



# MWH Laboratories

A Division of MWH Americas, Inc.

750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
Tel: 626 386 1100  
Fax: 626 386 1101  
1 800 566 LABS (1 800 566 5227)

## Laboratory Report

for

Tronox LLC - Henderson  
PO Box 55

Henderson , NV 89009

Attention: Susan Crowley  
Fax: (405) 302-4607

DATE OF ISSUE  
Jun 25 2009  
MWH LABORATORIES

ADE Andy Eaton  
Project Manager



Report#: 271624  
Project: CLO4  
PO#: Susan Crowle

This report shall not be reproduced except in full, without the written approval of the laboratory.  
Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Comments, QC Report, QC Summary, Data Report, Hits Report, totaling 12 page[s].



**MWH**

*BUILDING A BETTER WORLD*

June 25, 2009

Ms. Susan Crowley  
Tronox  
PO Box 55  
Henderson, NV 89009

Subject: Case Narrative report 271624

Sample receipt: The samples arrived at MWH on June 5, 2009, with proper chain of custody. All containers were received without any visible signs of tampering or breakage at proper temperature. Samples are identified on the acknowledgement, which is part of the report package, along with the chain of custody.

Case Narrative:

For the MWH Laboratories data the following issues were observed:

None

Note that for ion chromatography tests such as perchlorate, the exact analysis time is not shown on the report. Only the date of analysis appears. The time normally defaults to 00:00.

If you have any questions, do not hesitate to contact us.

Sincerely yours,

Andrew Eaton, PhD  
Project Manager





MWH Laboratories, a Division of MWH Americas, Inc.  
 750 Royce, Suite 100  
 Monrovia CA 91016 (626) 386-1100 FAX (626) 386-1124

**Bottle Order for Tronox C-Henderson**

Andrew Eaton, Your MWL Project Manager  
 (626) 386-1125 Direct Phone/Voice Mail

Client Code KERRMCGEE-MP  
 Project Code CLO4  
 PO# / Job# GWREMIATION  
 Blanket PO

M Monthly Period

SO# 47684 12374 RS

**Sampler: Please Return this Paper with your samples**

Created by GJY  
 Order Date 04/16/09  
 Date Needed by Client

Ship Sample Kits to  
 Veolia Water-Tronox LLC  
 Gate 1  
 8000 West Lake Mead Drive  
 Henderson, NV 89015

Send Report to  
 Tronox LLC Henderson Plant  
 P.O. Box 55  
 Henderson, NV 89009

Billing Address  
 Tronox LLC  
 Attn: Accounts Payable  
 P.O. BOX 268859  
 Oklahoma City, OK 73126-8859

ATTN: Susan Crowley  
 PHONE: 702-651-2234

ATTN: Susan Crowley  
 PHONE: 702-651-2234  
 FAX: 702-651-2310

Quote#  
 GJY

SHIP LOCATION

# of Samples Tests Bottles-Qty for each sample, type & preservative if any

ActiveCode	Status	Date Shipped	Carrier	Qty of Coolers	Tracking Number	UN#	Important Comments
41	CLO4, TDS			1	250 ml poly /no preservative		These sites are monthly till further notice.
	SHEET OF LABELS WITH WELL-IDS				see comments section		Shipping - please send bottles in cooler rather than a box
							PC-86, PC-89, PC-91, PC-95, PC-97, PC-10, PC-12, PC-17, PC-18, PC-55, PC-101R L-635, L-637 MW-K2, MW-K4 ARP-1, ARP-2, ARP-3, ARP-4 ARP-5, ARP-6, ARP-7, PC-53 PC-103, MW-K5, M-83 M-87, PC-98R; PC-56, PC-58; PC-59, PC-60, PC-62, PC-68, PC-122
							<b>Do NOT</b> prelabel bottles with site, but provide pre-printed labels for client to stick on
							EXTRA BOTTLES INCLUDED
							client code changed 7/25/03
							bottle order and IDs updated 9/9/03

Printed By

From: Origin ID: LASA (702) 651-2230  
Shipping  
Tronox LLC  
8000 lake Mead parkway  
  
henderson, NV 89015



Ship Date: 04JUN09  
ActWgt: 26.6 LB  
CAD: 100263135/NET9011  
Account#: S \*\*\*\*\*  
Dims: 21 X 15 X 15 IN

