Springdale Water Utilities

526 Oak Avenue P.O. Box 769 Springdale, Arkansas 72765-0769 (479) 751-5751

Enforcement Branch
Arkansas Dept. of Environmental Quality
5301 Northshore Dr.
North Little Rock, AR 72118-5317

RE: NPDES Permit No. AR0022063
AFIN #72-00003
Springdale, AR

December 12, 2013

Dear Sir or Madame:

Enclosed please find the results of fourth quarter Ceriodaphnia dubia and Pimephales promelas analyses, and fourth quarter Table III analyses conducted on Springdale Water Utilities' wastewater treatment facility influent, effluent, and sludge (belt press influent) for 2013. These analyses are required by our NPDES Permit.

Please feel free to call Ms. Jennifer Enos at (479)756-3657 if you have any questions concerning these analyses.

Sincerely yours,

Heath Ward
Executive Director

JEE/jee
Enclosures
Cc: Jennifer Enos, SWU
Alison West, ADEQ
Mary Barnett, ADEQ
File

Springdale Water Utilities

Springdale, Arkansas

System Overflow Report for November 2013

This report submitted to Arkansas Department of Environmental Quality in compliance with Permit Number AR0022063 AFIN: 72-00003

Date	Time	Duration	Address	Est. Vol.	Cause of overflow	Remedial Action	Environmental Impact	Discharge Location
11/25/2013	8:30 am – 9:30 am	1 hr.	1301 N. West End St. Springdale, AR	300 gal	Grease/Debris	Jet-Vac	None	Overflow from private cleanout went into ditch.
11/26/2013	2:30 pm – 3:00 pm	30 min.	Intersection of W. Robinson Ave & Stone St. Springdale, AR	500 gal	Grease	Jet-Vac/Hydro Cleaned	None	Overflow went into storm drain.

"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 all 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."

Signature Heath A. Ward **Date** 12-12-2013

Huther and Associates, Inc.

environmental toxicologists, biologists, and consultants

CITY OF SPRINGDALE WWTF
NPDES PERMIT NO. AR0022063
AFIN NO. 72-00003
BIOMONITORING REPORTING
TEST DATE: 11/19/13

I. *Ceriodaphnia dubia*	**Response**
(A) If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0". Parameter No. TLP3B.	0
(B) Report the NOEC value for survival, Parameter No. TOP3B.	97%
(C) Report the NOEC value for reproduction, Parameter No. TPP3B.	97%
(D) If the NOEC for reproduction is less than the critical dilution, enter a "1"; otherwise, enter a "0". Parameter No. TGP3B.	0
(E) Report the higher (critical dilution or control) Coefficient of Variation, Parameter No. TQP3B.	7.54%

II. *Pimephales promelas* (fathead minnow)	**Response**
(A) If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0". Parameter No. TLP6C.	0
(B) Report the NOEC value for survival, Parameter No. TOP6C.	97%
(C) Report the NOEC value for growth, Parameter No. TPP6C.	97%
(D) If the No Observed Effect Concentration (NOEC) for growth is less than the critical dilution, enter a "1"; otherwise, enter a "0". Parameter No. TGP6C.	0
(E) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQP6C.	7.78%
22415 Retest Number 1	Leave Blank
22416 Retest Number 2	Leave Blank

1156 North Bonnie Brae Denton, Texas 76201 Ph: (940) 387-1025 Fax: (940) 387-1036

Mercury One LTD

Mercury Analysis

Analytical Report
EPA Method 1631E

Report #: 13-2698
Page 1 of 2
12/6/13

Customer Name: Springdale Water Utlilities
P.O. Box 769
Springdale, AR 72765-0769

Attention: Jennefer Enos
Project/PO# 0

Lab /(Field ID) or (Customer ID)	Results ng/L	Results ng/L	Results ng/L	Results ng/L	Mercury One ID:
Plant Effluent (Composite Samples 1-4)	**1.50**				131202-13
Plant Influent (Composite Samples 1-4)		**43.2**			131202-14
Field Blank			**<0.2**		131202-15
Sample Type	Effluent	Influent	Field Blank		
Date Sampled:	11/21-22/13	11/18-19/13	11/18-19/13		
Date Received:	12/2/13	12/2/13	12/2/13		
Date Prepared:	12/2/13	12/2/13	12/2/13		
Date Analyzed:	12/5/13	12/5/13	12/5/13		
Time Analyzed:	10:02	12:32	10:14		
Dilution Factor					**QCS/MS/MSD**
High Cal used					**Acceptable Range**
QCS (Quality Control Standard)	92%				71-124%
Method Blank Result	<0.2	Method Blank Requirement			<0.2

M= Modified: See Below for Explanation

Dilution Factors are calculated into the results.

RPD Acceptable Range <20%

Matrix Spike/ Matrix Spike Duplicate Recoveries — MS/MSD Acceptable Range 71-129%

Mercury One Sample ID	**% MS Recovery**	**% MSD Recovery**	**RPD**

New Reporting Requirements- Some states now require reporting values between the detection limit (MDL) and the reporting limit (PQL) rather than using a <0.5 value

***J See Below**

The results are related only to the samples presented on this report.
The test results are certified to meet all requirements of NELAC.

