



Brighton Analytical, L.L.C.
 2105 Pless Drive
 Brighton, Michigan 48116
 Phone: (810) 229-7575 FAX: (810) 229-8650
 e-mail: bai-brighton@sbcglobal.net

To: Highland Treatment Inc.
 P.O. Box 1089
 Highland, MI 48357

Sample Date: 8/6/2014
 Submit Date: 8/7/2014
 Report Date: 8/14/2014

BA Report Number: 30027
 BA Sample ID: CA02340

Project Name: Whiteford
 Project Number:
 Sample ID: Whiteford CIP Conc. 12:00

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Total Metal Analysis						
Calcium Carbonate	1500000	ug/L	2000	EPA 200.8 rev5.4	GW	8/12/2014
Total Aluminum	170	ug/L	50	EPA 200.8 rev5.4	GW	8/12/2014
Total Barium	Not detected	ug/L	100	EPA 200.8 rev5.4	GW	8/12/2014
Total Chromium	7	ug/L	5	EPA 200.8 rev5.4	GW	8/12/2014
Total Copper	Not detected	ug/L	4	EPA 200.8 rev5.4	GW	8/12/2014
Total Iron	660	ug/L	20	EPA 200.8 rev5.4	GW	8/12/2014
Total Magnesium	24000	ug/L	100	EPA 200.8 rev5.4	GW	8/12/2014
Total Manganese	Not detected	ug/L	20	EPA 200.8 rev5.4	GW	8/12/2014
Total Potassium	2700	ug/L	100	EPA 200.8 rev5.4	GW	8/12/2014
Total Silver	Not detected	ug/L	0.2	EPA 200.8 rev5.4	GW	8/12/2014
Total Sodium	11000	ug/L	1000	EPA 200.8 rev5.4	GW	8/12/2014
Total Strontium	27000	ug/L	10	EPA 200.7	KW	8/11/2014
Total Zinc	210	ug/L	10	EPA 200.8 rev5.4	GW	8/12/2014
Magnesium Carbonate	98000	ug/L	2000	EPA 200.8 rev5.4	GW	8/12/2014
Metal Water Total (digest)	Digested			3015	LS	8/8/2014
Inorganic Analysis						
Ammonia	50	ug/L	10	SM4500 NH3G	RM	8/13/2014
Chloride	40000	ug/L	1000	EPA 300.0R2.1	RM	8/7/2014
Fluoride	600	ug/L	100	EPA 300.0R2.1	RM	8/7/2014
Nitrate	Not detected	ug/L	500	EPA 300.0R2.1	RM	8/7/2014
Nitrite	Not detected	ug/L	500	EPA 300.0R2.1	RM	8/7/2014
pH	2.0	S.I.		SW846 9040B	LS	8/12/2014
Phosphorus (total)	Not detected	ug/L	10	SM4500 PE	MB	8/11/2014
Specific Conductance	6.0	umhos/cm		EPA 120.1	LS	8/14/2014
Sulfates	2300000	ug/L	1000	EPA 300.0R2.1	RM	8/7/2014
Total Inorganic Nitrogen(calc)	50	ug/L	20		RM	8/13/2014
Total Suspended Solids	24000	ug/L	10000	SM2540D	LS	8/7/2014



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Sample Date: 8/6/2014
 Submit Date: 8/7/2014
 Report Date: 8/14/2014

BA Report Number: 30027
 BA Sample ID: CA02341

Project Name: Whiteford
 Project Number:
 Sample ID: Whiteford CI P Conc. CI 1530