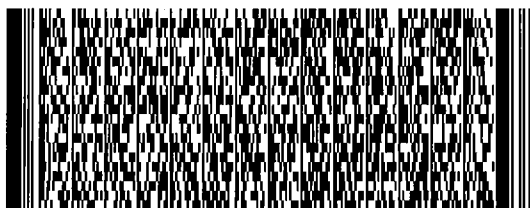
J00110901302023

SHIP TO: (626) 568-6400 **BILL SENDER**  
**sample receiving**  
**Montgomery Watson labs**  
**750 ROYAL OAKS DR # 100**  
  
**MONROVIA, CA 91016**

Delivery Address Bar Code



Ref # 20092544V1  
Invoice #  
PO #  
Dept #

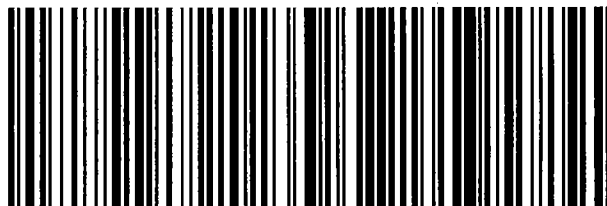


TRK# 7976 5302 3460  
0201

**FRI - 05JUN** **A2**  
**PRIORITY OVERNIGHT**  
**DSR**

**91016**  
**CA-US**  
**BUR**

**QZ WHPA**



**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

**MWH Laboratories**  
 750 Royal Oaks Drive, Monrovia, CA 91016  
 PHONE: 626-386-1100/FAX: 626-386-1101

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Tronox LLC - Henderson  
 PO Box 55  
 Henderson, NV 89009  
 Attn: Susan Crowley  
 Phone: 702-651-2234

Customer Code: KERRMCGEE-MP  
 PO#: Susan Crowley PO  
 Group#: 271624  
 Project#: CLO4  
 Proj Mgr: Andrew Eaton  
 Phone: (626) 386-1125

The following samples were received from you on 06/05/09. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using MWH Laboratories.

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
2906060030	TR-3	ALK ANION1 CLO4 CO3 K MG P PH	Water BALANCE CA CR6010 EC MN NA SO4 T	04-jun-2009 07:52:00 CATION1 CL FE HCO3 NO3 NO3A TDS
2906060032	M-11	CLO4 TDS	Water	04-jun-2009 09:32:00
2906060033	FB060409	CLO4 TDS	Water	04-jun-2009 09:40:00
2906060034	DUPLICATE	CLO4 TDS	Water	04-jun-2009 00:00:00

Test Acronym Description

Test Acronym	Description
ALK	Alkalinity in CaCO3 units
ANION1	Anion Sum - Calculated
BALANCE	Ionic Balance - Calculated
CA	Calcium, Total, ICAP
CATION1	Cation Sum - Calculated
CL	Chloride
CLO4	Perchlorate
CO3	Carbonate as CO3, Calculated
CR6010	Chromium, Total, ICAP
EC	Specific Conductance at 25 C
FE	Iron, Total, ICAP
HCO3	Bicarb. Alkalinity as HCO3, calc
K	Potassium, Total, ICAP
MG	Magnesium, Total, ICAP
MN	Manganese, Total, ICAP
NA	Sodium, Total, ICAP
NO3	Nitrate as Nitrogen by IC
NO3A	Nitrate as NO3 (calc)

Tronox LLC - Henderson  
PO Box 55  
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Attn: Susan Crowley  
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Proj Mgr: Andrew Eaton  
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Test Acronym Description

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Test Acronym	Description
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P	Metals sample pH
PH	PH (H3=past HT, not compliant)
SO4	Sulfate
T	Metals Turbidity
TDS	Total Dissolved Solid (TDS)



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Report  
Comments  
#271624

**Client Specific Comments**

I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

Signature: *A. Estor*





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Laboratory  
Hits Report  
#271624