Arkansas Cert# 88-0911
West Virginia Cert # 348
North Carolina Cert # 662

Other Codes

Other Comments: J = Estimated result , R = Rejected,

Reason for J or R flag:

*** A value found between the Reporting Limit and the Method Detection Limit is considered estimated**

William W. Purves

Rev 4 6/23/11

Phone: 330-963-0843 2241 Pinnacle Parkway, Suite B, Twinsburg, OH 44087 Fax: 330-963-1016

Mercury One LTD

Mercury Analysis

Analytical Report **Report #: 13-2698**

EPA Method 1631E **Page 2 of 2**

The Calibration Range of the Instrument
0.5 to 200 ng/L
The instrument detection Limit for 2013 is 0.06ng/L
Method Detection Limit 0.2ng/L
Method Reporting Limit 0.5ng/L

swu01 Springdale Water Utlilities

High Cal
Calibration Range for High Concentration Samples
5 to 2500 ng/L
The instrument detection Limit for 2013 is 1ng/L
High cal Detection Limit 2 ng/L
High cal Reporting Limit 5 ng/L

Dilutions occur for the following reasons:

1. **Sample concentration is over the analytical range of the instrument.**
2. **Sample contains high solids and must be diluted to avoid interference.**
3. **Sample foams during purge and the sample is diluted to avoid foam entering the analytical cell.**
4. **Sample foams and an interference is perceived during analysis, sample is diluted to avoid interference.**

Comments:

Chain of Custody

Mercury One Ltd.
2241 Pinnacle Parkway, Suite B
Twinsburg, OH 44087
Phone: 330-963-0843
Fax: 330-963-1016
E-Mail: customerservice@mercuryoneltd.com

Method 1631 Mercury

Other: _____

ATTN: BRAD STEWART

Client: SPRINGDALE WATER UTILITIES

Address: P.O. BOX 769

City: SPRINGDALE **State:** AR **Zip:** 72762

Phone: 479-756-3659 **Fax:** 479-750-7195 **E-Mail:** bstewart@springdalewater.com

Sampled By: LABORATORY STAFF

Collection Date	Time	Sample Matrix	Comp/ Grab	Sample Description/Comments	Mercury One Lab ID
11/21/13	0800	WATER	GRAB	PLANT EFFLUENT	
11/21/13	1100	WATER	GRAB	PLANT EFFLUENT (TO BE COMPOSITED)	131202-13a,b,c,d
11/21/13	1500	WATER	GRAB	PLANT EFFLUENT (TO BE COMPOSITED)	
11/22/13	0800	WATER	GRAB	PLANT EFFLUENT (TO BE COMPOSITED)	
11/18/13	0830	WATER	GRAB	PLANT INFLUENT	
11/18/13	1100	WATER	GRAB	PLANT INFLUENT (TO BE COMPOSITED)	131202-14a,b,c,d
11/18/13	1600	WATER	GRAB	PLANT INFLUENT (TO BE COMPOSITED)	
11/19/13	0850	WATER	GRAB	PLANT INFLUENT (TO BE COMPOSITED)	
BLANK	1100	WATER	GRAB	BLANK	131202-15

Relinquished By: Jack Weaver **Date:** 11/25/13 **Time:** 0900

Received By: UPS Driver **Date:** 11/26 **Time:** 1320

Relinquished By: _____ **Date:** 12/2/13 **Time:** _____

Received By: _____ **Date:** _____ **Time:** _____

Use multiple lines for description if necessary.

Temp [ ]

AMERICAN INTERPLEX CORPORATION
LABORATORIES

Springdale Water Utilities
ATTN: Mr. Brad Stewart
Post Office Box 769
Springdale, AR 72762

This report contains the analytical results and supporting information for samples submitted on November 26, 2013. 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: Springdale Water Utilities
ATTN: Mr. Brad Stewart
bstewart@springdalewater.com

AMERICAN INTERPLEX CORPORATION LABORATORIES

Springdale Water Utilities
Post Office Box 769
Springdale, AR 72762

SAMPLE INFORMATION

Project Description:
Four (4) water and one (1) sludge sample(s) received on November 26, 2013
Table III
P.O. No. 0017754 00

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
172950-1	Effluent 11/21/13 0000, 0600, 1200, 1800	21-Nov-2013 1800	
172950-2	Effluent 11/21/13 0000 - 2400	21-Nov-2013 2359	
172950-3	Influent 11/18-19/13 1100, 1700, 2300, 0600	19-Nov-2013 0600	
172950-4	Influent 11/18-19/13 1100 - 0900	19-Nov-2013 0900	
172950-5	Belt Press Influent 11/22/13 0715	22-Nov-2013 0715	

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).

