



FIELD ACTIVITY REPORT

Report Number/Date:

5-8-09

Project Name:

Trox Annual Sampling

Project Number:

20092544V1

Report By:

P. Brinkerhoff

Personnel:

P. Brinkerhoff / W. McKeig

Location:

Trox

Equipment:

Geosub & Disposable bailers

Client:

Trox LLC

Weather:

Clear & Hot

630 Arrived at Trox to pick-up covers with sample bottles

700 Arrived at Veolia to dump purge water from 55 gallon drum
talked with Mike (only person on site) said to dump drum in pond.

0800 Tagged PC-94 for well depth and depth to ground water;
well depth is 19.5' & depth to water is 12.1'

0815 Sample # PC-94

0820 Tagged PC-93 for well depth (37.4') & depth to gw (11.5).

0905 Samp PC-93

1030 Tagged PC-2 for depth of well (33.5') & depth to gw (26.4')

1055 Sample # PC-2

1130 Tagged HSW-1 for well depth (23.8') & depth to gw (21.5')

1140 Sample # HSW-1

1203 Tagged #HM-2 for well depth (37.2') & depth gw (25.8')

1225 Sample # HM-2

1315 Tagged PC-104 for well depth (33.4') & depth to gw (31.0')

1330 Sample # PC-104

1345 Slid of berm while looking for PC-108 (on other side of fence)

1530 Tagged Hmw14 for depth of well (40.4') & depth to gw (21.2)

1535 Sample # Hmw14

PC-1 & PC-4 in fenced area at city of Henderson water treatment plant, there is no gate to access wells

PC-106 location indicates center of dirt road at Junk yard, Road appears to have been graded recently, no sign of well

Printed Name/Signature:

Page 1 of 1

Groundwater Sampling Data Sheet

Well I.D. PC-94 Date: 5-8-07
 Sampler's Name: P.B.
 Purging Equipment: _____
 Sampling Equipment: _____

Casing Type: PVC **UNIT CASING VOLUMES**
 Casing Diameter: 2" inch 2" = 0.16 gal/lin ft.
 Total Well Depth: 19.5' feet 4" = 0.67 gal/lin ft.
 Depth to Water: - 12.1' feet 6" = 1.47 gal/lin ft.
 Water Column Thickness: = 7.4 feet
 Unit Casing Volume: x 0.16 gallon / foot
 Casing Water Volume: x 1.18 gallons
 Casing Volume: x 3 each
 Estimated Purge Volume: = 3.55 gallons

Free product measurement (if present): N/A

Purged (gallons)	Time	DO	Redox	Fe	Conductance (u mhos / x1000)	Temperature (Celcius)	pH	Observations
	<u>0835</u>					<u>24.1</u>	<u>7.27</u>	
	<u>0808</u>	X	X	X		<u>23.9</u>	<u>7.30</u>	
	<u>0812</u>	X	X	X		<u>23.4</u>	<u>7.27</u>	
	<u>0815</u>	X	X	X		<u>23.7</u>	<u>7.28</u>	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 3.5 Gallons
 Depth to Water at Sample Collection: 16.5
 Sample Collection Time: 8:15
 Purged Dry (Y/N): N

Comments: Flow rate = 1 Gallon / 8 min



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ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D. PC-93 Date: 5-8-09

Sampler's Name: PB

Purging Equipment: _____

Sampling Equipment: _____

Casing Type: PVC **UNIT CASING VOLUMES**

Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.

Total Well Depth: 37.6 feet 4" = 0.67 gal/lin ft.

Depth to Water: - 11.5 feet 6" = 1.47 gal/lin ft.

