8	10/01/2012 13:59	10/02/2012 18:06	JCD
Arsenic	**0.0005**		mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:06	JCD
Beryllium	ND	U	mg/L	0.0005	0.0005	EPA 200.8	10/01/2012 13:59	10/02/2012 18:06	JCD
Cadmium	ND	U	mg/L	0.0005	0.0001	EPA 200.8	10/01/2012 13:59	10/02/2012 18:06	JCD
Chromium	ND	U	mg/L	0.002	0.0003	EPA 200.8	10/01/2012 13:59	10/02/2012 18:06	JCD
Copper	ND	U	mg/L	0.001	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:06	JCD
Iron	ND	U	mg/L	0.02	0.006	EPA 200.7	10/01/2012 13:56	10/10/2012 18:08	MLC
Lead	ND	U	mg/L	0.0020	0.0020	EPA 200.8	10/01/2012 13:59	10/02/2012 18:06	JCD
Manganese	**0.162**		mg/L	0.002	0.0001	EPA 200.8	10/01/2012 13:59	10/02/2012 18:06	JCD
Nickel	**0.0036**		mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:06	JCD
Selenium	**0.006**		mg/L	0.001	0.0009	EPA 200.8	10/01/2012 13:59	10/07/2012 05:10	JCD
Silver	ND	U	mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:06	JCD
Thallium	ND	U	mg/L	0.0005	0.0005	EPA 200.8	10/01/2012 13:59	10/02/2012 18:06	JCD
Vanadium	ND	U	mg/L	0.002	0.002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:06	JCD
Zinc	ND	U	mg/L	0.010	0.010	EPA 200.8	10/01/2012 13:59	10/02/2012 18:06	JCD

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Acidity	ND	U	mg/L	1	1	SM2310B	10/02/2012 11:45	10/02/2012 11:45	DDM
Bicarbonate Alkalinity as CaCO3	**401**	B	mg/L	1	1	SM2320B	10/01/2012 13:52	10/01/2012 13:52	DDM
Total Alkalinity	**401**	B	mg/L	1	1	SM2320B	10/01/2012 13:52	10/01/2012 13:52	DDM
Chloride	**15.2**	D	mg/L	1.0	1.0	EPA 300.0	10/04/2012 22:39	10/04/2012 22:39	DMH
Specific Conductance (Lab)	**3510**		umhos/cm	1	1	SM2510B	10/02/2012 12:00	10/02/2012 12:00	TLB
Hardness as CaCO3	**700**		mg/L	1	1	SM2340C	10/03/2012 12:06	10/03/2012 16:44	JTL
pH (Lab)	**8.08**	H3	Std. Units	0.10	0.10	SM4500H+B	10/02/2012 13:00	10/02/2012 14:00	DDM
Sulfate	**1690**	D	mg/L	10	2	EPA 300.0	10/04/2012 22:39	10/04/2012 22:39	DMH
Total Dissolved Solids	**2620**		mg/L	10	10	SM2540C	10/01/2012 09:02	10/02/2012 10:34	DDM
Total Suspended Solids	**23**		mg/L	4	2	SM2540D	10/02/2012 09:21	10/02/2012 12:34	JTL

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092733-03RE1**
Description: **INSB-ALK**

Sample Collection Date Time: 09/27/2012 11:00
Sample Received Date Time:

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Sodium	**705**	D1, E	mg/L	0.26	0.10	EPA 200.7	10/02/2012 10:00	10/15/2012 18:24	MLC

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092733-04**
Description: **INSB-ALK 1630_BRE044EPA_09272012**

Sample Collection Date Time: 09/27/2012 11:00
Sample Received Date Time: 09/28/2012 11:00

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury, dissolved	**1.2**		ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 19:41	JBP
Mercury in Field Blank, dissolved	**0.4**	J	ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 19:06	JBP

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092733-05**
Description: **INSB-ALK 1630_BRE053EPA_09272012**

Sample Collection Date Time: 09/27/2012 12:00
Sample Received Date Time: 09/28/2012 11:00

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury	**1.4**		ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 16:07	JBP
Mercury in Field Blank	ND	U	ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 12:11	JBP