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Total Metal Analysis						
Calcium Carbonate	1400000	ug/L	2000	EPA 200.8 rev5.4	GW	8/12/2014
Total Aluminum	Not detected	ug/L	50	EPA 200.8 rev5.4	GW	8/12/2014
Total Barium	Not detected	ug/L	100	EPA 200.8 rev5.4	GW	8/12/2014
Total Chromium	Not detected	ug/L	5	EPA 200.8 rev5.4	GW	8/12/2014
Total Copper	7	ug/L	4	EPA 200.8 rev5.4	GW	8/12/2014
Total Iron	30	ug/L	20	EPA 200.8 rev5.4	GW	8/12/2014
Total Magnesium	23000	ug/L	100	EPA 200.8 rev5.4	GW	8/12/2014
Total Manganese	Not detected	ug/L	20	EPA 200.8 rev5.4	GW	8/12/2014
Total Potassium	2600	ug/L	100	EPA 200.8 rev5.4	GW	8/12/2014
Total Silver	Not detected	ug/L	0.2	EPA 200.8 rev5.4	GW	8/12/2014
Total Sodium	390000	ug/L	1000	EPA 200.8 rev5.4	GW	8/12/2014
Total Strontium	26000	ug/L	10	EPA 200.7	KW	8/11/2014
Total Zinc	20	ug/L	10	EPA 200.8 rev5.4	GW	8/12/2014
Magnesium Carbonate	94000	ug/L	2000	EPA 200.8 rev5.4	GW	8/12/2014
Metal Water Total (digest)	Digested			3015	LS	8/8/2014
Inorganic Analysis						
Ammonia	Not detected	ug/L	10	SM4500 NH3G	RM	8/13/2014
Chloride	540000	ug/L	1000	EPA 300.0R2.1	RM	8/7/2014
Fluoride	900	ug/L	100	EPA 300.0R2.1	RM	8/7/2014
Nitrate	Not detected	ug/L	500	EPA 300.0R2.1	RM	8/7/2014
Nitrite	Not detected	ug/L	500	EPA 300.0R2.1	RM	8/7/2014
pH	8.1	S.I.		SW846 9040B	LS	8/12/2014
Phosphorus (total)	220	ug/L	10	SM4500 PE	MB	8/11/2014
Specific Conductance	4.0	umhos/cm		EPA 120.1	LS	8/14/2014
Sulfates	1300000	ug/L	1000	EPA 300.0R2.1	RM	8/7/2014
Total Alkalinity	450000	ug/L	5000	SM2320B	KW	8/11/2014
Total Inorganic Nitrogen(calc)	Not detected	ug/L	20		RM	8/13/2014
Total Sulfide	6000	ug/L	200	SM4500 S2F	RM	8/12/2014
Total Suspended Solids	Not detected	ug/L	10000	SM2540D	LS	8/7/2014



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 Report Date: 8/14/2014

To: Highland Treatment Inc.
 P.O. Box 1089
 Highland, MI 48357

BA Report Number: 30027
 BA Sample ID: CA02340

Project Name: Whiteford
 Project Number:
 Sample ID: Whiteford CI P Conc. 12:00

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Organic Analysis						
Total Organic Carbon	6900000	ug/L	500000	SM5310B	RG	8/12/2014

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:

[Signature]
 8.14.14

Elevated TOC, nitrate and nitrite dl due to sample matrix.



Brighton Analytical LLC
 2105 Pless Drive
 Brighton, Michigan 48114
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 e-mail: bal-brighton@sbcglobal.net
 MDNRE Certified #9404
 NELAC Accredited #176507

Sample Date/Time: 8/7/2014 13:20
 Submit Date/Time: 8/8/2014 08:30
 Report Date: 8/15/2014