Water Column Thickness: = 26.1 feet

Unit Casing Volume: x 0.16 gallon / foot

Casing Water Volume: x 4.18 gallons

Casing Volume: x 3 each

Estimated Purge Volume: = 12.53 gallons

Free product measurement (if present): N/A

Purged (gallons)	Time	DO	Redox	Fe	Conductance (u mhos / x1000)	Temperature (Celcius)	pH	Observations
	850					24.1	7.34	
	855	X	X	X		23.8	7.35	
	857	X	X	X		23.4	7.31	
	900	X	X	X		23.4	7.31	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 12.5 Gallons

Depth to Water at Sample Collection: 28'

Sample Collection Time: 905

Purged Dry (Y/N): N

Comments: 1 Gallon / 8min

collected ClO4 + TDS, Perchlorate + Nitrate,

and total chrome

Groundwater Sampling Data Sheet

Well I.D. MC-53 Date: 5-8-09
 Sampler's Name: P.B.
 Purging Equipment: _____
 Sampling Equipment: _____

not
 100
 154

Casing Type: PVC **UNIT CASING VOLUMES**
 Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.
 Total Well Depth: 35.3 feet 4" = 0.67 gal/lin ft.
 Depth to Water: - 27.6 feet 6" = 1.47 gal/lin ft.
 Water Column Thickness: = 7.7 feet
 Unit Casing Volume: x 0.16 gallon / foot
 Casing Water Volume: x 1.23 gallons
 Casing Volume: x 3 each
 Estimated Purge Volume: = 3.70 gallons

Free product measurement (if present): N/A

Purged (gallons)	Time	DO	Redox	Fe	Conductance (u mhos / x1000)	Temperature (Celcius)	pH	Observations
	1015					25.7	7.34	
	1017	X	X	X		25.3	7.39	
	1020	X	X	X		25.1	7.39	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 3.75 Gallons
 Depth to Water at Sample Collection: 32'
 Sample Collection Time: 1025
 Purged Dry (Y/N): N

Comments: 1 Gal / 8 min



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Groundwater Sampling Data Sheet

Well I.D. PC-2 Date: 5-8-09
 Sampler's Name: PB

Purging Equipment: _____

Sampling Equipment: _____

Casing Type: PVC

UNIT CASING VOLUMES

Casing Diameter: 2 inch

2" = 0.16 gal/lin ft.

Total Well Depth: 33.5' feet

4" = 0.67 gal/lin ft.

Depth to Water: - 26.4 feet

6" = 1.47 gal/lin ft.

Water Column Thickness: = 7.1 feet

Unit Casing Volume: x 0.16 gallon / foot

Casing Water Volume: x 1.14 gallons

Casing Volume: x 3 each

Estimated Purge Volume: = 3.41 gallons

Free product measurement (if present): _____

Purged (gallons)	Time	DO	Redox	Fe	Conductance (u mhos / x1000)	Temperature (Celcius)	pH	Observations
	1042					26.3	7.60	
	1047	X	X	X		25.9	7.60	
	1050	X	X	X		25.6	7.60	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 3.5 Gallons

Depth to Water at Sample Collection: 31.0

Sample Collection Time: 1055

Purged Dry (Y/N): N

Comments: 1 gal/8 min

Groundwater Sampling Data Sheet

Well I.D. HSW-1 Date: 5-8-09
 Sampler's Name: P.B.
 Purging Equipment: _____
 Sampling Equipment: _____

Casing Type: PVC **UNIT CASING VOLUMES**
 Casing Diameter: 2 1/2 inch 2" = 0.16 gal/lin ft.
 Total Well Depth: 23.8 feet 4" = 0.67 gal/lin ft.
 Depth to Water: - 21.5' feet 6" = 1.47 gal/lin ft.
 Water Column Thickness: = 2.3 feet
 Unit Casing Volume: x 0.16 gallon / foot
 Casing Water Volume: x .37 gallons
 Casing Volume: x 3 each
 Estimated Purge Volume: = 1.0 gallons
 Free product measurement (if present): N/A

Purged (gallons)	Time	DO	Redox	Fe	Conductance (u mhos / x1000)	Temperature (Celcius)	pH	Observations
	<u>1135</u>					<u>27.0</u>	<u>7.40</u>	
	<u>1140</u>	X	X	X		<u>21.1</u>	<u>7.41</u>	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 1.0 Gallons
 Depth to Water at Sample Collection: 22'
 Sample Collection Time: 1140
 Purged Dry (Y/N): N