Metals by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	**0.11**		mg/L	0.02	0.007	EPA 200.8	10/02/2012 10:00	10/04/2012 00:26	JCD
Antimony	ND	L1, V1, U	mg/L	0.002	0.001	EPA 200.8	10/02/2012 10:00	10/05/2012 16:40	JCD
Arsenic	**0.0011**		mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/04/2012 00:26	JCD
Beryllium	ND	V1, U	mg/L	0.0010	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 00:26	JCD
Cadmium	ND	U	mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/04/2012 00:26	JCD
Calcium	**142**		mg/L	0.20	0.06	EPA 200.7	10/02/2012 10:00	10/12/2012 21:47	MLC
Chromium	**0.0003**	J	mg/L	0.001	0.0003	EPA 200.8	10/02/2012 10:00	10/04/2012 00:26	JCD
Copper	**0.001**	J	mg/L	0.002	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 00:26	JCD
Iron	**0.17**	A-01	mg/L	0.06	0.02	EPA 200.7	10/02/2012 10:00	10/08/2012 22:06	JCD
Lead	ND	U	mg/L	0.0010	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 00:26	JCD
Magnesium	**74.4**		mg/L	0.100	0.045	EPA 200.7	10/02/2012 10:00	10/12/2012 21:47	MLC
Manganese	**0.243**		mg/L	0.003	0.001	EPA 200.8	10/02/2012 10:00	10/04/2012 00:26	JCD
Nickel	**0.0022**		mg/L	0.0015	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 00:26	JCD
Potassium	**6.22**	B1, B	mg/L	0.01	0.01	EPA 200.7	10/02/2012 10:00	10/12/2012 21:47	MLC
Selenium	**0.009**		mg/L	0.002	0.0005	EPA 200.8	10/02/2012 10:00	10/05/2012 16:40	JCD
Silver	**0.0002**	J	mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/04/2012 00:26	JCD
Sodium	**281**	E	mg/L	0.13	0.05	EPA 200.7	10/02/2012 10:00	10/12/2012 21:47	MLC
Thallium	ND	U	mg/L	0.0010	0.0004	EPA 200.8	10/02/2012 10:00	10/09/2012 23:05	JCD
Vanadium	ND	U	mg/L	0.002	0.002	EPA 200.8	10/02/2012 10:00	10/04/2012 00:26	JCD
Zinc	ND	L1, U	mg/L	0.010	0.010	EPA 200.8	10/02/2012 10:00	10/04/2012 00:26	JCD

Metals (Dissolved) by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	ND	D2, U	mg/L	0.02	0.007	EPA 200.8	10/01/2012 13:59	10/02/2012 18:10	JCD
Antimony	ND	U	mg/L	0.005	0.001	EPA 200.8	10/01/2012 13:59	10/02/2012 18:10	JCD
Arsenic	**0.0010**		mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:10	JCD
Beryllium	ND	U	mg/L	0.0005	0.0005	EPA 200.8	10/01/2012 13:59	10/02/2012 18:10	JCD
Cadmium	ND	U	mg/L	0.0005	0.0001	EPA 200.8	10/01/2012 13:59	10/02/2012 18:10	JCD
Chromium	ND	U	mg/L	0.002	0.0003	EPA 200.8	10/01/2012 13:59	10/02/2012 18:10	JCD
Copper	ND	U	mg/L	0.001	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:10	JCD
Iron	ND	U	mg/L	0.02	0.006	EPA 200.7	10/01/2012 13:56	10/10/2012 18:23	MLC
Lead	ND	U	mg/L	0.0020	0.0020	EPA 200.8	10/01/2012 13:59	10/02/2012 18:10	JCD
Manganese	**0.0007**	J	mg/L	0.002	0.0001	EPA 200.8	10/01/2012 13:59	10/02/2012 18:10	JCD
Nickel	**0.0004**	J	mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:10	JCD
Selenium	ND	V1, U	mg/L	0.001	0.0009	EPA 200.8	10/01/2012 13:59	10/02/2012 18:10	JCD
Silver	ND	U	mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:10	JCD
Thallium	ND	U	mg/L	0.0005	0.0005	EPA 200.8	10/01/2012 13:59	10/02/2012 18:10	JCD
Vanadium	ND	U	mg/L	0.002	0.002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:10	JCD
Zinc	ND	U	mg/L	0.010	0.010	EPA 200.8	10/01/2012 13:59	10/02/2012 18:10	JCD

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Acidity	ND	U	mg/L	1	1	SM2310B	10/02/2012 11:45	10/02/2012 11:45	DDM
Bicarbonate Alkalinity as CaCO3	**483**	B	mg/L	1	1	SM2320B	10/01/2012 13:52	10/01/2012 13:52	DDM
Total Alkalinity	**483**	B	mg/L	1	1	SM2320B	10/01/2012 13:52	10/01/2012 13:52	DDM
Chloride	**9.8**	D	mg/L	1.0	1.0	EPA 300.0	10/04/2012 22:59	10/04/2012 22:59	DMH
Specific Conductance (Lab)	**2240**		umhos/cm	1	1	SM2510B	10/02/2012 12:00	10/02/2012 12:00	TLB
Hardness as CaCO3	**660**		mg/L	1	1	SM2340C	10/03/2012 12:06	10/03/2012 16:44	JTL
pH (Lab)	**8.09**	H3	Std. Units	0.10	0.10	SM4500H+B	10/02/2012 13:00	10/02/2012 14:00	DDM
Sulfate	**974**	D	mg/L	10	2	EPA 300.0	10/04/2012 22:59	10/04/2012 22:59	DMH
Total Dissolved Solids	**1630**		mg/L	10	10	SM2540C	10/01/2012 09:02	10/02/2012 10:36	DDM
Total Suspended Solids	**8**		mg/L	4	2	SM2540D	10/02/2012 09:21	10/02/2012 12:36	JTL