AMERICAN INTERPLEX CORPORATION LABORATORIES

Springdale Water Utilities
Post Office Box 769
Springdale, AR 72762

ANALYTICAL RESULTS

AIC No. 172950-1
Sample Identification: Effluent 11/21/13 0000, 0600, 1200, 1800

Analyte		Result	RL	Units	Qualifier
Total Recoverable Phenolics		**18**	5	ug/l	
EPA 420.1	Prep: 27-Nov-2013 1316 by 308	Analyzed: 27-Nov-2013 1600 by 308		Batch: W45800	
Total Cyanide		**< 10**	10	ug/l	
SM 4500-CN C,E 1999	Prep: 27-Nov-2013 0949 by 308	Analyzed: 27-Nov-2013 1215 by 308		Batch: W45795	

AIC No. 172950-2
Sample Identification: Effluent 11/21/13 0000 - 2400

Analyte		Result	RL	Units	Qualifier
Total Recoverable Antimony		**< 60**	60	ug/l	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1429 by 305		Batch: S35861	
Total Recoverable Arsenic		**< 0.5**	0.5	ug/l	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1429 by 305		Batch: S35861	
Total Recoverable Beryllium		**< 0.5**	0.5	ug/l	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1429 by 305		Batch: S35861	
Total Recoverable Cadmium		**< 0.5**	0.5	ug/l	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1429 by 305		Batch: S35861	
Total Recoverable Chromium		**< 10**	10	ug/l	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1429 by 305		Batch: S35861	
Total Recoverable Copper		**4.7**	0.5	ug/l	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1429 by 305		Batch: S35861	
Total Recoverable Lead		**< 0.5**	0.5	ug/l	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1429 by 305		Batch: S35861	
Total Recoverable Molybdenum		**< 8**	8	ug/l	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1429 by 305		Batch: S35861	
Total Recoverable Nickel		**5.3**	0.5	ug/l	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1429 by 305		Batch: S35861	
Total Recoverable Selenium		**< 5**	5	ug/l	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1429 by 305		Batch: S35861	
Total Recoverable Silver		**< 0.5**	0.5	ug/l	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1429 by 305		Batch: S35861	
Total Recoverable Thallium		**< 0.5**	0.5	ug/l	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1429 by 305		Batch: S35861	
Total Recoverable Zinc		**55**	20	ug/l	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1429 by 305		Batch: S35861	

AIC No. 172950-3
Sample Identification: Influent 11/18-19/13 1100, 1700, 2300, 0600

Analyte		Result	RL	Units	Qualifier
Total Recoverable Phenolics		**150**	5	ug/l	
EPA 420.1	Prep: 27-Nov-2013 1316 by 308	Analyzed: 27-Nov-2013 1600 by 308		Batch: W45800	

AMERICAN INTERPLEX CORPORATION LABORATORIES

Springdale Water Utilities
Post Office Box 769
Springdale, AR 72762

ANALYTICAL RESULTS

AIC No. 172950-3 (Continued)
Sample Identification: Influent 11/18-19/13 1100, 1700, 2300, 0600

Analyte		Result	RL	Units	Qualifier
Total Cyanide		**< 10**	10	**ug/l**	
SM 4500-CN C,E 1999	Prep: 27-Nov-2013 0949 by 308	Analyzed: 27-Nov-2013 1221 by 308		Batch: W45795	

AIC No. 172950-4
Sample Identification: Influent 11/18-19/13 1100 - 0900

Analyte		Result	RL	Units	Qualifier
Total Recoverable Antimony		**< 60**	60	**ug/l**	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1434 by 305		Batch: S35861	
Total Recoverable Arsenic		**1.2**	0.5	**ug/l**	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1434 by 305		Batch: S35861	
Total Recoverable Beryllium		**< 0.5**	0.5	**ug/l**	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1434 by 305		Batch: S35861	
Total Recoverable Cadmium		**< 0.5**	0.5	**ug/l**	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1434 by 305		Batch: S35861	
Total Recoverable Chromium		**< 10**	10	**ug/l**	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1434 by 305		Batch: S35861	
Total Recoverable Copper		**25**	0.5	**ug/l**	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1434 by 305		Batch: S35861	
Total Recoverable Lead		**0.91**	0.5	**ug/l**	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1434 by 305		Batch: S35861	
Total Recoverable Molybdenum		**< 8**	8	**ug/l**	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1434 by 305		Batch: S35861	
Total Recoverable Nickel		**19**	0.5	**ug/l**	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1434 by 305		Batch: S35861	
Total Recoverable Selenium		**< 5**	5	**ug/l**	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1434 by 305		Batch: S35861	
Total Recoverable Silver		**< 0.5**	0.5	**ug/l**	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1434 by 305		Batch: S35861	
Total Recoverable Thallium		**< 0.5**	0.5	**ug/l**	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1434 by 305		Batch: S35861	
Total Recoverable Zinc		**100**	20	**ug/l**	
EPA 200.8	Prep: 27-Nov-2013 0827 by 305	Analyzed: 27-Nov-2013 1434 by 305		Batch: S35861	

