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THE CITY OF FAYETTEVILLE, ARKANSAS
UTILITIES DEPARTMENT
113 West Mountain
Fayetteville, AR 72701
P (479) 575-8330 F (479) 575-8257

April 25, 2013

Rufus Torrence
Arkansas Department of Environmental Quality
Water Division
5301 Northshore Drive
North Little Rock, AR 72118-5317

RE: AFIN 72-00781, NPDES Permit Number AR0020010
Written Notification – Technically Based Local Limits (TBLL)

Dear Mr. Torrence,

In accordance with NPDES Permit Number AR0020010 Part IB 2., this letter is written notification that a technical evaluation has demonstrated that existing technically based local limits (TBLL) are based on current water quality standards and are adequate to prevent pass through of pollutants, inhibition of or interference with the treatment facility, worker health and safety problems, and sludge contamination. Following is the summary of the TBLL evaluation for your information:

- 2011 and 2012 influent loading data for pollutants with current local limits are less than Maximum Allowable Headworks Loadings (MAHLs) except for mercury. Mercury loading that exceeds the mercury MAHL is sporadic and usually associated with high flow and is therefore likely not from an industrial source. Effluent mercury is 50% of the Water Quality limit or less.
- Data reviewed for the 5 new pollutants of concern – molybdenum, selenium, 5-day biochemical oxygen demand, total suspended solids, and ammonia – indicate that local limits are not needed for these pollutants.
- We are working with industrial users to reduce minerals (chlorides, sulfates, and total dissolved solids) on a voluntary basis at this time.

Local limits language will be modified in the ordinance revisions required by the permit and replaced with new language that removes the numeric values from the ordinance.

Please do not hesitate to contact Denise Georgiou at 479-443-3292 if you have any questions.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

City of Fayetteville

David Jurgens, P.E.
Utilities Director

C: Denise Georgiou, CH2M HILL, IPP Coordinator

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UTILITIES DEPARTMENT
113 West Mountain
Fayetteville, AR 72701
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April 25, 2013

Arkansas Department of Environmental Quality
Water Division – Enforcement Branch
5301 Northshore Dr.
North Little Rock, AR 72118

Re: AFIN No. 72-01033, Permit No. 5028-W
2012 Annual Report – Land Application of Wastewater Treatment Plant Effluent

There was no application of the effluent on the premise of the West Side Wastewater Treatment Plant or the Woolsey wetland during 2012. Therefore, we have no data or analytical results to report for the year. Please let me know if you have any questions or need additional information. I can be reached at 479-575-8330, or djurgens@ci.fayetteville.ar.us

*I, **David Jurgens**, certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Sincerely Yours,

David Jurgens, P.E.
Utilities Director

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UTILITIES DEPARTMENT
113 West Mountain
Fayetteville, AR 72701
P (479) 575-8330 F (479) 575-8257

April 25, 2013

Arkansas Department of Environmental Quality
Water Division, No-Discharge Section
5301 Northshore Dr.
North Little Rock, AR 72118

Re: AFIN No. 72-00829, Permit No. 4748-WR-1 and Permit No. 4748-WR-2
2012 No Discharge Permit Annual Report

Enclosed is the 2012 Annual Report from the City of Fayetteville for the above referenced No Discharge Permits. Permit 4748-WR-1 was effective on January 1, 2009 and the modified permit 4748-WR-2 became effective October 1, 2012 to include the land application of Water Treatment Residuals.

Per the agreed upon phone conversation with ADEQ, all information for both permits is included in this report.

Please let me know if you have any questions or need additional information. I can be reached at 479-575-8330, or djurgens@ci.fayetteville.ar.us

*I, **David Jurgens**, certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Sincerely Yours,

David Jurgens, P.E.
Utilities Director

CITY OF FAYETTEVILLE
NO DISCHARGE PERMIT
2012 ANNUAL REPORT

AFIN No. 72-00829, Permit No 4748-WR-1
AFIN No. 72-00829, Permit No 4748-WR-2

This annual report provides the monitoring data that are required by the ADEQ No Discharge Permit, permit number 4748-WR-1 and 4748-WR-2. Permit No. 4748-WR-1, with the effective date of January 1, 2009, allowed for the land application of effluent as irrigation water on the Biosolids Management Site. The modified permit 4748-WR-2 took effect on October 1, 2013 replacing the 4748-WR-1, and allowed for the land application of the water treatment residuals in addition to the effluent irrigation.

The Biosolids Management Site continued to grow Midland Bermuda grass to facilitate the uptake of phosphorus and nitrogen. Treated effluent is being used to irrigate the crop as needed, within the guidelines of the approved Waste Management Plan.

Commercial fertilizer was used containing nitrogen and potassium to promote crop growth. Record of the nutrient loadings are being kept to ensure that the nutrient applications do not exceed the guidelines from the University of Arkansas Extension Service, as stated in the Waste Management Plan.

Water Treatment Residuals (WTR) was applied to help immobilize the soluble soil phosphorus. The City ceased application of biosolids to the Biosolids Management Site in 2003. The elevated soil phosphorus is due to the years of biosolids application to the site. Record of the WTR loadings are being kept to ensure that the WTR applications do not exceed the guidelines, as stated in the Waste Management Plan.

- Table 1 – Effluent Irrigation Daily Monitoring Data
- Table 2 – Effluent Irrigation Annual & Quarterly Monitoring Data
- Table 3 – Monthly & Quarterly Ground Water Monitoring
- Table 4 – Water Treatment Residuals Data
- Table 5 – Date of Applications
- Table 6 – Application Loadings
- Table 7 –Annual Summary
- Table 8 – Soil Analytical Data
- Appendix I – Copies of soil analyses

All analyses were performed in accordance with methods or procedures approved by the Director.

Table 1 – Effluent Irrigation, Daily Data Monitoring

Area 1	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
14-May-12	275156	0.275	0.09	0.38
16-May-12	198598	0.199	0.07	0.27
17-May-12	343827	0.344	0.12	0.47
18-May-12	50498	0.050	0.02	0.07
19-May-12	191993	0.192	0.07	0.26
21-May-12	370355	0.370	0.13	0.51
22-May-12	155529	0.156	0.05	0.21
24-May-12	303406	0.303	0.10	0.42
25-May-12	75632	0.076	0.03	0.10
26-May-12	200000	0.200	0.07	0.28
28-May-12	215869	0.216	0.07	0.30
29-May-12	298224	0.298	0.10	0.41
30-May-12	267541	0.268	0.09	0.37
31-May-12	157935	0.158	0.05	0.22
02-Jun-12				
07-Jun-12				
08-Jun-12	347131	0.347	0.12	0.48
12-Jun-12	309067	0.309	0.11	0.43
13-Jun-12	194377	0.194	0.07	0.27
14-Jun-12	96824	0.097	0.03	0.13
19-Jun-12	134192	0.134	0.05	0.18
20-Jun-12	691277	0.691	0.24	0.95
21-Jun-12	698063	0.698	0.24	0.96
22-Jun-12	388673	0.389	0.13	0.53
23-Jun-12	444968	0.445	0.15	0.61
25-Jun-12	467959	0.468	0.16	0.64
26-Jun-12	649701	0.650	0.22	0.89
27-Jun-12	841932	0.842	0.29	1.16
28-Jun-12	576666	0.577	0.20	0.79
02-Jul-12	598261	0.598	0.20	0.82
03-Jul-12	403306	0.403	0.14	0.55
05-Jul-12	238255	0.238	0.08	0.33
06-Jul-12	37270	0.037	0.01	0.05
09-Jul-12	314573	0.315	0.11	0.43
10-Jul-12	311989	0.312	0.11	0.43
11-Jul-12	692630	0.693	0.24	0.95
12-Jul-12	446395	0.446	0.15	0.61
13-Jul-12	362246	0.362	0.12	0.50
16-Jul-12	216119	0.216	0.07	0.30
17-Jul-12	128060	0.128	0.04	0.18
18-Jul-12	429252	0.429	0.15	0.59
19-Jul-12	429157	0.429	0.15	0.59
20-Jul-12	217192	0.217	0.07	0.30
23-Jul-12	295408	0.295	0.10	0.41
24-Jul-12	503583	0.504	0.17	0.69

Area 1A	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
14-May-12				
16-May-12				
17-May-12				
18-May-12				
19-May-12				
21-May-12				
22-May-12				
24-May-12	431183	0.431	0.17	0.59
25-May-12	91626	0.092	0.04	0.13
26-May-12				
28-May-12				
29-May-12	115023	0.115	0.05	0.16
30-May-12				
31-May-12				
02-Jun-12	439916	0.440	0.18	0.61
07-Jun-12	449602	0.450	0.18	0.62
08-Jun-12	386876	0.387	0.16	0.53
12-Jun-12	109019	0.109	0.04	0.15
13-Jun-12	79399	0.079	0.03	0.11
14-Jun-12	95748	0.096	0.04	0.13
19-Jun-12	246132	0.246	0.10	0.34
20-Jun-12				
21-Jun-12				
22-Jun-12				
23-Jun-12				
25-Jun-12				
26-Jun-12	104753	0.105	0.04	0.14
27-Jun-12	138198	0.138	0.06	0.19
28-Jun-12	288131	0.288	0.12	0.40
02-Jul-12				
03-Jul-12	234232	0.234	0.09	0.32
05-Jul-12	386262	0.386	0.16	0.53
06-Jul-12	397416	0.397	0.16	0.55
09-Jul-12	378400	0.378	0.15	0.52
10-Jul-12	101230	0.101	0.04	0.14
11-Jul-12	123888	0.124	0.05	0.17
12-Jul-12	116913	0.117	0.05	0.16
13-Jul-12	173132	0.173	0.07	0.24
16-Jul-12	530442	0.530	0.21	0.73
17-Jul-12	215679	0.216	0.09	0.30
18-Jul-12	359421	0.359	0.14	0.49
19-Jul-12	425057	0.425	0.17	0.58
20-Jul-12	309910	0.310	0.12	0.43
23-Jul-12	288538	0.289	0.12	0.40
24-Jul-12	461897	0.462	0.19	0.64

Area 1	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
25-Jul-12	783670	0.784	0.27	1.08
26-Jul-12	330579	0.331	0.11	0.45
27-Jul-12	580839	0.581	0.20	0.80
30-Jul-12	461093	0.461	0.16	0.63
31-Jul-12	848485	0.848	0.29	1.17
01-Aug-12	958054	0.958	0.33	1.32
02-Aug-12	507735	0.508	0.17	0.70
03-Aug-12	599661	0.600	0.21	0.83
04-Aug-12	409557	0.410	0.14	0.56
06-Aug-12	572212	0.572	0.20	0.79
07-Aug-12	446872	0.447	0.15	0.61
08-Aug-12	136366	0.136	0.05	0.19
09-Aug-12	245983	0.246	0.08	0.34
10-Aug-12	387692	0.388	0.13	0.53
11-Aug-12	160192	0.160	0.05	0.22
15-Aug-12				
22-Aug-12				
04-Sep-12				
10-Sep-12	79780	0.080	0.03	0.11
11-Sep-12	216739	0.217	0.07	0.30
12-Sep-12	15022	0.015	0.01	0.02
13-Sep-12	28810	0.029	0.01	0.04
20-Sep-12	16667	0.017	0.01	0.02
01-Oct-12	186165	0.186	0.06	0.26
02-Oct-12	103985	0.104	0.04	0.14

Area 1A	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
25-Jul-12	443448	0.443	0.18	0.61
26-Jul-12	303528	0.304	0.12	0.42
27-Jul-12	375370	0.375	0.15	0.52
30-Jul-12	418629	0.419	0.17	0.58
31-Jul-12	139729	0.140	0.06	0.19
01-Aug-12	240030	0.240	0.10	0.33
02-Aug-12				
03-Aug-12	154729	0.155	0.06	0.21
04-Aug-12	161738	0.162	0.07	0.22
06-Aug-12	117349	0.117	0.05	0.16
07-Aug-12				
08-Aug-12				
09-Aug-12				
10-Aug-12				
11-Aug-12				
15-Aug-12	202848	0.203	0.08	0.28
22-Aug-12	76474	0.076	0.03	0.11
04-Sep-12	157188	0.157	0.06	0.22
10-Sep-12				
11-Sep-12				
12-Sep-12				
13-Sep-12				
20-Sep-12				
01-Oct-12				
02-Oct-12				

Table 1 – Effluent Irrigation, Daily Data Monitoring, cont.