Highland Treatment Inc.
 P.O. Box 1089
 Highland, MI 48357

BA Project # **30050**
 BA Sample ID **CA02409**

Project Name: **Whiteford Twp Pilot Study**
 Project Number:
 Sample ID: **Whiteford Influent**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
Drinking Water Metal Analysis							
Total Barium (Drinking Water)	Not detected	ug/L	100	2000	EPA 200.8 rev5.4	17:11	08/12/2014
Total Chromium(Drinking Water)	Not detected	ug/L	10	100	EPA 200.8 rev5.4	17:11	08/12/2014
Total Copper (Drinking Water)	Not detected	ug/L	20	1300	EPA 200.8 rev5.4	17:11	08/12/2014
Total Sodium (Drinking Water)	13000	ug/L	1000		EPA 200.7	15:13	08/13/2014
Total Metal Analysis							
Calcium Carbonate	1400000	ug/L	2000		EPA 200.8 rev5.4	17:11	08/12/2014
Hardness by Calculation	1500000	ug/L	5000		EPA 200.8 rev5.4	17:11	08/12/2014
Total Aluminum	Not detected	ug/L	50		EPA 200.8 rev5.4	17:11	08/12/2014
Total Iron	Not detected	ug/L	20		EPA 200.8 rev5.4	17:11	08/12/2014
Total Magnesium	23000	ug/L	100		EPA 200.8 rev5.4	17:11	08/12/2014
Total Manganese	Not detected	ug/L	20		EPA 200.8 rev5.4	17:11	08/12/2014
Total Potassium	2400	ug/L	100		EPA 200.8 rev5.4	17:11	08/12/2014
Total Silver	Not detected	ug/L	0.2		EPA 200.8 rev5.4	17:11	08/12/2014
Total Strontium	24000	ug/L	10		EPA 200.7	16:48	08/11/2014
Total Zinc	Not detected	ug/L	10		EPA 200.8 rev5.4	17:11	08/12/2014
Magnesium Carbonate	96000	ug/L	2000		EPA 200.8 rev5.4	17:11	08/12/2014
Inorganic Analysis							
Ammonia	150	ug/L	10		SM4500 NH3G	17:04	08/13/2014
Chloride	36000	ug/L	1000		EPA 300.0R2.1	00:48	08/08/2014
Phosphorus (total)	Not detected	ug/L	10		SM4500 PE	12:00	08/11/2014
Specific Conductance	2300	umhos/cm			EPA 120.1	10:00	08/14/2014
Total Alkalinity	250000	ug/L	5000		SM2320B	15:21	08/11/2014
Total Inorganic Nitrogen(calc)	150	ug/L	20			11:41	08/13/2014
Total Sulfide	Not detected	ug/L	200		SM4500 S2F	16:10	08/12/2014
Total Suspended Solids	57000	ug/L	10000		SM2540D	15:00	08/14/2014
Drinking Water Inorganic Analysis							
Fluoride (Drinking Water)	800	ug/L	100	4000	EPA 300.0R2.1	00:48	08/08/2014
Nitrate (Drinking Water)	Not detected	ug/L	50	10000	EPA 300.0R2.1	00:48	08/08/2014
Nitrite (Drinking Water)	Not detected	ug/L	50	1000	EPA 300.0R2.1	00:48	08/08/2014
pH (Drinking Water)	7.3	S.I.			SM4500 H+B	09:30	08/12/2014
Sulfate (Drinking Water)	1300000	ug/L	5000		EPA 300.0R2.1	00:48	08/08/2014
Drinking Water Organic Analysis							
Total Organic Carbon(Drinking Water)	2300	ug/L	1000		SM5310B	13:33	08/12/2014



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Sample Date: 8/6/2014
 Submit Date: 8/7/2014
 Report Date: 8/14/2014

BA Report Number: 30027
 BA Sample ID: CA02340

Project Name: Whiteford
 Project Number:
 Sample ID: Whiteford CI P Conc. 12:00

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Organic Analysis						
Total Organic Carbon	6900000	ug/L	500000	SM5310B	RG	8/12/2014

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by: *[Signature]*
 Date: 8.14.14

Elevated TOC, nitrate and nitrite dl due to sample matrix.