Tronox LLC - Henderson  
Susan Crowley  
PO Box 55  
Henderson , NV 89009

Samples Received  
05-jun-2009 10:00:00

Analyzed	Sample#	Sample ID	Result	Federal MCL	UNITS	MRL
	2906060030	TR-3				
06/08/09		Alkalinity in CaCO3 units	79		mg/l	2.0
06/11/09		Anion Sum - Calculated	10.		meq/l	0.0010
06/09/09		Bicarb. Alkalinity as HCO3, calc	96.1		mg/l	2.0
06/16/09		Calcium, Total, ICAP	47		mg/l	1.0
06/15/09		Cation Sum - Calculated	11.		meq/l	0.0010
06/09/09		Chloride	170	250	mg/l	5.0
06/16/09		Chromium, Total, ICAP	0.016		mg/l	0.010
06/16/09		Magnesium, Total, ICAP	22		mg/l	0.10
06/05/09		Nitrate as NO3 (calc)	4.8	45	mg/l	0.88
06/05/09		Nitrate as Nitrogen by IC	1.08	10	mg/l	0.20
06/05/09		PH (H3=past HT, not compliant)	8.0	6.5-8.5	Units	0.010
06/16/09		Potassium, Total, ICAP	6.8		mg/l	1.0
06/16/09		Sodium, Total, ICAP	160		mg/l	1.0
06/10/09		Specific Conductance at 25 C	1120		umho/cm	2.0
06/05/09		Sulfate	188	250	mg/l	1.0
06/09/09		Total Dissolved Solid (TDS)	630	500	mg/l	10
	2906060032	H-11				
06/09/09		Total Dissolved Solid (TDS)	634	500	mg/l	10
	2906060033	FB060409				
	2906060034	DUPLICATE				
06/09/09		Total Dissolved Solid (TDS)	520	500	mg/l	10

SUMMARY OF POSITIVE DATA ONLY.



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Laboratory  
Data Report  
#271624

Tronox LLC - Henderson  
Susan Crowley  
PO Box 55  
Henderson , NV 89009

Samples Received  
06/05/09

Prepared	Analyzed	QC Ref#	Method	Analyte	Result	Units	MRL	Dilution
<b>TR-3 (2906060030)</b>				<b>Sampled on 06/04/09 07:52</b>				
	06/08/09 00:00	487321	( SM 2320B )	Alkalinity in CaCO3 units	79	mg/l	2.0	1
	06/11/09 14:41		( ML/SM1030E )	Anion Sum - Calculated	10.	meq/l	0.0010	1
	06/16/09 23:35	488164	( ML/EPA 200.7 )	Calcium, Total, ICAP	47	mg/l	1.0	1
	06/15/09 08:03		( SM 1030E )	Cation Sum - Calculated	11.	meq/l	0.0010	1
	06/09/09 16:43	487465	( ML/EPA 300.0 )	Chloride	170	mg/l	5.0	5
	06/17/09 02:37	488222	( EPA 314 )	Perchlorate	ND	ug/l	4.0	1
	06/09/09 17:50		( SM 2330B )	Carbonate as CO3, Calculated	ND	mg/l	2.0	1
06/15/09	06/16/09 00:00	488241	( ML/EPA 6010B )	Chromium, Total, ICAP	0.016	mg/l	0.010	1
	06/10/09 12:56	487689	( SM 2510B )	Specific Conductance at 25 C	1120	umho/cm	2.0	1
	06/16/09 23:35	488177	( ML/EPA 200.7 )	Iron, Total, ICAP	ND	mg/l	0.020	1
	06/09/09 17:47		( SM 2330B )	Bicarb.Alkalinity as HCO3, calc	96.1	mg/l	2.0	1
	06/16/09 23:35	488183	( ML/EPA 200.7 )	Potassium, Total, ICAP	6.8	mg/l	1.0	1
	06/16/09 23:35	488190	( ML/EPA 200.7 )	Magnesium, Total, ICAP	22	mg/l	0.10	1
	06/16/09 23:35	488197	( ML/EPA 200.7 )	Manganese, Total, ICAP	ND	mg/l	0.0020	1
	06/16/09 23:35	488203	( ML/EPA 200.7 )	Sodium, Total, ICAP	160	mg/l	1.0	1
	06/05/09 16:59	487158	( ML/EPA 300.0 )	Nitrate as Nitrogen by IC	1.08	mg/l	0.20	2
	06/05/09 16:59		( ML/EPA 300.0 )	Nitrate as NO3 (calc)	4.8	mg/l	0.88	2
	06/05/09 16:19	487074	( SM 4500-HB )	PH (H3=past HT, not compliant)	8.0	Units	0.010	1
	06/05/09 16:59	487288	( ML/EPA 300.0 )	Sulfate	188	mg/l	1.0	2
06/09/09	06/09/09 08:45	487729	( E160.1/SM2540C )	Total Dissolved Solid (TDS)	630	mg/l	10	1
<b>H-11 (2906060032)</b>				<b>Sampled on 06/04/09 09:32</b>				
	06/17/09 02:37	488222	( EPA 314 )	Perchlorate	ND	ug/l	4.0	1
06/09/09	06/09/09 08:45	487729	( E160.1/SM2540C )	Total Dissolved Solid (TDS)	634	mg/l	10	1
<b>FB060409 (2906060033)</b>				<b>Sampled on 06/04/09 09:40</b>				
	06/17/09 02:37	488222	( EPA 314 )	Perchlorate	ND	ug/l	4.0	1
06/09/09	06/09/09 08:45	487729	( E160.1/SM2540C )	Total Dissolved Solid (TDS)	ND	mg/l	10	1



