NM1 - ____30____

GENERAL CORRESPONDENCE

YEAR(S):

2013 - 2015



(A. Tarenyou Sona), (1996), (1

RECEIVED OGD

2015 DEC -3 P 4: 36

November 23, 2015

Mr. Brad Jones Environmental Bureau New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re:

Request to Retract Analytical data Tables, R360 Artesia, LLC Landfarm (NM1-30-0),

Lea County, New Mexico, August 10, 2015

Dear Mr. Jones:

This letter is a request to retract the soil sample analytical data tables for the R360 Artesia, LLC landfarm that were submitted to the New Mexico Oil Conservation Division (OCD) on September 23, 2015. The analytical tables will be revised per the conference call on October 21, 2015. Please contact me at (956) 458-0515 if you have questions.

Sincerely,

Stephanie Garza

StephanieG@R360es.com



That is, yes not the control of the

RECEIVED O'CD

2015 NOV 18 P 1: 24

November 16, 2015

Mr. Brad Jones Environmental Bureau New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Request to Retract Plan 1 Report, R360 Artesia, LLC Landfarm (NM1-30-0), Lea

County, New Mexico, August 10, 2015

Dear Brad:

This letter is a request to retract the above referenced report that was submitted to the OCD on August 10, 2015. As discussed, R360 will complete additional sampling and analysis in accordance with the approved Plan. Please contact me at (956)-458-0515 if you have questions.

Sincerely,

Stephanie Garza

Environmental Specialist StephanieG@R360es.com

Jones, Brad A., EMNRD

From:

Stephanie Garza < Stephanie G@R360es.com>

Sent:

Monday, November 23, 2015 2:11 PM

To:

Jones, Brad A., EMNRD

Cc:

Wayne Crawley; 'Mark Larson'

Subject:

Retraction Letter - Analytical data tables dated :September 23.2015

Attachments:

2015-11-23Retractionletter-4.pdf

Mr. Jones,

Please see attached retraction letter for analytical data sent on September 23, 2015. A hard copy will also be sent to Santa Fe.

Let us know if you have any questions.

Thanks,

Stephanie Garza Environmental Specialist stephanieg@r360es.com 956-458-0515



3 Waterway Square Place, Suite 110 The Woodlands, TX 77380 281.872.R360 (7360) Office www.r360environmentalsolutions.com

November 23, 2015

Mr. Brad Jones Environmental Bureau New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Request to Retract Analytical data Tables, R360 Artesia, LLC Landfarm (NM1-30-0), Lea County, New Mexico, August 10, 2015

Dear Mr. Jones:

This letter is a request to retract the soil sample analytical data tables for the R360 Artesia, LLC landfarm that were submitted to the New Mexico Oil Conservation Division (OCD) on September 23, 2015. The analytical tables will be revised per the conference call on October 21, 2015. Please contact me at (956) 458-0515 if you have questions.

Sincerely

Stephanie Garza

StephanieG@R360es.com



RECEIVED OCD

Greenspoint Plaza 4 16945 Northchase Drive, Suite 2200 Hauston, Texas 77060

281.872.R360 (7360) Office

www.r366encommentalsolutions.com

September 23, 2015

Mr. Brad Jones
Oil Conservation Division
New Mexico Energy, Minerals and
Natural Resources Department
1220 S. St. Francis Drive
Santa Fe, NM 87505

Re: 2015 Analytical Results, R360 Artesia, LLC Landfarm (NM1-30-0), Unit B

(NW/4, NE/4), Section 7, Township 17 South, Range 32 East, Lea County, New

Mexico

Mr. Jones:

The enclosed data tables present laboratory results of treatment and vadose soil samples collected at the R360 Artesia, LLC (formerly Artesia Aeration) Landfarm during the first, second and third quarters of 2015. Notification will be submitted to you prior to collecting fourth quarter samples. Please note Mr. Wayne Crawley retired therefore future correspondence for the landfarm (NM1-30-0) should be sent to my attention. You may contact me at (956) 458-0515 or by email at StephanieG@r360es.com.

Sincerely,

R360 Environmental Solutions, LLC

Stephanie Garza

Attachments

Table 1
Treatment Zone Soil Analytical Data Summary
R360 Artesia LLC Landfarm (NM-1-030)

Lea County, New Mexico

Cell	Date	Depth	Benzene	BTEX	DRO	GRO	ORO	TPH	TRPH	Chloride
		(feet)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Permitted Lev	el:		0.2	50				500	2,500	1,000
1	02/24/2015	0 - 1	*	*	*	*	*	*	*	*
	04/14/2015	0 - 1	<0.00111	<0.00222	<27.8	<27.8	<27.8	<27.8		198
2	02/24/2015	0 - 1	*	*	*	*	*	*	*	*
	04/14/2015	0 - 1	*	*	*	*	*	*	*	*
3	02/24/2015	0 - 1	*	*	*	*	*	*	*	*
	04/14/2015	0 - 1	<0.00114	<0.00227	<28.4	<28.4	<28.4	<28.4		230
4	02/24/2015	0 - 1	*	*	*	*	*	*	*	*
	04/14/2015	0-1	<0.00115	<0.00230	<28.7	<28.7	<28.7	<28.7		133
5	02/24/2015	0 - 1	<0.00558	<0.0167	388	<0.203		388	370	144
	04/14/2015	0 - 1	<0.00116	<0.00233	<29.1	<29.1	<29.1	<29.1		1,070
6	02/24/2015	0-1	<0.00491 **	<0.0146 **	120 **	<0.200 **		120 **	57.7 **	282
	04/14/2015	0-1	**	**	77	7.7	**	7.7	**	**

Notes: Analysis performed by DHL Analytical, Inc., Round Rock, TX and Permian Basin Environmental Lab, Midland, Texas by EPA SW-846 methods 8021B (BTEX), 8015M (GRO and DRO), 418.1 (TRPH) and 300.0 (chloride)

Results are reported in milligram per Kilograms (mg/Kg) equivelent to parts per million (ppm)

RL: Reporting limit (equivalent to practical quantification limit (PQL))

- 1. <: Less than method detection limit
- 2. Depth in feet below treated soil layer
- 3. --: No data available

^{*}Cell approved for additional lift but no soil added to cell at the time of sample collection

^{**}Soil removed from cell and placed as additiona layer on Cells 1, 3 and 4

Table 2
Vadose Zone Soil BTEX and TPH Analytical Data Summary
R360 Artesia LLC Landfarm (NM-1-030)
Lea County, New Mexico

Celi	Date	Depth	RL	Benzene	RL	Ethylbenzene	RL	Toluene	RL	Xylenes	RL	GRO	RL	DRO	RL	ORO	RL	TPH	RL	TRPH	RL	Chloride
		(feet)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)
Background:				BDL		BDL		BDL		BDL												
1	02/24/2015	2 - 3	0.00538	<0.00538	0.0161	<0.0161	0.0161	<0.0161	0.0161	<0.0161	0.202	<0.202	10.3	<10.3	-		10.3	<10.3	10.6	<10.6	5.15	7.90
1	04/14/2015	2 - 3	0.00109	< 0.00109	0.00109	<0.00109	0.00217	<0.00217	0.00326	<0.00326	27,2	<27.2	27.2	<27.2	27.2	<27.2	27.2	<27.2	100	<100	1.09	5.78
i	08/04/2015	2 - 3	0.0200	<0.0200	0.0200	<0.0200	0.0200	<0.0200	0.0200	<0.0200	50.0	<50.0	50.0	<50.0			50.0	<50.0			4.00	<20.0
1	1 1																					
2	02/24/015	2 - 3	0.00624	<0.00624	0.0187	<0.0187	0.0187	<0.0187	0.0187	<0.0187	0.246	<0.246	12.7	<12.7			12.7	<12.7	12.9	20.9	6.40	35.2
	06/16/2015	2 - 3	0.0200	<0.0200	0.0200	<0.0200	0.0200	<0.0200	0.0200	0.0200	4.0	<4.00	50.0	<50.0			50.0	<50.0	10.0	<20.0	25.0	256
1	08/04/2015	2 - 3	0.0200	<0.0200	0.0200	<0.0200	0.0200	<0.0200	0.0200	<0.0200	50.0	<50.0	50.0	<50.0			50.0	<50.0			4.00	<20.0
ł	1																					
3	02/24/015	2 - 3	0.00543	<0.00543	0.0163	<0.0163	0.0163	<0.0163	0.0163	<0.0163	0.216	<0.216	11.8	<11.8	-		11.8	<11.8	12.0	<12.0	52.7	98.8
1	04/14/2015	2 - 3	0.00110	<0.00110	0.00110	<0.00110	0.00220	<0.00220	0.00330	<0.00330	27.5	<27.5	27,5	<27.5	27.5	<27.5	27.5	<27.5	100	<100	1.10	33.7
1	08/04/2015	2 - 3	0.0200	< 0.0400	0.0200	<0.0400	0.0200	<0.0400	0.0200	<0.0400	50.0	<50.0	50.0	<50.0			50.0	<50.0			4.00	<20.0
4	02/24/015	2 - 3	0.00506	<0.00506	0.0152	<0.0152	0.0152	<0.0152	0.0152	<0.0152	0.196	<0.193	9.7	<9.73			9,7	<9.73	9.92	<9.92	4.67	32.3
1	04/14/2015	2 - 3	0.00110	<0.00110	0.00110	<0.00110	0.0	<0.00220	0.00330	<0.00330	27.5	<27.5	27.5	<27.5	27.5	<27.5	27.5	<27.5	100	158	1.10	70.0
1	08/04/2015	2 - 3	0.0200	<0.0400	0.0200	<0.0400	0.0200	<0.0400	0.0200	<0.0400	50.0	<50.0	50.0	<50.0			50.0	<50.0			4.00	<20.0
			l		ļ i																	
5	02/24/015	2 - 3	0.00546	<0.00546	0.0164	<0.0164	0.0164	<0.0164	0.0164	<0.0164	0.206	<0.206	10.9	186			10.9	186	10.8	333	54.4	536
	04/14/2015	2 - 3	0.0016	<0.00116	0.0016	<0.00116	0.00233	<0.00233	0.00339	<0.00339	29.1	<29.1	29.1	<29.1	29.1	<29.1	29.1	<29.1	100	<100	1.16	100
	08/04/2015	2 - 3	0.0200	<0.0400	0.0200	<0.0400	0.0200	0.0802	0.0200	0.207	50.0	<250	50.0	1,200			50.0	1,200			4.00	379
6	02/24/015	2 - 3	0.00482	<0.00482	0.0145	<0.0145	0.0145	<0.0145	0.0145	<0.0145	0.193	<0.193	10.1	<10.1			10.1	<10.1	10.2	<10.2	48.6	69.8
ł	04/14/2015	2 - 3		•		•	•	•	•	•	•	•	•	•	•	•	•	•	٠.	•	•	•
	08/04/2015	2 - 3																				
L																						

Notes: Analysis performed by DHL Analytical, Inc., Round Rock, TX, Permian Bain Environmental Lab, Midland, TX and Trace Analysis, Inc., Lubbock, TX

BTEX by EPA SW-846 method 8021B (BTEX)

TPH by EPA 5W 846 method 8015M (GRO and DRO)

TRPH by EPA SW-846 method 418.1

Results are reported in milligram per Kilograms (mg/Kg).

RL: Reporting limit (equivalent to practical quantification limit (PQL)

- 1. <: Less than method reporting limit
- 2. Depth in feet below native ground surface

Table 3 Vadose Soil Metals Analytical Data Summary R360 Artesia LLC Landfarm (NM1-30-0) Lea County, New Mexico

Cell	Date	Depth	RL	Arsenic	RL	Barium	RL	Cadmium	RL	Chromium	RL	Lead	RL	Mercury	RL.	Selenium	RL	Silver
		(feet)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)
Background:																		
1	11/30/2012	2 - 3	1.05	2.31	105	174	0.315	<0.105	2.10	5.53	0.315	2.82	0.0354	<0.0142	0.525	0.398	0.210	<0.105
1	03/26/2013	2 - 3	1.08	5.16	2.16	70.0	0.324	0.290	2.16	13.7	0.324	7.65	0.0406	<0.0162	0.541	2.49	0.216	<0.108
1	03/12/2014	2 - 3	0.645	3.77	1.29	59.7	0.193	0.131	1.29	12.9	0.193	5.60	0.0220	<0.00879	0.322	0.785	0.129	<0.0645
	04/04/2015	2 - 3	0.008	1.60	0.001	19.0	0.001	<0.001	0.091	3.50	0.011	2.50	0.00025	<0.00025	0.004	<0.004	0.005	<0.005
1																		
2	11/30/2012	2 - 3	1.03	3.67	103	137	0.310	<0.103	2.07	8.23	0.310	3.83	0.0371	<0.0149	0.517	0.455	0,207	<0.103
1	03/26/2013	2 - 3	1.01	4.46	101	1,160	0.303	0.246	2.02	7.73	0.303	3.76	0.0386	<0.0154	0.504	1.32	0.202	<0.101
	03/12/2014	2 - 3	1.10	4.65	2.21	198	0.331	0.133	2.21	6.37	0.331	3.05	0.0434	<0.0174	0.552	0.581	0.221	<0.110
	06/16/2015	2 - 3	2	<2.00	1	55. 5	0.5	<0.500	0.5	4.14	.1	<1.0	0.025	<0.0250	2	<2.00	0.5	<0.500
1																		
3	11/30/2012	2 - 3	0.896	1.65	1,79	40.7	0.269	<0.0896	1.79	5.88	0.269	2.88	0.0362	<0.0145	0.488	0.370	0.179	<0.0896
1	03/26/2013	2 - 3	0.989	2.95	1,98	49.3	0.297	0.198	1.98	8.91	0.297	5.29	0.0367	<0.0147	0.494	1.39	0.198	<0.0989
	03/12/2014	2 - 3	0.662	4.40	132	1,120	0.199	0.136	1.32	4.87	0.199	2.21	0.0241	<0.00964	0.331	0.571	0.132	<0.662
	04/04/2015	2 - 3	0.008	2.50	0.001	33.0	0.001	<0.001	0.091	6.20	0.011	4.00	0.00025	<0.00025	0.004	<0.004	0.005	<0.005
4	11/30/2012	2 - 3	0.909	1.02	1,82	16.4	0.273	<0.0909	1.82	4.21	0.273	2.08	0.0369	<0.0148	0.454	0.245	0.182	<0.0909
1	03/26/2013	2 - 3	0.975	1.30	1.95	25.0	0.292	0.127	1.95	4.56	0.292	4.36	0.0403	<0.0161	0.487	0.765	0.195	<0.0975
	03/12/2014	2 - 3	0.668	1.87	1.34	35.7	0.200	0.0927	1.34	7.36	0.200	4.47	0.0240	<0.00959	0.334	0.553	0.134	<0.0668
	04/04/2015	2 - 3	0.008	2.70	0.001	82.0	0.001	<0.001	0.091	5.70	0.011	3.60	0.00025	<0.00025	0.004	<0.004	0.005	<0.005
1																		
5	11/30/2012	2 - 3	1.05	1.94	105	605	0.314	0.181	2.09	7.19	0.314	4.12	0.0383	<0.0153	0.523	0.453	0.209	<0.105
	03/22/2013	2 - 3	0.927	1.20	1.85	20.9	0.278	0.102	1.85	3.71	0.278	2.23	0.0394	<0.0158	0.463	0.756	0.185	<0.0927
ŀ	03/12/2014	2 - 3	1.19	3.98	2.38	198	0.357	0.195	2.38	11.4	0.357	6.65	0.0472	0.0204	0.595	1.05	0.238	<0.119
	04/04/2015	2 - 3	0.008	2.00	0.001	250	0.001	<0.001	0.091	4.20	0.011	2.60	0.00025	<0.00025	0.004	<0.004	0.005	<0.005
6	11/30/2012	2 - 3	0.873	1.21	1.75	19.4	0.262	<0.0873	1.75	4.02	0.262	2.15	0.0341	<0.0136	0.437	0.276	0.175	<0.0873
	03/23/2013	2 - 2.7	0.940	1.32	1.88	26.7	0.282	<0.0940	1.88	4.03	0.282	2.17	0.0380	<0.0152	0.470	0.610	0.188	<0.094
	03/12/2014	2 - 3	1.18	3.18	2.35	300	0.353	0.120	2.35	6.61	0.353	3.24	0.0228	<0.00913	0.588	0.626	0.235	<0.118
	04/04/2015	2 - 3								•	•	•	•	•	•	•	•	•
L	1																	

Notes: Analysis performed by DHL Analytical, Inc., Round Rock, TX and Permian Basin Environmental Lab, Midland, TX by EPA SW-846 6010B and 7471 Results are reported in milligram per kilogram (mg/kg) equivelent to parts per million (ppm).

RL: Reporting limit (equivalent to practical quantification limit (PQL))

-: Not detected at method detection limit

-- No data available

^{*} Treated soil removed from cell therfore no vadose sample was collected

Table 4 Vadose Soil Anion and Cation Analytical Data Summary R360 Artesia LLC Landfarm (NM1-030) Lea County, New Mexico

								cy, recit incx								
Cell	Sample	Depth	RL	Calcium	RL	Magnesium	RL	Potassium	RL	Sodium	RL	Alkalinity	RL	Chloride	RL	Sulfate
	Date	(Feet)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)		(mg/Kg)
Background:																
1	11/19/2012	2 - 3	656	149,000	656	2,730	656	1,590	13.1	75.5	52.7	809	5.30	7.51	10.6	19.6
1	06/13/2013	2 - 3	1,270	257,000	12.7	807	12.7	206	12.7	58.8	54.6	116	54.6	361	10.9	162
1	03/12/2014	2 - 3	80.6	14,300	8.06	2,570	8.06	3,570	8.06	105	61.9	186	6.11	57.9	12.2	140
1	04/14/2015	2 - 3	0.081	1,960	0.036	620	0.060	815	0.043	130	2.00	4,500	1.09	5.78	0.5	48.3
1																
2	11/19/2012	2 - 3	647	127,000	647	3,920	647	2,430	647	906	54.7	1,130	5.46	59.9	10.9	320
ł	06/13/2013	2 - 3	1,340	163,000	13.4	696	13.4	319	13.4	103	56.7	5,080	5.60	100	11.2	424
ŀ	03/12/2014	2 - 3	690	208,000	13.8	4,300	13.8	1,540	13.8	525	56.1	1,310	5.20	124	10.4	392
1	06/16/2015	2 - 3	10	20,000	10	1,060	10	890	10	122	20	530	25.00	256	25	165
L																
3	11/19/2012	2 - 3	560	7,710	560	1,360	560	1,590	560	964	50.7	1,470	5.11	181	10.2	345
1	06/13/2013	2 - 3	1,270	229,000	63.7	9,720	63.7	999	63.7	193	55.0	1,440	8.59	8.59	4.78	478
1	03/12/2014	2 - 3	827	223,000	827	4,800	8.27	911	8.27	436	63.5	1,250	5.36	118	10.7	5 78
İ	04/14/2015	2 - 3	0.081	1,090	0.036	1,430	0.060	1,650	0.043	505	2.00	4,000	1.10	33.7	0.5	148
					L											
4	11/19/2012	2 - 3	11.4	525	11.4	814	11.4	1,020	11.4	75.0	50.3	71.0	5.09	72.1	10.2	77.6
ŀ	06/13/2013	2 - 3	12.5	889	12.5	921	12.5	1,250	12.5	22.3	50.7	53.2	5.06	103	10.1	29.9
1	03/12/2014	2 - 3	83.5	12,400	83.5	1,980	83.5	1,400	8.35	210	64.7	116	5.53	87.7	111	1,340
	04/14/2015	2 - 3	0.081	35,200	0.036	6,920	0.060	1,650	0.043	198	2.00	4,000	1.10	70.0	0.5	158
5	11/19/2012	2 - 3	654	32,100	654	2,970	654	1,600	654	2,160	55.4	562	55.0	2,020	110	1,770
I	06/13/2013	2 - 3	7.50	451	7.50	591	7.50	85	7.50	248	59.3	103	5.99	18.3	12,0	13.5
l	03/12/2014	2 - 3	744	86,100	14.9	2,410	14.9	2,290	14 .9	609	62.8	260	59.4	624	11.9	332
	04/14/2015	2 - 3	0.081	23,300	0.036	1,860	0.060	1,020	0.043	2,910	2.00	4,500	1.16	100	0.5	62.8
6	11/19/2012	2 - 3	546	668	546	663	546	884	546	23.6	50.4	84.7	5.09	58.9	10.2	22.5
	06/13/2013	2 - 3	12.2	889	12.2	579	12.2	822	12.2	37.1	51.4	189	5.11	13.8	10.2	<10.2
	03/12/2014	2 - 3	735	102,000	14.7	2,270	14.7	1,510	14.7	420	62.2	275	5.49	256	11.0	166
	04/14/2015	2 - 3	•	•	*	*	*	*	*	•		*	*	*	*	*
								l	L							

Notes: Analysis performed by DHL Analytical, Round Rock, Texas and Trace Analysis, Inc., Lubbock, Texas by EPA SW-846 methods 6010B, 300.0 and 310.0.

Results are reported in milligram per kilogram (mg/Kg) equivelent to parts per million (ppm)

RL: Reporting limit (equivalent to practical quantification limit (PQL))

<: Not detected at method RL

-- No data available

Jones, Brad A., EMNRD

From:

Stephanie Garza < Stephanie G@R360es.com >

Sent:

Monday, November 16, 2015 3:52 PM

To:

Jones, Brad A., EMNRD

Subject:

RE: Request to retract plan 1 Report, R360 Artesia, LLC Landfarm (NM1-30-0), Lea

County, New Mexico, August 10, 2015

Attachments:

11-16-15 R360 Artesia Landfarm-Plan 1 Retraction.pdf

Mr. Jones,

I apologies for the previous email in regards to it reading "via mail". We will send the attached as a hard copy to the Santa Fe office.

Thanks,

Stephanie Garza Environmental Specialist stephanieg@r360es.com 956-458-0515

From: Stephanie Garza

Sent: Monday, November 16, 2015 1:37 PM

To: 'brad.a.jones@state.nm.us' **Cc:** Wayne Crawley; Mark Larson

Subject: Request to retract plan 1 Report, R360 Artesia, LLC Landfarm (NM1-30-0), Lea County, New Mexico, August 10,

2015

Mr. Jones,

Please see attached plan 1 retraction letter for R360 Artesia, LLC Landfarm. This letter will also be sent Via mail.

If you have any questions please let us know.

Thanks,

Stephanie Garza Environmental Specialist stephanieg@r360es.com 956-458-0515



3 Waterway Square Place, Suite 110 The Woodlands, TX 77380 281.872.R360 (7360) Office www.r360environmentalsolutions.com

November 16, 2015

Mr. Brad Jones Environmental Bureau New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Request to Retract Plan 1 Report, R360 Artesia, LLC Landfarm (NM1-30-0), Lea County, New Mexico, August 10, 2015

Dear Brad:

This letter is a request to retract the above referenced report that was submitted to the OCD on August 10, 2015. As discussed, R360 will complete additional sampling and analysis in accordance with the approved Plan. Please contact me at (956)-458-0515 if you have questions.

Sincerely,

Stephanie Garza

Environmental Specialist StephanieG@R360es.com

Jones, Brad A., EMNRD

From:

Stephanie Garza < Stephanie G@R360es.com >

Sent:

Monday, November 16, 2015 12:37 PM

To:

Jones, Brad A., EMNRD

Cc:

Wayne Crawley; Mark Larson

Subject:

Request to retract plan 1 Report, R360 Artesia, LLC Landfarm (NM1-30-0), Lea County,

New Mexico, August 10, 2015

Attachments:

11-16-15 R360 Artesia Landfarm-Plan 1 Retraction.pdf

Mr. Jones,

Please see attached plan 1 retraction letter for R360 Artesia, LLC Landfarm. This letter will also be sent Via mail.

If you have any questions please let us know.

Thanks,

Stephanie Garza Environmental Specialist stephanieg@r360es.com 956-458-0515



3 Waterway Square Place, Suite 110 The Woodlands, TX 77380 281.872.R360 (7360) Office www.x360environmentalsolutions.com

November 16, 2015

Mr. Brad Jones Environmental Bureau New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Request to Retract Plan 1 Report, R360 Artesia, LLC Landfarm (NM1-30-0), Lea County, New Mexico, August 10, 2015

Dear Brad:

This letter is a request to retract the above referenced report that was submitted to the OCD on August 10, 2015. As discussed, R360 will complete additional sampling and analysis in accordance with the approved Plan. Please contact me at (956)-458-0515 if you have questions.

Sincerely,

Stephanie Garza

Environmental Specialist StephanieG@R360es.com



November 2, 2015

Mr. Brad Jones Environmental Bureau Oil Conservation Division NM Energy, Mining and Natural Resources Dept. 1220 S. St. Francis Drive Santa Fe, NM 87505

Re: Retraction of Plan 1 Report Submitted August 15, 2015

Former Artesia Aeration Facility

Lea County, New Mexico

Permit NM1-030: Commercial Surface Waste Management Facility

R360 Artesia, LLC

Mr. Jones:

This letter is being sent to you pursuant to our telephone conversation on October 21, 2015. Based on our discussion during that call, R360 Artesia, LLC (R360) would like to retract the Larson & Associates, Inc. (LAI) report entitled "Plan 1 Report, R360 Artesia, LLC Landfarm, NM-01-0030, Lea County, New Mexico" which is dated August 10, 2015. The report will be modified in accordance with our telephone discussion and will be resubmitted at a later date for your review. R360 will finalize the execution of Plan 1 prior to resubmitting the report, as discussed during our telephone conference.

If you have any questions or comments regarding this letter, please feel free to contact me at my office at 281-873-3239 or by cell phone at 281-734-1572.

Sincerely,

R360 Environmental Solutions, LLC

Brian K. Moore

Director, Regulatory Affairs



August 15, 2015

Mr. Brad Jones Oil Conservation Division NM Energy, Minerals and Natural Resources Dept. 1220 S. St. Francis Drive Santa Fe, NM 87505

Re: Artesia Aeration

R360 Artesia, LLC Permit NM-01-0030

Lea County

Dear Mr. Jones:

R360 Environmental Solutions (R360) is submitting the attached report to document the activities that have been conducted at the Artesia Aeration facility located near Maljamar, NM. These activities were conducted in accordance with the discussions between yourself and Mr. Wayne Crawley of R360.

If you have questions or comments regarding the enclosed report, please do not hesitate to contact me at 281-734-1572.

Sincerely,

R360 Environmental Solutions

Brian Moore

Director, Regulatory Affairs

PLAN 1 REPORT R360 Artesia, LLC Landfarm NM-01-0030 Lea County, New Mexico

LAI Project Number 15-0121-03

August 10, 2015

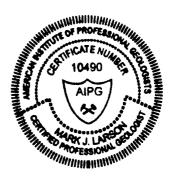
Prepared for:R360 Environmental Solutions, LLC 3 Waterway Square Place, Suite 110 The Woodlands, Texas 77380

Prepared by:

Larson & Associates, Inc. 507 North Marienfeld Street, Suite 205 Midland, Texas 79701

Mark J. Larson, C.P.G. 10490

President/Sr. project Manager



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1.0 EXECUTIVE SUMMARY

R360 Artesia, LLC (R360) submits this Plan 1 report to the New Mexico Oil Conservation Division (OCD) for its commercial surface waste management facility (NM1-030-0). The report was prepared by Larson & Associates, Inc.

The following activities are documented in the report:

- The perimeter berm was reconstructed to the permit specifications of 5 feet high and 30 feet at the base:
- The buffer zone was constructed on the north side of Cells 1 through 4 between the cells and perimeter berm;
- Temporary cell berms were established on the north sides of Cells 1 through 4 according to the permit requirements of 5 feet high and 30 feet at the base;
- Approval was granted from OCD to add an additional 6 inch lift of soil to Cells 1 through 4 with soil acquired from the area of shallow groundwater in Cell 5 and from Cell 6;
- Composite vadose samples consisting of 4 discrete samples from 2 to 3 feet below ground surface were collected from the buffer zones of Cells 1 through 4 following removal of treated soil and were analyzed or benzene, toluene, ethylbenzene, xylenes (BTEX), total petroleum hydrocarbons and chloride, by OCD approved methods.

The following conclusions are documented in the report:

- 1. Ethylbenzene (0.00317 mg/Kg) was reported above the RL (0.00106 mg/Kg) in the buffer zone composite sample from Cell 4;
- 2. Total xylenes was reported in the buffer zone composite sample from Cell 3 (0.0173 mg/Kg) and Cell 4 (0.00331 mg/Kg) and above the RL of 0.00326 mg/Kg (Cell 3) and 0.00319 mg/Kg (Cell 4);
- 3. TRPH was less than RL in buffer zone composite samples from Cells 1 through 4;
- 4. Chloride was reported between 8.51 and 161 mg/Kg in buffer zone composite samples from Cell 1 through 4.

R360 respectfully requests approval for the following recommendations:

- 1. Natural attenuation for ethylbenzene and total xylenes concentrations reported in the buffer zone vadose samples from Cells 3 and 4.
 - This request is supported by groundwater exceeding at least 50 to 100 feet below ground surface; and
- 2. No further action for the chloride concentrations in the buffer zone vadose samples.

 This request is supported by chloride concentration below the New Mexico Water Quality Control Commission (WQCC) domestic water quality standard of 250 milligrams per liter (mg/L).

2.0 INTRODUCTION

This report is prepared on behalf of R360 Artesia, LLC (R360) to present the results of Plan 1 (Berm and Buffer Plan) for the Artesia Aeration Landfarm (Site). The Site is a New Mexico Oil Conservation Division (OCD) permitted (NM-1-30-0) commercial surface waste management facility located in Unit A (NE/4, NE/4), Section 7, Township 17 South, Range 32 East in Lea County, New Mexico. Figure 1 presents a topographic map. Figure 2 presents an aerial map.

2.1 Background

On November 29, 2014, Larson & Associates, Inc. (LAI), on behalf of R360, submitted Plan 1 to the OCD to address the following:

- 1) Perimeter berm
- 2) Cell lift approval
- 3) Removal of the contaminated soils within the 100 foot buffer zone and temporary cell berm area
- 4) Construction of temporary cell berms
- 5) Verification samples within the 100 foot buffer zone
- 6) Construction of Permanent Cell Berms

Plan1 was approved on November 24, 2015, with the following conditions:

- 1. R360 Artesia, LLC shall comply with all applicable requirements of the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), all conditions specified in this approval, and shall operate in accordance with the November 19, 2014 submittal;
- 2. R360 Artesia, LLC shall compare vadose zone monitoring results to the background results or PQL (whichever is higher) in order to determine if a release had occurred and if additional follow-up actions of 19.15.36.15.E.(5) NMAC are required to be completed; and
- 3. R360 Artesia, LLC shall obtain written approval from OCD prior to implementing any changes to the November 19, 2014 plan.

Appendix A presents the OCD approval.

3.0 FIELD ACTIVITES

3.1 Perimeter Berm

The perimeter berm was repaired and rebuilt to meet permit condition 5 of the permit including height of 5 feet above grade and width of 30 feet at the base. R360 contracted Lighthouse Environmental Services, Inc. (Lighthouse) to perform this task. Lighthouse used a bulldozer to repair the perimeter berm where water and wind had deteriorated or breached the berm. The perimeter berm width and height was corrected to the permit requirements. Figure 3 presents a Site drawing showing the perimeter berm location, width and height. Appendix B presents photographs.

3.2 Additional Cell Lifts

R360 requested approval to add an additional soil lift to Cells 1 through 4. The requests were approved by OCD on September 2, 2014 (Cell 4), October 21, 2014 (Cell 1), January 14, 2015 (Cell 3) and March 23, 2015 (Cell 2). The soil volumes for Cells 1 through 4, based on the cell area and lift thickness (6 inches), were 1,708 (Cell 1), 1,818 (Cell 2), 3,078 (Cell 3) and 7,208 (Cell 4) cubic yards. Appendix A presents the OCD approvals for additional lift requests.

During March and April 2015, Lighthouse removed soil from the area overlying shallow groundwater in Cell 5 (southeast corner) and Cell 6 and spread the soil in an additional 6 inch lift in Cells 1, 3 and 4. No soil was added to Cell 2 except for the buffer zone. Figure 3 presents the area of Cells 5 and 6 where soil was removed. Appendix B presents photographs.

3.3 Buffer Zone Soil Removal and Temporary Cell Berms

Following perimeter berm construction Lighthouse removed soils from the buffer zone north of Cells 1 through 4. The width of the buffer zone was marked with grade stakes. Lighthouse used a bulldozer to push up soil from the buffer zone and a loader to evenly spread the soil across the respective cells. A temporary cell berm was erected adjacent to the north edge of Cells 1 through 4. The temporary cell berms were constructed with soil acquired from an area at the facility that has not been used for placement of contaminated soil. The temporary cell berms were constructed to the permit requirement of 5 feet high and 30 feet wide at the base. Figure 3 presents the berm and buffer zone drawing. Appendix B presents photographs.

3.4 Verification Samples within Buffer Zone

Verification samples were collected from the buffer zone following removal of treated soil. The purpose of the verification samples is to confirm that the soils in the vadose zone have not been affected by the treatment zone soils. Four (4) discrete soil samples were collected from the 70 foot buffer zone north of Cells 1 through 4 between 2 and 3 feet below ground surface (bgs). The discrete samples for each cell buffer zone were composited into a single sample for a total of 4 composite samples (one for each cell buffer zone). The samples were under preservation and chain of custody to Permian Basin Environmental Lab (PBELAB), a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory, located in Midland, Texas. The laboratory analyzed the composite samples for benzene, toluene, ethylbenzene, xylenes (BTEX) by EPA SW-846 method 8021B, total petroleum hydrocarbons (TRPH) by EPA SW-846 method 418.1 and chloride by EPA method E300. Table 1 presents the

Plan 1 Report R360 Artesia, LLC (NM-01-003) August 10, 2015

analytical data summary. Figure 3 presents the discrete soil sample locations for Cells 1 through 4. Appendix C presents the laboratory reports.

The composite sample analysis were compared to the higher of the background concentration or practical quantitation limit (PQL) which is equivalent to the reporting limit (RL) to determine if a release to the vadose zone has occurred. On November 5, 2014, R360 submitted a plan (Plan 4) to the OCD and proposed to use analytical data from two (2) background samples (8 and 10) for the comparison. Table 2 presents the background organic analytical data summary. Table 3 presents the background inorganic and TRPH analytical data summary.

Referring to Table 1, ethylbenzene was reported at 0.00317 milligrams per kilogram (mg/Kg) and above the RL (0.00106 mg/Kg) in the buffer zone sample from Cell 3. Total xylenes was reported at 0.0173 mg/Kg (Cell 3) and 0.00331 mg/Kg (Cell 4) and above the RL of 0.00326 mg/Kg (Cell 3) and 0.00319 mg/Kg (Cell 4). TRPH was less than RL in buffer zone composite samples from Cells 1 through 4. Chloride ranged from 8.51 mg/Kg (Cell 4) to 161 mg/Kg (Cell 2) and exceeded the RL and background concentration (<5.04 mg/Kg).

4.0 CONCLUSIONS

- 1. The perimeter berm was repaired and rebuilt to the permit requirements of 30 feet wide a the base and 5 feet high;
- 2. Treated soil was removed from the 70 foot buffer zone at Cells 1 through 4 and spread evenly across the respective cells;
- 3. Treated soil was removed from the area of shallow groundwater in the southeast corner of Cell 5 and from Cell 6 and spread in a 6 inch lift on Cells 1, 3 and 4 following approval from OCD to add another lift of soil to the cells;
- 4. No soil was added to Cell 2 except for the buffer zone;
- 5. Temporary cell berms were constructed adjacent to the north sides of Cells 1 through 4 to the permit requirements of 30 feet wide at the base and 5 feet high;
- 6. Ethylbenzene (0.00317 mg/Kg) was reported above the RL (0.00106 mg/Kg) in the buffer zone composite sample from Cell 4;
- 7. Total xylenes was reported in the buffer zone composite sample from Cell 3 (0.0173 mg/Kg) and Cell 4 (0.00331 mg/Kg) and above the RL of 0.00326 mg/Kg (Cell 3) and 0.00319 mg/Kg (Cell 4);
- 8. Chloride was reported between 8.51 and 161 mg/Kg in buffer zone composite samples from Cell 1 through 4.

Plan 1 Report R360 Artesia, LLC (NM-01-003) August 10, 2015

5.0 RECOMMENDATIONS

R360 requests OCD approval for natural attenuation of the ethylbenzene and total xylenes concentrations reported in the buffer zone vadose samples from Cells 3 and 4. This request is supported by groundwater exceeding at least 50 to 100 feet below ground surface. Chloride concentrations in the buffer zone vadose samples are below the New Mexico Water Quality Control Commission (WQCC) domestic water quality standard of 250 milligrams per liter (mg/L) therefore R360 requests no further action for the chloride.

Tables

Table 1
Buffer Zone Vadose Soil Analytical Data Summary
R360 Artesia LLC Landfarm (NM-1-030)
Lea County, New Mexico

Cell	Date	Depth	Reporting	Benzene	Reporting	Ethylbenzene	Reporting	Toluene	Reporting	Xylenes	Reporting	втех
			Limit	(mg/Kg)	Limit	(mg/Kg)	Limit	(mg/Kg)	Limit	(mg/Kg)	Limit	(mg/Kg)
1	03/12/2015	2 - 3	0.00111	<0.00111	0.00111	<0.00111	0.00222	<0.00222	0.00222	<0.00222	0.00111	<0.00111
2	04/10/2015	2 - 3	0.00105	<0.00105	0.00105	<0.00105	0.00211	<0.00211	0.00316	<0.00316	0.00105	<0.00105
3	03/12/2015	2 - 3	0.00109	<0.00109	0.00109	<0.00109	0.00217	<0.00217	0.00326	0.0173	0.00109	0.0173
4	03/12/2015	2 - 3	0.00106	<0.00106	0.00106	0.00317	0.00213	<0.00213	0.00319	0.00331	0.00106	0.00648

Cell	Date	Depth	Reporting Limit	TRPH (mg/Kg)	Reporting Limit	Chloride (mg/Kg)
1	03/12/2015	2 - 3	100	<100	1.11	78.3
2	04/10/2015	2 - 3	100	<100	1.05	161
3	03/12/2015	2 - 3	100	<100	1.09	18.3
4	03/12/2015	2 - 3	100	<100	1.06	8.51

Notes: Analysis performed by Permian Basin Environmental Lab, Midland, Texas and Cardinal

Laboratories, Hobbs, New Mexico

Results are reported in milligram per Kilograms (mg/Kg).

BTEX analysis was performed by SW846 method 8021B

TRPH analysis was performed by SW846 method 418.1

Chloride analysis was performed by 300.0

- 1. <: Less than reporting limit (RL)
- 2. Depth in feet below native ground surface

Bold indicates analyte detected above the reporting limit

Table 2 Background Organic and PCB Analytical Data Summary R360 Artesia LLC Landfarm Lea County, New Mexico

5ample	Date	Depth feet	Benzene	Toluene	Carbon tetra chloride	1,2-Dichloro ethane	1,1-Dichloro ethylene	Tetrachloro ethylene	Trichloro ethylene	Ethyl benzene	Total Xylenes	Methylene chloride
Mean Backgr	ound Concer	tration:	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.004785
PQL			0.00450 - 0.00507	0.00450 - 0.00507	0.00450 0.00507	0.00450 - 0.00507	0.00450 . 0.00507	0.00450 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507
. ~~			0.00430 - 0.00307	0.00430 - 0.00307	0.00430 - 0.00307	0.00430 - 0.00307	0.00430 - 0.00307	0.00430 - 0.00307	0.00430 - 0.00307	0.00430 - 0.00307	0.00430 - 0.00307	0.00430 - 0.00307
5ection 8	07/15/13		<0.000899	<0.000899	<0.000899	<0.000899	<0.000899	<0.000899	<0.000899	<0.000899	<0.000899	<0.00450

Sample	Date	Depth feet	Chloroform	1,1-Dichloro ethane	Ethylene bromide	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	1,1,2,2- Tetrachloroetha ne	Vinyl chloride
Mean Backgr	ound Concer	tration:	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095
PQL			0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507
Section 8	07/15/13	1 - 2	<0.000899	<0.000899	<0.000899	<0.000899	<0.000899	<0.000899	<0.000899
Section 10	07/16/13	1 - 2	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101

Sample	Date	Depth feet	1- Methylnaphthale ne	2-Methyl naphthalene	Naphthalene	Benzo[a] pyrene	2,3,4,6- Tetrachloro phenol	2,4,5-Trichloro phenoi	2,4,6-Trichloro phenol	2,4-Dichloro phenol	2,4-Dimethyl phenol	2,4-Dinitro phenol	2,6-Dichloro phenol
Mean Backgr	ound Concer	ntration:	<0.01005	<0.01005	<0.01005	<0.01005	<0.01005	<0.01005	<0.01005	<0.01005	<0.01005	<0.0502	<0.01005
PQL			0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.132 - 0.133	0.0266 - 0.0268
Section 8	07/15/13	1 - 2	<0.00999	<0.00999	<0.00999	<0.00999	<0.00999	<0.00999	<0.00999	<0.00999	<0.00999	<0.0500	<0.00999
Section 10	07/16/13	1 - 2	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.0504	<0.0101

Sample	Date	Depth feet	2-Chloro phenol	2-Methylphenol	2-Nitrophenol	4,6-Dinitro-2- methyl phenol	4-Chloro-3- methyl phenol	4-Methyl phenol	4-Nitro phenol	Pentachloro phenol	Phenol	Total Phenol
Mean Backgr	ound Concer	tration:	<0.01005	<0.01005	<0.01005	<0.0302	<0.01005	<0.0201	<0.0502	<0.01005	<0.01005	<0.01005
PQL			0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.0659 - 0.0666	0.0266 - 0.0268	0.0266 - 0.0268	0.132 - 0.133	0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268
Section 8	07/15/13	1 - 2	<0.00999	<0.00999	<0.00999	<0.0300	<0.00999	<0.0200	<0.0500	<0.00999	<0.00999	<0.00999

Sample	Date	Depth feet	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
Mean Backgr	ound Concer	tration:	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168
PQL			0.0333 - 0.0336	0.0333 - 0.0336	0.0333 - 0.0336	0.0333 - 0.0336	0.0333 - 0.0336	0.0333 - 0.0336	0.0333 - 0.0336
Section 8	07/15/13	1 - 2	<0.0167	<0.0167	< 0.0167	<0.0167	< 0.0167	< 0.0167	<0.0167
Section 10	07/16/13	1 - 2	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168

Notes: Analysis performed by method SW-846-9056 by DHL Analytical, Inc., Round Rock, Texas

Results are reported in milligram per Kilograms (mg/Kg).

1. <: Not detected at method detection limit

2. BDL: Below method detection limit

Table 3

Background Inorganic and TRPH Analytical Data Summary
R360 Artesia LLC landfarm
Lea County, New Mexico

Sample	Date	Depth (Feet)	TRPH	Cyanide	Chloride	Fluoride	Nitrate-N	Sulfate	рН
Mean Backgr	ound Concen	tration:	<4.90	<0.176	<5.04	<1.08	<5.04	<11	7.60
PQL			9.55 - 10.0	0.428 - 0.450	5.02 - 5.06	1.00 - 1.01	5.02 - 5.06	10.0 - 10.1	
Section 8	07/15/13	1 - 2	<4.78	<0.180	<5.06	1.16	<5.06	12	7.52
Section 10	07/16/13	1 - 2	<5.02	<0.171	<5.02	<1.00	<5.02	<10.0	7.68

Sample	Date	Depth (Feet)	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Manganese
Mean Background Concentration:			1.63	21.0	<0.117	4.81	1.45	5,380	2.87	48.0
PQL			0.983 - 0.995	1.97 - 1.99	0.298 - 0.295	1.97 - 1.99	1.97 - 1.99	61.4 - 62.2	0.295 - 0.298	1.97 - 1.99
Section 8	07/15/13	1 - 2	1.54	19.6	<0.0983	4.57	1.37	5,200	2.82	45.6
Section 10	07/16/13	1 - 2	1.71	22.4	0.136	5.05	1.53	5,560	2.92	50.4

Sample	Date	Depth (Feet)	Mercury	Selenium	Silver	Zinc	
Mean Backgr	ound Concen	tration:	<0.016	0.579	<0.099	10.35	
PQL			0.0373 - 0.0406	0.491 - 0.497	0.197 - 0.199	2.46 - 2.49	
Section 8	07/15/13	1 - 2	<0.0149	0.503	<0.0983	10.1	
Section 10	07/16/13	1 - 2	<0.0162	0.654	<0.0995	10.6	

Notes: Analysis performed by method SW-846-9056 by DHL Analytical, Inc., Round Rock, Texas

Results are reported in milligram per Kilograms (mg/Kg).

- 1. <: Not detected at method detection limit
- 2. TRPH Total Recoverable Hydrocarbons, Method 418.1

3. For < (ess than) values, 1/2 of the detection value was used for background average calculations

Figures

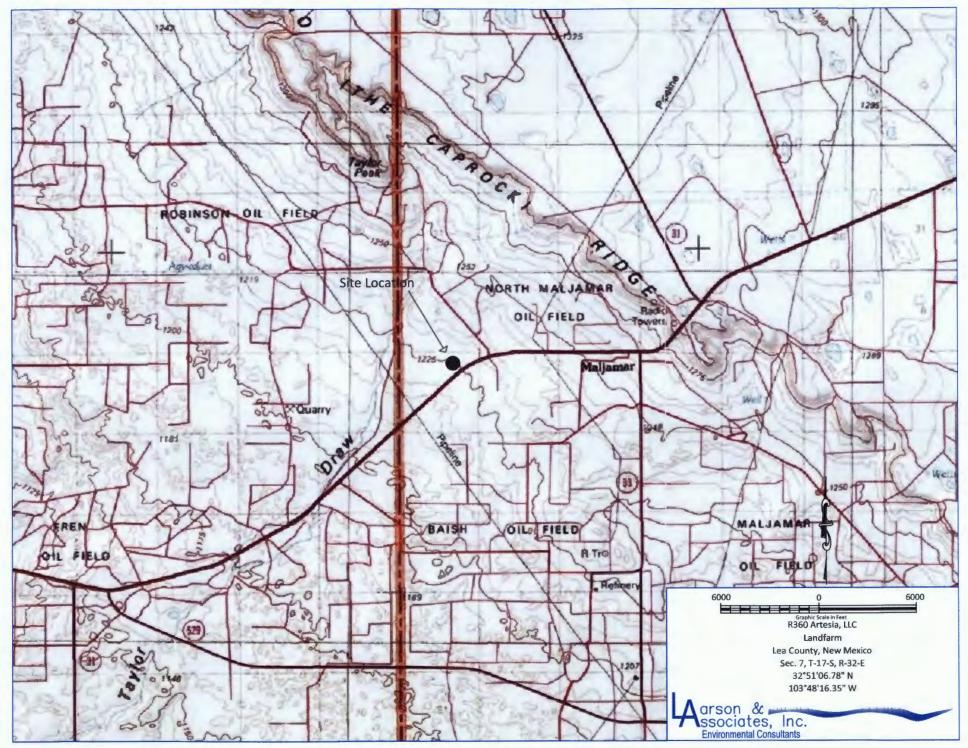


Figure 1 - Topographic Map



Figure 2 - Aerial Map

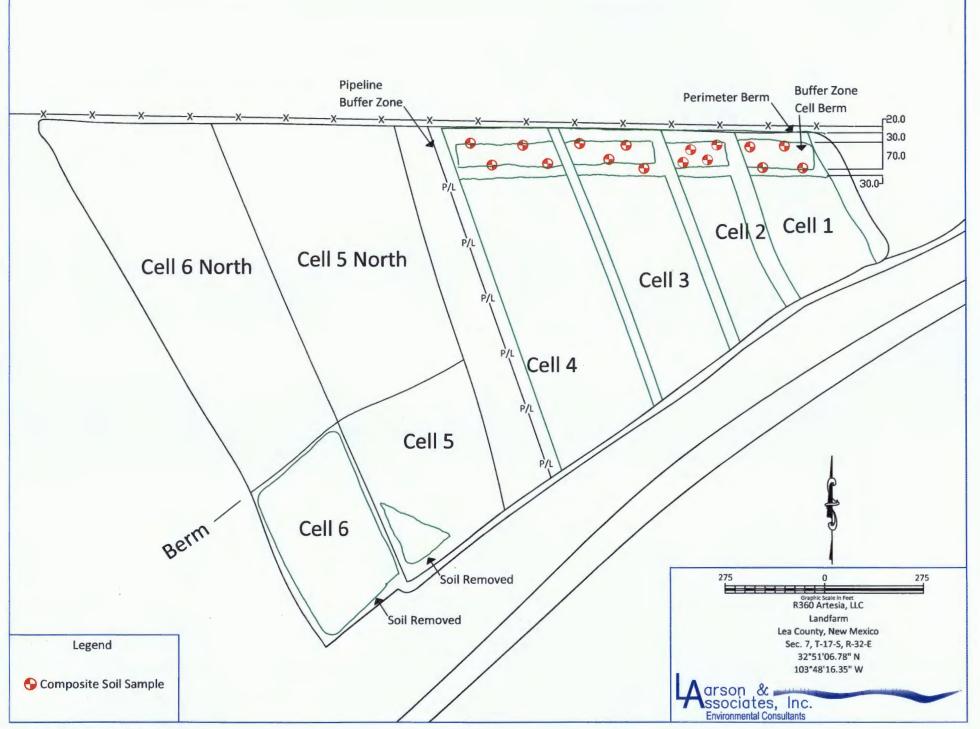


Figure 3 - Remediation Area Map

Appendix A

OCD Correspondence

State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

David Martin Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jami Balley, Division Director Oil Conservation Division



November 24, 2014

Wayne Crawley R360 Environmental Solutions, LLC 3 Waterway Square Place, Suite 110 The Woodlands, Texas 77380

RE: Request for Approval of Plan 1 – Berm and Buffer Plan
Permit NM1 – 030: Commercial Surface Waste Management Facility
R360 Artesia, LLC – R360 Artesia, LLC Landfarm
Facility Location: Unit A of Section 7, Township 17 South, Range 32 East NMPM
Lea County, New Mexico

Dear Mr. Crawley:

The Oil Conservation Division (OCD) has completed the review of Larson & Associates, Inc.'s email request Plan 1, dated November 19, 2014 and submitted on the behalf of R360 Artesia, LLC, which proposes to relocate contaminated soils out of the 100 ft. buffer area, install temporary cells berms, assess the vadose zone within the exposed buffer area, and the installation of permanent cells berms.

Based on the information provided in the request, Plan 1 is hereby approved with the following understandings and conditions:

- R360 Artesia, LLC shall comply with all applicable requirements of the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), all conditions specified in this approval, and shall operate in accordance with the November 19, 2014 submittal;
- R360 Artesia, LLC shall compare vadose zone monitoring results to the background results or PQL (whichever is higher) in order to determine if a release had occurred and if additional follow-up actions of 19.15.36.15.E.(5) NMAC are required to be completed; and
- 3. R360 Artesia, LLC shall obtain written approval from OCD prior to implementing any changes to the November 19, 2014 plan.

Please be advised that approval of this request does not relieve R360 Artesia, LLC of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve R360 Artesia, LLC of its responsibility to comply with any other applicable governmental authority's rules and regulations.

R360 Artesia, LLC Permit NM1-030 November 24, 2014 Page 2 of 2

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or brad.a.jones@state.nm.us.

Sincerely,

Brad A. Jones

Environmental Engineer

BAJ/baj

Cc: OCD District I Office, Hobbs

Mark Larson, Larson & Associates, Inc., 507 North Marienfeld, Suite 200, Midland, TX

79701

State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jami Bailey, Division Director
Oil Conservation Division



October 21, 2014

Wayne Crawley R360 Environmental Solutions, LLC 3 Waterway Square Place, Suite 110 The Woodlands, Texas 77380

RE: Request for Approval to Apply a Successive Lift

Permit NM1 - 030: Commercial Surface Waste Management Facility

R360 Artesia, LLC - R360 Artesia, LLC Landfarm

Facility Location: Unit A of Section 7, Township 17 South, Range 32 East NMPM

Lea County, New Mexico

Dear Mr. Crawley:

The Oil Conservation Division (OCD) has received and reviewed Larson & Associates, Inc.'s email request, dated October 20, 2014 and submitted on the behalf of R360 Artesia, LLC to grant approval to apply an additional six-inch lift to the following cell(s): Cell 1.

Based upon the analytical results provided, OCD hereby grants R360 Artesia, LLC approval to apply an additional six-inch lift of contaminated soils to the above referenced landfarm cell(s). Also, please note that with the addition of successive lifts R360 Artesia, LLC must initiate tilling and treatment zone monitoring and resume vadose zone monitoring. The vadose zone monitoring depth must be adjusted to reach the 2-3 foot zone below the original native ground surface.

Please be advised that approval of this request does not relieve R360 Artesia, LLC of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve R360 Artesia, LLC of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or brad.a.iones@state.nm.us.

Sincerely,

Brad A. Jones
Environmental Engineer

BAJ/baj

Cc: OCD District I Office, Hobbs

Mark Larson, Larson & Associates, Inc., 507 North Marienfeld, Suite 200, Midland, TX 79701

State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary David Catanach, Division Director Oil Conservation Division



March 23, 2015

Wayne Crawley R360 Environmental Solutions, LLC 3 Waterway Square Place, Suite 110 The Woodlands, Texas 77380

RE: Request for Approval to Apply a Successive Lift

Permit NM1 - 030: Commercial Surface Waste Management Facility

R360 Artesia, LLC - R360 Artesia, LLC Landfarm

Facility Location: Unit A of Section 7, Township 17 South, Range 32 East NMPM

Lea County, New Mexico

Dear Mr. Crawley:

The Oil Conservation Division (OCD) has received and reviewed Larson & Associates, Inc.'s email request, dated March 20, 2015 and submitted on the behalf of R360 Artesia, LLC to grant approval to apply an additional six-inch lift to the following cell(s): Cell 2.

Based on the information and data provided in the request, OCD hereby grants R360 Artesia, LLC approval to apply an additional six-inch lift of contaminated soils to the above referenced landfarm cell(s) with the following understandings and conditions:

- 1. R360 Artesia, LLC must initiate tilling, treatment zone monitoring, and resume vadose zone monitoring with the addition of successive lifts. The vadose zone monitoring depth must be adjusted to reach the 2-3 foot zone below the original native ground surface.
- 2. R360 Artesia. LLC shall comply with all applicable requirements of the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), all conditions specified in this approval, and shall operate in accordance with the November 19, 2014 Plan 1 submittal;
- R360 Artesia, LLC shall compare vadose zone monitoring results to the background results or PQL (whichever is higher) in order to determine if a release had occurred and if additional follow-up actions of 19.15.36.15.E.(5) NMAC are required to be completed; and
- 4. R360 Artesia, LLC shall obtain written approval from OCD prior to implementing any changes to the November 19, 2014 Plan 1 submittal.

R360 Artesia, LLC Permit NM1-030 March 23, 2015 Page 2 of 2

Please be advised that approval of this request does not relieve R360 A: sia, LLC of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve R360 Artesia, LLC of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or brad.a.jones@state.nm.us.

Sincerely,

Brad A. Jones

Environmental Engineer

BAJ/baj

Cc: OCD District I Office, Hobbs

Mark Larson, Larson & Associates, Inc., 507 North Marienfeld, Suite 200, Midland, TX 79701

State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary David Catanach, Division Director Oil Conservation Division



January 14, 2015

Wayne Crawley R360 Environmental Solutions, LLC 3 Waterway Square Place, Suite 110 The Woodlands, Texas 77380

RE: Request for Approval to Apply a Successive Lift

Permit NM1 - 030: Commercial Surface Waste Management Facility

R360 Artesia, LLC - R360 Artesia, LLC Landfarm

Facility Location: Unit A of Section 7, Township 17 South, Range 32 East NMPM

Lea County, New Mexico

Dear Mr. Crawley:

The Oil Conservation Division (OCD) has received and reviewed Larson & Associates, Inc.'s email request, dated January 10, 2015 and submitted on the behalf of R360 Artesia, LLC to grant approval to apply an additional six-inch lift to the following cell(s): Cell 3.

Based on the information and data provided in the request, OCD hereby grants R360 Artesia, LLC approval to apply an additional six-inch lift of contaminated soils to the above referenced landfarm cell(s) with the following understandings and conditions:

- 1. R360 Artesia, LLC must initiate tilling, treatment zone monitoring, and resume vadose zone monitoring with the addition of successive lifts. The vadose zone monitoring depth must be adjusted to reach the 2-3 foot zone below the original native ground surface.
- R360 Artesia, LLC shall comply with all applicable requirements of the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), all conditions specified in this approval, and shall operate in accordance with the November 19, 2014 Plan 1 submittal;
- R360 Artesia, LLC shall compare vadose zone monitoring results to the background results or PQL (whichever is higher) in order to determine if a release had occurred and if additional follow-up actions of 19.15.36.15.E.(5) NMAC are required to be completed; and
- 4. R360 Artesia, LLC shall obtain written approval from OCD prior to implementing any changes to the November 19, 2014 Plan 1 submittal.

R360 Artesia, LLC Permit NM1-030 January 14, 2015 Page 2 of 2

Please be advised that approval of this request does not relieve R360 Artesia, LLC of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve R360 Artesia, LLC of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or brad.a.jones@state.nm.us.

Sincerely,

Brad A. Jones

Environmental Engineer

BAJ/baj

Cc: OCD District I Office, Hobbs

Mark Larson, Larson & Associates, Inc., 507 North Marienfeld, Suite 200, Midland, TX 79701

State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

David Martin Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jami Bailey, Division Director Oil Conservation Division



September 2, 2014

Mark J. Larson Larson & Associates, Inc. 507 North Marienfeld, Suite 200 Midland, Texas 79701

RE: Request for Approval to Apply a Successive Lift

Permit NM1 - 030: Commercial Surface Waste Management Facility

R360 Artesia, LLC - R360 Artesia, LLC Landfarm

Facility Location: Unit A of Section 7, Township 17 South, Range 32 East NMPM

Lea County, New Mexico

Dear Mr. Larson

The Oil Conservation Division (OCD) has received and reviewed Larson & Associates, Inc.'s email request, dated August 29, 2014 and submitted on the behalf of R360 Artesia, LLC to grant approval to apply an additional six-inch lift to the following cell(s): Cell 4.

Based upon the analytical results provided, OCD hereby grants R360 Artesia, LLC approval to apply an additional six-inch lift of contaminated soils to the above referenced landfarm cell(s). Also, please note that with the addition of successive lifts R360 Artesia, LLC must initiate tilling and treatment zone monitoring and resume vadose zone monitoring. The vadose zone monitoring depth must be adjusted to reach the 2-3 foot zone below the original native ground surface.

Please be advised that approval of this request does not relieve R360 Artesia, LLC of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve R360 Artesia, LLC of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or brad.a.jones@state.nm.us.

Sincerely,

Brad A. Jones

Environmental Engineer

BAJ/baj

Cc: OCD District I Office, Hobbs

Wayne Crawley, R360 Environmental Solutions, LLC, The Woodlands, TX 77380

APPENDIX B

Laboratory Reports

PERMIAN BASIN ENVIRONMENTAL LAB, LP 10014 SCR 1213 Midland, TX 79706



Analytical Report

Prepared for:

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: Artesia Aeration Landfarm
Project Number: 15-0121-01
Location: New Mexico

Lab Order Number: 5D13003



NELAP/TCEQ # T104704156-13-3

Report Date: 04/24/15

Project: Artesia Acration Landfarm

P.O. Box 50685

Midland TX, 79710 Project Ma

Fax: (432) 687-0456

Project Number: 15-0121-01 Project Manager: Mark Larson

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Cell 2	5D13003-01	Soil	04/10/15 10:30	04-10-2015 16:00

P.O. Box 50685 Midland TX, 79710 Project: Artesia Aeration Landfarm

Project Number: 15-0121-01 Project Manager: Mark Larson Fax: (432) 687-0456

Cell 2 5D13003-01 (Soil)

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin I	Environme	ntal Lab,	L.P.				
Organics by GC									
Benzene	ND	0.00105	mg/kg dry	1	P5D1502	04/13/15	04/14/15	EPA 8021B	
Toluene	ND	0.00211	mg/kg dry	1	P5D1502	04/13/15	04/14/15	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	P5D1502	04/13/15	04/14/15	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	P5D1502	04/13/15	04/14/15	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	P5D1502	04/13/15	04/14/15	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.9 %	75-1	25	P5D1502	04/13/15	04/14/15	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		93.9 %	75-1	25	P5D1502	04/13/15	04/14/15	EPA 8021B	
General Chemistry Parameters by El	PA / Standard Method	s							
Chloride	161	1.05	mg/kg dry	1	P5D1511	04/15/15	04/15/15	EPA 300.0	
% Moisture	5.0	0.1	%	1	P5D1401	04/14/15	04/14/15	% calculation	
TPH 418.1	ND	100	mg/kg dry	10	P5D2407	04/21/15	04/21/15	EPA 418.1	SUB-3

Larson & Associates, Inc.

Project: Artesia Aeration Landfarm

Fax: (432) 687-0456

P.O. Box 50685 Project Number: 15-0121-01
Midland TX, 79710 Project Manager: Mark Larson

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P5D1502 - General Preparation	(GC)									
Blank (P5D1502-BLK1)				Prepared: 0	4/13/15 A	nalyzed: 04	/14/15			
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	**							
Ethylbenzene	ND	0.00100	11							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	**							
Surrogate: 1,4-Difluorobenzene	0.0465		"	0.0600		77.5	75-125			
Surrogate: 4-Bromofluorobenzene	0.0672		"	0.0600		112	75-125			
LCS (P5D1502-BS1)				Prepared: 0	4/13/15 A	nalyzed: 04	/14/15			
Benzene	0.0908	0.00100	mg/kg wet	0.100		90.8	70-130			
Toluene	0.102	0.00200	"	0.100		102	70-130			
Ethylbenzene	0.110	0.00100	"	0.100		110	70-130			
Xylene (p/m)	0.215	0.00200	**	0.200		108	70-130			
Xylene (o)	0.109	0.00100	**	0.100		109	70-130			
Surrogate: 1,4-Difluorobenzene	0.0545		"	0.0600		90.9	75-125			
Surrogate: 4-Bromofluorobenzene	0.0676		"	0.0600		113	75-125			
LCS Dup (P5D1502-BSD1)				Prepared: 0	4/13/15 A	nalyzed: 04	/14/15			
Benzene	0.0951	0.00100	mg/kg wet	0.100		95.1	70-130	4.54	20	
Toluene	0.108	0.00200	"	0.100		108	70-130	6.50	20	
Ethylbenzene	0.115	0.00100	"	0.100		115	70-130	4.66	20	
Xylene (p/m)	0.223	0.00200	"	0.200		111	70-130	3.32	20	
Xylene (o)	0.112	0.00100	"	0.100		112	70-130	2.22	20	
Surrogate: 4-Bromofluorobenzene	0.0710		"	0.0600		118	75-125			
Surrogate: 1,4-Difluorobenzene	0.0589		"	0.0600		98.2	75-125			
Matrix Spike (P5D1502-MS1)	Sou	rce: 5D13006	5-03	Prepared: 0	4/13/15 A	nalyzed: 04	/15/15			
Benzene	0.0352	0.00108	mg/kg dry	0.108	ND	32.7	80-120			QM-0
Toluene	0.0720	0.00215	11	0.108	ND	67.0	80-120			QM-0
Ethylbenzene	0.0189	0.00108	"	0.108	ND	17.6	80-120			QM-0
Xylene (p/m)	0.0411	0.00215	"	0.215	ND	19.1	80-120			QM-0
Xylene (o)	0.0199	0.00108	п	0.108	ND	18.5	80-120			QM-0
Surrogate: 4-Bromofluorobenzene	0.105		"	0.0645		163	75-125			S-G
Surrogate: 1,4-Difluorobenzene	0.0623		"	0.0645		96.5	75-125			

Project: Artesia Acration Landfarm

Fax: (432) 687-0456

P.O. Box 50685 Midland TX, 79710

Project Number: 15-0121-01 Project Manager: Mark Larson

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch P5D1502 - General Preparation (GC)

Matrix Spike Dup (P5D1502-MSD1)	Sou	rce: 5D13006	5-03	Prepared: 0	4/13/15 A	nalyzed: 0	4/15/15			
Benzene	0.0234	0.00108	mg/kg dry	0.108	ND	21.7	80-120	40.3	20	QM-05
Toluene	0.0106	0.00215	"	0.108	ND	9.85	80-120	149	20	QM-05
Ethylbenzene	0.0127	0.00108	11	0.108	ND	11.8	80-120	39.7	20	QM-05
Xylene (p/m)	0.0389	0.00215	11	0.215	ND	18.1	80-120	5.49	20	QM-05
Xylene (o)	0.0434	0.00108	"	0.108	ND	40.4	80-120	74.1	20	QM-05
Surrogate: 4-Bromofluorobenzene	0.0837		"	0.0645		130	75-125			S-GC
Surrogate: 1,4-Difluorobenzene	0.0648		"	0.0645		100	75-125			

Project: Artesia Acration Landfarm

P.O. Box 50685

Project Number: 15-0121-01

Fax: (432) 687-0456

Midland TX, 79710

Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

	n t	Reporting	TT 14	Spike	Source	A/DEC	%REC	DDD	RPD	N 7 .
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P5D1401 - *** DEFAULT PREP ***										
Blank (P5D1401-BLK1)				Prepared &	: Analyzed:	04/14/15				
% Moisture	ND	0.1	%							
Duplicate (P5D1401-DUP1)	Sour	rce: 5D13005-	-01	Prepared &	Analyzed:	04/14/15				
% Moisture	14.0	0.1	%		13.0			7.41	20	
Duplicate (P5D1401-DUP2)	Sour	ce: 5D13005-	-14	Prepared &	: Analyzed:	04/14/15				
% Moisture	3.0	0.1	%		3.0			0.00	20	
% Moisture Batch P5D1511 - *** DEFAULT PREP ***	3.0	0.1	%		3.0			0.00	20	
	3.0	0.1	%	Prepared &		04/15/15		0.00	20	
Batch P5D1511 - *** DEFAULT PREP *** Blank (P5D1511-BLK1)	3.0 ND		% mg/kg wet	Prepared &		04/15/15		0.00	20	
Batch P5D1511 - *** DEFAULT PREP *** Blank (P5D1511-BLK1) Chloride				Prepared &	Analyzed:			0.00	20	
Batch P5D1511 - *** DEFAULT PREP *** Blank (P5D1511-BLK1) Chloride LCS (P5D1511-BS1)		1.00		•	Analyzed:		80-120	0.00	20	
Batch P5D1511 - *** DEFAULT PREP ***	ND	1.00	mg/kg wet	Prepared &	Analyzed:	04/15/15 99.3	80-120	0.00	20	
Batch P5D1511 - *** DEFAULT PREP *** Blank (P5D1511-BLK1) Chloride LCS (P5D1511-BS1) Chloride	ND	1.00	mg/kg wet	Prepared &	Analyzed:	04/15/15 99.3	80-120 80-120	1.71	20	
Batch P5D1511 - *** DEFAULT PREP *** Blank (P5D1511-BLK1) Chloride LCS (P5D1511-BS1) Chloride LCS Dup (P5D1511-BSD1)	ND 99.3 97.6	1.00	mg/kg wet mg/kg wet	Prepared &	Analyzed: Analyzed: Analyzed:	04/15/15 99.3 04/15/15 97.6				

Larson & Associates, Inc.