Area 2	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
28-May-12	193252	0.193	0.17	0.27
29-May-12	379853	0.380	0.34	0.52
30-May-12	255738	0.256	0.23	0.35
31-May-12	22065	0.022	0.02	0.03
12-Jun-12	192852	0.193	0.17	0.27
13-Jun-12	133704	0.134	0.12	0.18
14-Jun-12	306967	0.307	0.27	0.42
15-Jun-12	459352	0.459	0.41	0.63
16-Jun-12	227511	0.228	0.20	0.31
18-Jun-12	418233	0.418	0.37	0.58
19-Jun-12	339245	0.339	0.30	0.47
20-Jun-12	374789	0.375	0.33	0.52
21-Jun-12	171825	0.172	0.15	0.24
23-Jun-12	366837	0.367	0.32	0.50
25-Jun-12	418290	0.418	0.37	0.58
26-Jun-12	622630	0.623	0.55	0.86
27-Jun-12	254093	0.254	0.22	0.35
28-Jun-12	292582	0.293	0.26	0.40
29-Jun-12	249110	0.249	0.22	0.34
02-Jul-12	214879	0.215	0.19	0.30
03-Jul-12	287041	0.287	0.25	0.39
05-Jul-12				
06-Jul-12				
09-Jul-12				
10-Jul-12				
11-Jul-12	118170	0.118	0.10	0.16
12-Jul-12	133446	0.133	0.12	0.18
13-Jul-12	165522	0.166	0.15	0.23
16-Jul-12	297894	0.298	0.26	0.41
17-Jul-12	250390	0.250	0.22	0.34
18-Jul-12	477859	0.478	0.42	0.66
19-Jul-12	416173	0.416	0.37	0.57
20-Jul-12	308450	0.308	0.27	0.42
23-Jul-12	183872	0.184	0.16	0.25
24-Jul-12	157439	0.157	0.14	0.22
26-Jul-12	179014	0.179	0.16	0.25
27-Jul-12	177152	0.177	0.16	0.24
07-Aug-12	248076	0.248	0.22	0.34
08-Aug-12	95873	0.096	0.08	0.13
09-Aug-12	271379	0.271	0.24	0.37
10-Aug-12	428901	0.429	0.38	0.59
11-Aug-12	507276	0.507	0.45	0.70
13-Aug-12	264305	0.264	0.23	0.36
14-Aug-12	684370	0.684	0.61	0.94
15-Aug-12	827495	0.827	0.73	1.14

Area 2A	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
28-May-12				
29-May-12				
30-May-12				
31-May-12				
12-Jun-12	178820	0.179	0.10	0.25
13-Jun-12	363661	0.364	0.21	0.50
14-Jun-12	380482	0.380	0.21	0.52
15-Jun-12	350312	0.350	0.20	0.48
16-Jun-12	387711	0.388	0.22	0.53
18-Jun-12	278822	0.279	0.16	0.38
19-Jun-12	56141	0.056	0.03	0.08
20-Jun-12				
21-Jun-12				
23-Jun-12	183419	0.183	0.10	0.25
25-Jun-12	170432	0.170	0.10	0.23
26-Jun-12				
27-Jun-12	172050	0.172	0.10	0.24
28-Jun-12	288535	0.289	0.16	0.40
29-Jun-12	32493	0.032	0.02	0.04
02-Jul-12				
03-Jul-12				
05-Jul-12	68589	0.069	0.04	0.09
06-Jul-12	78463	0.078	0.04	0.11
09-Jul-12	201012	0.201	0.11	0.28
10-Jul-12	113677	0.114	0.06	0.16
11-Jul-12	241296	0.241	0.14	0.33
12-Jul-12	186588	0.187	0.11	0.26
13-Jul-12	178079	0.178	0.10	0.25
16-Jul-12				
17-Jul-12	20557	0.021	0.01	0.03
18-Jul-12	178684	0.179	0.10	0.25
19-Jul-12	197153	0.197	0.11	0.27
20-Jul-12	62055	0.062	0.04	0.09
23-Jul-12				
24-Jul-12				
26-Jul-12				
27-Jul-12				
07-Aug-12				
08-Aug-12				
09-Aug-12				
10-Aug-12				
11-Aug-12				
13-Aug-12				
14-Aug-12				
15-Aug-12	121172	0.121	0.07	0.17

Area 2	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
16-Aug-12	520571	0.521	0.46	0.72
20-Aug-12	699949	0.700	0.62	0.96
21-Aug-12	439976	0.440	0.39	0.61
22-Aug-12	471323	0.471	0.42	0.65
04-Sep-12	519250	0.519	0.46	0.71
10-Sep-12	591099	0.591	0.52	0.81
11-Sep-12	353261	0.353	0.31	0.49
12-Sep-12	124956	0.125	0.11	0.17
18-Sep-12	289306	0.289	0.26	0.40
19-Sep-12	347165	0.347	0.31	0.48
20-Sep-12	13333	0.013	0.01	0.02

Area 2A	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
16-Aug-12	593326	0.593	0.33	0.82
20-Aug-12	359248	0.359	0.20	0.49
21-Aug-12	269157	0.269	0.15	0.37
22-Aug-12	49507	0.050	0.03	0.07
04-Sep-12	241610	0.242	0.14	0.33
10-Sep-12				
11-Sep-12				
12-Sep-12				
18-Sep-12				
19-Sep-12				
20-Sep-12				

Table 1 – Effluent Irrigation, Daily Data Monitoring, cont.

Area 3	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
28-May-12				
29-May-12				
02-Jun-12				
06-Jun-12				
07-Jun-12				
08-Jun-12				
12-Jun-12				
13-Jun-12				
14-Jun-12				
15-Jun-12				
16-Jun-12				
18-Jun-12				
19-Jun-12				
20-Jun-12				
21-Jun-12				
22-Jun-12				
23-Jun-12				
25-Jun-12				
26-Jun-12				
27-Jun-12	27879	0.028	0.02	0.04
28-Jun-12	273562	0.274	0.22	0.38
29-Jun-12	116973	0.117	0.10	0.16
02-Jul-12	93527	0.094	0.08	0.13
03-Jul-12	304502	0.305	0.25	0.42
05-Jul-12	324171	0.324	0.26	0.45
06-Jul-12	200081	0.200	0.16	0.28
09-Jul-12	161639	0.162	0.13	0.22
10-Jul-12				
11-Jul-12				
12-Jul-12				
13-Jul-12				
16-Jul-12	61331	0.061	0.05	0.08
17-Jul-12				
20-Jul-12	114984	0.115	0.09	0.16
23-Jul-12	149118	0.149	0.12	0.21
24-Jul-12				
25-Jul-12				
26-Jul-12				
27-Jul-12				
30-Jul-12				
31-Jul-12				
01-Aug-12				
02-Aug-12				
03-Aug-12				
04-Aug-12				

Area 3A	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
28-May-12	10879	0.011	0.01	0.01
29-May-12	26437	0.026	0.01	0.04
02-Jun-12	354936	0.355	0.17	0.49
06-Jun-12	560000	0.560	0.26	0.77
07-Jun-12	600398	0.600	0.28	0.83
08-Jun-12	755993	0.756	0.35	1.04
12-Jun-12	342528	0.343	0.16	0.47
13-Jun-12	95503	0.096	0.04	0.13
14-Jun-12	357889	0.358	0.17	0.49
15-Jun-12	281958	0.282	0.13	0.39
16-Jun-12	544322	0.544	0.25	0.75
18-Jun-12	656940	0.657	0.31	0.90
19-Jun-12	440574	0.441	0.21	0.61
20-Jun-12	625898	0.626	0.29	0.86
21-Jun-12	467041	0.467	0.22	0.64
22-Jun-12	551432	0.551	0.26	0.76
23-Jun-12	322550	0.323	0.15	0.44
25-Jun-12	193319	0.193	0.09	0.27
26-Jun-12	382916	0.383	0.18	0.53
27-Jun-12	585848	0.586	0.27	0.81
28-Jun-12	460523	0.461	0.21	0.63
29-Jun-12	255608	0.256	0.12	0.35
02-Jul-12	186280	0.186	0.09	0.26
03-Jul-12	215068	0.215	0.10	0.30
05-Jul-12	776855	0.777	0.36	1.07
06-Jul-12	585728	0.586	0.27	0.81
09-Jul-12	664376	0.664	0.31	0.91
10-Jul-12	923104	0.923	0.43	1.27
11-Jul-12	924015	0.924	0.43	1.27
12-Jul-12	762099	0.762	0.36	1.05
13-Jul-12	721067	0.721	0.34	0.99
16-Jul-12	324544	0.325	0.15	0.45
17-Jul-12	6740	0.007	0.00	0.01
20-Jul-12	171929	0.172	0.08	0.24
23-Jul-12	356025	0.356	0.17	0.49
24-Jul-12	998605	0.999	0.47	1.37
25-Jul-12	1002881	1.003	0.47	1.38
26-Jul-12	695767	0.696	0.32	0.96
27-Jul-12	637818	0.638	0.30	0.88
30-Jul-12	902724	0.903	0.42	1.24
31-Jul-12	883868	0.884	0.41	1.22
01-Aug-12	954955	0.955	0.45	1.31
02-Aug-12	836104	0.836	0.39	1.15
03-Aug-12	703980	0.704	0.33	0.97
04-Aug-12	512115	0.512	0.24	0.70

Area 3	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
06-Aug-12				
07-Aug-12				
08-Aug-12				
09-Aug-12				
10-Aug-12				
11-Aug-12				
13-Aug-12	290988	0.291	0.24	0.40
14-Aug-12	213634	0.214	0.17	0.29
15-Aug-12	250779	0.251	0.20	0.35
16-Aug-12	138119	0.138	0.11	0.19
20-Aug-12				
21-Aug-12				
22-Aug-12				
04-Sep-12				
10-Sep-12				
12-Sep-12				
13-Sep-12				
18-Sep-12				
19-Sep-12				

Area 3A	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
06-Aug-12	1054373	1.054	0.49	1.45
07-Aug-12	859884	0.860	0.40	1.18
08-Aug-12	255164	0.255	0.12	0.35
09-Aug-12	550377	0.550	0.26	0.76
10-Aug-12	566703	0.567	0.26	0.78
11-Aug-12	565794	0.566	0.26	0.78
13-Aug-12	771268	0.771	0.36	1.06
14-Aug-12	359276	0.359	0.17	0.49
15-Aug-12	253080	0.253	0.12	0.35
16-Aug-12	249391	0.249	0.12	0.34
20-Aug-12	521012	0.521	0.24	0.72
21-Aug-12	552418	0.552	0.26	0.76
22-Aug-12	692696	0.693	0.32	0.95
04-Sep-12	371952	0.372	0.17	0.51
10-Sep-12	429121	0.429	0.20	0.59
12-Sep-12	170022	0.170	0.08	0.23
13-Sep-12	451190	0.451	0.21	0.62
18-Sep-12	210694	0.211	0.10	0.29
19-Sep-12	332835	0.333	0.16	0.46

Table 1 – Effluent Irrigation, Daily Data Monitoring, cont.

Area 4	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
14-May-12				
15-May-12	253072	0.253	0.14	0.35
16-May-12	205465	0.205	0.11	0.28
17-May-12	340532	0.341	0.19	0.47
18-May-12	239502	0.240	0.13	0.33
19-May-12	228007	0.228	0.12	0.31
21-May-12	479645	0.480	0.26	0.66
22-May-12	224471	0.224	0.12	0.31
24-May-12	205410	0.205	0.11	0.28
25-May-12	172742	0.173	0.09	0.24
26-May-12	80000	0.080	0.04	0.11
29-May-12				
30-May-12	76721	0.077	0.04	0.11
02-Jun-12	135149	0.135	0.07	0.19
12-Jun-12	367714	0.368	0.20	0.51
13-Jun-12	603355	0.603	0.33	0.83
14-Jun-12	512090	0.512	0.28	0.70
15-Jun-12	188379	0.188	0.10	0.26
16-Jun-12	140456	0.140	0.08	0.19
18-Jun-12	676005	0.676	0.37	0.93
19-Jun-12	293716	0.294	0.16	0.40
20-Jun-12	528036	0.528	0.29	0.73
21-Jun-12	683071	0.683	0.37	0.94
22-Jun-12	509895	0.510	0.28	0.70
23-Jun-12	52226	0.052	0.03	0.07
29-Jun-12				
02-Jul-12	75362	0.075	0.04	0.10
03-Jul-12	472724	0.473	0.26	0.65
05-Jul-12	279769	0.280	0.15	0.38
06-Jul-12	68655	0.069	0.04	0.09
12-Jul-12				
13-Jul-12				
16-Jul-12				
17-Jul-12	257804	0.258	0.14	0.35
18-Jul-12	502163	0.502	0.27	0.69
19-Jul-12	168793	0.169	0.09	0.23
20-Jul-12	325971	0.326	0.18	0.45
23-Jul-12	276819	0.277	0.15	0.38
24-Jul-12	150740	0.151	0.08	0.21
26-Jul-12				
27-Jul-12				
30-Jul-12	228246	0.228	0.12	0.31
31-Jul-12	184139	0.184	0.10	0.25
01-Aug-12	382602	0.383	0.21	0.53