AIC No. 172950-5
Sample Identification: Belt Press Influent 11/22/13 0715

Analyte		Result	RL	Units	Qualifier
Total Cyanide		**< 4**	4	**mg/Kg**	
EPA 9010C, 9014	Prep: 27-Nov-2013 0733 by 308	Analyzed: 27-Nov-2013 1119 by 308		Batch: W45790	
Total Recoverable Phenolics		**110**	20	**mg/Kg**	
EPA 9065	Prep: 27-Nov-2013 0732 by 308	Analyzed: 27-Nov-2013 1130 by 308		Batch: W45789	

AMERICAN INTERPLEX CORPORATION LABORATORIES

Springdale Water Utilities
Post Office Box 769
Springdale, AR 72762

ANALYTICAL RESULTS

AIC No. 172950-5 (Continued)
Sample Identification: Belt Press Influent 11/22/13 0715

Analyte		Result	RL	Units	Qualifier
Total Solids		**3.0**	0.01	**wt %**	
SM 2540 G 1997	Prep: 27-Nov-2013 1347 by 302	Analyzed: 02-Dec-2013 0951 by 302		Batch: W45801	
Antimony		**< 3**	3	**mg/Kg**	
EPA 3051A, 6010C	Prep: 02-Dec-2013 0915 by 271	Analyzed: 03-Dec-2013 1518 by 305		Batch: S35876	
Arsenic		**< 5**	5	**mg/Kg**	
EPA 3051A, 6010C	Prep: 02-Dec-2013 0915 by 271	Analyzed: 03-Dec-2013 1518 by 305		Batch: S35876	
Beryllium		**0.060**	0.03	**mg/Kg**	
EPA 3051A, 6010C	Prep: 02-Dec-2013 0915 by 271	Analyzed: 03-Dec-2013 1518 by 305		Batch: S35876	
Cadmium		**0.57**	0.4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 02-Dec-2013 0915 by 271	Analyzed: 03-Dec-2013 1518 by 305		Batch: S35876	
Chromium		**21**	0.7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 02-Dec-2013 0915 by 271	Analyzed: 03-Dec-2013 1518 by 305		Batch: S35876	
Copper		**110**	0.6	**mg/Kg**	
EPA 3051A, 6010C	Prep: 02-Dec-2013 0915 by 271	Analyzed: 03-Dec-2013 1518 by 305		Batch: S35876	
Lead		**< 4**	4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 02-Dec-2013 0915 by 271	Analyzed: 03-Dec-2013 1518 by 305		Batch: S35876	
Molybdenum		**4.5**	0.8	**mg/Kg**	
EPA 3051A, 6010C	Prep: 02-Dec-2013 0915 by 271	Analyzed: 03-Dec-2013 1518 by 305		Batch: S35876	
Nickel		**52**	1	**mg/Kg**	
EPA 3051A, 6010C	Prep: 02-Dec-2013 0915 by 271	Analyzed: 03-Dec-2013 1518 by 305		Batch: S35876	
Selenium		**< 7**	7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 02-Dec-2013 0915 by 271	Analyzed: 03-Dec-2013 1518 by 305		Batch: S35876	
Silver		**1.9**	0.7	**mg/Kg**	
EPA 3051A, 6010C	Prep: 02-Dec-2013 0915 by 271	Analyzed: 03-Dec-2013 1518 by 305		Batch: S35876	
Thallium		**< 4**	4	**mg/Kg**	
EPA 3051A, 6010C	Prep: 02-Dec-2013 0915 by 271	Analyzed: 03-Dec-2013 1518 by 305		Batch: S35876	
Zinc		**250**	0.2	**mg/Kg**	
EPA 3051A, 6010C	Prep: 02-Dec-2013 0915 by 271	Analyzed: 03-Dec-2013 1518 by 305		Batch: S35876	
Mercury		**0.20**	0.1	**mg/Kg**	
EPA 7471B	Prep: 27-Nov-2013 0924 by 311	Analyzed: 02-Dec-2013 1624 by 311		Batch: S35863	

AMERICAN INTERPLEX CORPORATION LABORATORIES

Springdale Water Utilities
Post Office Box 769
Springdale, AR 72762

DUPLICATE RESULTS

Analyte		AIC No.	Result	RPD	RPD Limit	Preparation Date	Analysis Date	Dil	Qual
Total Solids		172983-1	2.2 wt %			27Nov13 1347 by 302	02Dec13 0951 by 302		
	Batch: W45801	Duplicate	2.1 wt %	5.48	10.0	27Nov13 1347 by 302	02Dec13 0951 by 302		