Project: Artesia Aeration Landfarm

Fax: (432) 687-0456

P.O. Box 50685 Project Number: 15-0121-01
Midland TX, 79710 Project Manager: Mark Larson

Notes and Definitions

SUB-3 Subcontract of analyte/analysis to Cardinal Laboratories. S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate. The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were QM-05 within acceptance limits showing that the laboratory is in control and the data is acceptable. Analyte DETECTED DET Analyte NOT DETECTED at or above the reporting limit ND NR Not Reported Sample results reported on a dry weight basis dry Relative Percent Difference RPD Laboratory Control Spike LCS MS Matrix Spike Dup Duplicate

	French	Amportion C		
Report Approved By:	·**		Date:	4/24/2015

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

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April 21, 2015

Brent Barron

Permian Basin Environmental Lab, LP

10014 SCR 1213

Midland, TX 79706

RE: SOIL SAMPLES

Enclosed are the results of analyses for samples received by the laboratory on 04/15/15 8:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Total Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B Total Coliform and E. coli (Colilert MMO-MUG)

Method EPA 524.2 Regulated VOCs and Total Trihalomethanes (TTHM)

Method EPA 552.2 Total Haloacetic Acids (HAA-5)

Celey D. Keine

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

Permian Basin Environmental Lab, LP

10014 SCR 1213 Midland TX, 79706 Project: SOIL SAMPLES

Project Number: NONE GIVEN Project Manager: Brent Barron

Reported: 21-Apr-15 16:15

Fax To: Not Given

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
5D13003-01	H500979-01	Soil	10-Apr-15 00:00	15-Apr-15 08:45

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence are any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiants, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether success of use any of the above stated reasons or otherwise. Results relate only to the samples dentified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Chy & Kuna



Analytical Results For:

Permian Basin Environmental Lab, LP

10014 SCR 1213 Midland TX, 79706 Project: SOIL SAMPLES

Project Number: NONE GIVEN

Project Manager: Brent Barron Fax To: Not Given

Reported:

21-Apr-15 16:15

5D13003-01 H500979-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Labora	tories					
Organic Compounds										
TPH 418.1	ND		100	mg/kg	10	5042108	CK	21-Apr-15	418.1	

Cardinal Laboratories

*=Accredited Analyte

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Celly Thema-



Analytical Results For:

Permian Basin Environmental Lab, LP

10014 SCR 1213 Midland TX, 79706 Project: SOIL SAMPLES

Project Number: NONE GIVEN Project Manager: Brent Barron

Fax To: Not Given

Reported:

21-Apr-15 16:15

Organic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5042108 - Solvent Extraction										
Blank (5042108-BLK1)				Prepared &	Analyzed:	21-Apr-15				
TPH 418.1	ND	100	mg/kg							
LCS (5042108-BS1)				Prepared &	: Analyzed:	21-Apr-15				
TPH 418.1	5500	100	mg/kg	5000		110	70-130			
LCS Dup (5042108-BSD1)				Prepared &	: Analyzed:	21-Apr-15				
TPH 418.1	5280	100	mg/kg	5000		106	70-130	4.01	20	·

Cardinal Laboratories *=Accredited Analyte

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alex thema-



Notes and Definitions

ND	Analyte NOT	DETECTED at or	above the	reporting	limit
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RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Uability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence arising any other cause whatsoever shall be deemed we'ved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be labele for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by Cardinal whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Colleg Z. Kreene



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP 10014 S. County Road 1213 Phone: 432-661-4184

Midland, Texas 79706 Project Name: SUBCONTRACT Project Manager: Brent Barron Company Name **PBEL** Project #: Company Address: 10014 SCR 1213 Project Loc: Midland Texas City/State/Zip: PO #: TRRP □ NPDES Telephone No: 432-661-4184 Fax No: Standard Report Format: Sampler Signature: N/A e-mail: brentbarron@pbelab.com Analyze For (lab use only) TCLP: TOTAL H500978 ORDER #: Matrix Preservation & # of Containers Only) Beginning Depth Sampled Sampled Ending Depth otal # of Conta AB# (lab Time FIELD CODE 04/10/15 S 5D13003-01 Special Instructions: **Laboratory Comments:** Sample Containers Intact? VOCs Free of Headspace? gai Sleuson Labels on container(s) Relinquished by Date Custody seals on container(s) Custody seals on cooler(s) **Brent Barron** 03/25/15 1400 Relinquished by Date Time Sample Hand Delivered by Sampler/Client Rep ? Temperature Upon Receipt:
Received: 2,4 °C FedEx Lone Star Date Relinquished by Date Time Received by:

PERMIAN BASIN ENVIRONMENTAL LAB, LP 10014 SCR 1213 Midland, TX 79706



Analytical Report

Prepared for:

Coty Woolf
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: Artesia Aeration Landfarm
Project Number: 15-0121-01
Location: New Mexico

Lab Order Number: 5C13017



NELAP/TCEQ # T104704156-13-3

Report Date: 03/24/15

Project: Artesia Acration Landfarm

P.O. Box 50685

Project Number: 15-0121-01

Fax: (432) 687-0456

Midland TX, 79710 Project Manager: Coty Woolf

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Cell 1 Comp	5C13017-01	Soil	03/12/15 14:10	03-13-2015 12:50
Cell 3 Comp	5C13017-02	Soil	03/12/15 13:00	03-13-2015 12:50
Cell 4 Comp	5C13017-03	Soil	03/12/15 14:35	03-13-2015 12:50

TPH 418.1 analysis was subcontracted to Cardinal Laboratories in Hobbs, NM.

Project: Artesia Aeration Landfarm

P.O. Box 50685 Midland TX, 79710 Project Number: 15-0121-01

Fax: (432) 687-0456

Project Manager: Coty Woolf

Cell 1 Comp 5C13017-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmer	ital Lab,	L.P.				
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P5C2001	03/18/15	03/19/15	EPA 8021B	
Toluene	ND	0.00222	mg/kg dry	1	P5C2001	03/18/15	03/19/15	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P5C2001	03/18/15	03/19/15	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P5C2001	03/18/15	03/19/15	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P5C2001	03/18/15	03/19/15	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		104 %	75-1	25	P5C2001	03/18/15	03/19/15	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		80.0 %	75-1	25	P5C2001	03/18/15	03/19/15	EPA 8021B	
General Chemistry Parameters by El	PA / Standard Method	ds							
Chloride	78.3	1.11	mg/kg dry	1	P5C1703	03/15/15	03/17/15	EPA 300.0	
% Moisture	10.0	0.1	%	1	P5C1609	03/15/15	03/16/15	% calculation	
TPH 418.1	ND	100	mg/kg dry	1	P5C2401	03/23/15	03/23/15	EPA 418.1	SUB-3

Larson & Associates, Inc. Project: Artesia Aeration Landfarm Fax: (432) 687-0456

P.O. Box 50685 Project Number: 15-0121-01 Midland TX, 79710 Project Manager: Coty Woolf

> Cell 3 Comp 5C13017-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Peri	nian Basin E	Environmer	ital Lab,	L.P.				
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P5C1803	03/16/15	03/16/15	EPA 8021B	
Toluene	ND	0.00217	mg/kg dry	1	P5C1803	03/16/15	03/16/15	EPA 8021B	
Ethylbenzene	ND	0.00109	mg/kg dry	1	P5C1803	03/16/15	03/16/15	EPA 8021B	
Xylene (p/m)	0.0173	0.00217	mg/kg dry	1	P5C1803	03/16/15	03/16/15	EPA 8021B	
Xylene (o)	ND	0.00109	mg/kg dry	1	P5C1803	03/16/15	03/16/15	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		88.8 %	75-1	25	P5C1803	03/16/15	03/16/15	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		86.9 %	75-1	25	P5C1803	03/16/15	03/16/15	EPA 8021B	
General Chemistry Parameters by E	PA / Standard Metho	ds							
Chloride	18.3	1.09	mg/kg dry	1	P5C1703	03/15/15	03/17/15	EPA 300.0	
% Moisture	8.0	0.1	%	1	P5C1609	03/15/15	03/16/15	% calculation	
TPH 418.1	ND	100	mg/kg dry	1	P5C2401	03/23/15	03/23/15	EPA 418.1	SUB-3

Project: Artesia Aeration Landfarm

Fax: (432) 687-0456

P.O. Box 50685 Midland TX, 79710 Project Number: 15-0121-01

Project Manager: Coty Woolf

Cell 4 Comp 5C13017-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	iian Basin E	Environmer	ıtal Lab, l	L.P.				
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P5C1803	03/16/15	03/16/15	EPA 8021B	
Toluene	ND	0.00213	mg/kg dry	1	P5C1803	03/16/15	03/16/15	EPA 8021B	
Ethylbenzene	0.00317	0.00106	mg/kg dry	1	P5C1803	03/16/15	03/16/15	EPA 8021B	
Xylene (p/m)	0.00331	0.00213	mg/kg dry	1	P5C1803	03/16/15	03/16/15	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P5C1803	03/16/15	03/16/15	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		81.4 %	75-1	25	P5C1803	03/16/15	03/16/15	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		114 %	75-1	25	P5C1803	03/16/15	03/16/15	EPA 8021B	
General Chemistry Parameters by E	PA / Standard Method	ls							
Chloride	8.51	1.06	mg/kg dry	1	P5C1703	03/15/15	03/17/15	EPA 300.0	
% Moisture	6.0	0.1	%	1	P5C1609	03/15/15	03/16/15	% calculation	
TPH 418.1	ND	100	mg/kg dry	1	P5C2401	03/23/15	03/23/15	EPA 418.1	SUB-3

P.O. Box 50685 Midland TX, 79710 Project: Artesia Aeration Landfarm

Project Number: 15-0121-01 Project Manager: Coty Woolf Fax: (432) 687-0456

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

A set of	ъ.	Reporting		Spike	Source	A/BEC	%REC	5.05	RPD	XY .
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P5C1803 - General Preparation	on (GC)									
Blank (P5C1803-BLK1)				Prepared &	Analyzed:	03/16/15				
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	11							
Ethylbenzene	ND	0.00100	11							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	**							
Surrogate: 1,4-Difluorobenzene	0.0485		"	0.0500		97.1	75-125			
Surrogate: 4-Bromofluorobenzene	0.0476		"	0.0500		95.3	75-125			
LCS (P5C1803-BS1)				Prepared &	Analyzed:	03/16/15				
Benzene	0.0950	0.00100	mg/kg wet	0.100		95.0	70-130			
Toluene	0.0888	0.00200	"	0.100		88.8	70-130			
Ethylbenzene	0.0879	0.00100	"	0.100		87.9	70-130			
Xylene (p/m)	0.151	0.00200	11	0.200		75.7	70-130			
Xylene (o)	0.0753	0.00100	"	0.100		75.3	70-130			
Surrogate: 1,4-Difluorobenzene	0.0520		"	0.0500		104	75-125			
Surrogate: 4-Bromofluorobenzene	0.0521		"	0.0500		104	75-125			
LCS Dup (P5C1803-BSD1)				Prepared &	Analyzed:	03/16/15				
Benzene	0.0945	0.00100	mg/kg wet	0.100	•	94.5	70-130	0.538	20	-
Toluene	0.0870	0.00200	**	0.100		87.0	70-130	2.00	20	
Ethylbenzene	0.0862	0.00100	н	0.100		86.2	70-130	1.92	20	
Xylene (p/m)	0.148	0.00200	11	0.200		73.8	70-130	2.55	20	
Xylene (o)	0.0740	0.00100	"	0.100		74.0	70-130	1.84	20	
Surrogate: 1,4-Difluorobenzene	0.0523		"	0.0500		105	75-125			
Surrogate: 4-Bromofluorobenzene	0.0514		"	0.0500		103	75-125			
Matrix Spike (P5C1803-MS1)	Sou	rce: 5C13001	-05	Prepared &	: Analyzed:	03/16/15				
Benzene	0.0795	0.00106	mg/kg dry	0.106	0.00878	66.5	80-120			QM-0
Toluene	0.0722	0.00213	•	0.106	0.0786	NR	80-120			QM-0
Ethylbenzene	0.0672	0.00106	**	0.106	0.0771	NR	80-120			QM-0
Xylene (p/m)	0.115	0.00213	"	0.213	0.141	NR	80-120			QM-0
Xylene (o)	0.0556	0.00106	"	0.106	0.0453	9.65	80-120			QM-0
Surrogate: 1,4-Difluorobenzene	0.0558		"	0.0532		105	75-125			

Surrogate: 4-Bromofluorobenzene

91.2

75-125

0.0532

0.0485

Project: Artesia Acration Landfarm

P.O. Box 50685

Project Number: 15-0121-01

Fax: (432) 687-0456

Midland TX, 79710

Project Manager: Coty Woolf

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
	Nosuit	Limit	Onits	Doroi	Nosuit	, vicec	Dunts	NI D	Ziiiii	110163
Batch P5C1803 - General Preparation (GC) Matrix Spike Dup (P5C1803-MSD1)	Sou	ırce: 5C13001	1-05	Prepared 8	& Analyzed:	03/16/15				
Benzene	0.0810	0.00106	mg/kg dry	0.106	0.00878	67.9	80-120	2.04	20	QM-
Toluene	0.0747	0.00213	"	0.106	0.0786	NR	80-120	NR	20	QM-
Ethylbenzene	0.0766	0.00106	н	0.106	0.0771	NR	80-120	NR	20	QM-
Xylenc (p/m)	0.129	0.00213	11	0.213	0.141	NR	80-120	NR	20	QM-
Xylene (o)	0.0614	0.00106	"	0.106	0.0453	15.2	80-120	44.5	20	QM-0
Surrogate: 4-Bromofluorobenzene	0.0636		"	0.0532	-	120	75-125			
Surrogate: 1,4-Difluorobenzene	0.0504		"	0.0532		94.8	75-125			
Batch P5C2001 - General Preparation (GC) Blank (P5C2001-BLK1)				Prepared:	03/18/15 Ar	nalyzed: 03	/19/15			
Blank (P5C2001-BLK1)				Prepared:	03/18/15 Ar	nalyzed: 03	/19/15			
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"	#1 - 14 ·						
Surrogate: 1,4-Difluorobenzene	42.2		ug/kg	50.0		84.4	75-125			
Surrogate: 4-Bromofluorobenzene	50.2		"	50.0		100	75-125			
LCS (P5C2001-BS1)				Prepared: (03/18/15 Ar	nalyzed: 03	/19/15			
Benzene	0.0908	0.00100	mg/kg wet	0.100		90.8	70-130			
Toluene	0.0806	0.00200	"	0.100		80.6	70-130			
Ethylbenzene	0.0856	0.00100	"	0.100		85.6	70-130			
Xylene (p/m)	0.161	0.00200	"	0.200		80.5	70-130			
Xylene (o)	0.0844	0.00100	"	0.100		84.4	70-130			
Surrogate: 4-Bromofluorobenzene	53.3		ug/kg	50.0	-	107	75-125			
Surrogate: 1,4-Difluorobenzene	44.5		"	50.0		88.9	75-125			

P.O. Box 50685 Midland TX, 79710 Project: Artesia Aeration Landfarm

Project Number: 15-0121-01

Project Manager: Coty Woolf

Fax: (432) 687-0456

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P5C1609 - *** DEFAULT PREP ***										
Blank (P5C1609-BLK1)				Prepared: (3/14/15 A	Analyzed: 03	/16/15			
% Moisture	ND	0.1	%							
Duplicate (P5C1609-DUP1)	Sou	rce: 5C13001-	-01	Prepared: (03/14/15 A	Analyzed: 03	/16/15			
% Moisture	13.0	0.1	%		12.0			8.00	20	
Duplicate (P5C1609-DUP2)	Sou	rce: 5C13011-	-02	Prepared: (3/14/15 A	Analyzed: 03	/16/15			
% Moisture	5.0	0.1	%		5.0			0.00	20	
Duplicate (P5C1609-DUP3)	Sou	rce: 5C14006-	-02	Prepared: ()3/14/15 A	Analyzed: 03	/16/15			
				**	9.0			25.0	20	R
% Moisture	7.0	0.1	%		9.0			23.0	20	K
% Moisture Batch P5C1703 - *** DEFAULT PREP ***	7.0	0.1	%		9.0			23.0		K
	7.0	0.1	%	Prepared: (Analyzed: 03	5/23/15			
Batch P5C1703 - *** DEFAULT PREP ***	7.0 ND		% mg/kg wet	Prepared: (Analyzed: 03	5/23/15	23.0		
Batch P5C1703 - *** DEFAULT PREP *** Blank (P5C1703-BLK1) Chloride				•)3/15/15 A	Analyzed: 03 Analyzed: 03				
Batch P5C1703 - *** DEFAULT PREP *** Blank (P5C1703-BLK1) Chloride LCS (P5C1703-BS1)		1.00		•)3/15/15 A	-		25.0		
Batch P5C1703 - *** DEFAULT PREP *** Blank (P5C1703-BLK1) Chloride LCS (P5C1703-BS1) Chloride	ND	1.00	mg/kg wet	Prepared: (03/15/15 A	Analyzed: 03	80-120	25.0		
Batch P5C1703 - *** DEFAULT PREP *** Blank (P5C1703-BLK1) Chloride LCS (P5C1703-BS1)	ND	1.00	mg/kg wet	Prepared: (03/15/15 A	Analyzed: 03 88.4	80-120	1.84	20	
Batch P5C1703 - *** DEFAULT PREP *** Blank (P5C1703-BLK1) Chloride LCS (P5C1703-BS1) Chloride LCS Dup (P5C1703-BSD1)	ND 110	1.00	mg/kg wet mg/kg wet mg/kg wet	Prepared: (125 Prepared: (125	03/15/15 A	Analyzed: 03 88.4 Analyzed: 03	80-120 80-120 8/23/15 80-120			
Batch P5C1703 - *** DEFAULT PREP *** Blank (P5C1703-BLK1) Chloride LCS (P5C1703-BS1) Chloride LCS Dup (P5C1703-BSD1) Chloride	ND 110	1.00 1.00 1.00 rce: 5C13017-	mg/kg wet mg/kg wet mg/kg wet	Prepared: (125 Prepared: (125	03/15/15 A	Analyzed: 03 88.4 Analyzed: 03 86.8	80-120 80-120 8/23/15 80-120			
Batch P5C1703 - *** DEFAULT PREP *** Blank (P5C1703-BLK1) Chloride LCS (P5C1703-BS1) Chloride LCS Dup (P5C1703-BSD1) Chloride Duplicate (P5C1703-DUP1)	ND 110 108 Sout	1.00 1.00 1.00 rce: 5C13017-	mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg dry	Prepared: (125 Prepared: (125 Prepared: (125)	03/15/15 A 03/15/15 A 03/15/15 A 03/15/15 A 78.3	Analyzed: 03 88.4 Analyzed: 03 86.8	80-120 80-120 8/23/15 80-120	1.84	20	

Larson & Associates, Inc. Project: Artesia Aeration Landfarm Fax: (432) 687-0456

P.O. Box 50685 Project Number: 15-0121-01 Midland TX, 79710 Project Manager: Coty Woolf

Notes and Definitions

SUB-3 Subcontract of analyte/analysis to Cardinal Laboratories.

R3 The RPD exceeded the acceptance limit due to sample matrix effects.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were

within acceptance limits showing that the laboratory is in control and the data is acceptable.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

	King Level	formal Link			
Report Approved By:			Date:	3/30/2015	

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

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March 23, 2015

Brent Barron

Permian Basin Environmental Lab, LP

10014 SCR 1213

Midland, TX 79706

RE: SOIL SAMPLES

Enclosed are the results of analyses for samples received by the laboratory on 03/20/15 9:07.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Total Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B Total Coliform and E. coli (Colilert MMO-MUG)

Method EPA 524.2 Regulated VOCs and Total Trihalomethanes (TTHM)

Method EPA 552.2 Total Haloacetic Acids (HAA-5)

Celeg & Keine

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

Permian Basin Environmental Lab, LP

Project: SOIL SAMPLES

Reported:

10014 SCR 1213

Project Number: NONE GIVEN

23-Mar-15 16:44

Midland TX, 79706

Project Manager: Brent Barron

Fax To: Not Given

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
5C13017-01	H500753-01	Soil	12-Mar-15 00:00	20-Mar-15 09:07
5C13017-02	H500753-02	Soil	12-Mar-15 00:00	20-Mar-15 09:07
5C13017-03	H500753-03	Soil	12-Mar-15 00:00	20-Mar-15 09:07

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Uability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence ar any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be lable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether su-daim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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Analytical Results For:

Permian Basin Environmental Lab, LP

10014 SCR 1213 Midland TX, 79706 Project: SOIL SAMPLES

Project Number: NONE GIVEN
Project Manager: Brent Barron

Fax To: Not Given

Reported:

23-Mar-15 16:44

5C13017-01 H500753-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Organic Compounds				_						
TPH 418.1	ND		100	mg/kg	10	5032303	CK	23-Mar-15	418.1	

Cardinal Laboratories *=Accredited Analyte

PLESES NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence aring other cause whatsoever shall be deemed walved unless made in writing and received by Cardinal's liability (30) days after completion of the applicable service. In no event shall Cardinal hall card

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Analytical Results For:

Permian Basin Environmental Lab, LP

10014 SCR 1213 Midland TX, 79706 Project: SOIL SAMPLES

Project Number: NONE GIVEN Project Manager: Brent Barron

Fax To: Not Given

Reported:

23-Mar-15 16:44

5C13017-02

H500753-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	tories					
Organic Compounds										
TPH 418.1	ND		100	mg/kg	10	5032303	CK	23-Mar-15	418.1	

Cardinal Laboratories *=Accredited Analyte

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Analytical Results For:

Permian Basin Environmental Lab, LP

10014 SCR 1213 Midland TX, 79706 Project: SOIL SAMPLES

Project Number: NONE GIVEN
Project Manager: Brent Barron

Fax To: Not Given

Reported:

23-Mar-15 16:44

5C13017-03 H500753-03 (Soil)

Analyte Result MDL Limit Units Dilution Batch Analyst Analyzed Method Notes

Cardinal Laboratories

 Organic Compounds
 ND
 100 mg/kg
 10 5032303
 CK
 23-Mar-15 418.1

Cardinal Laboratories *=Accredited Analyte

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Analytical Results For:

Permian Basin Environmental Lab, LP

10014 SCR 1213 Midland TX, 79706 Project: SOIL SAMPLES

Project Number: NONE GIVEN Project Manager: Brent Barron

Fax To: Not Given

Reported: 23-Mar-15 16:44

Organic Compounds - Quality Control

Cardinal Laboratories

Analyte	Reporting			Spike Source			%REC	%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	
Batch 5032303 - Solvent Extraction											
Blank (5032303-BLK1)				Prepared & Analyzed: 23-Mar-15							
TPH 418.1	ND	100	mg/kg								
LCS (5032303-BS1)		Prepared &	k Analyzed:	23-Mar-15	;						
TPH 418.1	4870	100	mg/kg	5000		97.5	70-130				
LCS Dup (5032303-BSD1)				Prepared & Analyzed: 23-Mar-15							
TPH 418.1	5150	100	mg/kg	5000		103	70-130	5.47	20		
Matrix Spike (5032303-MS1)	Source: H500752-01			Prepared & Analyzed: 23-Mar-15							
TPH 418.1	29700	1000	mg/kg	5000	21400	167	70-130			QM-0	
Matrix Spike Dup (5032303-MSD1)	Source: H500752-01			Prepared & Analyzed: 23-Mar-15			;				
TPH 418.1	28100	1000	mg/kg	5000	21400	134	70-130	5.81	20	QM-0	

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Celley & treeman



Notes and Definitions

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

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alex theme-



Project Manager:

Company Name

City/State/Zip:

Telephone No:

(lab use only)

ORDER#:

AB # (lab use only)

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Special Instructions:

Brent Barron

Relinquished by

Relinquished by

Relinquished by

Sampler Signature: N/A

Brent Barron

Midland Texas

432-661-4184

PBEL

Company Address: 10014 SCR 1213

H500753

FIELD CODE

5C13017-01

5C13017-02

5C13017-03

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Permian Basin Environmental La 10014 S. County Road 1213 Midland, Texas 79706

brentbarron@pbelab.com

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APPENDIX C

Photographs



Cell Berm (Cell 1) Viewing East



Buffer Zone (Cell 1) Viewing East



Perimeter Berm (Cell 1) Viewing East



Cell Berm (Cell 2) Viewing West



Buffer Zone (Cell 2) Viewing West



Perimeter Berm (Cell 2) Viewing West



Cell Berm (Cell 3) Viewing East



Buffer Zone (Cell 3) Viewing East



Perimeter Berm (Cell 3) Viewing East



Cell Berm (Cell 4) Viewing West



Buffer Zone (Cell 4) Viewing West



Perimeter Berm (Cell 4) Viewing West



Perimeter Bern and Fence (Cell 1) Viewing West



Cell 5 (Southeast Corner) Excavation Viewing Northwest



Cell 6 (after soil removal) Viewing North



Cell 6 (after soil removal) Viewing Northeast



Cell 6 (after soil removal) Viewing East

APPENDIX D

Lighthouse Environmental Summary



Lighthouse Environmental Services, Inc. 4904 Fuqua Street Houston, TX 77048

Attn: Jeff Burrier

Brian Moore

Under the Direction of R360 Environmental Solutions, LLC., located at 3 Waterway Square Place Suite 110, Woodlands, TX 77380, Lighthouse has completed the work at the Artesia Landfarm, permit # NM1 = 030. The work completed included the following:

- 1. Repaired the perimeter berm to a height of 5 feet with a base width of 30 feet,
- 2. Removed non-native soil from the 100 foot buffer zone for Treatment Cells 1, 2, 3 and 4,
- 3. Constructed a cell berm, 5 foot in height and 30 feet at the base, for Cells 1, 2, 3 and 4.
- 4. Placed a six inch lift on Cells 1, 3 and 4. Soil was moved from Cells 5 and 6 for placement in Cells 1, 3 and 4. The soils above the designated groundwater area were removed, as well as the remaining soils in Cell 6S.

Note: As directed by R360 the application to Cell 2 was not initiated. However, R360 has indicated that this cell is ready for application.

Sincerely,

LIGHTHOUSE ENVIRONMENTAL SERVICES, INC.

Charles F. Smith Project Manager Houston Office

Jones, Brad A., EMNRD

From: Mark Larson < Mark@laenvironmental.com>

Sent: Tuesday, June 23, 2015 8:03 AM

To: Jones, Brad A., EMNRD

Cc: Wayne Crawley

Subject: Re: Retraction of Plan 1 Report, R360 Artesia LLC Landfarm, June 12, 2015

Brad,

Per our conversation on Monday, June 22, 2015, please accept this email as a retraction for the above referenced report that was submitted to the New Mexico Oil Conservation Division (OCD on June 15, 2015. Please contact me if you have questions.

Mark Larson

From: Mark Larson

Sent: Monday, June 15, 2015 2:09 PM

To: 'Jones, Brad A., EMNRD'

Cc: 'Wayne Crawley'

Subject: Re: Plan 1 Report, R360 Artesia LLC Landfarm, June 12, 2015

Brad.

Please find the attached report for Plan 1 (Berm and Buffer Plan) for the R360 Artesia LLC Landfarm. The report presents the work performed at the landfarm for repairing the perimeter berm (cells 1 through 6), removing soil from the buffer zone and installing cell berms at cells 1 through 4. The buffer zone vadose sample analytical results will be submitted in a separate report. Please contact Wayne Crawley or me if you have questions.

Mark J. Larson, P.G. President/Sr. Project Manager 507 N. Marienfeld St., Suite 200 Midland, Texas 79701 (432) 687-0901 (O) (432) 556-8656 (C)



Jones, Brad A., EMNRD

From: Mark Larson < Mark@laenvironmental.com>

Sent: Monday, June 15, 2015 1:09 PM

To: Jones, Brad A., EMNRD

Cc: Wayne Crawley

Subject: Re: Plan 1 Report, R360 Artesia LLC Landfarm, June 12, 2015

Attachments: Plan 1 Report, R360 Artesia Landfarm, June 12, 2015.pdf

Brad,

Please find the attached report for Plan 1 (Berm and Buffer Plan) for the R360 Artesia LLC Landfarm. The report presents the work performed at the landfarm for repairing the perimeter berm (cells 1 through 6), removing soil from the buffer zone and installing cell berms at cells 1 through 4. The buffer zone vadose sample analytical results will be submitted in a separate report. Please contact Wayne Crawley or me if you have questions.

Mark J. Larson, P.G. President/Sr. Project Manager 507 N. Marienfeld St., Suite 200 Midland, Texas 79701 (432) 687-0901 (O) (432) 556-8656 (C)





June 12, 2015

Mr. Brad Jones
Oil Conservation Division
NM Energy, Minerals and Natural Resources Dept.
1220 S. St. Francis Drive
Santa Fe. NM 87505

Re: Artesia Aeration

R360 Artesia, LLC

Permit NM-01-0030

Lea County, New Mexico

Mr. Jones:

This letter is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of R360 Artesia, LLC (R360) as a follow up to the work completed at the Artesia Aeration Landfarm. The approved plan, Plan 1 – Berm and Buffer Plan, was submitted on November 19, 2014 and approved by the OCD on November 24, 2014.

R360 hired Lighthouse Environmental to complete the field work with Larson & Associates, Inc., assisting with project oversight and sampling. The work began and March 1 and ended on April 3, 2015. The approved Plan had 6 tasks, as listed below. The following provides a summary of the work done to address these tasks.

- Perimeter Berm. The perimeter berms for Cell 1 thru 4 were re-built to meet the 5 foot height and the 30 foot width requirements. The perimeter berm for Cells 5 and 6 were repaired to prevent run on and runoff.
- 2. <u>Cell lift approvals</u>. Letters were submitted to the OCD to place an additional 6 inch lift for Cells 1 thru 4. These plans for additional lifts were approved by the OCD between September 2014 and March 2015.
- 3. Removal of the contaminated soils within the 100 foot buffer zone and temporary cell berm area. The soils within the buffer zone for Cells 1 thru 4 were removed and spread across the respective cell area.
- 4. <u>Construction of temporary cell berms</u>. Temporary cell berms were constructed for Cells 1 thru 4. These berms are 5 feet high and 30 feet wide at the base.
- 5. <u>Verification samples within the 100 foot buffer zone</u>. Verification samples were collected in the buffer zone for all four Cells. This data will be submitted under a separate letter.

Mr. Brad Jones June 12, 2015 Page 2 of 2

6. <u>Construction of Perimeter Cell Berms</u>. These berms will be constructed once the buffer zone verification process is completed.

A six inch lift was placed in Cells 1, 3 and 4. Cell 2 did not receive a lift, but this lift will be placed at a later date. The source area for the 6 inch lifts was Cells 5 and 6. All soils above the shallow groundwater zone identified in the Groundwater Delineation Report by LAI were removed. In addition, all soils in Cell 6 South were removed. Soils on the north side of the Cell 6 divider berm, referred to as Cell 6 North, remain in place. These will be the source soils for the lift in Cell 2.

Attached is a letter from Lighthouse which provides a statement on the work tasks completed. Should you have any questions or comments regarding this matter, please contact Wayne Crawley at (281) 873-3205 (office), (979) 777-0670 (cell) or me at (432) 687-0901.

Sincerely,

Mark J. Larson, P.G.

Sr. Project Manager/President

cc: Midland Office Wayne Crawley

Attachment: Lighthouse Letter



Lighthouse Environmental Services, Inc. 4904 Fugua Street Houston, TX 77048

Attn: Jeff Burrier Brian Moore

Under the Direction of R360 Environmental Solutions, LLC., located at 3 Waterway Square Place Suite 110, Woodlands, TX 77380, Lighthouse has completed the work at the Artesia Landfarm, permit # NM1 - 030. The work completed included the following:

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- 2. Removed non-native soil from the 100 foot buffer zone for Treatment Cells 1, 2, 3 and 4,
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- 4. Placed a six inch lift on Cells 1, 3 and 4. Soil was moved from Cells 5 and 6 for placement in Cells 1, 3 and 4. The soils above the designated groundwater area were removed, as well as the remaining soils in Cell 6S.

Note: As directed by R360 the application to Cell 2 was not initiated. However, R360 has indicated that this cell is ready for application.

Sincerely,

LIGHTHOUSE ENVIRONMENTAL SERVICES, INC.

Charles F. Smith Project Manager Houston Office

State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary **David Catanach, Division Director** Oil Conservation Division



January 14, 2015

Wayne Crawley R360 Environmental Solutions, LLC 3 Waterway Square Place, Suite 110 The Woodlands, Texas 77380

RE: Request for Approval to Apply a Successive Lift

Permit NM1 – 030: Commercial Surface Waste Management Facility

R360 Artesia, LLC - R360 Artesia, LLC Landfarm

Facility Location: Unit A of Section 7, Township 17 South, Range 32 East NMPM

Lea County, New Mexico

Dear Mr. Crawley:

The Oil Conservation Division (OCD) has received and reviewed Larson & Associates, Inc.'s email request, dated January 10, 2015 and submitted on the behalf of R360 Artesia, LLC to grant approval to apply an additional six-inch lift to the following cell(s): Cell 3.

Based on the information and data provided in the request, OCD hereby grants R360 Artesia, LLC approval to apply an additional six-inch lift of contaminated soils to the above referenced landfarm cell(s) with the following understandings and conditions:

- 1. R360 Artesia, LLC must initiate tilling, treatment zone monitoring, and resume vadose zone monitoring with the addition of successive lifts. The vadose zone monitoring depth must be adjusted to reach the 2-3 foot zone below the original native ground surface.
- 2. R360 Artesia, LLC shall comply with all applicable requirements of the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), all conditions specified in this approval, and shall operate in accordance with the November 19, 2014 Plan 1 submittal;
- 3. R360 Artesia, LLC shall compare vadose zone monitoring results to the background results or PQL (whichever is higher) in order to determine if a release had occurred and if additional follow-up actions of 19.15.36.15.E.(5) NMAC are required to be completed; and
- 4. R360 Artesia, LLC shall obtain written approval from OCD prior to implementing any changes to the November 19, 2014 Plan 1 submittal.

R360 Artesia, LLC Permit NM1-030 January 14, 2015 Page 2 of 2

Please be advised that approval of this request does not relieve R360 Artesia, LLC of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve R360 Artesia, LLC of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or brad.a.jones@state.nm.us.

Sincerely,

Brad A. Jones

Environmental Engineer

BAJ/baj

Cc: OCD District I Office, Hobbs

Mark Larson, Larson & Associates, Inc., 507 North Marienfeld, Suite 200, Midland, TX 79701

Jones, Brad A., EMNRD

From:

Mark Larson < Mark@laenvironmental.com>

Sent:

Saturday, January 10, 2015 3:59 PM

To:

Jones, Brad A., EMNRD

Cc: Subject: Wayne Crawley
Re: R360 EArtesia LLC Landfarm, NM1-30-0, Cell 3 Additiona Lift Request

Attachments:

Additional Lift Request Cell 3, January 9, 2015.pdf

Brad,

The attached letter is a request to add another lift of contaminated soil to Cell 3 at the R360 Artesia LLC Landfarm. The most recent laboratory analysis of a treated soil (November 11, 2014) demonstrates that Cell 3 has met the treatment criteria outlined in Permit condition "Landfarm Operation No. 6". Please contact Wayne Crawley with R360 at (281) 873-3205 or me at (432) 687-0901, if you have questions.

Sincerely,

Mark J. Larson, P.G. President/Sr. Project Manager 507 N. Marienfeld St., Suite 200 Midland, Texas 79701 (432) 687-0901 (O) (432) 556-8656 (C)





January 9, 2015

Mr. Brad Jones
Oil Conservation Division
New Mexico Energy, Minerals and
Natural Resources Department
1220 S. St. Francis Drive
Santa Fe, NM 87505

Re:

R360 Artesia, LLC (NM1-30-0)

Cell 3 Lift Request

Mr. Jones:

This is a request to add another lift of contaminated soil to Cell 3. The most recent laboratory analysis of treated soil demonstrates that Cell 3 has met the treatment criteria outlined in Permit condition "Landfarm Operation No. 6". Specifically, this condition states:

"Successive lifts of contaminated soils may not be spread until a laboratory measurement of Total Petroleum Hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations must be maintained at the facility. Authorization from the OCD must be obtained prior to application of successive lifts and/or removal of remediated soils."

A summary of the sample analyses for the 0 to 1 foot surface layer in Cell 3 is provided in Table 1. The laboratory report for the fourth quarter (November 11, 2014) is provided in Appendix A. Figure 1 provides a site map of the R360 Artesia LLC facility. Figure 2 provides the sample locations for Cell 3 on November 11, 2014.

Based on the laboratory analysis of samples collected on November 11, 2014, R360 requests permission to apply an additional lift to Cell 3. The volume of Cell 3 was revised as part of the Plan 1 (Berm and Buffer Pan) effort and is approximately 3.81 acres. The permit allows for a six inch lift, thus based on the revised Cell 3 area, one lift will contain approximately 3,078 cubic yards of contaminated soil. The source of the contaminated soils will be the soil removed from the buffer zone and permanent cell berm located north of Cell 3 and soil delineated in Plan 3.

Should you have any questions or comments regarding this matter, please contact Wayne Crawley (281.873.3205) or me (432.687.0901).

January 9, 20145

R360 Artesia, LLC Cell 3 Lift Request Page 2

Sincerely, Larson & Associates, Inc.

Mark Larson mark@laenvironmental.com

cc: Wayne Crawley Midland Office

TABLES

Table 1
Treatment Soil Analytical Data Summary
R360 Artesia LLC Landfarm (NM-1-030)
Lea County, New Mexico

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1	undan		0 - 1
			11/11/2014
9	Oi moderne	wet	COMP-3
7	5	Permitted Le	e

Notes: Analysis performed by DHI. Analytical, Inc., Round Rock, Texas Background analysis was performed by 5W646 method 82608.

RI. Reporting finit (equivalent to practical quantification limit (PQL)).

BTEX analysis performed by 5W-846 method 80218.

TPH analysis performed by 5W-846 method 8018.

1. c., Less than reporting limit.

2. Depth in feet below top of treated soil layer.

3. -: No data available.

FIGURES

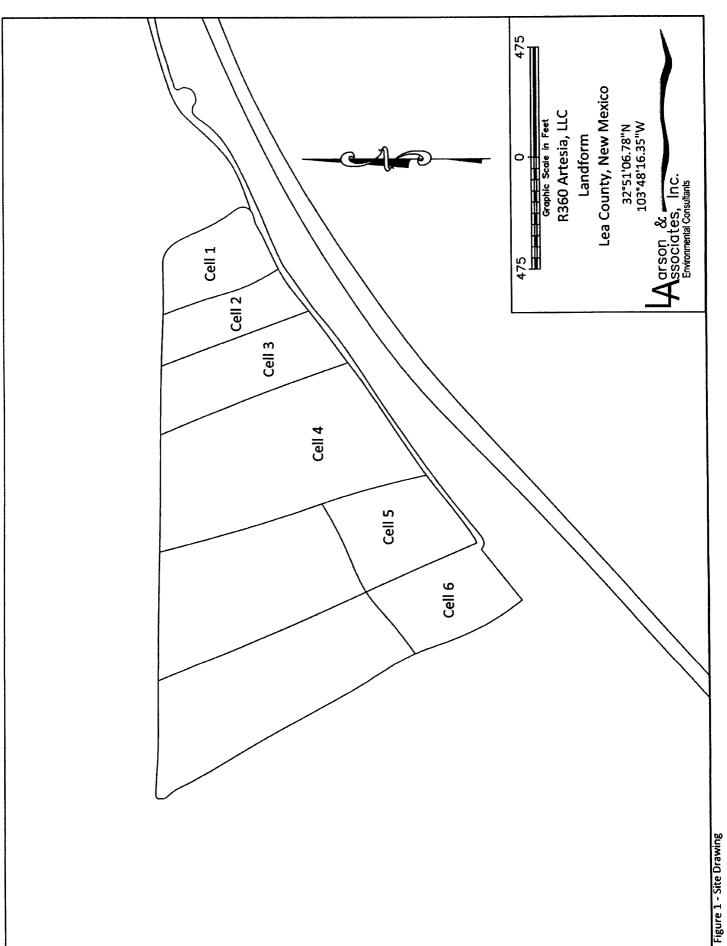




Figure 2 - Aerial Map

APPENDIX A

Laboratory Report (November 11, 2014)



November 21, 2014

Order No.: 1411102

Mark Larson Larson & Associates 507 N. Marienfeld #200

Midland, TX 79701

TEL: (432) 687-0901 FAX (432) 687-0456

RE: R360 Landfarm

Dear Mark Larson:

DHL Analytical, Inc. received 10 sample(s) on 11/13/2014 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont

General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-14-13



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Miscellaneous Documents	3
CaseNarrative 1411102	6
WorkOrderSampleSummary 1411102	7
PrepDatesReport 1411102	8
AnalyticalDatesReport 1411102	11
Analytical Report 1411102	14
AnalyticalQCSummaryReport 1411102	24

CHAIN-OF-CUSTODY

																	LABORATORY USE ONLY:	RECEIVING TEMP: 7' & THERM #: CUSTODY SEALS - D BROKEN D INTACT Z NOT USED	O CARRIER BILL # 150	G HAND DELIVERED	
DATE: ////// PO #: PROJECT LOCATION OR NAME: LAI PROJECT #: //-/////		(0) (0) (0) (0) (0) (0) (0) (0) (0) (0)											2	-			TURN AROUND TIME	1 DAY 🗖	2 DAY U		က
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FLSO

WWW.LSO.COM Questions? Call 800-800-8984



Airbill No. 48947405

1. To:	2: From: Print Name (Ferson) Phone (important) 432-687-0901
Company Name) H L	Company Name LARSON & ASSOCIATES
Street Address (No P.O. Box or P.O. Box Zip Code Deliregies)	Streit Address 507 N. MARIENFELD ST.
Signe / Floor	Suite / Floor #200
Round Rock TA 78664	City State Zp MIDLAND TX 79701
3. Services Visit waw.lso.com tog avaliability at services to your destination and enjoy added leatures by creating your shipping label antine.	4. Package: FOR DRIVER USE ONLY
Sy 10:30 e.a. to cost altes	Tour Company's bulling Reference Intolmenton
" 150 Saturday* 150 Early Overnight* By 8:30 s.a. select cities Other	Ship Date: (mm/dd/yy) // / / / / Driver Number 1.50 Supplies Ship Date: (mm/dd/yy) // / / / / Growth are #1.50 Supplies are used with LSO Ground Service.
LSO Economy Next Day Check commitment times and availability By 3 p.m. to most cities at www.lso.com	5. Payment: 11 19 Pick-up Location 1901 D
☐ 150 2nd Day" Assumed 150 Priority Overnight service unless otherwise noted.	14.22
Deliver Without Delivery Signature (See Limits of Liability below)	Time: City Code:
Release Signatura	MAN AND

SET OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional tex; 3) and document your actual loss in a timely past. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages, Additional Himistions of liability are contained in our current Service Guide. If you ask us to define a Reason to obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO BELIVERY SCHORTUBE WAIL BE OBTAINED FOR LSD EARLY OVERHIGHT SERVICE. PACKAGING INDICATE SERVICE OF THE OBJECT
DHL Analytical, Inc.

Sample Receipt Checklist

Client Name Larson & Associates			Date Recei	ived: 11/13/2014	
Work Order Number 1411102			Received by	y MB	
Checklist completed by: Signature	11/13/20 Date	14	Reviewed b	y DU 1	1/13/2014 Date
	Carrier name	LoneStar			
Shipping container/cooler in good condition?		Yes 🗹	No 🗆	Not Present	
Custody seals intact on shippping container/co	oler?	Yes 🗌	No 🗀	Not Present	
Custody seals intact on sample bottles?		Yes 🗌	No 🗆	Not Present 🗹	
Chain of custody present?		Yes 🗹	No 🗔		
Chain of custody signed when relinquished and	d received?	Yes 🗹	No 🗌		
Chain of custody agrees with sample labels?		Yes 🗹	No 🗀		
Samples in proper container/bottle?		Yes 🗹	No 🗆		
Sample containers intact?		Yes 🗹	No 🗆		
Sufficient sample volume for indicated test?		Yes 🗹	No □		
All samples received within holding time?		Yes 🗹	No 🗌		
Container/Temp Blank temperature in complia	nce?	Yes 🗹	No 🗀	3.6 °C	
Water - VOA vials have zero headspace?		Yes 🗆	No 🗀	No VOA vials submitted	\mathbf{Z}
Water - pH<2 acceptable upon receipt?		Yes 🗌	No 🗀	NA ☑ LOT#	
		Adjusted?		Checked by	
Water - ph>9 (S) or ph>12 (CN) acceptable up	on receipt?	Yes 🗌	No 🗆	NA ☑ LOT#	
		Adjusted?	-····	Checked by	,
Any No response must be detailed in the comm	nents section below.		·		
Client contacted	Date contacted:		- — — — Pe	rson contacted	
Contacted by:	Regarding			PAWALINA SALAMANANA AND A SALAMANANA AND ASSALAMANANA AND ASSALAMANA AND ASSALAMA	
Comments:					
	•				
				,	
Corrective Action			•		·
14.00					

Page 1 of 1

DHL Analytical, Inc.

CLIENT:

Larson & Associates

Project:

R360 Landfarm

Lab Order:

1411102

CASE NARRATIVE

Date: 21-Nov-14

Sample was analyzed using the methods outlined in the following references:

Method M8015D - DRO Analysis

Method M8015V - GRO Analysis

Method SW8021B - Volatile Organics by GC Analysis

Method E300 - Anions Analysis

Method E418.1 - Total Petroleum Hydrocarbons Analysis (Parameter not NELAC Certified)

Method D2216 - Percent Moisture Analysis

LOG IN

The samples were received and log-in performed on 11/13/2014. A total of 10 samples were received and analyzed. The samples arrived in good condition and were properly packaged.

ANIONS ANALYSIS

For Anions Analysis, the recovery of Chloride for the Matrix Spike and Matrix Spike Duplicate (1411102-01 MS/MSD) was above the method control limits. These are flagged accordingly in the QC Summary Report. This anion was within method control limits in the associated LCS. The reference sample selected for the matrix spike and matrix spike duplicate was from this work order. No further corrective actions were taken.

DRO ANALYSIS

For DRO Analysis, the recovery of surrogate Octacosane for four samples was above the method control limits. These are flagged accordingly in the Analytical Data Repot. The remaining surrogate for these samples was within method control limits. No further corrective actions were taken.

DHL Analytical, Inc.

Date: 21-Nov-14

CLIENT:	Larson & Associates	
Project:	R360 Landfarm	Work Order Sample Summary
Lab Order:	1411102	

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1411102-01	Cell 1 (2-3)		11/11/14 01:25 PM	11/13/2014
1411102-02	Cell 2 Comp		11/11/14 04:00 PM	11/13/2014
1411102-03	Cell 2 (2-3)		11/11/14 01:50 PM	11/13/2014
1411102-04	Cell 3 Comp		11/11/14 03:45 PM	11/13/2014
1411102-05	Cell 3 (2-3)		11/11/14 02:20 PM	11/13/2014
1411102-06	Cell 4 (2-3)		11/11/14 02:35 PM	11/13/2014
1411102-07	Cell 5 Comp		11/11/14 01:25 PM	11/13/2014
1411102-08	Cell 5 (2-3)		11/11/14 01:15 PM	11/13/2014
1411102-09	Cell 6 Comp		11/11/14 03:20 PM	11/13/2014
1411102-10	Cell 6 (2-3)		11/11/14 02:45 PM	11/13/2014

DHL Analytical, Inc.

Lab Order:	1411102	
Client:	Larson & Associates	PREP DATES REPORT
Project:	R360 Landfarm	

*********	0000						
Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1411102-01A	Cell 1 (2-3)	11/11/14 01:25 PM	Soil	E300	Anion Prep	11/20/14 09:27 AM	66634
	Cell 1 (2-3)	11/11/14 01:25 PM	Soil	D2216	Moisture Preparation	11/19/14 11:46 AM	66614
	Cell 1 (2-3)	11/11/14 01:25 PM	Soil	SW5030A	Purge and Trap Soils GC	11/17/14 10:10 AM	89299
	Cell 1 (2-3)	11/11/14 01:25 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	11/19/14 09:19 AM	99999
1411102-01B	Cell 1 (2-3)	11/11/14 01:25 PM	Soil	SW3550C	Soil Prep Sonication: DRO	11/18/14 08:44 AM	66584
	Cell 1 (2-3)	11/11/14 01:25 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	11/18/14 09:27 AM	66587
1411102-02A	Cell 2 Comp	11/11/14 04:00 PM	Soil	E300	Anion Prep	11/20/14 09:27 AM	66634
	Cell 2 Comp	11/11/14 04:00 PM	Soil	D2216	Moisture Preparation	11/19/14 11:46 AM	66614
	Cell 2 Comp	11/11/14 04:00 PM	Soil	SW5030A	Purge and Trap Soils GC	11/17/14 10:10 AM	89299
	Cell 2 Comp	11/11/14 04:00 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	11/19/14 09:19 AM	66605
1411102-02B	Cell 2 Comp	11/11/14 04:00 PM	Soil	SW3550C	Soil Prep Sonication: DRO	11/18/14 08:44 AM	66584
	Cell 2 Comp	11/11/14 04:00 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	11/18/14 09:27 AM	18599
1411102-03A	Cell 2 (2-3)	11/11/14 01:50 PM	Soil	E300	Anion Prep	11/20/14 09:27 AM	66634
	Cell 2 (2-3)	11/11/14 01:50 PM	Soil	D2216	Moisture Preparation	11/19/14 11:46 AM	66614
	Cell 2 (2-3)	11/11/14 01:50 PM	Soil	SW5030A	Purge and Trap Soils GC	11/17/14 10:10 AM	89599
	Cell 2 (2-3)	11/11/14 01:50 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	11/19/14 09:19 AM	50999
1411102-03B	Cell 2 (2-3)	11/11/14 01:50 PM	Soil	SW3550C	Soil Prep Sonication: DRO	11/18/14 08:44 AM	66584
	Cell 2 (2-3)	11/11/14 01:50 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	11/18/14 (9:27 AM	66587
1411102-04A	Cell 3 Comp	11/11/14 03:45 PM	Soil	E300	Anion Prep	11/20/14 09:27 AM	66634
	Cell 3 Comp	11/11/14 03:45 PM	Soil	D2216	Moisture Preparation	11/19/14 11:46 AM	66614
	Cell 3 Comp	11/11/14 03:45 PM	Soil	SW5030A	Purge and Trap Soils GC	11/17/14 10:10 AM	66568
	Cell 3 Comp	11/11/14 03:45 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	11/19/14 09:19 AM	99999
1411102-04B	Cell 3 Comp	11/11/14 03:45 PM	Soil	SW3550C	Soil Prep Sonication: DRO	11/18/14 08:44 AM	66584
	Ccll 3 Comp	11/11/14 03:45 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	11/18/14 09:27 AM	66587
1411102-05A	Cell 3 (2-3)	11/11/14 02:20 PM	Soil	E300	Anion Prep	11/20/14 09:27 AM	66634
	Cell 3 (2-3)	11/11/14 02:20 PM	Soil	D2216	Moisture Preparation	11/19/14 11:46 AM	66614
	Cell 3 (2-3)	11/11/14 02:20 PM	Soil	SW5030A	Purge and Trap Soils GC	11/17/14 10:10 AM	66568
	Cell 3 (2-3)	11/11/14 02:20 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	11/19/14 09:19 AM	66605

Page 1 of 3

DHL Analytical, Inc.

Lab Order:	1411102	
Client:	Larson & Associates PREP DATES REPORT	PORT
Project:	R360 Landfarm	

Sample 1D	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1411102-05B	Ccll 3 (2-3)	11/11/14 02:20 PM	Soil	SW3550C	Soil Prep Sonication: DRO	11/18/14 08:44 AM	66584
	Cell 3 (2-3)	11/11/14 02:20 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	11/18/14 09:27 AM	66587
1411102-06A	Cell 4 (2-3)	11/11/14 02:35 PM	Soil	E300	Anion Prep	11/20/14 09:27 AM	66634
	Cell 4 (2-3)	11/11/14 02:35 PM	Soil	D2216	Moisture Preparation	11/19/14 11:46 AM	66614
	Cell 4 (2-3)	11/11/14 02:35 PM	Soil	SW5030A	Purge and Trap Soils GC	11/17/14 10:10 AM	89599
	Cell 4 (2-3)	11/11/14 02:35 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	11/19/14 09:19 AM	90999
1411102-06B	Cell 4 (2-3)	11/11/14 02:35 PM	Soil	SW3550C	Soil Prep Sonication: DRO	11/18/14 08:44 AM	66584
	Cell 4 (2-3)	11/11/14 02:35 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	11/18/14 09:27 AM	66587
1411102-07A	Cell 5 Comp	11/11/14 01:25 PM	Soil	E300	Anion Prep	11/20/14 09:27 AM	66634
	Cell 5 Comp	11/11/14 01:25 PM	Soil	D2216	Moisture Preparation	11/19/14 11:46 AM	66614
	Cell 5 Comp	11/11/14 01:25 PM	Soil	SW5030A	Purge and Trap Soils GC	11/17/14 10:30 AM	89599
	Cell 5 Comp	11/11/14 01:25 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	11/19/14 09:19 AM	66605
1411102-07B	Cell 5 Comp	11/11/14 01:25 PM	Soil	SW3550C	Soil Prep Sonication: DRO	11/18/14 08:44 AM	66584
	Cell 5 Comp	11/11/14 01:25 PM	Soil	SW3550C	Soil Prep Sonication: DRO	11/18/14 08:44 AM	66584
	Cell 5 Comp	11/11/14 01:25 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	11/18/14 09:27 AM	66587
1411102-08A	Cell 5 (2-3)	11/11/14 01:15 PM	Soil	E300	Anion Prep	11/20/14 09:27 AM	66634
	Cell 5 (2-3)	11/11/14 01:15 PM	Soil	D2216	Moisture Preparation	11/19/14 11:43 AM	66613
	Cell 5 (2-3)	11/11/14 01:15 PM	Soil	SW5030A	Purge and Trap Soils GC	11/17/14 10:10 AM	66568
	Cell 5 (2-3)	11/11/14 01:15 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	11/19/14 09:19 AM	66605
1411102-0813	Cell 5 (2-3)	11/11/14 01:15 PM	Soil	SW3550C	Soil Prep Sonication: DRO	11/18/14 08:44 AM	66584
	Cell 5 (2-3)	11/11/14 01:15 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	11/18/14 09:27 AM	66587
1411102-09A	Cell 6 Comp	11/11/14 03:20 PM	Soil	E300	Anion Prep	11/20/14 09:27 AM	66634
	Cell 6 Comp	11/11/14 03:20 PM	Soil	D2216	Moisture Preparation	11/19/14 11:43 AM	66613
	Cell 6 Comp	11/11/14 03:20 PM	Soil	SW5030A	Purge and Trap Soils GC	11/17/14 10:10 AM	89599
	Cell 6 Comp	11/11/14 03:20 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	11/19/14 09:19 AM	66605
1411102-09B	Cell 6 Comp	11/11/14 03:20 PM	Soil	SW3550C	Soil Prep Sonication: DRO	11/18/14 08:44 AM	66584
	Cell 6 Comp	11/11/14 03:20 PM	Soil	SW3550C	Soil Prep Sonication: DRO	11/18/14 08:44 AM	66584
	Cell 6 Comp	11/11/14 03:20 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	11/18/14 09:27 AM	66587
•							

Page 2 of 3

DHL Analytical, Inc.

Lab Order:	1411102							
Client:	Larson & Associates	ates			PREPI	PREP DATES REPORT		
Project:	R360 Landfarm							_
Sample 1D	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID	
1411102-10A Cell 6 (2-3)	Cell 6 (2-3)	11/11/14 02:45 PM	Soil	E300	Anion Prep	11/20/14 09:27 AM	66634	
	Cell 6 (2-3)	11/11/14 02:45 PM	Soil	D2216	Moisture Preparation	11/19/14 11:43 AM	66613	
	Ccll 6 (2-3)	11/11/14 02:45 PM	Soil	SW5030A	Purge and Trap Soils GC	11/17/14 10:10 AM	89599	
	Cell 6 (2-3)	11/11/14 02:45 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	11/19/14 09:19 AM	66605	
1411102-10B	Cell 6 (2-3)	11/11/14 02:45 PM	Soil	SW3550C	Soil Prep Sonication: DRO	11/18/14 08:44 AM	66584	
	Cell 6 (2-3)	11/11/14 02:45 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	11/18/14 09:27 AM	66587	

DHL Analytical, Inc.

Lab Order: Client: Project:	1411102 Larson & Associates R360 Landfarm	ęs s		The state of the s	AN	ALYTIC	ANALYTICAL DATES REPORT	REPORT
Sample 1D	Client Sample ID	Matrix	Test Number	Test Name	Batch 1D	Dilution	Analysis Date	Run ID
1411102-01A	Cell 1 (2-3)	Soil	E300	Anions by IC method - Soil	66634	01	11/20/14 11:17 AM	IC2_141120A
	Cell 1 (2-3)	Soil	D2216	Percent Moisture	66614	_	11/20/14 10:59 AM	PMOIST_141119B
	Cell 1 (2-3)	Soil	M8015V	TPH Purgeable by GC - Soil	66605	-	11/19/14 12:06 PM	GC4_141119A
	Cell 1 (2-3)	Soil	SW8021B	Volatile Organics by GC	66568	-	11/17/14 05:29 PM	GC4_141117A
1411102-01B	Cell 1 (2-3)	Soil	M8015D	TPH Extractable by GC - Soil	66584	-	11/19/14 11:34 AM	GC15_141119A
	Cell 1 (2-3)	Soil	E418.1	TRPH	66587	-	11/18/14 11:18 AM	IR207_141118A
1411102-02A	Cell 2 Comp	Soil	E300	Anions by IC method - Soil	66634	10	11/20/14 12:00 PM	IC2_141120A
	Cell 2 Comp	Soil	D2216	Percent Moisture	66614	-	11/20/14 10:59 AM	PMOIST_141119B
	Cell 2 Comp	Soil	M8015V	TPH Purgeable by GC - Soil	90999		11/19/14 12:31 PM	GC4_141119A
	Cell 2 Comp	Soil	SW8021B	Volatile Organics by GC	66568		11/17/14 05:54 PM	GC4_141117A
1411102-02B	Cell 2 Comp	Soil	M8015D	TPH Extractable by GC - Soil	66584		11/19/14 01:04 PM	GC15_141119A
	Cell 2 Comp	Soil	E418.1	TRPH	66587		11/18/14 11:18 AM	IR207_141118A
1411102-03A	Cell 2 (2-3)	Soil	E300	Anions by IC method - Soil	66634	10	11/20/14 12:15 PM	IC2_141120A
	Cell 2 (2-3)	Soil	D2216	Percent Moisture	66614	-	11/20/14 10:59 AM	PMOIST_141119B
	Cell 2 (2-3)	Soil	M8015V	TPH Purgeable by GC - Soil	99999	-	11/19/14 12:54 PM	GC4_141119A
	Cell 2 (2-3)	Soil	SW8021B	Volatile Organics by GC	66568		11/17/14 06:20 PM	GC4_141117A
1411102-03B	Cell 2 (2-3)	Soil	M8015D	TPH Extractable by GC - Soil	66584	,	11/19/14 11:43 AM	GC15_141119A
	Cell 2 (2-3)	Soil	E418.1	TRPH	66587	_	11/18/14 11:18 AM	TR207_141118A
1411102-04A	Cell 3 Comp	Soil	E300	Anions by IC method - Soil	66634	10	11/20/14 12:29 PM	IC2_141120A
	Cell 3 Comp	Soil	D2216	Percent Moisture	66614	-	11/20/14 10:59 AM	PMOIST_141119B
	Cell 3 Comp	Soil	M8015V	TPH Purgeable by GC - Soil	66605		11/19/14 01:18 PM	GC4_141119A
	Cell 3 Comp	Soil	SW8021B	Volatile Organics by GC	86568		11/17/14 06:44 PM	GC4_141117A
1411102-04B	Cell 3 Comp	Soil	M8015D	TPH Extractable by GC - Soil	66584		11/19/14 01:13 PM	GC15_141119A
	Cell 3 Comp	Soil	E418.1	TRPH	28599	-	11/18/14 11:18 AM	JR207_141118A
1411102-05A	Cell 3 (2-3)	Soil	E300	Anions by IC method - Soil	66634	01	11/20/14 12:44 PM	IC2_141120A
	Cell 3 (2-3)	Sosi	D2216	Percent Moisture	66614	-	11/20/14 10:59 AM	PMOIST_141119B
	Cell 3 (2-3)	Soil	M8015V	TPH Purgeable by GC - Soil	66605	-	11/19/14 01:43 PM	GC4_141119A
	Ccll 3 (2-3)	Soil	SW8021B	Volatile Organies by GC	89299	-	11/17/14 07:08 PM	GC4_141117A
Page 1 of 3	of3							

DHL Analytical, Inc.

Lab Order:	1411102	a dia ana-tao a piaka paka a anga anga anga anga anga n						
Client:	Larson & Associates	es			ANA	LYTIC	ANALYTICAL DATES REPORT	REPORT
Project:	R360 Landfarm							
Sample ID	Client Sample 1D	Matrix	Test Number	Test Name	Batch 1D	Dilution	Analysis Date	Run 1D
1411102-05B	Cell 3 (2-3)	Soil	M8015D	TPH Extractable by GC - Soil	66584		11/19/14 11:52 AM	GC15_141119A
	Cell 3 (2-3)	Soil	E418.1	TRPH	66587	,	11/18/14 11:18 AM	IR207_141118A
1411102-06A	Cell 4 (2-3)	Soil	E300	Anions by IC method - Soil	66634	10	11/20/14 12:59 PM	IC2_141120A
	Cell 4 (2-3)	Soil	D2216	Percent Moisture	66614	-	11/20/14 10:59 AM	PMOIST_141119B
	Cell 4 (2-3)	Soil	M8015V	TPH Purgeable by GC - Soil	66605	-	11/19/14 02:07 PM	GC4_141119A
	Cell 4 (2-3)	Soil	SW8021B	Volatile Organics by GC	86568	-	11/17/14 07:33 PM	GC4_141117A
1411102-06B	Cell 4 (2-3)	Soil	M8015D	TPH Extractable by GC - Soil	66584	-	11/19/14 12:01 PM	GC15_141119A
	Cell 4 (2-3)	Soil	E418.1	TRPH	66587	-	11/18/14 11:18 AM	IR207_141118A
1411102-07A	Cell 5 Comp	Soil	E300	Anions by IC method - Soil	66634	10	11/20/14 01:13 PM	IC2_141120A
	Cell 5 Comp	Soil	D2216	Percent Moisture	66614	-	11/20/14 10:59 AM	PMOIST_141119B
	Cell 5 Comp	Soil	M8015V	TPH Purgcable by GC - Soil	66605	-	11/19/14 02:31 PM	GC4_141119A
	Cell 5 Comp	Soil	SW8021B	Volatile Organics by GC	89299	-	11/17/14 07:57 PM	GC4_141117A
1411102-07B	Cell 5 Comp	Soil	M8015D	TPH Extractable by GC - Soil	66584	5	11/19/14 03:41 PM	GC15_141119A
	Cell 5 Comp	Soil	M8015D	TPH Extractable by GC - Soil	66584	_	11/19/14 03:07 PM	GC15_141119A
	Cell 5 Comp	Soil	E418.1	TRPH	66587	-	11/18/14 11:18 AM	IR207_141118A
	Cell 5 Comp	Soil	E418.1	ТКРИ	66587	5	11/18/14 11:18 AM	IR207_141118A
1411102-08A	Cell 5 (2-3)	Soil	E300	Anions by IC method - Soil	66634	10	11/20/14 01:28 PM	IC2_141120A
	Cell 5 (2-3)	Soil	D2216	Percent Moisture	66613		11/20/14 10:52 AM	PMOIST_141119A
	Cell 5 (2-3)	Soil	M8015V	TPH Purgeable by GC - Soil	66605		11/19/14 02:55 PM	GC4_141119A
	Cell 5 (2-3)	Soil	SW8021B	Volatile Organics by GC	66568	-	11/17/14 08:22 PM	GC4_141117A
1411102-08B	Cell 5 (2-3)	Soil	M8015D	TPH Extractable by GC - Soil	66584	-	11/19/14 12:10 PM	GC15_141119A
	Cell 5 (2-3)	Soil	E418.1	ТКРИ	66587	-	11/18/14 11:18 AM	IR207_141118A
1411102-09A	Cell 6 Comp	Soil	E300	Anions by IC method - Soil	66634	10	11/20/14 01:42 PM	IC2_141120A
	Cell 6 Comp	Soil	D2216	Percent Moisture	66613		11/20/14 10:52 AM	PMOIST_141119A
	Cell 6 Comp	Soil	M8015V	TPH Purgeable by GC - Soil	66605		11/19/14 03:19 PM	GC4_141119A
	Cell 6 Comp	Soil	SW8021B	Volatile Organics by GC	89299	****	11/17/14 08:46 PM	GC4_141117A
1411102-09B	Cell 6 Comp	Soil	M8015D	TPH Extractable by GC - Soil	66584		11/19/14 02:49 PM	GC15_141119A
	Cell 6 Comp	Soil	M8015D	TPH Extractable by GC - Soil	66584	'n	11/19/14 03:32 PM	GC15_141119A
Page 2 of 3	of 3							

DHL An	DHL Analytical, Inc.						21-Nov-14	
Lab Order: Client: Project:	1411102 Larson & Associates R360 Landfarm	ates			AN	ALYTIC	ANALYTICAL DATES REPORT	REPORT
Sample ID	Client Sample ID	Matrix	Test Number Test Name	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1411102-09B	Cell 6 Comp	Soil	E418,1	TRPH	66587	-	11/18/14 11:18 AM	IR207_141118A
1411102-10A	Cell 6 (2-3)	Soil	E300	Anions by IC method - Soil	66634	01	11/20/14 01:57 PM	IC2_141120A
	Cell 6 (2-3)	Soil	D2216	Percent Moisture	66613	****	11/20/14 10:52 AM	PMOIST_141119A
	Cell 6 (2-3)	Soil	M8015V	TPH Purgeable by GC - Soil	66605	,	11/19/14 03:44 PM	GC4_141119A
	Ccll 6 (2-3)	Soil	SW8021B	Volatile Organics by GC	66568	,	11/17/14 09:09 PM	GC4_141117A
1411102-10B	Cell 6 (2-3)	Soil	M8015D	TPH Extractable by GC - Soil	66584		11/19/14 12:19 PM	GC15_141119A
	Cell 6 (2-3)	Soil	E418.1	ТКРН	66587		11/18/14 11:18 AM	IR207_141118A

DHL Analytical, Inc.