Area 4A	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
14-May-12	74844	0.075	0.09	0.10
15-May-12	36928	0.037	0.04	0.05
16-May-12	115937	0.116	0.14	0.16
17-May-12	35641	0.036	0.04	0.05
18-May-12				
19-May-12				
21-May-12				
22-May-12				
24-May-12				
25-May-12				
26-May-12				
29-May-12	464	0.0005	0.001	0.001
30-May-12				
02-Jun-12				
12-Jun-12				
13-Jun-12				
14-Jun-12				
15-Jun-12				
16-Jun-12				
18-Jun-12				
19-Jun-12				
20-Jun-12				
21-Jun-12				
22-Jun-12				
23-Jun-12				
29-Jun-12	75816	0.076	0.09	0.10
02-Jul-12	111691	0.112	0.13	0.15
03-Jul-12	183127	0.183	0.22	0.25
05-Jul-12	36099	0.036	0.04	0.05
06-Jul-12	82386	0.082	0.10	0.11
12-Jul-12	64558	0.065	0.08	0.09
13-Jul-12	39954	0.040	0.05	0.05
16-Jul-12	379669	0.380	0.45	0.52
17-Jul-12	70770	0.071	0.08	0.10
18-Jul-12	252622	0.253	0.30	0.35
19-Jul-12	163667	0.164	0.19	0.23
20-Jul-12	109509	0.110	0.13	0.15
23-Jul-12	100220	0.100	0.12	0.14
24-Jul-12	217735	0.218	0.26	0.30
26-Jul-12	161112	0.161	0.19	0.22
27-Jul-12	138821	0.139	0.16	0.19
30-Jul-12	229308	0.229	0.27	0.32
31-Jul-12	183778	0.184	0.22	0.25
01-Aug-12	94359	0.094	0.11	0.13

Area 4	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
02-Aug-12	293060	0.293	0.16	0.40
03-Aug-12	431630	0.432	0.24	0.59
04-Aug-12	336590	0.337	0.18	0.46
06-Aug-12	776066	0.776	0.42	1.07
07-Aug-12	675168	0.675	0.37	0.93
08-Aug-12	92598	0.093	0.05	0.13
09-Aug-12	442261	0.442	0.24	0.61
10-Aug-12	356703	0.357	0.20	0.49
11-Aug-12	286737	0.287	0.16	0.39
13-Aug-12	358952	0.359	0.20	0.49
14-Aug-12	274565	0.275	0.15	0.38
15-Aug-12	262666	0.263	0.14	0.36
16-Aug-12	258340	0.258	0.14	0.36
20-Aug-12	309791	0.310	0.17	0.43
21-Aug-12	188449	0.188	0.10	0.26
01-Oct-12	403835	0.404	0.22	0.56
02-Oct-12	426015	0.426	0.23	0.59

Area 4A	Effluent Irrigation			
Date	Volume Applied (gals)	Volume Applied (MGD)	Depth Irrigated (inches)	Dry Ton Applied
02-Aug-12	103101	0.103	0.12	0.14
03-Aug-12				
04-Aug-12				
06-Aug-12				
07-Aug-12				
08-Aug-12				
09-Aug-12				
10-Aug-12				
11-Aug-12				
13-Aug-12	144487	0.144	0.17	0.20
14-Aug-12	238155	0.238	0.28	0.33
15-Aug-12	241960	0.242	0.29	0.33
16-Aug-12	190253	0.190	0.23	0.26
20-Aug-12				
21-Aug-12				
01-Oct-12				
02-Oct-12				

Table 2 – Effluent Irrigation Water, Annual & Quarterly Monitoring

Effluent Parameter	Concentration (*)	Ceiling Concentrations (*)
Arsenic, mg/kg	0.00025	75
Cadmium, mg/kg	0.00025	85
Copper, mg/kg	0.0028	4300
Lead, mg/kg	0.00025	840
Mercury, mg/kg	0.0001	57
Molybdenum, mg/kg	0.004	75
Nickel, mg/kg	0.001875	420
Selenium, mg/kg	0.0025	100
Zinc, mg/kg	0.015	7500
Effluent Parameter	**Concentration**	**Maximum Limit**
Total Solids, %	0.033	Report
Electrical Conductivity, umho/cm	590	Report
Sodium Adsorption Ratio (SAR)	2.3	Report
Magnesium, mg/L	3.7	Report
Calcium, mg/L	42	Report
Sodium, mg/L	59	Report
Total Kjeldhal Nitrogen, mg/L	2.6	Report
Total Potassium, mg/L	16	Report
Ammonia Nitrogen, mg/L	0.1	Report
PAN, lbs/Dry Ton	0.018	

(*) Based on Dry Weight
(**) Condition No. 12 of Part II. The PAN applied includes the nitrogen from the effluent and the WTR

Effluent Quarterly Requirements	Nitrate+Nitrite Nitrogen, mg/L	Total Phosphorus, mg/L	pH, S.U.
1st Quarter (***)	-	-	-
2nd Quarter	7.61	0.17	7.46
3rd Quarter	8.17	0.33	7.87
4th Quarter	8.99	0.16	7.53
Average	8.26	0.22	7.87

(***) There was no irrigation during the first quarter of 2012

Table 3 – Groundwater Wells, Monthly & Quarterly Monitoring
Static Water Level (Inches) & Analysis Results

	Groundwater Monitoring Well # 1				Groundwater Monitoring Well # 7				Groundwater Monitoring Well # 12			
Date	Static Water Level, inches	Total Phosphorous, mg/L	Nitrate + Nitrite Nitrogen, mg/L	Total Chlorides, mg/L	Static Water Level, inches	Total Phosphorous, mg/L	Nitrate + Nitrite Nitrogen, mg/L	Total Chlorides, mg/L	Static Water Level, inches	Total Phosphorous, mg/L	Nitrate + Nitrite Nitrogen, mg/L	Total Chlorides, mg/L
11-Jan-12	141.6	0.35	1.12	15.4	159.6	0.28	1.89	31.5	148.8	0.37	5.07	33.1
06-Feb-12	122.4				162.0				150.0			
19-Mar-12	104.4				140.4				139.2			
20-Apr-12	118.8	0.9	12.9	35.1	86.4	0.66	0.22	13.9	127.2	0.92	1.46	35.5
14-May-12	97.2				48.0				96.0			
12-Jun-12	82.8				36.0				74.4			
12-Jul-12	70.8	0.21	<0.5	12.9	37.2	0.2	13.4	42	70.8	0.24	1.72	34.2
16-Aug-12	66				44.4				58.8			
19-Sep-12	62.4				49.2				68.4			
15-Oct-12	61.2	1.76	<0.5	16.4	75.6	0.85	14.9	46	78	0.27	1.7	38.1
14-Nov-12	60				36				64.8			
14-Dec-12	60				49.2				61.2			

Table 4 – Water Treatment Residuals Data

Water Treatment Residual Parameter	Concentration	Limit
Arsenic, mg/kg	46	75
Cadmium, mg/kg	0.9	85
Copper, mg/kg	22	4300
Lead, mg/kg	< 4	840
Mercury, mg/kg	< 0.1	57
Molybdenum, mg/kg	< 0.8	75
Nickel, mg/kg	15	420
Selenium, mg/kg	< 7	100
Zinc, mg/kg	36	7500
Total Solids, %	28.5	Report
Total Phosphorus, mg/kg	1200	Report
Total Potassium, mg/kg	1000	Report
Aluminum, mg/kg	200000	Report
Iron, mg/kg	15000	Report
Nitrate+Nitrite Nitrogen, mg/kg	< 2	Report
Ammonia Nitrogen, mg/kg	300	Report
Total Kjeldhal Nitrogen, mg/kg	13000	Report
pH, S.U.	6.9	Report
PAN, lbs/Dry Ton	7.924	

(*) Condition No. 12 of Part II. The PAN applied includes the nitrogen from the effluent and the WTR

Table 5 – Date of Applications

Date of Application	Effluent	Water Treatment Residual	Fertilizer
January			
February			
March			
April			
May	14,15,16,17,18,19,21,22,24,25,26,28,29,30,31		
June	2,6,7,8,12,13,14,15,16,18,19,20,21,22,23,25,26,27, 28,29		4,5,6,7,12,13,27
July	2,3,5,6,9,10,11,12,13,16,17,18,19,20,23,24,25,26,27,30,31		
August	1,2,3,4,6,7,8,9,10,11,13,14,15,16,20,21,22		23,24,28,30
September	4,10,11,12,13,18,19,20		13
October	1,2		
November		7,8,15,21,29	
December		3,6,11,13,18,21,27	

Table 6 – Application Loadings

Effluent Application	Area 1	Area 1A	Area 2	Area 2A	Area 3	Area 3A	Area 4	Area 4A	Total
# of Acres	107.58	91.40	41.62	65.23	45.23	78.92	67.31	31.05	528
Effluent Application, Gals	22,645,247	10,269,082	16,744,095	6,003,050	2,721,286	32,837,392	16,742,875	3,876,972	111,840,000
Phosphorus, Lbs	41.55	18.84	30.72	11.01	4.99	60.25	30.72	7.11	205.20
Nitrogen, Lbs	491.0	222.7	363.1	130.2	59.0	712.0	363.1	84.1	2425.1
Total Potassium, Lbs	3021.8	1370.3	2234.3	801.0	363.1	4381.8	2234.2	517.3	14923.9
Total PAN, Lbs	0.564	0.256	0.417	0.150	0.068	0.818	0.417	0.097	2.788
Total Arsenic, Lbs	0.0472	0.0214	0.0349	0.0125	0.0057	0.0685	0.0349	0.0081	0.2332
Total Cadmium, Lbs	0.0472	0.0214	0.0349	0.0125	0.0057	0.0685	0.0349	0.0081	0.2332
Total Copper, Lbs	0.5194	0.2355	0.3840	0.1377	0.0624	0.7531	0.3840	0.0889	2.5651
Total Lead, Lbs	0.0472	0.0214	0.0349	0.0125	0.0057	0.0685	0.0349	0.0081	0.2332
Total Mercury, Lbs	0.0189	0.0086	0.0140	0.0050	0.0023	0.0274	0.0140	0.0032	0.0933
Total Molybdenum, Lbs	0.7554	0.3426	0.5586	0.2003	0.0908	1.0955	0.5585	0.1293	3.7310
Total Nickel, Lbs	0.3541	0.1606	0.2618	0.0939	0.0426	0.5135	0.2618	0.0606	1.7489
Total Selenium, Lbs	0.4722	0.2141	0.3491	0.1252	0.0567	0.6847	0.3491	0.0808	2.3319
Total Zinc, Lbs	2.8329	1.2847	2.0947	0.7510	0.3404	4.1080	2.0945	0.4850	13.9912

WTR Application	Area 1	Area 1A	Area 2	Area 2A	Area 3	Area 3A	Area 4	Area 4A	Total
# of Acres	107.58	91.40	41.62	65.23	45.23	78.92	67.31	31.05	528
Total WTR Mass, Dry Ton	72.98	0.00	0.00	0.00	0.00	0.00	0.00	86.39	159.37
Phosphorus, Lbs	175.15	0.00	0.00	0.00	0.00	0.00	0.00	207.34	382.49
Nitrogen, Lbs	1897.7	0.0	0.0	0.0	0.0	0.0	0.0	2246.5	4144.2
Total Potassium, Lbs	146.0	0.0	0.0	0.0	0.0	0.0	0.0	172.8	318.7
Total PAN, Lbs	578.3	0.0	0.0	0.0	0.0	0.0	0.0	684.6	1262.8
Total Arsenic, Lbs	6.7139	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	7.9481	14.6620
Total Cadmium, Lbs	0.1314	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1555	0.2869
Total Copper, Lbs	3.2110	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.8013	7.0122
Total Lead, Lbs	0.5838	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6911	1.2750
Total Mercury, Lbs	0.0146	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0173	0.0319
Total Molybdenum, Lbs	0.1168	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1382	0.2550
Total Nickel, Lbs	2.1893	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.5918	4.7811
Total Selenium, Lbs	1.0217	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2095	2.2312
Total Zinc, Lbs	5.2544	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	6.2202	11.4746

Fertilizer	Area 1	Area 1A	Area 2	Area 2A	Area 3	Area 3A	Area 4	Area 4A	Total
# of Acres	107.58	91.40	41.62	65.23	45.23	78.92	67.31	31.05	528
Phosphorus, Lbs	0	0	0	0	0	0	0	0	0
Nitrogen, Lbs	200	200	200	200	200	200	200	200	1600
Total Potassium, Lbs	230	190	190	190	190	150	230	190	1560

Table 7 – Annual Summary

	Total	Accummulated (starting 2012)	Average Per Acre Per Year
Effluent Application, Gallons	111,840,000		211,682
WTR Application, Dry Ton	159		0.30
Phosphorus, Lbs	588		1.11
Nitrogen, Lbs	8169		15.5
Total Potassium, Lbs	16803		31.8
Total PAN, Lbs	1265.6		2.4
Total Arsenic, Lbs	14.90	14.90	0.0282
Total Cadmium, Lbs	0.52	0.52	0.0010
Total Copper, Lbs	9.58	9.58	0.0181
Total Lead, Lbs	1.51	1.51	0.0029
Total Mercury, Lbs	0.13	0.13	0.0002
Total Molybdenum, Lbs	3.99	3.99	0.0075
Total Nickel, Lbs	6.53	6.53	0.0124
Total Selenium, Lbs	4.56	4.56	0.0086
Total Zinc, Lbs	25.47	25.47	0.0482