Comments: 1 Gal / 8 min

Groundwater Sampling Data Sheet

 Well I.D. Hm-2 Date: 5-8-09

Sampler's Name: _____

 Purging Equipment: Disposable Hand bailer

Sampling Equipment: _____

Casing Type: PVC

UNIT CASING VOLUMES

 Casing Diameter: 2" inch

2" = 0.16 gal/lin ft.

 Total Well Depth: 37.2' feet

4" = 0.67 gal/lin ft.

 Depth to Water: - 25.8 feet

6" = 1.47 gal/lin ft.

 Water Column Thickness: = 11.4 feet

 Unit Casing Volume: x 0.16 gallon / foot

 Casing Water Volume: x 1.82 gallons

 Casing Volume: x 3 each

 Estimated Purge Volume: = 5.47 gallons

 Free product measurement (if present): N/A

Purged (gallons)	Time	DO	Redox	Fe	Conductance (u mhos / x1000)	Temperature (Celcius)	pH	Observations
	1205					23.6	7.73	
	1211	X	X	X		21.8	7.73	
	1214	X	X	X		21.9	7.43	
	1216	X	X	X		22.1	7.69	
	1220	X	X	X		22.3	7.69	
		X	X	X				
		X	X	X				
		X	X	X				

 Total Water Volume Purged: 5.5 Gallons

 Depth to Water at Sample Collection: 35.0

 Sample Collection Time: 1225

 Purged Dry (Y/N): N

 Comments: Hand bailed Due to location of well



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Groundwater Sampling Data Sheet

Well I.D. PC-16A Date: 5-8-09

Sampler's Name: P.R.

Purging Equipment: _____

Sampling Equipment: _____

Casing Type: PVC

UNIT CASING VOLUMES

Casing Diameter: 2" inch 2" = 0.16 gal/lin ft.

Total Well Depth: 33.4 feet 4" = 0.67 gal/lin ft.

Depth to Water: - 31.0 feet 6" = 1.47 gal/lin ft.

Water Column Thickness: = 2.4 feet

Unit Casing Volume: x 6.16 gallon / foot

Casing Water Volume: x .38 gallons

Casing Volume: x 3 each

Estimated Purge Volume: = 1.15 gallons

Free product measurement (if present): N/A

Purged (gallons)	Time	DO	Redox	Fe	Conductance (u mhos / x1000)	Temperature (Celcius)	pH	Observations
	<u>1322</u>					<u>28.8</u>	<u>7.35</u>	
	<u>1325</u>	X	X	X		<u>24.4</u>	<u>7.30</u>	
	<u>1328</u>	X	X	X		<u>24.3</u>	<u>7.30</u>	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 1.15 Gallons

Depth to Water at Sample Collection: 32.

Sample Collection Time: 1330

Purged Dry (Y/N): N

Comments: ClO₄ + TDS & Total Chrome

Flow rate = 1 Gallon / 15 min



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Groundwater Sampling Data Sheet

Well I.D. HMW14 Date: 5-8-09
 Sampler's Name: P.B.
 Purging Equipment: _____
 Sampling Equipment: _____

Casing Type: PVC **UNIT CASING VOLUMES**
 Casing Diameter: 2" inch 2" = 0.16 gal/lin ft.
 Total Well Depth: 40.4 feet 4" = 0.67 gal/lin ft.
 Depth to Water: - 21.00 feet 6" = 1.47 gal/lin ft.
 Water Column Thickness: = 19.2 feet
 Unit Casing Volume: x 0.16 gallon / foot
 Casing Water Volume: x 3.07 gallons
 Casing Volume: x 3 each
 Estimated Purge Volume: = 9.22 gallons