CLIENT: Larson & Associates

Project: R360 Landfarm

Project No: 11-0109-06

Lab Order: 1411102

Date: 21-Nov-14

Client Sample ID: Cell 3 Comp

Lab ID: 1411102-04

Collection Date: 11/11/14 03:45 PM

Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		M80	15D				Analyst: AS
TPH-DRO C10-C28	87.8	3.08	10.3		mg/Kg-dry	1	11/19/14 01:13 PM
Surr: Isopropylbenzene	82.9	0	47-142		%REC	1	11/19/14 01:13 PM
Surr: Octacosane	178	0	25-162	s	%REC	1	11/19/14 01:13 PM
TPH PURGEABLE BY GC - SOIL		M80	15V				Analyst: DEW
Gasoline Range Organics	ND	0.0992	0.198		mg/Kg-dry	1	11/19/14 01:18 PM
Surr: Tetrachlorethene	104	0	70-134		%REC	1	11/19/14 01:18 PM
VOLATILE ORGANICS BY GC		SW80	21B				Analyst: AV
Benzene	ИD	0.00313	0.00522		mg/Kg-dry	1	11/17/14 06:44 PM
Ethylbenzene	ИD	0.00522	0.0157		mg/Kg-dry	1	11/17/14 06:44 PM
Toluene	ND	0.00522	0.0157		mg/Kg-dry	1	11/17/14 06:44 PM
Xylenes, Total	ND	0.00522	0.0157		mg/Kg-dry	1	11/17/14 06:44 PM
Surr: Tetrachloroethene	97.1	0	79-135		%REC	1	11/17/14 06:44 PM
TRPH		E41	8.1				Analyst: AS
Petroleum Hydrocarbons, TR	49.6	5.09	10.2	N	mg/Kg-dry	1	11/18/14 11:18 AM
ANIONS BY IC METHOD - SOIL		E3	00				Analyst: AV
Chloride	ND	49.0	49.0		mg/Kg-dry	10	11/20/14 12:29 PM
PERCENT MOISTURE		D22	16				Analyst: JL
Percent Moisture	9.68	0	0		WT%	1	11/20/14 10:59 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

- B Analyte detected in the associated Method Blank
- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

Larson & Associates

ANALYTICAL QC SUMMARY REPORT

Work Order:	1411102						LC2XL1	2000			
Project:	R360 Land	farm					RunII): G	C15_1411	19A	
The QC data in batch 06B, 1411102-07B, 1					102-01B, 14111	02-02B, 14	11102-03B,	1411102-	04B, 1411102	2-05B, 1	411102-
Sample ID MB-6658	34	Batch ID:	66584		TestNo:	M80	15D		Units:	mg/Kg	
SampType: MBLK		Run ID:	GC15_	141119A	Analysis	Date: 11/1	9/2014 10:2	2:32 A	Prep Date:	11/18/	2014
Analyte	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	**************************************	Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	RPD R	PDLimit Qual
TPH-DRO C10-C28			ND	10.0							
Surr: Isopropylbeni	zene		6.21		7.500		82.8	47	142		
Surr: Octacosane			5.43		7.500		72.4	25	162		
Sample ID LCS1-66	5584	Batch ID:	66584		TestNo:	M80	15D		Units:	mg/Kg	
SampType: LCS		Run ID:	GC15_	141119A	Analysis	Date: 11/1	9/2014 10:4	A 0E:01	Prep Date:	11/18/	2014
Analyte	10 mm		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	6RPD R	PDLimit Qual
TPH-DRO C10-C28			94.8	10.0	125.0	0	75.8	50	114		
Surr: Isopropylben	zene		3.78		7.500		50.5	47	142		
Surr: Octacosane			5.72		7.500		76.3	25	162		
Sample ID LCS2-66	5584	Batch ID:	66584		TestNo:	M80	15D		Units:	mg/K	}
SampType: LCS		Run ID:	GC15_	141119A	Analysis	Date: 11/1	19/2014 10:4	19:29 A	Prep Date:	11/18/	2014
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit Qual
TPH-DRO C10-C28			89.9	10.0	125.0	0	71.9	50	114		
Surr: Isopropylben	zene		4.25		7.500		56.7	47	142		
Surr: Octacosane			5.53		7.500		73.8	25	162	****	***************************************
Sample ID 1411102	-10BMS	Batch ID:	66584		TestNo:	M80	015D		Units:	mg/K	g-dry
SampType: MS		Run ID:	GC15_	141119A	Analysis	Date: 11/1	19/2014 12:	28:08 P	Prep Date:	11/18/	2014
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit ?	%RPD F	PDLimit Qual
TPH-DRO C10-C28											
11 11 51 0 0 10 0 0			89.1	9.85	123.2	0	72.3	50	114		
Surr: Isopropylben	zene		89.1 5.64	9.85	123.2 7.391	0	72.3 76.3	50 47	114 142		
	zene			9.85		0					
Surr: Isopropylben		Batch ID:	5.64 5.37	9.85	7.391		76.3	47	142	mg/K	g-dry
Surr: Isopropylben Surr: Octacosane		Batch ID: Run ID:	5.64 5.37 66584	9.85 141119A	7.391 7.391 TestNo:	M86	76.3 72.6	47 25	142 162	-	•
Surr: Isopropylben. Surr: Octacosane Sample ID 1411102		Run ID:	5.64 5.37 66584	,	7.391 7.391 TestNo:	M86	76.3 72.6 D15D	47 25 37:07 P	142 162 Units: Prep Date:	11/18	•
Surr: Isopropylben. Surr: Octacosane Sample ID 1411102 SampType: MSD		Run ID:	5.64 5.37 66584 GC15	141119A	7.391 7.391 TestNo: Analysis	M8 6 Date: 11/	76.3 72.6 D15D 19/2014 12:	47 25 37:07 P	142 162 Units: Prep Date:	11/18	/2014
Surr: Isopropylben Surr: Octacosane Sample ID 1411102 SampType: MSD	:-10BMSD	Run ID:	5.64 5.37 66584 GC15_ Result	141119A RL	7.391 7.391 TestNo: Analysis	M80 Date: 11/	76.3 72.6 015D 19/2014 12::	47 25 37:07 P LowLim	142 162 Units: Prep Date: It HighLimit 5	11/18 %RPD F	/2014 RPDLimit Qua

Qualifiers:

B Analyte detected in the associated Method Blank

Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

RPD outside accepted control limits R

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Spike Recovery outside control limits

Parameter not NELAC certified

Larson & Associates

Work Order:

1411102

Project:

R360 Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID:

GC15_141119A

Sample ID ICV-141119	Batch ID:	R76408		TestNo:	M80	015D		Units:	mg/Kg
SampType: ICV	Run ID:	GC15_1	41119A	Analysis	Date: 11/	19/2014 10:0	14:34 A	Prep Date	e:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	%RPD RPDLimit Qual
TPH-DRO C10-C28		485	10.0	500.0	0	97.0	80	120	
Surr: Isopropylbenzene		26.8		25.00		107	80	120	
Surr: Octacosane	***	22.8	***	25.00		91.0	80	120	
Sample ID CCV1-141119	Batch ID:	R76408		TestNo:	M8	015D		Units:	mg/Kg
SampType: CCV	Run ID:	GC15_1	41119A	Analysis	Date: 11/	19/2014 1:31	1:00 PM	Prep Date	e:
Analyle	and the second second second second second	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
TPH-DRO C10-C28	4	233	10.0	250.0	0	93.4	80	120	
Surr: Isopropylbenzene		15.0		12.50		120	80	120	
Surr: Octacosane		12.5		12.50		100	80	120	
Sample ID CCV2-141119	Batch ID:	R76408		TestNo:	M8	015D		Units:	mg/Kg
SampType: CCV	Run ID:	GC15_1	41119A	Analysis	Date: 11/	19/ 2014 3 :59	9:53 PM	Prep Date	e:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
TPH-DRO C10-C28	***************************************	229	10.0	250.0	0	91.5	80	120	
Surr: Isopropylbenzene		14.7		12.50		117	80	120	
Surr: Octacosane		12.5		12.50		100	80	120	

Qualifiers:

Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit RL

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

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Larson & Associates

Work Order:

1411102

ANALYTICAL QC SUMMARY REPORT

Work Order: 14	11102						_		
Project: R3	60 Landfarm					RunII); (GC4_14111	7A
The QC data in batch 66 06A, 1411102-07A, 141	5568 applies to the 1 1102-08A, 1411102	ollowing s -09A, 141	samples: 1411 1102-10A	102-01A, 1411	102-02A, 14	11102-03A,	1411102	-04A, 141110	2-05 A , 1411102-
Sample ID LCS-66568	Batch ID:	66568		TestNo	: SW	8021B		Units:	mg/Kg
SampType: LCS	Run ID:	GC4_1	41117A	Analys	is Date: 11/1	7/2014 10:4	14:10 A	Prep Date:	11/17/2014
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD RPDLimit Qual
Benzene		0.105	0.00500	0.1000	0	105	65	113	
Toluene		0.104	0.0150	0.1000	0	104	73	115	
Ethylbenzene		0.102	0.0150	0.1000	0	102	74	118	
Xylenes, Total		0.311	0.0150	0.3000	0	104	73	119	
Surr: Tetrachioroether	ne	0.199		0.2000		99.6	79	135	
Sample ID MB-66568	Batch ID:	66568		TestNo	: SW	8021B		Units:	mg/Kg
SampType: MBLK	Run ID:	GC4_1	41117A	Analys	is Date: 11/1	7/2014 11:3	34:12 A	Prep Date:	11/17/2014
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD RPDLimit Qual
Benzene		ND	0.00500						
Toluene		ND	0.0150						
Ethylbenzene		ND	0.0150						
Xylenes, Total		ND	0.0150						
Surr; Tetrachloroether	ne	0.204	0.0100	0.2000		102	79	135	
Sample ID LCS-66568	MEOH Batch ID:			TestNo	· CW	8021B		Units:	mg/Kg
SampType: LCS	Run ID:		41117A		is Date: 11/1		5:30 PM	Prep Date:	11/17/2014
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	RPD RPDLimit Qual
Benzene		1.04	0.0500	1.000	0	104	65	113	
Toluene		1.03	0.150	1.000	O	103	73	115	
Ethylbenzene		1.03	0.150	1.000	0	103	74	118	
Xylenes, Total		3.16	0.150	3.000	0	105	73	119	
Surr: Tetrachloroether	ne	2.07		2.000		104	79	135	
Sample ID MB-66568N	IEOH Batch ID:	66568		TestNo	: SW	8021B		Units:	mg/Kg
SampType: MBLK	Run ID:	GC4_1	41117A	Analys	is Date: 11/1	17/2014 3:03	3:48 PM	Prep Date:	11/17/2014
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	RPD RPDLimit Qual
Benzene	· · · · · ·	ND	0.0500						
Toluene		ND	0.150						
Ethylbenzene		ND	0.150						
Xylenes, Total		ND	0.150						
Surr: Tetrachloroether	ne	2.05		2.000		102	79	135	

Qualifiers:

Analyte detected in the associated Method Blank

1 Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

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Larson & Associates

Work Order: Project: 1411102

R360 Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_141117A

Sample ID 1411102-10AMS	Batch ID:	66568	3	TestNo	: SW	8021B		Units:	mg/Kg-dry
SampType: MS	Run ID:	GC4_	141117A	Analys	is Date: 11 /	17/2014 9:34	4:19 PM	Prep Date	11/17/2014
Analyte	***************************************	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD RPDLimit Qua
Benzene		0.104	0.00514	0.1028	0	101	65	113	
Toluene		0.102	0.0154	0.1028	0	98.8	73	115	
Ethylbenzene	(0.0992	0.0154	0.1028	0	96.5	74	118	
Xylenes, Total		0.295	0.0154	0.3084	0	95.7	73	119	
Surr: Tetrachloroethene		0.204		0.2056		99.3	79	135	

Sample ID 1411102-10AMSD	Batch ID:	66568		TestNo	: SW	8021B		Units:	mg/	Kg-dry
SampType: MSD	Run ID:	GC4_1	41117A	Analys	is Date: 11/1	7/2014 9:59	9:03 PM	Prep Date	: 11/1	7/2014
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
Benzene		0.102	0.00504	0.1008	0	101	65	113	1.69	30
Toluene		0.100	0.0151	0.1008	0	99.4	73	115	1.36	30
Ethylbenzene	(0.0965	0.0151	0.1008	0	95.7	74	118	2.76	30
Xylenes, Total		0.290	0.0151	0.3025	0	95.8	73	119	1.81	30
Surr: Tetrachloroethene		0.198		0.2017		98.3	79	135	0	

Qualifiers:

Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

Page 4 of 12

Larson & Associates

Work Order:

1411102

Project:

R360 Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID:

GC4_141117A

					Kunii		JC4_1411	
Batch ID:	R76440		TestNo	: SW	8021B		Units:	mg/Kg
Run ID:	GC4_1	1117A	Analys	is Date: 11/1	7/2014 10:0	3:46 A	Prep Date	:
	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
	0.194	0.00500	0.2000	0	97.2	80	120	
	0.190	0.0150	0.2000	0	95.1	80	120	
	0.195	0.0150	0.2000	0	97.3	80	120	
	0.609	0.0150	0.6000	0	101	80	120	
	0.188		0.2000		94.1	79	135	
Batch ID:	R76440		TestNo	: SW	8021B		Units:	mg/Kg
Run ID:	GC4_1	1117A	Analys	is Date: 11/1	17/2014 1:34	:39 PM	Prep Date	:
	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
	0.102	0.00500	0.1000	0	102	80	120	
	0.102	0.0150	0.1000	0	102	80	120	
	0.100	0.0150	0.1000	0	100	80	120	
	0.309	0.0150	0.3000	0	103	80	120	
	0.195		0.2000		97.6	79	135	
Batch ID:	R76440		TestNo	: SW	8021B		Units:	mg/Kg
Run ID:	GC4_1	1117A	Analys	is Date: 11/1	17/2014 4:06	3:32 PM	Prep Date	e:
MANAGEMENT AND	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qua
	0.102	0.00500	0.1000	0	102	80	120	
	0.102	0.0150	0.1000	0	102	80	120	
	0.100	0.0150	0.1000	0	100	80	120	
	0.307	0.0150	0.3000	0	102	80	120	
	0.188		0.2000		93.8	79	135	
Batch ID:	R76440		TestNo	o: SW	8021B		Units:	mg/Kg
Run ID:	GC4_1	41117 A	Analys	is Date: 11 /	17/2014 11:1	13:13 P	Prep Date	e:
	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qua
	0.102	0.00500	0.1000	0	102	80	120	
	0.102 0.101	0.00500 0.0150	0.1000 0.1000	0	102 101	80 80	120 120	
				-				
	0.101	0.0150	0.1000	0	101	80	120	
	Batch ID: Batch ID: Batch ID: Run ID:	Run ID: GC4_14 Result 0.194 0.190 0.195 0.609 0.188 Batch ID: R76440 Run ID: GC4_14 Result 0.102 0.102 0.100 0.309 0.195 Batch ID: R76440 Run ID: GC4_14 Result 0.102 0.100 0.307 0.188 Batch ID: R76440 Run ID: GC4_14	Run ID: GC4_141117A Result RL 0.194	Run ID: GC4_141117A	Run ID: GC4_141117A	Run ID: GC4_141117A	Run ID: GC4_141117A	Run ID: GC4_141117A

Qualifiers:

Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Larson & Associates

Work Order:

1411102

ANALYTICAL QC SUMMARY REPORT

						~ 11			101	
Project: R360 Lan						RunII		GC4_1411		
The QC data in batch 66605 app 06A, 1411102-07A, 1411102-08.				102-01A, 14111	02-02A, 14	11102-03A,	1411102	-04A, 141110	2-05A, 14	111102-
Sample ID LCS-66605	Batch ID:	66605		TestNo:	M80	15V		Units:	mg/Kg	
SampType: L CS	Run ID:	GC4_1	41119A	Analysis	Date: 11/1	9/2014 10:5	54:12 A	Prep Date:	11/19/2	2014
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit ?	%RPD RI	PDLimit Qua
Gasoline Range Organics		4.93	0.200	5.000	0	98.6	68	126		
Surr: Tetrachlorethene		0.383		0.4000		95.7	70	134		
Sample ID MB-66605	Batch ID:	66605		TestNo:	M80	15V		Units:	mg/Kg	
SampType: MBLK	Run ID:	GC4_1	41119A	Analysis	Date: 11/1	9/2014 11:4	42:27 A	Prep Date:	11/19/	2014
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit S	%RPD R	PDLimit Qua
Gasoline Range Organics		ND	0.200							
Surr: Tetrachlorethene		0.417		0.4000		104	70	134		
Sample ID 1411102-10AMS	Batch ID:	66605		TestNo:	M80	15V		Units:	mg/Kg	-dry
SampType: MS	Run ID:	GC4_1	41119A	Analysis	Date: 11/1	9/2014 4:0	8:35 PM	Prep Date:	11/19/	2014
Analyte		Result	RL	SPK value	Ref Vai	%REC	LowLim	it HighLimit '	%RPD R	PDLimit Qua
Gasoline Range Organics		5.36	0.197	4.918	0	109	68	126		
Surr: Tetrachlorethene		0.425		0.3934		108	70	134		
Sample ID 1411102-10AMSD	Batch ID:	66605		TestNo:	M80)15V		Units:	mg/Kg	ı-dry
SampType: MSD	Run ID:	GC4_1	41119A	Analysis	Date: 11/1	9/2014 4:3	2:26 PM	Prep Date:	11/19/	2014
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD R	PDLimit Qua
Gasoline Range Organics		5.38	0.192	4.809	0	112	68	126	0.420	30
Surr: Tetrachlorethene		0.428		0.3847		111	70	134	0	0

Qualifiers:

Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

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Larson & Associates

Work Order:

1411102

Project:

R360 Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID:

GC4_141119A

C	Date ID:	570400		Tankla		451/		Unite	ma/Ka
Sample ID ICV-141119	Batch ID:	R76423		TestNo	M80	IOV		Units:	mg/Kg
SampType: ICV	Run ID:	GC4_14	1119A	Analysi	s Date: 11/1	9/2014 10:2	23:02 A	Prep Date	2
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
Gasoline Range Organics		10.3	0.200	10.00	0	103	80	120	
Surr: Tetrachlorethene		0.364		0.4000		90.9	70	134	
Sample ID CCV1-141119	Batch ID:	R76423		TestNo	: M80	15V		Units:	mg/Kg
SampType: CCV	Run ID;	GC4_14	1119A	Analysi	s Date: 11/1	9/2014 4:50	6: 34 PM	Prep Date	2:
Analyte	***************************************	Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	%RPD RPDLimit Qual
Gasoline Range Organics		5.65	0.200	5.000	0	113	80	120	
Surr: Tetrachlorethene		0.430		0.4000		108	70	134	

Qualifiers:

Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Larson & Associates

Work Order:

1411102

ANALYTICAL QC SUMMARY REPORT

Project:	R360 Land	lfarm					RunID	: I	C2_141120)A	
	a in batch 66634 appl 02-07A, 1411102-08A				102-01A, 14111	02-02A, 141	11102-03A,	1411102-	04A, 1411102	2-05A, 1411102	<u>}</u> -
Sample ID	MB-66634	Batch ID:	66634		TestNo:	E300)		Units:	mg/Kg	
SampType:	MBLK	Run ID:	IC2_1411	120A	Analysis	Date: 11/2	0/2014 10:3	1:24 A	Prep Date:	11/20/2014	
Analyte		AT 10 10 10 10 10 10 10 10 10 10 10 10 10	Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	RPD RPDLimi	t Qual
Chloride			ND	5.00							
Sample ID	LCS-66634	Batch ID:	66634		TestNo:	E300)		Units:	mg/Kg	
SampType:	LCS	Run ID:	IC2_1411	120A	Analysis	Date: 11/2	0/2014 10:4	5:58 A	Prep Date:	11/20/2014	
Analyte	**************************************	nya mangangan ak kadada da Abada da	Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	RPD RPOLim	it Qual
Chloride			48.9	5.00	50.00	0	97.9	80	120		
Sample ID	LCSD-66634	Batch ID:	66634		TestNo:	E30)		Units:	mg/Kg	
SampType:	LCSD	Run ID:	IC2_141	120A	Analysis	Date: 11/2	0/2014 11:0	0:33 A	Prep Date:	11/20/2014	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	6RPD RPDLim	it Qual
Chloride			49.4	5.00	50.00	0	98.9	80	120	1.01 20	
Sample ID	1411102-01AMS	Batch ID:	66634		TestNo:	E30	0		Units:	mg/Kg-dry	
SampType:	MS	Run ID:	IC2_141	120A	Analysis	Date: 11/2	0/2014 11:3	1:40 A	Prep Date:	11/20/2014	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLim	it Qual
Chloride			160	55.4	110.8	0	145	80	120		S
Sample ID	1411102-01AMSD	Batch ID:	66634		TestNo:	E30	0		Units:	mg/Kg-dry	
SampType:	MSD	Run ID:	IC2_141	120A	Analysis	Date: 11/2	0/2014 11:4	6:15 A	Prep Date:	11/20/2014	
Analyte	4.4.		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD RPOLim	it Quat
Chloride			163	55.6	111.3	0	146	80	120	1.32 20	s

Qualifiers:

Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

Not Detected at the Method Detection Limit

RLReporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

RPD outside accepted control limits

Spike Recovery outside control limits

N Parameter not NELAC certified Page 8 of 12

Larson & Associates

Work Order:

1411102

Project:

R360 Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID:

IC2_141120A

Sample ID ICV-141120	Batch ID:	R76449		TestNo:	E300)		Units:	mg/Kg
SampType: ICV	Run ID:	IC2_141	120A	Analysis	Date: 11/2	0/2014 10:0	8:25 A	Prep Date	: :
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD RPDLimit Qual
Chloride		24.8	5.00	25.00	0	99.0	90	110	
Sample ID CCV1-141120	Batch ID:	R76449		TestNo:	E30	0		Units:	mg/Kg
SampType: CCV	Run ID:	IC2_141	120A	Analysis	Date: 11/2	0/2014 2:25	5:32 PM	Prep Date	e:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD RPDLimit Quai
Chloride		10.2	5.00	10.00	0	102	90	110	

Qualifiers:

Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

RPD outside accepted control limits

Spike Recovery outside control limits

N Parameter not NELAC certified

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Larson & Associates

Work Order:

1411102

Project:

R360 Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: IR207_141118A

Project: R360 Lan	diarm					Kunti); <u>I</u> I	X20/_141	110A	
The QC data in batch 66587 app 06B, 1411102-07B, 1411102-088				102-01B, 14111	02-02B, 14	111102-03B,	1411102-0	04B, 141110	2-05B, 141110)2-
Sample ID ICV-141118	Batch ID:	66587		TestNo:	E41	8.1		Units:	mg/Kg	
SampType: ICV	Run ID:	IR207_1	141118A	Analysis	Date: 11/1	18/2014 11:1	8:00 A	Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit 9	%RPD RPDLin	nit Qual
Petroleum Hydrocarbons, TR		248	10.0	250.0	0	99.0	90	110		N
Sample ID MB-66587	Batch ID:	66587		TestNo:	E41	8.1		Units:	mg/Kg	
SampType: MBLK	Run ID:	IR207_1	141118A	Analysis	Date: 11/1	18/2014 11:1	8:00 A	Prep Date:	11/18/2014	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit 9	%RPD RPDLin	nit Qual
Petroleum Hydrocarbons, TR		ОИ	10.0							N
Sample ID LCS-66587	Batch ID:	66587		TestNo:	E41	8.1		Units:	mg/Kg	
SampType: LCS	Run ID:	IR207_1	141118A	Analysis	Date: 11/	18/2014 11:1	8:00 A	Prep Date:	11/18/2014	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	t HighLimit '	%RPD RPDLin	nit Qual
Petroleum Hydrocarbons, TR		91.2	10.0	100.0	0	91.2	80	120		N
Sample ID CCV1-141118	Batch ID:	66587		TestNo:	E41	18.1		Units:	mg/Kg	
SampType: CCV	Run ID:	IR207_	141118A	Analysis	Date: 11/	18/2014 11:1	8:00 A	Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	t HighLimit '	%RPD RPDLir	nit Qual
Petroleum Hydrocarbons, TR		245	10.0	250.0	0	98.0	85	115		N
Sample ID 1411102-10BMS	Batch ID:	66587		TestNo:	E41	18.1		Units:	mg/Kg-dry	
SampType: MS	Run ID:	IR207_	141118A	Analysis	S Date: 11/	18/2014 11:1	18:00 A	Prep Date:	11/18/2014	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLir	mit Qual
Petroleum Hydrocarbons, TR		91.0	9.84	98.36	0	92.5	80	120		N
Sample ID 1411102-10BMSD	Batch ID:	66587		TestNo:	E41	18.1		Units:	mg/Kg-dry	
SampType: MSD	Run ID:	IR207_	141118A	Analysis	s Date: 11/	18/2014 11:	18:00 A	Prep Date:	11/18/2014	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLi	mit Qual
Petroleum Hydrocarbons, TR		92.2	9.97	99.67	0	92.5	80	120	1.33 20	N
Sample ID CCV2-141118	Batch ID:	66587		TestNo:	E41	18.1		Units:	mg/Kg	
SampType: CCV	Run ID:	IR207_	141118A	Analysis	s Date: 11/	18/2014 11:	18:00 A	Prep Date	:	
Analyte	**************************************	Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLi	mit Qua
Petroleum Hydrocarbons, TR		246	10.0	250.0	0	98.5	85	115		N

Qualifiers:

Analyte detected in the associated Method Blank

Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

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Larson & Associates

Work Order:

1411102

ANALYTICAL QC SUMMARY REPORT

Project:	R360 Land	dfarm					RunII	o: P	MOIST_	14111	9A
The QC data	in batch 66613 app	lies to the fo	ollowing sar	mples: 1411	102-08A, 1411	102-09A, 14	11102-10A				
Sample ID 1	1411160-01A-DUP	Batch ID:	66613		TestNo	: D22	16		Units:	WT%	6
SampType: [OUP	Run ID:	PMOIST	_141119A	Analys	is Date: 11/2	0/2014 10:	52:00 A	Prep Date	: 11/1	9/2014
Analyte	No. 1994 A centre Printer all season and comment of the Medical Access access accessed a centre of the centre of t		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit C
Percent Moist	ture		9.86	0	0	11.03				11.2	30

Qualifiers:

B Analyte detected in the associated Method Blank

j Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RLReporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

Page 11 of 12

Project:

Larson & Associates

Work Order:

1411102

ANALYTICAL QC SUMMARY REPORT

R360 Landfarm

RunID:

PMOIST_141119B

The QC data in batch 66614 applies to the following samples: 1411102-01A, 1411102-02A, 1411102-03A, 1411102-04A, 1411102-05A, 1411102-0

06A, 1411102-07A

Sample ID 1411161-10A-DUP Batch ID: 66614 TestNo: D2216 Units: WT% SampType: DUP Prep Date: 11/19/2014 Run ID: PMOIST_141119B Analysis Date: 11/20/2014 10:59:00 A Result SPK value Analyte RL Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Percent Moisture 8.05 0 8.326 3.42

Qualifiers:

Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

Page 12 of 12

Jones, Brad A., EMNRD

From:

Jones, Brad A., EMNRD

Sent:

Monday, November 24, 2014 1:41 PM

To:

'Mark Larson' Wayne Crawley

Cc: Subject:

RE: R360 Artesia, LLC Landfarm, Revised Plan 1 (Berm and Buffer Zone), November 19,

2014

Attachments:

2014 1124 Plan 1 Berm and Buffer Plan approval.pdf

Wayne and Mark,

Please see the attached approval letter. A hardcopy has been placed in the mail. If you have any questions regarding this matter, please do not hesitate to contact me.

Brad

Brad A. Jones

Environmental Engineer EMNRD Oil Conservation Division 1220 S. Saint Francis Drive

Santa Fe, New Mexico 87505 E-mail: brad.a.jones@state.nm.us

Office: (505) 476-3487 Fax: (505) 476-3462

From: Mark Larson [mailto:Mark@laenvironmental.com]

Sent: Wednesday, November 19, 2014 3:45 PM

To: Jones, Brad A., EMNRD

Cc: Wayne Crawley

Subject: Re: R360 Artesia, LLC Landfarm, Revised Plan 1 (Berm and Buffer Zone), November 19, 2014

Hello Brad,

Please find Plan 1 (Berm and Buffer Plan) which was revised after the telephone call with Wayne Crawley. Please contact Wayne Crawley at (281) 873-3255 or me at (432) 687-0901, if you have questions. Sincerely,

Mark J. Larson, P.G. President/Sr. Project Manager 507 N. Marienfeld St., Suite 200 Midland, Texas 79701 (432) 687-0901 (O) (432) 556-8656 (C)



State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez

Governor

David Martin Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jami Bailey, Division Director Oil Conservation Division



November 24, 2014

Wayne Crawley R360 Environmental Solutions, LLC 3 Waterway Square Place, Suite 110 The Woodlands, Texas 77380

RE: Request for Approval of Plan 1 – Berm and Buffer Plan

Permit NM1 – 030: Commercial Surface Waste Management Facility

R360 Artesia, LLC - R360 Artesia, LLC Landfarm

Facility Location: Unit A of Section 7, Township 17 South, Range 32 East NMPM

Lea County, New Mexico

Dear Mr. Crawley:

The Oil Conservation Division (OCD) has completed the review of Larson & Associates, Inc.'s email request Plan 1, dated November 19, 2014 and submitted on the behalf of R360 Artesia, LLC, which proposes to relocate contaminated soils out of the 100 ft. buffer area, install temporary cells berms, assess the vadose zone within the exposed buffer area, and the installation of permanent cells berms.

Based on the information provided in the request, Plan 1 is hereby approved with the following understandings and conditions:

- 1. R360 Artesia, LLC shall comply with all applicable requirements of the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), all conditions specified in this approval, and shall operate in accordance with the November 19, 2014 submittal;
- 2. R360 Artesia, LLC shall compare vadose zone monitoring results to the background results or PQL (whichever is higher) in order to determine if a release had occurred and if additional follow-up actions of 19.15.36.15.E.(5) NMAC are required to be completed; and
- 3. R360 Artesia, LLC shall obtain written approval from OCD prior to implementing any changes to the November 19, 2014 plan.

Please be advised that approval of this request does not relieve R360 Artesia, LLC of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve R360 Artesia, LLC of its responsibility to comply with any other applicable governmental authority's rules and regulations.

R360 Artesia, LLC Permit NM1-030 November 24, 2014 Page 2 of 2

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or brad.a.jones@state.nm.us.

Sincerely,

Brad A. Jones

Environmental Engineer

BAJ/baj

Cc: OCD District I Office, Hobbs

Mark Larson, Larson & Associates, Inc., 507 North Marienfeld, Suite 200, Midland, TX

79701

Jones, Brad A., EMNRD

From:

Mark Larson < Mark@laenvironmental.com>

Sent:

Wednesday, November 19, 2014 3:45 PM

To:

Jones, Brad A., EMNRD

Cc:

Wayne Crawley

Subject:

Re: R360 Artesia, LLC Landfarm, Revised Plan 1 (Berm and Buffer Zone), November 19,

2014

Attachments:

R360 Artesia, LLC Landfarm (NM1030-0) Revised Plan 1, November 19, 2014.pdf

Hello Brad,

Please find Plan 1 (Berm and Buffer Plan) which was revised after the telephone call with Wayne Crawley. Please contact Wayne Crawley at (281) 873-3255 or me at (432) 687-0901, if you have questions. Sincerely,

Mark J. Larson, P.G. President/Sr. Project Manager 507 N. Marienfeld St., Suite 200 Midland, Texas 79701 (432) 687-0901 (O) (432) 556-8656 (C)





November 19, 2014

Mr. Brad Jones
Oil Conservation Division
New Mexico Energy, Minerals and
Natural Resources Department
1220 S. St. Francis Drive
Santa Fe, NM 87505

Re: R360 Artesia LLC (NM1-30-0)

Plan 1 – Berm and Buffer Plan

Mr. Jones,

This letter transmits the revised Plan 1 for establishing the required 100 foot buffer between the facility north fence and contaminated soils in cells 1 through 4 as required by condition 3 of the permit (<u>Landfarm Construction</u>). The permit requires both a perimeter berm and a cell berm. A perimeter berm was constructed by the original owners, but it was used for both the perimeter and cell berm and thus contaminated soils were placed within the 100 foot buffer zone. The current perimeter berm with a base width of about 25 feet (cell 1) to 35 feet (cell 4) separates contaminated soils in cells 1 through 4 from the north Facility boundary. This plan will address:

- 1) Perimeter berm
- 2) Cell lift approval
- 3) Removal of the contaminated soils within the 100 foot buffer zone and temporary cell berm area
- 4) Construction of temporary cell berms
- 5) Verification samples within the 100 foot buffer zone
- 6) Construction of Permanent Cell Berms

There is 100 feet of separation between the contaminated soils and facility boundaries on the west, east and south sides. Therefore, the north side is the only side that requires the buffer zone to be addressed.

The following tasks will be performed to increase separation to at least 100 feet between the contaminated soil in cells 1 through 4 and the north facility boundary. This plan seeks approval for (1) establishment of the north side buffer zone and verification sampling procedures and (2) construction of both the temporary and permanent cell berm for each cell, with the understanding that the actual work will occur as cell lifts pass.

Task 1 Perimeter Berms

Figure 1 presents the current berm configuration and property boundary. The perimeter berm will remain in place. R360 will review the berm and re-build any areas that have deteriorated over time and

will ensure that the perimeter berm meets permit condition 5, which states that the perimeter berm must be 5 feet above grade and 30 feet wide at the base. If additional soil is needed to maintain the perimeter berm, it will be acquired from an area at the facility that has not been used for placement of contaminated soil. R360 owns 167 acres at this location, and there is plenty of uncontaminated soil outside the landfarm area that will be suitable for this purpose.

Task 2 Cell Lift Approval

R360 will continue treatment activities in each of the four cells with routine disking. When the surface application layer (6 inches or less) meets the successive/additional lift limits in permit condition 6 (Landfarm Operation) R360 will submit a letter request to the OCD for approval to place another lift on that cell. Individual letters will be submitted for each lift and for each landfarm cell. The laboratory analytical reports will be included with the letter.

Task 3 Removal of the Contaminated Soils within the 100 Foot Buffer Zone and Temporary Cell Berm

The buffer zone area north of cells 1 through 4 has been used and is currently a part of the landfarm cell. The contaminated soil that was placed in the 100 foot buffer zone on the north side of cells 1 through 4 will be removed to provide the minimum 100 foot separation (buffer) between the contaminated soil and the north facility boundary. In addition, 30 feet of soil will also be removed for placement of the temporary cell berm (See Task 4). The following procedures will be followed:

- Once the first lift in each cell is approved, R360 will survey and mark the buffer zone. Once the
 buffer zone is marked, the contaminated soils will be removed from the buffer zone. The
 perimeter levee is 30 feet wide, the buffer zone is 40 feet wide and permanent cell berm is 30
 feet wide for a total of 100 feet. The temporary cell berm will be 30 feet wide, therefore soils
 will be removed from a 100 wide strip (40 ft for buffer zone, 30 ft for permanent cell levee and
 30 ft for the temporary cell berm).
- The soils that are currently lying within the buffer zone for Cells 1 and 4 have met the
 treatment zone additional lift criteria. Therefore, they will be removed and spread in a thin,
 even layer across the respective cell. These soils will not count as part of the next lift. The same
 procedure will be followed for cells 2 and 3 once OCD approves these cells for another lift of
 contaminated soil.

Task 4 Construction of Temporary Cell Berms

R360 will construct a new, temporary landfarm cell berm along the north side of cells 1 through 4, as shown on Figure 2. The berms will be constructed with clean soil acquired from an area at the facility that has not been used for placement of contaminated soil. The cell berms will be constructed that will be 30 feet wide and 5 feet above natural grade. This will comply with permit condition 5. This will allow for two (2) feet of contaminated soil to be placed in each cell while allowing for 3 feet of freeboard.

A temporary berm will be necessary to prevent runoff and run-on while R360 investigates the vadose zone beneath the buffer and permanent cell berm area. The temporary berm will be installed in the land farm cell while the vadose zone in the buffer and permanent cell berm area is investigated and remediated, if necessary. The temporary berm will be moved and become the permanent cell berm once the vadose investigation and remediation is completed. This will allow the full land farm cell acreage to be used for the treatment of soils from Cells 5 and 6. The vadose zone beneath the temporary berm will be addressed during routine operations (quarterly vadose monitoring) after completion of Task 5. Table 1 provides the acreage and the cubic yard capacities for the four cells while they exist in this modified status.

Table 1. Cell Areas and Lift Volumes for Land Farm Cells in Modified Status

Cell#	Original Acres	Acres after Removal of Buffer Zone and Cell Berm	Modified Area Square Feet	Modified Area CY in 6 Inch Lift
1	2.74	1.94	84,684	1,568
2	2.85	2.25	98,169	1,818
3	4.44	3.61	157,444	2,916
4	9.95	8.69	378,747	7,014

Task 5 Verification Samples within the 100 Foot Buffer Zone

Verification samples will be collected once the soils approved for an additional lift are removed from the 70 foot buffer zone where contaminated soils have been treated. The objective of these samples is to confirm that the soils in the vadose zone have not been affected by the treatment of these soils. Four (4) discrete soil samples will be collected from the 70 foot buffer zone north of each cell (1 through 4) between 2 and 3 feet below ground surface (bgs). The discrete samples for each cell buffer zone will be composited into a single sample. A total of 4 composite samples (one for each cell buffer zone) will be submitted to the laboratory and analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX), total petroleum hydrocarbons (TRPH), and chloride, using methods SW-8021B, 418.1, and E300, respectively. This data will be compared to background data and PQLs (discussed in Plan 4) to determine if a release to the vadose zone has occurred. Should these results exceed the background or PQLs for any given cell, then R360 will notify OCD, perform additional sampling, and possibly submittal of a response plan, if applicable. Figure 2 presents the approximate discrete sample locations.

The perimeter berm discussed in Task 1 will protect the buffer zone during the sampling and analysis period by preventing stormwater run-on from off the facility. In addition, the temporary cell berm will prevent stormwater runoff from the land farm cells from accessing the buffer zone.

Task 6 Construction of Permanent Cell Berms

Once the vadose zone soils have been addressed through the verification sampling program outlined in Task 5, R360 will construct a permanent cell berm in the buffer zone using soil from the temporary berm. Once this is completed, the 30 foot area where the temporary cell berm was constructed will be placed back into use within the land farm cell. The permanent cell berms will be constructed that will be 30 feet wide and 5 feet above natural grade. This will comply with permit condition 5. Figure 2 presents the permanent berm location.

Table 2 provides the acreage and cubic yard capacities for the four cells after construction of the permanent cell berm. These areas and lift yardages represent the final landfarm area for cells 1 through 4. Once the buffer zone and permanent cell berms are established the size of cells 1 through 4 will reduce to approximately 2.26, 2.52, 3.98 and 9.23 acres, respectively.

Cell #	Original Acres	Acres – Amended for Buffer Zone Removal	Final LT Area Square Feet	Final LT Area CY in 6 Inch Lift
1	2.74	2.12	92,209	1,708
2	2.85	2.41	104,819	1,941
3	4.44	3.81	166,194	3,078
4	9.95	8.93	389,247	7,208

Please contact Wayne Crawley with R360 at (979) 777-0670 or me if you have questions.

Sincerely,

LARSON & ASSOCIATES, INC.

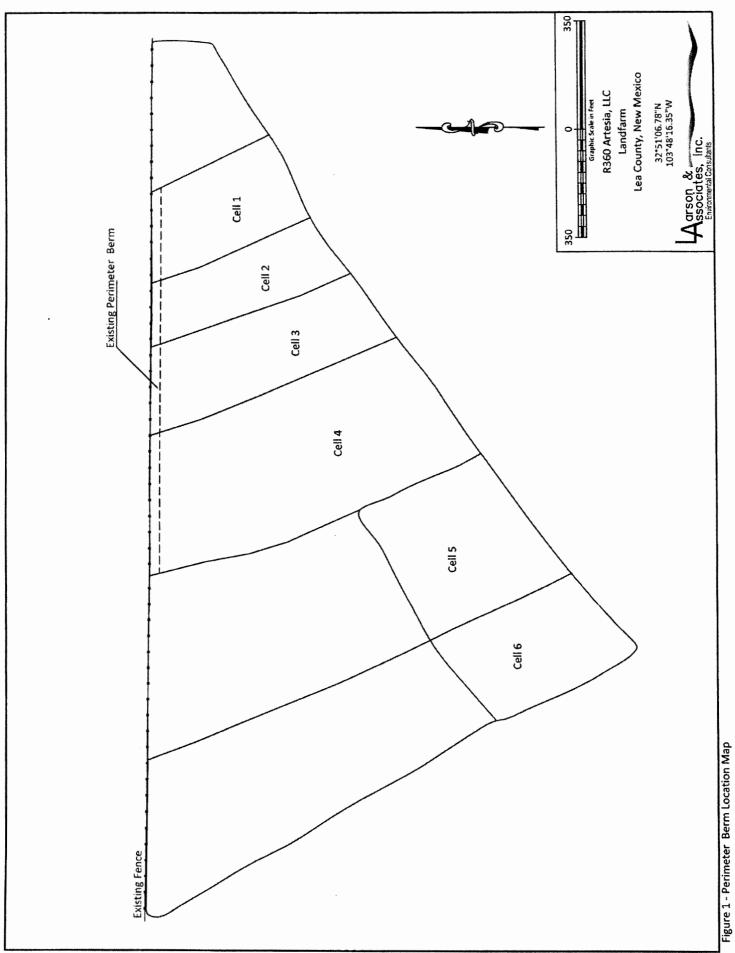
Mark J. Larson, P.G.

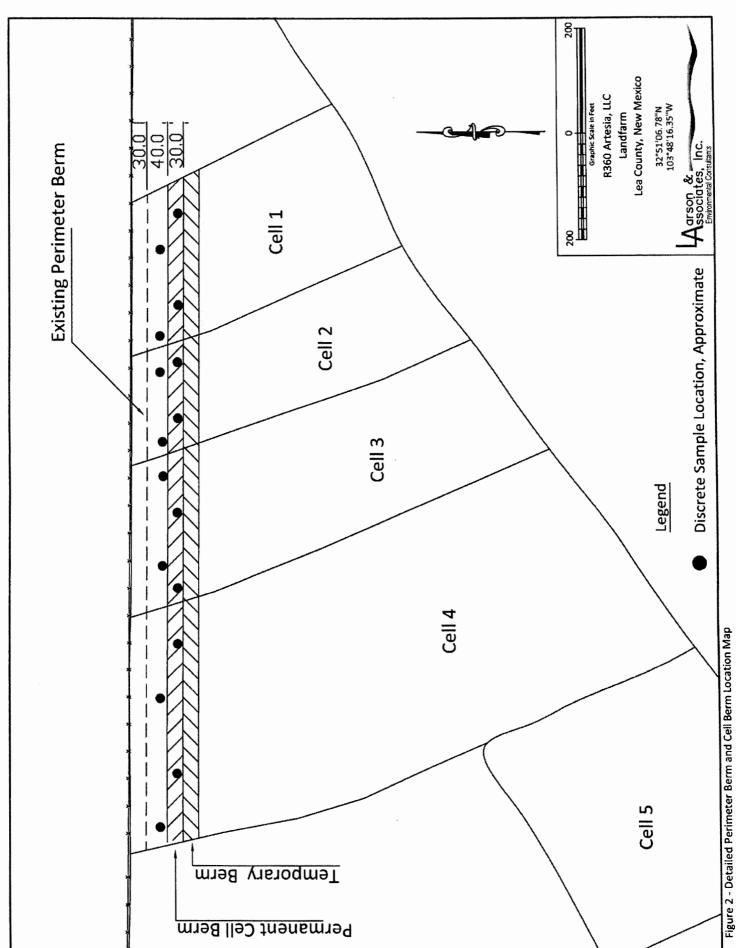
Sr. Project Manager/President mark@laenvironmental.com

cc:

Wayne Crawley – R360 Midland Office

FIGURES







RECEIVED OCD

2014 MAR 24 P 10: 51

March 20, 2014

VIA EMAIL: brad.a.jones @state.nm.us

Mr. Brad Jones Environmental Bureau New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: R360 Artesia LLC Landfarm – Groundwater Delineation Report, November 5, 2013

Unit A (NE/4, NE/4), Section 7, Township 17 South, Range 32 East, Lea County, New Mexico

Dear Brad:

Please find the enclosed report that was submitted to the New Mexico Oil Conservation Division (OCD), on behalf of R360 Environmental Solutions, Inc. (R360), on November 19, 2013. An electronic copy was also sent to your email address on March 20, 2014. Please contact Mr. Wayne Crawley with R360 by phone at 281-873-3205 or by email at WayneC@R360es.com. I may be reached at (432) 6876-0901.

Sincerely,

Larson & Associates, Inc.

Mark J. Larson, P.G. mark@laenvironmental.com

cc: Wayne Crawley, R360

Encl.



November 19, 2013

VIA EMAIL: brad.a.jones @state.nm.us

Mr. Brad Jones **Environmental Bureau New Mexico Oil Conservation Division** 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: R360 Artesia LLC Landfarm – Groundwater Delineation Report, November 5, 2013

Unit A (NE/4, NE/4), Section 7, Township 17 South, Range 32 East, Lea County, New Mexico

Dear Brad:

The enclosed report is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of R360 Environmental Solutions, Inc. (R360), a wholly owned subsidiary of Waste Connections, Inc., to present the results of groundwater delineation at the R360 Artesia, LLC Landfarm (Facility). The Facility is located in Unit A (NE/4, NE/4), Section 7, Township 17 South, Range 32 East, in Lea County, New Mexico. The groundwater delineation was performed according to a work plan approved by the OCD on January 29, 2013. A copy of the OCD approval is presented in Appendix A. R360 would like to schedule a meeting to discuss the investigation results and path forward upon your review of the report. Please contact Mr. Wayne Crawley with R360 by phone at 281-873-3205 or by email at WayneC@R360es.com. I may be reached at (432) 6876-0901.

Sincerely,

Larson & Associates, Inc.

Mark J. Larson, P.G.

mark@laenvironmental.com

Geoffrey Leking, OCD District 1 cc:

Wayne Crawley, R360

Zack Davis, R360

Encl.

GROUNDWATER DELINEATION REPORT

R360 Artesia, LLC Landfarm
Unit A, Section 7, Township 17 South, Range 32 East
Lea County, New Mexico

Project No. 11-0109-09

November 5, 2013

Prepared for:

R360 Environmental Solutions, Inc. 3 Waterway Square Place, Suite 110 The Woodlands, Texas 77380

Prepared by:

Larson & Associates, Inc.
507 North Marienfeld, Suite 200
Midland, Texas 79701

Mark J. Larson, CPG Certified Professional Geologist No. 10490

Groundwater Delineation Report R360 Artesia, LLC Landfarm Lea County, New Mexico

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1.0 INTRODUCTION

This report presents the results of an investigation to delineate the extent of shallow groundwater discovered in a monitoring well (MW-2) at the R360, Inc. (R360), a wholly owned subsidiary of Waste Connections, Inc. for the R360 Artesia, LLC Landfarm (Site) located in Unit A (NE/4, NE/4), Section 7, Township 17 South and Range 32 East in Lea County, New Mexico. The investigation was performed according to a work plan (*Groundwater Delineation Work Plan, January 29, 2013*) approved by the New Mexico Oil Conservation Division (NMOCD) on January 29, 2013. The Site is a commercial landfarm which operates under permit NM1-30-0 for treating soil and drill cuttings contaminated predominantly by petroleum hydrocarbons. The geodetic position is 32° 51′ 171″ north and 103° 47′ 56.9″ west. Figure 1 presents a location and topographic map. Figure 2 presents an aerial drawing. Figure 3 presents a Site drawing. Appendix A presents the NMOCD investigation plan approval.

1.1 Objective

The objective was to define the extent of the shallow groundwater in Cells 5 and 6 to determine where waste can be placed within the landfarm cells. Another objective was to determine the vertical extent of documented vadose zone contamination, pursuant to 19.15.36.15.E NMAC, in landfarm Cells 5 and 6. The investigation involved drilling 7 borings to delineate the extent of shallow groundwater beneath landfarm Cell 5 (SB-4, SB-6 and SB-10) and Cell 6 (SB-7, SB-8, SB-9 and SB-12). Three borings, SB-7, SB-8 and SB-9, were completed as monitoring wells MW-4, MW-5 and MW-6, respectively, to delineate and monitor groundwater quality. Soil samples were collected from 8 borings (SB-1 through SB-6, SB-9 and SB-10) for laboratory analysis to determine the vertical extent of documented vadose zone contamination in Cell 5 and Cell 6. Figure 4 presents a detailed Site drawing showing the boring and monitoring well locations.

2.0 SETTING

2.1 Topography

The Site is located southwest of the Mescalero Ridge a prominent northwest to southeast trending ridge that forms the limits of the "caprock". The surface elevation near the northeast corner of the Site is about 4,030 feet above mean sea level (MSL) and approximately 3,983 feet above MSL near the northeast corner of the Site. The topography slopes to the southwest at approximately 0.01 feet per mile. Taylor Draw is the closest surface water feature and is located about 1 mile west of the Site. Taylor Draw is an ephemeral stream and flows the southwest.

2.2 **Soil**

The Pyote soils and Dune land, 0 to 3% slopes (PY) is present over the Site and surrounding area. The unit consists of about 45% Pyote soils and 45% Dune land. Due to low fertility the soil is mostly used for range, wildlife and recreation purposes.

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2.3 Geology

The cap rock underlies the High Plains and provides a resistant layer over the Tertiary-age Ogallala formation commonly referred to as the Ogallala or High Plains Aquifer. South of the Mescalero Ridge the Ogallala formation is present where caliche has preserved the formation and has been removed by erosion where claiche is not present.

The surface geology is comprised of Holocene to mid-Pleistocene age wind-blown sand, silt, silty sand, gravel and some caliche. The material was derived principally from reworking the Ogallala formation and is about 12 feet THICK. The Holocene to mid-Pleistocene material is laterally continuous across the Site and unconformably overlies the Chinle formation of the Dockum group (Triassic). The Chinle formation is composed of red to green claystone or shale that includes minor fine grained sandstone and siltstone. The upper contact of the Dockum Group occurs at about 1,387 feet above mean sea level (MSL) and is laterally continuous across the Site. Figure 5 presents a west to east geological cross section (A – A') through landfarm Cells 5 and 6. Figure 4 presents the cross section location.

2.4 **Groundwater**

Groundwater occurs in the Holocene to mid-Pleistocene age deposits and upper part of the Chinle formation near the southwest corner of the Site. The shallow groundwater occurs between approximately 22.30 and 27.58 feet below ground surface (bgs). The shallow groundwater elevation ranges between approximately 3,990.14 feet above MSL (MW-4) to 3,985.82 feet above MSL at MW-5. The groundwater flow direction is to the southwest at a gradient of approximately 0.183 feet per foot. Figure 6 presents a depth to groundwater map. Figure 7 presents a groundwater potentiometric map.

2.5 Wells

No wells have been identified visually or from records at the Office of the State Engineers (OSE) within 1 mile of the Facility.

3.0 SOIL AND GROUNDWATER INVESTIGATION

3.1 Soil Borings and Monitoring Wells

Between March 19 and 27, 2013, LAI personnel supervised Precision Sampling, of Albuquerque,, New Mexico, to drill 7 borings (S-4, S-6, S-7, S-8, S-9, S-10 and S-12) for delineating shallow groundwater beneath landfarm Cells 5 and 6. The borings were drilled to an elevation of at least 3960 feet above MSL or 50 about feet using a CME Model 85 truck-mounted hollowstem auger rig equipped with 5 foot long core barrel for collecting continuous core samples. The core samples were examined for moisture that would indicate the presence of groundwater. Groundwater was observed in 3 borings, SB-7, SB-8 and SB-9, which were completed as monitoring wells MW-4, MW-5 and MW-6, respectively.

On May 28, 2013, West Companies, located in Midland, Texas, surveyed the borings and monitoring wells for location and elevation. Lithology was described according to the unified soil classification system (ASTM D2487). Contaminated soil was removed from each location to a depth of about 1 foot to expose native soil beneath the landfarm cell. The contaminated soil was placed in a designated stockpile area, along with drill cuttings from the borings, located near the northeast corner of Cell 6.

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The soil borings, monitoring wells and soil stockpile area are shown on Figure 4.

3.1.1 Boring SB-4

Soil boring SB-4 was drilled on March 22, 2013, near the southeast corner of Cell 5. Gravelly clay was observed from about 1 to 3 feet. The gravelly clay is underlain by sand to about 22 feet which is underlain by shale to a depth greater than 50 feet. Moisture was not observed in the core samples which were wrapped in plastic wrap and aluminum foil and placed in cardboard boxes for preservation and storage.

Boring SB-4 was completed as a temporary monitoring well due to weak soil structure which caused the borehole to collapse upon removing the augers. Ten (10) feet of 2 inch schedule 40 PVC screen was placed in the boring between approximately 35.68 and 45.60 feet. The screen was surrounded with silica sand from the bottom of the screen to approximately 24.5 feet.

The boring was gauged daily between March 24 and March 27, 2013 and groundwater was not observed. On March 28, 2013, the PVC screen and casing was removed and the boring was plugged to surface with cement and bentonite grout. Table 1 presents a soil boring drilling and monitoring well completion summary. Appendix B presents the geologic log for SB-4.

3.1.2 Boring SB-6

Boring SB-6 was drilled on March 22, 2013, near the south center of Cell 5. Gravelly clay was observed from about 1 to 3.5 feet. The gravelly clay is underlain by sand to about 23.5 feet. The sand is interbedded with a layer of clayey sand between about 13.5 and 17 feet. Shale was encountered at about 23.5 feet and was present to a depth greater than 50 feet. Moisture was not observed in the core samples which were wrapped in plastic wrap and aluminum foil and placed in cardboard boxes for preservation and storage.

Boring SB-6 was completed as a temporary monitoring well due to the weak soil structure which caused the borehole to collapse upon removing the augers. Ten (10) feet of 2 inch schedule 40 PVC screen was placed in the boring between approximately 35.28 and 44.80 feet. The screen was surrounded with silica sand from the bottom of the screen to approximately 24.3 feet.

The boring was gauged daily between March 24 and 27, 2013 and groundwater was not observed. On March 28, 2013, the PVC screen and casing was removed and the boring was plugged to surface with cement and bentonite grout. Table 1 presents a soil boring drilling and monitoring well completion summary. Appendix B presents the geologic log for SB-6.

3.1.3 Boring SB-7 (MW-4)

Boring SB-7 was drilled on March 20 and March 21, 2013, near the south end between Cell 5 and Cell 6. Sand interbedded with caliche and clayey sand was observed between about 1 and 15 feet. The sand is underlain by clayey sand and sandy clay to about 25 feet which is underlain by clay or shale to a depth greater than 50 feet. The clay or shale is interbedded with thin beds of well cemented sandstone. Moisture was observed in core samples from 15 and 20 feet. The core samples were wrapped in plastic wrap and aluminum foil and placed in cardboard boxes for preservation and storage.

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Groundwater was observed in borehole SB-7 on the following dates:

Date	Depth (Feet)
March 23, 2013	35.60
March 24, 2013	32.00
March 25, 2013	27.75
March 26, 2013	24.42
March 27, 2013	25.02

On March 27, 2013, boring SB-7 was completed as monitoring well MW-4 with 10 feet of 2 inch schedule 40 PVC screen placed in the borehole between approximately 21.19 and 31.20 feet. The screen was surrounded with silica sand from the bottom of the screen to approximately 19.0 feet. A layer of bentonite chips was placed over the sand from about 16.00 to 19.00 feet and hydrated with potable water. The borehole annulus from about 1 to 16 feet was filled with cement and bentonite grout. The annulus above the cement and bentonite grout was filled with aggregate concrete which forms a pad about 3 X 3 feet. The well is secured with a locking steel above-grade protector anchored in the concrete pad. Table 1 presents a borehole drilling and monitoring well completion summary. Appendix B presents the geologic log and well completion record for MW-4.

3.1.4 Boring SB-8 (MW-5)

Boring SB-8 was drilled between March 19 and March 21, 2013, near the center and west side of Cell 6. Clayey sand interbedded with caliche was encountered between about 1 and 12 feet. The clayey sand is underlain by sand, gravelly sand and sandy clay to about 36 feet which is underlain by clay or shale to a depth greater than 50 feet. Metal fatigue caused the cutter head to separate from the lead auger at about 35 feet, therefore, the original boring (SB-8A) was plugged to surface with cement and bentonite grout and a second boring (SB-8) was drilled about 15 feet south of the original location. The core samples were wrapped in plastic wrap and aluminum foil and placed in cardboard boxes for preservation and storage.

Moisture was observed in core samples at about 4, 6 and from about 21 to 36 feet. Groundwater was observed in borehole SB-8 on the following dates:

Date	Depth (Feet)	
March 22, 2013	36.00	
March 23, 2013	35.50	
March 24, 2013	34.50	
March 25, 2013	33.50	
March 26, 2013	32.10	
March 27, 2013	30.85	

On March 27, 2013, boring SB-8 was completed as monitoring well MW-5 with 10 feet of 2 inch schedule 40 PVC screen placed in the borehole between approximately 29.45 and 39.95 feet. The screen was surrounded with silica sand from the bottom of the screen to approximately 26.00 feet. A layer of bentonite chips was placed over the sand from 23.00 and 26.00 feet and hydrated with potable water. The borehole annulus from about 1 to 23.00 feet was filled with cement and bentonite grout. The

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annulus above the cement and bentonite grout was filled with aggregate concrete which forms a pad about 3 X 3 feet. The well is secured with a locking steel above-grade protector anchored in the concrete pad. Table 1 presents a drilling and completion summary. Appendix B presents the geologic log and well completion record for MW-5.

3.1.5 Boring SB-9 (MW-6)

Boring SB-9 was drilled on March 23, 2013, near the center and east side of Cell 6. Gravelly clay was encountered between about 1 and 2.5 feet. Sand was observed below the gravelly clay to a depth of about 25 feet. A layer of sandstone was encountered below the sand from about 25 to 32 feet and is underlain by shale to a depth greater than 50 feet. No moisture was observed in the core samples which were wrapped in plastic wrap and aluminum foil and placed in cardboard boxes for preservation and storage. Boring SB-9 was completed as a temporary monitoring well.

Groundwater was observed in borehole SB-9 on the following dates:

Date	Depth (Feet)
March 25, 2013	32.25
March 26, 2013	35.40
March 27, 2013	34.95

On March 27, 2013, boring SB-9 was completed as monitoring well MW-6 with 10 feet of 2 inch schedule 40 PVC screen installed between approximately 30.71 and 40.08 feet. The screen was surrounded with silica sand from the bottom of the screen to approximately 28.00 feet. A layer of bentonite chips was placed over the sand from about 25.00 to 28.00 feet and hydrated with potable water. The borehole annulus from about 1 to 25.00 feet was filled with cement and bentonite grout. The annulus above the cement and bentonite grout was filled with aggregate concrete which forms a pad about 3 X 3 feet. The well is secured with a locking steel above-grade protector anchored in the concrete pad. Table 1 presents a drilling and completion summary. Appendix B presents the geologic log and well completion record for MW-6.

3.1.6 Boring SB-10

Boring SB-10 was drilled on March 22, 2013, near the center and west side of Cell 5. Gravelly clay was observed from about 1 to 3.5 feet. The gravelly clay is underlain by sand between about 3.5 and 21 feet. A layer of clayey sand was observed between about 21 and 26 feet and underlain by a layer of sandy and clayey gravel from about 26 to 27.50 feet. Shale was encountered below the sandy and clayey gravel to a depth greater than 50 feet. Moisture was not observed in the core samples which were wrapped in plastic wrap and aluminum foil and placed in cardboard boxes for preservation and storage.

Boring SB-10 was completed as a temporary monitoring well due to weak soil structure which caused the borehole to collapse upon removing the augers. Ten (10) feet of 2 inch schedule 40 PVC screen was installed in the boring between approximately 35.81 and 45.73 feet. The screen was surrounded with silica sand from the bottom of the screen to approximately 25.2 feet.

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The boring was gauged daily between March 24 and 27, 2013 and groundwater was not observed. On March 28, 2013, the PVC screen and casing was removed and the boring was plugged to surface with cement and bentonite grout. Table 1 presents a drilling and completion summary. Appendix B presents the geologic log for SB-10.

3.1.7 Boring SB-12

On March 23, 2013, boring SB-12 was drilled near the center and north end of Cell 6. Silty clay was observed from about 1 to 1.5 feet. The silty clay is underlain by sand from about 1.5 and 23 feet. A layer of clayey gravel was observed between about 17 and 18 feet. The sand is underlain by silty and clayey sand from about 23 to 32.50 feet. Shale was encountered below the silty and clayey sand at about 32.5 feet. Moisture was observed in the core sample at about 29 feet therefore drilling was suspended overnight to allow groundwater to accumulate in the boring. The augers were retracted about 5 feet to allow groundwater to enter the boring. On March 24, 2013, groundwater was not observed and boring SB-12 was deepened to 50 feet. The core samples were wrapped in plastic wrap and aluminum foil and placed in cardboard boxes for preservation and storage.

On March 24, 2013, boring SB-12 was completed as a temporary monitoring well due to the weak structure of the shale which caused the borehole to collapse upon removing the augers. Ten (10) feet of 2 inch schedule 40 PVC screen was temporarily installed in the boring between approximately 38.44 5.81 and 47.96 feet. The screen was surrounded with silica sand from the bottom of the screen to approximately 31.0 feet.

The boring was gauged daily between March 25 and 27, 2013 and groundwater was not observed. On March 28, 2013, the PVC screen and casing was removed and the boring was plugged to surface with cement and bentonite grout. Table 1 presents a drilling and completion summary. Appendix B presents the geologic log for SB-12.

3.2 <u>Background Soil Samples</u>

Between July 15 and 17, 2013, LAI personnel collected background composite samples from 12 grids in the area located north of Cells 5 and 6. The samples were collected according to a plan that was approved by the OCD on July 1, 2013. Each composite sample consisted of sixteen (16) discrete samples that were collected with a stainless steel hand auger. The hand auger was cleaned between samples with a solution of distilled water and laboratory-grade detergent (Alkonox®) and rinsed with distilled water. Each discrete sample was collected in a 4-ounce glass jar and chilled in an ice chest. Upon collection 16 discrete samples the samples were composited into a single sample by mixing in a stainless steel bowl and transferring to laboratory containers using a stainless steel trowel. The stainless steel bowl and trowel were decontaminated between composite samples as previously stated. The laboratory containers were labeled, chilled to at least 4°C and delivered under chain of custody to DHL Analytical located in Round Rock, Texas. The laboratory analyzed the samples for total recoverable petroleum hydrocarbons (TRPH) by method 418.1, BTEX by method SW-846-8021B, chloride by method E300 and the constituents listed in Subsection A and B of 20.6.2.3103 NMAC. Table 3a through 3e presents the background soil analytical data summaries. Figure 8 presents the background sample locations. Appendix A presents the OCD approval.

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No concentrations of volatile (Table 3a), semi-volatile (Table 3b) or polychlorinated biphenyl (Table 3c) were reported by the laboratory above the method detection limits (MDL). Metal (Table 3d) constituents reported at concentrations above the MDL included arsenic, barium, cadmium, chromium, copper, iron, lead, manganese, mercury, selenium, and zinc. Silver was not reported above the MDL in the background samples. The following is a summary of the average and 2 standard deviations of the detected metal constituents reported in the background samples:

Metal	Mean (mg/Kg)	2 Standard Deviations (mg/Kg)
Arsenic	2.38	3.61
Barium	68.96	168.37
Cadmium	0.21	0.35
Chromium	7.13	11.04
Copper	3.12	6.44
Iron	6,731	9,634.36
Lead	5.71	16.10
Manganese	78.34	152.70
Mercury	<0.0164	0.0624
Selenium	0.90	1.50
Silver	<0.106629	1.41
Zinc	17.52	34.84

Cyanide and nitrate (Table 3e) were not reported above the MDL in the background samples. The following is a summary of the average and 2 standard deviations of TRPH, chloride, fluoride and sulfate concentrations reported in the background samples:

Constituent	Mean (mg/Kg)	2 Standard Deviations (mg/Kg)
TRPH	229	533.24
Chloride	31.0	747.0
Fluoride	2.53	6.18
Sulfate	808	6,239

3.3 Soil Samples (Release Determination)

Soil samples were collected from 8 borings (SB-1 through SB-6, SB-9 and SB-10) that were installed in landfarm Cells 5 (SB-3, SB-4, SB-6 and SB-10) and 6 (SB-1, SB-2, SB-5 and SB-9) to confirm possible vadose contamination. The samples were collected using the continuous sampler at approximately 2 to 3, 5 to 7, 7 to 9 and 10 to 12 feet bgs, depending on sample recovery. The samples were submitted under preservation and chain of custody to DHL Analytical, located in Round Rock, Texas, and were analyzed the samples for benzene, toluene, ethylbenzene, xylenes (BTEX) by method SW-8021B, total recoverable petroleum hydrocarbons (TRPH) by method 418.1, chloride by method E300 and constituents listed in Subsections A and B of 20.6.2.3013 NMAC, excluding uranium and radioactivity (radium-226 and radium-228). The borings were plugged to surface with cement and bentonite grout after collecting the soil samples. Tables 3a through 3e present the soil analytical data summaries.

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Figure 4 presents the boring locations. Appendix C presents the laboratory reports on CD.

Referring to Table 3a (Soil Volatile Organic Analytical Data Summary) no volatile organic compounds (VOC) were detected in the soil samples.

Referring to Table 3b (Soil Semi-volatile Organic Analytical Data Summary) no semi-volatile organic compounds (SVOC) were detected in the soil samples.

Referring to Table 3c (Soil PCB Analytical Data Summary) no PCB was detected in the soil samples.

Referring to Table 3d (*Soil Metals Analytical Data Summary*) concentrations of metals exceeding two (2) standard deviations of the mean background concentration were arsenic, barium, chromium, iron, and selenium. The following metals exceeded two (2) standard deviations of the mean background concentration of metals in Cell 5:

Parameter	Two (2) Standard Deviation Background (mg/Kg)	Concentration (mg/Kg)
Arsenic	3.61	3.92 – 4.06
Barium	168.37	184 -411
Chromium 11.04		11.9 – 12.0
lron	9,634.36	9,690 – 13,900

The following metals exceeded two (2) standard deviations of the mean background concentration of metals in Cell 6:

Parameter	Two (2) Standard Deviation Background	Concentration (mg/Kg)
	(mg/Kg)	
Arsenic	3.61	3,71 – 3.87
Barium	168.37	210 – 356
Chromium 11.04		11.5 – 12.5
Iron	9,634.36	10,900 – 14,300

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Selenium	1.50	1.65 – 3.26

The area of elevated metals in Cell 6 is situated where shallow groundwater is present (SB-1, SB-2 and SB-5).

Referring to Table 3e (*Soil TPH and Anion Analytical Data Summary*) concentrations exceeding two (2) standard deviations of the mean background concentration were TRPH, chloride, fluoride, nitrate (N) and pH. The following is a summary of TRPH and anions exceeding two (2) standard deviations of the background concentration in Cell 5:

Parameter Two (2) Standard Deviation Background (mg/Kg)		Concentration (mg/Kg)	
TRPH	533.24	7,740	
Chloride	747.0	802 – 2,310	
Fluoride	6.18	7.73 – 11.0	
Nitrate-N	6.34	7.23 – 8.45	
рН	7.94	8.22 – 8.61	

The concentration of TRPH and chloride in sample from SB-6, 2 to 3 feet (7,740 mg/Kg) suggests possible vertical migration into the vadose zone or a thickened layer of treated soil at this location.

The elevated chloride in samples from boring SB-6, 5 to 7 and 10 to 12 feet, suggest possible vertical migration into the vadose zone at this location.

The following is a summary of anions exceeding two (2) standard deviations of the background concentration in Cell 6:

Parameter Two (2) Standard Deviation Background (mg/Kg)		Concentration (mg/Kg)	
Fluoride	6.18	6.24 – 7.84	
Nitrate-N	6.34	8.87	

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рН	7.94	7.94 – 8.65

Contaminated soil was removed from the locations prior to drilling (SP-1) and drill cuttings (SP-2) were piled separately in an area near the northeast corner of landfarm Cell 6, as shown on Figure 3. On March 27, 2013, LAI personnel collected a 5-spot composite sample from each pile for laboratory analysis, including BTEX by method SW-8021B, TRPH by method 418.1, chloride by method E300 and constituents listed in Subsections A and B of 20.6.2.3013 NMAC, excluding uranium and radioactivity (radium-226 and radium-228). Tables 3a through 3e present the soil pile analytical data summaries. Appendix C presents the laboratory reports on CD.

Referring to Table 3a (Soil Volatile Organic Analytical Data Summary) no volatile organic compounds (VOC) were detected in the soil pile samples.

Referring to Table 3b (Soil Semi-volatile Organic Analytical Data Summary) no semi-volatile organic compounds (SVOC) were detected in the soil pile samples.

Referring to Table 3c (Soil PCB Analytical Data Summary) no PCB was detected in the soil pile samples.

Referring to Table 3d (Soil Metals Analytical Data Summary) concentrations of metals in the contaminated soil pile (SP-1) and drill cuttings soil pile (SP-2) is summarized below:

Parameter	Two (2) Standard Deviation Background (mg/Kg)	Contaminated Soil (SP-1) (mg/Kg)	Drill Cuttings (SP-2) (mg/Kg)
Barium	168.37		206
Chromium	11.04		15.0
Copper	6.44		6.66
lron	9,634.36		9,890
Selenium	1.50	1.80	1.65

Referring to Table 3e (Soil TPH and Anion Analytical Data Summary) concentrations of TRPH, chloride, and sulfate in the contaminated soil pile (SP-1) and drill cuttings soil pile (SP-2) is summarized below:

Parameter	Two (2) Standard Deviation	Contaminated Soil (SP-1)	Drill Cuttings (SP-2)
	Background	(mg/Kg)	(mg/Kg)

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	(mg/Kg)		
TRPH	533.24	1,450	

3.4 Groundwater Samples

The new wells (MW-4, MW-5 and MW-6) were developed to remove fine grained material disturbed during drilling and well installation. Development was performed by hand bailing due to limited groundwater volumes using dedicated disposable polyethylene bailers until the purged water was visible clear of sediment. Existing monitoring wells MW-2, MW-W40, MW-S40 and MW-E40 were also purged using dedicated polyethylene bailers. The wells were purged dry 3 times prior to collecting the groundwater samples. Groundwater samples were collected using the dedicated disposable polyethylene bailers due to the limited volume of groundwater which prohibited using low flow sampling procedures. The samples were carefully poured from the bailers into laboratory provided containers that were labeled and chilled in an ice chest following collection.