Table 8 – Soil Analytical Data

Soil Parameter	Area 1	Area 1A	Area 2	Area 2A	Area 3	Area 3A	Area 4	Aera 4A	Limit
Electrical Conductivity, mmho/cm	0.062	0.073	0.091	0.072	0.067	0.07	0.062	0.085	4
Cation Exchange Capacity, meq/100g	15	23	14	17	13	15	15	18	Report
pH (*), S.U.	6.4	6.1	6.2	6.4	6.8	6.7	6.5	6.6	Report
Sodium Adsorption Ratio (SAR)	0.49	0.6	0.66	0.58	0.48	0.78	0.66	0.65	12
Magnesium, mg/kg	780	1600	690	810	700	850	680	1100	Report
Calcium, mg/kg	5800	3100	3100	4300	6800	2300	3200	3300	Report
Sodium, mg/kg	150	160	160	160	160	170	160	170	Report
Nitrate+Nitrite Nitrogen, mg/kg	40	36	27	37	52	10	17	14	Report
Phosphorus, mg/kg	1200	1200	1500	1700	810	1500	1700	820	Report
Potassium, mg/kg	1000	2600	910	1100	760	1200	1100	1800	Report
Arsenic, mg/kg	12	14	9.9	8.3	9.5	12	6.2	14	Report
Cadmium, mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	Report
Copper, mg/kg	11	15	12	12	8.3	13	18	9.6	Report
Lead, mg/kg	16	21	20	18	19	22	19	20	Report
Mercury, mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.11	<0.1	Report
Molybdenum, mg/kg	<0.8	0.98	<0.8	<0.8	<0.8	0.86	<0.8	0.89	Report
Nickel, mg/kg	12	32	12	13	9.3	18	13	27	Report
Selenium, mg/kg	<7	<7	<7	<7	<7	<7	<7	<7	Report
Zinc, mg/kg	40	90	46	50	33	58	51	69	Report
Aluminum, mg/kg	12000	19000	14000	13000	13000	18000	12000	17000	Report
Iron, mg/kg	13000	32000	14000	12000	15000	17000	12000	22000	Report

(*) If pH is 5.7 or lower, lime must be applied in accordance with recommendation from the U of A Cooperative Extension Service

Appendix I

Copies of Soil Analyses

AMERICAN INTERPLEX CORPORATION
LABORATORIES

May 4, 2012
Control No. 157201

CH2M HILL
ATTN: Mr. Bruce Richart
1400 North Fox Hunter Road
Fayetteville, AR 72701

This report contains the analytical results and supporting information for samples submitted on April 24, 2012. Attached please find a copy of the Chain of Custody and/or other documents received. Note that any remaining sample will be discarded two weeks from the original report date unless other arrangements are made.

This report is intended for the sole use of the client listed above. Assessment of the data requires access to the entire document.

This report has been reviewed by the Laboratory Director or a qualified designee.

John Overbey
Laboratory Director

This document has been distributed to the following:

PDF cc: CH2M HILL
ATTN: Mr. Bruce Richart
robert.richart@ch2m.com

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1400 North Fox Hunter Road
Fayetteville, AR 72701

SAMPLE INFORMATION

Project Description:
Eight (8) soil sample(s) received on April 24, 2012

Receipt Details:
A Chain of Custody was provided. The samples were delivered in one (1) ice chest.
Ice chest #1 was delivered with shipping documentation.

Each sample container was checked for proper labeling, including date and time sampled. Sample containers were reviewed for proper type, adequate volume, integrity, temperature, preservation, and holding times. Any exceptions are noted below:

Sample Identification:

Laboratory ID	Client Sample ID	Sampled Date/Time	Notes
157201-1	Area 1 4/10/12 1000	10-Apr-2012 1000	1
157201-2	Area 1A 4/10/12 1100	10-Apr-2012 1100	1
157201-3	Area 2 4/11/12 1000	11-Apr-2012 1000	1
157201-4	Area 2A 4/11/12 1100	11-Apr-2012 1100	1
157201-5	Area 3 4/12/12 1015	12-Apr-2012 1015	1
157201-6	Area 3A 4/12/12 1100	12-Apr-2012 1100	1
157201-7	Area 4 4/13/12 0930	13-Apr-2012 0930	1
157201-8	Area 4A 4/13/12 1100	13-Apr-2012 1100	1

Notes:
1. Holding time was expired at time of receipt
157201-1: NO3N out of holding time
157201-2: NO3N out of holding time
157201-3: NO3N out of holding time
157201-4: NO3N out of holding time
157201-5: NO3N out of holding time
157201-6: NO3N out of holding time
157201-7: NO3N out of holding time
157201-8: NO3N out of holding time

Qualifiers:
H Analytical holding time exceeded regulatory requirements

Case Narrative:
Analysis of soils/sludges are reported on a dry-weight basis unless otherwise specified.

References:
"Methods for Chemical Analysis of Water and Wastes", EPA/600/4-79-020 (Mar 1983) with updates and supplements EPA/600/5-91-010 (Jun 1991), EPA/600/R-92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993).
"Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846)", Third Edition.
"Standard Methods for the Examination of Water and Wastewaters", 20th edition, 1998.
"American Society for Testing and Materials" (ASTM).
"Association of Analytical Chemists" (AOAC).

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ANALYTICAL RESULTS

AIC No. 157201-1
Sample Identification: Area 1 4/10/12 1000

Analyte		Result	RL	Units	Qualifier
pH		**6.4**		**Units**	H
EPA 9045C	Prep: 01-May-2012 0920 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39691	
Electrical Conductivity		**62**	3	**umho/cm**	
EPA 9050A	Prep: 01-May-2012 0916 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39688	
Cation-Exchange Capacity		**15**	0.2	**meq/100g**	
Mod. EPA 9080		Analyzed: 29-Apr-2012 1521 by 302		Batch: W39675	
Total Solids		**96**	0.01	**%**	
SM 2540G	Prep: 03-May-2012 1032 by 285	Analyzed: 04-May-2012 0827 by 285		Batch: W39711	
Arsenic		**12**	5	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1023 by 297		Batch: S32303	
Cadmium		**< 0.4**	0.4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1023 by 297		Batch: S32303	
Copper		**11**	0.6	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1023 by 297		Batch: S32303	
Lead		**16**	4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1023 by 297		Batch: S32303	
Magnesium		**780**	3	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1023 by 297		Batch: S32303	
Nickel		**12**	1	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1023 by 297		Batch: S32303	
Phosphorus		**1200**	10	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1023 by 297		Batch: S32303	
Potassium		**1000**	100	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1023 by 297		Batch: S32303	
Selenium		**< 7**	7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1023 by 297		Batch: S32303	
Zinc		**40**	0.2	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1023 by 297		Batch: S32303	
Mercury		**< 0.1**	0.1	**mg/Kg**	
EPA 7471B	Prep: 25-Apr-2012 1133 by 100	Analyzed: 26-Apr-2012 1526 by 271		Batch: S32306	
Nitrate as N		**3.9**	0.6	**mg/Kg**	H
EPA 9056A	Prep: 24-Apr-2012 1057 by 100	Analyzed: 24-Apr-2012 1933 by 07		Batch: S32300	

AIC No. 157201-2
Sample Identification: Area 1A 4/10/12 1100

Analyte		Result	RL	Units	Qualifier
pH		**6.1**		**Units**	H
EPA 9045C	Prep: 01-May-2012 0920 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39691	
Electrical Conductivity		**73**	3	**umho/cm**	
EPA 9050A	Prep: 01-May-2012 0916 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39688	

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ANALYTICAL RESULTS

AIC No. 157201-2 (Continued)
Sample Identification: Area 1A 4/10/12 1100

Analyte		Result	RL	Units	Qualifier
Cation-Exchange Capacity		**23**	0.2	**meq/100g**	
Mod. EPA 9080		Analyzed: 29-Apr-2012 1521 by 302		Batch: W39675	
Total Solids		**92**	0.01	**%**	
SM 2540G	Prep: 03-May-2012 1032 by 285	Analyzed: 04-May-2012 0827 by 285		Batch: W39711	
Arsenic		**14**	5	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1026 by 297		Batch: S32303	
Cadmium		**< 0.4**	0.4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1026 by 297		Batch: S32303	
Copper		**15**	0.6	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1026 by 297		Batch: S32303	
Lead		**21**	4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1026 by 297		Batch: S32303	
Magnesium		**1600**	3	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1026 by 297		Batch: S32303	
Nickel		**32**	1	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1026 by 297		Batch: S32303	
Phosphorus		**1200**	10	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1026 by 297		Batch: S32303	
Potassium		**2600**	100	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1026 by 297		Batch: S32303	
Selenium		**< 7**	7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1026 by 297		Batch: S32303	
Zinc		**90**	0.2	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1026 by 297		Batch: S32303	
Mercury		**< 0.1**	0.1	**mg/Kg**	
EPA 7471B	Prep: 25-Apr-2012 1133 by 100	Analyzed: 26-Apr-2012 1531 by 271		Batch: S32306	
Nitrate as N		**8.5**	0.6	**mg/Kg**	H
EPA 9056A	Prep: 24-Apr-2012 1057 by 100	Analyzed: 24-Apr-2012 1959 by 07		Batch: S32300	

AIC No. 157201-3
Sample Identification: Area 2 4/11/12 1000

Analyte		Result	RL	Units	Qualifier
pH		**6.2**		**Units**	H
EPA 9045C	Prep: 01-May-2012 0920 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39691	
Electrical Conductivity		**91**	3	**umho/cm**	
EPA 9050A	Prep: 01-May-2012 0916 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39688	
Cation-Exchange Capacity		**14**	0.2	**meq/100g**	
Mod. EPA 9080		Analyzed: 29-Apr-2012 1521 by 302		Batch: W39675	
Total Solids		**94**	0.01	**%**	
SM 2540G	Prep: 03-May-2012 1032 by 285	Analyzed: 04-May-2012 0827 by 285		Batch: W39711	

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ANALYTICAL RESULTS

AIC No. 157201-3 (Continued)
Sample Identification: Area 2 4/11/12 1000

Analyte		Result	RL	Units	Qualifier
Arsenic		**9.9**	5	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1045 by 297		Batch: S32303	
Cadmium		**< 0.4**	0.4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1045 by 297		Batch: S32303	
Copper		**12**	0.6	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1045 by 297		Batch: S32303	
Lead		**20**	4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1045 by 297		Batch: S32303	
Magnesium		**690**	3	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1045 by 297		Batch: S32303	
Nickel		**12**	1	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1045 by 297		Batch: S32303	
Phosphorus		**1500**	10	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1045 by 297		Batch: S32303	
Potassium		**910**	100	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1045 by 297		Batch: S32303	
Selenium		**< 7**	7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1045 by 297		Batch: S32303	
Zinc		**46**	0.2	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1045 by 297		Batch: S32303	
Mercury		**< 0.1**	0.1	**mg/Kg**	
EPA 7471B	Prep: 25-Apr-2012 1133 by 100	Analyzed: 26-Apr-2012 1536 by 271		Batch: S32306	
Nitrate as N		**8.0**	0.6	**mg/Kg**	H
EPA 9056A	Prep: 24-Apr-2012 1057 by 100	Analyzed: 24-Apr-2012 2025 by 07		Batch: S32300	

AIC No. 157201-4
Sample Identification: Area 2A 4/11/12 1100

Analyte		Result	RL	Units	Qualifier
pH		**6.4**		**Units**	H
EPA 9045C	Prep: 01-May-2012 0920 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39691	
Electrical Conductivity		**72**	3	**umho/cm**	
EPA 9050A	Prep: 01-May-2012 0916 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39688	
Cation-Exchange Capacity		**17**	0.2	**meq/100g**	
Mod. EPA 9080		Analyzed: 29-Apr-2012 1521 by 302		Batch: W39675	
Total Solids		**97**	0.01	**%**	
SM 2540G	Prep: 03-May-2012 1032 by 285	Analyzed: 04-May-2012 0827 by 285		Batch: W39711	
Arsenic		**8.3**	5	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1048 by 297		Batch: S32303	
Cadmium		**< 0.4**	0.4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1048 by 297		Batch: S32303	

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ANALYTICAL RESULTS

AIC No. 157201-4 (Continued)
Sample Identification: Area 2A 4/11/12 1100

Analyte		Result	RL	Units	Qualifier
Copper		**12**	0.6	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1048 by 297		Batch: S32303	
Lead		**18**	4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1048 by 297		Batch: S32303	
Magnesium		**810**	3	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1048 by 297		Batch: S32303	
Nickel		**13**	1	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1048 by 297		Batch: S32303	
Phosphorus		**1700**	10	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1048 by 297		Batch: S32303	
Potassium		**1100**	100	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1048 by 297		Batch: S32303	
Selenium		**< 7**	7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1048 by 297		Batch: S32303	
Zinc		**50**	0.2	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1048 by 297		Batch: S32303	
Mercury		**< 0.1**	0.1	**mg/Kg**	
EPA 7471B	Prep: 25-Apr-2012 1133 by 100	Analyzed: 26-Apr-2012 1541 by 271		Batch: S32306	
Nitrate as N		**7.1**	0.6	**mg/Kg**	H
EPA 9056A	Prep: 24-Apr-2012 1057 by 100	Analyzed: 24-Apr-2012 2051 by 07		Batch: S32300	