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Laboratory  
Data Report  
#271624

Tronox LLC - Henderson  
(continued)

Prepared	Analyzed	QC Ref#	Method	Analyte	Result	Units	MRL	Dilution
<b>DUPLICATE (2906060034)</b>				<b>Sampled on 06/04/09 00:00</b>				
	06/17/09 02:37	488222	( EPA 314	) Perchlorate	ND	ug/l	4.0	1
06/09/09	06/09/09 08:45	487729	( E160.1/SM2540C)	Total Dissolved Solid (TDS)	520	mg/l	10	1



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Laboratory  
QC Summary  
#271624

Tronox LLC - Henderson

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QC Ref #487074 - PH (H3=past HT, not compliant) Analysis Date: 06/05/2009

2906060030 TR-3

QC Ref #487158 - Nitrate as Nitrogen by IC Analysis Date: 06/05/2009

2906060030 TR-3

QC Ref #487288 - Sulfate Analysis Date: 06/05/2009

2906060030 TR-3

QC Ref #487321 - Alkalinity in CaCO3 units Analysis Date: 06/08/2009

2906060030 TR-3

QC Ref #487465 - Chloride Analysis Date: 06/09/2009

2906060030 TR-3

QC Ref #487689 - Specific Conductance at 25 C Analysis Date: 06/10/2009

2906060030 TR-3

QC Ref #487729 - Total Dissolved Solid (TDS) Analysis Date: 06/09/2009

2906060030 TR-3  
2906060032 H-11  
2906060033 FB060409  
2906060034 DUPLICATE

QC Ref #488164 - Calcium, Total, ICAP Analysis Date: 06/16/2009

2906060030 TR-3



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Laboratory  
QC Summary  
#271624

Tronox LLC - Henderson  
(continued)

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QC Ref #488177 - Iron, Total, ICAP	Analysis Date: 06/16/2009
2906060030 TR-3	
QC Ref #488183 - Potassium, Total, ICAP	Analysis Date: 06/16/2009
2906060030 TR-3	
QC Ref #488190 - Magnesium, Total, ICAP	Analysis Date: 06/16/2009
2906060030 TR-3	
QC Ref #488197 - Manganese, Total, ICAP	Analysis Date: 06/16/2009
2906060030 TR-3	
QC Ref #488203 - Sodium, Total, ICAP	Analysis Date: 06/16/2009
2906060030 TR-3	
QC Ref #488222 - Perchlorate	Analysis Date: 06/17/2009
2906060030 TR-3	
2906060032 H-11	
2906060033 FB060409	
2906060034 DUPLICATE	
QC Ref #488241 - Chromium, Total, ICAP	Analysis Date: 06/16/2009
2906060030 TR-3	



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Laboratory  
QC Report  
#271624

Tronox LLC - Henderson

**QC Ref #487074 PH (H3=past HT, not compliant)**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
DUP	PH (H3=past HT, not compliant)	8.29	8.27	UNIT		( 0-20 )	0.2