Groundwater samples were collected from the existing (MW-2, MW-W40, MW-S40 and MW-E40) and new monitoring wells (MW-4, MW-5 and MW-6) on May 6 and 7, 2013. Containers for VOC's were only collected from wells MW-S40 and MW-W40 due to lack of water to fill the remaining containers. The samples were delivered under preservation and chain of custody to DHL located in Round Rock, Texas. The laboratory analyzed the samples for cations (sodium, calcium, magnesium and potassium), anions (nitrate-N, chloride, sulfate and alkalinity), total dissolved solids (TDS) and constituents listed in Subsections A and B of 20.6.2.3013 NMAC, excluding uranium and radioactivity (radium-226 and radium-228). Tables 7 through 11 present the analytical data summaries. Appendix C presents the laboratory reports on CD.

Referring to Table 7 (*Groundwater Volatile Organic Analytical Data Summary*), no VOC's were detected in the groundwater samples at the method detection limit (MDL).

Referring to Table 8 (*Groundwater Semi-volatile Organic Analytical Data Summary*), no SVOC's were detected in the groundwater samples at the MDL.

Referring to Table 9 (*Groundwater PCB Analytical Data Summary*), no PCBs were detected in the groundwater samples at the MDL.

Referring to Table 10 (*Groundwater Metals Analytical Data Summary*), concentrations of arsenic, barium, cadmium, chromium, copper, iron, lead, mercury, selenium, silver and zinc were below the method detection limit or the New Mexico Water Quality Control Commission (WQCC) human health standards in the groundwater samples. Manganese exceeded the WQCC domestic water quality standard of 0.2 milligrams per liter (mg/L) in the groundwater sample from MW-E40 located south of Cell 6.

Referring to Table 11 (*Groundwater Cation and Anion Analytical Data Summary*), cyanide was below the MDL. Nitrate was below the WQCC human health standard of 10 mg/L. Fluoride was slightly above the WQCC human health standard of 1.6 mg/L in samples from MW-2 (1.77 mg/L), MW-4 (1.67 mg/L) and MW-6 (1.68 mg/L). Chloride ranged from 436 mg/L (MW-E40) to 901 mg/L (MW-5) and exceeded

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the WQCC domestic water quality standard of 250 mg/L. Figure 9 presents a chloride concentration map.

Sulfate ranged from 561 mg/L (MW-E40) to 1,650 mg/L and exceeded the WQCC domestic water quality standard (600 mg/L) in all wells except MW-E40. TDS ranged from 2,090 mg/L (MW-E40) to 4,240 mg/L and exceeded the WQCC domestic water quality standard of 1,000 mg/L. Figure 10 presents a TDS concentration map.

Groundwater pH ranged from 7.03 to 7.40 standard units (s.u.) and is within the WQCC domestic water quality standard from 6.0 to 9.0.

4.0 GROUNDWATER DELINEATION

The extent of shallow unconfined groundwater was defined and extends about 350 feet north into Cell 6 and into the southwest corner of Cell 5. Figure 11 presents the extent of shallow ground beneath landfarm Cells 5 and 6.

5.0 CONCLUSIONS

- No VOC, SVOC, polycyclic aromatic hydrocarbons (PAH) and PCB were detected in soil samples at the method detection limits;
- Concentrations of arsenic, barium, chromium and iron in vadose soil from Cell 5 exceeded two (2) times the standard deviation of the mean background concentrations;
- Concentrations of arsenic, barium, chromium, iron and selenium in vadose soil from Cell 6 two
 (2) times the standard deviation of the mean background concentrations;
- The area of elevated metals in landfarm Cell 6 is situated where shallow groundwater is present (SB-1, SB-2, SB-5 and SB-7);
- TRPH was less than two (2) times the standard deviation of the mean background concentration (533.24 mg/kg) except Cell 5 (SB-6, 2 to 3 feet) where TRPH was 7,740 mg/Kg and suggests possible vertical migration into the vadose zone or a thickened layer of treated soil at this location;
- The elevated chlorides in samples from boring SB-6 suggest possible vertical migration into the vadose zone at this location.
- The analysis of groundwater samples from monitoring wells did not report concentrations of volatile organic, semi-volatile organic, including polycyclic aromatic hydrocarbons (PAH) and PCB above method detection limits;
- Concentrations of arsenic, barium, cadmium, chromium, copper, iron, lead, mercury, selenium, silver and zinc in groundwater were below the method detection limit or the New Mexico Water Quality Control Commission (WQCC) human health standards;

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- The WQCC domestic water quality standard for manganese (0.2 mg/L) was exceeded in the groundwater sample from MW-E40 located south of Cell 6.
- Cyanide was below the method detection limit in the groundwater samples;
- Nitrate was below the WQCC human health standard (10 mg/L) in the groundwater samples;
- Concentrations of fluoride were slightly above the WQCC human health standard (1.6 mg/L) in samples from MW-2 (1.77 mg/L), MW-4 (1.67 mg/L) and MW-6 (1.68 mg/L);
- Chloride in samples from all wells ranged from 436 mg/L (MW-E40) to 901 mg/L (MW-5) and exceeded the WQCC domestic water quality standard of 250 mg/L;
- Sulfate in samples from all wells ranged from 561 mg/L (MW-E40) to 1,650 mg/L and exceeded the WQCC domestic water quality standard (600 mg/L) except MW-E40;
- TDS in samples from all wells ranged from 2,090 mg/L (MW-E40) to 4,240 mg/L and exceeded the WQCC domestic water quality standard of 1,000 mg/L;
- Groundwater pH ranged from 7.03 to 7.40 standard units (s.u.) and is within the WQCC acceptable range of 6.0 to 9.0 s.u.;
- The delineation of groundwater determined that groundwater is present at depths between approximately 23 and 28 feet below the southwest corner of Cell 5 and the southern two-thirds of Cell 6.

6.0 REFERENCES

Alexander Nicholson, Jr. and Alfred Clebsch, Jr., 1961. *Geology and Ground-Water Resources of Lea County, New Mexico: New Mexico Institute of Mining & Technology Ground-Water Report 6, 123* p.

Turner, M.T., Cox, D.C., Mickelson, B.C., Roath, A.J. and Wilson, C.D., 1974. Soil Survey of Lea County, New Mexico: U.S. Department of Agriculture Soil Conservation Service 89 p.

TABLES

Table 1
Soil Boring Drilling and Monitoring Well Completion Summary
R360 Artesia LLC Landfarm
Lea County, New Mexico

Well Information	ation										Groundwater Data	· Data	
Location	Well	Cell	Date installed	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Water	Groundwater Elevation
1	MW-2	-	05/27/2005	40	28.27	2	4,012.5	15 - 25	3.40	4,015.90	05/28/2013	27.31	3,988.00
1	MW-E40	1	12/02/2008	1	27.14	1	4,011.4	18 - 28	-0.03	4,011.43	05/28/2013	23.66	3,987.77
1	MW-S40		12/02/2008	1	26.16	1	4,011.9	16 - 26	-0.07	4,011.83	05/28/2013	25.17	3,986.66
	MW-W40	;	12/02/2008		27.10	1	4,011.5	17 - 27	-0.03	4,011.53	05/28/2013	22.27	3,989.26
SB-1	N/C	9	03/26/2013	12.00	N/C	N/C	4,010.2	N/C	N/C		03/27/2013	Dry	4
SB-2	N/C	9	03/26/2013	12.00	N/C	N/C	4,011.8	N/C	N/C	;	03/27/2013	Dry	1
SB-3	N/C	5	03/26/2013	12.00	N/C	N/C	4,014.7	N/C	N/C	1	03/27/2013	Dry	
SB-4	Temporary	5	03/24/2013	20.00	46.15	2	4,016.8	35.68 - 45.20	0.55	1	03/24/2013	Dry	: :
											03/26/2013	, Au	;
											03/27/2013	Dry	ı
SB-5	N/C	9	03/26/2013	12.00	N/C	N/C	4,011.6	N/C	N/C		03/27/2013	Dry	1
SB-6	Temporary	5	03/24/2013	20.00	46.20	2	4,017.3	35.28 - 44.80	1.00	1	03/24/2013	Dry	1 1
											03/26/2013	Dry	ŀ
											03/27/2013	Dry	:
SB-7	MW-4	9	03/26/2013	50.00	33.95	2	4,013.4	21.19 - 30.56	2.69	4,016.12	04/01/2013	25.29	3,990.83
											04/05/2013	25.34	3,990.78
											04/12/2013	25.39	3,990.73
											04/19/2013	25.45	3,990.67
											05/28/2013	25.52	3,990.60
SB-8	MW-5	9	03/27/2013	50.00	41.55	2	4,013.4	29.49 - 38.86	2.05	4,015.45	04/01/2013	29.95	3,985.50
							_				04/18/2013	55.7	30.000,0

Soil Boring Drilling and Monitoring Well Completion Summary R360 Artesia LLC Landfarm Lea County, New Mexico Table 1

Well Information	ation										Groundwater Data	r Data	
Location	Well	Cell	Date installed	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation Date Gauged	Date Gauged	Depth to Water	Groundwater Elevation
											04/19/2013 05/28/2013	30.19 29.63	3,985.26 3,985.82
SB-8A	N/C	6.0	03/19/2013	36.00	N/C	N/C	4,014.1	N/C	N/C	N/C	03/20/2013	Dry	
SB-9	9-MM	9	03/27/2013	50.00	43.50	2	4,015.9	30.71 - 40.08	2.87	4,018.77	04/01/2013	31.28	3,987.49
											04/12/2013	29.90	3,988.87
											04/19/2013	29.80	3,988.97
											05/28/2013	29.63	3,989.14
SB-10	Temporary	5	03/23/2013	50.00	48.15	2		35.81 - 45.33	2.42		03/24/2013	Dry	
											03/25/2013	Dry	1
		_									03/26/2013	Dry	;
											03/27/2013	Dry	;
SB-12	Temporary	9	03/25/2013	50.00	50.30	2		38.44 - 47.96	1.90	1	03/25/2013	Dry	1
											03/26/2013	Dry	1
											03/27/2013	Dry	I
Notes: Borin	igs drilled usi	ng CME 85 I	Notes: Borings drilled using CME 85 hollowstem auger rig by Precision Sammpling, Albuquerque, New Mexico	er rig by Precisic	on Sammpling,	Albuquerque, N	New Mexico						

impiing, Albuquerque, New Mexico Notes: Borings driffed using Civit 85 nollowstem auger rig by Precision Sar Elevations are above mean sea level referenced to 1984 Geodetic Datum.

All values are in feet, unless otherwise noted.

bgs - below ground surface TOC - top of casing N/C denotes boring for samples only Tempoary indicates well materials removed before plugging on March 28, 2013

Table 2a Soil Background Volatile Organic Analytical Data Summary R360 Artesia LLC Landfarm, Lea County, New Mexico

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Notes: Analysis performed by method SW-846-9056 by DHL Analytical, Inc., Round Rock, Texas	Composite 12	Composite 11	Composite 10	Composite 9	Composite 8	Composite 7	Composite 6	Composite 5	Composite 4	Composite 3	Composite 2	Composite 1	Mean Background Concentration:	Sample
performed by me	07/17/13	07/17/13	07/16/13	07/16/13	07/15/13	07/15/13	07/17/13	07/17/13	07/16/13	07/16/13	07/15/13	07/15/13	d Concentration	Date
thod SW-846-9	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1 - 2	Ē	Depth
056 by DHL A	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00112	<0.000939	BDL	Benzene
nalytical, Inc.	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00112	<0.000939	BDL	Toluene
. Round Rock. Te	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00112	<0.000939	BDL	Carbon tetrachloride
exas	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00112	<0.000939	BDL	1,2- Dichloroethane
	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00112	<0.000939	BDL	1,1- Dichloroethylene
	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00112	<0.000939	BDL	Tetrachloroethylene
	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00112	<0.000939	BDL	proethylene Trichloroethylene Ethylbenzene
	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00112	<0.000939	BDL	Ethylbenzene
	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00112	<0.000939	BDL	Total Xylenes
	<0.00589	<0.00489	<0.00507	<0.00570	<0.00450	<0.00487	<0.00535	<0.00466	<0.00514	<0.00523	<0.00112	<0.00469	BDL	Methylene chloride
	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00560	<0.000939	BDL	Chloroform
	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00112	<0.000939	BDL	1,1- Dichloroethane
	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00112	<0.000939	BDL	Ethylene bromide
	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00112	<0.000939	BDL	1,1,1- Trichloroethane
	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00112	<0.000939	BDL	1,1,2- Trichloroethane
	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00112	<0.000939	BDL	1,1,2,2- Tetrachloroethane
	<0.00118	<0.000979	<0.00101	<0.00114	<0.000899	<0.000973	<0.00107	<0.000932	<0.00103	<0.00105	<0.00112	<0.000939	BDL	Vinyl chloride

Notes: Analysis performed by method SW-846-9056 by DHL Analytical, Inc., Round Rock, Texas Results are reported in milligram per Kilograms (mg/Kg).

1. <: Not detected at method detection limit
2. BDL: Below method detection limit

Composite 12	Composite 11	Composite 10	Composite 9	Composite 8	Composite 7	Composite 6	Composite 5	Composite 4	Composite 3	Composite 2	Composite 1	Mean Backgrou	Sample
2 07/17/13	1 07/17/13	0 07/16/13	07/16/13	07/15/13	07/15/13	07/17/13	07/17/13	07/16/13	07/16/13	07/15/13	07/15/13	Mean Background Concentration:	Date
1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	2	Depth
<0.0614	<0.0530	<0.0101	<0.0117	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	BDL	1-Methylnaphthalene 2-Methylnaphthalene
<0.0614	<0.0530	<0.0101	<0.0117	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	BDL	2-Methylnaphthalene
<0.0614	<0.0530	<0.0101	<0.0117	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	BDL	Naphthalene
<0.0614	<0.0530	<0.0101	<0.0117	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	BDL	Benzo[a]pyrene
<0.0614	<0.0530	<0.0101	<0.0117	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	BDL	2,3,4,6- Tetrachlorophenol
<0.0614	<0.0530	<0.0101	<0.0117	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	BDL	2,4,5- Trichloraphenol
<0.0614	<0.0530	<0.0101	<0.0117	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	BDL	2,4,6- Trichlarophenol
<0.0614	<0.0530	<0.0101	<0.0117	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	BDL	2,4- Dichlorophenol
<0.0614	<0.0530	<0.0101	<0.0117	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	BDL	2,4- Dimethylphenol
<0.307	<0.265	<0.0504	<0.0585	<0.0500	<0.253	<0.267	<0.258	<0.255	<0.265	<0.308	<0.261	BDL	2,4- Dinitrophenol
<0.0614	<0.0530	<0.0101	<0.0177	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	BDL	2,6- Dichlorophenol
<0.0614	<0.0530	<0.0101	<0.0177	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	BDL	2- Chlorophenol
<0.0614	<0.0530	<0.0101	<0.0177	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	BDL	2- Chlorophenol Methylphenol
<0.0614	<0.0530	<0.0101	<0.0177	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	BDL	2- Nitrophenol
<0.184	<0.159	<0.0303	<0.0351	<0.0300	<0.152	<0.160	<0.155	<0.153	<0.159	<0.185	<0.157	BDL	4,6-Dinitro-2- methylphenol
<0.0614	<0.0530	<0.0101	<0.0117	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	BDL	4-Chloro-3- methylphenol
<0.123	<0.106	<0.0202	<0.0234	<0.0200	<0.101	<0.107	<0.103	<0.102	<0.106	<0.123	<0.104	108	4- Methylphenol
<0.307	<0.265	<0.0504	<0.0585	<0.0500	<0.253	<0.267	<0.258	<0.255	<0.265	<0.308	<0.261	8 DL	4-Nitrophenol
<0.0614	<0.0530	<0.0101	<0.0117	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	8DL	4-Nitrophenol Pentachlorophenol
<0.0614	<0.0530	<0.0101	<0.0117	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	8DL	Phenol
<0.0614	<0.0530	<0.0101	<0.0117	<0.00999	<0.0506	<0.0535	<0.0516	<0.0511	<0.0530	<0.0616	<0.0522	BDL	Total Phenol

Notes: Analysis performed by method SW-846-8270 by DHL Analytical, Inc., Round Rock, Texas

1. <: Not detected at method detection limit

2. BDL: Below method dectection limit

Results are reported in milligram per Kilograms (mg/Kg).

Table 2c Soil Background PCB Analytical Data Summary R360 Artesia LLC Landfarm, Lea County, New Mexico

Sample	Date	Depth	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
Mean Background Concentration:	Concentration:		BDL	BDL	BDL	BDL	BDL	BDL	BDL
Composite 1	07/15/13	1 - 2	<0.0870	<0.0870	<0.0870	<0.0870	<0.0870	<0.0870	<0.0870
Composite 2	07/15/13	1 - 2	<0.103	<0.103	<0.103	<0.103	<0.103	<0.103	<0.103
Composite 3	07/16/13	1 - 2	<0.0883	<0.0883	<0.0883	<0.0883	<0.0883	<0.0883	<0.0883
Composite 4	07/16/13	1-2	<0.0851	<0.0851	<0.0851	<0.0851	<0.0851	<0.0851	<0.0851
Composite 5	07/17/13	1-2	<0.0860	<0.0860	<0.0860	<0.0860	<0.0860	<0.0860	<0.0860
Composite 6	07/17/13	1-2	<0.0891	<0.0891	<0.0891	<0.0891	<0.0891	<0.0891	<0.0891
Composite 7	07/15/13	1-2	<0.0844	<0.0844	<0.0844	<0.0844	<0.0844	<0.0844	<0.0844
Composite 8	07/15/13	1 - 2	<0.0167	<0.0167	<0.0167	<0.0167	<0.0167	<0.0167	<0.0167
Composite 9	07/16/13	1 - 2	<0.0195	<0.0195	<0.0195	<0.0195	<0.0195	<0.0195	<0.0195
Composite 10	07/16/13	1-2	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168
Composite 11	07/17/13	1 - 2	<0.0884	<0.0884	<0.0884	<0.0884	<0.0884	<0.0884	<0.0884
Composite 12	07/17/13		<0.102	<0.102	<0.102	<0.102	<0.102	<0.102	<0.102
Mator Analysis	Analysis norfermed by mothed City 016 6000 by		OHI Applying Inc. Bound Book Toyac	Pound Book Tayas					

Notes: Analysis performed by method SW-846-6020 by DHL Analytical, Inc., Round Rock, Texas Results are reported in milligram per Kilograms (mg/Kg).

1. <: Not detected at method detection limit
2. BDL: Below method dection limit

Soil Background Metals Analytical Data Summary R360 Artesia LLC Landfarm, Lea County, New Mexico Table 2d

						(forman and formal and a second a second								
Sample	Date	Sample Depth (Feet)	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Manganese	Mercury	Selenium	Silver	Zinc
Mean Background Concentration:	oncentration:		2.38	96.89	0.21	7.13	3.12	6,731	5.71	78.34	<0.0164	0.90	<0.106629	17.52
Composite 1	07/15/13	1-2	2.44	92.1	0.206	8.81	5.85	7,830	22.30	101.0	<0.0152	1.140	8860:0>	24.0
Composite 2	07/15/13	1-2	2.86	80.9	0.224	60.6	4.99	7,810	9.24	83.5	0.0112	1.090	<0.0637	25.1
Composite 3	07/16/13	1-2	3.61	196.0	0.302	10.80	6.23	9,710	7.28	165.0	<0.0152	1.490	<0.101	28.7
Composite 4	07/16/13	1-2	3.15	134.0	0.371	10.20	4.76	8,530	7.17	143.0	0.0936	1.330	<0.101	23.4
Composite 5	07/17/13	1-2	2.18	9.66	0.175	6.33	2.68	5,730	5.00	67.2	<0.0161	0.862	<0.0938	15.4
Composite 6	07/17/13	1-2	2.85	131.0	0.222	7.23	3.43	6,540	4.94	83.6	<0.0168	0.927	<0.0984	15.1
Composite 7	07/15/13	1-2	2.70	78.4	0.275	8.22	4.83	8,020	10.30	112.0	<0.0163	1.270	<0.101	39.7
Composite 8	07/15/13	1-2	1.54	19.6	<0.0983	4.57	1.37	5,200	2.82	45.6	<0.0149	0.503	<0.0983	10.1
Composite 9	07/16/13	1 - 2	2.01	29.2	0.158	5.98	1.73	6,710	3.46	54.9	<0.00952	0.828	<0.0608	12.9
Composite 10	07/16/13	1-2	1.71	22.4	0.136	5.05	1.53	5,560	2.92	50.4	<0.0162	0.654	<0.0995	10.6
Composite 11	07/17/13	1-2	2.73	88.5	0.191	6.93	2.97	6,370	4.14	80.5	<0.0159	0.754	<0.0995	14.6
Composite 12	07/17/13	1-2	1.70	50.9	0.134	5.41	2.06	4,600	3.70	42.0	<0.0100	0.587	<0.0610	11.1
Two (2) Standard Deviations (Background):	viations (Backg	ground):	₩.	68.37	- 1	11.04	6.44	9,634.36	16.10	152.70	0.0624	1.50	0.141	34.84
Motor Analysis parto	rmed by meth	- SV8-VV	DI Analytic	2	T 1000 Pario	2000								

Notes: Analysis performed by method SW-846- by DHL Analytical, Inc., Round Rock, Texas Results are reported in milligram per Kilograms (mg/kg).
Background analysis was performed by SW846 method 8260B

1. <: Not detected at method detection limit

Table 2e
Soil Background TPH and Anion Analytical Data Summary
R360 Artesia LLC Landfarm. Lea County, New Mexico

			R360 AI	R360 Artesia LLC Landfarm, Lea County, New Mexico	Lea County, New N	lexico			
Sample	Date	Depth	TRPH	Cyanide	Chloride	Fluoride	Nitrate-N	Sulfate	рН
Mean Background Concentration:	Concentration:		229	<0.198	31.0	2.53	<5.41	808	7.65
Composite 1	07/15/13	1-2	169	<0.206	240	4.34	<5.23	652	7.82
Composite 2	07/15/13	1-2	341	<0.215	268	7.49	<6.37	311	7.45
Composite 3	07/16/13	1 - 2	356	<0.194	237	2.35	<5.30	7,400	7.42
Composite 4	07/16/13	1 - 2	275	<0.188	1,100	2.16	<5.23	7,170	7.67
Composite 5	07/17/13	1-2	239	<0.203	183	2.69	<5.20	463	7.87
Composite 6	07/17/13	1.2	192	<0.170	874	3.71	<5.31	3,170	7.60
Composite 7	07/15/13	1-2	390	<0.187	65.1	2.38	<5.07	69	7.59
Composite 8	07/15/13	1 - 2	<4.78	<0.180	<5.06	1.16	<5.06	12	7.52
Composite 9	07/16/13	1 - 2	33.8	<0.240	<5.86	1.28	<5.86	<11.7	7.82
Composite 10	07/16/13	1 - 2	<5.02	<0.171	<5.02	<1.00	<5.02	<10.0	7.68
Composite 11	07/17/13	1-2	461	<0.195	457	2.65	<5.28	3,180	7.64
Composite 12	07/17/13	1-2	251	<0.250	14.8	1.76	<6.26	2,460	7.72
Two (2) Standard Deviations (Background):	viations (Background	1): 875 GUSE 50 DEL	533.24	0.25	747.0	6.18	6.34	6,239	7.94

Notes: Analysis performed by method SW-846-9036 by DHL Analytical, Inc., Kound Rock, Lexas Results are reported in milligram per Kliograms (mg/kg).

1. <: Not detected at method detection limit

Table 3a
Soil Volatile Organic Analytical Data Summary
R360 Artesia LLC Landfarm, Lea County, New Mexico

zΓ		ſ	<u></u>																								П		_							š	1.5
tes: Analys	SP-2	SP-1	Soil Piles					SB-10				SB-9			SB-6				SB-5				SB-4				SB-3				SB-2				SB-1	an Backgro	Sample
Notes: Analysis performed by method SW-846-9056 by DHL Analytical, Inc., Round Rock, Texas	03/27/13	03/27/13						03/22/13				03/22/13			03/22/13				03/26/13				03/22/13				03/26/13				03/26/13				03/26/13	Mean Background Concentration:	Date
v method SW	;	1						5				6			5				9				5				5				6				9	tion:	Cell
-846-9056 by	pile	pile		10 - 12	9 - 10	7 - 9	5 - 7	2-3	10 - 12	7-9	5 - 7	2 - 2.7	10 - 12	5 - 7	2 - 3	10 - 12	7 - 9	5 - 7	2 - 3	10 - 12	7-9	5 - 7	2 - 3	10 - 12	7 - 9	5 - 7	2-3	10 - 12	7 - 8.5	5 - 7	2-3	10 - 12	7 - 8.5	5 - 7	2 - 2.5		Depth (feet)
DHL Analytic	<0.000890	<0.000916		<0.000941	<0.00101	<0.00104	<0.000956	<0.000934	<0.000960	<0.00106	<0.000921	<0.00120	<0.000961	<0.000851	<0.00103	<0.00105	<0.00112	<0.00111	<0.000985	<0.000845	<0.00105	<0.000975	<0.00100	<0.000980	<0.000766	<0.000971	<0.00103	<0.00121	<0.00112	<0.000967	<0.000912	<0.00103	<0.000897	<0.000894	<0.00103	BDL	Benzene
al. Inc Roun	<0.000890	<0.000916		<0.000941	<0.00101	<0.00104	<0.000956	<0.000934	<0.000960	<0.00106	<0.000921	<0.00120	<0.000961	<0.000851	<0.00103	<0.00105	<0.00112	<0.00111	<0.000985	<0.000845	<0.00105	<0.000975	<0.00100	<0.000980	<0.000766	<0.000971	<0.00103	<0.00121	<0.00112	<0.000967	<0.000912	<0.00103	<0.000897	<0.000894	<0.00103	BDL	Toluene
d Rock. Texas	<0.000890	<0.000916		<0.000941	<0.00101	<0.00104	<0.000956	<0.000934	<0.00960		<0.000921	<0.00120	<0.000961	<0.000851	<0.00103	<0.00105	<0.00112	<0.00111	<0.000985	<0.000845	<0.00105	<0.000975	<0.00100	<0.000980	<0.000766	<0.000971	<0.00103	<0.00121	<0.00112	<0.000967	<0.000912	<0.00103	<0.000897	<0.000894	<0.00103	BDL	Carbon tetrachloride
	<0.000890	<0.000916		<0.000941	<0.00101	<0.00104	<0.000956	<0.000934	<0.000960	<0.00106	<0.000921	<0.00120	<0.000961	<0.000851	<0.00103	<0.00105	<0.00112	<0.00111	<0.000985	<0.000845	<0.00105	<0.000975	<0.00100	<0.000980	<0.000766	<0.000971	<0.00103	<0.00121	<0.00112	<0.000967	<0.000912	<0.00103	<0.000897	<0.000894	<0.00103	BDL	1,2- Dichloroethane
-	0 <0.000890	6 <0.000916			<0.00101	<0.00104	6 <0.000956	4 <0.000934	0 <0.00960			<0.00120	1 <0.000961			<0.00105		<0.00111	5 <0.000985	5 <0.000845			<0.00100	0.000980	6 <0.000766	1 <0.000971	<0.00103	<0.00121		7 <0.000967	2 <0.000912	<0.00103	7 <0.000897	4 <0.000894	<0.00103	BDL	1,1- ane Dichloroethylene
	0890	0916		0941)101)104	0956	0934	0960)106	0921)120	0961	0851	103	105)112)111	0985	0845)105	0975)100	0980	0766	0971	103)121)112	0967	0912)103	0897	0894	103	1	
	<0.000890	<0.000916		<0.000941	<0.00101	<0.00104	<0.000956	<0.000934	<0.000960	<0.00106	<0.000921	<0.00120	<0.000961	<0.000851	<0.00103	<0.00105	<0.00112	<0.00111	<0.000985	<0.000845	<0.00105	<0.000975	<0.00100	<0.000980	<0.000766	<0.000971	<0.00103	<0.00121	<0.00112	<0.000967	<0.000912	<0.00103	<0.000897	<0.000894	<0.00103	BDL	Tetrachloroethylene
	<0.000890	<0.000916		<0.000941	<0.00101	<0.00104	<0.000956	<0.000934	<0.00960	<0.00106	<0.000921	<0.00120	<0.000961	<0.000851	<0.00103	<0.00105	<0.00112	<0.00111	<0.000985	<0.000845	<0.00105	<0.000975	<0.00100	<0.000980	<0.000766	<0.000971	<0.00103	<0.00121	<0.00112	<0.000967	<0.000912	<0.00103	<0.000897	<0.000894	<0.00103	BDL	Trichloroethylene
	<0.000890	<0.000916		<0.000941	<0.00101	<0.00104	<0.000956	<0.000934	<0.000960	<0.00106	<0.000921	<0.00120	<0.000961	<0.000851	<0.00103	<0.00105	<0.00112	<0.00111	<0.000985	<0.000845	<0.00105	<0.000975	<0.00100	<0.000980	<0.000766	<0.000971	<0.00103	<0.00121	<0.00112	<0.000967	<0.000912	<0.00103	<0.000897	<0.000894	<0.00103	BDL	Ethylbenzene
	<0.000890	<0.000916		<0.000941	<0.00101	<0.00104	<0.000956	<0.000934	<0.000960	<0.00106	<0.000921	<0.00120	<0.000961	<0.000851	<0.00103	<0.00105	<0.00112	<0.00111	<0.000985	<0.000845	<0.00105	<0.000975	<0.00100	<0.000980	<0.000766	<0.000971	<0.00103	<0.00121	<0.00112	<0.000967	<0.000912	<0.00103	<0.000897	<0.000894	<0.00103	BDL	Total Xylenes
	<0.00445	<0.00458		<0.00471	<0.00506	<0.00520	<0.00478	<0.00467	<0.00480	<0.00532	<0.00460	<0.00602	<0.00480	<0.00425	<0.00514	<0.00524	<0.00562	<0.00553	<0.00492	<0.00432	<0.00527	<0.00487	<0.00501	<0.00490	<0.00383	<0.00486	<0.00514	<0.00606	<0.00559	<0.00483	<0.00456	<0.00514	<0.00449	<0.00447	<0.00517	BDL	Methylene chloride
	<0.000890	<0.000916		<0.000941	<0.00101	<0.00104	<0.000956	<0.000934	<0.000960	<0.00106	<0.000921	<0.00120	<0.000961	<0.000851	<0.00103	<0.00105	<0.00112	<0.00111	<0.000985	<0.000845	<0.00105	<0.000975	<0.00100	<0.000980	<0.000766	<0.000971	<0.00103	<0.00121	<0.00112	<0.000967	<0.000912	<0.00103	<0.000897	<0.000894	<0.00103	BDL	Chloroform
	<0.000890	<0.000916		<0.000941	<0.00101	<0.00104	<0.000956	<0.000934	<0.000960	<0.00106	<0.000921	<0.00120	<0.000961	<0.000851	<0.00103	<0.00105	<0.00112	<0.00111	<0.000985	<0.000845	<0.00105	<0.000975	<0.00100	<0.000980	<0.000766	<0.000971	<0.00103	<0.00121	<0.00112	<0.000967	<0.000912	<0.00103	<0.000897	<0.000894	<0.00103	BDL	1,1- Dichloroethan e
	<0.000890	<0.000916		<0.000941	<0.00101	<0.00104	<0.000956	<0.000934	<0.000960	<0.00106	<0.000921	<0.00120	<0.000961	<0.000851	<0.00103	<0.00105	<0.00112	<0.00111	<0.000985	<0.000845	<0.00105	<0.000975	<0.00100	<0.000980	<0.000766	<0.000971	<0.00103	<0.00121	<0.00112	<0.000967	<0.000912	<0.00103	<0.000897	<0.000894	<0.00103	BDL	Ethylene bromide
	<0.000890	<0.000916		<0.000941	<0.00101	<0.00104	<0.000956	<0.000934	<0.000960	<0.00106	<0.000921	<0.00120	<0.000961	<0.000851	<0.00103	<0.00105	<0.00112	<0.00111	<0.000985	<0.000845	<0.00105	<0.000975	<0.00100	<0.000980	<0.000766	<0.000971	<0.00103	<0.00121	<0.00112	<0.000967	<0.000912	<0.00103	<0.000897	<0.000894	<0.00103	BDL	1,1,1- Trichloroethan
	<0.000890	<0.000916		<0.000941	<0.00101	<0.00104	<0.000956	<0.000934	<0.000960	<0.00106	<0.000921	<0.00120	<0.000961	<0.000851	<0.00103	<0.00105	<0.00112	<0.00111	<0.000985	<0.000845	<0.00105	<0.000975	<0.00100	<0.000980	<0.000766	<0.000971	<0.00103	<0.00121	<0.00112	<0.000967	<0.000912	<0.00103	<0.000897	<0.000894	<0.00103	BDL	1,1,1- 1,1,2- 1,1,2,2- hloroethan Trichloroethan Tetrachloroeth
	<0.000890	<0.000916		<0.000941	<0.00101	<0.00104	<0.000956	<0.000934	<0.000960	<0.00106	<0.000921	<0.00120	<0.000961	<0.000851	<0.00103	<0.00105	<0.00112	<0.00111	<0.000985	<0.000845	<0.00105	<0.000975	<0.00100	<0.000980	<0.000766	<0.000971	<0.00103	<0.00121	<0.00112	<0.000967	<0.000912	<0.00103	<0.000897	<0.000894	<0.00103	BDL	1,1,2,2- Tetrachloroeth
	<0.000890	<0.000916		<0.000941	<0.00101	<0.00104	<0.000956	<0.000934	<0.000960	<0.00106	<0.000921	<0.00120	<0.000961	<0.000851	<0.00103	<0.00105	<0.00112	<0.00111	<0.000985	<0.000845	<0.00105	<0.000975	<0.00100	<0.000980	<0.000766	<0.000971	<0.00103	<0.00121	<0.00112	<0.000967	<0.000912	<0.00103	<0.000897	<0.000894	<0.00103	BDL	Vinyl chloride

Notes: Analysis performed by method SW-846-9056 by DHL Analytical, Inc., Round Rock, Texas Results are reported in milligram per Kilograms (mg/Kg).

1. <: Not detected at method detection limit

2. BDL: Below method detection limit

SP-1 SP-2	Soil Piles					58-10				SB-9		900	CB.h				58-5				SB-4				SB-3				SB-2				SB-1	ean Backgrou
03/27/13						03/22/13				03/22/13		crizzico	03/22/13				03/26/13				03/22/13				03/26/13				03/26/13				03/26/13	lean Background Concentration:
1 1						U.				6			7				6				S				S.				6				6	in:
pile		10 - 12	9-10	7-9	5-7	2-3	10 - 12	7.9	5-7	2-27	10 - 12	5-7	3	10 - 12	7-9	5-7	2-3	10-12	7-9	5-7	2-3	10 - 12	7-9	5-7	2.3	10-12	7-8.5	5-7	2-3	10-12	7-8.5	5-7	2-25	
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0.0129	<0.0112	<0.0101	<0.0122	<0.0100	<0.00981	3 65	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	40.0106	<0.0122	<0.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	<0.0101	BDL
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0.0129	<0.0112	<0.0101	<0.0122	<0.0100	<0.00981	322	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	<0.0106	<0.0122	<0.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	<0.0101	BDL
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0.0129	<0.0112	<0.0101	<0.0122	<0.0100	<0.00981	0 688	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	<0.0106	<0.0122	<0.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	<0.0101	BDL
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0.0129	<0.0112	<0.0101	<0.0122	<0.0100	<0.00981	20,0537	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	<0.0106	<0.0122	<0.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	<0.0101	BDL
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0.0129	<0.0112	<0.0101	<0.0122	<0.0100	<0.00981	70,0537	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	<0.0106	<0.0122	<0.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	<0.0101	BUL
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0.0129	<0.0112	<0.0101	<0.0122	<0.0100	<0.00981	70.0537	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	<0.0106	<0.0122	40.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	<0.0101	3CB
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0.0129	<0.0112	<0.0101	<0.0122	<0.0100	<0.00981	70.0537	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	<0.0106	<0.0122	<0.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	٨	OUL
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0,0129	<0.0112	<0.0101	<0.0122	<0.0100	<0.00981	-n nsa7	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	<0.0106	<0.0122	<0.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	<0.0101	BUL
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0.0129	<0.0112	<0.0101	<0.0122	<0.0100	<0.00981	70 0537	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	<0.0106	<0.0122	<0.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	<0.0101	BUL
<0.0510		<0.0550	<0.0553	<0.0546	<0.0495	<0.0559	<0.0647	<0.0559	<0.0507	<0.0611	<0.0500	<0.0491	200	<0.0519	<0.0557	<0.0610	<0.0487	<0.0491	<0.0542	<0.0504	<0.0531	<0.0519	<0.0497	<0.0531	<0.0529	<0.0610	<0.0566	<0.0511	<0.0485	<0.0530	<0.0529	<0.0531	<0.0506	שטנ
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0.0129	<0.0112	<0.0101	<0.0122	<0.0100	<0.00981	70 0537	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	<0.0106	<0.0122	<0.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	<0.0101	BUL
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0.0129	<0.0112	<0.0101	<0.0122	40.0100	<0.00981	70 0537	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	<0.0106	<0.0122	<0.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	<0.0101	BUL
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0.0129	<0.0112	<0.0101	<0.0122	<0.0100	<0.00981	70.0537	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	<0.0106	<0.0122	<0.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	<0.0101	BUL
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0.0129	<0.0112	<0.0101	<0.0122	<0.0100	<0.00981	O 0537	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	<0.0106	<0.0122	<0.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	<0.0101	BUL
<0.0306		<0.0330	<0.0332	<0.0328	<0.0297	<0.0335	<0.0388	<0.0335	<0.0304	<0.0367	<0.0300	<0.0294	20161	<0.0311	<0.0334	<0.0366	<0.0292	<0.0295	<0.0325	<0.0302	<0.0319	<0.0311	<0.0298	<0.0318	<0.0317	<0.0366	<0.0339	<0.0306	<0.0291	<0.0318	<0.0317	<0.0319	<0.0303	BOL
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0.0129	<0.0112	<0.0101	<0.0122	<0.0100	<0.00981	7620 0537	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	<0.0106	<0.0122	<0.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	<0.0101	BDL
<0.0204		<0.0220	<0.0221	<0.0218	<0.0198	<0.0224	<0.0259	<0.0224	<0.0203	<0.0245	<0.0200	<0.0196	50 107	<0.0207	<0.0223	<0.0244	<0.0195	<0.0197	<0.0217	<0.0202	<0.0213	<0.0208	<0.0199	<0.0212	40.0011	<0.0244	<0.0226	<0.0204	<0.0194	<0.0212	<0.0211	<0.0213	<0.0202	BDL
<0.0510		<0.0550	<0.0553	<0.0546	<0.0495	<0.0559	<0.0647	<0.0559	<0.0507	<0.0611	<0.0500	<0.0491	70 760	<0.0519	<0.0557	<0.0610	<0.0487	<0.0491	<0.0542	<0.0504	<0.0531	<0.0519	<0.0497	<0.0531	66.50 02	<0.0610	<0.0566	<0.0511	<0.0485	<0.0530	<0.0529	<0.0531	<0.0506	BOL
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0.0129	<0.0112	<0.0101	<0.0122	<0.0100	<0.00981	AN 0537	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	<0.0106	<0.0122	<0.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	<0.0101	BDL
<0.0102		<0.0110	<0.0111	<0.0109	<0.00989	<0.0112	<0.0129	<0.0112	<0.0101	<0.0122	<0.0100	<0.00981	70.0537	<0.0104	<0.0111	<0.0122	<0.00973	<0.00983	<0.0108	<0.0101	<0.0106	<0.0104	<0.00994	<0.0106	<0.0106	<0.0122	<0.0113	<0.0102	<0.00971	<0.0106	<0.0106	<0.0106	<0.0101	BDL
<0.0102		<0.0110	<0.0111	<0.0109	9 <0.00989	<0.0112	<0.0129	7.11		<0.0122			-0 0537	<0.0104	<0.0111	<0.0122	3 <0.00973	<0.00983	-	<0.0101	<0.0106	<0.0104	<0.00994	-	<0.0106	<0.0122	-		<0.00971	<0.0106	<0.0106		Δ	BDL

Soil PCB Analytical Data Summary Table 3c

			;	R360 Artesia LLC	Landfarm, Lea Co	R360 Artesia LLC Landfarm, Lea County, New Mexico	- 1			
sample	Date	le)	Depth (teet)	Aroclor 1016	Arocior 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Arocior 1260
Mean Backgroun	Mean Background Concentration:			BDL	BDL	BDL	BDL	BDL	BDL	BDL
SB-1	03/26/13	9	2 - 2.5	<0.0169	<0.0169	<0.0169	<0.0169	<0.0169	<0.0169	<0.0169
			5-7	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177
			7 - 8.5	<0.0176	<0.0176	<0.0176	<0.0176	<0.0176	<0.0176	<0.0176
			10 - 12	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177
	27, 22, 23									
2-8-2	03/26/13	و	2-3	<0.0162	<0.0162	<0.0162	<0.0162	<0.0162	<0.0162	<0.0162
			5-7	<0.0170	<0.0170	<0.0170	<0.0170	<0.0170	<0.0170	<0.0170
			7 - 8.5	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189
			10 - 12	<0.0203	<0.0203	<0.0203	<0.0203	<0.0203	<0.0203	<0.0203
SB-3	03/26/13	5	2-3	<0.0176	<0.0176	<0.0176	<0.0176	<0.0176	<0.0176	<0.0176
			5-7	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177
			7-9	<0.0166	<0.0166	<0.0166	<0.0166	<0.0166	<0.0166	<0.0166
			10 - 12	<0.0173	<0.0173	<0.0173	<0.0173	<0.0173	<0.0173	<0.0173
SB-4	03/22/13	5	2-3	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177
			5-7	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168
			7 - 9	<0.0181	<0.0181	<0.0181	<0.0181	<0.0181	<0.0181	<0.0181
			10 - 12	<0.0164	<0.0164	<0.0164	<0.0164	<0.0164	<0.0164	<0.0164
SB-5	03/26/13	9	2-3	<0.0162	<0.0162	<0.0162	<0.0162	<0.0162	<0.0162	<0.0162
			5-7	<0.0203	<0.0203	<0.0203	<0.0203	<0.0203	<0.0203	<0.0203
			7 - 9	<0.0186	<0.0186	<0.0186	<0.0186	<0.0186	<0.0186	<0.0186
			10 - 12	<0.0173	<0.0173	<0.0173	<0.0173	<0.0173	<0.0173	<0.0173
SB-6	03/22/13	2	2 - 3	<0.0179	<0.0179	<0.0179	<0.0179	<0.0179	<0.0179	<0.0179
			5-7	<0.0164	<0.0164	<0.0164	<0.0164	<0.0164	<0.0164	<0.0164
			10 - 12	<0.0167	<0.0167	<0.0167	<0.0167	<0.0167	<0.0167	<0.0167
SB-9	03/22/13	9	2 - 2.7	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204
			5-7	<0.0169	<0.0169	<0.0169	<0.0169	<0.0169	<0.0169	<0.0169
			7 - 9	<0.0186	<0.0186	<0.0186	<0.0186	<0.0186	<0.0186	<0.0186
			10 - 12	<0.0216	<0.0216	<0.0216	<0.0216	<0.0216	<0.0216	<0.0216
SB-10	03/22/13	ኅ	2-3	<0.0186	<0.0186	<0.0186	<0.0186	<0.0186	<0.0186	<0.0186
			, ,	<0.0165	<0.0165 0.0163	<0.0165 0.0165	<0.0165 0.0165	<0.0165	<0.0165	<0.0165
			y . y	<0.0182 0.0182	<0.0162 0.0164	<0.0182	<0.0182	<0.0182 0.0184	<0.0182	<0.0182 0.0184
			9-TO	, 0.0104	\$0.0164 \$0.0163	50.0184 0.00482	40.0164	40.0104	40.0184	V0.0184
			7T - OT	<0.0163	<0.0183	<0.0183	<0.0183	<0.0183	<0.0183	<0.0183
Coil Diloc										
2011 1215	1 27/20/00			00.40	00.00	0.04	\$1.50 S	01,00	0.00	0.00
SP-1 SP-2	03/2//13	1 1	pile pile	<0.0170 <0.0170	<0.0170 <0.0170	<0.01/0 <0.0170	<0.0170	<0.01/0	<0.0170	<0.01/0 <0.0170
				0						

Notes: Analysis performed by method SW-846-6020 by DHL Analytical, Inc., Round Rock, Texas Results are reported in milligram per Kilograms (mg/Kg).

1. <: Not detected at method detection limit

2. BDL: Below method dectection limit

Soil Metals Analytical Data Summary Table 3d

			Campio												12 11 1 13 13
Sample	Date	lleo.	Depth (Feet)	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Manganese	Mercury	Selenium	Silver	Zinc
Mean Back	Mean Background Concentration	intration:	1	2.38	96.89	0.21	7.13	3.12	6,731	5.71	78.34	<0.0164	06.0	<0.106629	17.52
SB-1	03/26/13	9	2-2.5	1.41	25.1	<0.0984	5.54	1.52	060'9	2.94	47.4	<0.0158	0.866	<0.0984	11.0
			7-95	3.74	36.1	<0.106	4.19	1.10	3,910	2.22	51.3	<0.0168	0.678	<0.106	90.08
-			10 - 12	3.87	61.7	0.226	9.58	3.15	10,900	5.74	90.5	<0.0162	3.26	<0.108	18.8
SB-2	03/26/13	. 9	2-3	1.36	21.3	0.0972	5.14	1.37	5.720	271	46.7	<0.0144	0.745	<0.0962	10.3
	2 /2 /22	,	5-7	1.58	50.0	0.151	7.27	1.68	7,580	3.52	41.9	<0.0156	1.28	<0.103	12.8
			7-8.5	2.77	51.2	0.133	10.3	2.58	11,200	5.04	62.3	<0.0158	1.65	<0.114	20.5
			10-12	2.45	48.9	<0.121	12.5	3.82	13,600	2.98	73.3	<0.0189	0.932	<0.121	22.4
SB-3	03/26/13	5	2-3	1.05	15.8	0.0917	3.55	1.16	4,050	1.93	35.7	<0.00826	0.540	<0.0517	6.71
			5-7	2.04	87.8	0.207	7.63	3.31	8,150	4.16	98.2	<0.0150	1.210	<0.0932	15.5
			7-9	0.822	40.6	0.0827	5.11	0.929	5,120	2.24	25.8	<0.00822	0.731	<0.0510	8.20
			10-12	1.03	61.0	0.160	6.88	1.83	6,040	3.39	72.0	<0.0156	1.03	<0.0944	11.0
SB-4	03/22/13	5	2-3	1.24	34.0	0.123	4.03	1.57	4,320	2.14	39.0	0.0174	0.586	<0.100	7.44
			5-7	1.12	21.1	<0.0980	4.70	1.66	4,750	2.22	37.4	<0.0142	0.474	<0.0980	8.03
			7-9	1.13	37.9	<0.0994	6.49	2.26	6,650	3.10	59.0	<0.0157	0.762	<0.0994	11.0
			10-12	0.686	63.2	<0.0933	5.04	1.62	5,580	2.38	25.5	<0.0152	0.718	<0.0933	8.21
SB-5	03/26/13	9	2-3	1.77	25.4	0.107	5.96	2.35	4.890	3.33	73.7	<0.0150	1.08	<0.0941	13.5
			5-7	2.02	150	0.205	8.35	1.89	8,880	4.10	82.0	<0.0175	1.14	<0.111	14.1
			7-9	1.60	149	0.149	7.71	1.62	8,110	3.44	41.0	<0.0175	0.831	<0.111	13.9
	-		10-12	2.13	252	0.113	3.44	1.28	4,600	2.38	55.5	<0.0152	0.909	<0.0941	6.93
SB-6	03/22/13	5	2-3	2.03	184	0.113	5.97	3.19	6,220	3.78	62.2	<0.0156	0.791	<0.106	14.1
			5-7	1.30	23.4	<0.0934	4.63	1.58	4,840	2.36	44.3	<0.0166	0.588	<0.0934	7.88
			10-12	3.43	55.0	<0.0895	7.68	2.19	069'6	3.75	124	<0.0152	0.945	<0.0895	13.0
SB-9	03/22/13	9	2-2.7	1.28	25.9	<0.0647	4.37	1.18	4.230	2.05	36.1	<0.00944	0.577	<0.0647	6.48
			5-7	1.50	20.9	<0.0911	5.23	1.48	5,440	2.58	42.6	<0.0140	0.590	<0.0911	77.6
			7-9	2.32	210	0.134	4.37	1.57	5,080	2.36	41.8	<0.0166	0.594	<0.0954	6.80
			10-12	1.79	356	0.0765	3.79	1.29	4,990	2.29	40.6	<0.0101	669.0	<0.0662	7.02
SB-10	03/22/13	5	2-3	1.47	26.0	<0.101	4.68	1.58	5,180	2.56	41.2	<0.0156	0.559	<0.101	7.81
			5-7	4.06	57.5	0.143	12.0	3.21	13,900	5.86	67.4	<0.0160	1.25	<0.0885	25.7
			7-9	3.92	93.8	0.169	11.9	3.07	13,700	6.41	82.7	0.0164	1.31	<0.102	22.2
			9-10	2.12	411	0.103	90'9	3.13	6,180	2.89	38.0	0.0213	0.71	<0.0995	9.17
			10-12	2.39	151	0.117	5.17	1.84	4,920	2.33	44.1	<0.0171	0.825	<0.105	7.19
Soil Piles				The second second										1	
SP-1	03/27/13	-	pile	2.09	82.2	0.275	9.18	4.31	7,980	539	107	<0.0154	1.80	<0.101	19.5
SP-2	03/27/13	1	pile	2.94	206	0.104	15.0	6.66	9,890	5.69	109	<0.0160	1.65	<0.102	22.0
Two (2) Sta	Two (2) Standard Deviations (Background):	one (Backer	-lpuis	3.61	168 37	0.35	1100	6 44	0 634 36	16.10	152.70	AC30 0	1 50	0.141	24 94

| Iwo (z) Standard Deviations (Background); 3.61 | 108.37 | 0.35 | 11.
| Notes: Analysis performed by method SW-846 - by DHL Analytical, Inc., Round Rock, Texas Results are reported in milligram per Kilograms (mg/Kg).
| Background analysis was performed by SW846 method 82608 | . <: Not detected at method detection limit | SW or detected at method detection limit | Bold and highlighted exceeds two (2) standard devisations of mean background concentration

Soil TPH and Anion Analytical Data Summary R360 Artesia LLC Landfarm, Jea County, New Mexic

thriest 18PH Conside Chloride Floation C-2.3 C-3.41 C-3.41 C-3.42 C-3.42 </th <th>-</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>ı</th> <th></th> <th></th> <th></th>	-							ı			
1.2 2.5 4.1 4.5 5.2 4.5 5.2 5.2 4.5 5.2	Sample	Date	Cell	Depth (feet)	TRPH	Cvanide	Chloride	Fluoride	Nitrate-N	Sulfate	Ha
2-3 \$\cdot{5.18}\$ \$\cdot{0.205}\$ 119 1.28 \$\cdot{5.20}\$ 7-8-7 \$\cdot{5.32}\$ \$\cdot{0.190}\$ \$\cdot{26.5}\$ 2.01 \$\cdot{5.20}\$ 0-12 \$\cdot{5.32}\$ \$\cdot{0.108}\$ 4\$\cdot{5.7}\$ \$\cdot{5.31}\$ \$\cdot{5.32}\$ 2-3 \$\cdot{5.20}\$ \$\cdot{0.1188}\$ 44.5 1.13 \$\cdot{5.32}\$ 2-3 \$\cdot{5.20}\$ \$\cdot{0.1188}\$ 44.5 1.13 \$\cdot{5.32}\$ 2-3 \$\cdot{5.00}\$ \$\cdot{0.1194}\$ \$\cdot{6.29}\$ \$\cdot{2.91}\$ \$\cdot{5.30}\$ 2-3 \$\cdot{5.10}\$ \$\cdot{0.194}\$ \$\cdot{6.29}\$ \$\cdot{2.91}\$ \$\cdot{5.30}\$ 2-3 \$\cdot{5.10}\$ \$\cdot{0.194}\$ \$\cdot{6.29}\$ \$\cdot{2.93}\$ \$\cdot{6.29}\$ 2-3 \$\cdot{0.196}\$ \$\cdot{0.196}\$ \$\cdot{0.196}\$ \$\cdot{1.00}\$ \$\cdot{5.34}\$ 0-12 \$\cdot{0.182}\$ \$\cdot{0.196}\$ \$\cdot{0.196}\$ \$\cdot{1.00}\$ \$\cdot{5.24}\$ 5-7 \$\cdot{0.196}\$ \$\cdot{0.196}\$ \$\cdot{0.196}\$ <td< th=""><th>Mean Backgrou</th><th>und Concentration</th><th></th><th></th><th>229</th><th><0.198</th><th>31.0</th><th>2.53</th><th><5.41</th><th>808</th><th>7.65</th></td<>	Mean Backgrou	und Concentration			229	<0.198	31.0	2.53	<5.41	808	7.65
5-7 \$5.32 \$0.190 \$26.5 \$2.01 \$5.31 0-12 \$5.36 \$0.196 \$26.5 \$2.01 \$5.32 0-12 \$5.39 \$0.178 \$4.5 \$5.20 \$5.21 2-3 \$5.20 \$0.138 \$4.5 \$5.21 \$5.32 1-8.5 \$5.20 \$0.134 \$4.5 \$5.21 \$5.32 1-8.5 \$5.20 \$0.134 \$4.5 \$5.31 \$5.32 1-8.5 \$5.79 \$0.134 \$6.29 \$5.32 \$5.33 1-8.5 \$5.70 \$0.134 \$6.29 \$5.32 \$5.32 1-8.5 \$5.70 \$0.134 \$6.29 \$5.32 \$6.29 1-1.2 \$6.09 \$0.136 \$8.2 \$1.8 \$6.29 1-1.2 \$6.10 \$0.136 \$1.300 \$1.40 \$6.29 1-1.2 \$6.10 \$0.124 \$6.20 \$6.20 \$6.20 1-1.2 \$6.10 \$0.124 \$6.20 \$6.20 \$6.20	SB-1	03/26/13		7.25	<5.18	<0.205	11.9	1 28	<5.20	26.1	8.75
2-3 <5.56 <0.205 45.6 5.44 <5.52 0-12 <5.39				5.7	<5.32	<0.190	26.5	201	<5.31	60.1	29 85
2-3 <a. a="" box<="" brace=""> 45.7 7.84 <a. a="" box<="" brace=""> <a. box<="" brace="" th=""> <a. a="" box<="" brace=""> <a. box<="" brace="" th=""> <a. a="" box<="" brace=""> <a. box<="" brace="" th=""> <a. box<="" brace="" th=""> <a. a="" box<="" brace=""> <a. box<="" brace="" th=""> <a. a="" box<="" brace=""> <a. a="" box<="" brace=""> <a. box<="" brace="" th=""> <a. a="" box<="" brace=""> <a. box<="" brace="" th=""> <a. a="" box<="" brace=""> <a. a="" box<="" brace=""> <a. a="" box<="" brace=""> <a. box<="" brace="" th=""> <a. <="" box<="" brace="" td=""><td></td><td></td><td></td><td>7.9.5</td><td>75.56</td><td>20.02</td><td>45.6</td><td>2 44</td><td>75.57</td><td>95.2</td><td>215</td></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.></a.>				7.9.5	75.56	20.02	45.6	2 44	75.57	95.2	215
2-3 <-5.00 <-0.169 80.3				10-12	<5.39	<0.178	45.7	7.84	<5.41	73.2	8.04
2-3 \$5.00 \$0.169 \$0.3 1.13 \$5.03 5-7 \$6.22 \$0.188 44.5 1.72 \$5.03 0-12 \$6.29 \$0.194 \$6.29 2.93 \$6.29 2-3 \$6.29 \$0.196 386 2.18 8.45 5-7 \$6.21 \$0.136 380 2.18 8.45 5-7 \$6.21 \$0.136 380 2.18 8.45 5-7 \$6.21 \$0.189 488 1.00 \$5.24 0-12 \$6.21 \$0.203 \$4.66 \$4.100 \$5.24 5-7 \$6.24 \$0.203 \$1.20 \$4.90 \$5.06 5-7 \$6.24 \$0.203 \$1.22 \$4.90 \$5.07 5-7 \$6.24 \$0.203 \$1.22 \$4.90 \$5.06 5-7 \$6.02 \$0.201 \$1.22 \$4.90 \$5.07 5-7 \$6.02 \$0.202 \$2.23 \$6.23 \$6.23 5-7	The state of the s										
5-7 \$5.22 \$6.188 \$44.5 \$1.72 \$6.30 1-8.5 \$6.59 \$0.211 \$7.06 \$2.91 \$6.29 1-8.5 \$6.79 \$6.114 \$6.29 \$2.93 \$6.29 2-3 \$6.513 \$6.026 \$386 \$1.42 \$8.25 2-3 \$6.513 \$6.026 \$1.79 \$8.36 \$1.28 \$8.36 5-3 \$6.213 \$6.026 \$6.179 \$32 \$1.76 \$6.52 7-9 \$6.50 \$6.018 \$1.300 \$1.00 \$6.52 \$6.50 2-3 \$6.74 \$6.136 \$1.300 \$1.00 \$6.52 \$6.50 5-7 \$6.74 \$6.136 \$1.300 \$1.00 \$6.51 \$6.50 6-12 \$6.24 \$6.136 \$1.22 \$4.30 \$6.21 \$6.50 5-7 \$6.56 \$6.020 \$2.02 \$2.63 \$6.13 \$6.13 5-7 \$6.56 \$6.021 \$1.20 \$6.24 \$6.40	SB-2	03/26/13	9	2-3	<5.00	<0.169	80.3	1.13	<5.03	122	7.75
2-3 <5.79 <0.211 7.06 2.91 <5.77 0-12 <6.09				5-7	<5.22	<0.188	44.5	1.72	<5.30	<10.6	7.80
2-3 < 6.09 < 0.194 < 6.29 2.93 < 6.29 2-3 < 5.13				7-8.5	<5.79	<0.211	2.06	2.91	<5.77	<11.5	7.86
2-3 <5.13				10-12	<6.09>	<0.194	<6.29	2.93	<6.29	<12.6	7.86
2-3 <5.13								Acres 100			
5-7 <5.21	SB-3	03/26/13	2	2-3	<5.13	<0.206	386	2.18	8.45	163	8.61
7-9 <5.09 <0.179 532 2.76 <5.24 0-12 <5.18				5-7	<5.21	<0.198	802	1.42	8.36	284	7.86
0-12 <5.18 <0.182 488 10.0 <5.30 2-3 6.74 <0.214				7-9	<5.09	<0.179	532	2.76	<5.24	98.1	7.86
2-3 6.74 <0.214 1,010 <1.06 7.67 5-7 14.7 <0.203				10-12	<5.18	<0.182	488	10.0	<5.30	19.8	7.69
2-3 (-1.0) (-1.0	V GS	21/20/20	u	000	6.74	4100	4 040	20 17	7.63	1.09	102
7.9	3D-4	02/77/50	n	0.7	0.74	\$0.214 \$0.702	OTO'T	VI.00	1.07	1.70	7.32
7-9					14.7	<0.203	400	4.01	<5.00	103	1.75
2-3 <5.22				6-/	<5.48	<0.199	1,300	1.66	8.05	<10.9	7.64
2-3 <5.00				10-12	<5.22	<0.196	12.2	4.90	<5.21	32.0	8.25
2-3	1 00	27/20/00			00 4	2000		00,	-00		0,0
2-3	2P-5	03/56/13	٥	5-7	<5.00	<0.201	134	1.20	8.8/	8.//	8.18
2-3 7,740 <0.186 2,310 1.60 <5.42 <5.54 2-3 7,740 <0.186 2,310 1.60 <5.42 5-7 8,41 <0.171 1,230 1.11 7,23 6-12 <5.09 <0.175 1,220 1.23 <5.06 7-9 <5.17 <0.195 434 <1.04 <5.18 7-9 <5.68 <0.189 29.6 3.65 <6.61 2-3 23.7 <0.190 244 <1.16 <5.78 7-9 <5.59 <0.177 28.4 <1.16 <5.17 <5.50 7-9 <5.59 <0.177 28.4 <1.03 <5.17 <5.50 7-10 <5.59 <0.177 28.4 /1.03 <5.17 <5.50 7-10 <5.59 <0.177 28.4 /1.03 <5.17 <5.10 7-10 <5.59 <0.177 28.4 /1.16 <5.10 7-10 <5.59 <0.177 28.4 /1.16 <5.10 7-10 <5.59 <0.177 28.4 /1.3 <5.10 7-10 <5.59 <0.177 28.4 /1.3 <5.10 7-10 <5.59 <0.177 28.4 /1.3 <5.50 7-10 <5.50 <0.177 28.4 /1.3 <5.50 7				1-0-1	\$6.00 7.7.7.	<0.222	707	2.63	<0.21 5.63	51.1	7.90
2-3 7,740 < 0.186 2,310 1.60 <5.42 5-7 8.41 < 0.171 1,230 1.11 7.23 6-12 <5.09 < 0.175 1,230 1.11 7.23 6-12 <5.09 < 0.175 1,230 1.13 <5.06 6-12 <5.09 < 0.175 1,230 1.13 <5.06 6-12 <5.09 < 0.175 1,220 1.13 <5.06 6-12 <5.17 < 0.195 434 < 1.04 <5.18 6-12 <6.45 < 0.189 29.6 3.65 <6.61 6-13 <5.59 < 0.177 99.2 1.67 <5.50 7-9 <5.59 < 0.177 99.2 1.67 <5.50 9-10 <5.59 <0.177 99.2 1.67 <5.50 9-10 <5.39 <0.177 95.8 4.13 <5.25 9-10 <5.39 <0.201 95.8 4.13 <5.25 9-10 <5.39 <0.201 95.8 4.13 <5.25 9-10 <5.39 <0.201 95.8 4.13 <5.25 9-10 <5.30 95.8 4.13 9-10				2 - 2	(C.C.)	<0.201 0.400	157	6.24	<5.03 7.43	<11.3	7.93
2-3 7,740 <0.186 2,310 1.60 <5.42 5-7 8.41 <0.171				70-17	<5.34	<0.136	18.0	6.92	<5.40	16.1	8.41
5-7 8.41 <0.171 1,230 1.11 7,23 0-12 <5.09 <0.175 1,220 1.23 <5.06 1-2.7	SR-6	03/22/13	5	2.3	7.740	<0.186	2310	1.60	<5.42	4 520	7.64
0-12 <5.09 <0.175 1,220 1.23 <5.06 -2.7 <5.17 <0.195 434 <1.04 <5.18 -2.9 <6.15 -2.9 <6.15 <-2.18 <1.04 <5.18 <-2.18 <1.04 <5.18 <-2.18 <1.04 <5.18 <-2.18 <1.04 <5.18 <-2.18 <1.04 <5.18 <-2.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <5.18 <1.04 <1.04 <5.18 <1.04 <5.18 <1.04 <1.04 <5.18 <1.04 <1.04 <5.18 <1.04 <1.04 <5.18 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04 <1.04		27 /27 /20)	7.0	8 41	<0.171	1.230	111	7.73	188	8 22
5-7 <5.17 <0.225 329 <6.15 5-7 <5.17 <0.195 434 <1.04 <5.18 7-9 <5.68 <0.213 470 1.62 <5.65 0-12 <6.45 <0.189 29.6 3.65 <6.61 2-3 23.7 <0.190 244 <1.16 <5.78 5-7 <5.16 <0.169 81.2 <1.16 <5.78 5-7 <5.59 <0.177 99.2 1.67 <5.50 0-12 <5.59 <0.177 28.4 7.73 <5.49 pile 1.450 <0.200 205 2.72 <5.03 pile 2.12 <0.201 95.8 4.13 <5.25 0-12 <0.201 95.8 4.13 <5.25 0-13 <0.25 74.0 6.18 6.34				10-12	<5.09	<0.175	1,220	1.23	<5.06	174	7.85
5-7											
5-7 <5.17 <0.195 434 <1.04 <5.18 7-9 <5.68	SB-9	03/22/13	9	2-2.7	147	<0.225	329	2.29	<6.15	141	7.78
7-9 <5.68 <0.213				2-7	<5.17	<0.195	434	47.04	<5.18	20.3	7.58
2-3				7-9	<5.68	<0.213	470	1.62	<5.65	38.6	7.94
2-3 23.7 <0.190 244 <1.16 <5.78 5-7 <5.16 <0.169 81.2 1.67 <5.17 7-9 <5.59 <0.177 99.2 1.67 <5.50 9-10 <5.59 <0.174 28.4 7.73 <5.46 0-12 <5.49 <0.183 19.2 11.0 <5.49 pile 1,450 <0.200 205 2.72 <5.03 pile 2.12 <0.250 95.8 4.13 <5.25 6.18 6.34 6.34				10-17	<6.45	<0.189	79.6	3.65	<6.61	38.6	8.57
5-7 <5.16 <0.169 81.2 <1.03 <5.17 <7.9 <5.59 <0.177 99.2 1.67 <5.50 <0.174 28.4 7.73 <5.17 <7.9 <5.59 <0.174 28.4 7.73 <5.46 <0.174 28.4 7.73 <5.46 <0.12 <5.49 <0.183 19.2 11.0 <5.49 <5.49 <0.183 21.2 <0.200 205 2.72 <5.03 <0.201 95.8 4.13 <5.25 <0.201 e1.8 6.34 <0.25 747.0 6.18 6.34	SB-10	03/22/13	2	2-3	23.7	<0.190	244	<1.16	<5.78	253	7.81
7-9 <5.59 <0.177 99.2 1.67 <5.50 9-10 <5.59 <0.174 28.4 7.73 <5.46 0-12 <5.49 <0.183 19.2 11.0 <5.46 5.46 <5.49 pile 1,450 <0.200 205 2.72 <5.03 pile 212 <0.201 95.8 4.13 <5.25 9.25 44.13 <5.25 9.27 <5.03 9.28 4.13 <5.25 9.28 4.13 <5.25 9.29 <5.03 9.20 br>9.20 9.20				5-7	<5.16	<0.169	81.2	<1.03	<5.17	80.0	7.25
9-10 <5.59 <0.174 28.4 7.73 <5.46 0-12 <5.49 <0.183 19.2 11.0 <549 pile 1,450 <0.200 205 2.72 <5.03 pile 212 <0.201 95.8 4.13 <5.25 533.24 0.25 747.0 6.18 6.34				7-9	<5.59	<0.177	99.2	1.67	<5.50	19.0	7.31
0-12 <5.49 <0.183 19.2 11.0 <549 cs49 lile				9-10	<5.59	<0.174	28.4	7.73	<5.46	59.6	8.27
pile 1,450 <0.200 205 2.72 <5.03 2.12 <0.201 95.8 4.13 <5.2.5 2.5.25 2.3.24 0.25 747.0 6.18 6.34				10-12	<5.49	<0.183	19.2	11.0	<549	58.3	8.38
pile 1,450 <0.200 205 2.72 <5.03 2.12 <0.201 95.8 4.13 <5.25 5.25 2.34											
pile 1,450 <0.200 205 2.72 <5.03 2.12 <0.201 95.8 4.13 <5.25 2.13 <5.25 2.13 <5.25 2.14	Soil Piles										
533.24 0.25 747.0 6.18 6.34	SP-1	03/27/13	1	pile	1,450	<0.200	205	2.72	<5.03	794	7.46
533.24 0.25 747.0 6.18 6.34	37-7	03/2//13		allo	777	107.05	25.6	4.43	<52.65	200	183
	Two (2) Standa	rd Deviations (Bac	(ground):		533.24	0.25	747.0	6.18	6.34	6,239	7.94

Notes. Analysis performed by metrod swindershood by brit. Analytical, inc., round rock, rexas Results are reported in milligram per Kilograms (mg/Kg).