AIC No. 157201-5
Sample Identification: Area 3 4/12/12 1015

Analyte		Result	RL	Units	Qualifier
pH		**6.8**		**Units**	H
EPA 9045C	Prep: 01-May-2012 0920 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39691	
Electrical Conductivity		**67**	3	**umho/cm**	
EPA 9050A	Prep: 01-May-2012 0916 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39688	
Cation-Exchange Capacity		**13**	0.2	**meq/100g**	
Mod. EPA 9080		Analyzed: 29-Apr-2012 1521 by 302		Batch: W39675	
Total Solids		**97**	0.01	**%**	
SM 2540G	Prep: 03-May-2012 1032 by 285	Analyzed: 04-May-2012 0827 by 285		Batch: W39711	
Arsenic		**9.5**	5	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1051 by 297		Batch: S32303	
Cadmium		**< 0.4**	0.4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1051 by 297		Batch: S32303	
Copper		**8.3**	0.6	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1051 by 297		Batch: S32303	
Lead		**19**	4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1051 by 297		Batch: S32303	

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ANALYTICAL RESULTS

AIC No. 157201-5 (Continued)
Sample Identification: Area 3 4/12/12 1015

Analyte		Result	RL	Units	Qualifier
Magnesium		**700**	3	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1051 by 297		Batch: S32303	
Nickel		**9.3**	1	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1051 by 297		Batch: S32303	
Phosphorus		**810**	10	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1051 by 297		Batch: S32303	
Potassium		**760**	100	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1051 by 297		Batch: S32303	
Selenium		**< 7**	7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1051 by 297		Batch: S32303	
Zinc		**33**	0.2	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1051 by 297		Batch: S32303	
Mercury		**< 0.1**	0.1	**mg/Kg**	
EPA 7471B	Prep: 25-Apr-2012 1133 by 100	Analyzed: 26-Apr-2012 1546 by 271		Batch: S32306	
Nitrate as N		**0.98**	0.6	**mg/Kg**	H
EPA 9056A	Prep: 24-Apr-2012 1057 by 100	Analyzed: 24-Apr-2012 2117 by 07		Batch: S32300	

AIC No. 157201-6
Sample Identification: Area 3A 4/12/12 1100

Analyte		Result	RL	Units	Qualifier
pH		**6.7**		**Units**	H
EPA 9045C	Prep: 01-May-2012 0920 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39691	
Electrical Conductivity		**70**	3	**umho/cm**	
EPA 9050A	Prep: 01-May-2012 0916 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39688	
Cation-Exchange Capacity		**15**	0.2	**meq/100g**	
Mod. EPA 9080		Analyzed: 29-Apr-2012 1521 by 302		Batch: W39675	
Total Solids		**97**	0.01	**%**	
SM 2540G	Prep: 03-May-2012 1032 by 285	Analyzed: 04-May-2012 0827 by 285		Batch: W39711	
Arsenic		**12**	5	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1054 by 297		Batch: S32303	
Cadmium		**< 0.4**	0.4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1054 by 297		Batch: S32303	
Copper		**13**	0.6	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1054 by 297		Batch: S32303	
Lead		**22**	4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1054 by 297		Batch: S32303	
Magnesium		**850**	3	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1054 by 297		Batch: S32303	
Nickel		**18**	1	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1054 by 297		Batch: S32303	

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ANALYTICAL RESULTS

AIC No. 157201-6 (Continued)
Sample Identification: Area 3A 4/12/12 1100

Analyte		Result	RL	Units	Qualifier
Phosphorus		**1500**	10	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1054 by 297		Batch: S32303	
Potassium		**1200**	100	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1054 by 297		Batch: S32303	
Selenium		**< 7**	7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1054 by 297		Batch: S32303	
Zinc		**58**	0.2	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1054 by 297		Batch: S32303	
Mercury		**< 0.1**	0.1	**mg/Kg**	
EPA 7471B	Prep: 25-Apr-2012 1133 by 100	Analyzed: 26-Apr-2012 1551 by 271		Batch: S32306	
Nitrate as N		**1.2**	0.6	**mg/Kg**	H
EPA 9056A	Prep: 24-Apr-2012 1057 by 100	Analyzed: 24-Apr-2012 2142 by 07		Batch: S32300	

AIC No. 157201-7
Sample Identification: Area 4 4/13/12 0930

Analyte		Result	RL	Units	Qualifier
pH		**6.5**		**Units**	H
EPA 9045C	Prep: 01-May-2012 0920 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39691	
Electrical Conductivity		**62**	3	**umho/cm**	
EPA 9050A	Prep: 01-May-2012 0916 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39688	
Cation-Exchange Capacity		**15**	0.2	**meq/100g**	
Mod. EPA 9080		Analyzed: 29-Apr-2012 1521 by 302		Batch: W39675	
Total Solids		**97**	0.01	**%**	
SM 2540G	Prep: 03-May-2012 1032 by 285	Analyzed: 04-May-2012 0827 by 285		Batch: W39711	
Arsenic		**6.2**	5	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1057 by 297		Batch: S32303	
Cadmium		**< 0.4**	0.4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1057 by 297		Batch: S32303	
Copper		**18**	0.6	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1057 by 297		Batch: S32303	
Lead		**19**	4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1057 by 297		Batch: S32303	
Magnesium		**680**	3	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1057 by 297		Batch: S32303	
Nickel		**13**	1	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1057 by 297		Batch: S32303	
Phosphorus		**1700**	10	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1057 by 297		Batch: S32303	
Potassium		**1100**	100	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1057 by 297		Batch: S32303	

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ANALYTICAL RESULTS

AIC No. 157201-7 (Continued)
Sample Identification: Area 4 4/13/12 0930

Analyte		Result	RL	Units	Qualifier
Selenium		**< 7**	7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1057 by 297		Batch: S32303	
Zinc		**51**	0.2	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1057 by 297		Batch: S32303	
Mercury		**0.11**	0.1	**mg/Kg**	
EPA 7471B	Prep: 25-Apr-2012 1133 by 100	Analyzed: 26-Apr-2012 1606 by 271		Batch: S32306	
Nitrate as N		**1.8**	0.6	**mg/Kg**	H
EPA 9056A	Prep: 24-Apr-2012 1057 by 100	Analyzed: 24-Apr-2012 2326 by 07		Batch: S32300	

AIC No. 157201-8
Sample Identification: Area 4A 4/13/12 1100

Analyte		Result	RL	Units	Qualifier
pH		**6.6**		**Units**	H
EPA 9045C	Prep: 01-May-2012 0920 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39691	
Electrical Conductivity		**85**	3	**umho/cm**	
EPA 9050A	Prep: 01-May-2012 0916 by 93	Analyzed: 01-May-2012 1800 by 93		Batch: W39688	
Cation-Exchange Capacity		**18**	0.2	**meq/100g**	
Mod. EPA 9080		Analyzed: 29-Apr-2012 1521 by 302		Batch: W39675	
Total Solids		**97**	0.01	**%**	
SM 2540G	Prep: 03-May-2012 1032 by 285	Analyzed: 04-May-2012 0827 by 285		Batch: W39711	
Arsenic		**14**	5	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1100 by 297		Batch: S32303	
Cadmium		**< 0.4**	0.4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1100 by 297		Batch: S32303	
Copper		**9.6**	0.6	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1100 by 297		Batch: S32303	
Lead		**20**	4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1100 by 297		Batch: S32303	
Magnesium		**1100**	3	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1100 by 297		Batch: S32303	
Nickel		**27**	1	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1100 by 297		Batch: S32303	
Phosphorus		**820**	10	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1100 by 297		Batch: S32303	
Potassium		**1800**	100	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1100 by 297		Batch: S32303	
Selenium		**< 7**	7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1100 by 297		Batch: S32303	
Zinc		**69**	0.2	**mg/Kg**	
EPA 3051A, 6010C	Prep: 25-Apr-2012 0936 by 100	Analyzed: 26-Apr-2012 1100 by 297		Batch: S32303	

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ANALYTICAL RESULTS

AIC No. 157201-8 (Continued)
Sample Identification: Area 4A 4/13/12 1100

Analyte		Result	RL	Units	Qualifier
Mercury		**< 0.1**	0.1	**mg/Kg**	
EPA 7471B	Prep: 25-Apr-2012 1133 by 100	Analyzed: 26-Apr-2012 1611 by 271		Batch: S32306	
Nitrate as N		**1.7**	0.6	**mg/Kg**	H
EPA 9056A	Prep: 24-Apr-2012 1057 by 100	Analyzed: 24-Apr-2012 2351 by 07		Batch: S32300	

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DUPLICATE RESULTS

Analyte		AIC No.	Result	RPD	RPD Limit	Preparation Date	Analysis Date	Dil	Qual
Cation-Exchange Capacity		157201-1	15 meq/100g				29Apr12 1521 by 302		
	Batch: W39675	Duplicate	15 meq/100g	2.54	21.0		29Apr12 1521 by 302		
Cation-Exchange Capacity		157201-2	23 meq/100g				29Apr12 1521 by 302		
	Batch: W39675	Duplicate	22 meq/100g	7.79	21.0		29Apr12 1521 by 302		
Electrical Conductivity		157201-1	62 umho/cm			01May12 0916 by 93	01May12 1800 by 93		
	Batch: W39688	Duplicate	61 umho/cm	1.02	20.0	01May12 0917 by 93	01May12 1800 by 93		
pH		157201-1	6.4 Units			01May12 0920 by 93	01May12 1800 by 93		H
	Batch: W39691	Duplicate	6.5 Units	1.40	5.00	01May12 0920 by 93	01May12 1800 by 93		H
Total Solids		157201-1	96 %			03May12 1032 by 285	04May12 0827 by 285		
	Batch: W39711	Duplicate	96 %	0.0563	10.0	03May12 1033 by 285	04May12 0827 by 285		

LABORATORY CONTROL SAMPLE RESULTS

Analyte	Spike Amount	%	Limits	RPD	Limit	Batch	Preparation Date	Analysis Date	Dil	Qual
pH	-	100	98.0-102			W39691	01May12 0920 by 93	01May12 1800 by 93		
Electrical Conductivity	1412 umho/cm	99.2	90.0-110			W39688	01May12 0917 by 93	01May12 1800 by 93		
Arsenic	5 mg/Kg	98.7	85.0-115			S32303	25Apr12 0936 by 100	26Apr12 1014 by 297		
Cadmium	5 mg/Kg	101	85.0-115			S32303	25Apr12 0936 by 100	26Apr12 1014 by 297		
Copper	0.5 mg/Kg	99.4	85.0-115			S32303	25Apr12 0936 by 100	26Apr12 1014 by 297		
Lead	5 mg/Kg	99.7	85.0-115			S32303	25Apr12 0936 by 100	26Apr12 1014 by 297		
Magnesium	10 mg/Kg	101	85.0-115			S32303	25Apr12 0936 by 100	26Apr12 1014 by 297		
Nickel	0.5 mg/Kg	100	85.0-115			S32303	25Apr12 0936 by 100	26Apr12 1014 by 297		
Phosphorus	5 mg/Kg	104	85.0-115			S32303	25Apr12 0936 by 100	26Apr12 1014 by 297		
Potassium	10 mg/Kg	102	85.0-115			S32303	25Apr12 0936 by 100	26Apr12 1014 by 297		
Selenium	5 mg/Kg	100	85.0-115			S32303	25Apr12 0936 by 100	26Apr12 1014 by 297		
Zinc	0.5 mg/Kg	99.9	85.0-115			S32303	25Apr12 0936 by 100	26Apr12 1014 by 297		
Mercury	0.0025 mg/Kg	88.8	85.0-115			S32306	25Apr12 1133 by 100	26Apr12 1511 by 271		
Nitrate as N	4 mg/Kg	105	90.0-110			S32300	24Apr12 1057 by 100	24Apr12 1816 by 07		