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Sample Date/Time: 8/7/2014 13:25
 Submit Date/Time: 8/8/2014 08:30
 Report Date: 8/15/2014

Highland Treatment Inc.
 P.O. Box 1089
 Highland, MI 48357

BA Project # **30050**
 BA Sample ID **CA02410**

Project Name: **Whiteford Twp Pilot Study**
 Project Number:
 Sample ID: **Whiteford Effluent**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
Drinking Water Metal Analysis							
Total Barium (Drinking Water)	Not detected	ug/L	100	2000	EPA 200.8 rev5.4	17:17	08/12/2014
Total Chromium(Drinking Water)	Not detected	ug/L	10	100	EPA 200.8 rev5.4	17:17	08/12/2014
Total Copper (Drinking Water)	Not detected	ug/L	20	1300	EPA 200.8 rev5.4	17:17	08/12/2014
Total Sodium (Drinking Water)	14000	ug/L	1000		EPA 200.7	15:16	08/13/2014
Total Metal Analysis							
Calcium Carbonate	1500000	ug/L	2000		EPA 200.8 rev5.4	17:17	08/12/2014
Hardness by Calculation	1600000	ug/L	5000		EPA 200.8 rev5.4	17:17	08/12/2014
Total Aluminum	Not detected	ug/L	50		EPA 200.8 rev5.4	17:17	08/12/2014
Total Iron	Not detected	ug/L	20		EPA 200.8 rev5.4	17:17	08/12/2014
Total Magnesium	24000	ug/L	100		EPA 200.8 rev5.4	17:17	08/12/2014
Total Manganese	Not detected	ug/L	20		EPA 200.8 rev5.4	17:17	08/12/2014
Total Potassium	2600	ug/L	100		EPA 200.8 rev5.4	17:17	08/12/2014
Total Silver	Not detected	ug/L	0.2		EPA 200.8 rev5.4	17:17	08/12/2014
Total Strontium	28000	ug/L	10		EPA 200.7	16:50	08/11/2014
Total Zinc	Not detected	ug/L	10		EPA 200.8 rev5.4	17:17	08/12/2014
Magnesium Carbonate	100000	ug/L	2000		EPA 200.8 rev5.4	17:17	08/12/2014
Inorganic Analysis							
Ammonia	Not detected	ug/L	10		SM4500 NH3G	17:04	08/13/2014
Chloride	36000	ug/L	1000		EPA 300.0R2.1	01:14	08/08/2014
Phosphorus (total)	Not detected	ug/L	10		SM4500 PE	12:00	08/11/2014
Specific Conductance	2300	umhos/cm			EPA 120.1	10:00	08/14/2014
Total Alkalinity	250000	ug/L	5000		SM2320B	15:30	08/11/2014
Total Inorganic Nitrogen(calco)	Not detected	ug/L	20			11:41	08/13/2014
Total Sulfide	Not detected	ug/L	200		SM4500 S2F	16:15	08/12/2014
Total Suspended Solids	Not detected	ug/L	10000		SM2540D	15:00	08/14/2014
Drinking Water Inorganic Analysis							
Fluoride (Drinking Water)	700	ug/L	100	4000	EPA 300.0R2.1	01:14	08/08/2014
Nitrate (Drinking Water)	Not detected	ug/L	50	10000	EPA 300.0R2.1	01:14	08/08/2014
Nitrite (Drinking Water)	Not detected	ug/L	50	1000	EPA 300.0R2.1	01:14	08/08/2014
pH (Drinking Water)	7.4	S.I.			SM4500 H+B	09:30	08/12/2014
Sulfate (Drinking Water)	1300000	ug/L	5000		EPA 300.0R2.1	01:14	08/08/2014
Drinking Water Organic Analysis							
Total Organic Carbon(Drinking Water)	2300	ug/L	1000		SM5310B	13:38	08/12/2014



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 BA Sample ID: CA02340

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 Sample ID: Whiteford CI P Conc. 12:00

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Organic Analysis						
Total Organic Carbon	6900000	ug/L	500000	SM5310B	RG	8/12/2014

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

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 Date: 8.14.14

Elevated TOC, nitrate and nitrite dl due to sample matrix.



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Project Number:
Sample ID: Whiteford CI P Conc. 12:00

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Organic Analysis						
Total Organic Carbon	6900000	ug/L	500000	SM5310B	RG	8/12/2014

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Elevated TOC, nitrate and nitrite dl due to sample matrix.