1. <: Not detected at method detection limit

Bold and highlighted exceeds teo (2) standard deviations of background mean concentration

Table 4a Groundwater Volatile Organic Analytical Data Summary R360 Artesia LLC Landfarm, Lea County, New Mexico

Trip Blank	MW-6	MW-5	MW-4	MW-W40	MW-S40	MW-E40	MW-2	WQCC Level:	Sample
ık 05/06/13	05/06/13	05/06/13	05/06/13	0 05/06/13	05/06/13	05/06/13	05/06/13	;÷	Date
3 <0.0002	3 <0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.01	Benzene
<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.75	Toluene
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.01	Carbon tetrachloride
<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.01	1,2- Dichloroethane
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.005	1,1- Dichloroethylene
<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.02	Tetrachloroethylene Trichloroethylene
<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.1	Trichloroethylene
<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.75	Ethylbenzene
<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.62	Total Xylenes
<0.00250	<0.00250	<0.00250	<0.00250	<0.00250	<0.00250	<0.00250	<0.00250	0.1	Methylene chloride
<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.1	Chloroform
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.025	1,1- Dichloroethane
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0001	Ethylene bromide
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.06	1,1,1- Trichloroethane
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.01	1,1,2- Trichloroethane
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.01	1,1,1- Trichloroethane Trichloroethane Tetrachloroethane
<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.001	Vinyl chloride

Notes: Analysis performed by method SW-846-8260 by DHL Analytical, Inc., Round Rock, Texas Results are reported in milligram per liter (mg/L)

1. <: Not detected at method detection limit

Table 4b Groundwater Semi-Volatile Organic Analytical dataSummary R360 Artesia LLC Landfarm, Lea County, New Mexico

Notes: A Results a 1. <: No 2: Insi	MW-6	MW-5	MW-4	MW-W40	MW-S40	MW-E40	MW-2	WQCC Level:	Sample
nalysis perfo re reported it t detected at ufficient wate								vel:	
rmed by met n milligram p : method det: er volume for	05/06/13	05/06/13	05/06/13	05/07/13	05/07/13	05/07/13	05/06/13		Date 1-I
Notes: Analysis performed by method SW-846-8270 by Results are reported in milligram per liter (mg/L) 1. <: Not detected at method detection limit 2: Insufficient water volume for sample collection	<0.0002	<0.0002	<0.0002	-	I	<0.0002	<0.0002	0.03	Methylnaphthalene
Notes: Analysis performed by method SW-846-8270 by DHL Analytical, Inc., Round Rock, Texas Results are reported in milligram per liter (mg/L) 1. <: Not detected at method detection limit 2. →: Insufficient water volume for sample collectior	0.000340	0.000380	0.000420	:	:	0.000320	0.000280	0.03	1-Methylnaphthalene 2-Methylnaphthalene Naphthalene
ound Rock, Texas	<0.0002	<0.0002	<0.0002		:	<0.0002	<0.0002	0.03	Naphthalene
	<0.0002	<0.0002	<0.0002	ŀ	ı	0.000720	<0.0002	0.0007	Benzo[a]pyrene
	<0.0002	<0.0002	<0.0002	1	ı	<0.0002	<0.0002	0.03	2,3,4,6- Tetrachloropheno
	<0.0002	<0.0002	<0.0002	1	ţ ţ	<0.0002	<0.0002	0.03	2,3,4,6- 2,4,5- Tetrachlorophenol
	<0.0002	<0.0002	<0.0002	;	;	<0.0002	<0.0002	0.03	Trich
	<0.0002	<0.0002	<0.0002	ı	ı	<0.0002	<0.0002	0.03	Dich
	<0.0004	<0.0004	<0.0004	:	:	<0.0004	<0.0004	0.03	enol
	<0.001	<0.001	<0.001		;	<0.001	<0.001	0.03	enol
	<0.0004	<0.0004	<0.0004	1	ţ	<0.0004	<0.0004	0.03	2,6- 2- 2- 2- Dichlorophenol Chlorophenol Methylphenol Nitrophenol
	<0.0002	<0.0002	<0.0002	1	ı	<0.0002	<0.0002	0.03	2- hlorophenol
	<0.0002	<0.0002	<0.0002	ı	1	<0.0002	<0.0002	0.03	2- Methylphenol
	<0.0004	<0.0004	<0.0004	ı	1	<0.0004	<0.0004	0.03	2- Nitrophenol
	<0.0005	<0.0005	<0.0005	ı	1	<0.0005	<0.0005	0.03	4,6-Dinitro-2- methylphenol
	<0.0002	<0.0002	<0.0002	:		<0.0002	<0.0002	0.03	4-Chloro-3- methylphenol
	<0.0002	<0.0002	<0.0002		:	<0.0002	<0.0002	0.03	4,6-Dinitro-2- 4-Chloro-3- 4-methylphenol methylphenol Methylphenol
	<0.001	<0.001	<0.001		-	<0.001	<0.001	0.03	
	<0.0004	<0.0004	<0.0004	:	ı	<0.0004	<0.0004	0.03	4-Nitrophenol Pentachlorophenol
	<0.0004	<0.0004	<0.0004		1	<0.0004	<0.0004	0.005	Phenol
	<0.0002	<0.0002	<0.0002	1	1	<0.0002	<0.0002	0.005	Total Phenol
		l							

Groundwater PCB Analytical data Summary Table 4c

Date Aroclor 1016 Aroclor 1221 Aroclor 1232 Calcium Aroclor 1300

Notes: Analysis performed by method SW-846-6020 by DHL Analytical, Inc., Round Rock, Texas

Results are reported in milligram per liter (mg/L)

1. <: Not detected at method detection limit
 2. --: Insufficient water volume for sample collection

Table 4d

Groundwater Metals Analtytical Data Summary
R360 Artesia LLC Landfarm, Lea County, New Mexico

7						K36U AI	tesia LLC Langtarm	R360 Artesia LLC Lanorarm, Lea County, New Mexico	MEXICO					
	Sample	Date	Arsenic	Barium	Cadmium	Chromium	Copper	iron	Lead	Manganese	Mercury	Selenium		Silver
SI	WQCC Level:		0.10	1.0	0.01	0.05	1.0	1.0	0.05	0.20	0.002	0.05		0.05
	MW-2	05/06/13	0.0142	0.0438	0.000358	<0.002	0.00747	0.708	0.00349	0.138	<0.00008	0.00216		<0.001
	MW-E40	05/06/13	0.00487	0.337	<0.0003	<0.002	0.0137	0.308	0.000302	0.650	<0.00008	<0.002		<0.001
	MW-S40	05/06/13	1	1	1	1	1	-	ı	-	1	ı		1
	MW-W40	05/06/13	1	ı	1	+	1	-	1		-	l		1
	MW-4	05/06/13	0.00790	0.0460	<0.0003	<0.002	0.00651	0.372	0.00343	0.159	<0.00008	0.00358	A	<0.001
	MW-5	05/06/13	0.00718	0.0384	<0.0003	0.00248	0.00471	0.609	0.00154	0.128	<0.00008	0.00854	^	<0.001
	MW-6	05/06/13	0.00700	0.0297	<0.0003	<0.002	0.00404	0.324	0.00118	0.193	<0.00008	0.01600	Δ	<0.001
>1	Notes: Analysis performed by method SW-846-	rformed by method		by DHI Analytical Inc. Bound Book Toyas	und Bock Toyas									

Notes: Analysis performed by method SW-846- by DHL Analytical, Inc., Round Rock, Texas Results are reported in milligram per liter (mg/L)

1. <: Not detected at method detection limit

2. --: Insufficient water volume for sample collection

Table 4e
Groundwater Cation and Anion Analytical Data Summary
R360 Artesia LLC Landfarm, Lea County, New Mexico

Sample	WQCC Level:	MW-2	MW-E40	MW-540	MW-W40	MW-4	MW-5	MW-6
Date		05/06/13	05/07/13	05/07/13	05/07/13	05/06/13	05/06/13	05/06/13
Cvanide	0.2	<0.01	<0.01	1	1	<0.01	<0.01	<0.01
Fluoride	1.6	1.77	1.02	I	I	1.67	1.45	1.68
Sodium	NS	409	230	1	I	432	446	424
Calcium	NS	340	265	T	1	334	416	316
ons	NS	209	179	-	_	246	8EE	273
Potassium	NS	10	11	-	-	14	18	18
Nitrate-N	10	0.670	<0.1		-	1.41	2.06	3.68
Anions	250	539	436	-	_	658	901	844
ns Sulfate	600	1,310	561	1	_	1,390	1,650	1,360
Alkalinity	NS	285	613	1	1	428	376	307
TDS	1000	3,070	2,090	i	1	3,440	4,240	3,460
P.	6-9	7.40	7.40	1	1	7.09	7.03	7.30

Notes: Analysis performed by method SW-846-9056 by DHL Analytical, Inc., Round Rock, Texas

Results are reported in milligram per liter (mg/L)

1. <: Not detected at method detection limit

2. --: Insufficient water volume for sample collection

2.NS: No WQCC standard

Bold and highlighted exceeds WQCC domestic water quality standard

FIGURES



Figure 1 - Topographic Map

V:\PROJECTS\R360 Environmenta\\Artesia Aeration Landfarm\Cross Section 2013.dwg, 10/23/2013 2:20:43 PM

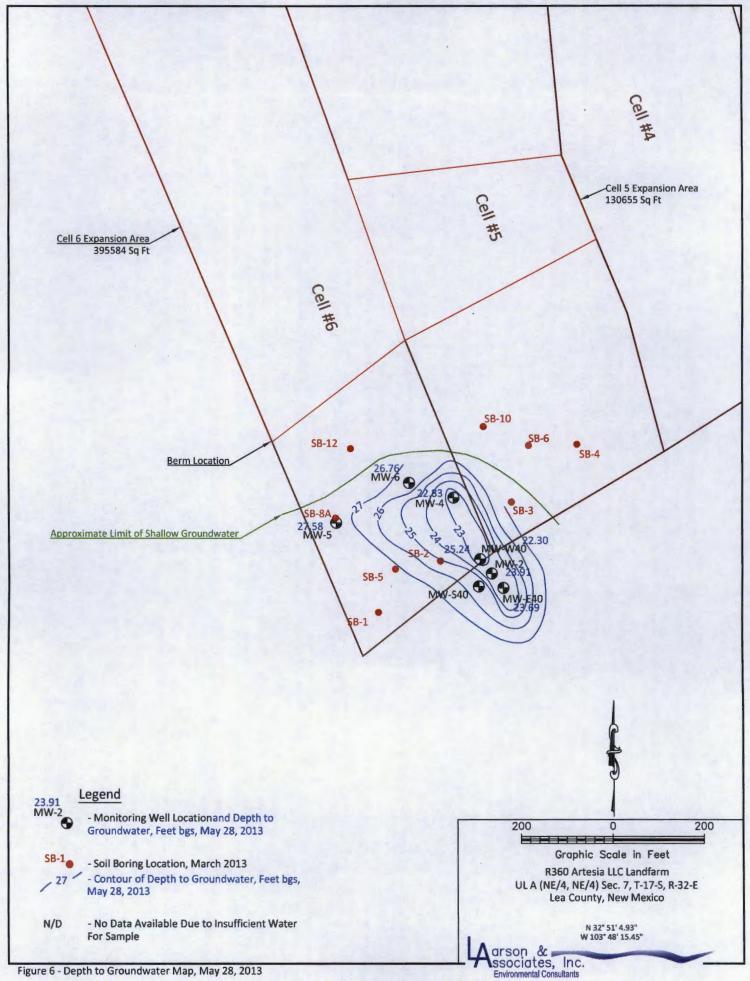
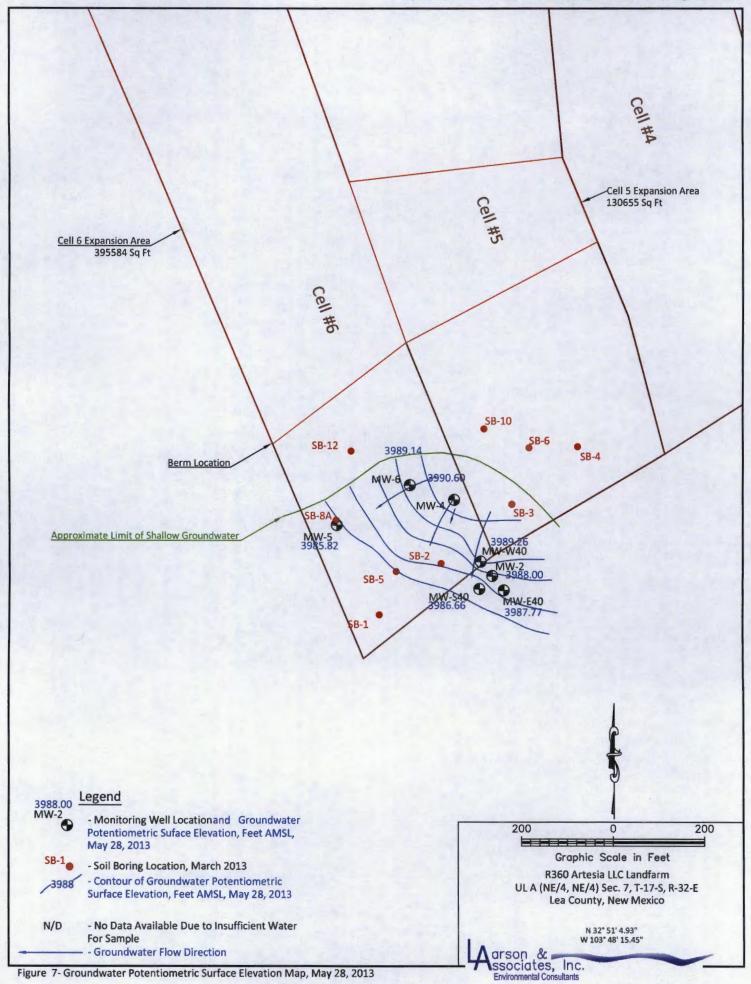


Figure 6 - Depth to Groundwater Map, May 28, 2013



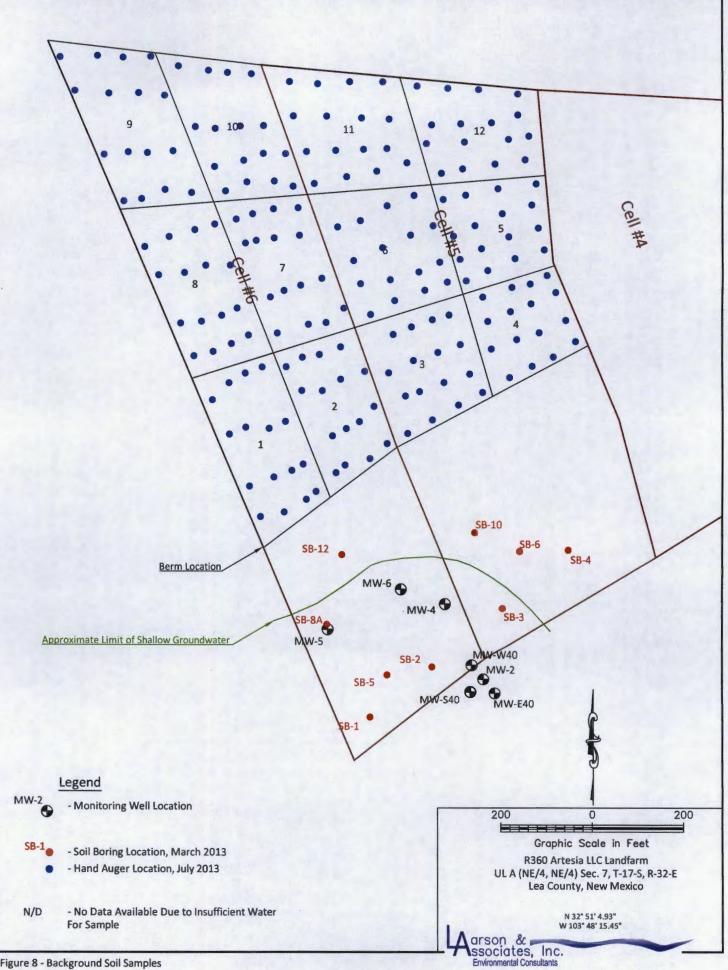


Figure 8 - Background Soil Samples

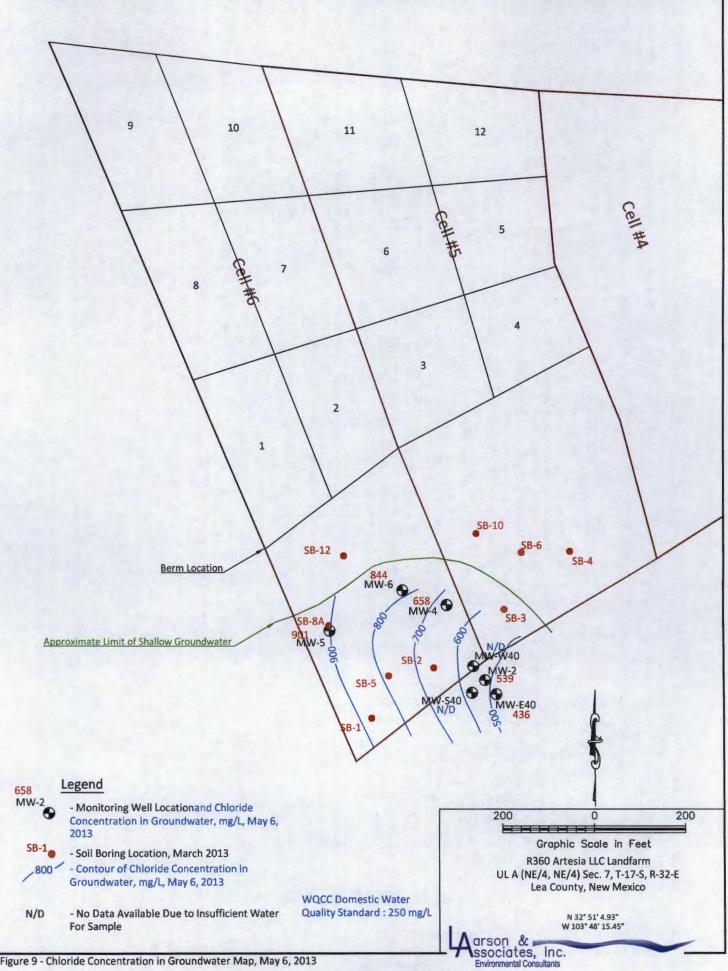


Figure 9 - Chloride Concentration in Groundwater Map, May 6, 2013

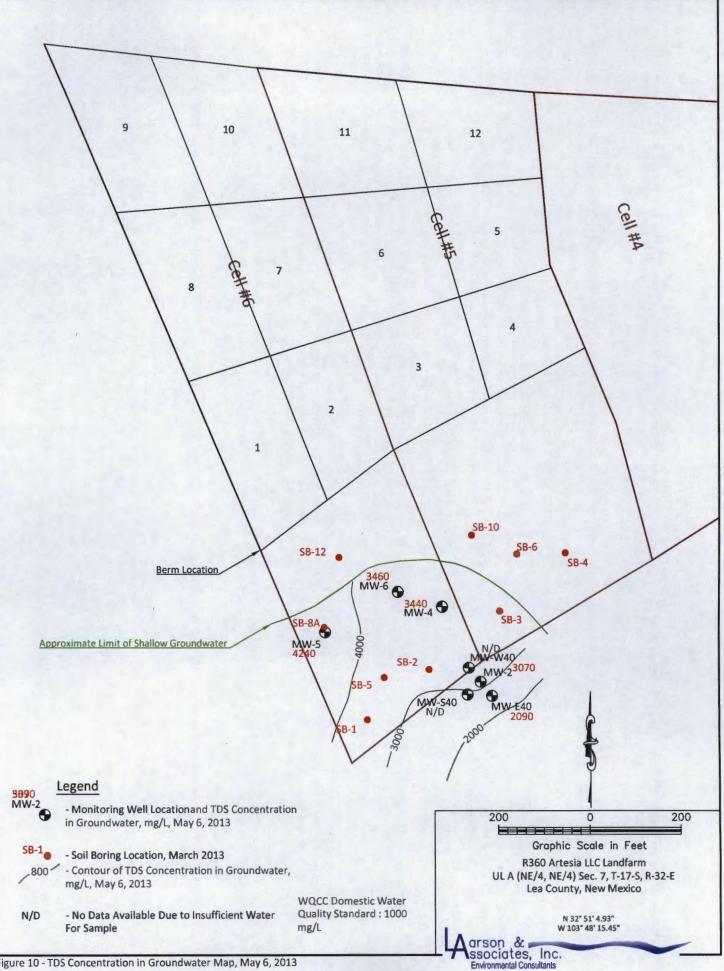


Figure 10 - TDS Concentration in Groundwater Map, May 6, 2013

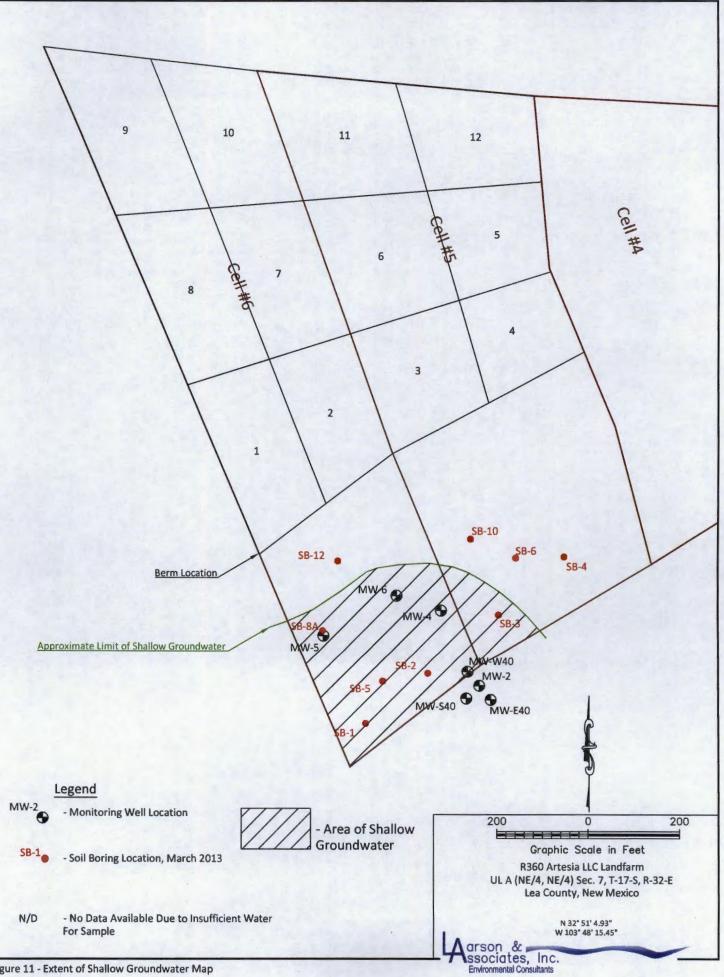


Figure 11 - Extent of Shallow Groundwater Map

Figure 12 - Proposed Cell Expansion Areas

APPENDIX A

OCD Approval

State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez

Governor

John Bemis
Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jami Bailey
Division Director
Oil Conservation Division



January 29, 2013

Mark J. Larson Larson & Associates, Inc. 507 North Marienfeld, Suite 200 Midland, Texas 79701

RE: Hydrogeologic Investigation Boring Plan

Permit NM1 - 030: Commercial Surface Waste Management Facility

R360 Artesia, LLC - R360 Artesia, LLC Landfarm

Facility Location: Unit A of Section 7, Township 17 South, Range 32 East NMPM

Lea County, New Mexico

Dear Mr. Larson:

The Oil Conservation Division (OCD) has received Larson & Associates, Inc.'s boring plan proposal, dated January 29, 2013 and submitted on the behalf of R360 Artesia, LLC. The plan proposes to investigate and characterize the extent of a shallow water-bearing zone in order to determine the proper placement of waste can within the existing landfarm cells and to determine the extent of documented vadose zone contamination for the development of a release response action plan pursuant to 19.15.36.16.E NMAC for the existing above–referenced OCD permitted commercial surface waste management landfarm facility. OCD has completed the review and determined that the proposal is adequate to proceed with the site investigation.

OCD agrees that the proposed sample/boring/monitoring well locations appear adequate. However, if the hydrogeologic conditions cannot be determined, additional borings or monitoring wells may be needed. It should be understood that if a monitoring well is constructed, it shall be bailed until fully developed.

The OCD appreciates your cooperation in providing a boring plan for review, in order to determine appropriate waste management operations and to address issues associated with the documented vadose zone contamination. If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or brad.a.jones@state.nm.us.

Sincerely,

Brad A. Jones
Environmental Engineer

BAJ/baj

Cc: OCD District I Office, Hobbs

Wayne Crawley, R360 Environmental Solutions, Inc., Houston, TX

APPENDIX B

Boring Logs and Well Completion Records

			Well (Compl	etion Record		
Geolog. Unit	Depth (Feet)	Lithologic Description	Soil	Log	Well Comple	tion Detail	
		Latitude : N 32° 51' 06.82" Longitude: W 103° 48' 16.66" Elevation : 4010.20'	Unified Soil Classification	Grapnic Log PID Reading	No We	ell Completed	
	0	Gravelly Clay: Light Brown (7.5YR 6/3) very fine to coarse grained quartz sand, caliche fragments, dry	CL ///		· <u> </u>		0
	2.7 5	Sand: Yellowish Red (5YR 5/6) very fine grained quartz sand, poorly sorted, round, loose, Light Brown	SW				5
	7.5 10 11.0	(7.5YR 6/3) below 5', dry Clayey Sand: Reddish Yellow to Yellowish Red (5YR 6/8 to 5/8) very fine grained quartz sand, very poorly sorted, round, moderately	SC GW 0:				10
	12.0 14.0 1 5	compacted, dry Gravel: Light Reddish Brown (SYR 6/4) very fine to coarse grained quartz sand, pebbles to 15mm, round, loose, dry Clayey Sand: Yellowish Red (SYR	SC SC				15
	20	6/4) very fine grained quartz sand, very poorly sorted, round, moderately compacted, dry Total Depth 15'					20
	25	Dry Boring Groundwater Not Observed					25
	30	Boring Plugged : March 28, 2013					30
	35						35
	40						40
	45						45
	50						50
	55						55
	60						60
	65						65
Legend		Drilled I	Method - F By - F ameter - 7 By - N		em Auger Sampling Inc	R 360 Artesia LLC. Landfarm UL A (NE/4, NE/4) Sec. 7, T-17-S, R-32-E Lea County, New Mexico N 32° 51' 12.46" W 103° 48' 14.35"	

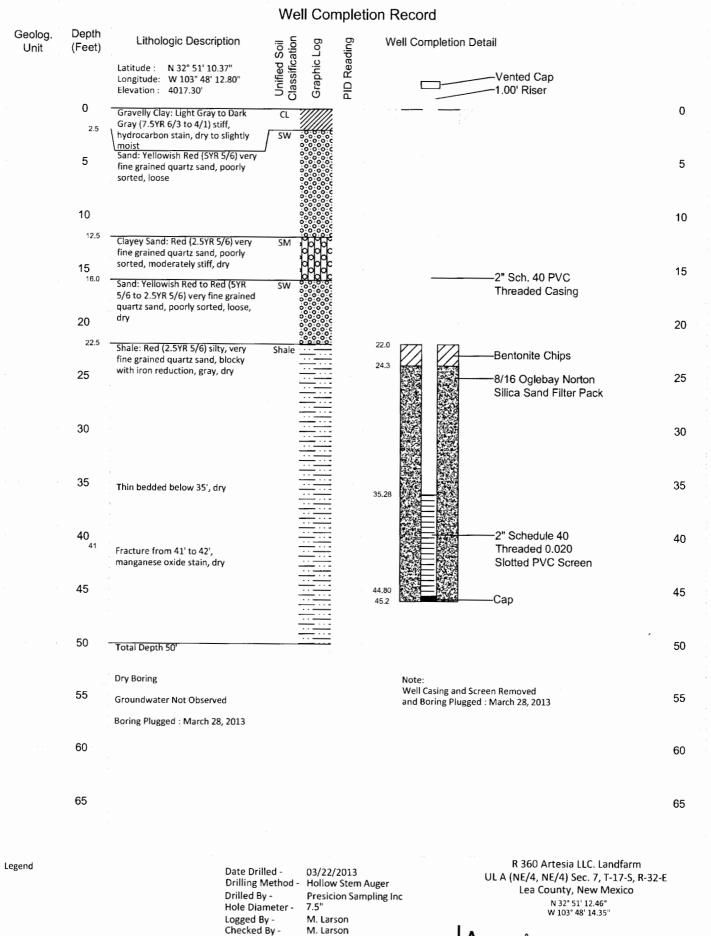
Agrson & Inc.
Environmental Consultarts

		Well Con	npletion Record		
Geolog. Depth Unit (Feet)	Lithologic Description	Soil Ition -og	Well Compl	etion Detail	
	Latitude : N 32° 51' 07.91" Longitude: W 103° 48' 15.06" Elevation : 4011.80'	Unified Soil Classification Graphic Log	PIO Reading No M	'ell Completed	
0 0.5	Silty Clay: Brown (7.5YR 5/3) very fine grained quartz sand, dry Sand: Brown (7.5YR 4/4) to Yellowish Red (5YR 5/6) very fine	CL SW SOSS		- 0	
5 6.5	grained quartz sand, poorly sorted, round, loose, Pink to Light Brown (7.5YR 4/4 to 6/4) below 5', dry Clayey Sand: Yellowish Red (5YR	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		5	
10	6/8 to 5/8) very fine grained quartz sand, poorly sorted, round, moderately compacted, dry			10	
15	Total Depth 15'	<u> </u>		15	
20				20	
25	Dry Boring Groundwater Not Observed			25	
30	Boring Plugged : March 28, 2013			30	
35				35	
40				40	
45				45	
50				50	
55				55	
60				60	
65				65	
Legend SB-2 Boring Log	Drilled B Hole Dia Logged Checked	Method - Hollow By - Presidenter - 7.5" By - M. Lai	w Stem Auger cion Sampling Inc rson	R 360 Artesia LLC. Landfarm UL A (NE/4, NE/4) Sec. 7, T-17-S, R-32-E Lea County, New Mexico N 32° 51' 12.46" W 103° 48' 14.35" Agrson & Ssociates, Inc. Environmental Consultants	_

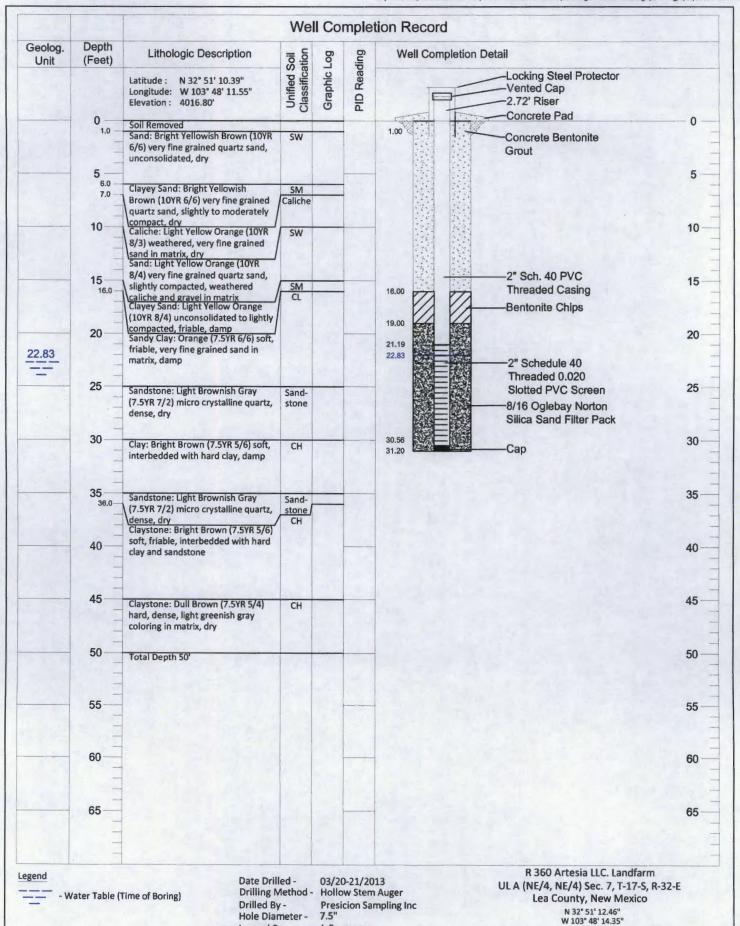
			We	II Com	pletion Re	ecord		
	Depth (Feet)	Lithologic Descrip	otion 📜 🢆	go-	g Well	Completion Detail		
		Latitude: N 32° 51' 09. Longitude: W 103° 48' 1 Elevation: 4014.70'		Graphic Log	PID Reading	No Well Completed		
	0	Gravelly Clay: Brown (7.5 4/3) Medium to fine grain sand, caliche fragments, hydrocarbon odor. dry Sand: Yellowish Red (5YR	YR 4/2 to CL ned quartz SW		_		0	
	5 7.5	fine grained quartz sand, sorted, round, dry, loose Clayey Sand: Yellowish Re	poorly SC				5	
	10	5/6) very fine grained qua poorly sorted, slightly con Pale Brown (10YR 6/3) be Sand: Pale Yellow (2.5YR very fine grained quartz s	npacted, low 7', dry 8/3 to 7/3) and, CL				10	•
	15	round, poorly sorted, mo compacted to weakly cen below 11', some gravel, 2 pebbles, subangular, dry Sandy Clay: Reddish Brow 4/4) very fine grained qua	nented 0 mm /n (5YR				15	
	20	moderately stiff with som grained quartz sand, dry Total Depth 15'					20	
	25	Dry Boring Groundwater Not Observ	ed				25	
	30	Boring Plugged : March 2	8, 2013				30	
	35						35	
	40						40	
	45						45	
	50						50	
	55						55	
	60						60	
	65						65	
Legend - Wate		Time of Boring)	Date Drilled - Drilling Method - Drilled By - Hole Diameter - Logged By - Checked By -	Presicio 7.5" M. Larso M. Larso	Stem Auger on Sampling Inc	UL A (NE/4, NE Lea Cou N	esia LLC. Landfarm (4) Sec. 7, T-17-S, R-32-E nty, New Mexico 32° 51' 12.46" 103° 48' 14.35"	***************************************
20-2 BOLLING	LOB		Page 1 of 1	L		Emportorial Consultation		

	5		Well Con	npletion Record		
Geolog. Unit	Depth (Feet)	Lithologic Description Latitude: N 32° 51' 10.39"	Unified Soil Classification Graphic Log	PID Reading		
		Longitude: W 103° 48' 11.55" Elevation: 4016.80'	Unifie Classi Graph	R Old	Vented Cap 0.55' Riser	
	0	Gravelly Clay: Light Gray to Gray	CL //////			0
	2.0	(7.5YR 6/5 to 4/1) stiff, dry Sand: Yellowish Red (5YR 5/6) very fine grained quartz sand, poorly	SM 0.0.C		Bentonite Grout	
	5	sorted, dry	0.0.C 0.0.C		Bollionillo Great	5
	7.0	Pale Brown (10YR 8/2) from 7' to 12', dry	0.0.C			
	10	, .	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			10
	12.0	Reddish Yellow (5YR 6/6) below 12', sandstone loose at 12', very hard,	0.0.0			
	15	dry	0.000 0.000 0.000		2" Sch. 40 PVC Threaded Casing	15
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		g	
	20 21.0	Shale: Red (2.5YR 4/6) silty, very	Shale ··			20
		fine grained quartz sand, blocky, dry, some manganese oxide stain		24.4	Bentonite Chips	
	25	along fracture surfaces, dry			0/4C Oalahay Notas	2
					8/16 Oglebay Norton Silica Sand Filter Pack	
	30					3
	35	Fracture at 34', dry with manganese oxide stain, thin bedded below 35',		35.68		3
		dry				
	40				2" Schedule 40	4
					Threaded 0.020 Slotted PVC Screen	
	45			45.20	Con	4
				45.6	<u>3</u> ——Сар	
	50					5
	00	Total Depth 50'				
	55	Dry Boring			and Screen Removed	5
	00	Groundwater Not Observed Boring Plugged: March 28, 2013		and Boring	Plugged : March 28, 2013	
	60	Borning Fragged : March 25, 2015				ε
	60					v
	25					e
	65					·
egend		Drilled Hole D	g Method - Hollo By - Presi iameter - 7.5"	icion Sampling Inc	R 360 Artesia LLC. Landfan UL A (NE/4, NE/4) Sec. 7, T-17-S Lea County, New Mexico N 32* 51' 12.46" W 103* 48' 14.35"	, R-32-E
		Logged Checke	I By - M. La ed By - M. La		↑arson &	3.44 Automatic

			We	II Com	npletion Red	cord		
Geolog. Unit	Depth (Feet)	Lithologic Descript	ion E	6o-	b Well	Completion Detail		
		Latitude: N 32° 51' 07.76 Longitude: W 103° 48' 16 Elevation: 4011.60'		Graphic Log	PID Reading	No Well Completed		
	0	Gravelly Clay: Light Brown fine to coarse grained quar caliche fragments	(7.5YR 6/3) CL tz sand, GW	0 0 0 0				0
	5	Sand: Yellowish Red to Red Yellow (5YR 6/6 to 5/6) ver grained quartz sand, poorly round, loose Clayey Sand: Pinkish Gray t	y fine y sorted, SW	0:::0: 0::0::				5
	10	White (7.5YR 7/2 to 8/2) ve grained quartz sand, poorly slightly compacted, Light B (7.5YR 6/4) below 7'	y sorted,	0.0.0				10
	15	Total Depth 15'		0.0.0				15
	20							20
	25	Dry Boring Groundwater Not Observe						25
	30	Boring Plugged : March 28	, 2013					30
	35							35
	40							40
	45							45
	50							50
	55							55
	60							60
	65							65
Legend	ing Log		Date Drilled - Drilling Method Drilled By - Hole Diameter - Logged By - Checked By -	Presio	w Stem Auger tion Sampling Inc	ULA(R 360 Artesia LLC. Landfarm NE/4, NE/4) Sec. 7, T-17-5, R-3 Lea County, New Mexico N 32° 51' 12.46" W 103° 48' 14.35" 1 & Otes, Inc. ental Consultants	2-E



arson & ssociates, Inc. Environmental Consultants



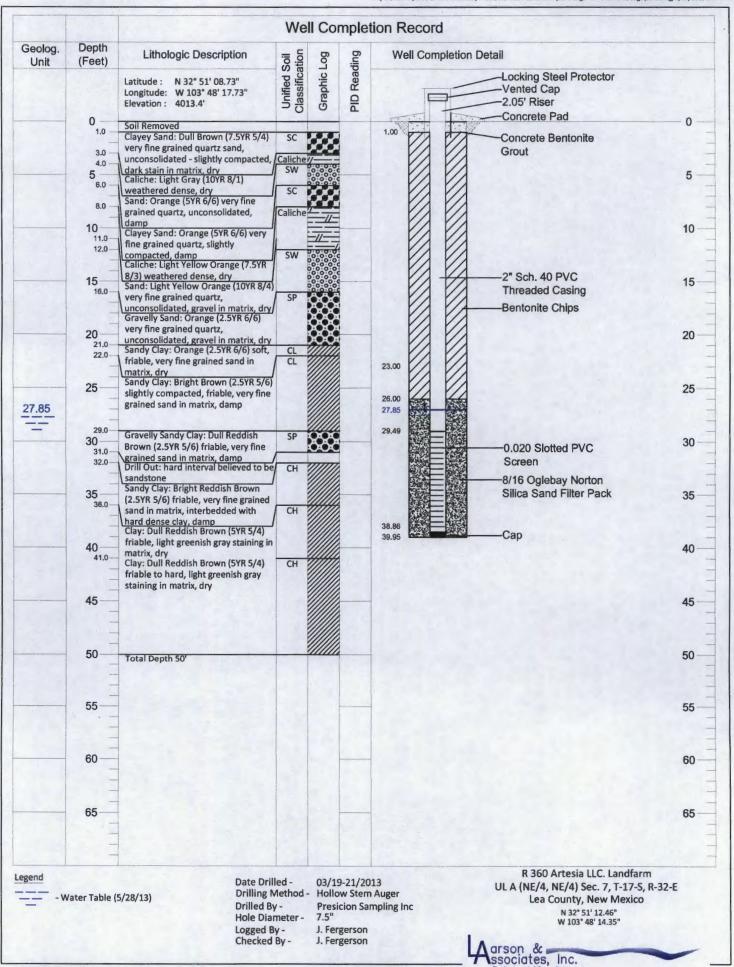
Logged By -

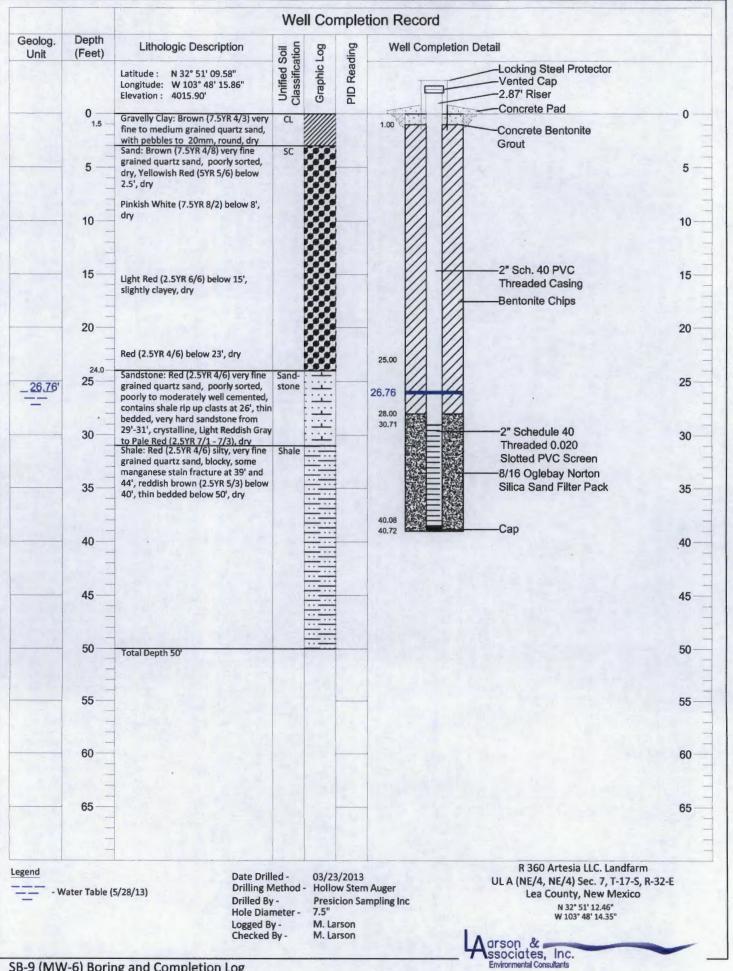
Checked By -

J. Fergerson

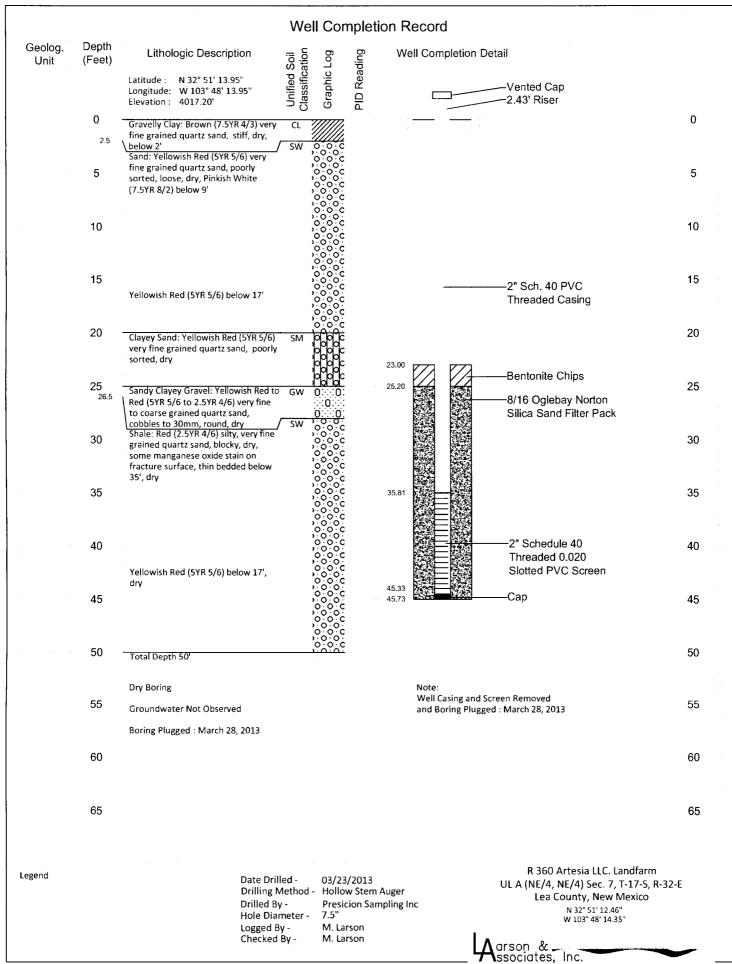
J. Fergerson

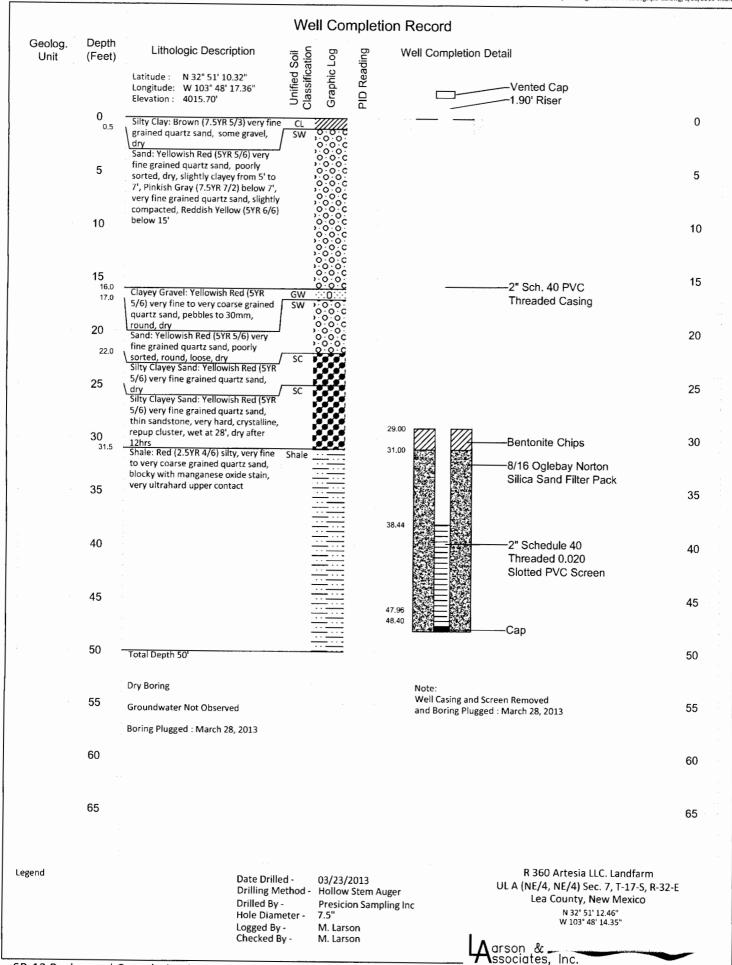
arson & Inc.





Environmental Consultants





APPENDIX C

Laboratory Reports

(CD ROM)

CLIENT: Larson & Associates Client Sample ID: SB-6 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303223-02

Project No: 11-0109-09 **Collection Date:** 03/22/13 08:35 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW747	71B				Analyst: LM
Mercury	ND	0.0156	0.0390		mg/Kg-dry	1	04/02/13 01:16 PM
TRACE METALS: ICP-MS - SOLID		SW602	20A				Analyst: SW
Aluminum	7000	132	132		mg/Kg-dry	50	03/29/13 11:09 PM
Arsenic	2.03	0.528	1.06		mg/Kg-dry	5	03/28/13 02:25 AM
Barium	184	0.528	2.11		mg/Kg-dry	5	03/28/13 02:25 AM
Boron	6.80	2.64	7.92	J	mg/Kg-dry	5	03/28/13 02:25 AM
Cadmium	0.113	0.106	0.317	J	mg/Kg-dry	5	03/28/13 02:25 AM
Chromium	5.97	0.528	2.11		mg/Kg-dry	5	03/30/13 03:47 AM
Cobalt	2.09	0.528	2.11	J	mg/Kg-dry	5	03/28/13 02:25 AM
Copper	3.19	0.528	2.11		mg/Kg-dry	5	03/30/13 03:47 AM
Iron	6220	132	132		mg/Kg-dry	50	03/29/13 11:09 PM
Lead	3.78	0.106	0.317		mg/Kg-dry	5	03/28/13 02:25 AM
Manganese	62.2	0.528	2.11		mg/Kg-dry	5	03/28/13 02:25 AM
Molybdenum	ND	0.528	2.11		mg/Kg-dry	5	03/28/13 02:25 AM
Nickel	4.90	0.528	2.11		mg/Kg-dry	5	03/28/13 02:25 AM
Selenium	0.791	0.158	0.528		mg/Kg-dry	5	03/28/13 02:25 AM
Silver	ND	0.106	0.211		mg/Kg-dry	5	03/28/13 02:25 AM
Zinc	14.1	1.06	2.64		mg/Kg-dry	5	03/28/13 02:25 AM
SEMIVOLATILES BY GC/MS - SOIL		SW827	70D				Analyst: AJR
1-Methylnaphthalene	3.65	0.0537	0.143	N	mg/Kg-dry	5	03/29/13 04:11 AM
2-Methylnaphthalene	3.01	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
Naphthalene	0.688	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
Benzo[a]pyrene	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2,3,4,6-Tetrachlorophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2,4,5-Trichlorophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2,4,6-Trichlorophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2,4-Dichlorophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2,4-Dimethylphenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2,4-Dinitrophenol	ND	0.269	0.709		mg/Kg-dry	5	03/29/13 04:11 AM
2,6-Dichlorophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2-Chlorophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2-Methylphenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2-Nitrophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
4,6-Dinitro-2-methylphenol	ND	0.161	0.355		mg/Kg-dry	5	03/29/13 04:11 AM
4-Chloro-3-methylphenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
4-Methylphenol	ND	0.107	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
4-Nitrophenol	ND	0.269	0.709		mg/Kg-dry	5	03/29/13 04:11 AM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Ditail E

Analyte detected between MDL and RL Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-6 2-3'

Lab ID: 1303223-02 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 08:35 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
Pentachlorophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
Phenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
Total Phenol (Calculated)	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
Surr: 2,4,6-Tribromophenol	120	0	45-126		%REC	5	03/29/13 04:11 AM
Surr: 2-Fluorobiphenyl	100	0	60-125		%REC	5	03/29/13 04:11 AM
Surr: 2-Fluorophenol	90.0	0	37-125		%REC	5	03/29/13 04:11 AM
Surr: 4-Terphenyl-d14	105	0	45-125		%REC	5	03/29/13 04:11 AM
Surr: Nitrobenzene-d5	120	0	45-125		%REC	5	03/29/13 04:11 AM
Surr: Phenol-d6	85.0	0	40-125		%REC	5	03/29/13 04:11 AM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0179	0.0358		mg/Kg-dry	1	03/29/13 04:46 AM
Aroclor 1221	ND	0.0179	0.0358		mg/Kg-dry	1	03/29/13 04:46 AM
Aroclor 1232	ND	0.0179	0.0358		mg/Kg-dry	1	03/29/13 04:46 AM
Aroclor 1242	ND	0.0179	0.0358		mg/Kg-dry	1	03/29/13 04:46 AM
Aroclor 1248	ND	0.0179	0.0358		mg/Kg-dry	1	03/29/13 04:46 AM
Aroclor 1254	ND	0.0179	0.0358		mg/Kg-dry	1	03/29/13 04:46 AM
Aroclor 1260	ND	0.0179	0.0358		mg/Kg-dry	1	03/29/13 04:46 AM
Surr: 2-Fluorobiphenyl	78.5	0	43-125		%REC	1	03/29/13 04:46 AM
Surr: 4-Terphenyl-d14	79.4	0	32-125		%REC	1	03/29/13 04:46 AM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
Toluene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
Carbon tetrachloride	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
1,2-Dichloroethane	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
1,1-Dichloroethylene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
Tetrachloroethylene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
Trichloroethylene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
Ethylbenzene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
Total Xylenes	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
Methylene chloride	ND	0.00514	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
Chloroform	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
1,1-Dichloroethane	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
Ethylene bromide	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
1,1,1-Trichloroethane	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
1,1,2-Trichloroethane	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
1,1,2,2-Tetrachloroethane	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM
Vinyl chloride	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 12:13 PM

Qualifiers:

Date: 03-Apr-13

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Not Detected at the Method Detection Limit

Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-6 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303223-02

Project No: 11-0109-09 **Collection Date:** 03/22/13 08:35 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Surr: 1,2-Dichloroethane-d4	101	0	52-149		%REC	1	03/28/13 12:13 PM
Surr: 4-Bromofluorobenzene	103	0	84-118		%REC	1	03/28/13 12:13 PM
Surr: Dibromofluoromethane	96.4	0	65-135		%REC	1	03/28/13 12:13 PM
Surr: Toluene-d8	104	0	84-116		%REC	1	03/28/13 12:13 PM
TRPH		E418	3.1				Analyst: JAW
Petroleum Hydrocarbons, TR	7740	111	222	N	mg/Kg-dry	20	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	014				Analyst: JCG
Cyanide, Total	ND	0.186	0.466		mg/Kg-dry	1	03/28/13 04:42 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	2310	542	542		mg/Kg-dry	100	03/28/13 02:57 PM
Fluoride	1.60	1.08	1.08		mg/Kg-dry	1	03/28/13 09:54 AM
Nitrate-N	ND	5.42	5.42		mg/Kg-dry	1	03/28/13 09:54 AM
Sulfate	4520	1080	1080		mg/Kg-dry	100	03/28/13 02:57 PM
PH OF SOLID (CORROSIVITY)		SW90	45D				Analyst: JCG
рН	7.64	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	9.86	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrativ

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL
Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-6 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-03

Project No: 11-0109-09 **Collection Date:** 03/22/13 08:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0166	0.0414		mg/Kg-dry	1	04/02/13 01:18 PM
TRACE METALS: ICP-MS - SOLID		SW60:	20A				Analyst: SW
Aluminum	4740	117	117		mg/Kg-dry	50	03/29/13 11:15 PM
Arsenic	1.30	0.467	0.934		mg/Kg-dry	5	03/28/13 02:32 AM
Barium	23.4	0.467	1.87		mg/Kg-dry	5	03/28/13 02:32 AM
Boron	ND	2.33	7.00		mg/Kg-dry	5	03/28/13 02:32 AM
Cadmium	ND	0.0934	0.280		mg/Kg-dry	5	03/28/13 02:32 AM
Chromium	4.63	0.467	1.87		mg/Kg-dry	5	03/30/13 03:53 AM
Cobalt	1.02	0.467	1.87	J	mg/Kg-dry	5	03/28/13 02:32 AM
Copper	1.58	0.467	1.87	J	mg/Kg-dry	5	03/30/13 03:53 AM
Iron	4840	117	117		mg/Kg-dry	50	03/29/13 11:15 PM
Lead	2.36	0.0934	0.280		mg/Kg-dry	5	03/28/13 02:32 AM
Manganese	44.3	0.467	1.87		mg/Kg-dry	5	03/28/13 02:32 AM
Molybdenum	ND	0.467	1.87		mg/Kg-dry	5	03/28/13 02:32 AM
Nickel	2.25	0.467	1.87		mg/Kg-dry	5	03/28/13 02:32 AM
Selenium	0.588	0.140	0.467		mg/Kg-dry	5	03/28/13 02:32 AM
Silver	ND	0.0934	0.187		mg/Kg-dry	5	03/28/13 02:32 AM
Zinc	7.88	0.934	2.33		mg/Kg-dry	5	03/28/13 02:32 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.00981	0.0261	N	mg/Kg-dry	1	03/28/13 10:24 PM
2-Methylnaphthalene	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
Naphthalene	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
Benzo[a]pyrene	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2,3,4,6-Tetrachlorophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2,4,5-Trichlorophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2,4,6-Trichlorophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2,4-Dichlorophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2,4-Dimethylphenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2,4-Dinitrophenol	ND	0.0491	0.130		mg/Kg-dry	1	03/28/13 10:24 PM
2,6-Dichlorophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2-Chlorophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2-Methylphenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2-Nitrophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
4,6-Dinitro-2-methylphenol	ND	0.0294	0.0648		mg/Kg-dry	1	03/28/13 10:24 PM
4-Chloro-3-methylphenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
4-Methylphenol	ND	0.0196	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
4-Nitrophenol	ND	0.0491	0.130		mg/Kg-dry	1	03/28/13 10:24 PM

Qualifiers:

D'he' E

Date: 03-Apr-13

Analyte detected between MDL and RL
Not Detected at the Method Detection Limit

^{*} Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrativ

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

CLIENT: Larson & Associates Client Sample ID: SB-6 5-7'

Lab ID: 1303223-03 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 08:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: AJR
Pentachlorophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
Phenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
Total Phenol (Calculated)	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
Surr: 2,4,6-Tribromophenol	74.0	0	45-126		%REC	1	03/28/13 10:24 PM
Surr: 2-Fluorobiphenyl	80.0	0	60-125		%REC	1	03/28/13 10:24 PM
Surr: 2-Fluorophenol	94.0	0	37-125		%REC	1	03/28/13 10:24 PM
Surr: 4-Terphenyl-d14	49.0	0	45-125		%REC	1	03/28/13 10:24 PM
Surr: Nitrobenzene-d5	80.0	0	45-125		%REC	1	03/28/13 10:24 PM
Surr: Phenol-d6	95.0	0	40-125		%REC	1	03/28/13 10:24 PM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0164	0.0327		mg/Kg-dry	1	03/28/13 09:01 PM
Aroclor 1221	ND	0.0164	0.0327		mg/Kg-dry	1	03/28/13 09:01 PM
Aroclor 1232	ND	0.0164	0.0327		mg/Kg-dry	1	03/28/13 09:01 PM
Aroclor 1242	ND	0.0164	0.0327		mg/Kg-dry	1	03/28/13 09:01 PM
Aroclor 1248	ND	0.0164	0.0327		mg/Kg-dry	1	03/28/13 09:01 PM
Aroclor 1254	ND	0.0164	0.0327		mg/Kg-dry	1	03/28/13 09:01 PM
Aroclor 1260	ND	0.0164	0.0327		mg/Kg-dry	1	03/28/13 09:01 PM
Surr: 2-Fluorobiphenyl	67.9	0	43-125		%REC	1	03/28/13 09:01 PM
Surr: 4-Terphenyl-d14	76.8	0	32-125		%REC	1	03/28/13 09:01 PM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Toluene	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Carbon tetrachloride	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
1,2-Dichloroethane	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
1,1-Dichloroethylene	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Tetrachloroethylene	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Trichloroethylene	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Ethylbenzene	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Total Xylenes	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Methylene chloride	ND	0.00425	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Chloroform	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
1,1-Dichloroethane	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Ethylene bromide	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
1,1,1-Trichloroethane	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
1,1,2-Trichloroethane	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
1,1,2,2-Tetrachloroethane	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Vinyl chloride	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM

Qualifiers:

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Date: 03-Apr-13

Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-6 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-03

Project No: 11-0109-09 **Collection Date:** 03/22/13 08:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Surr: 1,2-Dichloroethane-d4	99.6	0	52-149		%REC	1	03/28/13 12:45 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 12:45 PM
Surr: Dibromofluoromethane	98.1	0	65-135		%REC	1	03/28/13 12:45 PM
Surr: Toluene-d8	105	0	84-116		%REC	1	03/28/13 12:45 PM
TRPH		E418	3.1				Analyst: JAW
Petroleum Hydrocarbons, TR	8.41	5.18	10.4	JN	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	014				Analyst: JCG
Cyanide, Total	ND	0.171	0.426		mg/Kg-dry	1	03/28/13 04:43 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	1230	51.3	51.3		mg/Kg-dry	10	03/28/13 03:12 PM
Fluoride	1.11	1.03	1.03		mg/Kg-dry	1	03/28/13 10:12 AM
Nitrate-N	7.23	5.13	5.13		mg/Kg-dry	1	03/28/13 10:12 AM
Sulfate	188	10.3	10.3		mg/Kg-dry	1	03/28/13 10:12 AM
PH OF SOLID (CORROSIVITY)		SW90	45D				Analyst: JCG
рН	8.22	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	3.50	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrativ

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL
Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-6 10-12' **Lab ID:** 1303223-04 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0152	0.0381		mg/Kg-dry	1	04/02/13 01:24 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Aluminum	11700	112	112		mg/Kg-dry	50	03/29/13 11:22 PM
Arsenic	3.43	0.448	0.895		mg/Kg-dry	5	03/28/13 02:38 AM
Barium	55.0	0.448	1.79		mg/Kg-dry	5	03/28/13 02:38 AM
Boron	3.56	2.24	6.71	J	mg/Kg-dry	5	03/28/13 02:38 AM
Cadmium	ND	0.0895	0.269		mg/Kg-dry	5	03/28/13 02:38 AM
Chromium	7.68	0.448	1.79		mg/Kg-dry	5	03/30/13 03:59 AM
Cobalt	1.79	0.448	1.79	J	mg/Kg-dry	5	03/28/13 02:38 AM
Copper	2.19	0.448	1.79		mg/Kg-dry	5	03/30/13 03:59 AM
Iron	9690	112	112		mg/Kg-dry	50	03/29/13 11:22 PM
Lead	3.75	0.0895	0.269		mg/Kg-dry	5	03/28/13 02:38 AM
Manganese	124	0.448	1.79		mg/Kg-dry	5	03/28/13 02:38 AM
Molybdenum	ND	0.448	1.79		mg/Kg-dry	5	03/28/13 02:38 AM
Nickel	6.21	0.448	1.79		mg/Kg-dry	5	03/28/13 02:38 AM
Selenium	0.945	0.134	0.448		mg/Kg-dry	5	03/28/13 02:38 AM
Silver	ND	0.0895	0.179		mg/Kg-dry	5	03/28/13 02:38 AM
Zinc	13.0	0.895	2.24		mg/Kg-dry	5	03/28/13 02:38 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0100	0.0266	N	mg/Kg-dry	1	03/28/13 10:47 PM
2-Methylnaphthalene	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
Naphthalene	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
Benzo[a]pyrene	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2,3,4,6-Tetrachlorophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2,4,5-Trichlorophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2,4,6-Trichlorophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2,4-Dichlorophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2,4-Dimethylphenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2,4-Dinitrophenol	ND	0.0500	0.132		mg/Kg-dry	1	03/28/13 10:47 PM
2,6-Dichlorophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2-Chlorophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2-Methylphenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2-Nitrophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
4,6-Dinitro-2-methylphenol	ND	0.0300	0.0661		mg/Kg-dry	1	03/28/13 10:47 PM
4-Chloro-3-methylphenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
4-Methylphenol	ND	0.0200	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
4-Nitrophenol	ND	0.0500	0.132		mg/Kg-dry	1	03/28/13 10:47 PM

Qualifiers:

Date: 03-Apr-13

Not Detected at the Method Detection Limit

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-6 10-12' **Lab ID:** 1303223-04 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	.70D				Analyst: AJR
Pentachlorophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
Phenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
Total Phenol (Calculated)	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
Surr: 2,4,6-Tribromophenol	78.0	0	45-126		%REC	1	03/28/13 10:47 PM
Surr: 2-Fluorobiphenyl	79.0	0	60-125		%REC	1	03/28/13 10:47 PM
Surr: 2-Fluorophenol	88.0	0	37-125		%REC	1	03/28/13 10:47 PM
Surr: 4-Terphenyl-d14	84.0	0	45-125		%REC	1	03/28/13 10:47 PM
Surr: Nitrobenzene-d5	81.0	0	45-125		%REC	1	03/28/13 10:47 PM
Surr: Phenol-d6	80.0	0	40-125		%REC	1	03/28/13 10:47 PM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0167	0.0334		mg/Kg-dry	1	03/28/13 09:31 PM
Aroclor 1221	ND	0.0167	0.0334		mg/Kg-dry	1	03/28/13 09:31 PM
Aroclor 1232	ND	0.0167	0.0334		mg/Kg-dry	1	03/28/13 09:31 PM
Aroclor 1242	ND	0.0167	0.0334		mg/Kg-dry	1	03/28/13 09:31 PM
Aroclor 1248	ND	0.0167	0.0334		mg/Kg-dry	1	03/28/13 09:31 PM
Aroclor 1254	ND	0.0167	0.0334		mg/Kg-dry	1	03/28/13 09:31 PM
Aroclor 1260	ND	0.0167	0.0334		mg/Kg-dry	1	03/28/13 09:31 PM
Surr: 2-Fluorobiphenyl	74.6	0	43-125		%REC	1	03/28/13 09:31 PM
Surr: 4-Terphenyl-d14	80.5	0	32-125		%REC	1	03/28/13 09:31 PM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Toluene	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Carbon tetrachloride	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
1,2-Dichloroethane	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
1,1-Dichloroethylene	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Tetrachloroethylene	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Trichloroethylene	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Ethylbenzene	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Total Xylenes	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Methylene chloride	ND	0.00480	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Chloroform	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
1,1-Dichloroethane	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Ethylene bromide	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
1,1,1-Trichloroethane	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
1,1,2-Trichloroethane	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
1,1,2,2-Tetrachloroethane	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Vinyl chloride	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM

Qualifiers:

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Date: 03-Apr-13

Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-6 10-12'
Project: R360 Artesia Landfarm Lab ID: 1303223-04

Project No: 11-0109-09 **Collection Date:** 03/22/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Surr: 1,2-Dichloroethane-d4	105	0	52-149		%REC	1	03/28/13 01:17 PM
Surr: 4-Bromofluorobenzene	105	0	84-118		%REC	1	03/28/13 01:17 PM
Surr: Dibromofluoromethane	99.8	0	65-135		%REC	1	03/28/13 01:17 PM
Surr: Toluene-d8	105	0	84-116		%REC	1	03/28/13 01:17 PM
TRPH		E418.1					
Petroleum Hydrocarbons, TR	140	5.09	10.2	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90)14				Analyst: JCG
Cyanide, Total	ND	0.175	0.438		mg/Kg-dry	1	03/28/13 04:45 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	1220	50.6	50.6		mg/Kg-dry	10	03/28/13 03:26 PM
Fluoride	1.23	1.01	1.01		mg/Kg-dry	1	03/28/13 10:27 AM
Nitrate-N	ND	5.06	5.06		mg/Kg-dry	1	03/28/13 10:27 AM
Sulfate	174	10.1	10.1		mg/Kg-dry	1	03/28/13 10:27 AM
PH OF SOLID (CORROSIVITY)		SW90	45D				Analyst: JCG
рН	7.85	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	1.99	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrati
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-4 2-3'

Lab ID: 1303223-06 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 11:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	0.0174	0.0160	0.0400	J	mg/Kg-dry	1	04/02/13 01:27 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Aluminum	4050	125	125		mg/Kg-dry	50	03/29/13 11:28 PM
Arsenic	1.24	0.500	1.00		mg/Kg-dry	5	03/28/13 02:44 AM
Barium	34.0	0.500	2.00		mg/Kg-dry	5	03/28/13 02:44 AM
Boron	ND	2.50	7.50		mg/Kg-dry	5	03/28/13 02:44 AM
Cadmium	0.123	0.100	0.300	J	mg/Kg-dry	5	03/28/13 02:44 AM
Chromium	4.03	0.500	2.00		mg/Kg-dry	5	03/30/13 04:05 AM
Cobalt	0.967	0.500	2.00	J	mg/Kg-dry	5	03/28/13 02:44 AM
Copper	1.57	0.500	2.00	J	mg/Kg-dry	5	03/30/13 04:05 AM
Iron	4320	125	125		mg/Kg-dry	50	03/29/13 11:28 PM
Lead	2.14	0.100	0.300		mg/Kg-dry	5	03/28/13 02:44 AM
Manganese	39.0	0.500	2.00		mg/Kg-dry	5	03/28/13 02:44 AM
Molybdenum	ND	0.500	2.00		mg/Kg-dry	5	03/28/13 02:44 AM
Nickel	2.02	0.500	2.00		mg/Kg-dry	5	03/28/13 02:44 AM
Selenium	0.586	0.150	0.500		mg/Kg-dry	5	03/28/13 02:44 AM
Silver	ND	0.100	0.200		mg/Kg-dry	5	03/28/13 02:44 AM
Zinc	7.44	1.00	2.50		mg/Kg-dry	5	03/28/13 02:44 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0106	0.0283	N	mg/Kg-dry	1	03/28/13 11:10 PM
2-Methylnaphthalene	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
Naphthalene	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
Benzo[a]pyrene	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2,3,4,6-Tetrachlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2,4,5-Trichlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2,4,6-Trichlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2,4-Dichlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2,4-Dimethylphenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2,4-Dinitrophenol	ND	0.0531	0.140		mg/Kg-dry	1	03/28/13 11:10 PM
2,6-Dichlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2-Chlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2-Methylphenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2-Nitrophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
4,6-Dinitro-2-methylphenol	ND	0.0319	0.0701		mg/Kg-dry	1	03/28/13 11:10 PM
4-Chloro-3-methylphenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
4-Methylphenol	ND	0.0213	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
4-Nitrophenol	ND	0.0531	0.140		mg/Kg-dry	1	03/28/13 11:10 PM