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MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Arsenic	157201-1	498 mg/Kg	93.1	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1017 by 297		
	157201-1	498 mg/Kg	93.2	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1020 by 297		
	Relative Percent Difference:		0.148	20.0	S32303				
Cadmium	157201-1	498 mg/Kg	96.8	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1017 by 297		
	157201-1	498 mg/Kg	96.9	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1020 by 297		
	Relative Percent Difference:		0.117	20.0	S32303				
Copper	157201-1	49.8 mg/Kg	97.1	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1017 by 297		
	157201-1	49.8 mg/Kg	96.7	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1020 by 297		
	Relative Percent Difference:		0.293	20.0	S32303				
Lead	157201-1	498 mg/Kg	98.7	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1017 by 297		
	157201-1	498 mg/Kg	98.8	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1020 by 297		
	Relative Percent Difference:		0.114	20.0	S32303				
Magnesium	157201-1	997 mg/Kg	88.2	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1017 by 297		
	157201-1	996 mg/Kg	89.0	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1020 by 297		
	Relative Percent Difference:		0.532	20.0	S32303				
Nickel	157201-1	49.8 mg/Kg	95.6	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1017 by 297		
	157201-1	49.8 mg/Kg	95.7	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1020 by 297		
	Relative Percent Difference:		0.124	20.0	S32303				
Phosphorus	157201-1	498 mg/Kg	80.1	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1017 by 297		
	157201-1	498 mg/Kg	79.5	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1020 by 297		
	Relative Percent Difference:		0.199	20.0	S32303				
Potassium	157201-1	997 mg/Kg	92.0	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1017 by 297		
	157201-1	996 mg/Kg	93.9	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1020 by 297		
	Relative Percent Difference:		0.989	20.0	S32303				
Selenium	157201-1	498 mg/Kg	87.1	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1017 by 297		
	157201-1	498 mg/Kg	87.4	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1020 by 297		
	Relative Percent Difference:		0.354	20.0	S32303				
Zinc	157201-1	49.8 mg/Kg	91.5	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1017 by 297		
	157201-1	49.8 mg/Kg	91.6	75.0-125	S32303	25Apr12 0936 by 100	26Apr12 1020 by 297		
	Relative Percent Difference:		0.0616	20.0	S32303				
Mercury	157201-1	1.23 mg/Kg	91.6	70.0-130	S32306	25Apr12 1133 by 100	26Apr12 1516 by 271		
	157201-1	1.25 mg/Kg	90.4	70.0-130	S32306	25Apr12 1133 by 100	26Apr12 1521 by 271		
	Relative Percent Difference:		1.45	20.0	S32306				
Nitrate as N	157201-1	40.0 mg/Kg	97.1	80.0-120	S32300	24Apr12 1057 by 100	24Apr12 1842 by 07		
	157201-1	40.0 mg/Kg	99.2	80.0-120	S32300	24Apr12 1057 by 100	24Apr12 1907 by 07		
	Relative Percent Difference:		1.97	10.0	S32300				

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LABORATORY BLANK RESULTS

Analyte	Result	RL	PQL	QC Sample	Preparation Date	Analysis Date	Qual
Electrical Conductivity	< 2 umho/cm	2	2	W39688-1	01May12 0917 by 93	01May12 1800 by 93	
Cation-Exchange Capacity	< 0.1 meq/100g	0.1	0.1	W39675-1		29Apr12 1521 by 302	
Total Solids	< 0.01 %	0.01	0.01	W39711-1	03May12 1033 by 285	04May12 0827 by 285	
Arsenic	< 5 mg/Kg	5	5	S32303-1	25Apr12 0936 by 100	26Apr12 1011 by 297	
Cadmium	< 0.4 mg/Kg	0.4	0.4	S32303-1	25Apr12 0936 by 100	26Apr12 1011 by 297	
Copper	< 0.6 mg/Kg	0.6	0.6	S32303-1	25Apr12 0936 by 100	26Apr12 1011 by 297	
Lead	< 4 mg/Kg	4	4	S32303-1	25Apr12 0936 by 100	26Apr12 1011 by 297	
Magnesium	< 3 mg/Kg	3	3	S32303-1	25Apr12 0936 by 100	26Apr12 1011 by 297	
Nickel	< 1 mg/Kg	1	1	S32303-1	25Apr12 0936 by 100	26Apr12 1011 by 297	
Phosphorus	< 10 mg/Kg	10	10	S32303-1	25Apr12 0936 by 100	26Apr12 1011 by 297	
Potassium	< 100 mg/Kg	100	100	S32303-1	25Apr12 0936 by 100	26Apr12 1011 by 297	
Selenium	< 7 mg/Kg	7	7	S32303-1	25Apr12 0936 by 100	26Apr12 1011 by 297	
Zinc	< 0.2 mg/Kg	0.2	0.2	S32303-1	25Apr12 0936 by 100	26Apr12 1011 by 297	
Mercury	< 0.1 mg/Kg	0.1	0.1	S32306-1	25Apr12 1133 by 100	26Apr12 1506 by 271	
Nitrate as N	< 0.5 mg/Kg	0.5	0.5	S32300-1	24Apr12 1057 by 100	24Apr12 1750 by 07	

AMERICAN INTERPLEX CORPORATION
LABORATORIES

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client: CH2M HILL
Project Reference: Fayetteville
~~Project~~ Lab Manager: Bruce Richart
Sampled By: John Terberge
PO No.: Credit Card

AIC Control No.: 137201
AIC Proposal No.:
Carrier: FEDEX
Received Temperature °C: 2°C

AIC No.	Sample Identification	Date/Time Collected	GRAB	COMP	Sample Matrix: WATER	Sample Matrix: SOIL	No of BOTTLES	Analyses Requested: Nitrate - Nitrogen	pH (S.U.)	Cation Exchange Capacity (meq/100g)	Salt Content (Millio-mhos/cm)	Phosphorus, Arsenic, Copper	Mercury, Selenium, Potassium	Magnesium, Cadmium, Lead	Nickel, Zinc	Remarks
1	Area 1	4/10/12 - 1000	X			X	1	X	X	X	X	X	X	X	X	
2	Area 1A	4/10/12 - 1100	X			X	1	X	X	X	X	X	X	X	X	
3	Area 2	4/11/12 - 1000	X			X	1	X	X	X	X	X	X	X	X	
4	Area 2A	4/11/12 - 1100	X			X	1	X	X	X	X	X	X	X	X	
5	Area 3	4/12/12 - 1015	X			X	1	X	X	X	X	X	X	X	X	
6	Area 3A	4/12/12 - 1100	X			X	1	X	X	X	X	X	X	X	X	
7	Area 4	4/13/12 - 0930	X			X	1	X	X	X	X	X	X	X	X	
		Container Type						G	G	G	G	G	G	G	G	Field pH calibration
		Preservative						NO	NO	NO	NO	NO	NO	NO	NO	on _____ @ _____ Buffer:

G = Glass P = Plastic V = VOA vials H = HCl to pH2 T = Sodium Thiosulfate
NO = none S = Sulfuric acid pH2 N = Nitric acid pH2 B = NaOH to pH12 Z = Zinc acetate

Turnaround Time Requested: (Please circle)
(NORMAL) or EXPEDITED IN ____ DAYS
Expedited results requested by: _____
Who should AIC contact with questions: Bruce Richart
Phone: (479) 443-3292 Fax: (479) 443-5613
Report Attention to: Bruce Richart
Report Address to: 1400 N. Fox Hunter Rd. Fayetteville, AR 72701

Relinquished By:	Date/Time	Received By:	Date/Time
	042312 / 0930		
Relinquished By:	Date/Time	Received in Lab By: Shera Pulliam	Date/Time 4-24-12 9:00 AM

Comments: 7983 1327 1987

AMERICAN INTERPLEX CORPORATION LABORATORIES

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client: CH2M HILL
Project Reference: Fayetteville
~~Project~~ Lab Manager: Bruce Pichart
Sampled By: John Tenberge

PO No.: Credit Card

AIC Control No: 57201
AIC Proposal No:
Carrier: FEDEX
Received Temperature °C:

AIC No.	Sample Identification	Date/Time Collected	Sample Matrix: GRAB	COMP	WATER	SOIL	No of BOTTLES	Nitrate-Nitrogen	P.H. (S.U.)	Cation-Exchange Capacity (meq/100g)	Salt Content (Micro-mhos/cm)	Phosphorus, Arsenic, Copper	Mercury, Selenium, Potassium	Magnesium, Cadmium, Lead	Nickel, Zinc					Remarks
8	Area 4A	4/13/12 - 1100	X			X	1	X	X	X	X	X	X	X	X					
		Container Type						G	G	G	G	G	G	G	G					Field pH calibration
		Preservative						NO	NO	NO	NO	NO	NO	NO	NO					on _____ @ _____
																				Buffer:

G = Glass P = Plastic V = VOA vials H = HCl to pH2 T = Sodium Thiosulfate
NO = none S = Sulfuric acid pH2 N = Nitric acid pH2 B = NaOH to pH12 Z = Zinc acetate

Turnaround Time Requested: (Please circle)
(NORMAL) or EXPEDITED IN ____ DAYS
Expedited results requested by: _____
Who should AIC contact with questions: Bruce Pichart
Phone: (479) 443-3292 Fax: (479) 443-5613
Report Attention to: Bruce Pichart
Report Address to: 1400 N. Fox Hunter Rd. Fayetteville, AR 72701

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	042312/0930		
Relinquished By:	Date/Time	Received in Lab By: [signature]	Date/Time 4-24-12 9:00A

Comments:
7983 1327 1987

AMERICAN INTERPLEX CORPORATION
LABORATORIES

CH2M HILL
ATTN: Mr. Bruce Richart
1400 North Fox Hunter Road
Fayetteville, AR 72701

This report replaces American Interplex Corporation (AIC) Control No. 161594 originally sent on October 16, 2012. This report contains the analytical results and supporting information for samples submitted on October 10, 2012. Attached please find a copy of the Chain of Custody and/or other documents received. Note that any remaining sample will be discarded two weeks from the original report date unless other arrangements are made.

This report is intended for the sole use of the client listed above. Assessment of the data requires access to the entire document.

This report has been reviewed by the Laboratory Director or a qualified designee.

Report was revised to presented Nitrate + Nitrite-N on a dry-weight basis.

John Overbey
Laboratory Director

This document has been distributed to the following:

PDF cc: CH2M HILL
ATTN: Mr. Bruce Richart
robert.richart@ch2m.com

AMERICAN INTERPLEX CORPORATION
LABORATORIES

CH2M HILL
1400 North Fox Hunter Road
Fayetteville, AR 72701

SAMPLE INFORMATION

Project Description:
Five (5) soil sample(s) received on October 10, 2012

Receipt Details:
A Chain of Custody was provided. The samples were delivered in one (1) ice chest.
Ice chest #1 was delivered with shipping documentation.

Each sample container was checked for proper labeling, including date and time sampled. Sample containers were reviewed for proper type, adequate volume, integrity, temperature, preservation, and holding times. Any exceptions are noted below:

Sample Identification:

Laboratory ID	Client Sample ID	Sampled Date/Time	Notes
161594-1	Area 1 100912-0926	09-Oct-2012 0926	
161594-2	Area 1A 100912-1031	09-Oct-2012 1031	
161594-3	Area 2 100912-0902	09-Oct-2012 0902	
161594-4	Area 2A 100912-0954	09-Oct-2012 0954	
161594-5	Area 3 100912-1054	09-Oct-2012 1054	

Qualifiers:
X Spiking level is invalid due to the high concentration of analyte in the spiked sample

Case Narrative:
Analysis of soils/sludges are reported on a dry-weight basis unless otherwise specified.

References:
"Methods for Chemical Analysis of Water and Wastes", EPA/600/4-79-020 (Mar 1983) with updates and supplements EPA/600/5-91-010 (Jun 1991), EPA/600/R-92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993).
"Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846)", Third Edition.
"Standard Methods for the Examination of Water and Wastewaters", 21st edition.
"American Society for Testing and Materials" (ASTM).
"Association of Analytical Chemists" (AOAC).