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092733-06**
Description: **INSB-ALK 1630_BRE053EPA_09272012**

Sample Collection Date Time: 09/27/2012 12:00
Sample Received Date Time: 09/28/2012 11:00

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury, dissolved	**1.7**		ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 19:44	JBP
Mercury in Field Blank, dissolved	ND	U	ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 19:09	JBP

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092733-07**
Description: **INSB-ALK 1630_BRE062EPA_09272012**

Sample Collection Date Time: 09/27/2012 08:00
Sample Received Date Time: 09/28/2012 11:00

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury	**1.2**		ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 16:10	JBP
Mercury in Field Blank	ND	U	ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 12:14	JBP

Metals by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	**0.11**		mg/L	0.02	0.007	EPA 200.8	10/02/2012 10:00	10/04/2012 00:38	JCD
Antimony	**0.002**	L1	mg/L	0.002	0.001	EPA 200.8	10/02/2012 10:00	10/07/2012 02:23	JCD
Arsenic	**0.0019**		mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/04/2012 00:38	JCD
Beryllium	ND	V1, U	mg/L	0.0010	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 00:38	JCD
Cadmium	ND	U	mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/04/2012 00:38	JCD
Calcium	**84.9**		mg/L	0.20	0.06	EPA 200.7	10/02/2012 10:00	10/12/2012 21:51	MLC
Chromium	**0.0005**	J	mg/L	0.001	0.0003	EPA 200.8	10/02/2012 10:00	10/04/2012 00:38	JCD
Copper	**0.001**	J	mg/L	0.002	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 00:38	JCD
Iron	**0.20**	A-01	mg/L	0.06	0.02	EPA 200.7	10/02/2012 10:00	10/08/2012 22:24	JCD
Lead	ND	U	mg/L	0.0010	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 00:38	JCD
Magnesium	**72.1**		mg/L	0.100	0.045	EPA 200.7	10/02/2012 10:00	10/12/2012 21:51	MLC
Manganese	**0.106**		mg/L	0.003	0.001	EPA 200.8	10/02/2012 10:00	10/04/2012 00:38	JCD
Nickel	**0.0018**		mg/L	0.0015	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 00:38	JCD
Potassium	**7.52**	B	mg/L	0.01	0.01	EPA 200.7	10/02/2012 10:00	10/12/2012 21:51	MLC
Selenium	**0.010**		mg/L	0.002	0.0005	EPA 200.8	10/02/2012 10:00	10/05/2012 16:52	JCD
Silver	**0.0002**	J	mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/04/2012 00:38	JCD
Thallium	ND	U	mg/L	0.0010	0.0004	EPA 200.8	10/02/2012 10:00	10/09/2012 23:11	JCD
Vanadium	ND	U	mg/L	0.002	0.002	EPA 200.8	10/02/2012 10:00	10/04/2012 00:38	JCD
Zinc	ND	L1, U	mg/L	0.010	0.010	EPA 200.8	10/02/2012 10:00	10/04/2012 00:38	JCD

Metals (Dissolved) by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	ND	U	mg/L	0.02	0.007	EPA 200.8	10/01/2012 13:59	10/02/2012 18:15	JCD
Antimony	ND	U	mg/L	0.005	0.001	EPA 200.8	10/01/2012 13:59	10/02/2012 18:15	JCD
Arsenic	**0.0013**		mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:15	JCD
Beryllium	ND	U	mg/L	0.0005	0.0005	EPA 200.8	10/01/2012 13:59	10/02/2012 18:15	JCD
Cadmium	ND	U	mg/L	0.0005	0.0001	EPA 200.8	10/01/2012 13:59	10/02/2012 18:15	JCD
Chromium	ND	U	mg/L	0.002	0.0003	EPA 200.8	10/01/2012 13:59	10/02/2012 18:15	JCD
Copper	ND	U	mg/L	0.001	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:15	JCD
Iron	ND	U	mg/L	0.02	0.006	EPA 200.7	10/01/2012 13:56	10/10/2012 18:33	MLC
Lead	ND	U	mg/L	0.0020	0.0020	EPA 200.8	10/01/2012 13:59	10/02/2012 18:15	JCD
Manganese	**0.0002**	J	mg/L	0.002	0.0001	EPA 200.8	10/01/2012 13:59	10/02/2012 18:15	JCD
Nickel	**0.0005**		mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:15	JCD
Selenium	**0.002**		mg/L	0.001	0.0009	EPA 200.8	10/01/2012 13:59	10/07/2012 05:22	JCD
Silver	ND	U	mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:15	JCD
Thallium	ND	U	mg/L	0.0005	0.0005	EPA 200.8	10/01/2012 13:59	10/02/2012 18:15	JCD
Vanadium	ND	U	mg/L	0.002	0.002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:15	JCD
Zinc	ND	U	mg/L	0.010	0.010	EPA 200.8	10/01/2012 13:59	10/02/2012 18:15	JCD