Free product measurement (if present): N/A

Purged (gallons)	Time	DO	Redox	Fe	Conductance (u mhos / x1000)	Temperature (Celcius)	pH	Observations
	1532				27.5	27.5 7.28	7.28	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: _____ Gallons

Depth to Water at Sample Collection: _____

Sample Collection Time: 1535

Purged Dry (Y/N): N

Comments: _____



MWLABS USE ONLY:

750 Royal Oaks Dr, Suite 100, Monrovia, CA 91016-3629

(626) 568-6400 (800) 566-5227

SAMPLES CHECKED/LOGGED IN BY:

SAMPLE TEMP, RECEIPT AT LAB:

BLUE ICE: FROZEN PARTIALLY FROZEN THAWED

TO BE COMPLETED BY SAMPLER:

COMPANY / PROJECT NAME

PROJECT JOB # / P.O.#

Annual Groundwater Sampling - April / May

Tronox LLC

Sampler

Brian Ho / Susan Crowley (702) 651-2234 Henderson, NV 89009

REFER TO ATTACHED BOTTLE ORDER FOR ANALYSES

ANALYSES REQUIRED (mark an 'X' in all tests required for each sample line)

(check for yes)

TIME	DATE	LOCATION	IDENTIFIER, STATE ID#	MATRIX *	GRAB	COMP	pH	Specific Conductance	Total Chromium	Hexavalent Chromium	Perchlorate, ClO ₄	TDS	Chlorate	Nitrate	SAMPLER COMMENTS
815	5-8-09	PC-94		RGW	X										
905	5-8-09	PC-93		RGW	X										
1055	5-8-09	PC-2		RGW	X										
1140	5-8-09	HSW-1		RGW	X										
1225	5-8-09	HM-2		RGW	X										
1330	5-8-09	PC-104		RGW	X										
1535	5-8-09	Hm214		RGW	X										

* MATRIX TYPES:

Reported by Volume:

CFW = Chlor(am)inated Finished Water

FW = Other Finished Water

RGW = Raw Ground Water

RSW = Raw Surface Water

CWW = Chlorinated Waste Water

WW = Other Waste Water

SW = Storm Water

Reported by Weight:

SO = Soil

SL = Sludge

SIGNATURE

PRINT NAME

COMPANY/TITLE

DATE

TIME

RELINQUISHED BY:

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

Phil Brinkbecher

Phil Brinkbecher

GIS/Geology

5-8-09 1600

From: Origin ID: LASA (702) 651-2234
Susan Crowley
Tronox
8000 West Lake Mead Parkway

Henderson, NV 89015



Ship Date: 08MAY09
ActWgt: 50.0 LB
CAD: 7219287/INET9011
Account#: S *****

Delivery Address Bar Code



Ref # Annual Water Samples-10182.23
Invoice #
PO #
Dept #

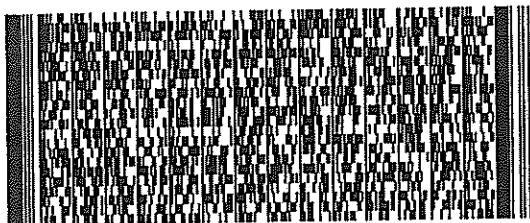
SHIP TO: (626) 386-1100 BILL SENDER
Sample Receiving
MWH Labs
750 ROYAL OAKS DR STE 100

MONROVIA, CA 91016

RELEASE#: 3785346

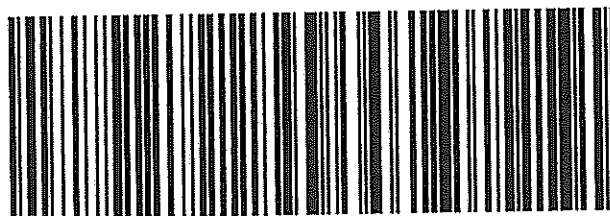
SATURDAY ### A2
PRIORITY OVERNIGHT

TRK# 7965 9264 8940
0201



X0 WHPA

91016
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BUR



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