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Fayetteville, AR 72701

ANALYTICAL RESULTS

AIC No. 161594-1
Sample Identification: Area 1 100912-0926

Analyte		Result	RL	Units	Qualifier
Total Solids		**86**	0.01	%	
SM 2540 G	Prep: 19-Oct-2012 1513 by 302	Analyzed: 22-Oct-2012 1029 by 302		Batch: W41404	
Aluminum		**12000**	40	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 12-Oct-2012 1119 by 305		Batch: S33290	
Calcium		**5800**	10	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 1953 by 305		Batch: S33290	
Iron		**13000**	7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 12-Oct-2012 1119 by 305		Batch: S33290	
Molybdenum		**< 0.8**	0.8	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 1953 by 305		Batch: S33290	
Sodium		**150**	100	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 1953 by 305		Batch: S33290	
Sodium Absorption Ratio		**0.49**			
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 1950 by 305		Batch: S33290	
Nitrate + Nitrite as N		**40**	0.6	**mg/Kg**	
EPA 9056A	Prep: 11-Oct-2012 0805 by 270	Analyzed: 12-Oct-2012 1336 by 271		Batch: S33288	

AIC No. 161594-2
Sample Identification: Area 1A 100912-1031

Analyte		Result	RL	Units	Qualifier
Total Solids		**83**	0.01	%	
SM 2540 G	Prep: 19-Oct-2012 1513 by 302	Analyzed: 22-Oct-2012 1029 by 302		Batch: W41404	
Aluminum		**19000**	400	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 12-Oct-2012 1123 by 305		Batch: S33290	
Calcium		**3100**	10	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 1958 by 305		Batch: S33290	
Iron		**32000**	70	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 12-Oct-2012 1123 by 305		Batch: S33290	
Molybdenum		**0.98**	0.8	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 1958 by 305		Batch: S33290	
Sodium		**160**	100	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 1958 by 305		Batch: S33290	
Sodium Absorption Ratio		**0.60**			
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 1955 by 305		Batch: S33290	
Nitrate + Nitrite as N		**36**	0.7	**mg/Kg**	
EPA 9056A	Prep: 11-Oct-2012 0805 by 270	Analyzed: 12-Oct-2012 1401 by 271		Batch: S33288	

AIC No. 161594-3
Sample Identification: Area 2 100912-0902

Analyte		Result	RL	Units	Qualifier
Total Solids		**83**	0.01	%	
SM 2540 G	Prep: 19-Oct-2012 1513 by 302	Analyzed: 22-Oct-2012 1029 by 302		Batch: W41404	

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Fayetteville, AR 72701

ANALYTICAL RESULTS

AIC No. 161594-3 (Continued)
Sample Identification: Area 2 100912-0902

Analyte		Result	RL	Units	Qualifier
Aluminum		**14000**	40	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 12-Oct-2012 1127 by 305		Batch: S33290	
Calcium		**3100**	10	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 2004 by 305		Batch: S33290	
Iron		**14000**	7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 12-Oct-2012 1127 by 305		Batch: S33290	
Molybdenum		**< 0.8**	0.8	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 2004 by 305		Batch: S33290	
Sodium		**160**	100	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 2004 by 305		Batch: S33290	
Sodium Absorption Ratio		**0.66**			
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 2001 by 305		Batch: S33290	
Nitrate + Nitrite as N		**27**	0.7	**mg/Kg**	
EPA 9056A	Prep: 11-Oct-2012 0805 by 270	Analyzed: 12-Oct-2012 1427 by 271		Batch: S33288	

AIC No. 161594-4
Sample Identification: Area 2A 100912-0954

Analyte		Result	RL	Units	Qualifier
Total Solids		**83**	0.01	**%**	
SM 2540 G	Prep: 19-Oct-2012 1513 by 302	Analyzed: 22-Oct-2012 1029 by 302		Batch: W41404	
Aluminum		**13000**	40	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 12-Oct-2012 1131 by 305		Batch: S33290	
Calcium		**4300**	10	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 2009 by 305		Batch: S33290	
Iron		**12000**	7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 12-Oct-2012 1131 by 305		Batch: S33290	
Molybdenum		**< 0.8**	0.8	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 2009 by 305		Batch: S33290	
Sodium		**160**	100	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 2009 by 305		Batch: S33290	
Sodium Absorption Ratio		**0.58**			
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 2007 by 305		Batch: S33290	
Nitrate + Nitrite as N		**37**	0.7	**mg/Kg**	
EPA 9056A	Prep: 11-Oct-2012 0805 by 270	Analyzed: 12-Oct-2012 1453 by 271		Batch: S33288	

AIC No. 161594-5
Sample Identification: Area 3 100912-1054

Analyte		Result	RL	Units	Qualifier
Total Solids		**86**	0.01	**%**	
SM 2540 G	Prep: 19-Oct-2012 1513 by 302	Analyzed: 22-Oct-2012 1029 by 302		Batch: W41404	

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ANALYTICAL RESULTS

AIC No. 161594-5 (Continued)
Sample Identification: Area 3 100912-1054

Analyte		Result	RL	Units	Qualifier
Aluminum		**13000**	40	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 12-Oct-2012 1135 by 305		Batch: S33290	
Calcium		**6800**	10	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 2015 by 305		Batch: S33290	
Iron		**15000**	7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 12-Oct-2012 1135 by 305		Batch: S33290	
Molybdenum		**< 0.8**	0.8	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 2015 by 305		Batch: S33290	
Sodium		**160**	100	**mg/Kg**	
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 2015 by 305		Batch: S33290	
Sodium Absorption Ratio		**0.49**			
EPA 3051A, 6010C	Prep: 11-Oct-2012 0917 by 100	Analyzed: 11-Oct-2012 2012 by 305		Batch: S33290	
Nitrate + Nitrite as N		**52**	0.6	**mg/Kg**	
EPA 9056A	Prep: 11-Oct-2012 0805 by 270	Analyzed: 12-Oct-2012 1519 by 271		Batch: S33288	

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DUPLICATE RESULTS

Analyte	AIC No.	Result	RPD	RPD Limit	Preparation Date	Analysis Date	Dil	Qual
Total Solids	161869-3	84 %			19Oct12 1513 by 302	22Oct12 1029 by 302		
Batch: W41404	Duplicate	84 %	0.526	10.0	19Oct12 1514 by 302	22Oct12 1029 by 302		

LABORATORY CONTROL SAMPLE RESULTS

Analyte	Spike Amount	%	Limits	RPD	Limit	Batch	Preparation Date	Analysis Date	Dil	Qual
Aluminum	500 mg/Kg	102	85.0-115			S33290	11Oct12 0917 by 100	11Oct12 1848 by 305		
Calcium	1000 mg/Kg	98.9	85.0-115			S33290	11Oct12 0917 by 100	11Oct12 1848 by 305		
Iron	500 mg/Kg	100	85.0-115			S33290	11Oct12 0917 by 100	11Oct12 1848 by 305		
Molybdenum	50.0 mg/Kg	99.4	85.0-115			S33290	11Oct12 0917 by 100	11Oct12 1848 by 305		
Sodium	1000 mg/Kg	105	85.0-115			S33290	11Oct12 0917 by 100	11Oct12 1848 by 305		
Nitrate + Nitrite as N	80.0 mg/Kg	105	90.0-110			S33288	11Oct12 1111 by 271	12Oct12 1152 by 271		

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Aluminum	161566-1	497 mg/Kg	-	75.0-125	S33290	11Oct12 0917 by 100	12Oct12 1026 by 305		X
	161566-1	497 mg/Kg	-	75.0-125	S33290	11Oct12 0917 by 100	12Oct12 1035 by 305		X
	Relative Percent Difference:		2.94	20.0	S33290				
Calcium	161566-1	994 mg/Kg	-	75.0-125	S33290	11Oct12 0917 by 100	12Oct12 1026 by 305		X
	161566-1	995 mg/Kg	-	75.0-125	S33290	11Oct12 0917 by 100	12Oct12 1035 by 305		X
	Relative Percent Difference:		2.58	20.0	S33290				
Iron	161566-1	497 mg/Kg	-	75.0-125	S33290	11Oct12 0917 by 100	11Oct12 1853 by 305		X
	161566-1	497 mg/Kg	-	75.0-125	S33290	11Oct12 0917 by 100	11Oct12 1857 by 305		X
	Relative Percent Difference:		0.252	20.0	S33290				
Molybdenum	161566-1	49.7 mg/Kg	95.4	75.0-125	S33290	11Oct12 0917 by 100	11Oct12 1853 by 305		
	161566-1	49.7 mg/Kg	95.3	75.0-125	S33290	11Oct12 0917 by 100	11Oct12 1857 by 305		
	Relative Percent Difference:		0.0967	20.0	S33290				
Sodium	161566-1	994 mg/Kg	93.9	75.0-125	S33290	11Oct12 0917 by 100	11Oct12 1853 by 305		
	161566-1	995 mg/Kg	95.7	75.0-125	S33290	11Oct12 0917 by 100	11Oct12 1857 by 305		
	Relative Percent Difference:		1.08	20.0	S33290				
Nitrate + Nitrite as N	161594-1	79.9 mg/Kg	107	80.0-120	S33288	11Oct12 1111 by 271	12Oct12 1244 by 271		
	161594-1	79.9 mg/Kg	110	80.0-120	S33288	11Oct12 1111 by 271	12Oct12 1310 by 271		
	Relative Percent Difference:		2.12	10.0	S33288				

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Fayetteville, AR 72701

LABORATORY BLANK RESULTS

Analyte	Result	RL	PQL	QC Sample	Preparation Date	Analysis Date	Qual
Total Solids	< 0.01 %	0.01	0.01	W41404-1	19Oct12 1514 by 302	22Oct12 1029 by 302	
Aluminum	< 4 mg/Kg	4	4	S33290-1	11Oct12 0917 by 100	11Oct12 1844 by 305	
Calcium	< 10 mg/Kg	10	10	S33290-1	11Oct12 0917 by 100	11Oct12 1844 by 305	
Iron	< 0.7 mg/Kg	0.7	0.7	S33290-1	11Oct12 0917 by 100	11Oct12 1844 by 305	
Molybdenum	< 0.8 mg/Kg	0.8	0.8	S33290-1	11Oct12 0917 by 100	11Oct12 1844 by 305	
Sodium	< 100 mg/Kg	100	100	S33290-1	11Oct12 0917 by 100	11Oct12 1844 by 305	
Nitrate + Nitrite as N	< 0.5 mg/Kg	0.5	0.5	S33288-1	11Oct12 1111 by 271	12Oct12 1218 by 271	

AMERICAN INTERPLEX CORPORATION LABORATORIES

8600 Kanis Road
Little Rock, AR 72204-2322
(501) 224-5060
(501) 224-5072

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client: CH2M HILL
Project Reference: Fayetteville
Lab Manager: Bruce Richart
Sampled By: Tim McGee, Anthony DeJesus

PO No. CREDIT CARD

AIC CONTROL NO: 161594
AIC PROPOSAL NO:
Carrier: FED EX
Received on Ice (4 C)? (YES) NO
Remarks

AIC No.	Sample Identiffication	Date/Time Collected	GRAB	COMP	Sample Matrix: WATER	SOIL	SLUDGE	NO OF Bottles	ANALYSES REQUESTED: sodium adsorption ratio (SAR)	calcium	sodium	nitrate + nitrite nitrogen	molybdenum	aluminum	iron
1	Area 1	100912-0926	X			X		1	X	X	X	X	X	X	X
2	Area 1A	100912-1031	X			X		1	X	X	X	X	X	X	X
3	Area 2	100912-0902	X			X		1	X	X	X	X	X	X	X
4	Area 2A	100912-0954	X			X		1	X	X	X	X	X	X	X
5	Area 3	100912-1054	X			X		1	X	X	X	X	X	X	X
		Container Type													
		Preservative													

Field pH calibration
on _____ @ _____
Buffer:

G = Glass, NO = none; P = Plastic, S = Sulfuric acid pH 2; V = VOA vials, N = Nitric acid pH 2; H = HCl to pH 2, B = NaOH to pH 12; T = Sodium Thiosulfate, Z = Zinc acetate

Turnaround Time Requested: (Please circle)
NORMAL OR EXPEDITED IN ____ DAYS
Expedited results requested by: _____
Who should AIC contact with questions : Bruce Richart
Phone: (474) 443-3292 Fax: (479) 443-5613
Report Attention to: Bruce Richart
Report Address to: 1400 N. Fox Hunter Rd. Fayetteville, AR 72701

Relinquished By:	Date/Time	Received By:	Date/Time
	100912/1242		
Relinquished By:	Date/Time	Received By:	Date/Time
			10-10-12 8:45A

Comments:
Please report results as mg/kg.

FORM 0060

AMERICAN INTERPLEX CORPORATION
LABORATORIES

40 1972 2012

October 22, 2012
Control No. 161733

CH2M HILL
ATTN: Mr. Bruce Richart
1400 North Fox Hunter Road
Fayetteville, AR 72701

This report contains the analytical results and supporting information for samples submitted on October 16, 2012. Attached please find a copy of the Chain of Custody and/or other documents received. Note that any remaining sample will be discarded two weeks from the original report date unless other arrangements are made.

This report is intended for the sole use of the client listed above. Assessment of the data requires access to the entire document.

This report has been reviewed by the Laboratory Director or a qualified designee.

John Overbey
Laboratory Director

This document has been distributed to the following:

PDF cc: CH2M HILL
ATTN: Mr. Bruce Richart
robert.richart@ch2m.com

AMERICAN INTERPLEX CORPORATION
LABORATORIES

1972 2012

CH2M HILL
1400 North Fox Hunter Road
Fayetteville, AR 72701

SAMPLE INFORMATION

Project Description:
Three (3) soil sample(s) received on October 16, 2012

Receipt Details:
A Chain of Custody was provided. The samples were delivered in one (1) ice chest.
Ice chest #1 was delivered with shipping documentation.

Each sample container was checked for proper labeling, including date and time sampled. Sample containers were reviewed for proper type, adequate volume, integrity, temperature, preservation, and holding times. Any exceptions are noted below:

Sample Identification:

Laboratory ID	Client Sample ID	Sampled Date/Time	Notes
161733-1	Area 3A 101512-0926	15-Oct-2012 0926	
161733-2	Area 4 101512-0843	15-Oct-2012 0843	
161733-3	Area 4A 101512-0855	15-Oct-2012 0855	

Qualifiers:
X Spiking level is invalid due to the high concentration of analyte in the spiked sample

Case Narrative:
Analysis of soils/sludges are reported on a dry-weight basis unless otherwise specified.