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Acidity	ND	U	mg/L	1	1	SM2310B	10/02/2012 11:45	10/02/2012 11:45	DDM
Bicarbonate Alkalinity as CaCO3	**415**	B	mg/L	1	1	SM2320B	10/01/2012 13:52	10/01/2012 13:52	DDM
Total Alkalinity	**415**	B	mg/L	1	1	SM2320B	10/01/2012 13:52	10/01/2012 13:52	DDM
Chloride	**23.1**	D	mg/L	1.0	1.0	EPA 300.0	10/04/2012 23:20	10/04/2012 23:20	DMH
Specific Conductance (Lab)	**3590**		umhos/cm	1	1	SM2510B	10/02/2012 12:00	10/02/2012 12:00	TLB
Hardness as CaCO3	**510**		mg/L	1	1	SM2340C	10/03/2012 12:06	10/03/2012 16:44	JTL
pH (Lab)	**8.27**	H3	Std. Units	0.10	0.10	SM4500H+B	10/02/2012 13:00	10/02/2012 14:00	DDM
Sulfate	**1610**	D	mg/L	10	2	EPA 300.0	10/04/2012 23:20	10/04/2012 23:20	DMH
Total Dissolved Solids	**2540**		mg/L	10	10	SM2540C	10/01/2012 09:02	10/02/2012 10:38	DDM
Total Suspended Solids	**13**		mg/L	4	2	SM2540D	10/02/2012 09:21	10/02/2012 12:38	JTL

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092733-07RE1**
Description: **INSB-ALK**

Sample Collection Date Time: 09/27/2012 08:00
Sample Received Date Time:

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Sodium	**706**	D1	mg/L	0.52	0.20	EPA 200.7	10/02/2012 10:00	10/16/2012 18:26	MLC

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092733-08**
Description: **INSB-ALK 1630_BRE062EPA_09272012**

Sample Collection Date Time: 09/27/2012 08:00
Sample Received Date Time: 09/28/2012 11:00

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury, dissolved	**1.1**		ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 19:47	JBP
Mercury in Field Blank, dissolved	**0.3**	J	ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 19:12	JBP

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092733-09**
Description: **INSB-ALK 1630_FIELDBLANKEPA_09272012**

Sample Collection Date Time: 09/27/2012 08:00
Sample Received Date Time: 09/28/2012 11:00

Metals by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	ND	U	mg/L	0.02	0.007	EPA 200.8	10/02/2012 10:00	10/04/2012 00:50	JCD
Antimony	ND	L1, V1, U	mg/L	0.002	0.001	EPA 200.8	10/02/2012 10:00	10/05/2012 17:04	JCD
Arsenic	**0.0002**	U, J	mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/04/2012 00:50	JCD
Beryllium	ND	V1, U	mg/L	0.0010	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 00:50	JCD
Cadmium	ND	U	mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/04/2012 00:50	JCD
Calcium	ND	U	mg/L	0.20	0.06	EPA 200.7	10/02/2012 10:00	10/12/2012 21:55	MLC
Chromium	ND	U	mg/L	0.001	0.0003	EPA 200.8	10/02/2012 10:00	10/04/2012 00:50	JCD
Copper	ND	U	mg/L	0.002	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 00:50	JCD
Iron	ND	A-01, U	mg/L	0.06	0.02	EPA 200.7	10/02/2012 10:00	10/08/2012 22:30	JCD
Lead	ND	U	mg/L	0.0010	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 00:50	JCD
Magnesium	ND	U	mg/L	0.100	0.045	EPA 200.7	10/02/2012 10:00	10/12/2012 21:55	MLC
Manganese	ND	U	mg/L	0.003	0.001	EPA 200.8	10/02/2012 10:00	10/04/2012 00:50	JCD
Nickel	ND	U	mg/L	0.0015	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 00:50	JCD
Potassium	ND	B1, U	mg/L	0.01	0.01	EPA 200.7	10/02/2012 10:00	10/12/2012 21:55	MLC
Selenium	**0.003**		mg/L	0.002	0.0005	EPA 200.8	10/02/2012 10:00	10/05/2012 17:04	JCD
Silver	ND	U	mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/04/2012 00:50	JCD
Sodium	**0.07**	J	mg/L	0.13	0.05	EPA 200.7	10/02/2012 10:00	10/12/2012 21:55	MLC
Thallium	ND	U	mg/L	0.0010	0.0004	EPA 200.8	10/02/2012 10:00	10/09/2012 23:17	JCD
Vanadium	ND	U	mg/L	0.002	0.002	EPA 200.8	10/02/2012 10:00	10/04/2012 00:50	JCD
Zinc	ND	L1, U	mg/L	0.010	0.010	EPA 200.8	10/02/2012 10:00	10/04/2012 00:50	JCD