**QC Ref #487158 Nitrate as Nitrogen by IC**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 29	200906080012	MGL		( 0-0 )	
LCS1	Nitrate as Nitrogen by IC	2.5	2.45	MGL	98.0	( 90-110 )	
LCS2	Nitrate as Nitrogen by IC	2.5	2.45	MGL	98.0	( 90-110 )	
MBLK	Nitrate as Nitrogen by IC	ND	<0.10	MGL			
MRL_CHK	Nitrate as Nitrogen by IC	0.050	0.049	MGL	98.0	( 50-150 )	
MS	Nitrate as Nitrogen by IC	1.25	1.29	MGL	103.2	( 87-121 )	
MSD	Nitrate as Nitrogen by IC	1.25	1.36	MGL	108.8	( 87-121 )	
MS_2ND	Nitrate as Nitrogen by IC	1.25	1.16	MGL	92.8	( 87-121 )	
RPD_LCS	Nitrate as Nitrogen by IC	98.000	98.000	MGL	0.0	( 0-20 )	
RPD_MS	Nitrate as Nitrogen by IC	103.200	108.800	MGL	5.3	( 0-20 )	

**QC Ref #487288 Sulfate**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 29	200906080012	MGL		( 0-0 )	
LCS1	Sulfate	50	50.5	MGL	101.0	( 90-110 )	
LCS2	Sulfate	50	50.4	MGL	100.8	( 90-110 )	
MBLK	Sulfate	ND	<0.50	MGL			
MRL_CHK	Sulfate	0.25	0.269	MGL	107.6	( 50-150 )	
MS	Sulfate	25	26.0	MGL	104.0	( 84-130 )	
MSD	Sulfate	25	27.0	MGL	108.0	( 84-130 )	
MS_2ND	Sulfate	25	25.3	MGL	101.2	( 84-130 )	
RPD_LCS	Sulfate	101.000	100.800	MGL	0.2	( 0-20 )	
RPD_MS	Sulfate	104.000	108.000	MGL	3.8	( 0-20 )	

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.  
Criteria for MS and DUP are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

Tronox LLC - Henderson  
(continued)

QC Ref #487321                      Alkalinity in CaCO3 units

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
MS	Spiked sample	Lab # 200906040148		MGL		( 0-0 )	
LCS1	Alkalinity in CaCO3 units	100	96	MGL	96.0	( 90-110 )	
LCS2	Alkalinity in CaCO3 units	100	108	MGL	108.0	( 90-110 )	
MBLK	Alkalinity in CaCO3 units	ND	<2.0	MGL			
MRL_CHK	Alkalinity in CaCO3 units	2.00	1.79	MGL	89.5	( 50-150 )	
MS	Alkalinity in CaCO3 units	100	88	MGL	88.0	( 80-120 )	
MS2	Alkalinity in CaCO3 units	100	74	MGL	<u>74.0</u>	( 80-120 )	
MSD	Alkalinity in CaCO3 units	100	84	MGL	84.0	( 80-120 )	
MSD2	Alkalinity in CaCO3 units	100	74	MGL	<u>74.0</u>	( 80-120 )	
RPD_LCS	Alkalinity in CaCO3 units	96.000	108.000	MGL	<u>11.8</u>	( 0-10 )	
RPD_MS	Alkalinity in CaCO3 units	88.000	84.000	MGL	4.7	( 0-20 )	

QC Ref #487465                      Chloride

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 20 0906090590		MGL		( 0-0 )	
LCS1	Chloride	25	25.5	MGL	102.0	( 90-110 )	
LCS2	Chloride	25	26.0	MGL	104.0	( 90-110 )	
MBLK	Chloride	ND	<1.0	MGL			
MRL_CHK	Chloride	0.500	0.440	MGL	88.0	( 50-150 )	
MS	Chloride	12.5	11.8	MGL	94.4	( 74-138 )	
MSD	Chloride	12.5	12.7	MGL	101.6	( 74-138 )	
RPD_LCS	Chloride	102.000	104.000	MGL	1.9	( 0-20 )	
RPD_MS	Chloride	94.400	101.600	MGL	7.3	( 0-20 )	

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.  
Criteria for MS and DUP are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

Tronox LLC - Henderson  
 (continued)