References:
"Methods for Chemical Analysis of Water and Wastes", EPA/600/4-79-020 (Mar 1983) with updates and supplements EPA/600/5-91-010 (Jun 1991), EPA/600/R-92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993).
"Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846)", Third Edition.
"Standard Methods for the Examination of Water and Wastewaters", 21st edition.
"American Society for Testing and Materials" (ASTM).
"Association of Analytical Chemists" (AOAC).

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ANALYTICAL RESULTS

AIC No. 161733-1
Sample Identification: Area 3A 101512-0926

Analyte		Result	RL	Units	Qualifier
Total Solids		**80**	0.01	%	
SM 2540 G	Prep: 19-Oct-2012 1513 by 302	Analyzed: 22-Oct-2012 1029 by 302		Batch: W41404	
Aluminum		**18000**	50	mg/Kg	
EPA 3051A, 6010C	Prep: 17-Oct-2012 0942 by 100	Analyzed: 18-Oct-2012 1813 by 270		Batch: S33317	
Calcium		**2300**	10	mg/Kg	
EPA 3051A, 6010C	Prep: 17-Oct-2012 0942 by 100	Analyzed: 18-Oct-2012 1446 by 305		Batch: S33317	
Iron		**17000**	9	mg/Kg	
EPA 3051A, 6010C	Prep: 17-Oct-2012 0942 by 100	Analyzed: 18-Oct-2012 1813 by 270		Batch: S33317	
Molybdenum		**0.86**	0.8	mg/Kg	
EPA 3051A, 6010C	Prep: 17-Oct-2012 0942 by 100	Analyzed: 18-Oct-2012 1446 by 305		Batch: S33317	
Sodium		**170**	100	mg/Kg	
EPA 3051A, 6010C	Prep: 17-Oct-2012 0942 by 100	Analyzed: 18-Oct-2012 1819 by 305		Batch: S33317	
Sodium Absorption Ratio		**0.78**			
EPA 3051A, 6010C	Prep: 17-Oct-2012 1223 by 100	Analyzed: 18-Oct-2012 1442 by 305		Batch: S33317	
Nitrate + Nitrite as N		**10**	0.7	mg/Kg	
EPA 9056A	Prep: 17-Oct-2012 0913 by 271	Analyzed: 18-Oct-2012 1019 by 271		Batch: S33316	

AIC No. 161733-2
Sample Identification: Area 4 101512-0843

Analyte		Result	RL	Units	Qualifier
Total Solids		**79**	0.01	%	
SM 2540 G	Prep: 19-Oct-2012 1513 by 302	Analyzed: 22-Oct-2012 1029 by 302		Batch: W41404	
Aluminum		**12000**	40	mg/Kg	
EPA 3051A, 6010C	Prep: 17-Oct-2012 0942 by 100	Analyzed: 18-Oct-2012 1821 by 270		Batch: S33317	
Calcium		**3200**	10	mg/Kg	
EPA 3051A, 6010C	Prep: 17-Oct-2012 0942 by 100	Analyzed: 18-Oct-2012 1452 by 305		Batch: S33317	
Iron		**12000**	7	mg/Kg	
EPA 3051A, 6010C	Prep: 17-Oct-2012 0942 by 100	Analyzed: 18-Oct-2012 1821 by 270		Batch: S33317	
Molybdenum		**< 0.8**	0.8	mg/Kg	
EPA 3051A, 6010C	Prep: 17-Oct-2012 0942 by 100	Analyzed: 18-Oct-2012 1452 by 305		Batch: S33317	
Sodium		**160**	100	mg/Kg	
EPA 3051A, 6010C	Prep: 17-Oct-2012 0942 by 100	Analyzed: 18-Oct-2012 1827 by 305		Batch: S33317	
Sodium Absorption Ratio		**0.66**			
EPA 3051A, 6010C	Prep: 17-Oct-2012 1223 by 100	Analyzed: 18-Oct-2012 1448 by 305		Batch: S33317	
Nitrate + Nitrite as N		**17**	0.7	mg/Kg	
EPA 9056A	Prep: 17-Oct-2012 0913 by 271	Analyzed: 18-Oct-2012 0850 by 271		Batch: S33316	

AIC No. 161733-3
Sample Identification: Area 4A 101512-0855

Analyte		Result	RL	Units	Qualifier
Total Solids		**82**	0.01	%	
SM 2540 G	Prep: 19-Oct-2012 1513 by 302	Analyzed: 22-Oct-2012 1029 by 302		Batch: W41404	

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ANALYTICAL RESULTS

AIC No. 161733-3 (Continued)
Sample Identification: Area 4A 101512-0855

Analyte		Result	RL	Units	Qualifier
Aluminum		**17000**	40	**mg/Kg**	
EPA 3051A, 6010C	Prep: 17-Oct-2012 0942 by 100	Analyzed: 18-Oct-2012 1829 by 270		Batch: S33317	
Calcium		**3300**	10	**mg/Kg**	
EPA 3051A, 6010C	Prep: 17-Oct-2012 0942 by 100	Analyzed: 18-Oct-2012 1458 by 305		Batch: S33317	
Iron		**22000**	7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 17-Oct-2012 0942 by 100	Analyzed: 18-Oct-2012 1829 by 270		Batch: S33317	
Molybdenum		**0.89**	0.8	**mg/Kg**	
EPA 3051A, 6010C	Prep: 17-Oct-2012 0942 by 100	Analyzed: 18-Oct-2012 1458 by 305		Batch: S33317	
Sodium		**170**	100	**mg/Kg**	
EPA 3051A, 6010C	Prep: 17-Oct-2012 0942 by 100	Analyzed: 18-Oct-2012 1835 by 305		Batch: S33317	
Sodium Absorption Ratio		**0.65**			
EPA 3051A, 6010C	Prep: 17-Oct-2012 1223 by 100	Analyzed: 18-Oct-2012 1454 by 305		Batch: S33317	
Nitrate + Nitrite as N		**14**	0.7	**mg/Kg**	
EPA 9056A	Prep: 17-Oct-2012 0913 by 271	Analyzed: 18-Oct-2012 0916 by 271		Batch: S33316	

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Fayetteville, AR 72701

DUPLICATE RESULTS

Analyte		AIC No.	Result	RPD	RPD Limit	Preparation Date	Analysis Date	Dil	Qual
Total Solids		161869-3	84 %			19Oct12 1513 by 302	22Oct12 1029 by 302		
	Batch: W41404	Duplicate	84 %	0.526	10.0	19Oct12 1514 by 302	22Oct12 1029 by 302		

LABORATORY CONTROL SAMPLE RESULTS

Analyte	Spike Amount	%	Limits	RPD	Limit	Batch	Preparation Date	Analysis Date	Dil	Qual
Aluminum	500 mg/Kg	97.7	85.0-115			S33317	17Oct12 0942 by 100	18Oct12 1419 by 305		
Calcium	1000 mg/Kg	95.6	85.0-115			S33317	17Oct12 0942 by 100	18Oct12 1419 by 305		
Iron	500 mg/Kg	95.7	85.0-115			S33317	17Oct12 0942 by 100	18Oct12 1419 by 305		
Molybdenum	50.0 mg/Kg	93.1	85.0-115			S33317	17Oct12 0942 by 100	18Oct12 1419 by 305		
Sodium	1000 mg/Kg	98.4	85.0-115			S33317	17Oct12 0942 by 100	18Oct12 1719 by 305		
Nitrate + Nitrite as N	80.0 mg/Kg	102	90.0-110			S33316	17Oct12 0914 by 271	17Oct12 1711 by 271		

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Aluminum	161727-1	500 mg/Kg	-	75.0-125	S33317	17Oct12 0942 by 100	18Oct12 1723 by 270		X
	161727-1	499 mg/Kg	-	75.0-125	S33317	17Oct12 0942 by 100	18Oct12 1735 by 270		X
	Relative Percent Difference:		0.474	20.0	S33317				
Calcium	161727-1	999 mg/Kg	-	75.0-125	S33317	17Oct12 0942 by 100	18Oct12 1723 by 270		X
	161727-1	997 mg/Kg	-	75.0-125	S33317	17Oct12 0942 by 100	18Oct12 1735 by 270		X
	Relative Percent Difference:		0.510	20.0	S33317				
Iron	161727-1	500 mg/Kg	-	75.0-125	S33317	17Oct12 0942 by 100	18Oct12 1723 by 270		X
	161727-1	499 mg/Kg	-	75.0-125	S33317	17Oct12 0942 by 100	18Oct12 1735 by 270		X
	Relative Percent Difference:		0.214	20.0	S33317				
Molybdenum	161727-1	50.0 mg/Kg	94.2	75.0-125	S33317	17Oct12 0942 by 100	18Oct12 1424 by 305		
	161727-1	49.9 mg/Kg	93.9	75.0-125	S33317	17Oct12 0942 by 100	18Oct12 1429 by 305		
	Relative Percent Difference:		0.199	20.0	S33317				
Sodium	161727-1	999 mg/Kg	93.3	75.0-125	S33317	17Oct12 0942 by 100	18Oct12 1730 by 305		
	161727-1	997 mg/Kg	94.0	75.0-125	S33317	17Oct12 0942 by 100	18Oct12 1741 by 305		
	Relative Percent Difference:		0.448	20.0	S33317				
Nitrate + Nitrite as N	161733-1	79.8 mg/Kg	97.5	80.0-120	S33316	17Oct12 0914 by 271	17Oct12 1737 by 271		
	161733-1	80.0 mg/Kg	97.2	80.0-120	S33316	17Oct12 0914 by 271	17Oct12 1802 by 271		
	Relative Percent Difference:		0.279	10.0	S33316				

AMERICAN INTERPLEX CORPORATION
LABORATORIES

1972 2012

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1400 North Fox Hunter Road
Fayetteville, AR 72701

LABORATORY BLANK RESULTS

Analyte	Result	RL	PQL	QC Sample	Preparation Date	Analysis Date	Qual
Total Solids	< 0.01 %	0.01	0.01	W41404-1	19Oct12 1514 by 302	22Oct12 1029 by 302	
Aluminum	< 4 mg/Kg	4	4	S33317-1	17Oct12 0942 by 100	18Oct12 1415 by 305	
Calcium	< 10 mg/Kg	10	10	S33317-1	17Oct12 0942 by 100	18Oct12 1415 by 305	
Iron	< 0.7 mg/Kg	0.7	0.7	S33317-1	17Oct12 0942 by 100	18Oct12 1415 by 305	
Molybdenum	< 0.8 mg/Kg	0.8	0.8	S33317-1	17Oct12 0942 by 100	18Oct12 1415 by 305	
Sodium	< 100 mg/Kg	100	100	S33317-1	17Oct12 0942 by 100	18Oct12 1715 by 305	
Nitrate + Nitrite as N	< 0.5 mg/Kg	0.5	0.5	S33316-1	17Oct12 0914 by 271	17Oct12 1645 by 271	

AMERICAN INTERPLEX CORPORATION
LABORATORIES

8600 Kanis Road
Little Rock, AR 72204-2322
(501) 224-5060
(501) 224-5072

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client: CH2M HILL
Project Reference: Fayetteville
Lab Manager: Bruce Richart
Sampled By: Conrad Luker, Anthony DeJesus, Nick King
PO No. CREDIT CARD
AIC CONTROL NO: 161733
AIC PROPOSAL NO:
Carrier: FED EX
Received on Ice (4 C)? YES 2 °C NO

AIC No.	Sample Identification	Date/Time Collected	Sample Matrix: GRAB	COMP	WATER	SOIL	SLUDGE	NO OF Bottles	sodium adsorption ratio (SAR)	calcium	sodium	nitrate + nitrite nitrogen	molybdenum	aluminum	iron	metals*	total solids (%)	Remarks
1	Area 3A	101512-0926	X			X		1	X	X	X	X	X	X	X			
2	Area 4	101512-0843	X			X		1	X	X	X	X	X	X	X			
3	Area 4A	101512-0855	X			X		1	X	X	X	X	X	X	X			
4	WR 001	1400-1200 101412-101512		X	X			2								X	X	*arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, zinc
																		See CN# 161734
		Container Type																Field pH calibration
		Preservative																on _____ @ _____
																		Buffer:

SLAB 10-16-12

G = Glass, P = Plastic, V = VOA vials, H = HCl to pH 2, T = Sodium Thiosulfate
NO = none, S = Sulfuric acid pH 2, N = Nitric acid pH 2, B = NaOH to pH 12, Z = Zinc acetate

Turnaround Time Requested: (Please circle)
NORMAL OR EXPEDITED IN ___ DAYS
Expedited results requested by: _____
Who should AIC contact with questions: Bruce Richart
Phone: (474) 443-3292 Fax: (479) 443-5613
Report Attention to: Bruce Richart
Report Address to: 1400 N. Fox Hunter Rd. Fayetteville, AR 72701

Relinquished By:	Date/Time	Received By:	Date/Time
	101512 - 1331		
Relinquished By:	Date/Time	Received By:	Date/Time
			10-16-12 9:15am

Comments:
Please generate separate reports and invoices for the soil and water samples. Please express results for WR 001 sample in ug/l and mg/kg.

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