Metals (Dissolved) by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	D2, U	mg/L	0.005	0.001	EPA 200.8	10/01/2012 13:59	10/03/2012 22:33	JCD
Beryllium	ND	D, U	mg/L	0.0050	0.0050	EPA 200.8	10/01/2012 13:59	10/13/2012 08:30	JCD
Cadmium	ND	D2, U	mg/L	0.0005	0.0001	EPA 200.8	10/01/2012 13:59	10/03/2012 22:33	JCD
Iron	ND	U	mg/L	0.02	0.006	EPA 200.7	10/01/2012 13:56	10/10/2012 18:37	MLC
Lead	ND	D2, U	mg/L	0.0020	0.0020	EPA 200.8	10/01/2012 13:59	10/03/2012 22:33	JCD
Nickel	ND	D2, U	mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:19	JCD
Selenium	**0.001**		mg/L	0.001	0.0009	EPA 200.8	10/01/2012 13:59	10/07/2012 05:46	JCD
Silver	ND	U	mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/03/2012 22:33	JCD
Thallium	ND	D2, U	mg/L	0.0005	0.0005	EPA 200.8	10/01/2012 13:59	10/03/2012 22:33	JCD
Zinc	ND	D, D2, U	mg/L	0.050	0.050	EPA 200.8	10/01/2012 13:59	10/04/2012 21:14	JCD

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Acidity	**32**	B	mg/L	1	1	SM2310B	10/02/2012 11:45	10/02/2012 11:45	DDM
Bicarbonate Alkalinity as CaCO3	**2**	B	mg/L	1	1	SM2320B	10/01/2012 13:52	10/01/2012 13:52	DDM
Total Alkalinity	**2**	B	mg/L	1	1	SM2320B	10/01/2012 13:52	10/01/2012 13:52	DDM
Chloride	ND	U	mg/L	0.1	0.1	EPA 300.0	10/05/2012 00:01	10/05/2012 00:01	DMH
Specific Conductance (Lab)	**2**		umhos/cm	1	1	SM2510B	10/02/2012 12:00	10/02/2012 12:00	TLB
Hardness as CaCO3	ND	U	mg/L	1	1	SM2340C	10/03/2012 12:06	10/03/2012 16:44	JTL
pH (Lab)	**7.33**	H3	Std. Units	0.10	0.10	SM4500H+B	10/02/2012 13:00	10/02/2012 14:00	DDM

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Sulfate	**0.8**	J	mg/L	1	0.2	EPA 300.0	10/05/2012 00:01	10/05/2012 00:01	DMH
Total Dissolved Solids	ND	U	mg/L	10	10	SM2540C	10/01/2012 09:02	10/02/2012 10:40	DDM
Total Suspended Solids	ND	U	mg/L	4	2	SM2540D	10/02/2012 09:21	10/02/2012 12:40	JTL

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092733-09RE1**
Description: **INSB-ALK**

Sample Collection Date Time: 09/27/2012 08:00
Sample Received Date Time:

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals (Dissolved) by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	ND	U	mg/L	0.02	0.007	EPA 200.8	10/01/2012 13:59	10/07/2012 05:46	JCD
Arsenic	ND	U	mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/07/2012 05:46	JCD
Chromium	ND	U	mg/L	0.002	0.0003	EPA 200.8	10/01/2012 13:59	10/07/2012 05:46	JCD
Copper	**0.0003**	J	mg/L	0.001	0.0002	EPA 200.8	10/01/2012 13:59	10/07/2012 05:46	JCD
Manganese	**0.0003**	J	mg/L	0.002	0.0001	EPA 200.8	10/01/2012 13:59	10/07/2012 05:46	JCD
Vanadium	ND	U	mg/L	0.002	0.002	EPA 200.8	10/01/2012 13:59	10/11/2012 17:19	JCD