LABORATORY CONTROL SAMPLE RESULTS

Analyte	Spike Amount	%	Limits	RPD	Limit	Batch	Preparation Date	Analysis Date	Dil	Qual
Total Recoverable Phenolics	0.1 mg/l	90.4	85.0-115			W45800	27Nov13 1316 by 308	27Nov13 1600 by 308		
Total Cyanide	0.1 mg/l	92.5	85.0-115			W45795	27Nov13 0950 by 308	27Nov13 1213 by 308		
Total Recoverable Antimony	0.05 mg/l	101	85.0-115			S35861	27Nov13 0828 by 305	27Nov13 1526 by 305		
Total Recoverable Arsenic	0.05 mg/l	101	85.0-115			S35861	27Nov13 0828 by 305	27Nov13 1526 by 305		
Total Recoverable Beryllium	0.05 mg/l	97.6	85.0-115			S35861	27Nov13 0828 by 305	27Nov13 1526 by 305		
Total Recoverable Cadmium	0.05 mg/l	102	85.0-115			S35861	27Nov13 0828 by 305	27Nov13 1526 by 305		
Total Recoverable Chromium	0.05 mg/l	96.9	85.0-115			S35861	27Nov13 0828 by 305	27Nov13 1526 by 305		
Total Recoverable Copper	0.05 mg/l	102	85.0-115			S35861	27Nov13 0828 by 305	27Nov13 1526 by 305		
Total Recoverable Lead	0.05 mg/l	99.6	85.0-115			S35861	27Nov13 0828 by 305	27Nov13 1526 by 305		
Total Recoverable Molybdenum	0.05 mg/l	98.2	85.0-115			S35861	27Nov13 0828 by 305	27Nov13 1526 by 305		
Total Recoverable Nickel	0.05 mg/l	100	85.0-115			S35861	27Nov13 0828 by 305	27Nov13 1526 by 305		
Total Recoverable Selenium	0.05 mg/l	97.3	85.0-115			S35861	27Nov13 0828 by 305	27Nov13 1526 by 305		
Total Recoverable Silver	0.02 mg/l	112	85.0-115			S35861	27Nov13 0828 by 305	27Nov13 1526 by 305		
Total Recoverable Thallium	0.05 mg/l	101	85.0-115			S35861	27Nov13 0828 by 305	27Nov13 1526 by 305		
Total Recoverable Zinc	0.05 mg/l	101	85.0-115			S35861	27Nov13 0828 by 305	27Nov13 1526 by 305		
Total Cyanide	0.500 mg/Kg	90.5	85.0-115			W45790	27Nov13 0733 by 308	27Nov13 1117 by 308		
Total Recoverable Phenolics	10.0 mg/Kg	97.0	85.0-115			W45789	27Nov13 0732 by 308	27Nov13 1130 by 308		
Antimony	500 mg/Kg	103	85.0-115			S35876	02Dec13 0915 by 271	03Dec13 1450 by 305		
Arsenic	500 mg/Kg	104	85.0-115			S35876	02Dec13 0915 by 271	03Dec13 1450 by 305		
Beryllium	50.0 mg/Kg	102	85.0-115			S35876	02Dec13 0915 by 271	03Dec13 1450 by 305		
Cadmium	500 mg/Kg	99.1	85.0-115			S35876	02Dec13 0915 by 271	03Dec13 1450 by 305		
Chromium	50.0 mg/Kg	102	85.0-115			S35876	02Dec13 0915 by 271	03Dec13 1450 by 305		
Copper	50.0 mg/Kg	97.1	85.0-115			S35876	02Dec13 0915 by 271	03Dec13 1450 by 305		
Lead	500 mg/Kg	104	85.0-115			S35876	02Dec13 0915 by 271	03Dec13 1450 by 305		
Molybdenum	50.0 mg/Kg	105	85.0-115			S35876	02Dec13 0915 by 271	03Dec13 1450 by 305		
Nickel	50.0 mg/Kg	104	85.0-115			S35876	02Dec13 0915 by 271	03Dec13 1450 by 305		
Selenium	500 mg/Kg	98.5	85.0-115			S35876	02Dec13 0915 by 271	03Dec13 1450 by 305		
Silver	10.0 mg/Kg	94.9	85.0-115			S35876	02Dec13 0915 by 271	03Dec13 1450 by 305		
Thallium	500 mg/Kg	108	85.0-115			S35876	02Dec13 0915 by 271	03Dec13 1450 by 305		
Zinc	50.0 mg/Kg	99.7	85.0-115			S35876	02Dec13 0915 by 271	03Dec13 1450 by 305		
Mercury	1.25 mg/Kg	93.5	85.0-115			S35863	27Nov13 0924 by 311	02Dec13 1601 by 311		