Qualifiers:

Date: 03-Apr-13

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Not Detected at the Method Detection Limit

Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-4 2-3'

Lab ID: 1303223-06 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 11:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
Pentachlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
Phenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
Total Phenol (Calculated)	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
Surr: 2,4,6-Tribromophenol	82.0	0	45-126		%REC	1	03/28/13 11:10 PM
Surr: 2-Fluorobiphenyl	76.0	0	60-125		%REC	1	03/28/13 11:10 PM
Surr: 2-Fluorophenol	82.0	0	37-125		%REC	1	03/28/13 11:10 PM
Surr: 4-Terphenyl-d14	84.0	0	45-125		%REC	1	03/28/13 11:10 PM
Surr: Nitrobenzene-d5	78.0	0	45-125		%REC	1	03/28/13 11:10 PM
Surr: Phenol-d6	79.0	0	40-125		%REC	1	03/28/13 11:10 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0177	0.0354		mg/Kg-dry	1	03/28/13 10:03 PM
Aroclor 1221	ND	0.0177	0.0354		mg/Kg-dry	1	03/28/13 10:03 PM
Aroclor 1232	ND	0.0177	0.0354		mg/Kg-dry	1	03/28/13 10:03 PM
Aroclor 1242	ND	0.0177	0.0354		mg/Kg-dry	1	03/28/13 10:03 PM
Aroclor 1248	ND	0.0177	0.0354		mg/Kg-dry	1	03/28/13 10:03 PM
Aroclor 1254	ND	0.0177	0.0354		mg/Kg-dry	1	03/28/13 10:03 PM
Aroclor 1260	ND	0.0177	0.0354		mg/Kg-dry	1	03/28/13 10:03 PM
Surr: 2-Fluorobiphenyl	68.5	0	43-125		%REC	1	03/28/13 10:03 PM
Surr: 4-Terphenyl-d14	79.2	0	32-125		%REC	1	03/28/13 10:03 PM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Toluene	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Carbon tetrachloride	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
1,2-Dichloroethane	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
1,1-Dichloroethylene	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Tetrachloroethylene	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Trichloroethylene	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Ethylbenzene	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Total Xylenes	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Methylene chloride	ND	0.00501	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Chloroform	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
1,1-Dichloroethane	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Ethylene bromide	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
1,1,1-Trichloroethane	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
1,1,2-Trichloroethane	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
1,1,2,2-Tetrachloroethane	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Vinyl chloride	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM

Qualifiers:

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Date: 03-Apr-13

Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-4 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303223-06

Project No: 11-0109-09 **Collection Date:** 03/22/13 11:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Surr: 1,2-Dichloroethane-d4	102	0	52-149		%REC	1	03/28/13 01:48 PM
Surr: 4-Bromofluorobenzene	106	0	84-118		%REC	1	03/28/13 01:48 PM
Surr: Dibromofluoromethane	101	0	65-135		%REC	1	03/28/13 01:48 PM
Surr: Toluene-d8	104	0	84-116		%REC	1	03/28/13 01:48 PM
TRPH		E418	3.1				Analyst: JAW
Petroleum Hydrocarbons, TR	6.74	5.39	10.8	JN	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	014				Analyst: JCG
Cyanide, Total	ND	0.214	0.535		mg/Kg-dry	1	03/28/13 05:25 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	1010	53.1	53.1		mg/Kg-dry	10	03/28/13 04:10 PM
Fluoride	ND	1.06	1.06		mg/Kg-dry	1	03/28/13 10:41 AM
Nitrate-N	7.67	5.31	5.31		mg/Kg-dry	1	03/28/13 10:41 AM
Sulfate	82.7	10.6	10.6		mg/Kg-dry	1	03/28/13 10:41 AM
PH OF SOLID (CORROSIVITY)		SW90	45D				Analyst: JCG
рН	7.92	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	7.43	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrativ

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL
Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-4 5-7'

Lab ID: 1303223-07 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:05 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0142	0.0355		mg/Kg-dry	1	04/02/13 01:29 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Aluminum	4860	123	123		mg/Kg-dry	50	03/29/13 11:34 PM
Arsenic	1.12	0.490	0.980		mg/Kg-dry	5	03/28/13 02:50 AM
Barium	21.1	0.490	1.96		mg/Kg-dry	5	03/28/13 02:50 AM
Boron	ND	2.45	7.35		mg/Kg-dry	5	03/28/13 02:50 AM
Cadmium	ND	0.0980	0.294		mg/Kg-dry	5	03/28/13 02:50 AM
Chromium	4.70	0.490	1.96		mg/Kg-dry	5	03/30/13 04:11 AM
Cobalt	0.955	0.490	1.96	J	mg/Kg-dry	5	03/28/13 02:50 AM
Copper	1.66	0.490	1.96	J	mg/Kg-dry	5	03/30/13 04:11 AM
Iron	4750	123	123		mg/Kg-dry	50	03/29/13 11:34 PM
Lead	2.22	0.0980	0.294		mg/Kg-dry	5	03/28/13 02:50 AM
Manganese	37.4	0.490	1.96		mg/Kg-dry	5	03/28/13 02:50 AM
Molybdenum	ND	0.490	1.96		mg/Kg-dry	5	03/28/13 02:50 AM
Nickel	2.09	0.490	1.96		mg/Kg-dry	5	03/28/13 02:50 AM
Selenium	0.474	0.147	0.490	J	mg/Kg-dry	5	03/28/13 02:50 AM
Silver	ND	0.0980	0.196		mg/Kg-dry	5	03/28/13 02:50 AM
Zinc	8.03	0.980	2.45		mg/Kg-dry	5	03/28/13 02:50 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0101	0.0268	N	mg/Kg-dry	1	03/28/13 11:33 PM
2-Methylnaphthalene	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
Naphthalene	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
Benzo[a]pyrene	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2,3,4,6-Tetrachlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2,4,5-Trichlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2,4,6-Trichlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2,4-Dichlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2,4-Dimethylphenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2,4-Dinitrophenol	ND	0.0504	0.133		mg/Kg-dry	1	03/28/13 11:33 PM
2,6-Dichlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2-Chlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2-Methylphenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2-Nitrophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
4,6-Dinitro-2-methylphenol	ND	0.0302	0.0665		mg/Kg-dry	1	03/28/13 11:33 PM
4-Chloro-3-methylphenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
4-Methylphenol	ND	0.0202	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
4-Nitrophenol	ND	0.0504	0.133		mg/Kg-dry	1	03/28/13 11:33 PM

Qualifiers:

Date: 03-Apr-13

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Not Detected at the Method Detection Limit

Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-4 5-7'

Lab ID: 1303223-07 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:05 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
Pentachlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
Phenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
Total Phenol (Calculated)	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
Surr: 2,4,6-Tribromophenol	83.0	0	45-126		%REC	1	03/28/13 11:33 PM
Surr: 2-Fluorobiphenyl	80.0	0	60-125		%REC	1	03/28/13 11:33 PM
Surr: 2-Fluorophenol	86.0	0	37-125		%REC	1	03/28/13 11:33 PM
Surr: 4-Terphenyl-d14	78.0	0	45-125		%REC	1	03/28/13 11:33 PM
Surr: Nitrobenzene-d5	82.0	0	45-125		%REC	1	03/28/13 11:33 PM
Surr: Phenol-d6	84.0	0	40-125		%REC	1	03/28/13 11:33 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0168	0.0336		mg/Kg-dry	1	03/28/13 10:34 PM
Aroclor 1221	ND	0.0168	0.0336		mg/Kg-dry	1	03/28/13 10:34 PM
Aroclor 1232	ND	0.0168	0.0336		mg/Kg-dry	1	03/28/13 10:34 PM
Aroclor 1242	ND	0.0168	0.0336		mg/Kg-dry	1	03/28/13 10:34 PM
Aroclor 1248	ND	0.0168	0.0336		mg/Kg-dry	1	03/28/13 10:34 PM
Aroclor 1254	ND	0.0168	0.0336		mg/Kg-dry	1	03/28/13 10:34 PM
Aroclor 1260	ND	0.0168	0.0336		mg/Kg-dry	1	03/28/13 10:34 PM
Surr: 2-Fluorobiphenyl	70.5	0	43-125		%REC	1	03/28/13 10:34 PM
Surr: 4-Terphenyl-d14	80.2	0	32-125		%REC	1	03/28/13 10:34 PM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Toluene	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Carbon tetrachloride	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
1,2-Dichloroethane	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
1,1-Dichloroethylene	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Tetrachloroethylene	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Trichloroethylene	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Ethylbenzene	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Total Xylenes	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Methylene chloride	ND	0.00487	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Chloroform	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
1,1-Dichloroethane	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Ethylene bromide	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
1,1,1-Trichloroethane	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
1,1,2-Trichloroethane	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
1,1,2,2-Tetrachloroethane	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Vinyl chloride	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM

Qualifiers:

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern Е

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Date: 03-Apr-13

Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-4 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-07

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:05 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Surr: 1,2-Dichloroethane-d4	99.4	0	52-149		%REC	1	03/28/13 02:21 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 02:21 PM
Surr: Dibromofluoromethane	97.2	0	65-135		%REC	1	03/28/13 02:21 PM
Surr: Toluene-d8	104	0	84-116		%REC	1	03/28/13 02:21 PM
TRPH		E418	3.1				Analyst: JAW
Petroleum Hydrocarbons, TR	14.7	5.10	10.2	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	014				Analyst: JCG
Cyanide, Total	ND	0.203	0.507		mg/Kg-dry	1	03/28/13 04:45 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	466	50.6	50.6		mg/Kg-dry	10	03/28/13 04:25 PM
Fluoride	ND	1.01	1.01		mg/Kg-dry	1	03/28/13 10:56 AM
Nitrate-N	ND	5.06	5.06		mg/Kg-dry	1	03/28/13 10:56 AM
Sulfate	103	10.1	10.1		mg/Kg-dry	1	03/28/13 10:56 AM
PH OF SOLID (CORROSIVITY)		SW90	45D				Analyst: JCG
рН	7.75	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	1.93	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrativ

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL
Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-4 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303223-08

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:05 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0157	0.0393		mg/Kg-dry	1	04/02/13 01:31 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Aluminum	7650	124	124		mg/Kg-dry	50	03/29/13 11:40 PM
Arsenic	1.13	0.497	0.994		mg/Kg-dry	5	03/28/13 02:57 AM
Barium	37.9	0.497	1.99		mg/Kg-dry	5	03/28/13 02:57 AM
Boron	ND	2.49	7.46		mg/Kg-dry	5	03/28/13 02:57 AM
Cadmium	ND	0.0994	0.298		mg/Kg-dry	5	03/28/13 02:57 AM
Chromium	6.49	0.497	1.99		mg/Kg-dry	5	03/30/13 04:17 AM
Cobalt	1.61	0.497	1.99	J	mg/Kg-dry	5	03/28/13 02:57 AM
Copper	2.26	0.497	1.99		mg/Kg-dry	5	03/30/13 04:17 AM
Iron	6650	124	124		mg/Kg-dry	50	03/29/13 11:40 PM
Lead	3.10	0.0994	0.298		mg/Kg-dry	5	03/28/13 02:57 AM
Manganese	59.0	0.497	1.99		mg/Kg-dry	5	03/28/13 02:57 AM
Molybdenum	ND	0.497	1.99		mg/Kg-dry	5	03/28/13 02:57 AM
Nickel	3.66	0.497	1.99		mg/Kg-dry	5	03/28/13 02:57 AM
Selenium	0.762	0.149	0.497		mg/Kg-dry	5	03/28/13 02:57 AM
Silver	ND	0.0994	0.199		mg/Kg-dry	5	03/28/13 02:57 AM
Zinc	11.0	0.994	2.49		mg/Kg-dry	5	03/28/13 02:57 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0108	0.0288	N	mg/Kg-dry	1	03/28/13 11:57 PM
2-Methylnaphthalene	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
Naphthalene	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
Benzo[a]pyrene	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2,3,4,6-Tetrachlorophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2,4,5-Trichlorophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2,4,6-Trichlorophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2,4-Dichlorophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2,4-Dimethylphenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2,4-Dinitrophenol	ND	0.0542	0.143		mg/Kg-dry	1	03/28/13 11:57 PM
2,6-Dichlorophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2-Chlorophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2-Methylphenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2-Nitrophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
4,6-Dinitro-2-methylphenol	ND	0.0325	0.0715		mg/Kg-dry	1	03/28/13 11:57 PM
4-Chloro-3-methylphenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
4-Methylphenol	ND	0.0217	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
4-Nitrophenol	ND	0.0542	0.143		mg/Kg-dry	1	03/28/13 11:57 PM

Qualifiers:

Date: 03-Apr-13

^{*} Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

D'ha' E a

Analyte detected between MDL and RL Not Detected at the Method Detection Limit

Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-4 7-9'

Lab ID: 1303223-08 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:05 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
Pentachlorophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
Phenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
Total Phenol (Calculated)	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
Surr: 2,4,6-Tribromophenol	82.0	0	45-126		%REC	1	03/28/13 11:57 PM
Surr: 2-Fluorobiphenyl	76.0	0	60-125		%REC	1	03/28/13 11:57 PM
Surr: 2-Fluorophenol	83.0	0	37-125		%REC	1	03/28/13 11:57 PM
Surr: 4-Terphenyl-d14	83.0	0	45-125		%REC	1	03/28/13 11:57 PM
Surr: Nitrobenzene-d5	81.0	0	45-125		%REC	1	03/28/13 11:57 PM
Surr: Phenol-d6	82.0	0	40-125		%REC	1	03/28/13 11:57 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0181	0.0361		mg/Kg-dry	1	03/28/13 11:05 PM
Aroclor 1221	ND	0.0181	0.0361		mg/Kg-dry	1	03/28/13 11:05 PM
Aroclor 1232	ND	0.0181	0.0361		mg/Kg-dry	1	03/28/13 11:05 PM
Aroclor 1242	ND	0.0181	0.0361		mg/Kg-dry	1	03/28/13 11:05 PM
Aroclor 1248	ND	0.0181	0.0361		mg/Kg-dry	1	03/28/13 11:05 PM
Aroclor 1254	ND	0.0181	0.0361		mg/Kg-dry	1	03/28/13 11:05 PM
Aroclor 1260	ND	0.0181	0.0361		mg/Kg-dry	1	03/28/13 11:05 PM
Surr: 2-Fluorobiphenyl	64.8	0	43-125		%REC	1	03/28/13 11:05 PM
Surr: 4-Terphenyl-d14	77.3	0	32-125		%REC	1	03/28/13 11:05 PM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Toluene	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Carbon tetrachloride	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
1,2-Dichloroethane	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
1,1-Dichloroethylene	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Tetrachloroethylene	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Trichloroethylene	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Ethylbenzene	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Total Xylenes	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Methylene chloride	ND	0.00527	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Chloroform	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
1,1-Dichloroethane	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Ethylene bromide	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
1,1,1-Trichloroethane	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
1,1,2-Trichloroethane	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
1,1,2,2-Tetrachloroethane	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Vinyl chloride	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM

Qualifiers:

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Date: 03-Apr-13

Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-4 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303223-08

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:05 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Surr: 1,2-Dichloroethane-d4	101	0	52-149		%REC	1	03/28/13 02:54 PM
Surr: 4-Bromofluorobenzene	106	0	84-118		%REC	1	03/28/13 02:54 PM
Surr: Dibromofluoromethane	97.2	0	65-135		%REC	1	03/28/13 02:54 PM
Surr: Toluene-d8	105	0	84-116		%REC	1	03/28/13 02:54 PM
TRPH		E418	3.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.48	11.0	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	014				Analyst: JCG
Cyanide, Total	ND	0.199	0.497		mg/Kg-dry	1	03/28/13 04:46 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	1300	54.7	54.7		mg/Kg-dry	10	03/28/13 04:39 PM
Fluoride	1.66	1.09	1.09		mg/Kg-dry	1	03/28/13 12:01 PM
Nitrate-N	8.05	5.47	5.47		mg/Kg-dry	1	03/28/13 12:01 PM
Sulfate	ND	10.9	10.9		mg/Kg-dry	1	03/28/13 12:01 PM
PH OF SOLID (CORROSIVITY)		SW90	45D				Analyst: JCG
рΗ	7.64	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	9.39	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL
Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-4 10-12'

Lab ID: 1303223-09 **Project:** R360 Artesia Landfarm 11-0109-09 **Collection Date:** 03/22/13 12:10 PM

Project No:

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0152	0.0380		mg/Kg-dry	1	04/02/13 01:33 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Aluminum	5560	117	117		mg/Kg-dry	50	03/29/13 11:46 PM
Arsenic	0.686	0.466	0.933	J	mg/Kg-dry	5	03/28/13 03:03 AM
Barium	63.2	0.466	1.87		mg/Kg-dry	5	03/28/13 03:03 AM
Boron	ND	2.33	6.99		mg/Kg-dry	5	03/28/13 03:03 AM
Cadmium	ND	0.0933	0.280		mg/Kg-dry	5	03/28/13 03:03 AM
Chromium	5.04	0.466	1.87		mg/Kg-dry	5	03/30/13 04:24 AM
Cobalt	1.49	0.466	1.87	J	mg/Kg-dry	5	03/28/13 03:03 AM
Copper	1.62	0.466	1.87	J	mg/Kg-dry	5	03/30/13 04:24 AM
Iron	5580	117	117		mg/Kg-dry	50	03/29/13 11:46 PM
Lead	2.38	0.0933	0.280		mg/Kg-dry	5	03/28/13 03:03 AM
Manganese	25.5	0.466	1.87		mg/Kg-dry	5	03/28/13 03:03 AM
Molybdenum	ND	0.466	1.87		mg/Kg-dry	5	03/28/13 03:03 AM
Nickel	2.54	0.466	1.87		mg/Kg-dry	5	03/28/13 03:03 AM
Selenium	0.718	0.140	0.466		mg/Kg-dry	5	03/28/13 03:03 AM
Silver	ND	0.0933	0.187		mg/Kg-dry	5	03/28/13 03:03 AM
Zinc	8.21	0.933	2.33		mg/Kg-dry	5	03/28/13 03:03 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.00983	0.0261	N	mg/Kg-dry	1	03/29/13 12:20 AM
2-Methylnaphthalene	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
Naphthalene	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
Benzo[a]pyrene	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2,3,4,6-Tetrachlorophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2,4,5-Trichlorophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2,4,6-Trichlorophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2,4-Dichlorophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2,4-Dimethylphenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2,4-Dinitrophenol	ND	0.0491	0.130		mg/Kg-dry	1	03/29/13 12:20 AM
2,6-Dichlorophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2-Chlorophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2-Methylphenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2-Nitrophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
4,6-Dinitro-2-methylphenol	ND	0.0295	0.0649		mg/Kg-dry	1	03/29/13 12:20 AM
4-Chloro-3-methylphenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
4-Methylphenol	ND	0.0197	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
4-Nitrophenol	ND	0.0491	0.130		mg/Kg-dry	1	03/29/13 12:20 AM

Qualifiers:

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Date: 03-Apr-13

Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-4 10-12' **Lab ID:** 1303223-09 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:10 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: AJR
Pentachlorophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
Phenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
Total Phenol (Calculated)	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
Surr: 2,4,6-Tribromophenol	87.0	0	45-126		%REC	1	03/29/13 12:20 AM
Surr: 2-Fluorobiphenyl	82.0	0	60-125		%REC	1	03/29/13 12:20 AM
Surr: 2-Fluorophenol	86.0	0	37-125		%REC	1	03/29/13 12:20 AM
Surr: 4-Terphenyl-d14	89.0	0	45-125		%REC	1	03/29/13 12:20 AM
Surr: Nitrobenzene-d5	85.0	0	45-125		%REC	1	03/29/13 12:20 AM
Surr: Phenol-d6	84.0	0	40-125		%REC	1	03/29/13 12:20 AM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0164	0.0328		mg/Kg-dry	1	03/28/13 11:36 PM
Aroclor 1221	ND	0.0164	0.0328		mg/Kg-dry	1	03/28/13 11:36 PM
Aroclor 1232	ND	0.0164	0.0328		mg/Kg-dry	1	03/28/13 11:36 PM
Aroclor 1242	ND	0.0164	0.0328		mg/Kg-dry	1	03/28/13 11:36 PM
Aroclor 1248	ND	0.0164	0.0328		mg/Kg-dry	1	03/28/13 11:36 PM
Aroclor 1254	ND	0.0164	0.0328		mg/Kg-dry	1	03/28/13 11:36 PM
Aroclor 1260	ND	0.0164	0.0328		mg/Kg-dry	1	03/28/13 11:36 PM
Surr: 2-Fluorobiphenyl	73.2	0	43-125		%REC	1	03/28/13 11:36 PM
Surr: 4-Terphenyl-d14	82.4	0	32-125		%REC	1	03/28/13 11:36 PM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Toluene	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Carbon tetrachloride	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
1,2-Dichloroethane	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
1,1-Dichloroethylene	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Tetrachloroethylene	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Trichloroethylene	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Ethylbenzene	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Total Xylenes	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Methylene chloride	ND	0.00423	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Chloroform	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
1,1-Dichloroethane	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Ethylene bromide	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
1,1,1-Trichloroethane	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
1,1,2-Trichloroethane	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
1,1,2,2-Tetrachloroethane	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Vinyl chloride	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM

Qualifiers:

Date: 03-Apr-13

Not Detected at the Method Detection Limit

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-4 10-12'
Project: R360 Artesia Landfarm Lab ID: 1303223-09

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:10 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Surr: 1,2-Dichloroethane-d4	103	0	52-149		%REC	1	03/28/13 03:26 PM
Surr: 4-Bromofluorobenzene	103	0	84-118		%REC	1	03/28/13 03:26 PM
Surr: Dibromofluoromethane	95.4	0	65-135		%REC	1	03/28/13 03:26 PM
Surr: Toluene-d8	105	0	84-116		%REC	1	03/28/13 03:26 PM
TRPH		E418	3.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.22	10.4	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	014				Analyst: JCG
Cyanide, Total	ND	0.196	0.490		mg/Kg-dry	1	03/28/13 04:46 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	12.2	5.21	5.21		mg/Kg-dry	1	03/28/13 12:16 PM
Fluoride	4.90	1.04	1.04		mg/Kg-dry	1	03/28/13 12:16 PM
Nitrate-N	ND	5.21	5.21		mg/Kg-dry	1	03/28/13 12:16 PM
Sulfate	32.0	10.4	10.4		mg/Kg-dry	1	03/28/13 12:16 PM
PH OF SOLID (CORROSIVITY)		SW90	45D				Analyst: JCG
рН	8.25	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	4.26	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrati
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-10 2-3'

Lab ID: 1303223-11 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:15 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0156	0.0389		mg/Kg-dry	1	04/02/13 01:35 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Aluminum	4950	126	126		mg/Kg-dry	50	03/29/13 11:52 PM
Arsenic	1.47	0.503	1.01		mg/Kg-dry	5	03/28/13 03:09 AM
Barium	26.0	0.503	2.01		mg/Kg-dry	5	03/28/13 03:09 AM
Boron	ND	2.51	7.54		mg/Kg-dry	5	03/28/13 03:09 AM
Cadmium	ND	0.101	0.302		mg/Kg-dry	5	03/28/13 03:09 AM
Chromium	4.68	0.503	2.01		mg/Kg-dry	5	03/30/13 04:30 AM
Cobalt	1.02	0.503	2.01	J	mg/Kg-dry	5	03/28/13 03:09 AM
Copper	1.58	0.503	2.01	J	mg/Kg-dry	5	03/30/13 04:30 AM
Iron	5180	126	126		mg/Kg-dry	50	03/29/13 11:52 PM
Lead	2.56	0.101	0.302		mg/Kg-dry	5	03/28/13 03:09 AM
Manganese	41.2	0.503	2.01		mg/Kg-dry	5	03/28/13 03:09 AM
Molybdenum	ND	0.503	2.01		mg/Kg-dry	5	03/28/13 03:09 AM
Nickel	2.19	0.503	2.01		mg/Kg-dry	5	03/28/13 03:09 AM
Selenium	0.559	0.151	0.503		mg/Kg-dry	5	03/28/13 03:09 AM
Silver	ND	0.101	0.201		mg/Kg-dry	5	03/28/13 03:09 AM
Zinc	7.81	1.01	2.51		mg/Kg-dry	5	03/28/13 03:09 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0112	0.0297	N	mg/Kg-dry	1	03/29/13 12:43 AM
2-Methylnaphthalene	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
Naphthalene	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
Benzo[a]pyrene	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2,3,4,6-Tetrachlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2,4,5-Trichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2,4,6-Trichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2,4-Dichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2,4-Dimethylphenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2,4-Dinitrophenol	ND	0.0559	0.148		mg/Kg-dry	1	03/29/13 12:43 AM
2,6-Dichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2-Chlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2-Methylphenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2-Nitrophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
4,6-Dinitro-2-methylphenol	ND	0.0335	0.0738		mg/Kg-dry	1	03/29/13 12:43 AM
4-Chloro-3-methylphenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
4-Methylphenol	ND	0.0224	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
4-Nitrophenol	ND	0.0559	0.148		mg/Kg-dry	1	03/29/13 12:43 AM

Qualifiers:

Date: 03-Apr-13

Not Detected at the Method Detection Limit

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 2-3'

Lab ID: 1303223-11 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:15 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
Pentachlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
Phenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
Total Phenol (Calculated)	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
Surr: 2,4,6-Tribromophenol	93.0	0	45-126		%REC	1	03/29/13 12:43 AM
Surr: 2-Fluorobiphenyl	86.0	0	60-125		%REC	1	03/29/13 12:43 AM
Surr: 2-Fluorophenol	92.0	0	37-125		%REC	1	03/29/13 12:43 AM
Surr: 4-Terphenyl-d14	97.0	0	45-125		%REC	1	03/29/13 12:43 AM
Surr: Nitrobenzene-d5	93.0	0	45-125		%REC	1	03/29/13 12:43 AM
Surr: Phenol-d6	87.0	0	40-125		%REC	1	03/29/13 12:43 AM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 12:07 AM
Aroclor 1221	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 12:07 AM
Aroclor 1232	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 12:07 AM
Aroclor 1242	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 12:07 AM
Aroclor 1248	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 12:07 AM
Aroclor 1254	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 12:07 AM
Aroclor 1260	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 12:07 AM
Surr: 2-Fluorobiphenyl	68.2	0	43-125		%REC	1	03/29/13 12:07 AM
Surr: 4-Terphenyl-d14	76.7	0	32-125		%REC	1	03/29/13 12:07 AM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Toluene	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Carbon tetrachloride	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
1,2-Dichloroethane	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
1,1-Dichloroethylene	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Tetrachloroethylene	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Trichloroethylene	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Ethylbenzene	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Total Xylenes	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Methylene chloride	ND	0.00467	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Chloroform	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
1,1-Dichloroethane	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Ethylene bromide	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
1,1,1-Trichloroethane	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
1,1,2-Trichloroethane	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
1,1,2,2-Tetrachloroethane	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Vinyl chloride	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM

Qualifiers:

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Date: 03-Apr-13

Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-10 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303223-11

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:15 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Surr: 1,2-Dichloroethane-d4	101	0	52-149		%REC	1	03/28/13 03:58 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 03:58 PM
Surr: Dibromofluoromethane	97.0	0	65-135		%REC	1	03/28/13 03:58 PM
Surr: Toluene-d8	105	0	84-116		%REC	1	03/28/13 03:58 PM
TRPH		E418	3.1				Analyst: JAW
Petroleum Hydrocarbons, TR	23.7	5.75	11.5	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	014				Analyst: JCG
Cyanide, Total	ND	0.190	0.474		mg/Kg-dry	1	03/28/13 04:46 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	244	5.78	5.78		mg/Kg-dry	1	03/28/13 12:30 PM
Fluoride	ND	1.16	1.16		mg/Kg-dry	1	03/28/13 12:30 PM
Nitrate-N	ND	5.78	5.78		mg/Kg-dry	1	03/28/13 12:30 PM
Sulfate	253	11.6	11.6		mg/Kg-dry	1	03/28/13 12:30 PM
PH OF SOLID (CORROSIVITY)		SW90	45D				Analyst: JCG
рН	7.81	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	13.5	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrati
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL
Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-10 5-7'

Lab ID: 1303223-12 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:25 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0160	0.0401		mg/Kg-dry	1	04/02/13 01:37 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Aluminum	20200	111	111		mg/Kg-dry	50	03/29/13 11:59 PM
Arsenic	4.06	0.442	0.885		mg/Kg-dry	5	03/28/13 03:15 AM
Barium	57.5	0.442	1.77		mg/Kg-dry	5	03/28/13 03:15 AM
Boron	5.04	2.21	6.63	J	mg/Kg-dry	5	03/28/13 03:15 AM
Cadmium	0.143	0.0885	0.265	J	mg/Kg-dry	5	03/28/13 03:15 AM
Chromium	12.0	0.442	1.77		mg/Kg-dry	5	03/30/13 04:36 AM
Cobalt	2.48	0.442	1.77		mg/Kg-dry	5	03/28/13 03:15 AM
Copper	3.21	0.442	1.77		mg/Kg-dry	5	03/30/13 04:36 AM
Iron	13900	111	111		mg/Kg-dry	50	03/29/13 11:59 PM
Lead	5.86	0.0885	0.265		mg/Kg-dry	5	03/28/13 03:15 AM
Manganese	67.4	0.442	1.77		mg/Kg-dry	5	03/28/13 03:15 AM
Molybdenum	ND	0.442	1.77		mg/Kg-dry	5	03/28/13 03:15 AM
Nickel	6.93	0.442	1.77		mg/Kg-dry	5	03/28/13 03:15 AM
Selenium	1.25	0.133	0.442		mg/Kg-dry	5	03/28/13 03:15 AM
Silver	ND	0.0885	0.177		mg/Kg-dry	5	03/28/13 03:15 AM
Zinc	25.7	0.885	2.21		mg/Kg-dry	5	03/28/13 03:15 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.00989	0.0263	N	mg/Kg-dry	1	03/29/13 01:06 AM
2-Methylnaphthalene	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
Naphthalene	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
Benzo[a]pyrene	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2,3,4,6-Tetrachlorophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2,4,5-Trichlorophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2,4,6-Trichlorophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2,4-Dichlorophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2,4-Dimethylphenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2,4-Dinitrophenol	ND	0.0495	0.131		mg/Kg-dry	1	03/29/13 01:06 AM
2,6-Dichlorophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2-Chlorophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2-Methylphenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2-Nitrophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
4,6-Dinitro-2-methylphenol	ND	0.0297	0.0653		mg/Kg-dry	1	03/29/13 01:06 AM
4-Chloro-3-methylphenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
4-Methylphenol	ND	0.0198	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
4-Nitrophenol	ND	0.0495	0.131		mg/Kg-dry	1	03/29/13 01:06 AM

Qualifiers:

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Date: 03-Apr-13

Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-10 5-7'

Lab ID: 1303223-12 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:25 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	.70D				Analyst: AJR
Pentachlorophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
Phenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
Total Phenol (Calculated)	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
Surr: 2,4,6-Tribromophenol	82.0	0	45-126		%REC	1	03/29/13 01:06 AM
Surr: 2-Fluorobiphenyl	75.0	0	60-125		%REC	1	03/29/13 01:06 AM
Surr: 2-Fluorophenol	81.0	0	37-125		%REC	1	03/29/13 01:06 AM
Surr: 4-Terphenyl-d14	69.0	0	45-125		%REC	1	03/29/13 01:06 AM
Surr: Nitrobenzene-d5	80.0	0	45-125		%REC	1	03/29/13 01:06 AM
Surr: Phenol-d6	76.0	0	40-125		%REC	1	03/29/13 01:06 AM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0165	0.0330		mg/Kg-dry	1	03/29/13 12:38 AM
Aroclor 1221	ND	0.0165	0.0330		mg/Kg-dry	1	03/29/13 12:38 AM
Aroclor 1232	ND	0.0165	0.0330		mg/Kg-dry	1	03/29/13 12:38 AM
Aroclor 1242	ND	0.0165	0.0330		mg/Kg-dry	1	03/29/13 12:38 AM
Aroclor 1248	ND	0.0165	0.0330		mg/Kg-dry	1	03/29/13 12:38 AM
Aroclor 1254	ND	0.0165	0.0330		mg/Kg-dry	1	03/29/13 12:38 AM
Aroclor 1260	ND	0.0165	0.0330		mg/Kg-dry	1	03/29/13 12:38 AM
Surr: 2-Fluorobiphenyl	70.6	0	43-125		%REC	1	03/29/13 12:38 AM
Surr: 4-Terphenyl-d14	84.7	0	32-125		%REC	1	03/29/13 12:38 AM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Toluene	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Carbon tetrachloride	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
1,2-Dichloroethane	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
1,1-Dichloroethylene	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Tetrachloroethylene	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Trichloroethylene	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Ethylbenzene	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Total Xylenes	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Methylene chloride	ND	0.00478	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Chloroform	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
1,1-Dichloroethane	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Ethylene bromide	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
1,1,1-Trichloroethane	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
1,1,2-Trichloroethane	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
1,1,2,2-Tetrachloroethane	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Vinyl chloride	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM

Qualifiers:

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern Е

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Date: 03-Apr-13

Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-10 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-12

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:25 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW82		Analyst: KL			
Surr: 1,2-Dichloroethane-d4	104	0	52-149		%REC	1	03/28/13 04:33 PM
Surr: 4-Bromofluorobenzene	102	0	84-118		%REC	1	03/28/13 04:33 PM
Surr: Dibromofluoromethane	97.0	0	65-135		%REC	1	03/28/13 04:33 PM
Surr: Toluene-d8	103	0	84-116		%REC	1	03/28/13 04:33 PM
TRPH	E418.1						Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.16	10.3	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90		Analyst: JCG			
Cyanide, Total	ND	0.169	0.422		mg/Kg-dry	1	03/28/13 04:48 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	81.2	5.17	5.17		mg/Kg-dry	1	03/28/13 12:45 PM
Fluoride	ND	1.03	1.03		mg/Kg-dry	1	03/28/13 12:45 PM
Nitrate-N	ND	5.17	5.17		mg/Kg-dry	1	03/28/13 12:45 PM
Sulfate	80.0	10.3	10.3		mg/Kg-dry	1	03/28/13 12:45 PM
PH OF SOLID (CORROSIVITY)	SW9045D						Analyst: JCG
рН	7.25	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	3.37	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-10 7-9'

Lab ID: 1303223-13 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:25 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	0.0164	0.0152	0.0379	J	mg/Kg-dry	1	04/02/13 01:39 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Aluminum	20500	127	127		mg/Kg-dry	50	03/30/13 01:37 AM
Arsenic	3.92	0.510	1.02		mg/Kg-dry	5	03/28/13 04:42 AM
Barium	93.8	0.510	2.04		mg/Kg-dry	5	03/28/13 04:42 AM
Boron	6.68	2.55	7.64	J	mg/Kg-dry	5	03/28/13 04:42 AM
Cadmium	0.169	0.102	0.306	J	mg/Kg-dry	5	03/28/13 04:42 AM
Chromium	11.9	0.510	2.04		mg/Kg-dry	5	04/01/13 03:18 PM
Cobalt	3.14	0.510	2.04		mg/Kg-dry	5	03/28/13 04:42 AM
Copper	3.07	0.510	2.04		mg/Kg-dry	5	04/01/13 03:18 PM
Iron	13700	127	127		mg/Kg-dry	50	03/30/13 01:37 AM
Lead	6.41	0.102	0.306		mg/Kg-dry	5	03/28/13 04:42 AM
Manganese	82.7	0.510	2.04		mg/Kg-dry	5	03/28/13 04:42 AM
Molybdenum	ND	0.510	2.04		mg/Kg-dry	5	03/28/13 04:42 AM
Nickel	9.26	0.510	2.04		mg/Kg-dry	5	03/28/13 04:42 AM
Selenium	1.31	0.153	0.510		mg/Kg-dry	5	03/28/13 04:42 AM
Silver	ND	0.102	0.204		mg/Kg-dry	5	03/28/13 04:42 AM
Zinc	22.2	1.02	2.55		mg/Kg-dry	5	03/28/13 04:42 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0109	0.0290	N	mg/Kg-dry	1	03/29/13 01:29 AM
2-Methylnaphthalene	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
Naphthalene	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
Benzo[a]pyrene	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2,3,4,6-Tetrachlorophenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2,4,5-Trichlorophenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2,4,6-Trichlorophenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2,4-Dichlorophenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2,4-Dimethylphenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2,4-Dinitrophenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
•	ND	0.0340	0.0290			1	03/29/13 01:29 AM
2,6-Dichlorophenol	ND ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2-Chlorophenol 2-Methylphenol	ND ND	0.0109			mg/Kg-dry mg/Kg-dry		03/29/13 01:29 AM 03/29/13 01:29 AM
	ND ND	0.0109	0.0290 0.0290			1 1	03/29/13 01:29 AM 03/29/13 01:29 AM
2-Nitrophenol	ND ND		0.0290		mg/Kg-dry		
4,6-Dinitro-2-methylphenol		0.0328	0.0721		mg/Kg-dry	1	03/29/13 01:29 AM
4-Chloro-3-methylphenol	ND	0.0109			mg/Kg-dry	1	03/29/13 01:29 AM
4-Methylphenol	ND	0.0218	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
4-Nitrophenol	ND	0.0546	0.144		mg/Kg-dry	1	03/29/13 01:29 AM

Qualifiers:

Date: 03-Apr-13

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern Е

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Not Detected at the Method Detection Limit

Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 7-9'

Lab ID: 1303223-13 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:25 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
Pentachlorophenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
Phenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
Total Phenol (Calculated)	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
Surr: 2,4,6-Tribromophenol	85.0	0	45-126		%REC	1	03/29/13 01:29 AM
Surr: 2-Fluorobiphenyl	79.0	0	60-125		%REC	1	03/29/13 01:29 AM
Surr: 2-Fluorophenol	84.0	0	37-125		%REC	1	03/29/13 01:29 AM
Surr: 4-Terphenyl-d14	81.0	0	45-125		%REC	1	03/29/13 01:29 AM
Surr: Nitrobenzene-d5	82.0	0	45-125		%REC	1	03/29/13 01:29 AM
Surr: Phenol-d6	81.0	0	40-125		%REC	1	03/29/13 01:29 AM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0182	0.0364		mg/Kg-dry	1	03/29/13 01:09 AM
Aroclor 1221	ND	0.0182	0.0364		mg/Kg-dry	1	03/29/13 01:09 AM
Aroclor 1232	ND	0.0182	0.0364		mg/Kg-dry	1	03/29/13 01:09 AM
Aroclor 1242	ND	0.0182	0.0364		mg/Kg-dry	1	03/29/13 01:09 AM
Aroclor 1248	ND	0.0182	0.0364		mg/Kg-dry	1	03/29/13 01:09 AM
Aroclor 1254	ND	0.0182	0.0364		mg/Kg-dry	1	03/29/13 01:09 AM
Aroclor 1260	ND	0.0182	0.0364		mg/Kg-dry	1	03/29/13 01:09 AM
Surr: 2-Fluorobiphenyl	64.4	0	43-125		%REC	1	03/29/13 01:09 AM
Surr: 4-Terphenyl-d14	75.8	0	32-125		%REC	1	03/29/13 01:09 AM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Toluene	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Carbon tetrachloride	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
1,2-Dichloroethane	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
1,1-Dichloroethylene	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Tetrachloroethylene	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Trichloroethylene	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Ethylbenzene	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Total Xylenes	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Methylene chloride	ND	0.00520	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Chloroform	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
1,1-Dichloroethane	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Ethylene bromide	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
1,1,1-Trichloroethane	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
1,1,2-Trichloroethane	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
1,1,2,2-Tetrachloroethane	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Vinyl chloride	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM

Qualifiers:

Date: 03-Apr-13

Not Detected at the Method Detection Limit

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303223-13

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:25 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Surr: 1,2-Dichloroethane-d4	106	0	52-149		%REC	1	03/28/13 05:06 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 05:06 PM
Surr: Dibromofluoromethane	98.4	0	65-135		%REC	1	03/28/13 05:06 PM
Surr: Toluene-d8	103	0	84-116		%REC	1	03/28/13 05:06 PM
TRPH		E418		Analyst: JAW			
Petroleum Hydrocarbons, TR	ND	5.59	11.2	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	Analyst: JCG				
Cyanide, Total	ND	0.177	0.441		mg/Kg-dry	1	03/28/13 04:48 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	99.2	5.50	5.50		mg/Kg-dry	1	03/28/13 12:59 PM
Fluoride	1.67	1.10	1.10		mg/Kg-dry	1	03/28/13 12:59 PM
Nitrate-N	ND	5.50	5.50		mg/Kg-dry	1	03/28/13 12:59 PM
Sulfate	19.0	11.0	11.0		mg/Kg-dry	1	03/28/13 12:59 PM
PH OF SOLID (CORROSIVITY)		SW90	45D				Analyst: JCG
рН	7.31	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	10.8	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrativ

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL
Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-10 10-12'

Lab ID: 1303223-14 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:40 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0171	0.0426		mg/Kg-dry	1	04/02/13 01:41 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Aluminum	5480	131	131		mg/Kg-dry	50	03/30/13 01:43 AM
Arsenic	2.39	0.524	1.05		mg/Kg-dry	5	03/28/13 04:48 AM
Barium	151	0.524	2.10		mg/Kg-dry	5	03/28/13 04:48 AM
Boron	4.17	2.62	7.86	J	mg/Kg-dry	5	03/28/13 04:48 AM
Cadmium	0.117	0.105	0.314	J	mg/Kg-dry	5	03/28/13 04:48 AM
Chromium	5.17	0.524	2.10		mg/Kg-dry	5	04/01/13 03:24 PM
Cobalt	1.04	0.524	2.10	J	mg/Kg-dry	5	03/28/13 04:48 AM
Copper	1.84	0.524	2.10	J	mg/Kg-dry	5	04/01/13 03:24 PM
Iron	4920	131	131		mg/Kg-dry	50	03/30/13 01:43 AM
Lead	2.33	0.105	0.314		mg/Kg-dry	5	03/28/13 04:48 AM
Manganese	44.1	0.524	2.10		mg/Kg-dry	5	03/28/13 04:48 AM
Molybdenum	ND	0.524	2.10		mg/Kg-dry	5	03/28/13 04:48 AM
Nickel	3.29	0.524	2.10		mg/Kg-dry	5	03/28/13 04:48 AM
Selenium	0.825	0.157	0.524		mg/Kg-dry	5	03/28/13 04:48 AM
Silver	ND	0.105	0.210		mg/Kg-dry	5	03/28/13 04:48 AM
Zinc	7.19	1.05	2.62		mg/Kg-dry	5	03/28/13 04:48 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0110	0.0293	N	mg/Kg-dry	1	03/29/13 01:52 AM
2-Methylnaphthalene	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
Naphthalene	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
Benzo[a]pyrene	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2,3,4,6-Tetrachlorophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2,4,5-Trichlorophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2,4,6-Trichlorophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2,4-Dichlorophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2,4-Dimethylphenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2,4-Dinitrophenol	ND	0.0550	0.145		mg/Kg-dry	1	03/29/13 01:52 AM
2,6-Dichlorophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2-Chlorophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2-Methylphenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2-Nitrophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
4,6-Dinitro-2-methylphenol	ND	0.0330	0.0726		mg/Kg-dry	1	03/29/13 01:52 AM
4-Chloro-3-methylphenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
4-Methylphenol	ND	0.0220	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
4-Nitrophenol	ND	0.0550	0.145		mg/Kg-dry	1	03/29/13 01:52 AM

Qualifiers:

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern Е

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Date: 03-Apr-13

Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-10 10-12'

Lab ID: 1303223-14 **Project:** R360 Artesia Landfarm **Project No:** 11-0109-09 **Collection Date:** 03/22/13 03:40 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: AJR
Pentachlorophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
Phenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
Total Phenol (Calculated)	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
Surr: 2,4,6-Tribromophenol	82.0	0	45-126		%REC	1	03/29/13 01:52 AM
Surr: 2-Fluorobiphenyl	75.0	0	60-125		%REC	1	03/29/13 01:52 AM
Surr: 2-Fluorophenol	81.0	0	37-125		%REC	1	03/29/13 01:52 AM
Surr: 4-Terphenyl-d14	80.0	0	45-125		%REC	1	03/29/13 01:52 AM
Surr: Nitrobenzene-d5	79.0	0	45-125		%REC	1	03/29/13 01:52 AM
Surr: Phenol-d6	80.0	0	40-125		%REC	1	03/29/13 01:52 AM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0183	0.0367		mg/Kg-dry	1	03/29/13 01:40 AM
Aroclor 1221	ND	0.0183	0.0367		mg/Kg-dry	1	03/29/13 01:40 AM
Aroclor 1232	ND	0.0183	0.0367		mg/Kg-dry	1	03/29/13 01:40 AM
Aroclor 1242	ND	0.0183	0.0367		mg/Kg-dry	1	03/29/13 01:40 AM
Aroclor 1248	ND	0.0183	0.0367		mg/Kg-dry	1	03/29/13 01:40 AM
Aroclor 1254	ND	0.0183	0.0367		mg/Kg-dry	1	03/29/13 01:40 AM
Aroclor 1260	ND	0.0183	0.0367		mg/Kg-dry	1	03/29/13 01:40 AM
Surr: 2-Fluorobiphenyl	66.9	0	43-125		%REC	1	03/29/13 01:40 AM
Surr: 4-Terphenyl-d14	76.0	0	32-125		%REC	1	03/29/13 01:40 AM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Toluene	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Carbon tetrachloride	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
1,2-Dichloroethane	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
1,1-Dichloroethylene	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Tetrachloroethylene	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Trichloroethylene	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Ethylbenzene	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Total Xylenes	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Methylene chloride	ND	0.00471	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Chloroform	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
1,1-Dichloroethane	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Ethylene bromide	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
1,1,1-Trichloroethane	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
1,1,2-Trichloroethane	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
1,1,2,2-Tetrachloroethane	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Vinyl chloride	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM

Qualifiers:

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Date: 03-Apr-13

Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-10 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303223-14

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:40 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW82		Analyst: KL			
Surr: 1,2-Dichloroethane-d4	106	0	52-149		%REC	1	03/28/13 05:40 PM
Surr: 4-Bromofluorobenzene	105	0	84-118		%REC	1	03/28/13 05:40 PM
Surr: Dibromofluoromethane	95.8	0	65-135		%REC	1	03/28/13 05:40 PM
Surr: Toluene-d8	103	0	84-116		%REC	1	03/28/13 05:40 PM
TRPH		E418		Analyst: JAW			
Petroleum Hydrocarbons, TR	ND	5.49	11.0	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90		Analyst: JCG			
Cyanide, Total	ND	0.183	0.457		mg/Kg-dry	1	03/28/13 04:48 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	19.2	5.49	5.49		mg/Kg-dry	1	03/28/13 01:14 PM
Fluoride	11.0	1.10	1.10		mg/Kg-dry	1	03/28/13 01:14 PM
Nitrate-N	ND	5.49	5.49		mg/Kg-dry	1	03/28/13 01:14 PM
Sulfate	58.3	11.0	11.0		mg/Kg-dry	1	03/28/13 01:14 PM
PH OF SOLID (CORROSIVITY)		SW9045D					Analyst: JCG
рН	8.38	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	9.98	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrativ

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL
Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-10 9-10'

Lab ID: 1303223-15 **Project:** R360 Artesia Landfarm **Project No:** 11-0109-09 **Collection Date:** 03/22/13 03:23 PM

Lab Order: 1303223 Matrix: SOIL

TOTAL MERCURY: SOIL/SOLID Mercury 0.0213 TRACE METALS: ICP-MS - SOLID Aluminum 9010 Arsenic 2.12 Barium 411 Boron 7.53 Cadmium 0.103 Chromium 6.06 Cobalt 1.17 Copper 3.13 Iron 6180 Lead 2.89 Manganese 38.0 Molybdenum ND Nickel 5.29 Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	SW74 0.0170 SW60 124 0.497	0.0424	J	mg/Kg-dry		Analyst: LM
TRACE METALS: ICP-MS - SOLID Aluminum 9010 Arsenic 2.12 Barium 411 Boron 7.53 Cadmium 0.103 Chromium 6.06 Cobalt 1.17 Copper 3.13 Iron 6180 Lead 2.89 Manganese 38.0 Molybdenum ND Nickel 5.29 Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	SW60 124 0.497	20A	J	ma/Ka-drv		
Aluminum 9010 Arsenic 2.12 Barium 411 Boron 7.53 Cadmium 0.103 Chromium 6.06 Cobalt 1.17 Copper 3.13 Iron 6180 Lead 2.89 Manganese 38.0 Molybdenum ND Nickel 5.29 Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND 2-Methylnaphthalene ND	124 0.497	-		- G	1	04/02/13 01:43 PM
Arsenic 2.12 Barium 411 Boron 7.53 Cadmium 0.103 Chromium 6.06 Cobalt 1.17 Copper 3.13 Iron 6180 Lead 2.89 Manganese 38.0 Molybdenum ND Nickel 5.29 Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	0.497	124				Analyst: SW
Barium 411 Boron 7.53 Cadmium 0.103 Chromium 6.06 Cobalt 1.17 Copper 3.13 Iron 6180 Lead 2.89 Manganese 38.0 Molybdenum ND Nickel 5.29 Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND				mg/Kg-dry	50	03/30/13 01:50 AM
Boron 7.53 Cadmium 0.103 Chromium 6.06 Cobalt 1.17 Copper 3.13 Iron 6180 Lead 2.89 Manganese 38.0 Molybdenum ND Nickel 5.29 Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND		0.995		mg/Kg-dry	5	03/28/13 04:54 AM
Cadmium 0.103 Chromium 6.06 Cobalt 1.17 Copper 3.13 Iron 6180 Lead 2.89 Manganese 38.0 Molybdenum ND Nickel 5.29 Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	0.497	1.99		mg/Kg-dry	5	03/28/13 04:54 AM
Chromium 6.06 Cobalt 1.17 Copper 3.13 Iron 6180 Lead 2.89 Manganese 38.0 Molybdenum ND Nickel 5.29 Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	2.49	7.46		mg/Kg-dry	5	03/28/13 04:54 AM
Cobalt 1.17 Copper 3.13 Iron 6180 Lead 2.89 Manganese 38.0 Molybdenum ND Nickel 5.29 Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	0.0995	0.298	J	mg/Kg-dry	5	03/28/13 04:54 AM
Copper 3.13 Iron 6180 Lead 2.89 Manganese 38.0 Molybdenum ND Nickel 5.29 Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	0.497	1.99		mg/Kg-dry	5	04/01/13 03:30 PM
Iron 6180 Lead 2.89 Manganese 38.0 Molybdenum ND Nickel 5.29 Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	0.497	1.99	J	mg/Kg-dry	5	03/28/13 04:54 AM
Lead 2.89 Manganese 38.0 Molybdenum ND Nickel 5.29 Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	0.497	1.99		mg/Kg-dry	5	04/01/13 03:30 PM
Manganese 38.0 Molybdenum ND Nickel 5.29 Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	124	124		mg/Kg-dry	50	03/30/13 01:50 AM
Molybdenum ND Nickel 5.29 Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	0.0995	0.298		mg/Kg-dry	5	03/28/13 04:54 AM
Nickel 5.29 Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	0.497	1.99		mg/Kg-dry	5	03/28/13 04:54 AM
Selenium 0.714 Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	0.497	1.99		mg/Kg-dry	5	03/28/13 04:54 AM
Silver ND Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	0.497	1.99		mg/Kg-dry	5	03/28/13 04:54 AM
Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	0.149	0.497		mg/Kg-dry	5	03/28/13 04:54 AM
Zinc 9.17 SEMIVOLATILES BY GC/MS - SOIL 1-Methylnaphthalene ND 2-Methylnaphthalene ND	0.0995	0.199		mg/Kg-dry	5	03/28/13 04:54 AM
1-Methylnaphthalene ND 2-Methylnaphthalene ND	0.995	2.49		mg/Kg-dry	5	03/28/13 04:54 AM
2-Methylnaphthalene ND	SW82	70D				Analyst: AJR
, ,	0.0111	0.0294	N	mg/Kg-dry	1	03/29/13 02:15 AM
N 141 1	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
Naphthalene ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
Benzo[a]pyrene ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2,3,4,6-Tetrachlorophenol ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2,4,5-Trichlorophenol ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2,4,6-Trichlorophenol ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2,4-Dichlorophenol ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2,4-Dimethylphenol ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2,4-Dinitrophenol ND	0.0553	0.146		mg/Kg-dry	1	03/29/13 02:15 AM
2,6-Dichlorophenol ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2-Chlorophenol ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2-Methylphenol ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2-Nitrophenol ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
4,6-Dinitro-2-methylphenol ND	0.0332	0.0730		mg/Kg-dry	1	03/29/13 02:15 AM
4-Chloro-3-methylphenol ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
4-Methylphenol ND	0.0221	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
4-Nitrophenol ND	0.0553	0.0234		mg/Kg-dry	1	03/29/13 02:15 AM

Qualifiers:

Date: 03-Apr-13

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern Е

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Not Detected at the Method Detection Limit

Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 9-10' **Lab ID:** 1303223-15 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:23 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: AJR
Pentachlorophenol	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
Phenol	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
Total Phenol (Calculated)	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
Surr: 2,4,6-Tribromophenol	91.0	0	45-126		%REC	1	03/29/13 02:15 AM
Surr: 2-Fluorobiphenyl	83.0	0	60-125		%REC	1	03/29/13 02:15 AM
Surr: 2-Fluorophenol	90.0	0	37-125		%REC	1	03/29/13 02:15 AM
Surr: 4-Terphenyl-d14	92.0	0	45-125		%REC	1	03/29/13 02:15 AM
Surr: Nitrobenzene-d5	88.0	0	45-125		%REC	1	03/29/13 02:15 AM
Surr: Phenol-d6	87.0	0	40-125		%REC	1	03/29/13 02:15 AM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0184	0.0369		mg/Kg-dry	1	03/29/13 02:11 AM
Aroclor 1221	ND	0.0184	0.0369		mg/Kg-dry	1	03/29/13 02:11 AM
Aroclor 1232	ND	0.0184	0.0369		mg/Kg-dry	1	03/29/13 02:11 AM
Aroclor 1242	ND	0.0184	0.0369		mg/Kg-dry	1	03/29/13 02:11 AM
Aroclor 1248	ND	0.0184	0.0369		mg/Kg-dry	1	03/29/13 02:11 AM
Aroclor 1254	ND	0.0184	0.0369		mg/Kg-dry	1	03/29/13 02:11 AM
Aroclor 1260	ND	0.0184	0.0369		mg/Kg-dry	1	03/29/13 02:11 AM
Surr: 2-Fluorobiphenyl	71.3	0	43-125		%REC	1	03/29/13 02:11 AM
Surr: 4-Terphenyl-d14	87.1	0	32-125		%REC	1	03/29/13 02:11 AM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Toluene	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Carbon tetrachloride	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
1,2-Dichloroethane	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
1,1-Dichloroethylene	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Tetrachloroethylene	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Trichloroethylene	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Ethylbenzene	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Total Xylenes	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Methylene chloride	ND	0.00506	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Chloroform	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
1,1-Dichloroethane	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Ethylene bromide	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
1,1,1-Trichloroethane	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
1,1,2-Trichloroethane	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
1,1,2,2-Tetrachloroethane	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Vinyl chloride	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM

Qualifiers:

Date: 03-Apr-13

Not Detected at the Method Detection Limit

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

CLIENT: Larson & Associates Client Sample ID: SB-10 9-10'
Project: R360 Artesia Landfarm Lab ID: 1303223-15

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:23 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW82		Analyst: KL			
Surr: 1,2-Dichloroethane-d4	102	0	52-149		%REC	1	03/28/13 06:11 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 06:11 PM
Surr: Dibromofluoromethane	95.8	0	65-135		%REC	1	03/28/13 06:11 PM
Surr: Toluene-d8	104	0	84-116		%REC	1	03/28/13 06:11 PM
TRPH	E418.1						Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.59	11.2	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90		Analyst: JCG			
Cyanide, Total	ND	0.174	0.434		mg/Kg-dry	1	03/28/13 04:48 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	28.4	5.46	5.46		mg/Kg-dry	1	03/28/13 01:29 PM
Fluoride	7.73	1.09	1.09		mg/Kg-dry	1	03/28/13 01:29 PM
Nitrate-N	ND	5.46	5.46		mg/Kg-dry	1	03/28/13 01:29 PM
Sulfate	59.6	10.9	10.9		mg/Kg-dry	1	03/28/13 01:29 PM
PH OF SOLID (CORROSIVITY)	SW9045D						Analyst: JCG
рН	8.27	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	11.0	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL
Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-9 2-2.7'

Project: R360 Artesia Landfarm Lab ID: 1303223-17

Project No: 11-0109-09 **Collection Date:** 03/23/13 08:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.00944	0.0236		mg/Kg-dry	1	04/02/13 01:49 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Aluminum	4860	80.8	80.8		mg/Kg-dry	50	03/30/13 01:56 AM
Arsenic	1.28	0.323	0.647		mg/Kg-dry	5	03/28/13 05:01 AM
Barium	25.9	0.323	1.29		mg/Kg-dry	5	03/28/13 05:01 AM
Boron	ND	1.62	4.85		mg/Kg-dry	5	03/28/13 05:01 AM
Cadmium	ND	0.0647	0.194		mg/Kg-dry	5	03/28/13 05:01 AM
Chromium	4.37	0.323	1.29		mg/Kg-dry	5	04/01/13 03:36 PM
Cobalt	0.798	0.323	1.29	J	mg/Kg-dry	5	03/28/13 05:01 AM
Copper	1.18	0.323	1.29	J	mg/Kg-dry	5	04/01/13 03:36 PM
Iron	4230	80.8	80.8		mg/Kg-dry	50	03/30/13 01:56 AM
Lead	2.05	0.0647	0.194		mg/Kg-dry	5	03/28/13 05:01 AM
Manganese	36.1	0.323	1.29		mg/Kg-dry	5	03/28/13 05:01 AM
Molybdenum	ND	0.323	1.29		mg/Kg-dry	5	03/28/13 05:01 AM
Nickel	1.94	0.323	1.29		mg/Kg-dry	5	03/28/13 05:01 AM
Selenium	0.577	0.0970	0.323		mg/Kg-dry	5	03/28/13 05:01 AM
Silver	ND	0.0647	0.129		mg/Kg-dry	5	03/28/13 05:01 AM
Zinc	6.48	0.647	1.62		mg/Kg-dry	5	03/28/13 05:01 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0122	0.0325	N	mg/Kg-dry	1	03/29/13 03:48 AM
2-Methylnaphthalene	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
Naphthalene	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
Benzo[a]pyrene	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2,3,4,6-Tetrachlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2,4,5-Trichlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2,4,6-Trichlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2,4-Dichlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2,4-Dimethylphenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2,4-Dinitrophenol	ND	0.0611	0.161		mg/Kg-dry	1	03/29/13 03:48 AM
2,6-Dichlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2-Chlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2-Methylphenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2-Nitrophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
4,6-Dinitro-2-methylphenol	ND	0.0367	0.0807		mg/Kg-dry	1	03/29/13 03:48 AM
4-Chloro-3-methylphenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
4-Methylphenol	ND	0.0245	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
4-Nitrophenol	ND	0.0611	0.161		mg/Kg-dry	1	03/29/13 03:48 AM

Qualifiers:

Date: 03-Apr-13

^{*} Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

D'ha' E

Analyte detected between MDL and RL Not Detected at the Method Detection Limit

Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 2-2.7'

Lab ID: 1303223-17 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/23/13 08:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: AJR
Pentachlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
Phenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
Total Phenol (Calculated)	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
Surr: 2,4,6-Tribromophenol	90.0	0	45-126		%REC	1	03/29/13 03:48 AM
Surr: 2-Fluorobiphenyl	74.0	0	60-125		%REC	1	03/29/13 03:48 AM
Surr: 2-Fluorophenol	77.0	0	37-125		%REC	1	03/29/13 03:48 AM
Surr: 4-Terphenyl-d14	79.0	0	45-125		%REC	1	03/29/13 03:48 AM
Surr: Nitrobenzene-d5	77.0	0	45-125		%REC	1	03/29/13 03:48 AM
Surr: Phenol-d6	74.0	0	40-125		%REC	1	03/29/13 03:48 AM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0204	0.0408		mg/Kg-dry	1	03/29/13 04:15 AM
Aroclor 1221	ND	0.0204	0.0408		mg/Kg-dry	1	03/29/13 04:15 AM
Aroclor 1232	ND	0.0204	0.0408		mg/Kg-dry	1	03/29/13 04:15 AM
Aroclor 1242	ND	0.0204	0.0408		mg/Kg-dry	1	03/29/13 04:15 AM
Aroclor 1248	ND	0.0204	0.0408		mg/Kg-dry	1	03/29/13 04:15 AM
Aroclor 1254	ND	0.0204	0.0408		mg/Kg-dry	1	03/29/13 04:15 AM
Aroclor 1260	ND	0.0204	0.0408		mg/Kg-dry	1	03/29/13 04:15 AM
Surr: 2-Fluorobiphenyl	70.0	0	43-125		%REC	1	03/29/13 04:15 AM
Surr: 4-Terphenyl-d14	79.0	0	32-125		%REC	1	03/29/13 04:15 AM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Toluene	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Carbon tetrachloride	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
1,2-Dichloroethane	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
1,1-Dichloroethylene	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Tetrachloroethylene	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Trichloroethylene	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Ethylbenzene	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Total Xylenes	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Methylene chloride	ND	0.00602	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Chloroform	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
1,1-Dichloroethane	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Ethylene bromide	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
1,1,1-Trichloroethane	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
1,1,2-Trichloroethane	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
1,1,2,2-Tetrachloroethane	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Vinyl chloride	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM

Qualifiers:

- Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrati
- TPH pattern not Gas or Diesel Range Pattern E
- MDL Method Detection Limit
- Reporting Limit
- Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Date: 03-Apr-13

Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-9 2-2.7'

Project: R360 Artesia Landfarm Lab ID: 1303223-17

Project No: 11-0109-09 **Collection Date:** 03/23/13 08:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW8260C					Analyst: KL
Surr: 1,2-Dichloroethane-d4	99.4	0	52-149		%REC	1	03/28/13 06:43 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 06:43 PM
Surr: Dibromofluoromethane	96.9	0	65-135		%REC	1	03/28/13 06:43 PM
Surr: Toluene-d8	106	0	84-116		%REC	1	03/28/13 06:43 PM
TRPH		E418	3.1			Analyst: JAW	
Petroleum Hydrocarbons, TR	147	6.22	12.4	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	014				Analyst: JCG
Cyanide, Total	ND	0.225	0.562		mg/Kg-dry	1	03/28/13 04:48 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	329	61.5	61.5		mg/Kg-dry	10	03/28/13 04:54 PM
Fluoride	2.29	1.23	1.23		mg/Kg-dry	1	03/28/13 01:43 PM
Nitrate-N	ND	6.15	6.15		mg/Kg-dry	1	03/28/13 01:43 PM
Sulfate	141	12.3	12.3		mg/Kg-dry	1	03/28/13 01:43 PM
PH OF SOLID (CORROSIVITY)		SW90	45D				Analyst: JCG
pH	7.78	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	19.9	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrati
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL
Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-9 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-18

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW747	71B				Analyst: LM
Mercury	ND	0.0140	0.0351		mg/Kg-dry	1	04/02/13 01:05 PM
TRACE METALS: ICP-MS - SOLID		SW602	20A				Analyst: SW
Aluminum	5910	114	114		mg/Kg-dry	50	03/29/13 10:57 PM
Arsenic	1.50	0.455	0.911		mg/Kg-dry	5	03/28/13 02:13 AM
Barium	20.9	0.455	1.82		mg/Kg-dry	5	03/28/13 02:13 AM
Boron	ND	2.28	6.83		mg/Kg-dry	5	03/28/13 02:13 AM
Cadmium	ND	0.0911	0.273		mg/Kg-dry	5	03/28/13 02:13 AM
Chromium	5.23	0.455	1.82		mg/Kg-dry	5	03/30/13 03:41 AM
Cobalt	1.19	0.455	1.82	J	mg/Kg-dry	5	03/28/13 02:13 AM
Copper	1.48	0.455	1.82	J	mg/Kg-dry	5	03/30/13 03:41 AM
Iron	5440	114	114		mg/Kg-dry	50	03/29/13 10:57 PM
Lead	2.58	0.0911	0.273		mg/Kg-dry	5	03/28/13 02:13 AM
Manganese	42.6	0.455	1.82		mg/Kg-dry	5	03/28/13 02:13 AM
Molybdenum	ND	0.455	1.82		mg/Kg-dry	5	03/28/13 02:13 AM
Nickel	2.78	0.455	1.82		mg/Kg-dry	5	03/28/13 02:13 AM
Selenium	0.590	0.137	0.455		mg/Kg-dry	5	03/28/13 02:13 AM
Silver	ND	0.0911	0.182		mg/Kg-dry	5	03/28/13 02:13 AM
Zinc	9.77	0.911	2.28		mg/Kg-dry	5	03/28/13 02:13 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0101	0.0270	N	mg/Kg-dry	1	03/29/13 02:38 AM
2-Methylnaphthalene	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
Naphthalene	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
Benzo[a]pyrene	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2,3,4,6-Tetrachlorophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2,4,5-Trichlorophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2,4,6-Trichlorophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2,4-Dichlorophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2,4-Dimethylphenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2,4-Dinitrophenol	ND	0.0507	0.134		mg/Kg-dry	1	03/29/13 02:38 AM
2,6-Dichlorophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2-Chlorophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2-Methylphenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2-Nitrophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
4,6-Dinitro-2-methylphenol	ND	0.0304	0.0670		mg/Kg-dry	1	03/29/13 02:38 AM
4-Chloro-3-methylphenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
4-Methylphenol	ND	0.0203	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
4-Nitrophenol	ND	0.0507	0.134		mg/Kg-dry	1	03/29/13 02:38 AM

Qualifiers:

Date: 03-Apr-13

Analyte detected between MDL and RL Not Detected at the Method Detection Limit

^{*} Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

D'ha' E

Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 5-7'

Lab ID: 1303223-18 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	.70D				Analyst: AJR
Pentachlorophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
Phenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
Total Phenol (Calculated)	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
Surr: 2,4,6-Tribromophenol	94.0	0	45-126		%REC	1	03/29/13 02:38 AM
Surr: 2-Fluorobiphenyl	89.0	0	60-125		%REC	1	03/29/13 02:38 AM
Surr: 2-Fluorophenol	96.0	0	37-125		%REC	1	03/29/13 02:38 AM
Surr: 4-Terphenyl-d14	93.0	0	45-125		%REC	1	03/29/13 02:38 AM
Surr: Nitrobenzene-d5	92.0	0	45-125		%REC	1	03/29/13 02:38 AM
Surr: Phenol-d6	93.0	0	40-125		%REC	1	03/29/13 02:38 AM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0169	0.0338		mg/Kg-dry	1	03/29/13 02:42 AM
Aroclor 1221	ND	0.0169	0.0338		mg/Kg-dry	1	03/29/13 02:42 AM
Aroclor 1232	ND	0.0169	0.0338		mg/Kg-dry	1	03/29/13 02:42 AM
Aroclor 1242	ND	0.0169	0.0338		mg/Kg-dry	1	03/29/13 02:42 AM
Aroclor 1248	ND	0.0169	0.0338		mg/Kg-dry	1	03/29/13 02:42 AM
Aroclor 1254	ND	0.0169	0.0338		mg/Kg-dry	1	03/29/13 02:42 AM
Aroclor 1260	ND	0.0169	0.0338		mg/Kg-dry	1	03/29/13 02:42 AM
Surr: 2-Fluorobiphenyl	67.8	0	43-125		%REC	1	03/29/13 02:42 AM
Surr: 4-Terphenyl-d14	77.0	0	32-125		%REC	1	03/29/13 02:42 AM
8260 SOIL VOLATILES BY GC/MS		SW8260C					Analyst: KL
Benzene	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Toluene	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Carbon tetrachloride	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
1,2-Dichloroethane	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
1,1-Dichloroethylene	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Tetrachloroethylene	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Trichloroethylene	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Ethylbenzene	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Total Xylenes	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Methylene chloride	ND	0.00460	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Chloroform	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
1,1-Dichloroethane	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Ethylene bromide	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
1,1,1-Trichloroethane	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
1,1,2-Trichloroethane	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
1,1,2,2-Tetrachloroethane	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Vinyl chloride	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM

Qualifiers:

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Date: 03-Apr-13

Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-9 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-18

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW8260C					Analyst: KL
Surr: 1,2-Dichloroethane-d4	106	0	52-149		%REC	1	03/28/13 07:17 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 07:17 PM
Surr: Dibromofluoromethane	97.9	0	65-135		%REC	1	03/28/13 07:17 PM
Surr: Toluene-d8	103	0	84-116		%REC	1	03/28/13 07:17 PM
TRPH		E418			Analyst: JAW		
Petroleum Hydrocarbons, TR	ND	5.17	10.3	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	014				Analyst: JCG
Cyanide, Total	ND	0.195	0.487		mg/Kg-dry	1	03/28/13 04:48 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	434	51.8	51.8		mg/Kg-dry	10	03/28/13 05:23 PM
Fluoride	ND	1.04	1.04		mg/Kg-dry	1	03/28/13 01:58 PM
Nitrate-N	ND	5.18	5.18		mg/Kg-dry	1	03/28/13 01:58 PM
Sulfate	20.3	10.4	10.4		mg/Kg-dry	1	03/28/13 01:58 PM
PH OF SOLID (CORROSIVITY)		SW90	45D				Analyst: JCG
рН	7.58	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	3.70	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrativ

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-9 7-9'

Lab ID: 1303223-19 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0166	0.0415		mg/Kg-dry	1	04/02/13 01:51 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Aluminum	6460	119	119		mg/Kg-dry	50	03/30/13 02:02 AM
Arsenic	2.32	0.477	0.954		mg/Kg-dry	5	03/28/13 05:07 AM
Barium	210	0.477	1.91		mg/Kg-dry	5	03/28/13 05:07 AM
Boron	3.14	2.38	7.15	J	mg/Kg-dry	5	03/28/13 05:07 AM
Cadmium	0.134	0.0954	0.286	J	mg/Kg-dry	5	03/28/13 05:07 AM
Chromium	4.37	0.477	1.91		mg/Kg-dry	5	04/01/13 03:42 PM
Cobalt	1.63	0.477	1.91	J	mg/Kg-dry	5	03/28/13 05:07 AM
Copper	1.57	0.477	1.91	J	mg/Kg-dry	5	04/01/13 03:42 PM
Iron	5080	119	119		mg/Kg-dry	50	03/30/13 02:02 AM
Lead	2.36	0.0954	0.286		mg/Kg-dry	5	03/28/13 05:07 AM
Manganese	41.8	0.477	1.91		mg/Kg-dry	5	03/28/13 05:07 AM
Molybdenum	ND	0.477	1.91		mg/Kg-dry	5	03/28/13 05:07 AM
Nickel	4.48	0.477	1.91		mg/Kg-dry	5	03/28/13 05:07 AM
Selenium	0.594	0.143	0.477		mg/Kg-dry	5	03/28/13 05:07 AM
Silver	ND	0.0954	0.191		mg/Kg-dry	5	03/28/13 05:07 AM
Zinc	6.80	0.954	2.38		mg/Kg-dry	5	03/28/13 05:07 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0112	0.0297	N	mg/Kg-dry	1	03/29/13 03:01 AM
2-Methylnaphthalene	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
Naphthalene	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
Benzo[a]pyrene	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2,3,4,6-Tetrachlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2,4,5-Trichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2,4,6-Trichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2,4-Dichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2,4-Dimethylphenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2,4-Dinitrophenol	ND	0.0559	0.148		mg/Kg-dry	1	03/29/13 03:01 AM
2,6-Dichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2-Chlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2-Methylphenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2-Nitrophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
4,6-Dinitro-2-methylphenol	ND	0.0335	0.0738		mg/Kg-dry	1	03/29/13 03:01 AM
4-Chloro-3-methylphenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
4-Methylphenol	ND	0.0224	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
4-Nitrophenol	ND	0.0559	0.148		mg/Kg-dry	1	03/29/13 03:01 AM

Qualifiers:

Date: 03-Apr-13

Not Detected at the Method Detection Limit

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 7-9'

Lab ID: 1303223-19 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82		Analyst: AJR			
Pentachlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
Phenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
Total Phenol (Calculated)	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
Surr: 2,4,6-Tribromophenol	77.0	0	45-126		%REC	1	03/29/13 03:01 AM
Surr: 2-Fluorobiphenyl	74.0	0	60-125		%REC	1	03/29/13 03:01 AM
Surr: 2-Fluorophenol	79.0	0	37-125		%REC	1	03/29/13 03:01 AM
Surr: 4-Terphenyl-d14	67.0	0	45-125		%REC	1	03/29/13 03:01 AM
Surr: Nitrobenzene-d5	77.0	0	45-125		%REC	1	03/29/13 03:01 AM
Surr: Phenol-d6	77.0	0	40-125		%REC	1	03/29/13 03:01 AM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 03:13 AM
Aroclor 1221	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 03:13 AM
Aroclor 1232	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 03:13 AM
Aroclor 1242	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 03:13 AM
Aroclor 1248	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 03:13 AM
Aroclor 1254	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 03:13 AM
Aroclor 1260	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 03:13 AM
Surr: 2-Fluorobiphenyl	63.8	0	43-125		%REC	1	03/29/13 03:13 AM
Surr: 4-Terphenyl-d14	73.6	0	32-125		%REC	1	03/29/13 03:13 AM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Toluene	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Carbon tetrachloride	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
1,2-Dichloroethane	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
1,1-Dichloroethylene	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Tetrachloroethylene	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Trichloroethylene	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Ethylbenzene	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Total Xylenes	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Methylene chloride	ND	0.00532	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Chloroform	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
1,1-Dichloroethane	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Ethylene bromide	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
1,1,1-Trichloroethane	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
1,1,2-Trichloroethane	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
1,1,2,2-Tetrachloroethane	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Vinyl chloride	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM

Qualifiers:

- Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrati
- TPH pattern not Gas or Diesel Range Pattern Е
- MDL Method Detection Limit
- Reporting Limit
- Parameter not NELAC certified

В Analyte detected in the associated Method Blank

Date: 03-Apr-13

Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-9 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303223-19

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW8260C					Analyst: KL
Surr: 1,2-Dichloroethane-d4	103	0	52-149		%REC	1	03/28/13 07:50 PM
Surr: 4-Bromofluorobenzene	105	0	84-118		%REC	1	03/28/13 07:50 PM
Surr: Dibromofluoromethane	98.1	0	65-135		%REC	1	03/28/13 07:50 PM
Surr: Toluene-d8	104	0	84-116		%REC	1	03/28/13 07:50 PM
TRPH		E418	3.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.68	11.4	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	014				Analyst: JCG
Cyanide, Total	ND	0.213	0.533		mg/Kg-dry	1	03/28/13 04:50 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	470	56.5	56.5		mg/Kg-dry	10	03/28/13 05:38 PM
Fluoride	1.62	1.13	1.13		mg/Kg-dry	1	03/28/13 02:12 PM
Nitrate-N	ND	5.65	5.65		mg/Kg-dry	1	03/28/13 02:12 PM
Sulfate	38.6	11.3	11.3		mg/Kg-dry	1	03/28/13 02:12 PM
PH OF SOLID (CORROSIVITY)		SW90	45D				Analyst: JCG
рН	7.94	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	11.9	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrativ

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL Not Detected at the Method Detection Limit

CLIENT: Larson & Associates Client Sample ID: SB-9 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303223-20

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:10 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0101	0.0252		mg/Kg-dry	1	04/02/13 01:53 PM
TRACE METALS: ICP-MS - SOLID		SW60		Analyst: SW			
Aluminum	5030	82.8	82.8		mg/Kg-dry	50	03/30/13 02:08 AM
Arsenic	1.79	0.331	0.662		mg/Kg-dry	5	03/28/13 05:13 AM
Barium	356	0.331	1.32		mg/Kg-dry	5	03/28/13 05:13 AM
Boron	2.60	1.66	4.97	J	mg/Kg-dry	5	03/28/13 05:13 AM
Cadmium	0.0765	0.0662	0.199	J	mg/Kg-dry	5	03/28/13 05:13 AM
Chromium	3.79	0.331	1.32		mg/Kg-dry	5	04/01/13 03:48 PM
Cobalt	1.16	0.331	1.32	J	mg/Kg-dry	5	03/28/13 05:13 AM
Copper	1.29	0.331	1.32	J	mg/Kg-dry	5	04/01/13 03:48 PM
Iron	4990	82.8	82.8		mg/Kg-dry	50	03/30/13 02:08 AM
Lead	2.29	0.0662	0.199		mg/Kg-dry	5	03/28/13 05:13 AM
Manganese	40.6	0.331	1.32		mg/Kg-dry	5	03/28/13 05:13 AM
Molybdenum	ND	0.331	1.32		mg/Kg-dry	5	03/28/13 05:13 AM
Nickel	3.04	0.331	1.32		mg/Kg-dry	5	03/28/13 05:13 AM
Selenium	0.699	0.0994	0.331		mg/Kg-dry	5	03/28/13 05:13 AM
Silver	ND	0.0662	0.132		mg/Kg-dry	5	03/28/13 05:13 AM
Zinc	7.02	0.662	1.66		mg/Kg-dry	5	03/28/13 05:13 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Amalonto AID
1-Methylnaphthalene	ND	0.0129	0.0344	N	mg/Kg-dry	1	Analyst: AJR 03/29/13 03:25 AM
2-Methylnaphthalene	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
Naphthalene	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
Benzo[a]pyrene	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
2 2. 7	ND	0.0129	0.0344			1	03/29/13 03:25 AM
2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol	ND	0.0129	0.0344		mg/Kg-dry mg/Kg-dry	1	03/29/13 03:25 AM
•	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
2,4,6-Trichlorophenol	ND	0.0129	0.0344			1	03/29/13 03:25 AM
2,4-Dichlorophenol	ND ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
2,4-Dimethylphenol	ND	0.0129			mg/Kg-dry mg/Kg-dry	1	03/29/13 03:25 AM
2,4-Dinitrophenol		0.0647	0.171 0.0344				
2,6-Dichlorophenol	ND				mg/Kg-dry	1	03/29/13 03:25 AM
2-Chlorophenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
2-Methylphenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
2-Nitrophenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
4,6-Dinitro-2-methylphenol	ND	0.0388	0.0854		mg/Kg-dry	1	03/29/13 03:25 AM
4-Chloro-3-methylphenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
4-Methylphenol	ND	0.0259	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
4-Nitrophenol	ND	0.0647	0.171		mg/Kg-dry	1	03/29/13 03:25 AM

Qualifiers:

Date: 03-Apr-13

^{*} Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrativ

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

D'ha' E

Analyte detected between MDL and RL Not Detected at the Method Detection Limit

Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 10-12' **Lab ID:** 1303223-20 **Project:** R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:10 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW8270D					Analyst: AJR
Pentachlorophenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
Phenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
Total Phenol (Calculated)	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
Surr: 2,4,6-Tribromophenol	78.0	0	45-126		%REC	1	03/29/13 03:25 AM
Surr: 2-Fluorobiphenyl	70.0	0	60-125		%REC	1	03/29/13 03:25 AM
Surr: 2-Fluorophenol	76.0	0	37-125		%REC	1	03/29/13 03:25 AM
Surr: 4-Terphenyl-d14	73.0	0	45-125		%REC	1	03/29/13 03:25 AM
Surr: Nitrobenzene-d5	72.0	0	45-125		%REC	1	03/29/13 03:25 AM
Surr: Phenol-d6	74.0	0	40-125		%REC	1	03/29/13 03:25 AM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0216	0.0431		mg/Kg-dry	1	03/29/13 03:44 AM
Aroclor 1221	ND	0.0216	0.0431		mg/Kg-dry	1	03/29/13 03:44 AM
Aroclor 1232	ND	0.0216	0.0431		mg/Kg-dry	1	03/29/13 03:44 AM
Aroclor 1242	ND	0.0216	0.0431		mg/Kg-dry	1	03/29/13 03:44 AM
Aroclor 1248	ND	0.0216	0.0431		mg/Kg-dry	1	03/29/13 03:44 AM
Aroclor 1254	ND	0.0216	0.0431		mg/Kg-dry	1	03/29/13 03:44 AM
Aroclor 1260	ND	0.0216	0.0431		mg/Kg-dry	1	03/29/13 03:44 AM
Surr: 2-Fluorobiphenyl	61.1	0	43-125		%REC	1	03/29/13 03:44 AM
Surr: 4-Terphenyl-d14	76.9	0	32-125		%REC	1	03/29/13 03:44 AM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Toluene	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Carbon tetrachloride	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
1,2-Dichloroethane	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
1,1-Dichloroethylene	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Tetrachloroethylene	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Trichloroethylene	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Ethylbenzene	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Total Xylenes	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Methylene chloride	ND	0.00480	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Chloroform	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
1,1-Dichloroethane	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Ethylene bromide	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
1,1,1-Trichloroethane	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
1,1,2-Trichloroethane	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
1,1,2,2-Tetrachloroethane	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Vinyl chloride	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM

Qualifiers:

Date: 03-Apr-13

Not Detected at the Method Detection Limit

Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

TPH pattern not Gas or Diesel Range Pattern E

MDL Method Detection Limit

Reporting Limit

Parameter not NELAC certified

В Analyte detected in the associated Method Blank

CLIENT: Larson & Associates Client Sample ID: SB-9 10-12'
Project: R360 Artesia Landfarm Lab ID: 1303223-20

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:10 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW8260C					Analyst: KL
Surr: 1,2-Dichloroethane-d4	101	0	52-149		%REC	1	03/28/13 08:24 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 08:24 PM
Surr: Dibromofluoromethane	97.2	0	65-135		%REC	1	03/28/13 08:24 PM
Surr: Toluene-d8	104	0	84-116		%REC	1	03/28/13 08:24 PM
TRPH		E418.1					Analyst: JAW
Petroleum Hydrocarbons, TR	ND	6.45	12.9	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90		Analyst: JCG			
Cyanide, Total	ND	0.189	0.471		mg/Kg-dry	1	03/28/13 04:50 PM
ANIONS BY IC METHOD - SOIL		E30	00				Analyst: JBC
Chloride	29.6	6.61	6.61		mg/Kg-dry	1	03/28/13 02:43 PM
Fluoride	3.65	1.32	1.32		mg/Kg-dry	1	03/28/13 02:43 PM
Nitrate-N	ND	6.61	6.61		mg/Kg-dry	1	03/28/13 02:43 PM
Sulfate	26.9	13.2	13.2		mg/Kg-dry	1	03/28/13 02:43 PM
PH OF SOLID (CORROSIVITY)		SW90	45D				Analyst: JCG
рН	8.57	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D22	16				Analyst: MK
Percent Moisture	24.8	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrati

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 03-Apr-13

Dilution Facto

Analyte detected between MDL and RL Not Detected at the Method Detection Limit



June 06, 2013

Mark Larson Larson & Associates 507 N. Marienfeld #200 Midland, TX 79701

TEL: (432) 687-0901

FAX (432) 687-0456 Order No.: 1303223

RE: R360 Artesia Landfarm

Dear Mark Larson:

DHL Analytical, Inc. received 20 sample(s) on 3/26/2013 for the analyses presented in the following report.

Revision Number 1 for Work Order 1303223: This revision consists of changing the metals analyte target list, deleting subsection C per the client's request. Please replace the original report with this revised report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-13-10



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CHAIN-OF-CUSTODY

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effective 9-26-04.]

A. Human Health Standards-Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

reasonably mouse	
(1)	Arsenic (As)
(2)	Barium (Ba)
(3)	Cadmium (Cd)
(4)	Chromium (Cr)
(5)	Cyanide (CN)
(6)	Fluoride (F)
(7)	Lead (Pb)
(8)	Total Mercury (Hg)
(9)	Nitrate (NO ₃ as N)
	Selenium (Se)
(10)	Scientiff (Se)
(11)	Silver (Ag)
(12)	
	0.01
(14)	Benzene
(15)	Polychlorinated biphenyls (PCB's)
(16)	Toluene
(17)	Carbon Tetrachloride
(18)	1,2-dichloroethane (EDC)0.01 mg/l
(19)	1,1-dichloroethylene (1,1-DCE)
(20)	1,1,2,2-tetrachloroethylene (PCE)
(21)	1,1,2-trichloroethylene (TCE)
(22)	ethylbenzene0.75 mg/l
(23)	total xylenes0.62 mg/l
(24)	methylene chloride0.1 mg/l
(25)	chloroform
(26)	A AA # 1
7 (
(27)	
(28)	
(29)	1,1,2-trichiorocethane.
(30)	
(31)	
(32)	PAHs: total naphthalene plus monomethylnaphthalenes
(33)	benzo-a-pyrene0.0007 mg/l
В.	Other Standards for Domestic Water Supply
(1)	Chloride (Cl)
(2)	Copper (Cu)
(3)	Iron (Fe)
(4)	Manganese (Mn)
(6)	Phenols
(7)	Sulfate (SO ₄)600.0 mg/l
, -	Total Dissolved Solids (TDS)1000.0 mg/l
. (8)	Total Dissolved Solids (1DS)
(9)	Zinc (Zn)
$\tilde{a}^{(10)}$	pHbetween 6 and 9 Standards for Irrigation Use - Ground water shall meet the standards of Subsection A, B, and C of
С.	
	ess otherwise provided.
(1)	Aluminum (Al)
(2)	Boron (B)
	Cobalt (Co)
(4)	Molybdenum (Mo)
(5)	Nickel (Ni)
[2-18-77, 1-29-8	32, 11-17-83, 3-3-86, 12-1-95; 20.6.2.3103 NMAC - Rn, 20 NMAC 6.2.III.3103, 1-15-01; A, 9-26-04]
Note: For purp	oses of application of the amended numeric uranium standard to past and current water discharges (as of 9-
26 04) the new	standard will not become effective until June 1, 2007. For any new water discharges, the uranium standard is

26-04), the new standard will not become effective until June 1, 2007. For any new water discharges, the uranium standard is



WWW.LSO.COM Questions? Call 800-800-8984



Airbill No. 47376946

	737	,,,	
- /1	/ 4/	·nc	711

	1. To: Print Name (Person) Phone (Important)	2. From: Print Name (Person) Phone (Important) 2. From: 432-687-0981
-	Company Name / // // // // // // // // // // // //	Company Name JARSON & ASSOCIATES
	The P.O. Box or P.O. Box/Zip Code® Deliveries)	Street Address 107, NORTH MARIENFELD
	Julte / Floor	Suite / Floor &
N	City State Ty 7864	City State Zip ILDLAND TX 79701
	3. Service: Visit www.kso.com for availability of services to your destination and enjoy added features by creating your shipping label online.	4. Package: Weight: FOR COURIER Vour Company's Billing Reference Information USE ONLY
	By 10:30 am Delivery Check availability at Saturday Delivery Check availability at (Extra charge, www.lso.com not available on Ground) By 8:30 am Delivery Check availability at (Extra charge, www.lso.com Officery)	Ship Date: (mm/dd/yy) 0 3 2 1/3 Courier Number 3548
	(Extra charge, no www.lso.com Other signature obtained) By 3:00 pm Delivery Assumed 10:30 a.m. service unless otherwise noted.	5. Payment: Date: 3-25-13
	☐ Deliver Without Delivery Signature (See Limits of Liability below)	Time:City Code:
1	Release Signature	

LIMIT OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the excell loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signative, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR BEAD AND DELIVERIES. PRIORITY SERVICE PACKAGING PROVIDED BY LSO IS NOT INTENDED FOR BEAD AND SERVICE. OVERSIZE RATES MAY APPLY, DELIVERY COMMITMENTS MAY VARY, ADDITIONAL FEES MAY APPLY.



WWW.LSO.COM Questions? Call 800-800-8984

Airbill No. 47376947



47376047

Print Name (Person) Phone (Important)	4/3/694/
Phone (Important) Phone (Important) Ray Core	Print Name (Person) Phone (Important)
Company Name	Company Name 532-687-0907
11/16 /Anglytical	ARSON & ASSOCIATES
Street Address (No P.O. Box or P.O. Box Zip Code® Deliveries)	Street Address
Sminning Work Creek Wive	07 NORTH MARIEMEELD
Suite / Floor	Suite / Ficor
ROUND Rock State 78664	City State Zip SIDLAND TX 79701
Visit www.kso.com for availability of services to your destination and enjoy added features by creating your shipping label online.	4. Package: Weight: FOR COURIER
By 10:30 om Delivery Check availability at Saturday Delivery Check availability at www.lso.com (Extra charge, not available	Your Company's, Billing Reference Information USE ONLY 3548
By 8:30 am Delivery Check availability at on Ground) (Extra charge, no wyw.lso.com	Ship Date: (mm/dd/yy) 0 3 0 1 Courier Number 1 150 Supplies are used with Ground/Service.
	5. Payment:
By 3:00 pm Delivery Assumed 10:30 a.m. service unless	11 - 12 - 13 - 13 - 13 - 13 - 13 - 13 -
Ground (next day to most cities) otherwise noted.	
☐ Deliver Without Delivery Signature (See Limits of Liability below)	Time: City Code:
Release Signature	
L <u>sx Wx H</u>	

LIMIT OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO ELIVERY SIGNATURE WILL BE OBTAINED FOR 08:30 AM DELIVERY. PRIORITY SERVICE PACKAGING PROVIDED BY LSO IS NOT INTENDED FOR USE ON GROUND SERVICE. OVERSIZE RATES MAY APPLY. DELIVERY COMMITMENTS MAY VARY. ADDITIONAL FEES MAY APPLY.

Sample Receipt Checklist

Client Name Larson & Associates			Date Receiv	red: 3/26/	2013	
Work Order Number 1303223			Received by	JB		
Checklist completed by:	3/26/201 Date	3	Reviewed by	NG) Initials	3/26/2013 Date	
	Carrier name	LoneStar				
Shipping container/cooler in good condition?		Yes 🗸	No 🗆	Not Present		
Custody seals intact on shippping container/co	ooler?	Yes 🗌	No 🗌	Not Present 🗹		
Custody seals intact on sample bottles?		Yes 🗌	No 🗔	Not Present 🗹		
Chain of custody present?		Yes 🗸	No 🗀			
Chain of custody signed when relinquished and	d received?	Yes 🗹	No 🗆			
Chain of custody agrees with sample labels?		Yes 🗹	No 🗌			
Samples in proper container/bottle?		Yes 🗹	No 🗌			
Sample containers intact?		Yes 🗹	No 🗌			
Sufficient sample volume for indicated test?		Yes 🗹	No 🗔			
All samples received within holding time?		Yes 🗹	No 🗀			-
Container/Temp Blank temperature in complian	nce?	Yes 🗹	No 🗌 4	1.9 °C (3.4)		
Water - VOA vials have zero headspace?		Yes 🗌	No 🗌 🗈 i	lo VOA vials subm	-	
Water - pH acceptable upon receipt?		Yes 🗌	No 🗆 🛮 N	lot Applicable 🗹		
	Adjusted?		Checked by			
Any No response must be detailed in the comm	nents section below.					
Client contacted	Date contacted:		Pers	on contacted		
Contacted by:	Regarding			, , , , , , , , , , , , , , , , , , ,		
Comments:						

		4			,,,,	
Corrective Action						

CLIENT: Larson & Associates

Project: R360 Artesia Landfarm

Lab Order: 1303223

CASE NARRATIVE

Date: 06-Jun-13

Sample was analyzed using the methods outlined in the following references:

Method SW8260C - Volatile Organics

Method SW8270D - Semivolatile Organics

Method SW6020A - Metals Analysis

Method SW7471B - Mercury Analysis

Method SW8270D - PCB Analysis

Method E300 - Anions Analysis

Method E418.1 - TRPH Analysis

Method SW9014 - Cyanide Analysis

Method SW9045D - pH of a Soil (corrosivity)

Method D2216 - Percent Moisture

LOG IN

The samples were received and log-in performed on 3/26/13. A total of 20 samples were received. The time of collection was Mountain Standard Time. The samples arrived in good condition and were properly packaged.

METALS ANALYSIS

For Metals analysis performed on 3/27/13 the matrix spike and matrix spike duplicate recoveries were above control limits for Iron. This is flagged accordingly in the QC summary report. The sample selected for the matrix spike and matrix spike duplicate was from this work order. The LCS was within control limits for these analytes. No further corrective actions were taken.

SEMIVOLATILE ORGANICS ANALYSIS

For Semivolatiles analysis, the recovery of one compound for the Initial Calibration Verification (ICV2-130328) was slightly below the method control limits specified in SW8270D (80-120% recovery). This is flagged accordingly in the QC summary report. The number of target compounds outside of the method control limits for the ICV are less than 20% of the total number of compounds being reproted; this is allowed in SW8270D specifications. This compound was within control limits in the associated LCS. No further corrective actions were taken.

Date: 05-Apr-13

CLIENT: Larson & Associates

Project: R360 Artesia Landfarm **Lab Order:** 1303223

Work Order Sample Summary

Lab Smp II	Client Sample ID	Tag Number	Date Collected	Date Recved
1303223-01	SB-6 0-2'		03/22/13 08:35 AM	3/26/2013
1303223-02	SB-6 2-3'		03/22/13 08:35 AM	3/26/2013
1303223-03	SB-6 5-7'		03/22/13 08:50 AM	3/26/2013
1303223-04	SB-6 10-12'		03/22/13 09:00 AM	3/26/2013
1303223-05	SB-4 0-2'		03/22/13 11:50 AM	3/26/2013
1303223-06	SB-4 2-3'		03/22/13 11:50 AM	3/26/2013
1303223-07	SB-4 5-7'		03/22/13 12:05 PM	3/26/2013
1303223-08	SB-4 7-9'		03/22/13 12:05 PM	3/26/2013
1303223-09	SB-4 10-12'		03/22/13 12:10 PM	3/26/2013
1303223-10	SB-10 0-2'		03/22/13 03:15 PM	3/26/2013
1303223-11	SB-10 2-3'		03/22/13 03:15 PM	3/26/2013
1303223-12	SB-10 5-7'		03/22/13 03:25 PM	3/26/2013
1303223-13	SB-10 7-9'		03/22/13 03:25 PM	3/26/2013
1303223-14	SB-10 10-12'		03/22/13 03:40 PM	3/26/2013
1303223-15	SB-10 9-10'		03/22/13 03:23 PM	3/26/2013
1303223-16	SB-9 0-2'		03/23/13 08:50 AM	3/26/2013
1303223-17	SB-9 2-2.7'		03/23/13 08:50 AM	3/26/2013
1303223-18	SB-9 5-7'		03/23/13 09:00 AM	3/26/2013
1303223-19	SB-9 7-9'		03/23/13 09:00 AM	3/26/2013
1303223-20	SB-9 10-12'		03/23/13 09:10 AM	3/26/2013

Lab Order: 1303223

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1303223-02A	SB-6 2-3'	03/22/13 08:35 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668
1303223-02B	SB-6 2-3'	03/22/13 08:35 AM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-6 2-3'	03/22/13 08:35 AM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-6 2-3'	03/22/13 08:35 AM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632
	SB-6 2-3'	03/22/13 08:35 AM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-6 2-3'	03/22/13 08:35 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
1303223-02C	SB-6 2-3'	03/22/13 08:35 AM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622
	SB-6 2-3'	03/22/13 08:35 AM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-6 2-3'	03/22/13 08:35 AM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-6 2-3'	03/22/13 08:35 AM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-6 2-3'	03/22/13 08:35 AM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656
	SB-6 2-3'	03/22/13 08:35 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-6 2-3'	03/22/13 08:35 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-6 2-3'	03/22/13 08:35 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
1303223-03A	SB-6 5-7'	03/22/13 08:50 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668
1303223-03B	SB-6 5-7'	03/22/13 08:50 AM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-6 5-7'	03/22/13 08:50 AM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-6 5-7'	03/22/13 08:50 AM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632
	SB-6 5-7'	03/22/13 08:50 AM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-6 5-7'	03/22/13 08:50 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
1303223-03C	SB-6 5-7'	03/22/13 08:50 AM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622
	SB-6 5-7'	03/22/13 08:50 AM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-6 5-7'	03/22/13 08:50 AM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-6 5-7'	03/22/13 08:50 AM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656
	SB-6 5-7'	03/22/13 08:50 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-6 5-7'	03/22/13 08:50 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-6 5-7'	03/22/13 08:50 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
1303223-04A	SB-6 10-12'	03/22/13 09:00 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668

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Lab Order: 1303223

Client: Larson & Associates **Project:**

R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1303223-04B	SB-6 10-12'	03/22/13 09:00 AM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-6 10-12'	03/22/13 09:00 AM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-6 10-12'	03/22/13 09:00 AM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632
	SB-6 10-12'	03/22/13 09:00 AM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-6 10-12'	03/22/13 09:00 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
1303223-04C	SB-6 10-12'	03/22/13 09:00 AM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622
	SB-6 10-12'	03/22/13 09:00 AM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-6 10-12'	03/22/13 09:00 AM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-6 10-12'	03/22/13 09:00 AM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656
	SB-6 10-12'	03/22/13 09:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-6 10-12'	03/22/13 09:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-6 10-12'	03/22/13 09:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
1303223-06A	SB-4 2-3'	03/22/13 11:50 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668
1303223-06B	SB-4 2-3'	03/22/13 11:50 AM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-4 2-3'	03/22/13 11:50 AM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-4 2-3'	03/22/13 11:50 AM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632
	SB-4 2-3'	03/22/13 11:50 AM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-4 2-3'	03/22/13 11:50 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
1303223-06C	SB-4 2-3'	03/22/13 11:50 AM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622
	SB-4 2-3'	03/22/13 11:50 AM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-4 2-3'	03/22/13 11:50 AM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-4 2-3'	03/22/13 11:50 AM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656
	SB-4 2-3'	03/22/13 11:50 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-4 2-3'	03/22/13 11:50 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-4 2-3'	03/22/13 11:50 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
1303223-07A	SB-4 5-7'	03/22/13 12:05 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668
1303223-07B	SB-4 5-7'	03/22/13 12:05 PM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-4 5-7'	03/22/13 12:05 PM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642

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Lab Order: 1303223

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1303223-07В	SB-4 5-7'	03/22/13 12:05 PM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632
	SB-4 5-7'	03/22/13 12:05 PM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-4 5-7'	03/22/13 12:05 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
1303223-07C	SB-4 5-7'	03/22/13 12:05 PM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622
	SB-4 5-7'	03/22/13 12:05 PM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-4 5-7'	03/22/13 12:05 PM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-4 5-7'	03/22/13 12:05 PM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656
	SB-4 5-7'	03/22/13 12:05 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-4 5-7'	03/22/13 12:05 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-4 5-7'	03/22/13 12:05 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
1303223-08A	SB-4 7-9'	03/22/13 12:05 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668
1303223-08B	SB-4 7-9'	03/22/13 12:05 PM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-4 7-9'	03/22/13 12:05 PM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-4 7-9'	03/22/13 12:05 PM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632
	SB-4 7-9'	03/22/13 12:05 PM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-4 7-9'	03/22/13 12:05 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
1303223-08C	SB-4 7-9'	03/22/13 12:05 PM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622
	SB-4 7-9'	03/22/13 12:05 PM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-4 7-9'	03/22/13 12:05 PM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-4 7-9'	03/22/13 12:05 PM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656
	SB-4 7-9'	03/22/13 12:05 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-4 7-9'	03/22/13 12:05 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-4 7-9'	03/22/13 12:05 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
1303223-09A	SB-4 10-12'	03/22/13 12:10 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668
1303223-09B	SB-4 10-12'	03/22/13 12:10 PM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-4 10-12'	03/22/13 12:10 PM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632
	SB-4 10-12'	03/22/13 12:10 PM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-4 10-12'	03/22/13 12:10 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729

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Lab Order: 1303223

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1303223-09C	SB-4 10-12'	03/22/13 12:10 PM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622
	SB-4 10-12'	03/22/13 12:10 PM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-4 10-12'	03/22/13 12:10 PM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-4 10-12'	03/22/13 12:10 PM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656
	SB-4 10-12'	03/22/13 12:10 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-4 10-12'	03/22/13 12:10 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-4 10-12'	03/22/13 12:10 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
1303223-11A	SB-10 2-3'	03/22/13 03:15 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668
1303223-11B	SB-10 2-3'	03/22/13 03:15 PM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-10 2-3'	03/22/13 03:15 PM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632
	SB-10 2-3'	03/22/13 03:15 PM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-10 2-3'	03/22/13 03:15 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
303223-11C	SB-10 2-3'	03/22/13 03:15 PM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622
	SB-10 2-3'	03/22/13 03:15 PM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-10 2-3'	03/22/13 03:15 PM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-10 2-3'	03/22/13 03:15 PM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656
	SB-10 2-3'	03/22/13 03:15 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-10 2-3'	03/22/13 03:15 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-10 2-3'	03/22/13 03:15 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
1303223-12A	SB-10 5-7'	03/22/13 03:25 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668
1303223-12B	SB-10 5-7'	03/22/13 03:25 PM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-10 5-7'	03/22/13 03:25 PM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632
	SB-10 5-7'	03/22/13 03:25 PM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-10 5-7'	03/22/13 03:25 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
303223-12C	SB-10 5-7'	03/22/13 03:25 PM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622
	SB-10 5-7'	03/22/13 03:25 PM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-10 5-7'	03/22/13 03:25 PM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-10 5-7'	03/22/13 03:25 PM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656

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Lab Order: 1303223

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1303223-12C	SB-10 5-7'	03/22/13 03:25 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-10 5-7'	03/22/13 03:25 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-10 5-7'	03/22/13 03:25 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
1303223-13A	SB-10 7-9'	03/22/13 03:25 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668
1303223-13B	SB-10 7-9'	03/22/13 03:25 PM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-10 7-9'	03/22/13 03:25 PM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632
	SB-10 7-9'	03/22/13 03:25 PM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-10 7-9'	03/22/13 03:25 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
1303223-13C	SB-10 7-9'	03/22/13 03:25 PM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622
	SB-10 7-9'	03/22/13 03:25 PM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-10 7-9'	03/22/13 03:25 PM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-10 7-9'	03/22/13 03:25 PM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656
	SB-10 7-9'	03/22/13 03:25 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
S	SB-10 7-9'	03/22/13 03:25 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-10 7-9'	03/22/13 03:25 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
1303223-14A	SB-10 10-12'	03/22/13 03:40 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668
303223-14B	SB-10 10-12'	03/22/13 03:40 PM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-10 10-12'	03/22/13 03:40 PM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632
	SB-10 10-12'	03/22/13 03:40 PM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-10 10-12'	03/22/13 03:40 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
1303223-14C	SB-10 10-12'	03/22/13 03:40 PM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622
	SB-10 10-12'	03/22/13 03:40 PM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-10 10-12'	03/22/13 03:40 PM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-10 10-12'	03/22/13 03:40 PM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656
	SB-10 10-12'	03/22/13 03:40 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-10 10-12'	03/22/13 03:40 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-10 10-12'	03/22/13 03:40 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
1303223-15A	SB-10 9-10'	03/22/13 03:23 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668

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Lab Order: 1303223

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1303223-15B	SB-10 9-10'	03/22/13 03:23 PM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-10 9-10'	03/22/13 03:23 PM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632
	SB-10 9-10'	03/22/13 03:23 PM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-10 9-10'	03/22/13 03:23 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
1303223-15C	SB-10 9-10'	03/22/13 03:23 PM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622
	SB-10 9-10'	03/22/13 03:23 PM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-10 9-10'	03/22/13 03:23 PM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-10 9-10'	03/22/13 03:23 PM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656
	SB-10 9-10'	03/22/13 03:23 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-10 9-10'	03/22/13 03:23 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-10 9-10'	03/22/13 03:23 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
1303223-17A	SB-9 2-2.7'	03/23/13 08:50 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668
1303223-17B	SB-9 2-2.7'	03/23/13 08:50 AM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-9 2-2.7'	03/23/13 08:50 AM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-9 2-2.7'	03/23/13 08:50 AM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632
	SB-9 2-2.7'	03/23/13 08:50 AM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-9 2-2.7'	03/23/13 08:50 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
1303223-17C	SB-9 2-2.7'	03/23/13 08:50 AM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622
	SB-9 2-2.7'	03/23/13 08:50 AM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-9 2-2.7'	03/23/13 08:50 AM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-9 2-2.7'	03/23/13 08:50 AM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656
	SB-9 2-2.7'	03/23/13 08:50 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-9 2-2.7'	03/23/13 08:50 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-9 2-2.7'	03/23/13 08:50 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
1303223-18A	SB-9 5-7'	03/23/13 09:00 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668
1303223-18B	SB-9 5-7'	03/23/13 09:00 AM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-9 5-7'	03/23/13 09:00 AM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-9 5-7'	03/23/13 09:00 AM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632

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Lab Order: 1303223

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1303223-18B	SB-9 5-7'	03/23/13 09:00 AM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-9 5-7'	03/23/13 09:00 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
1303223-18C	SB-9 5-7'	03/23/13 09:00 AM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622
	SB-9 5-7'	03/23/13 09:00 AM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-9 5-7'	03/23/13 09:00 AM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-9 5-7'	03/23/13 09:00 AM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656
	SB-9 5-7'	03/23/13 09:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-9 5-7'	03/23/13 09:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-9 5-7'	03/23/13 09:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
1303223-19A	SB-9 7-9'	03/23/13 09:00 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668
1303223-19B	SB-9 7-9'	03/23/13 09:00 AM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-9 7-9'	03/23/13 09:00 AM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-9 7-9'	03/23/13 09:00 AM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632
	SB-9 7-9'	03/23/13 09:00 AM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-9 7-9'	03/23/13 09:00 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
1303223-19C	SB-9 7-9'	03/23/13 09:00 AM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622
	SB-9 7-9'	03/23/13 09:00 AM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-9 7-9'	03/23/13 09:00 AM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-9 7-9'	03/23/13 09:00 AM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656
	SB-9 7-9'	03/23/13 09:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-9 7-9'	03/23/13 09:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-9 7-9'	03/23/13 09:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
1303223-20A	SB-9 10-12'	03/23/13 09:10 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56668
1303223-20B	SB-9 10-12'	03/23/13 09:10 AM	Soil	E300	Anion Prep	03/27/13 10:40 AM	56642
	SB-9 10-12'	03/23/13 09:10 AM	Soil	SW9010C	Cyanide Soil Prep	03/27/13 10:30 AM	56632
	SB-9 10-12'	03/23/13 09:10 AM	Soil	SW9045C	pH Preparation	03/27/13 10:15 AM	56629
	SB-9 10-12'	03/23/13 09:10 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
1303223-20C	SB-9 10-12'	03/23/13 09:10 AM	Soil	SW7471A	Mercury Soil Prep, Total	03/27/13 09:00 AM	56622

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Lab Order: 1303223

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1303223-20C	SB-9 10-12'	03/23/13 09:10 AM	Soil	D2216	Moisture Preparation	03/27/13 10:50 AM	56645
	SB-9 10-12'	03/23/13 09:10 AM	Soil	SW3550C	Soil Prep Sonication: BNA	03/28/13 07:49 AM	56654
	SB-9 10-12'	03/23/13 09:10 AM	Soil	SW3550C	Soil Prep Sonication: PCB	03/28/13 07:53 AM	56656
	SB-9 10-12'	03/23/13 09:10 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-9 10-12'	03/23/13 09:10 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621
	SB-9 10-12'	03/23/13 09:10 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	03/27/13 09:00 AM	56621

Lab Order: 1303223

Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1303223-02A	SB-6 2-3'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 12:13 PM	GCMS1_130328A
1303223-02B	SB-6 2-3'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 09:54 AM	IC2_130328A
	SB-6 2-3'	Soil	E300	Anions by IC method - Soil	56642	100	03/28/13 02:57 PM	IC2_130328A
	SB-6 2-3'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 04:42 PM	UV/VIS_2_130328B
	SB-6 2-3'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-6 2-3'	Soil	E418.1	TRPH	56729	20	04/02/13 04:30 PM	IR207_130402A
1303223-02C	SB-6 2-3'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/29/13 04:46 AM	GCMS8_130328A
	SB-6 2-3'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-6 2-3'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	5	03/29/13 04:11 AM	GCMS9_130328A
	SB-6 2-3'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/29/13 04:34 AM	GCMS9_130328A
	SB-6 2-3'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:16 PM	CETAC_HG_130402A
	SB-6 2-3'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 02:25 AM	ICP-MS3_130327A
	SB-6 2-3'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/29/13 11:09 PM	ICP-MS3_130329A
	SB-6 2-3'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/30/13 03:47 AM	ICP-MS3_130329A
303223-03A	SB-6 5-7'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 12:45 PM	GCMS1_130328A
303223-03B	SB-6 5-7'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 10:12 AM	IC2_130328A
	SB-6 5-7'	Soil	E300	Anions by IC method - Soil	56642	10	03/28/13 03:12 PM	IC2_130328A
	SB-6 5-7'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 04:43 PM	UV/VIS_2_130328B
	SB-6 5-7'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-6 5-7'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
303223-03C	SB-6 5-7'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/28/13 09:01 PM	GCMS8_130328A
	SB-6 5-7'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-6 5-7'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/28/13 10:24 PM	GCMS9_130328A
	SB-6 5-7'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:18 PM	CETAC_HG_130402
	SB-6 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 02:32 AM	ICP-MS3_130327A
	SB-6 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/30/13 03:53 AM	ICP-MS3_130329A
	SB-6 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/29/13 11:15 PM	ICP-MS3_130329A
1303223-04A	SB-6 10-12'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 01:17 PM	GCMS1_130328A

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Lab Order: 1303223

Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1303223-04B	SB-6 10-12'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 10:27 AM	IC2_130328A
	SB-6 10-12'	Soil	E300	Anions by IC method - Soil	56642	10	03/28/13 03:26 PM	IC2_130328A
	SB-6 10-12'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 04:45 PM	UV/VIS_2_130328B
	SB-6 10-12'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-6 10-12'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303223-04C	SB-6 10-12'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/28/13 09:31 PM	GCMS8_130328A
	SB-6 10-12'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-6 10-12'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/28/13 10:47 PM	GCMS9_130328A
	SB-6 10-12'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:24 PM	CETAC_HG_130402A
	SB-6 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 02:38 AM	ICP-MS3_130327A
	SB-6 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/29/13 11:22 PM	ICP-MS3_130329A
	SB-6 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/30/13 03:59 AM	ICP-MS3_130329A
1303223-06A	SB-4 2-3'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 01:48 PM	GCMS1_130328A
1303223-06B	SB-4 2-3'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 10:41 AM	IC2_130328A
	SB-4 2-3'	Soil	E300	Anions by IC method - Soil	56642	10	03/28/13 04:10 PM	IC2_130328A
	SB-4 2-3'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 05:25 PM	UV/VIS_2_130328B
	SB-4 2-3'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-4 2-3'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303223-06C	SB-4 2-3'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/28/13 10:03 PM	GCMS8_130328A
	SB-4 2-3'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-4 2-3'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/28/13 11:10 PM	GCMS9_130328A
	SB-4 2-3'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:27 PM	CETAC_HG_130402A
	SB-4 2-3'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/30/13 04:05 AM	ICP-MS3_130329A
	SB-4 2-3'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 02:44 AM	ICP-MS3_130327A
	SB-4 2-3'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/29/13 11:28 PM	ICP-MS3_130329A
1303223-07A	SB-4 5-7'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 02:21 PM	GCMS1_130328A
1303223-07B	SB-4 5-7'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 10:56 AM	IC2_130328A
	SB-4 5-7'	Soil	E300	Anions by IC method - Soil	56642	10	03/28/13 04:25 PM	IC2_130328A

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Lab Order: 1303223

Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1303223-07B	SB-4 5-7'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 04:45 PM	UV/VIS_2_130328B
	SB-4 5-7'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-4 5-7'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303223-07C	SB-4 5-7'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/28/13 10:34 PM	GCMS8_130328A
	SB-4 5-7'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-4 5-7'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/28/13 11:33 PM	GCMS9_130328A
	SB-4 5-7'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:29 PM	CETAC_HG_130402A
	SB-4 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 02:50 AM	ICP-MS3_130327A
	SB-4 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/29/13 11:34 PM	ICP-MS3_130329A
	SB-4 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/30/13 04:11 AM	ICP-MS3_130329A
1303223-08A	SB-4 7-9'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 02:54 PM	GCMS1_130328A
1303223-08B	SB-4 7-9'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 12:01 PM	IC2_130328A
	SB-4 7-9'	Soil	E300	Anions by IC method - Soil	56642	10	03/28/13 04:39 PM	IC2_130328A
	SB-4 7-9'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 04:46 PM	UV/VIS_2_130328B
	SB-4 7-9'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-4 7-9'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303223-08C	SB-4 7-9'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/28/13 11:05 PM	GCMS8_130328A
	SB-4 7-9'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-4 7-9'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/28/13 11:57 PM	GCMS9_130328A
	SB-4 7-9'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:31 PM	CETAC_HG_130402A
	SB-4 7-9'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/30/13 04:17 AM	ICP-MS3_130329A
	SB-4 7-9'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/29/13 11:40 PM	ICP-MS3_130329A
	SB-4 7-9'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 02:57 AM	ICP-MS3_130327A
1303223-09A	SB-4 10-12'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 03:26 PM	GCMS1_130328A
1303223-09B	SB-4 10-12'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 12:16 PM	IC2_130328A
	SB-4 10-12'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 04:46 PM	UV/VIS_2_130328B
	SB-4 10-12'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-4 10-12'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A

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Lab Order: 1303223

Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1303223-09C	SB-4 10-12'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/28/13 11:36 PM	GCMS8_130328A
	SB-4 10-12'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-4 10-12'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/29/13 12:20 AM	GCMS9_130328A
	SB-4 10-12'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:33 PM	CETAC_HG_130402A
	SB-4 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 03:03 AM	ICP-MS3_130327A
	SB-4 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/29/13 11:46 PM	ICP-MS3_130329A
	SB-4 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/30/13 04:24 AM	ICP-MS3_130329A
1303223-11A	SB-10 2-3'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 03:58 PM	GCMS1_130328A
1303223-11B	SB-10 2-3'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 12:30 PM	IC2_130328A
	SB-10 2-3'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 04:46 PM	UV/VIS_2_130328B
	SB-10 2-3'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-10 2-3'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303223-11C	SB-10 2-3'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/29/13 12:07 AM	GCMS8_130328A
	SB-10 2-3'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-10 2-3'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/29/13 12:43 AM	GCMS9_130328A
	SB-10 2-3'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:35 PM	CETAC_HG_130402A
	SB-10 2-3'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/29/13 11:52 PM	ICP-MS3_130329A
	SB-10 2-3'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/30/13 04:30 AM	ICP-MS3_130329A
	SB-10 2-3'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 03:09 AM	ICP-MS3_130327A
1303223-12A	SB-10 5-7'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 04:33 PM	GCMS1_130328A
1303223-12B	SB-10 5-7'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 12:45 PM	IC2_130328A
	SB-10 5-7'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 04:48 PM	UV/VIS_2_130328B
	SB-10 5-7'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-10 5-7'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303223-12C	SB-10 5-7'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/29/13 12:38 AM	GCMS8_130328A
	SB-10 5-7'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-10 5-7'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/29/13 01:06 AM	GCMS9_130328A
	SB-10 5-7'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:37 PM	CETAC_HG_130402A

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Lab Order: 1303223

Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1303223-12C	SB-10 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 03:15 AM	ICP-MS3_130327A
	SB-10 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/29/13 11:59 PM	ICP-MS3_130329A
	SB-10 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/30/13 04:36 AM	ICP-MS3_130329A
1303223-13A	SB-10 7-9'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 05:06 PM	GCMS1_130328A
1303223-13B	SB-10 7-9'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 12:59 PM	IC2_130328A
	SB-10 7-9'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 04:48 PM	UV/VIS_2_130328B
	SB-10 7-9'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-10 7-9'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303223-13C	SB-10 7-9'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/29/13 01:09 AM	GCMS8_130328A
	SB-10 7-9'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-10 7-9'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/29/13 01:29 AM	GCMS9_130328A
	SB-10 7-9'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:39 PM	CETAC_HG_130402A
	SB-10 7-9'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	04/01/13 03:18 PM	ICP-MS3_130401B
	SB-10 7-9'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/30/13 01:37 AM	ICP-MS3_130329A
	SB-10 7-9'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 04:42 AM	ICP-MS3_130327A
1303223-14A	SB-10 10-12'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 05:40 PM	GCMS1_130328A
1303223-14B	SB-10 10-12'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 01:14 PM	IC2_130328A
	SB-10 10-12'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 04:48 PM	UV/VIS_2_130328B
	SB-10 10-12'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-10 10-12'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303223-14C	SB-10 10-12'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/29/13 01:40 AM	GCMS8_130328A
	SB-10 10-12'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-10 10-12'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/29/13 01:52 AM	GCMS9_130328A
	SB-10 10-12'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:41 PM	CETAC_HG_130402A
	SB-10 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/30/13 01:43 AM	ICP-MS3_130329A
	SB-10 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	04/01/13 03:24 PM	ICP-MS3_130401B
	SB-10 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 04:48 AM	ICP-MS3_130327A
1303223-15A	SB-10 9-10'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 06:11 PM	GCMS1 130328A

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Lab Order: 1303223

Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1303223-15B	SB-10 9-10'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 01:29 PM	IC2_130328A
	SB-10 9-10'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 04:48 PM	UV/VIS_2_130328B
	SB-10 9-10'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-10 9-10'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303223-15C	SB-10 9-10'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/29/13 02:11 AM	GCMS8_130328A
	SB-10 9-10'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-10 9-10'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/29/13 02:15 AM	GCMS9_130328A
	SB-10 9-10'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:43 PM	CETAC_HG_130402A
	SB-10 9-10'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	04/01/13 03:30 PM	ICP-MS3_130401B
	SB-10 9-10'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 04:54 AM	ICP-MS3_130327A
	SB-10 9-10'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/30/13 01:50 AM	ICP-MS3_130329A
303223-17A	SB-9 2-2.7'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 06:43 PM	GCMS1_130328A
303223-17B	SB-9 2-2.7'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 01:43 PM	IC2_130328A
	SB-9 2-2.7'	Soil	E300	Anions by IC method - Soil	56642	10	03/28/13 04:54 PM	IC2_130328A
	SB-9 2-2.7'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 04:48 PM	UV/VIS_2_130328B
	SB-9 2-2.7'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-9 2-2.7'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303223-17C	SB-9 2-2.7'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/29/13 04:15 AM	GCMS8_130328A
	SB-9 2-2.7'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-9 2-2.7'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/29/13 03:48 AM	GCMS9_130328A
	SB-9 2-2.7'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:49 PM	CETAC_HG_130402A
	SB-9 2-2.7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/30/13 01:56 AM	ICP-MS3_130329A
	SB-9 2-2.7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	04/01/13 03:36 PM	ICP-MS3_130401B
	SB-9 2-2.7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 05:01 AM	ICP-MS3_130327A
303223-18A	SB-9 5-7'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 07:17 PM	GCMS1_130328A
303223-18B	SB-9 5-7'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 01:58 PM	IC2_130328A
	SB-9 5-7'	Soil	E300	Anions by IC method - Soil	56642	10	03/28/13 05:23 PM	IC2_130328A
	SB-9 5-7'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 04:48 PM	UV/VIS_2_130328B

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Lab Order: 1303223

Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1303223-18B	SB-9 5-7'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-9 5-7'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303223-18C	SB-9 5-7'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/29/13 02:42 AM	GCMS8_130328A
	SB-9 5-7'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-9 5-7'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/29/13 02:38 AM	GCMS9_130328A
	SB-9 5-7'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:05 PM	CETAC_HG_130402A
	SB-9 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/29/13 10:57 PM	ICP-MS3_130329A
	SB-9 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/30/13 03:41 AM	ICP-MS3_130329A
	SB-9 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 02:13 AM	ICP-MS3_130327A
1303223-19A	SB-9 7-9'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 07:50 PM	GCMS1_130328A
1303223-19B	SB-9 7-9'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 02:12 PM	IC2_130328A
	SB-9 7-9'	Soil	E300	Anions by IC method - Soil	56642	10	03/28/13 05:38 PM	IC2_130328A
	SB-9 7-9'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 04:50 PM	UV/VIS_2_130328B
	SB-9 7-9'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-9 7-9'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303223-19C	SB-9 7-9'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/29/13 03:13 AM	GCMS8_130328A
	SB-9 7-9'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-9 7-9'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/29/13 03:01 AM	GCMS9_130328A
	SB-9 7-9'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:51 PM	CETAC_HG_130402A
	SB-9 7-9'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/30/13 02:02 AM	ICP-MS3_130329A
	SB-9 7-9'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	04/01/13 03:42 PM	ICP-MS3_130401B
	SB-9 7-9'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 05:07 AM	ICP-MS3_130327A
1303223-20A	SB-9 10-12'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56668	1	03/28/13 08:24 PM	GCMS1_130328A
1303223-20B	SB-9 10-12'	Soil	E300	Anions by IC method - Soil	56642	1	03/28/13 02:43 PM	IC2_130328A
	SB-9 10-12'	Soil	SW9014	Cyanide - Solid Sample	56632	1	03/28/13 04:50 PM	UV/VIS_2_130328B
	SB-9 10-12'	Soil	SW9045D	pH of Solid (Corrosivity)	56629	1	03/27/13 10:15 AM	PH_130327A
	SB-9 10-12'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303223-20C	SB-9 10-12'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56656	1	03/29/13 03:44 AM	GCMS8_130328A

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Lab Order: 1303223

Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1303223-20C	SB-9 10-12'	Soil	D2216	Percent Moisture	56645	1	03/28/13 11:10 AM	PMOIST_130327C
	SB-9 10-12'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56654	1	03/29/13 03:25 AM	GCMS9_130328A
	SB-9 10-12'	Soil	SW7471B	Total Mercury: Soil/Solid	56622	1	04/02/13 01:53 PM	CETAC_HG_130402A
	SB-9 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	04/01/13 03:48 PM	ICP-MS3_130401B
	SB-9 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	5	03/28/13 05:13 AM	ICP-MS3_130327A
	SB-9 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56621	50	03/30/13 02:08 AM	ICP-MS3_130329A

CLIENT: Larson & Associates Client Sample ID: SB-6 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303223-02

Project No: 11-0109-09 **Collection Date:** 03/22/13 08:35 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0156	0.0390		mg/Kg-dry	1	04/02/13 01:16 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	2.03	0.528	1.06		mg/Kg-dry	5	03/28/13 02:25 AM
Barium	184	0.528	2.11		mg/Kg-dry	5	03/28/13 02:25 AM
Cadmium	0.113	0.106	0.317	J	mg/Kg-dry	5	03/28/13 02:25 AM
Chromium	5.97	0.528	2.11		mg/Kg-dry	5	03/30/13 03:47 AM
Copper	3.19	0.528	2.11		mg/Kg-dry	5	03/30/13 03:47 AM
Iron	6220	132	132		mg/Kg-dry	50	03/29/13 11:09 PM
Lead	3.78	0.106	0.317		mg/Kg-dry	5	03/28/13 02:25 AM
Manganese	62.2	0.528	2.11		mg/Kg-dry	5	03/28/13 02:25 AM
Selenium	0.791	0.158	0.528		mg/Kg-dry	5	03/28/13 02:25 AM
Silver	ND	0.106	0.211		mg/Kg-dry	5	03/28/13 02:25 AM
Zinc	14.1	1.06	2.64		mg/Kg-dry	5	03/28/13 02:25 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	3.65	0.0537	0.143	N	mg/Kg-dry	5	03/29/13 04:11 AM
2-Methylnaphthalene	3.01	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
Naphthalene	0.688	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
Benzo[a]pyrene	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2,3,4,6-Tetrachlorophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2,4,5-Trichlorophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2,4,6-Trichlorophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2,4-Dichlorophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2,4-Dimethylphenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2,4-Dinitrophenol	ND	0.269	0.709		mg/Kg-dry	5	03/29/13 04:11 AM
2,6-Dichlorophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2-Chlorophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2-Methylphenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
2-Nitrophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
4,6-Dinitro-2-methylphenol	ND	0.161	0.355		mg/Kg-dry	5	03/29/13 04:11 AM
4-Chloro-3-methylphenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
4-Methylphenol	ND	0.107	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
4-Nitrophenol	ND	0.269	0.709		mg/Kg-dry	5	03/29/13 04:11 AM
Pentachlorophenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
Phenol	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
Total Phenol (Calculated)	ND	0.0537	0.143		mg/Kg-dry	5	03/29/13 04:11 AM
Surr: 2,4,6-Tribromophenol	120	0.0007	45-126		%REC	5	03/29/13 04:11 AM
Surr: 2-Fluorobiphenyl	100	0	60-125		%REC	5	03/29/13 04:11 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-6 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303223-02

Project No: 11-0109-09 **Collection Date:** 03/22/13 08:35 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D			Analyst: AJR
Surr: 2-Fluorophenol	90.0	0	37-125	%REC	5	03/29/13 04:11 AM
Surr: 4-Terphenyl-d14	105	0	45-125	%REC	5	03/29/13 04:11 AM
Surr: Nitrobenzene-d5	120	0	45-125	%REC	5	03/29/13 04:11 AM
Surr: Phenol-d6	85.0	0	40-125	%REC	5	03/29/13 04:11 AM
PCB BY GC/MS - SOIL/SOLID		SW82	70D			Analyst: AJR
Aroclor 1016	ND	0.0179	0.0358	mg/Kg-dry	1	03/29/13 04:46 AM
Aroclor 1221	ND	0.0179	0.0358	mg/Kg-dry	1	03/29/13 04:46 AM
Aroclor 1232	ND	0.0179	0.0358	mg/Kg-dry	1	03/29/13 04:46 AM
Aroclor 1242	ND	0.0179	0.0358	mg/Kg-dry	1	03/29/13 04:46 AM
Aroclor 1248	ND	0.0179	0.0358	mg/Kg-dry	1	03/29/13 04:46 AM
Aroclor 1254	ND	0.0179	0.0358	mg/Kg-dry	1	03/29/13 04:46 AM
Aroclor 1260	ND	0.0179	0.0358	mg/Kg-dry	1	03/29/13 04:46 AM
Surr: 2-Fluorobiphenyl	78.5	0	43-125	%REC	1	03/29/13 04:46 AM
Surr: 4-Terphenyl-d14	79.4	0	32-125	%REC	1	03/29/13 04:46 AM
8260 SOIL VOLATILES BY GC/MS		SW82	60C			Analyst: KL
Benzene	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
Toluene	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
Carbon tetrachloride	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
1,2-Dichloroethane	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
1,1-Dichloroethylene	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
Tetrachloroethylene	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
Trichloroethylene	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
Ethylbenzene	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
Total Xylenes	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
Methylene chloride	ND	0.00514	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
Chloroform	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
1,1-Dichloroethane	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
Ethylene bromide	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
1,1,1-Trichloroethane	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
1,1,2-Trichloroethane	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
1,1,2,2-Tetrachloroethane	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
Vinyl chloride	ND	0.00103	0.00514	mg/Kg-dry	1	03/28/13 12:13 PM
Surr: 1,2-Dichloroethane-d4	101	0	52-149	%REC	1	03/28/13 12:13 PM
Surr: 4-Bromofluorobenzene	103	0	84-118	%REC	1	03/28/13 12:13 PM
Surr: Dibromofluoromethane	96.4	0	65-135	%REC	1	03/28/13 12:13 PM
Surr: Toluene-d8	104	0	84-116	%REC	1	03/28/13 12:13 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-6 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303223-02

Project No: 11-0109-09 **Collection Date:** 03/22/13 08:35 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	7740	111	222	N	mg/Kg-dry	20	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.186	0.466		mg/Kg-dry	1	03/28/13 04:42 PM
ANIONS BY IC METHOD - SOIL		E300	0				Analyst: JBC
Chloride	2310	542	542		mg/Kg-dry	100	03/28/13 02:57 PM
Fluoride	1.60	1.08	1.08		mg/Kg-dry	1	03/28/13 09:54 AM
Nitrate-N	ND	5.42	5.42		mg/Kg-dry	1	03/28/13 09:54 AM
Sulfate	4520	1080	1080		mg/Kg-dry	100	03/28/13 02:57 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: JCG
pH	7.64	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	6				Analyst: MK
Percent Moisture	9.86	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-6 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-03

Project No: 11-0109-09 **Collection Date:** 03/22/13 08:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0166	0.0414		mg/Kg-dry	1	04/02/13 01:18 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	1.30	0.467	0.934		mg/Kg-dry	5	03/28/13 02:32 AM
Barium	23.4	0.467	1.87		mg/Kg-dry	5	03/28/13 02:32 AM
Cadmium	ND	0.0934	0.280		mg/Kg-dry	5	03/28/13 02:32 AM
Chromium	4.63	0.467	1.87		mg/Kg-dry	5	03/30/13 03:53 AM
Copper	1.58	0.467	1.87	J	mg/Kg-dry	5	03/30/13 03:53 AM
Iron	4840	117	117		mg/Kg-dry	50	03/29/13 11:15 PM
Lead	2.36	0.0934	0.280		mg/Kg-dry	5	03/28/13 02:32 AM
Manganese	44.3	0.467	1.87		mg/Kg-dry	5	03/28/13 02:32 AM
Selenium	0.588	0.140	0.467		mg/Kg-dry	5	03/28/13 02:32 AM
Silver	ND	0.0934	0.187		mg/Kg-dry	5	03/28/13 02:32 AM
Zinc	7.88	0.934	2.33		mg/Kg-dry	5	03/28/13 02:32 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.00981	0.0261	N	mg/Kg-dry	1	03/28/13 10:24 PM
2-Methylnaphthalene	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
Naphthalene	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
Benzo[a]pyrene	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2,3,4,6-Tetrachlorophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2,4,5-Trichlorophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2,4,6-Trichlorophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2,4-Dichlorophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2,4-Dimethylphenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2,4-Dinitrophenol	ND	0.0491	0.130		mg/Kg-dry	1	03/28/13 10:24 PM
2,6-Dichlorophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2-Chlorophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2-Methylphenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
2-Nitrophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
4,6-Dinitro-2-methylphenol	ND	0.0294	0.0648		mg/Kg-dry	1	03/28/13 10:24 PM
4-Chloro-3-methylphenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
4-Methylphenol	ND	0.0196	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
4-Nitrophenol	ND	0.0491	0.130		mg/Kg-dry	1	03/28/13 10:24 PM
Pentachlorophenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
Phenol	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
Total Phenol (Calculated)	ND	0.00981	0.0261		mg/Kg-dry	1	03/28/13 10:24 PM
Surr: 2,4,6-Tribromophenol	74.0	0	45-126		%REC	1	03/28/13 10:24 PM
Surr: 2-Fluorobiphenyl	80.0	0	60-125		%REC	1	03/28/13 10:24 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-6 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-03

Project No: 11-0109-09 **Collection Date:** 03/22/13 08:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
Surr: 2-Fluorophenol	94.0	0	37-125		%REC	1	03/28/13 10:24 PM
Surr: 4-Terphenyl-d14	49.0	0	45-125		%REC	1	03/28/13 10:24 PM
Surr: Nitrobenzene-d5	80.0	0	45-125		%REC	1	03/28/13 10:24 PM
Surr: Phenol-d6	95.0	0	40-125		%REC	1	03/28/13 10:24 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0164	0.0327		mg/Kg-dry	1	03/28/13 09:01 PM
Aroclor 1221	ND	0.0164	0.0327		mg/Kg-dry	1	03/28/13 09:01 PM
Aroclor 1232	ND	0.0164	0.0327		mg/Kg-dry	1	03/28/13 09:01 PM
Aroclor 1242	ND	0.0164	0.0327		mg/Kg-dry	1	03/28/13 09:01 PM
Aroclor 1248	ND	0.0164	0.0327		mg/Kg-dry	1	03/28/13 09:01 PM
Aroclor 1254	ND	0.0164	0.0327		mg/Kg-dry	1	03/28/13 09:01 PM
Aroclor 1260	ND	0.0164	0.0327		mg/Kg-dry	1	03/28/13 09:01 PM
Surr: 2-Fluorobiphenyl	67.9	0	43-125		%REC	1	03/28/13 09:01 PM
Surr: 4-Terphenyl-d14	76.8	0	32-125		%REC	1	03/28/13 09:01 PM
8260 SOIL VOLATILES BY GC/MS		SW82	:60C				Analyst: KL
Benzene	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Toluene	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Carbon tetrachloride	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
1,2-Dichloroethane	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
1,1-Dichloroethylene	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Tetrachloroethylene	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Trichloroethylene	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Ethylbenzene	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Total Xylenes	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Methylene chloride	ND	0.00425	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Chloroform	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
1,1-Dichloroethane	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Ethylene bromide	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
1,1,1-Trichloroethane	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
1,1,2-Trichloroethane	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
1,1,2,2-Tetrachloroethane	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Vinyl chloride	ND	0.000851	0.00425		mg/Kg-dry	1	03/28/13 12:45 PM
Surr: 1,2-Dichloroethane-d4	99.6	0	52-149		%REC	1	03/28/13 12:45 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 12:45 PM
Surr: Dibromofluoromethane	98.1	0	65-135		%REC	1	03/28/13 12:45 PM
Surr: Toluene-d8	105	0	84-116		%REC	1	03/28/13 12:45 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-6 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-03

Project No: 11-0109-09 **Collection Date:** 03/22/13 08:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	8.41	5.18	10.4	JN	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.171	0.426		mg/Kg-dry	1	03/28/13 04:43 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	1230	51.3	51.3		mg/Kg-dry	10	03/28/13 03:12 PM
Fluoride	1.11	1.03	1.03		mg/Kg-dry	1	03/28/13 10:12 AM
Nitrate-N	7.23	5.13	5.13		mg/Kg-dry	1	03/28/13 10:12 AM
Sulfate	188	10.3	10.3		mg/Kg-dry	1	03/28/13 10:12 AM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: JCG
pH	8.22	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	6				Analyst: MK
Percent Moisture	3.50	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-6 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303223-04

Project No: 11-0109-09 **Collection Date:** 03/22/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0152	0.0381		mg/Kg-dry	1	04/02/13 01:24 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	3.43	0.448	0.895		mg/Kg-dry	5	03/28/13 02:38 AM
Barium	55.0	0.448	1.79		mg/Kg-dry	5	03/28/13 02:38 AM
Cadmium	ND	0.0895	0.269		mg/Kg-dry	5	03/28/13 02:38 AM
Chromium	7.68	0.448	1.79		mg/Kg-dry	5	03/30/13 03:59 AM
Copper	2.19	0.448	1.79		mg/Kg-dry	5	03/30/13 03:59 AM
Iron	9690	112	112		mg/Kg-dry	50	03/29/13 11:22 PM
Lead	3.75	0.0895	0.269		mg/Kg-dry	5	03/28/13 02:38 AM
Manganese	124	0.448	1.79		mg/Kg-dry	5	03/28/13 02:38 AM
Selenium	0.945	0.134	0.448		mg/Kg-dry	5	03/28/13 02:38 AM
Silver	ND	0.0895	0.179		mg/Kg-dry	5	03/28/13 02:38 AM
Zinc	13.0	0.895	2.24		mg/Kg-dry	5	03/28/13 02:38 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0100	0.0266	N	mg/Kg-dry	1	03/28/13 10:47 PM
2-Methylnaphthalene	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
Naphthalene	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
Benzo[a]pyrene	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2,3,4,6-Tetrachlorophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2,4,5-Trichlorophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2,4,6-Trichlorophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2,4-Dichlorophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2,4-Dimethylphenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2,4-Dinitrophenol	ND	0.0500	0.132		mg/Kg-dry	1	03/28/13 10:47 PM
2,6-Dichlorophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2-Chlorophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2-Methylphenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
2-Nitrophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
4,6-Dinitro-2-methylphenol	ND	0.0300	0.0661		mg/Kg-dry	1	03/28/13 10:47 PM
4-Chloro-3-methylphenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
4-Methylphenol	ND	0.0200	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
4-Nitrophenol	ND	0.0500	0.132		mg/Kg-dry	1	03/28/13 10:47 PM
Pentachlorophenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
Phenol	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
Total Phenol (Calculated)	ND	0.0100	0.0266		mg/Kg-dry	1	03/28/13 10:47 PM
Surr: 2,4,6-Tribromophenol	78.0	0	45-126		%REC	1	03/28/13 10:47 PM
Surr: 2-Fluorobiphenyl	79.0	0	60-125		%REC	1	03/28/13 10:47 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-6 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303223-04