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092733-10**
Description: **INSB-ALK 1630_DUPLICATEEPA_09272012**

Sample Collection Date Time: 09/27/2012 08:00
Sample Received Date Time: 09/28/2012 11:00

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury, dissolved	**0.9**		ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 19:50	JBP
Mercury in Field Blank, dissolved	**0.2**	J	ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 19:15	JBP

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092733-11**
Description: **INSB-ALK 1630_DUPLICATEEPA_09272012**

Sample Collection Date Time: 09/27/2012 08:00
Sample Received Date Time: 09/28/2012 11:00

Metals by SW846 6000 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury	**1.0**		ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 16:16	JBP
Mercury in Field Blank	**1.0**		ng/L	0.5	0.2	EPA 1631E	10/04/2012 18:00	10/05/2012 13:48	JBP

Metals by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	**0.10**		mg/L	0.02	0.007	EPA 200.8	10/02/2012 10:00	10/04/2012 01:07	JCD
Antimony	**0.001**	L1, V1, J	mg/L	0.002	0.001	EPA 200.8	10/02/2012 10:00	10/05/2012 17:16	JCD
Arsenic	**0.0018**		mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/04/2012 01:07	JCD
Beryllium	ND	V1, U	mg/L	0.0010	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 01:07	JCD
Cadmium	ND	U	mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/04/2012 01:07	JCD
Calcium	**93.5**		mg/L	0.20	0.06	EPA 200.7	10/02/2012 10:00	10/12/2012 21:58	MLC
Chromium	**0.0004**	J	mg/L	0.001	0.0003	EPA 200.8	10/02/2012 10:00	10/04/2012 01:07	JCD
Copper	**0.002**		mg/L	0.002	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 01:07	JCD
Iron	**0.22**	A-01	mg/L	0.06	0.02	EPA 200.7	10/02/2012 10:00	10/08/2012 22:36	JCD
Lead	ND	U	mg/L	0.0010	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 01:07	JCD
Magnesium	**80.3**		mg/L	0.100	0.045	EPA 200.7	10/02/2012 10:00	10/12/2012 21:58	MLC
Manganese	**0.104**		mg/L	0.003	0.001	EPA 200.8	10/02/2012 10:00	10/04/2012 01:07	JCD
Nickel	**0.0021**		mg/L	0.0015	0.0005	EPA 200.8	10/02/2012 10:00	10/04/2012 01:07	JCD
Potassium	**8.28**	B	mg/L	0.01	0.01	EPA 200.7	10/02/2012 10:00	10/12/2012 21:58	MLC
Selenium	**0.010**		mg/L	0.002	0.0005	EPA 200.8	10/02/2012 10:00	10/05/2012 17:16	JCD
Silver	**0.0002**	J	mg/L	0.0005	0.0002	EPA 200.8	10/02/2012 10:00	10/04/2012 01:07	JCD
Thallium	ND	U	mg/L	0.0010	0.0004	EPA 200.8	10/02/2012 10:00	10/09/2012 23:23	JCD
Vanadium	ND	U	mg/L	0.002	0.002	EPA 200.8	10/02/2012 10:00	10/04/2012 01:07	JCD
Zinc	**0.015**		mg/L	0.010	0.010	EPA 200.8	10/02/2012 10:00	10/05/2012 17:16	JCD

Metals (Dissolved) by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Aluminum	ND	U	mg/L	0.02	0.007	EPA 200.8	10/01/2012 13:59	10/02/2012 18:24	JCD
Antimony	ND	U	mg/L	0.005	0.001	EPA 200.8	10/01/2012 13:59	10/02/2012 18:24	JCD
Arsenic	**0.0011**		mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:24	JCD
Beryllium	ND	U	mg/L	0.0005	0.0005	EPA 200.8	10/01/2012 13:59	10/02/2012 18:24	JCD
Cadmium	ND	U	mg/L	0.0005	0.0001	EPA 200.8	10/01/2012 13:59	10/02/2012 18:24	JCD
Chromium	ND	U	mg/L	0.002	0.0003	EPA 200.8	10/01/2012 13:59	10/02/2012 18:24	JCD
Copper	ND	U	mg/L	0.001	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:24	JCD
Iron	ND	U	mg/L	0.02	0.006	EPA 200.7	10/01/2012 13:56	10/10/2012 18:41	MLC
Lead	ND	U	mg/L	0.0020	0.0020	EPA 200.8	10/01/2012 13:59	10/02/2012 18:24	JCD
Manganese	**0.0002**	J	mg/L	0.002	0.0001	EPA 200.8	10/01/2012 13:59	10/02/2012 18:24	JCD
Nickel	**0.0003**	J	mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:24	JCD
Selenium	**0.002**		mg/L	0.001	0.0009	EPA 200.8	10/01/2012 13:59	10/07/2012 05:51	JCD
Silver	ND	U	mg/L	0.0005	0.0002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:24	JCD
Thallium	ND	U	mg/L	0.0005	0.0005	EPA 200.8	10/01/2012 13:59	10/02/2012 18:24	JCD
Vanadium	ND	U	mg/L	0.002	0.002	EPA 200.8	10/01/2012 13:59	10/02/2012 18:24	JCD
Zinc	ND	U	mg/L	0.010	0.010	EPA 200.8	10/01/2012 13:59	10/02/2012 18:24	JCD