**QC Ref #487689                      Specific Conductance at 25 C**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
DUP	Specific Conductance at 25 C	774	774	UMHO		( 0-20 )	0.0
DUP2	Specific Conductance at 25 C	1179	1183	UMHO		( 0-20 )	0.3
LCS1	Specific Conductance at 25 C	1000	991	UMHO	99.1	( 90-110 )	
LCS2	Specific Conductance at 25 C	1000	1004	UMHO	100.4	( 90-110 )	
MBLK	Specific Conductance at 25 C	ND	<2.0	UMHO			
MRL_CHK	Specific Conductance at 25 C	2.00	1.82	UMHO	91.0	( 50-150 )	

**QC Ref #487729                      Total Dissolved Solid (TDS)**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 29	06080019	MGL		( 0-0 )	
DUP	Total Dissolved Solid (TDS)	364	348	MGL		( 0-10 )	4.5
LCS1	Total Dissolved Solid (TDS)	175	160	MGL	91.4	( 80-114 )	
LCS2	Total Dissolved Solid (TDS)	700	666	MGL	95.1	( 80-114 )	
MBLK	Total Dissolved Solid (TDS)	ND	<10	MGL			
MRL_CHK	Total Dissolved Solid (TDS)	10.0	8.0	MGL	80.0	( 50-150 )	
RPD_LCS	Total Dissolved Solid (TDS)	91.429	95.143	MGL	4.0	( 0-20 )	

**QC Ref #488164                      Calcium, Total, ICAP**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 29	06030037	MGL		( 0-0 )	
LCS1	Calcium, Total, ICAP	50	50.1	MGL	100.2	( 85-115 )	
LCS2	Calcium, Total, ICAP	50	51.9	MGL	103.8	( 85-115 )	
MBLK	Calcium, Total, ICAP	ND	<1.0	MGL			
MRL_CHK	Calcium, Total, ICAP	1.000	1.00	MGL	100.0	( 50-150 )	
MS	Calcium, Total, ICAP	50	45.3	MGL	90.6	( 70-130 )	
MSD	Calcium, Total, ICAP	50	41.1	MGL	82.2	( 70-130 )	
RPD_LCS	Calcium, Total, ICAP	100.200	103.800	MGL	3.5	( 0-20 )	

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.  
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Tronox LLC - Henderson  
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RPD\_MS            Calcium, Total, ICAP                            90.600    82.200    MGL    9.7            ( 0-20 )

**QC Ref #488177            Iron, Total, ICAP**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 29	06030037	MGL		( 0-0 )	
LCS1	Iron, Total, ICAP	5.0	5.10	MGL	102.0	( 85-115 )	
LCS2	Iron, Total, ICAP	5.0	5.11	MGL	102.2	( 85-115 )	
MBLK	Iron, Total, ICAP	ND	<0.020	MGL			
MRL_CHK	Iron, Total, ICAP	0.020	0.022	MGL	110.0	( 50-150 )	
MS	Iron, Total, ICAP	5.0	5.17	MGL	103.4	( 70-130 )	
MSD	Iron, Total, ICAP	5.0	4.96	MGL	99.2	( 70-130 )	
RPD_LCS	Iron, Total, ICAP	102.000	102.200	MGL	0.2	( 0-20 )	
RPD_MS	Iron, Total, ICAP	103.400	99.200	MGL	4.1	( 0-20 )	

**QC Ref #488183            Potassium, Total, ICAP**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 29	06030037	MGL		( 0-0 )	
LCS1	Potassium, Total, ICAP	20	19.1	MGL	95.5	( 85-115 )	
LCS2	Potassium, Total, ICAP	20	19.2	MGL	96.0	( 85-115 )	
MBLK	Potassium, Total, ICAP	ND	<1.0	MGL			
MRL_CHK	Potassium, Total, ICAP	1.000	0.894	MGL	89.4	( 50-150 )	
MS	Potassium, Total, ICAP	20	19.7	MGL	98.5	( 70-130 )	
MSD	Potassium, Total, ICAP	20	18.3	MGL	91.5	( 70-130 )	
RPD_LCS	Potassium, Total, ICAP	95.500	96.000	MGL	0.5	( 0-20 )	
RPD_MS	Potassium, Total, ICAP	98.500	91.500	MGL	7.4	( 0-20 )	