AMERICAN INTERPLEX CORPORATION LABORATORIES

Springdale Water Utilities
Post Office Box 769
Springdale, AR 72762

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Total Recoverable Phenolics	172950-1	0.1 mg/l	93.2	80.0-120	W45800	27Nov13 1316 by 308	27Nov13 1600 by 308		
	172950-1	0.1 mg/l	96.1	80.0-120	W45800	27Nov13 1316 by 308	27Nov13 1600 by 308		
	Relative Percent Difference:		2.56	10.0	W45800				
Total Cyanide	172950-1	0.1 mg/l	80.9	75.0-125	W45795	27Nov13 0950 by 308	27Nov13 1217 by 308		
	172950-1	0.1 mg/l	87.0	75.0-125	W45795	27Nov13 0950 by 308	27Nov13 1219 by 308		
	Relative Percent Difference:		7.09	20.0	W45795				
Total Recoverable Antimony	172968-1	0.05 mg/l	123	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1335 by 305		
	172968-1	0.05 mg/l	125	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1341 by 305		
	Relative Percent Difference:		1.51	20.0	S35861				
Total Recoverable Arsenic	172968-1	0.05 mg/l	101	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1335 by 305		
	172968-1	0.05 mg/l	98.3	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1341 by 305		
	Relative Percent Difference:		2.71	20.0	S35861				
Total Recoverable Beryllium	172968-1	0.05 mg/l	99.2	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1335 by 305		
	172968-1	0.05 mg/l	98.8	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1341 by 305		
	Relative Percent Difference:		0.376	20.0	S35861				
Total Recoverable Cadmium	172968-1	0.05 mg/l	102	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1335 by 305		
	172968-1	0.05 mg/l	101	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1341 by 305		
	Relative Percent Difference:		0.198	20.0	S35861				
Total Recoverable Chromium	172968-1	0.05 mg/l	98.1	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1335 by 305		
	172968-1	0.05 mg/l	98.0	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1341 by 305		
	Relative Percent Difference:		0.115	20.0	S35861				
Total Recoverable Copper	172968-1	0.05 mg/l	102	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1335 by 305		
	172968-1	0.05 mg/l	103	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1341 by 305		
	Relative Percent Difference:		0.941	20.0	S35861				
Total Recoverable Lead	172968-1	0.05 mg/l	106	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1335 by 305		
	172968-1	0.05 mg/l	105	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1341 by 305		
	Relative Percent Difference:		0.628	20.0	S35861				
Total Recoverable Molybdenum	172968-1	0.05 mg/l	102	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1335 by 305		
	172968-1	0.05 mg/l	102	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1341 by 305		
	Relative Percent Difference:		0.0759	20.0	S35861				
Total Recoverable Nickel	172968-1	0.05 mg/l	124	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1335 by 305		
	172968-1	0.05 mg/l	124	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1341 by 305		
	Relative Percent Difference:		0.561	20.0	S35861				
Total Recoverable Selenium	172968-1	0.05 mg/l	94.9	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1335 by 305		
	172968-1	0.05 mg/l	94.6	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1341 by 305		
	Relative Percent Difference:		0.347	20.0	S35861				
Total Recoverable Silver	172968-1	0.02 mg/l	104	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1335 by 305		
	172968-1	0.02 mg/l	105	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1341 by 305		
	Relative Percent Difference:		1.04	20.0	S35861				
Total Recoverable Thallium	172968-1	0.05 mg/l	113	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1335 by 305		
	172968-1	0.05 mg/l	113	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1341 by 305		
	Relative Percent Difference:		0.691	20.0	S35861				
Total Recoverable Zinc	172968-1	0.05 mg/l	104	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1335 by 305		
	172968-1	0.05 mg/l	105	75.0-125	S35861	27Nov13 0828 by 305	27Nov13 1341 by 305		
	Relative Percent Difference:		1.16	20.0	S35861				
Total Cyanide	172950-5	0.969 mg/Kg	85.9	75.0-125	W45790	27Nov13 0733 by 308	27Nov13 1121 by 308		
	172950-5	0.999 mg/Kg	85.1	75.0-125	W45790	27Nov13 0733 by 308	27Nov13 1122 by 308		
	Relative Percent Difference:		1.48	20.0	W45790				
Total Recoverable Phenolics	172950-5	9.78 mg/Kg	81.5	80.0-120	W45789	27Nov13 0732 by 308	27Nov13 1130 by 308		
	172950-5	9.72 mg/Kg	84.2	80.0-120	W45789	27Nov13 0732 by 308	27Nov13 1130 by 308		
	Relative Percent Difference:		2.40	10.0	W45789				