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Conventional Chemistry Analyses_01

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Acidity	ND	U	mg/L	1	1	SM2310B	10/02/2012 11:45	10/02/2012 11:45	DDM
Bicarbonate Alkalinity as CaCO3	**425**	B	mg/L	1	1	SM2320B	10/01/2012 13:52	10/01/2012 13:52	DDM
Total Alkalinity	**425**	B	mg/L	1	1	SM2320B	10/01/2012 13:52	10/01/2012 13:52	DDM
Chloride	**22.3**	D	mg/L	1.0	1.0	EPA 300.0	10/04/2012 23:40	10/04/2012 23:40	DMH
Specific Conductance (Lab)	**3520**		umhos/cm	1	1	SM2510B	10/02/2012 12:00	10/02/2012 12:00	TLB
Hardness as CaCO3	**530**		mg/L	1	1	SM2340C	10/03/2012 12:06	10/03/2012 16:44	JTL
pH (Lab)	**8.26**	H3	Std. Units	0.10	0.10	SM4500H+B	10/02/2012 13:00	10/02/2012 14:00	DDM
Sulfate	**1600**	D	mg/L	10	2	EPA 300.0	10/04/2012 23:40	10/04/2012 23:40	DMH
Total Dissolved Solids	**2500**		mg/L	10	10	SM2540C	10/01/2012 09:02	10/02/2012 10:42	DDM
Total Suspended Solids	**13**		mg/L	4	2	SM2540D	10/02/2012 09:21	10/02/2012 12:42	JTL

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

ANALYTICAL RESULTS

Lab Sample ID: **2092733-11RE1**
Description: **INSB-ALK**

Sample Collection Date Time: 09/27/2012 08:00
Sample Received Date Time:

Matrix: Surfacewater

Discharge/Site No:

Regulatory ID:

Metals by EPA 200 Series Methods

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Sodium	**791**	D1, E	mg/L	0.26	0.10	EPA 200.7	10/02/2012 10:00	10/15/2012 18:32	MLC

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Notes for work order 2092733

- Samples collected by MMLI personnel are done so in accordance with procedures set forth in MMLI field services SOPs.
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.

J	Estimated value.
B	Target analyte detected in method blank at or above the method reporting limit.
B1	Target analyte detected in method blank at or above the method reporting limit. Concentration found in the sample was 10 times above the concentration found in the method blank.
D	Results reported from dilution.
D1	Sample required dilution due to high concentration of target analyte.
D2	Sample required dilution due to matrix interference.
A-01	Analyzed by 200.8.
H3	Sample received and analyzed past holding time.
V3	CCV recovery was above method acceptance limits. This target analyte detected in the sample, but the sample not reanalyzed.
J4	Concentration estimated. Analyte detected below laboratory minimum reporting level (MRL), but not confirmed by alternate analysis.
L1	The associated blank spike recovery was above method acceptance limits.
M2	Matrix spike recovery was low; the method control sample recovery was acceptable.
M3	The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.
U	Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).
V1	CCV recovery was above method acceptance limits. This target analyte not detected in the sample.
E	Concentration exceeds calibration range

Standard Quallifiers/Acronymns

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than permit limits
<	Less than permit limits

Analyses performed at the Madisonville KY location unless specified with the following location codes.

02	Pikeville, KY
03	Paducah, KY
04	Lexington, KY
05	Louisville, KY

McCOY & McCOY LABORATORIES, Inc.