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Tronox LLC - Henderson  
(continued)

QC Ref #488190

Magnesium, Total, ICAP

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 29	06030037	MGL		( 0-0 )	
LCS1	Magnesium, Total, ICAP	20	20.1	MGL	100.5	( 85-115 )	
LCS2	Magnesium, Total, ICAP	20	20.3	MGL	101.5	( 85-115 )	
MBLK	Magnesium, Total, ICAP	ND	<0.10	MGL			
MRL_CHK	Magnesium, Total, ICAP	0.100	0.102	MGL	102.0	( 50-150 )	
MS	Magnesium, Total, ICAP	20	19.4	MGL	97.0	( 70-130 )	
MSD	Magnesium, Total, ICAP	20	17.6	MGL	88.0	( 70-130 )	
RPD_LCS	Magnesium, Total, ICAP	100.500	101.500	MGL	1.0	( 0-20 )	
RPD_MS	Magnesium, Total, ICAP	97.000	88.000	MGL	9.7	( 0-20 )	

QC Ref #488197

Manganese, Total, ICAP

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 29	06030037	MGL		( 0-0 )	
LCS1	Manganese, Total, ICAP	0.50	0.532	MGL	106.4	( 85-115 )	
LCS2	Manganese, Total, ICAP	0.50	0.529	MGL	105.8	( 85-115 )	
MBLK	Manganese, Total, ICAP	ND	<0.0020	MGL			
MRL_CHK	Manganese, Total, ICAP	0.002	0.0022	MGL	110.0	( 50-150 )	
MS	Manganese, Total, ICAP	0.50	0.526	MGL	105.2	( 70-130 )	
MSD	Manganese, Total, ICAP	0.50	0.515	MGL	103.0	( 70-130 )	

QC Ref #488203

Sodium, Total, ICAP

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Sodium, Total, ICAP	50	49.2	MGL	98.4	( 85-115 )	
LCS2	Sodium, Total, ICAP	50	49.5	MGL	99.0	( 85-115 )	
MBLK	Sodium, Total, ICAP	ND	<1.0	MGL			
MRL_CHK	Sodium, Total, ICAP	1.000	0.992	MGL	99.2	( 50-150 )	
MS	Sodium, Total, ICAP	50	42.3	MGL	84.6	( 70-130 )	

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MSD	Sodium, Total, ICAP	50	37.9	MGL	75.8	( 70-130 )
RPD_LCS	Sodium, Total, ICAP	98.400	99.000	MGL	0.6	( 0-20 )
RPD_MS	Sodium, Total, ICAP	84.600	75.800	MGL	11.0	( 0-20 )

### QC Ref #488222 Perchlorate

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
MS	Spiked sample	Lab # 29	06110138	UGL		( 0-0 )	
LCS1	Perchlorate	25.0	24.5	UGL	98.0	( 85-115 )	
LCS2	Perchlorate	25.0	23.9	UGL	95.6	( 85-115 )	
LCS3	Perchlorate	4	4.40	UGL	110.0	( 75-125 )	
MBLK	Perchlorate	ND	<4.0	UGL			
MS	Perchlorate	25.0	24.7	UGL	98.8	( 80-120 )	
MSD	Perchlorate	25.0	23.9	UGL	95.6	( 80-120 )	
RPD_LCS	Perchlorate	98.000	95.600	UGL	2.5	( 0-15 )	
RPD_MS	Perchlorate	98.800	95.600	UGL	1.0	( 0-15 )	

### QC Ref #488241 Chromium, Total, ICAP

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 29	06030037	MGL		( 0-0 )	
LCS1	Chromium, Total, ICAP	1.00	1.03	MGL	103.0	( 85-115 )	
LCS2	Chromium, Total, ICAP	1.00	1.03	MGL	103.0	( 85-115 )	
MBLK	Chromium, Total, ICAP	ND	<0.010	MGL			
MRL_CHK	Chromium, Total, ICAP	0.010	0.0099	MGL	99.0	( 50-150 )	
MS	Chromium, Total, ICAP	1.00	1.01	MGL	101.0	( 70-130 )	
MSD	Chromium, Total, ICAP	1.00	1.00	MGL	100.0	( 70-130 )	

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are advisory only, unless otherwise specified in the method.