AMERICAN INTERPLEX CORPORATION LABORATORIES

Springdale Water Utilities
Post Office Box 769
Springdale, AR 72762

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Antimony	173024-1	498 mg/Kg	89.8	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1454 by 305		
	173024-1	493 mg/Kg	90.0	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1459 by 305		
	Relative Percent Difference:		0.376	20.0	S35876				
Arsenic	173024-1	498 mg/Kg	92.7	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1454 by 305		
	173024-1	493 mg/Kg	92.9	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1459 by 305		
	Relative Percent Difference:		0.354	20.0	S35876				
Beryllium	173024-1	49.8 mg/Kg	94.1	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1454 by 305		
	173024-1	49.3 mg/Kg	94.3	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1459 by 305		
	Relative Percent Difference:		0.251	20.0	S35876				
Cadmium	173024-1	498 mg/Kg	90.1	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1454 by 305		
	173024-1	493 mg/Kg	90.3	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1459 by 305		
	Relative Percent Difference:		0.304	20.0	S35876				
Chromium	173024-1	49.8 mg/Kg	96.4	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1454 by 305		
	173024-1	49.3 mg/Kg	96.7	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1459 by 305		
	Relative Percent Difference:		0.266	20.0	S35876				
Copper	173024-1	49.8 mg/Kg	94.8	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1454 by 305		
	173024-1	49.3 mg/Kg	94.7	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1459 by 305		
	Relative Percent Difference:		0.0628	20.0	S35876				
Lead	173024-1	498 mg/Kg	97.4	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1454 by 305		
	173024-1	493 mg/Kg	97.8	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1459 by 305		
	Relative Percent Difference:		0.412	20.0	S35876				
Molybdenum	173024-1	49.8 mg/Kg	98.5	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1454 by 305		
	173024-1	49.3 mg/Kg	98.7	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1459 by 305		
	Relative Percent Difference:		0.265	20.0	S35876				
Nickel	173024-1	49.8 mg/Kg	98.3	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1454 by 305		
	173024-1	49.3 mg/Kg	98.4	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1459 by 305		
	Relative Percent Difference:		0.115	20.0	S35876				
Selenium	173024-1	498 mg/Kg	81.7	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1454 by 305		
	173024-1	493 mg/Kg	81.9	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1459 by 305		
	Relative Percent Difference:		0.554	20.0	S35876				
Silver	173024-1	9.97 mg/Kg	89.8	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1454 by 305		
	173024-1	9.85 mg/Kg	90.5	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1459 by 305		
	Relative Percent Difference:		0.875	20.0	S35876				
Thallium	173024-1	498 mg/Kg	104	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1454 by 305		
	173024-1	493 mg/Kg	105	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1459 by 305		
	Relative Percent Difference:		0.403	20.0	S35876				
Zinc	173024-1	49.8 mg/Kg	94.4	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1454 by 305		
	173024-1	49.3 mg/Kg	93.2	75.0-125	S35876	02Dec13 0915 by 271	03Dec13 1459 by 305		
	Relative Percent Difference:		0.454	20.0	S35876				
Mercury	172892-1	1.24 mg/Kg	77.6	70.0-130	S35863	27Nov13 0924 by 311	02Dec13 1605 by 311		
	172892-1	1.23 mg/Kg	73.6	70.0-130	S35863	27Nov13 0924 by 311	02Dec13 1608 by 311		
	Relative Percent Difference:		1.97	20.0	S35863				

AMERICAN INTERPLEX CORPORATION LABORATORIES

Springdale Water Utilities
Post Office Box 769
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LABORATORY BLANK RESULTS