P.O. Box 907, 825 Industrial Road
Madisonville, KY 42431
270.821.7375
www.mccoylabs.com

Lexington, KY 859.299.7775
Pikeville, KY 606.432.3104
Louisville, KY 502.961.0001
Paducah, KY 270.444.6547

"Providing Tomorrow's Analytical Capabilites Today"

Certified Analyses included in this Report

Analyte	Certifications
EPA 1631E in Water	
Mercury	VA NELAC (460210)
Mercury, dissolved	VA NELAC (460210)
Mercury in Field Blank	VA NELAC (460210)
Mercury in Field Blank, dissolved	VA NELAC (460210)
EPA 200.7 in Water	
Calcium	VA NELAC (460210)
Magnesium	VA NELAC (460210)
Potassium	VA NELAC (460210)
Sodium	VA NELAC (460210)
EPA 200.8 in Water	
Aluminum	VA NELAC (460210)
Beryllium	KY Drinking Water (00030)
Antimony	VA NELAC (460210)
Arsenic	VA NELAC (460210)
Beryllium	VA NELAC (460210)
Cadmium	VA NELAC (460210)
Chromium	VA NELAC (460210)
Copper	VA NELAC (460210)
Lead	VA NELAC (460210)
Manganese	VA NELAC (460210)
Nickel	VA NELAC (460210)
Selenium	VA NELAC (460210)
Silver	VA NELAC (460210)
Thallium	VA NELAC (460210)
Vanadium	VA NELAC (460210)
Zinc	VA NELAC (460210)
EPA 300.0 in Water	
Chloride	KY Drinking Water (00030) VA NELAC (460210)
Sulfate	KY Drinking Water (00030) VA NELAC (460210)
SM2320B in Water	
Total Alkalinity	KY Drinking Water (00030) VA NELAC (460210)
Bicarbonate Alkalinity as CaCO3	KY Drinking Water (00030)
SM2340C in Water	
Hardness as CaCO3	KY Drinking Water (00030)
SM2510B in Water	
Specific Conductance (Lab)	KY Drinking Water (00030) VA NELAC (460210)
SM2540C in Water	
Total Dissolved Solids	KY Drinking Water (00030) VA NELAC (460210)
SM4500H+B in Water	
pH (Lab)	KY Drinking Water (00030) VA NELAC (460210)

Peabody Midwest Mining, LLC. - CHAIN OF CUSTODY 2092733

SAMPLER: Forrest L. Crowe

1630 - Bear Run Mine

BASIN #	LAB #	DATE	TIME	GRAB	# CONTAINERS	BASE	PRECIP	Flow (GPM)	pH	Temp				TYPE SAMPLE	COMMENTS
003R	1630BRP03REPA	9/27/12	10:40		6		✓	0						ALK - EPA	~~01-02~~ TLD 9/28/12
018R	1630BRP018REPA	9/27/12	10:10		6		✓	350	7.9	19.4				ALK - EPA	01-02
044	1630BRE044EPA	9/27/12	11:00		6		✓	5	7.9	20.0				ALK - EPA	03-04
053	1630BRE053EPA	9/27/12	12:00		6		✓	550	8.0	19.9				ALK - EPA	05-06
058	1630BRE058EPA	9/27/12	11:45		6		✓	0						ALK - EPA	
062	1630BRE062EPA	9/27/12	8:00		6		✓	5	8.2	20.8				ALK - EPA	07-08
	1630FIELDBLANKEPA	9/27/12	8:00		3		✓							ALK - EPA	NO TOTAL AND DISSOLVED MERCURY ANALYSIS 09-~~10~~ TLD 9/28/12
	1630DUPLICATEEPA	9/27/12	8:00		6		✓	5	8.2	20.8				ALK - EPA	~~11-12~~ TLD 9/28/12 10-11

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
Forrest Crowe	9/27/12	12:54	[signature]	09/27/2012	12:54
[signature]	09/28/12	1000	Michael Walle	9-28-12	1000
Michael Walle	9-28-12	1100	Lawrence Duncan	9/28/12	1100

pH and TDS are measured using an electrometric pH or TDS meter

Report of Settleable Solids prepared using EPA Method 160.5, and LaMotte Imhoff Cone.

Analysis date, if other than sample date:

TRIP ON OTHER LOC

ANALYZED BY:

Precip. Event Statistics
Date event Started: 9/25/12
Date event Ended: 9/28/12
Total Rinfall: 1.74 inches

ALK- EPA Field
Base - Flow, pH, & Temp.
Precip - Flow, pH, & Temp.

ALK - EPA Lab
Cations - Ca, Mg, Na & K
Anions - Chloride, Sulfate & Bicarbonate
Metals - Metals (total & Dissolved) Al, Cd, Cr, Fe, Mn, Hg*, Se*, V, Zn, Sb, Ar, Be, Cu, Pb, Ni, Ag & Tl (* Low Level Method)
Additional Parameters - TDS, SpC, Acidity, Alkalinity, Hardness & Total Suspended Solids