Analyte	Result	RL	PQL	QC Sample	Preparation Date	Analysis Date	Qual
Total Recoverable Phenolics	< 0.005 mg/l	0.005	0.005	W45800-1	27Nov13 1316 by 308	27Nov13 1600 by 308	
Total Cyanide	< 0.01 mg/l	0.01	0.01	W45795-1	27Nov13 0950 by 308	27Nov13 1212 by 308	
Total Recoverable Antimony	< 0.03 mg/l	0.03	0.03	S35861-1	27Nov13 0828 by 305	27Nov13 1325 by 305	
Total Recoverable Arsenic	< 0.0005 mg/l	0.0005	0.0005	S35861-1	27Nov13 0828 by 305	27Nov13 1325 by 305	
Total Recoverable Beryllium	< 0.0003 mg/l	0.0003	0.0003	S35861-1	27Nov13 0828 by 305	27Nov13 1325 by 305	
Total Recoverable Cadmium	< 0.0001 mg/l	0.0001	0.0001	S35861-1	27Nov13 0828 by 305	27Nov13 1325 by 305	
Total Recoverable Chromium	< 0.007 mg/l	0.007	0.007	S35861-1	27Nov13 0828 by 305	27Nov13 1325 by 305	
Total Recoverable Copper	< 0.0005 mg/l	0.0005	0.0005	S35861-1	27Nov13 0828 by 305	27Nov13 1325 by 305	
Total Recoverable Lead	< 0.0005 mg/l	0.0005	0.0005	S35861-1	27Nov13 0828 by 305	27Nov13 1325 by 305	
Total Recoverable Molybdenum	< 0.008 mg/l	0.008	0.008	S35861-1	27Nov13 0828 by 305	27Nov13 1325 by 305	
Total Recoverable Nickel	< 0.0005 mg/l	0.0005	0.0005	S35861-1	27Nov13 0828 by 305	27Nov13 1325 by 305	
Total Recoverable Selenium	< 0.002 mg/l	0.002	0.002	S35861-1	27Nov13 0828 by 305	27Nov13 1325 by 305	
Total Recoverable Silver	< 0.0002 mg/l	0.0002	0.0002	S35861-1	27Nov13 0828 by 305	27Nov13 1325 by 305	
Total Recoverable Thallium	< 0.0005 mg/l	0.0005	0.0005	S35861-1	27Nov13 0828 by 305	27Nov13 1325 by 305	
Total Recoverable Zinc	< 0.002 mg/l	0.002	0.002	S35861-1	27Nov13 0828 by 305	27Nov13 1325 by 305	
Total Cyanide	< 0.1 mg/Kg	0.1	0.1	W45790-1	27Nov13 0733 by 308	27Nov13 1116 by 308	
Total Recoverable Phenolics	< 0.5 mg/Kg	0.5	0.5	W45789-1	27Nov13 0732 by 308	27Nov13 1130 by 308	
Total Solids	< 0.01 wt %	0.01	0.01	W45801-1	27Nov13 1347 by 302	02Dec13 0951 by 302	
Antimony	< 3 mg/Kg	3	3	S35876-1	02Dec13 0915 by 271	03Dec13 1446 by 305	
Arsenic	< 5 mg/Kg	5	5	S35876-1	02Dec13 0915 by 271	03Dec13 1446 by 305	
Beryllium	< 0.03 mg/Kg	0.03	0.03	S35876-1	02Dec13 0915 by 271	03Dec13 1446 by 305	
Cadmium	< 0.4 mg/Kg	0.4	0.4	S35876-1	02Dec13 0915 by 271	03Dec13 1446 by 305	
Chromium	< 0.7 mg/Kg	0.7	0.7	S35876-1	02Dec13 0915 by 271	03Dec13 1446 by 305	
Copper	< 0.6 mg/Kg	0.6	0.6	S35876-1	02Dec13 0915 by 271	03Dec13 1446 by 305	
Lead	< 4 mg/Kg	4	4	S35876-1	02Dec13 0915 by 271	03Dec13 1446 by 305	
Molybdenum	< 0.8 mg/Kg	0.8	0.8	S35876-1	02Dec13 0915 by 271	03Dec13 1446 by 305	
Nickel	< 1 mg/Kg	1	1	S35876-1	02Dec13 0915 by 271	03Dec13 1446 by 305	
Selenium	< 7 mg/Kg	7	7	S35876-1	02Dec13 0915 by 271	03Dec13 1446 by 305	
Silver	< 0.7 mg/Kg	0.7	0.7	S35876-1	02Dec13 0915 by 271	03Dec13 1446 by 305	
Thallium	< 4 mg/Kg	4	4	S35876-1	02Dec13 0915 by 271	03Dec13 1446 by 305	
Zinc	< 0.2 mg/Kg	0.2	0.2	S35876-1	02Dec13 0915 by 271	03Dec13 1446 by 305	
Mercury	< 0.1 mg/Kg	0.1	0.1	S35863-1	27Nov13 0924 by 311	02Dec13 1558 by 311	

AMERICAN INTERPLEX CORPORATION LABORATORIES

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client: SPRINGDALE WATER UTILITIES
PO No. 0019954 00
Project Reference: TABLE III, TCLP,
Project Manager: BRAD STEWART
Sampled By: OPERATIONS, BIOSOLIDS, BJS

AIC CONTROL NO: 172950
AIC PROPOSAL NO:
Carrier: FED-EX
Received Temperature C: 0.9

AIC No.	Sample Identification	Date/Time Collected	GRAB	COMP	WATER	SOIL	SLUDGE	NO OF BOTTLES	TOTAL CYANIDE	TOTAL PHENOLICS	PP METALS + Mo - EXCLUDE Hg -	T III: CN.T, PHENOLICS, PP METALS + Mo	Remarks
1	EFFLUENT	0000, 0600, 1200, 1800 11/21/13		✓	✓			1	✓				
1	EFFLUENT	0000, 0600, 1200, 1800 11/21/13		✓	✓			1		✓			
2	EFFLUENT	0000 - 2400 11/21/13		✓	✓			1			✓		
1	INFLUENT	1100, 1700, 2300, 0600 11/18-19/13		✓	✓			1	✓				
1	INFLUENT	1100, 1700, 2300, 0600 11/18-19/13		✓	✓			1		✓			
2	INFLUENT	1100 - 0900 11/18-19/13		✓	✓			1			✓		
3	BELT PRESS INFLUENT	0715 11/22/13	✓				✓	1				✓	Field pH calibration
		Container Type							P	G	P	G	on ________ @ ______
		Preservative							B	S	N	NO	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: N/A
Who should AIC contact with questions: BRAD STEWART
Phone: 479-756-3659 Fax: 479-750-7196
Report Attention to: BRAD STEWART
Report Address to: P.O. BOX 769
SPRINGDALE, AR 72762

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	11/25/13 - 1000		
Relinquished By:	Date/Time	Received in Lab By: [signature]	Date/Time 11-26-13 1115

Comments: EXCLUDE Hg ON PP METALS + Mo (EFFLUENT + INFLUENT)
7972 3952 3815

FORM 0060

Springdale Water Utilities
P.O. Box 769
Springdale, AR 72765-0769

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