Project No: 11-0109-09 **Collection Date:** 03/22/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: AJR
Surr: 2-Fluorophenol	88.0	0	37-125		%REC	1	03/28/13 10:47 PM
Surr: 4-Terphenyl-d14	84.0	0	45-125		%REC	1	03/28/13 10:47 PM
Surr: Nitrobenzene-d5	81.0	0	45-125		%REC	1	03/28/13 10:47 PM
Surr: Phenol-d6	80.0	0	40-125		%REC	1	03/28/13 10:47 PM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0167	0.0334		mg/Kg-dry	1	03/28/13 09:31 PM
Aroclor 1221	ND	0.0167	0.0334		mg/Kg-dry	1	03/28/13 09:31 PM
Aroclor 1232	ND	0.0167	0.0334		mg/Kg-dry	1	03/28/13 09:31 PM
Aroclor 1242	ND	0.0167	0.0334		mg/Kg-dry	1	03/28/13 09:31 PM
Aroclor 1248	ND	0.0167	0.0334		mg/Kg-dry	1	03/28/13 09:31 PM
Aroclor 1254	ND	0.0167	0.0334		mg/Kg-dry	1	03/28/13 09:31 PM
Aroclor 1260	ND	0.0167	0.0334		mg/Kg-dry	1	03/28/13 09:31 PM
Surr: 2-Fluorobiphenyl	74.6	0	43-125		%REC	1	03/28/13 09:31 PM
Surr: 4-Terphenyl-d14	80.5	0	32-125		%REC	1	03/28/13 09:31 PM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Toluene	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Carbon tetrachloride	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
1,2-Dichloroethane	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
1,1-Dichloroethylene	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Tetrachloroethylene	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Trichloroethylene	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Ethylbenzene	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Total Xylenes	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Methylene chloride	ND	0.00480	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Chloroform	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
1,1-Dichloroethane	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Ethylene bromide	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
1,1,1-Trichloroethane	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
1,1,2-Trichloroethane	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
1,1,2,2-Tetrachloroethane	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Vinyl chloride	ND	0.000961	0.00480		mg/Kg-dry	1	03/28/13 01:17 PM
Surr: 1,2-Dichloroethane-d4	105	0	52-149		%REC	1	03/28/13 01:17 PM
Surr: 4-Bromofluorobenzene	105	0	84-118		%REC	1	03/28/13 01:17 PM
Surr: Dibromofluoromethane	99.8	0	65-135		%REC	1	03/28/13 01:17 PM
Surr: Toluene-d8	105	0	84-116		%REC	1	03/28/13 01:17 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-6 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303223-04

Project No: 11-0109-09 **Collection Date:** 03/22/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.09	10.2	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.175	0.438		mg/Kg-dry	1	03/28/13 04:45 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	1220	50.6	50.6		mg/Kg-dry	10	03/28/13 03:26 PM
Fluoride	1.23	1.01	1.01		mg/Kg-dry	1	03/28/13 10:27 AM
Nitrate-N	ND	5.06	5.06		mg/Kg-dry	1	03/28/13 10:27 AM
Sulfate	174	10.1	10.1		mg/Kg-dry	1	03/28/13 10:27 AM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: JCG
pH	7.85	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	6				Analyst: MK
Percent Moisture	1.99	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
 - ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-4 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303223-06

Project No: 11-0109-09 **Collection Date:** 03/22/13 11:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	0.0174	0.0160	0.0400	J	mg/Kg-dry	1	04/02/13 01:27 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	1.24	0.500	1.00		mg/Kg-dry	5	03/28/13 02:44 AM
Barium	34.0	0.500	2.00		mg/Kg-dry	5	03/28/13 02:44 AM
Cadmium	0.123	0.100	0.300	J	mg/Kg-dry	5	03/28/13 02:44 AM
Chromium	4.03	0.500	2.00		mg/Kg-dry	5	03/30/13 04:05 AM
Copper	1.57	0.500	2.00	J	mg/Kg-dry	5	03/30/13 04:05 AM
Iron	4320	125	125		mg/Kg-dry	50	03/29/13 11:28 PM
Lead	2.14	0.100	0.300		mg/Kg-dry	5	03/28/13 02:44 AM
Manganese	39.0	0.500	2.00		mg/Kg-dry	5	03/28/13 02:44 AM
Selenium	0.586	0.150	0.500		mg/Kg-dry	5	03/28/13 02:44 AM
Silver	ND	0.100	0.200		mg/Kg-dry	5	03/28/13 02:44 AM
Zinc	7.44	1.00	2.50		mg/Kg-dry	5	03/28/13 02:44 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0106	0.0283	N	mg/Kg-dry	1	03/28/13 11:10 PM
2-Methylnaphthalene	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
Naphthalene	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
Benzo[a]pyrene	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2,3,4,6-Tetrachlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2,4,5-Trichlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2,4,6-Trichlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2,4-Dichlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2,4-Dimethylphenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2,4-Dinitrophenol	ND	0.0531	0.140		mg/Kg-dry	1	03/28/13 11:10 PM
2,6-Dichlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2-Chlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2-Methylphenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
2-Nitrophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
4,6-Dinitro-2-methylphenol	ND	0.0319	0.0701		mg/Kg-dry	1	03/28/13 11:10 PM
4-Chloro-3-methylphenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
4-Methylphenol	ND	0.0213	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
4-Nitrophenol	ND	0.0531	0.140		mg/Kg-dry	1	03/28/13 11:10 PM
Pentachlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
Phenol	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
Total Phenol (Calculated)	ND	0.0106	0.0283		mg/Kg-dry	1	03/28/13 11:10 PM
Surr: 2,4,6-Tribromophenol	82.0	0	45-126		%REC	1	03/28/13 11:10 PM
Surr: 2-Fluorobiphenyl	76.0	0	60-125		%REC	1	03/28/13 11:10 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-4 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303223-06

Project No: 11-0109-09 **Collection Date:** 03/22/13 11:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
Surr: 2-Fluorophenol	82.0	0	37-125		%REC	1	03/28/13 11:10 PM
Surr: 4-Terphenyl-d14	84.0	0	45-125		%REC	1	03/28/13 11:10 PM
Surr: Nitrobenzene-d5	78.0	0	45-125		%REC	1	03/28/13 11:10 PM
Surr: Phenol-d6	79.0	0	40-125		%REC	1	03/28/13 11:10 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0177	0.0354		mg/Kg-dry	1	03/28/13 10:03 PM
Aroclor 1221	ND	0.0177	0.0354		mg/Kg-dry	1	03/28/13 10:03 PM
Aroclor 1232	ND	0.0177	0.0354		mg/Kg-dry	1	03/28/13 10:03 PM
Aroclor 1242	ND	0.0177	0.0354		mg/Kg-dry	1	03/28/13 10:03 PM
Aroclor 1248	ND	0.0177	0.0354		mg/Kg-dry	1	03/28/13 10:03 PM
Aroclor 1254	ND	0.0177	0.0354		mg/Kg-dry	1	03/28/13 10:03 PM
Aroclor 1260	ND	0.0177	0.0354		mg/Kg-dry	1	03/28/13 10:03 PM
Surr: 2-Fluorobiphenyl	68.5	0	43-125		%REC	1	03/28/13 10:03 PM
Surr: 4-Terphenyl-d14	79.2	0	32-125		%REC	1	03/28/13 10:03 PM
8260 SOIL VOLATILES BY GC/MS		SW82	:60C				Analyst: KL
Benzene	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Toluene	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Carbon tetrachloride	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
1,2-Dichloroethane	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
1,1-Dichloroethylene	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Tetrachloroethylene	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Trichloroethylene	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Ethylbenzene	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Total Xylenes	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Methylene chloride	ND	0.00501	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Chloroform	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
1,1-Dichloroethane	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Ethylene bromide	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
1,1,1-Trichloroethane	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
1,1,2-Trichloroethane	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
1,1,2,2-Tetrachloroethane	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Vinyl chloride	ND	0.00100	0.00501		mg/Kg-dry	1	03/28/13 01:48 PM
Surr: 1,2-Dichloroethane-d4	102	0	52-149		%REC	1	03/28/13 01:48 PM
Surr: 4-Bromofluorobenzene	106	0	84-118		%REC	1	03/28/13 01:48 PM
Surr: Dibromofluoromethane	101	0	65-135		%REC	1	03/28/13 01:48 PM
Surr: Toluene-d8	104	0	84-116		%REC	1	03/28/13 01:48 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-4 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303223-06

Project No: 11-0109-09 **Collection Date:** 03/22/13 11:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	6.74	5.39	10.8	JN	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.214	0.535		mg/Kg-dry	1	03/28/13 05:25 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	1010	53.1	53.1		mg/Kg-dry	10	03/28/13 04:10 PM
Fluoride	ND	1.06	1.06		mg/Kg-dry	1	03/28/13 10:41 AM
Nitrate-N	7.67	5.31	5.31		mg/Kg-dry	1	03/28/13 10:41 AM
Sulfate	82.7	10.6	10.6		mg/Kg-dry	1	03/28/13 10:41 AM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: JCG
pH	7.92	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	16				Analyst: MK
Percent Moisture	7.43	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-4 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-07

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:05 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0142	0.0355		mg/Kg-dry	1	04/02/13 01:29 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	1.12	0.490	0.980		mg/Kg-dry	5	03/28/13 02:50 AM
Barium	21.1	0.490	1.96		mg/Kg-dry	5	03/28/13 02:50 AM
Cadmium	ND	0.0980	0.294		mg/Kg-dry	5	03/28/13 02:50 AM
Chromium	4.70	0.490	1.96		mg/Kg-dry	5	03/30/13 04:11 AM
Copper	1.66	0.490	1.96	J	mg/Kg-dry	5	03/30/13 04:11 AM
Iron	4750	123	123		mg/Kg-dry	50	03/29/13 11:34 PM
Lead	2.22	0.0980	0.294		mg/Kg-dry	5	03/28/13 02:50 AM
Manganese	37.4	0.490	1.96		mg/Kg-dry	5	03/28/13 02:50 AM
Selenium	0.474	0.147	0.490	J	mg/Kg-dry	5	03/28/13 02:50 AM
Silver	ND	0.0980	0.196		mg/Kg-dry	5	03/28/13 02:50 AM
Zinc	8.03	0.980	2.45		mg/Kg-dry	5	03/28/13 02:50 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0101	0.0268	N	mg/Kg-dry	1	03/28/13 11:33 PM
2-Methylnaphthalene	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
Naphthalene	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
Benzo[a]pyrene	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2,3,4,6-Tetrachlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2,4,5-Trichlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2,4,6-Trichlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2,4-Dichlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2,4-Dimethylphenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2,4-Dinitrophenol	ND	0.0504	0.133		mg/Kg-dry	1	03/28/13 11:33 PM
2,6-Dichlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2-Chlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2-Methylphenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
2-Nitrophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
4,6-Dinitro-2-methylphenol	ND	0.0302	0.0665		mg/Kg-dry	1	03/28/13 11:33 PM
4-Chloro-3-methylphenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
4-Methylphenol	ND	0.0202	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
4-Nitrophenol	ND	0.0504	0.133		mg/Kg-dry	1	03/28/13 11:33 PM
Pentachlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
Phenol	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
Total Phenol (Calculated)	ND	0.0101	0.0268		mg/Kg-dry	1	03/28/13 11:33 PM
Surr: 2,4,6-Tribromophenol	83.0	0	45-126		%REC	1	03/28/13 11:33 PM
Surr: 2-Fluorobiphenyl	80.0	0	60-125		%REC	1	03/28/13 11:33 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-4 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-07

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:05 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: AJR
Surr: 2-Fluorophenol	86.0	0	37-125		%REC	1	03/28/13 11:33 PM
Surr: 4-Terphenyl-d14	78.0	0	45-125		%REC	1	03/28/13 11:33 PM
Surr: Nitrobenzene-d5	82.0	0	45-125		%REC	1	03/28/13 11:33 PM
Surr: Phenol-d6	84.0	0	40-125		%REC	1	03/28/13 11:33 PM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0168	0.0336		mg/Kg-dry	1	03/28/13 10:34 PM
Aroclor 1221	ND	0.0168	0.0336		mg/Kg-dry	1	03/28/13 10:34 PM
Aroclor 1232	ND	0.0168	0.0336		mg/Kg-dry	1	03/28/13 10:34 PM
Aroclor 1242	ND	0.0168	0.0336		mg/Kg-dry	1	03/28/13 10:34 PM
Aroclor 1248	ND	0.0168	0.0336		mg/Kg-dry	1	03/28/13 10:34 PM
Aroclor 1254	ND	0.0168	0.0336		mg/Kg-dry	1	03/28/13 10:34 PM
Aroclor 1260	ND	0.0168	0.0336		mg/Kg-dry	1	03/28/13 10:34 PM
Surr: 2-Fluorobiphenyl	70.5	0	43-125		%REC	1	03/28/13 10:34 PM
Surr: 4-Terphenyl-d14	80.2	0	32-125		%REC	1	03/28/13 10:34 PM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Toluene	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Carbon tetrachloride	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
1,2-Dichloroethane	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
1,1-Dichloroethylene	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Tetrachloroethylene	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Trichloroethylene	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Ethylbenzene	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Total Xylenes	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Methylene chloride	ND	0.00487	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Chloroform	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
1,1-Dichloroethane	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Ethylene bromide	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
1,1,1-Trichloroethane	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
1,1,2-Trichloroethane	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
1,1,2,2-Tetrachloroethane	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Vinyl chloride	ND	0.000975	0.00487		mg/Kg-dry	1	03/28/13 02:21 PM
Surr: 1,2-Dichloroethane-d4	99.4	0	52-149		%REC	1	03/28/13 02:21 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 02:21 PM
Surr: Dibromofluoromethane	97.2	0	65-135		%REC	1	03/28/13 02:21 PM
Surr: Toluene-d8	104	0	84-116		%REC	1	03/28/13 02:21 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-4 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-07

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:05 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	14.7	5.10	10.2	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.203	0.507		mg/Kg-dry	1	03/28/13 04:45 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	466	50.6	50.6		mg/Kg-dry	10	03/28/13 04:25 PM
Fluoride	ND	1.01	1.01		mg/Kg-dry	1	03/28/13 10:56 AM
Nitrate-N	ND	5.06	5.06		mg/Kg-dry	1	03/28/13 10:56 AM
Sulfate	103	10.1	10.1		mg/Kg-dry	1	03/28/13 10:56 AM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: JCG
pH	7.75	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	6				Analyst: MK
Percent Moisture	1.93	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
 - ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-47-9'
Project: R360 Artesia Landfarm Lab ID: 1303223-08

Project No: 11-0109-09 Collection Date: 03/22/13 12:05 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0157	0.0393		mg/Kg-dry	1	04/02/13 01:31 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	1.13	0.497	0.994		mg/Kg-dry	5	03/28/13 02:57 AM
Barium	37.9	0.497	1.99		mg/Kg-dry	5	03/28/13 02:57 AM
Cadmium	ND	0.0994	0.298		mg/Kg-dry	5	03/28/13 02:57 AM
Chromium	6.49	0.497	1.99		mg/Kg-dry	5	03/30/13 04:17 AM
Copper	2.26	0.497	1.99		mg/Kg-dry	5	03/30/13 04:17 AM
Iron	6650	124	124		mg/Kg-dry	50	03/29/13 11:40 PM
Lead	3.10	0.0994	0.298		mg/Kg-dry	5	03/28/13 02:57 AM
Manganese	59.0	0.497	1.99		mg/Kg-dry	5	03/28/13 02:57 AM
Selenium	0.762	0.149	0.497		mg/Kg-dry	5	03/28/13 02:57 AM
Silver	ND	0.0994	0.199		mg/Kg-dry	5	03/28/13 02:57 AM
Zinc	11.0	0.994	2.49		mg/Kg-dry	5	03/28/13 02:57 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0108	0.0288	N	mg/Kg-dry	1	03/28/13 11:57 PM
2-Methylnaphthalene	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
Naphthalene	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
Benzo[a]pyrene	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2,3,4,6-Tetrachlorophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2,4,5-Trichlorophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2,4,6-Trichlorophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2,4-Dichlorophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2,4-Dimethylphenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2,4-Dinitrophenol	ND	0.0542	0.143		mg/Kg-dry	1	03/28/13 11:57 PM
2,6-Dichlorophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2-Chlorophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2-Methylphenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
2-Nitrophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
4,6-Dinitro-2-methylphenol	ND	0.0325	0.0715		mg/Kg-dry	1	03/28/13 11:57 PM
4-Chloro-3-methylphenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
4-Methylphenol	ND	0.0217	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
4-Nitrophenol	ND	0.0542	0.143		mg/Kg-dry	1	03/28/13 11:57 PM
Pentachlorophenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
Phenol	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
Total Phenol (Calculated)	ND	0.0108	0.0288		mg/Kg-dry	1	03/28/13 11:57 PM
Surr: 2,4,6-Tribromophenol	82.0	0.0100	45-126		%REC	1	03/28/13 11:57 PM
Surr: 2-Fluorobiphenyl	76.0	0	60-125		%REC	1	03/28/13 11:57 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit RL Reporting Limit
 - N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-4 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303223-08

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:05 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: AJR
Surr: 2-Fluorophenol	83.0	0	37-125		%REC	1	03/28/13 11:57 PM
Surr: 4-Terphenyl-d14	83.0	0	45-125		%REC	1	03/28/13 11:57 PM
Surr: Nitrobenzene-d5	81.0	0	45-125		%REC	1	03/28/13 11:57 PM
Surr: Phenol-d6	82.0	0	40-125		%REC	1	03/28/13 11:57 PM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0181	0.0361		mg/Kg-dry	1	03/28/13 11:05 PM
Aroclor 1221	ND	0.0181	0.0361		mg/Kg-dry	1	03/28/13 11:05 PM
Aroclor 1232	ND	0.0181	0.0361		mg/Kg-dry	1	03/28/13 11:05 PM
Aroclor 1242	ND	0.0181	0.0361		mg/Kg-dry	1	03/28/13 11:05 PM
Aroclor 1248	ND	0.0181	0.0361		mg/Kg-dry	1	03/28/13 11:05 PM
Aroclor 1254	ND	0.0181	0.0361		mg/Kg-dry	1	03/28/13 11:05 PM
Aroclor 1260	ND	0.0181	0.0361		mg/Kg-dry	1	03/28/13 11:05 PM
Surr: 2-Fluorobiphenyl	64.8	0	43-125		%REC	1	03/28/13 11:05 PM
Surr: 4-Terphenyl-d14	77.3	0	32-125		%REC	1	03/28/13 11:05 PM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Toluene	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Carbon tetrachloride	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
1,2-Dichloroethane	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
1,1-Dichloroethylene	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Tetrachloroethylene	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Trichloroethylene	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Ethylbenzene	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Total Xylenes	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Methylene chloride	ND	0.00527	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Chloroform	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
1,1-Dichloroethane	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Ethylene bromide	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
1,1,1-Trichloroethane	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
1,1,2-Trichloroethane	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
1,1,2,2-Tetrachloroethane	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Vinyl chloride	ND	0.00105	0.00527		mg/Kg-dry	1	03/28/13 02:54 PM
Surr: 1,2-Dichloroethane-d4	101	0	52-149		%REC	1	03/28/13 02:54 PM
Surr: 4-Bromofluorobenzene	106	0	84-118		%REC	1	03/28/13 02:54 PM
Surr: Dibromofluoromethane	97.2	0	65-135		%REC	1	03/28/13 02:54 PM
Surr: Toluene-d8	105	0	84-116		%REC	1	03/28/13 02:54 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-4 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303223-08

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:05 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.48	11.0	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.199	0.497		mg/Kg-dry	1	03/28/13 04:46 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	1300	54.7	54.7		mg/Kg-dry	10	03/28/13 04:39 PM
Fluoride	1.66	1.09	1.09		mg/Kg-dry	1	03/28/13 12:01 PM
Nitrate-N	8.05	5.47	5.47		mg/Kg-dry	1	03/28/13 12:01 PM
Sulfate	ND	10.9	10.9		mg/Kg-dry	1	03/28/13 12:01 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: JCG
pH	7.64	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	16				Analyst: MK
Percent Moisture	9.39	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-4 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303223-09

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:10 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0152	0.0380		mg/Kg-dry	1	04/02/13 01:33 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	0.686	0.466	0.933	J	mg/Kg-dry	5	03/28/13 03:03 AM
Barium	63.2	0.466	1.87		mg/Kg-dry	5	03/28/13 03:03 AM
Cadmium	ND	0.0933	0.280		mg/Kg-dry	5	03/28/13 03:03 AM
Chromium	5.04	0.466	1.87		mg/Kg-dry	5	03/30/13 04:24 AM
Copper	1.62	0.466	1.87	J	mg/Kg-dry	5	03/30/13 04:24 AM
Iron	5580	117	117		mg/Kg-dry	50	03/29/13 11:46 PM
Lead	2.38	0.0933	0.280		mg/Kg-dry	5	03/28/13 03:03 AM
Manganese	25.5	0.466	1.87		mg/Kg-dry	5	03/28/13 03:03 AM
Selenium	0.718	0.140	0.466		mg/Kg-dry	5	03/28/13 03:03 AM
Silver	ND	0.0933	0.187		mg/Kg-dry	5	03/28/13 03:03 AM
Zinc	8.21	0.933	2.33		mg/Kg-dry	5	03/28/13 03:03 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.00983	0.0261	N	mg/Kg-dry	1	03/29/13 12:20 AM
2-Methylnaphthalene	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
Naphthalene	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
Benzo[a]pyrene	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2,3,4,6-Tetrachlorophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2,4,5-Trichlorophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2,4,6-Trichlorophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2,4-Dichlorophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2,4-Dimethylphenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2,4-Dinitrophenol	ND	0.0491	0.130		mg/Kg-dry	1	03/29/13 12:20 AM
2,6-Dichlorophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2-Chlorophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2-Methylphenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
2-Nitrophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
4,6-Dinitro-2-methylphenol	ND	0.0295	0.0649		mg/Kg-dry	1	03/29/13 12:20 AM
4-Chloro-3-methylphenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
4-Methylphenol	ND	0.0197	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
4-Nitrophenol	ND	0.0491	0.130		mg/Kg-dry	1	03/29/13 12:20 AM
Pentachlorophenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
Phenol	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
Total Phenol (Calculated)	ND	0.00983	0.0261		mg/Kg-dry	1	03/29/13 12:20 AM
Surr: 2,4,6-Tribromophenol	87.0	0	45-126		%REC	1	03/29/13 12:20 AM
Surr: 2-Fluorobiphenyl	82.0	0	60-125		%REC	1	03/29/13 12:20 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-4 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303223-09

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:10 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
Surr: 2-Fluorophenol	86.0	0	37-125		%REC	1	03/29/13 12:20 AM
Surr: 4-Terphenyl-d14	89.0	0	45-125		%REC	1	03/29/13 12:20 AM
Surr: Nitrobenzene-d5	85.0	0	45-125		%REC	1	03/29/13 12:20 AM
Surr: Phenol-d6	84.0	0	40-125		%REC	1	03/29/13 12:20 AM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0164	0.0328		mg/Kg-dry	1	03/28/13 11:36 PM
Aroclor 1221	ND	0.0164	0.0328		mg/Kg-dry	1	03/28/13 11:36 PM
Aroclor 1232	ND	0.0164	0.0328		mg/Kg-dry	1	03/28/13 11:36 PM
Aroclor 1242	ND	0.0164	0.0328		mg/Kg-dry	1	03/28/13 11:36 PM
Aroclor 1248	ND	0.0164	0.0328		mg/Kg-dry	1	03/28/13 11:36 PM
Aroclor 1254	ND	0.0164	0.0328		mg/Kg-dry	1	03/28/13 11:36 PM
Aroclor 1260	ND	0.0164	0.0328		mg/Kg-dry	1	03/28/13 11:36 PM
Surr: 2-Fluorobiphenyl	73.2	0	43-125		%REC	1	03/28/13 11:36 PM
Surr: 4-Terphenyl-d14	82.4	0	32-125		%REC	1	03/28/13 11:36 PM
8260 SOIL VOLATILES BY GC/MS		SW82	:60C				Analyst: KL
Benzene	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Toluene	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Carbon tetrachloride	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
1,2-Dichloroethane	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
1,1-Dichloroethylene	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Tetrachloroethylene	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Trichloroethylene	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Ethylbenzene	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Total Xylenes	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Methylene chloride	ND	0.00423	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Chloroform	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
1,1-Dichloroethane	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Ethylene bromide	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
1,1,1-Trichloroethane	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
1,1,2-Trichloroethane	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
1,1,2,2-Tetrachloroethane	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Vinyl chloride	ND	0.000845	0.00423		mg/Kg-dry	1	03/28/13 03:26 PM
Surr: 1,2-Dichloroethane-d4	103	0	52-149		%REC	1	03/28/13 03:26 PM
Surr: 4-Bromofluorobenzene	103	0	84-118		%REC	1	03/28/13 03:26 PM
Surr: Dibromofluoromethane	95.4	0	65-135		%REC	1	03/28/13 03:26 PM
Surr: Toluene-d8	105	0	84-116		%REC	1	03/28/13 03:26 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-4 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303223-09

Project No: 11-0109-09 **Collection Date:** 03/22/13 12:10 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.22	10.4	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.196	0.490		mg/Kg-dry	1	03/28/13 04:46 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	12.2	5.21	5.21		mg/Kg-dry	1	03/28/13 12:16 PM
Fluoride	4.90	1.04	1.04		mg/Kg-dry	1	03/28/13 12:16 PM
Nitrate-N	ND	5.21	5.21		mg/Kg-dry	1	03/28/13 12:16 PM
Sulfate	32.0	10.4	10.4		mg/Kg-dry	1	03/28/13 12:16 PM
PH OF SOLID (CORROSIVITY)		SW904	45D				Analyst: JCG
рН	8.25	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	16				Analyst: MK
Percent Moisture	4.26	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303223-11

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:15 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0156	0.0389		mg/Kg-dry	1	04/02/13 01:35 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	1.47	0.503	1.01		mg/Kg-dry	5	03/28/13 03:09 AM
Barium	26.0	0.503	2.01		mg/Kg-dry	5	03/28/13 03:09 AM
Cadmium	ND	0.101	0.302		mg/Kg-dry	5	03/28/13 03:09 AM
Chromium	4.68	0.503	2.01		mg/Kg-dry	5	03/30/13 04:30 AM
Copper	1.58	0.503	2.01	J	mg/Kg-dry	5	03/30/13 04:30 AM
Iron	5180	126	126		mg/Kg-dry	50	03/29/13 11:52 PM
Lead	2.56	0.101	0.302		mg/Kg-dry	5	03/28/13 03:09 AM
Manganese	41.2	0.503	2.01		mg/Kg-dry	5	03/28/13 03:09 AM
Selenium	0.559	0.151	0.503		mg/Kg-dry	5	03/28/13 03:09 AM
Silver	ND	0.101	0.201		mg/Kg-dry	5	03/28/13 03:09 AM
Zinc	7.81	1.01	2.51		mg/Kg-dry	5	03/28/13 03:09 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0112	0.0297	N	mg/Kg-dry	1	03/29/13 12:43 AM
2-Methylnaphthalene	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
Naphthalene	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
Benzo[a]pyrene	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2,3,4,6-Tetrachlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2,4,5-Trichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2,4,6-Trichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2,4-Dichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2,4-Dimethylphenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2,4-Dinitrophenol	ND	0.0559	0.148		mg/Kg-dry	1	03/29/13 12:43 AM
2,6-Dichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2-Chlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2-Methylphenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
2-Nitrophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
4,6-Dinitro-2-methylphenol	ND	0.0335	0.0738		mg/Kg-dry	1	03/29/13 12:43 AM
4-Chloro-3-methylphenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
4-Methylphenol	ND	0.0224	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
4-Nitrophenol	ND	0.0559	0.148		mg/Kg-dry	1	03/29/13 12:43 AM
Pentachlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
Phenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
Total Phenol (Calculated)	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 12:43 AM
Surr: 2,4,6-Tribromophenol	93.0	0	45-126		%REC	1	03/29/13 12:43 AM
Surr: 2-Fluorobiphenyl	86.0	0	60-125		%REC	1	03/29/13 12:43 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303223-11

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:15 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: AJR
Surr: 2-Fluorophenol	92.0	0	37-125		%REC	1	03/29/13 12:43 AM
Surr: 4-Terphenyl-d14	97.0	0	45-125		%REC	1	03/29/13 12:43 AM
Surr: Nitrobenzene-d5	93.0	0	45-125		%REC	1	03/29/13 12:43 AM
Surr: Phenol-d6	87.0	0	40-125		%REC	1	03/29/13 12:43 AM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 12:07 AM
Aroclor 1221	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 12:07 AM
Aroclor 1232	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 12:07 AM
Aroclor 1242	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 12:07 AM
Aroclor 1248	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 12:07 AM
Aroclor 1254	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 12:07 AM
Aroclor 1260	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 12:07 AM
Surr: 2-Fluorobiphenyl	68.2	0	43-125		%REC	1	03/29/13 12:07 AM
Surr: 4-Terphenyl-d14	76.7	0	32-125		%REC	1	03/29/13 12:07 AM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Toluene	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Carbon tetrachloride	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
1,2-Dichloroethane	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
1,1-Dichloroethylene	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Tetrachloroethylene	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Trichloroethylene	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Ethylbenzene	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Total Xylenes	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Methylene chloride	ND	0.00467	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Chloroform	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
1,1-Dichloroethane	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Ethylene bromide	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
1,1,1-Trichloroethane	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
1,1,2-Trichloroethane	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
1,1,2,2-Tetrachloroethane	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Vinyl chloride	ND	0.000934	0.00467		mg/Kg-dry	1	03/28/13 03:58 PM
Surr: 1,2-Dichloroethane-d4	101	0	52-149		%REC	1	03/28/13 03:58 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 03:58 PM
Surr: Dibromofluoromethane	97.0	0	65-135		%REC	1	03/28/13 03:58 PM
Surr: Toluene-d8	105	0	84-116		%REC	1	03/28/13 03:58 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303223-11

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:15 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	23.7	5.75	11.5	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.190	0.474		mg/Kg-dry	1	03/28/13 04:46 PM
ANIONS BY IC METHOD - SOIL		E300	0				Analyst: JBC
Chloride	244	5.78	5.78		mg/Kg-dry	1	03/28/13 12:30 PM
Fluoride	ND	1.16	1.16		mg/Kg-dry	1	03/28/13 12:30 PM
Nitrate-N	ND	5.78	5.78		mg/Kg-dry	1	03/28/13 12:30 PM
Sulfate	253	11.6	11.6		mg/Kg-dry	1	03/28/13 12:30 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: JCG
рН	7.81	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	6				Analyst: MK
Percent Moisture	13.5	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-12

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:25 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0160	0.0401		mg/Kg-dry	1	04/02/13 01:37 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	4.06	0.442	0.885		mg/Kg-dry	5	03/28/13 03:15 AM
Barium	57.5	0.442	1.77		mg/Kg-dry	5	03/28/13 03:15 AM
Cadmium	0.143	0.0885	0.265	J	mg/Kg-dry	5	03/28/13 03:15 AM
Chromium	12.0	0.442	1.77		mg/Kg-dry	5	03/30/13 04:36 AM
Copper	3.21	0.442	1.77		mg/Kg-dry	5	03/30/13 04:36 AM
Iron	13900	111	111		mg/Kg-dry	50	03/29/13 11:59 PM
Lead	5.86	0.0885	0.265		mg/Kg-dry	5	03/28/13 03:15 AM
Manganese	67.4	0.442	1.77		mg/Kg-dry	5	03/28/13 03:15 AM
Selenium	1.25	0.133	0.442		mg/Kg-dry	5	03/28/13 03:15 AM
Silver	ND	0.0885	0.177		mg/Kg-dry	5	03/28/13 03:15 AM
Zinc	25.7	0.885	2.21		mg/Kg-dry	5	03/28/13 03:15 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.00989	0.0263	N	mg/Kg-dry	1	03/29/13 01:06 AM
2-Methylnaphthalene	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
Naphthalene	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
Benzo[a]pyrene	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2,3,4,6-Tetrachlorophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2,4,5-Trichlorophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2,4,6-Trichlorophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2,4-Dichlorophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2,4-Dimethylphenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2,4-Dinitrophenol	ND	0.0495	0.131		mg/Kg-dry	1	03/29/13 01:06 AM
2,6-Dichlorophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2-Chlorophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2-Methylphenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
2-Nitrophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
4,6-Dinitro-2-methylphenol	ND	0.0297	0.0653		mg/Kg-dry	1	03/29/13 01:06 AM
4-Chloro-3-methylphenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
4-Methylphenol	ND	0.0198	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
4-Nitrophenol	ND	0.0495	0.131		mg/Kg-dry	1	03/29/13 01:06 AM
Pentachlorophenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
Phenol	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
Total Phenol (Calculated)	ND	0.00989	0.0263		mg/Kg-dry	1	03/29/13 01:06 AM
Surr: 2,4,6-Tribromophenol	82.0	0	45-126		%REC	1	03/29/13 01:06 AM
Surr: 2-Fluorobiphenyl	75.0	0	60-125		%REC	1	03/29/13 01:06 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit RL Reporting Limit
 - N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-12

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:25 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
Surr: 2-Fluorophenol	81.0	0	37-125		%REC	1	03/29/13 01:06 AM
Surr: 4-Terphenyl-d14	69.0	0	45-125		%REC	1	03/29/13 01:06 AM
Surr: Nitrobenzene-d5	80.0	0	45-125		%REC	1	03/29/13 01:06 AM
Surr: Phenol-d6	76.0	0	40-125		%REC	1	03/29/13 01:06 AM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0165	0.0330		mg/Kg-dry	1	03/29/13 12:38 AM
Aroclor 1221	ND	0.0165	0.0330		mg/Kg-dry	1	03/29/13 12:38 AM
Aroclor 1232	ND	0.0165	0.0330		mg/Kg-dry	1	03/29/13 12:38 AM
Aroclor 1242	ND	0.0165	0.0330		mg/Kg-dry	1	03/29/13 12:38 AM
Aroclor 1248	ND	0.0165	0.0330		mg/Kg-dry	1	03/29/13 12:38 AM
Aroclor 1254	ND	0.0165	0.0330		mg/Kg-dry	1	03/29/13 12:38 AM
Aroclor 1260	ND	0.0165	0.0330		mg/Kg-dry	1	03/29/13 12:38 AM
Surr: 2-Fluorobiphenyl	70.6	0	43-125		%REC	1	03/29/13 12:38 AM
Surr: 4-Terphenyl-d14	84.7	0	32-125		%REC	1	03/29/13 12:38 AM
8260 SOIL VOLATILES BY GC/MS		SW82	:60C				Analyst: KL
Benzene	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Toluene	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Carbon tetrachloride	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
1,2-Dichloroethane	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
1,1-Dichloroethylene	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Tetrachloroethylene	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Trichloroethylene	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Ethylbenzene	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Total Xylenes	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Methylene chloride	ND	0.00478	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Chloroform	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
1,1-Dichloroethane	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Ethylene bromide	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
1,1,1-Trichloroethane	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
1,1,2-Trichloroethane	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
1,1,2,2-Tetrachloroethane	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Vinyl chloride	ND	0.000956	0.00478		mg/Kg-dry	1	03/28/13 04:33 PM
Surr: 1,2-Dichloroethane-d4	104	0	52-149		%REC	1	03/28/13 04:33 PM
Surr: 4-Bromofluorobenzene	102	0	84-118		%REC	1	03/28/13 04:33 PM
Surr: Dibromofluoromethane	97.0	0	65-135		%REC	1	03/28/13 04:33 PM
Surr: Toluene-d8	103	0	84-116		%REC	1	03/28/13 04:33 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-12

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:25 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418		Analyst: JAW			
Petroleum Hydrocarbons, TR	ND	5.16	10.3	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE	SW9014						Analyst: JCG
Cyanide, Total	ND	0.169	0.422		mg/Kg-dry	1	03/28/13 04:48 PM
ANIONS BY IC METHOD - SOIL		E30		Analyst: JBC			
Chloride	81.2	5.17	5.17		mg/Kg-dry	1	03/28/13 12:45 PM
Fluoride	ND	1.03	1.03		mg/Kg-dry	1	03/28/13 12:45 PM
Nitrate-N	ND	5.17	5.17		mg/Kg-dry	1	03/28/13 12:45 PM
Sulfate	80.0	10.3	10.3		mg/Kg-dry	1	03/28/13 12:45 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: JCG
рН	7.25	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	6				Analyst: MK
Percent Moisture	3.37	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303223-13

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:25 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	0.0164	0.0152	0.0379	J	mg/Kg-dry	1	04/02/13 01:39 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	3.92	0.510	1.02		mg/Kg-dry	5	03/28/13 04:42 AM
Barium	93.8	0.510	2.04		mg/Kg-dry	5	03/28/13 04:42 AM
Cadmium	0.169	0.102	0.306	J	mg/Kg-dry	5	03/28/13 04:42 AM
Chromium	11.9	0.510	2.04		mg/Kg-dry	5	04/01/13 03:18 PM
Copper	3.07	0.510	2.04		mg/Kg-dry	5	04/01/13 03:18 PM
Iron	13700	127	127		mg/Kg-dry	50	03/30/13 01:37 AM
Lead	6.41	0.102	0.306		mg/Kg-dry	5	03/28/13 04:42 AM
Manganese	82.7	0.510	2.04		mg/Kg-dry	5	03/28/13 04:42 AM
Selenium	1.31	0.153	0.510		mg/Kg-dry	5	03/28/13 04:42 AM
Silver	ND	0.102	0.204		mg/Kg-dry	5	03/28/13 04:42 AM
Zinc	22.2	1.02	2.55		mg/Kg-dry	5	03/28/13 04:42 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0109	0.0290	N	mg/Kg-dry	1	03/29/13 01:29 AM
2-Methylnaphthalene	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
Naphthalene	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
Benzo[a]pyrene	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2,3,4,6-Tetrachlorophenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2,4,5-Trichlorophenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2,4,6-Trichlorophenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2,4-Dichlorophenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2,4-Dimethylphenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2,4-Dinitrophenol	ND	0.0546	0.144		mg/Kg-dry	1	03/29/13 01:29 AM
2,6-Dichlorophenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2-Chlorophenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2-Methylphenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
2-Nitrophenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
4,6-Dinitro-2-methylphenol	ND	0.0328	0.0721		mg/Kg-dry	1	03/29/13 01:29 AM
4-Chloro-3-methylphenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
4-Methylphenol	ND	0.0218	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
4-Nitrophenol	ND	0.0546	0.144		mg/Kg-dry	1	03/29/13 01:29 AM
Pentachlorophenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
Phenol	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
Total Phenol (Calculated)	ND	0.0109	0.0290		mg/Kg-dry	1	03/29/13 01:29 AM
Surr: 2,4,6-Tribromophenol	85.0	0	45-126		%REC	1	03/29/13 01:29 AM
Surr: 2-Fluorobiphenyl	79.0	0	60-125		%REC	1	03/29/13 01:29 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303223-13

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:25 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
Surr: 2-Fluorophenol	84.0	0	37-125		%REC	1	03/29/13 01:29 AM
Surr: 4-Terphenyl-d14	81.0	0	45-125		%REC	1	03/29/13 01:29 AM
Surr: Nitrobenzene-d5	82.0	0	45-125		%REC	1	03/29/13 01:29 AM
Surr: Phenol-d6	81.0	0	40-125		%REC	1	03/29/13 01:29 AM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0182	0.0364		mg/Kg-dry	1	03/29/13 01:09 AM
Aroclor 1221	ND	0.0182	0.0364		mg/Kg-dry	1	03/29/13 01:09 AM
Aroclor 1232	ND	0.0182	0.0364		mg/Kg-dry	1	03/29/13 01:09 AM
Aroclor 1242	ND	0.0182	0.0364		mg/Kg-dry	1	03/29/13 01:09 AM
Aroclor 1248	ND	0.0182	0.0364		mg/Kg-dry	1	03/29/13 01:09 AM
Aroclor 1254	ND	0.0182	0.0364		mg/Kg-dry	1	03/29/13 01:09 AM
Aroclor 1260	ND	0.0182	0.0364		mg/Kg-dry	1	03/29/13 01:09 AM
Surr: 2-Fluorobiphenyl	64.4	0	43-125		%REC	1	03/29/13 01:09 AM
Surr: 4-Terphenyl-d14	75.8	0	32-125		%REC	1	03/29/13 01:09 AM
8260 SOIL VOLATILES BY GC/MS		SW82	:60C				Analyst: KL
Benzene	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Toluene	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Carbon tetrachloride	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
1,2-Dichloroethane	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
1,1-Dichloroethylene	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Tetrachloroethylene	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Trichloroethylene	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Ethylbenzene	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Total Xylenes	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Methylene chloride	ND	0.00520	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Chloroform	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
1,1-Dichloroethane	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Ethylene bromide	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
1,1,1-Trichloroethane	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
1,1,2-Trichloroethane	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
1,1,2,2-Tetrachloroethane	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Vinyl chloride	ND	0.00104	0.00520		mg/Kg-dry	1	03/28/13 05:06 PM
Surr: 1,2-Dichloroethane-d4	106	0	52-149		%REC	1	03/28/13 05:06 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 05:06 PM
Surr: Dibromofluoromethane	98.4	0	65-135		%REC	1	03/28/13 05:06 PM
Surr: Toluene-d8	103	0	84-116		%REC	1	03/28/13 05:06 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303223-13

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:25 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418		Analyst: JAW			
Petroleum Hydrocarbons, TR	ND	5.59	11.2	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.177	0.441		mg/Kg-dry	1	03/28/13 04:48 PM
ANIONS BY IC METHOD - SOIL		E30		Analyst: JBC			
Chloride	99.2	5.50	5.50		mg/Kg-dry	1	03/28/13 12:59 PM
Fluoride	1.67	1.10	1.10		mg/Kg-dry	1	03/28/13 12:59 PM
Nitrate-N	ND	5.50	5.50		mg/Kg-dry	1	03/28/13 12:59 PM
Sulfate	19.0	11.0	11.0		mg/Kg-dry	1	03/28/13 12:59 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: JCG
рН	7.31	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	6				Analyst: MK
Percent Moisture	10.8	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 10-12'
Project: R360 Artesia Landfarm Lab ID: 1303223-14

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:40 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0171	0.0426		mg/Kg-dry	1	04/02/13 01:41 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	2.39	0.524	1.05		mg/Kg-dry	5	03/28/13 04:48 AM
Barium	151	0.524	2.10		mg/Kg-dry	5	03/28/13 04:48 AM
Cadmium	0.117	0.105	0.314	J	mg/Kg-dry	5	03/28/13 04:48 AM
Chromium	5.17	0.524	2.10		mg/Kg-dry	5	04/01/13 03:24 PM
Copper	1.84	0.524	2.10	J	mg/Kg-dry	5	04/01/13 03:24 PM
Iron	4920	131	131		mg/Kg-dry	50	03/30/13 01:43 AM
Lead	2.33	0.105	0.314		mg/Kg-dry	5	03/28/13 04:48 AM
Manganese	44.1	0.524	2.10		mg/Kg-dry	5	03/28/13 04:48 AM
Selenium	0.825	0.157	0.524		mg/Kg-dry	5	03/28/13 04:48 AM
Silver	ND	0.105	0.210		mg/Kg-dry	5	03/28/13 04:48 AM
Zinc	7.19	1.05	2.62		mg/Kg-dry	5	03/28/13 04:48 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0110	0.0293	N	mg/Kg-dry	1	03/29/13 01:52 AM
2-Methylnaphthalene	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
Naphthalene	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
Benzo[a]pyrene	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2,3,4,6-Tetrachlorophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2,4,5-Trichlorophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2,4,6-Trichlorophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2,4-Dichlorophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2,4-Dimethylphenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2,4-Dinitrophenol	ND	0.0550	0.145		mg/Kg-dry	1	03/29/13 01:52 AM
2,6-Dichlorophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2-Chlorophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2-Methylphenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
2-Nitrophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
4,6-Dinitro-2-methylphenol	ND	0.0330	0.0726		mg/Kg-dry	1	03/29/13 01:52 AM
4-Chloro-3-methylphenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
4-Methylphenol	ND	0.0220	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
4-Nitrophenol	ND	0.0550	0.145		mg/Kg-dry	1	03/29/13 01:52 AM
Pentachlorophenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
Phenol	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
Total Phenol (Calculated)	ND	0.0110	0.0293		mg/Kg-dry	1	03/29/13 01:52 AM
Surr: 2,4,6-Tribromophenol	82.0	0	45-126		%REC	1	03/29/13 01:52 AM
Surr: 2-Fluorobiphenyl	75.0	0	60-125		%REC	1	03/29/13 01:52 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT:Larson & AssociatesClient Sample ID:SB-10 10-12'Project:R360 Artesia LandfarmLab ID:1303223-14

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:40 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: AJR
Surr: 2-Fluorophenol	81.0	0	37-125		%REC	1	03/29/13 01:52 AM
Surr: 4-Terphenyl-d14	80.0	0	45-125		%REC	1	03/29/13 01:52 AM
Surr: Nitrobenzene-d5	79.0	0	45-125		%REC	1	03/29/13 01:52 AM
Surr: Phenol-d6	80.0	0	40-125		%REC	1	03/29/13 01:52 AM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0183	0.0367		mg/Kg-dry	1	03/29/13 01:40 AM
Aroclor 1221	ND	0.0183	0.0367		mg/Kg-dry	1	03/29/13 01:40 AM
Aroclor 1232	ND	0.0183	0.0367		mg/Kg-dry	1	03/29/13 01:40 AM
Aroclor 1242	ND	0.0183	0.0367		mg/Kg-dry	1	03/29/13 01:40 AM
Aroclor 1248	ND	0.0183	0.0367		mg/Kg-dry	1	03/29/13 01:40 AM
Aroclor 1254	ND	0.0183	0.0367		mg/Kg-dry	1	03/29/13 01:40 AM
Aroclor 1260	ND	0.0183	0.0367		mg/Kg-dry	1	03/29/13 01:40 AM
Surr: 2-Fluorobiphenyl	66.9	0	43-125		%REC	1	03/29/13 01:40 AM
Surr: 4-Terphenyl-d14	76.0	0	32-125		%REC	1	03/29/13 01:40 AM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Toluene	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Carbon tetrachloride	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
1,2-Dichloroethane	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
1,1-Dichloroethylene	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Tetrachloroethylene	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Trichloroethylene	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Ethylbenzene	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Total Xylenes	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Methylene chloride	ND	0.00471	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Chloroform	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
1,1-Dichloroethane	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Ethylene bromide	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
1,1,1-Trichloroethane	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
1,1,2-Trichloroethane	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
1,1,2,2-Tetrachloroethane	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Vinyl chloride	ND	0.000941	0.00471		mg/Kg-dry	1	03/28/13 05:40 PM
Surr: 1,2-Dichloroethane-d4	106	0	52-149		%REC	1	03/28/13 05:40 PM
Surr: 4-Bromofluorobenzene	105	0	84-118		%REC	1	03/28/13 05:40 PM
Surr: Dibromofluoromethane	95.8	0	65-135		%REC	1	03/28/13 05:40 PM
Surr: Toluene-d8	103	0	84-116		%REC	1	03/28/13 05:40 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303223-14

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:40 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418		Analyst: JAW			
Petroleum Hydrocarbons, TR	ND	5.49	11.0	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.183	0.457		mg/Kg-dry	1	03/28/13 04:48 PM
ANIONS BY IC METHOD - SOIL		E300		Analyst: JBC			
Chloride	19.2	5.49	5.49		mg/Kg-dry	1	03/28/13 01:14 PM
Fluoride	11.0	1.10	1.10		mg/Kg-dry	1	03/28/13 01:14 PM
Nitrate-N	ND	5.49	5.49		mg/Kg-dry	1	03/28/13 01:14 PM
Sulfate	58.3	11.0	11.0		mg/Kg-dry	1	03/28/13 01:14 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: JCG
рН	8.38	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	6				Analyst: MK
Percent Moisture	9.98	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
 - ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 9-10'

Project: R360 Artesia Landfarm Lab ID: 1303223-15

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:23 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	0.0213	0.0170	0.0424	J	mg/Kg-dry	1	04/02/13 01:43 PM
TRACE METALS: ICP-MS - SOLID		SW60:	20A				Analyst: SW
Arsenic	2.12	0.497	0.995		mg/Kg-dry	5	03/28/13 04:54 AM
Barium	411	0.497	1.99		mg/Kg-dry	5	03/28/13 04:54 AM
Cadmium	0.103	0.0995	0.298	J	mg/Kg-dry	5	03/28/13 04:54 AM
Chromium	6.06	0.497	1.99		mg/Kg-dry	5	04/01/13 03:30 PM
Copper	3.13	0.497	1.99		mg/Kg-dry	5	04/01/13 03:30 PM
Iron	6180	124	124		mg/Kg-dry	50	03/30/13 01:50 AM
Lead	2.89	0.0995	0.298		mg/Kg-dry	5	03/28/13 04:54 AM
Manganese	38.0	0.497	1.99		mg/Kg-dry	5	03/28/13 04:54 AM
Selenium	0.714	0.149	0.497		mg/Kg-dry	5	03/28/13 04:54 AM
Silver	ND	0.0995	0.199		mg/Kg-dry	5	03/28/13 04:54 AM
Zinc	9.17	0.995	2.49		mg/Kg-dry	5	03/28/13 04:54 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0111	0.0294	N	mg/Kg-dry	1	03/29/13 02:15 AM
2-Methylnaphthalene	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
Naphthalene	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
Benzo[a]pyrene	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2,3,4,6-Tetrachlorophenol	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2,4,5-Trichlorophenol	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2,4,6-Trichlorophenol	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2,4-Dichlorophenol	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2,4-Dimethylphenol	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2,4-Dinitrophenol	ND	0.0553	0.146		mg/Kg-dry	1	03/29/13 02:15 AM
2,6-Dichlorophenol	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2-Chlorophenol	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2-Methylphenol	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
2-Nitrophenol	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
4,6-Dinitro-2-methylphenol	ND	0.0332	0.0730		mg/Kg-dry	1	03/29/13 02:15 AM
4-Chloro-3-methylphenol	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
4-Methylphenol	ND	0.0221	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
4-Nitrophenol	ND	0.0553	0.146		mg/Kg-dry	1	03/29/13 02:15 AM
Pentachlorophenol	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
Phenol	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
Total Phenol (Calculated)	ND	0.0111	0.0294		mg/Kg-dry	1	03/29/13 02:15 AM
Surr: 2,4,6-Tribromophenol	91.0	0	45-126		%REC	1	03/29/13 02:15 AM
Surr: 2-Fluorobiphenyl	83.0	0	60-125		%REC	1	03/29/13 02:15 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 9-10'

Project: R360 Artesia Landfarm Lab ID: 1303223-15

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:23 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: AJR
Surr: 2-Fluorophenol	90.0	0	37-125		%REC	1	03/29/13 02:15 AM
Surr: 4-Terphenyl-d14	92.0	0	45-125		%REC	1	03/29/13 02:15 AM
Surr: Nitrobenzene-d5	88.0	0	45-125		%REC	1	03/29/13 02:15 AM
Surr: Phenol-d6	87.0	0	40-125		%REC	1	03/29/13 02:15 AM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0184	0.0369		mg/Kg-dry	1	03/29/13 02:11 AM
Aroclor 1221	ND	0.0184	0.0369		mg/Kg-dry	1	03/29/13 02:11 AM
Aroclor 1232	ND	0.0184	0.0369		mg/Kg-dry	1	03/29/13 02:11 AM
Aroclor 1242	ND	0.0184	0.0369		mg/Kg-dry	1	03/29/13 02:11 AM
Aroclor 1248	ND	0.0184	0.0369		mg/Kg-dry	1	03/29/13 02:11 AM
Aroclor 1254	ND	0.0184	0.0369		mg/Kg-dry	1	03/29/13 02:11 AM
Aroclor 1260	ND	0.0184	0.0369		mg/Kg-dry	1	03/29/13 02:11 AM
Surr: 2-Fluorobiphenyl	71.3	0	43-125		%REC	1	03/29/13 02:11 AM
Surr: 4-Terphenyl-d14	87.1	0	32-125		%REC	1	03/29/13 02:11 AM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Toluene	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Carbon tetrachloride	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
1,2-Dichloroethane	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
1,1-Dichloroethylene	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Tetrachloroethylene	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Trichloroethylene	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Ethylbenzene	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Total Xylenes	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Methylene chloride	ND	0.00506	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Chloroform	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
1,1-Dichloroethane	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Ethylene bromide	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
1,1,1-Trichloroethane	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
1,1,2-Trichloroethane	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
1,1,2,2-Tetrachloroethane	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Vinyl chloride	ND	0.00101	0.00506		mg/Kg-dry	1	03/28/13 06:11 PM
Surr: 1,2-Dichloroethane-d4	102	0	52-149		%REC	1	03/28/13 06:11 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 06:11 PM
Surr: Dibromofluoromethane	95.8	0	65-135		%REC	1	03/28/13 06:11 PM
Surr: Toluene-d8	104	0	84-116		%REC	1	03/28/13 06:11 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-10 9-10'

Project: R360 Artesia Landfarm Lab ID: 1303223-15

Project No: 11-0109-09 **Collection Date:** 03/22/13 03:23 PM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418		Analyst: JAW			
Petroleum Hydrocarbons, TR	ND	5.59	11.2	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE	SW9014						Analyst: JCG
Cyanide, Total	ND	0.174	0.434		mg/Kg-dry	1	03/28/13 04:48 PM
ANIONS BY IC METHOD - SOIL		E30		Analyst: JBC			
Chloride	28.4	5.46	5.46		mg/Kg-dry	1	03/28/13 01:29 PM
Fluoride	7.73	1.09	1.09		mg/Kg-dry	1	03/28/13 01:29 PM
Nitrate-N	ND	5.46	5.46		mg/Kg-dry	1	03/28/13 01:29 PM
Sulfate	59.6	10.9	10.9		mg/Kg-dry	1	03/28/13 01:29 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: JCG
рН	8.27	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	6				Analyst: MK
Percent Moisture	11.0	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 2-2.7'

Project: R360 Artesia Landfarm Lab ID: 1303223-17

Project No: 11-0109-09 **Collection Date:** 03/23/13 08:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.00944	0.0236		mg/Kg-dry	1	04/02/13 01:49 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	1.28	0.323	0.647		mg/Kg-dry	5	03/28/13 05:01 AM
Barium	25.9	0.323	1.29		mg/Kg-dry	5	03/28/13 05:01 AM
Cadmium	ND	0.0647	0.194		mg/Kg-dry	5	03/28/13 05:01 AM
Chromium	4.37	0.323	1.29		mg/Kg-dry	5	04/01/13 03:36 PM
Copper	1.18	0.323	1.29	J	mg/Kg-dry	5	04/01/13 03:36 PM
Iron	4230	80.8	80.8		mg/Kg-dry	50	03/30/13 01:56 AM
Lead	2.05	0.0647	0.194		mg/Kg-dry	5	03/28/13 05:01 AM
Manganese	36.1	0.323	1.29		mg/Kg-dry	5	03/28/13 05:01 AM
Selenium	0.577	0.0970	0.323		mg/Kg-dry	5	03/28/13 05:01 AM
Silver	ND	0.0647	0.129		mg/Kg-dry	5	03/28/13 05:01 AM
Zinc	6.48	0.647	1.62		mg/Kg-dry	5	03/28/13 05:01 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0122	0.0325	N	mg/Kg-dry	1	03/29/13 03:48 AM
2-Methylnaphthalene	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
Naphthalene	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
Benzo[a]pyrene	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2,3,4,6-Tetrachlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2,4,5-Trichlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2,4,6-Trichlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2,4-Dichlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2,4-Dimethylphenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2,4-Dinitrophenol	ND	0.0611	0.161		mg/Kg-dry	1	03/29/13 03:48 AM
2,6-Dichlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2-Chlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2-Methylphenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
2-Nitrophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
4,6-Dinitro-2-methylphenol	ND	0.0367	0.0807		mg/Kg-dry	1	03/29/13 03:48 AM
4-Chloro-3-methylphenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
4-Methylphenol	ND	0.0245	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
4-Nitrophenol	ND	0.0611	0.161		mg/Kg-dry	1	03/29/13 03:48 AM
Pentachlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
Phenol	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
Total Phenol (Calculated)	ND	0.0122	0.0325		mg/Kg-dry	1	03/29/13 03:48 AM
Surr: 2,4,6-Tribromophenol	90.0	0	45-126		%REC	1	03/29/13 03:48 AM
Surr: 2-Fluorobiphenyl	74.0	0	60-125		%REC	1	03/29/13 03:48 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 2-2.7'

Project: R360 Artesia Landfarm Lab ID: 1303223-17

Project No: 11-0109-09 **Collection Date:** 03/23/13 08:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
Surr: 2-Fluorophenol	77.0	0	37-125		%REC	1	03/29/13 03:48 AM
Surr: 4-Terphenyl-d14	79.0	0	45-125		%REC	1	03/29/13 03:48 AM
Surr: Nitrobenzene-d5	77.0	0	45-125		%REC	1	03/29/13 03:48 AM
Surr: Phenol-d6	74.0	0	40-125		%REC	1	03/29/13 03:48 AM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0204	0.0408		mg/Kg-dry	1	03/29/13 04:15 AM
Aroclor 1221	ND	0.0204	0.0408		mg/Kg-dry	1	03/29/13 04:15 AM
Aroclor 1232	ND	0.0204	0.0408		mg/Kg-dry	1	03/29/13 04:15 AM
Aroclor 1242	ND	0.0204	0.0408		mg/Kg-dry	1	03/29/13 04:15 AM
Aroclor 1248	ND	0.0204	0.0408		mg/Kg-dry	1	03/29/13 04:15 AM
Aroclor 1254	ND	0.0204	0.0408		mg/Kg-dry	1	03/29/13 04:15 AM
Aroclor 1260	ND	0.0204	0.0408		mg/Kg-dry	1	03/29/13 04:15 AM
Surr: 2-Fluorobiphenyl	70.0	0	43-125		%REC	1	03/29/13 04:15 AM
Surr: 4-Terphenyl-d14	79.0	0	32-125		%REC	1	03/29/13 04:15 AM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Toluene	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Carbon tetrachloride	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
1,2-Dichloroethane	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
1,1-Dichloroethylene	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Tetrachloroethylene	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Trichloroethylene	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Ethylbenzene	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Total Xylenes	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Methylene chloride	ND	0.00602	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Chloroform	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
1,1-Dichloroethane	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Ethylene bromide	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
1,1,1-Trichloroethane	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
1,1,2-Trichloroethane	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
1,1,2,2-Tetrachloroethane	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Vinyl chloride	ND	0.00120	0.00602		mg/Kg-dry	1	03/28/13 06:43 PM
Surr: 1,2-Dichloroethane-d4	99.4	0	52-149		%REC	1	03/28/13 06:43 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 06:43 PM
Surr: Dibromofluoromethane	96.9	0	65-135		%REC	1	03/28/13 06:43 PM
Surr: Toluene-d8	106	0	84-116		%REC	1	03/28/13 06:43 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 2-2.7'

Project: R360 Artesia Landfarm Lab ID: 1303223-17

Project No: 11-0109-09 **Collection Date:** 03/23/13 08:50 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418		Analyst: JAW			
Petroleum Hydrocarbons, TR	147	6.22	12.4	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.225	0.562		mg/Kg-dry	1	03/28/13 04:48 PM
ANIONS BY IC METHOD - SOIL	E300						Analyst: JBC
Chloride	329	61.5	61.5		mg/Kg-dry	10	03/28/13 04:54 PM
Fluoride	2.29	1.23	1.23		mg/Kg-dry	1	03/28/13 01:43 PM
Nitrate-N	ND	6.15	6.15		mg/Kg-dry	1	03/28/13 01:43 PM
Sulfate	141	12.3	12.3		mg/Kg-dry	1	03/28/13 01:43 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: JCG
рН	7.78	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	16				Analyst: MK
Percent Moisture	19.9	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
 - ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-18

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0140	0.0351		mg/Kg-dry	1	04/02/13 01:05 PM
TRACE METALS: ICP-MS - SOLID		SW60:	20A				Analyst: SW
Arsenic	1.50	0.455	0.911		mg/Kg-dry	5	03/28/13 02:13 AM
Barium	20.9	0.455	1.82		mg/Kg-dry	5	03/28/13 02:13 AM
Cadmium	ND	0.0911	0.273		mg/Kg-dry	5	03/28/13 02:13 AM
Chromium	5.23	0.455	1.82		mg/Kg-dry	5	03/30/13 03:41 AM
Copper	1.48	0.455	1.82	J	mg/Kg-dry	5	03/30/13 03:41 AM
Iron	5440	114	114		mg/Kg-dry	50	03/29/13 10:57 PM
Lead	2.58	0.0911	0.273		mg/Kg-dry	5	03/28/13 02:13 AM
Manganese	42.6	0.455	1.82		mg/Kg-dry	5	03/28/13 02:13 AM
Selenium	0.590	0.137	0.455		mg/Kg-dry	5	03/28/13 02:13 AM
Silver	ND	0.0911	0.182		mg/Kg-dry	5	03/28/13 02:13 AM
Zinc	9.77	0.911	2.28		mg/Kg-dry	5	03/28/13 02:13 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0101	0.0270	N	mg/Kg-dry	1	03/29/13 02:38 AM
2-Methylnaphthalene	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
Naphthalene	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
Benzo[a]pyrene	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2,3,4,6-Tetrachlorophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2,4,5-Trichlorophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2,4,6-Trichlorophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2,4-Dichlorophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2,4-Dimethylphenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2,4-Dinitrophenol	ND	0.0507	0.134		mg/Kg-dry	1	03/29/13 02:38 AM
2,6-Dichlorophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2-Chlorophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2-Methylphenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
2-Nitrophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
4,6-Dinitro-2-methylphenol	ND	0.0304	0.0670		mg/Kg-dry	1	03/29/13 02:38 AM
4-Chloro-3-methylphenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
4-Methylphenol	ND	0.0203	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
4-Nitrophenol	ND	0.0507	0.134		mg/Kg-dry	1	03/29/13 02:38 AM
Pentachlorophenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
Phenol	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
Total Phenol (Calculated)	ND	0.0101	0.0270		mg/Kg-dry	1	03/29/13 02:38 AM
Surr: 2,4,6-Tribromophenol	94.0	0	45-126		%REC	1	03/29/13 02:38 AM
Surr: 2-Fluorobiphenyl	89.0	0	60-125		%REC	1	03/29/13 02:38 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-18

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: AJR
Surr: 2-Fluorophenol	96.0	0	37-125		%REC	1	03/29/13 02:38 AM
Surr: 4-Terphenyl-d14	93.0	0	45-125		%REC	1	03/29/13 02:38 AM
Surr: Nitrobenzene-d5	92.0	0	45-125		%REC	1	03/29/13 02:38 AM
Surr: Phenol-d6	93.0	0	40-125		%REC	1	03/29/13 02:38 AM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0169	0.0338		mg/Kg-dry	1	03/29/13 02:42 AM
Aroclor 1221	ND	0.0169	0.0338		mg/Kg-dry	1	03/29/13 02:42 AM
Aroclor 1232	ND	0.0169	0.0338		mg/Kg-dry	1	03/29/13 02:42 AM
Aroclor 1242	ND	0.0169	0.0338		mg/Kg-dry	1	03/29/13 02:42 AM
Aroclor 1248	ND	0.0169	0.0338		mg/Kg-dry	1	03/29/13 02:42 AM
Aroclor 1254	ND	0.0169	0.0338		mg/Kg-dry	1	03/29/13 02:42 AM
Aroclor 1260	ND	0.0169	0.0338		mg/Kg-dry	1	03/29/13 02:42 AM
Surr: 2-Fluorobiphenyl	67.8	0	43-125		%REC	1	03/29/13 02:42 AM
Surr: 4-Terphenyl-d14	77.0	0	32-125		%REC	1	03/29/13 02:42 AM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Toluene	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Carbon tetrachloride	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
1,2-Dichloroethane	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
1,1-Dichloroethylene	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Tetrachloroethylene	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Trichloroethylene	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Ethylbenzene	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Total Xylenes	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Methylene chloride	ND	0.00460	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Chloroform	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
1,1-Dichloroethane	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Ethylene bromide	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
1,1,1-Trichloroethane	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
1,1,2-Trichloroethane	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
1,1,2,2-Tetrachloroethane	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Vinyl chloride	ND	0.000921	0.00460		mg/Kg-dry	1	03/28/13 07:17 PM
Surr: 1,2-Dichloroethane-d4	106	0	52-149		%REC	1	03/28/13 07:17 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 07:17 PM
Surr: Dibromofluoromethane	97.9	0	65-135		%REC	1	03/28/13 07:17 PM
Surr: Toluene-d8	103	0	84-116		%REC	1	03/28/13 07:17 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303223-18

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418		Analyst: JAW			
Petroleum Hydrocarbons, TR	ND	5.17	10.3	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.195	0.487		mg/Kg-dry	1	03/28/13 04:48 PM
ANIONS BY IC METHOD - SOIL	E300						Analyst: JBC
Chloride	434	51.8	51.8		mg/Kg-dry	10	03/28/13 05:23 PM
Fluoride	ND	1.04	1.04		mg/Kg-dry	1	03/28/13 01:58 PM
Nitrate-N	ND	5.18	5.18		mg/Kg-dry	1	03/28/13 01:58 PM
Sulfate	20.3	10.4	10.4		mg/Kg-dry	1	03/28/13 01:58 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: JCG
рН	7.58	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	6				Analyst: MK
Percent Moisture	3.70	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303223-19

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0166	0.0415		mg/Kg-dry	1	04/02/13 01:51 PM
TRACE METALS: ICP-MS - SOLID		SW60:	20A				Analyst: SW
Arsenic	2.32	0.477	0.954		mg/Kg-dry	5	03/28/13 05:07 AM
Barium	210	0.477	1.91		mg/Kg-dry	5	03/28/13 05:07 AM
Cadmium	0.134	0.0954	0.286	J	mg/Kg-dry	5	03/28/13 05:07 AM
Chromium	4.37	0.477	1.91		mg/Kg-dry	5	04/01/13 03:42 PM
Copper	1.57	0.477	1.91	J	mg/Kg-dry	5	04/01/13 03:42 PM
Iron	5080	119	119		mg/Kg-dry	50	03/30/13 02:02 AM
Lead	2.36	0.0954	0.286		mg/Kg-dry	5	03/28/13 05:07 AM
Manganese	41.8	0.477	1.91		mg/Kg-dry	5	03/28/13 05:07 AM
Selenium	0.594	0.143	0.477		mg/Kg-dry	5	03/28/13 05:07 AM
Silver	ND	0.0954	0.191		mg/Kg-dry	5	03/28/13 05:07 AM
Zinc	6.80	0.954	2.38		mg/Kg-dry	5	03/28/13 05:07 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0112	0.0297	N	mg/Kg-dry	1	03/29/13 03:01 AM
2-Methylnaphthalene	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
Naphthalene	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
Benzo[a]pyrene	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2,3,4,6-Tetrachlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2,4,5-Trichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2,4,6-Trichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2,4-Dichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2,4-Dimethylphenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2,4-Dinitrophenol	ND	0.0559	0.148		mg/Kg-dry	1	03/29/13 03:01 AM
2,6-Dichlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2-Chlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2-Methylphenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
2-Nitrophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
4,6-Dinitro-2-methylphenol	ND	0.0335	0.0738		mg/Kg-dry	1	03/29/13 03:01 AM
4-Chloro-3-methylphenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
4-Methylphenol	ND	0.0224	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
4-Nitrophenol	ND	0.0559	0.148		mg/Kg-dry	1	03/29/13 03:01 AM
Pentachlorophenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
Phenol	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
Total Phenol (Calculated)	ND	0.0112	0.0297		mg/Kg-dry	1	03/29/13 03:01 AM
Surr: 2,4,6-Tribromophenol	77.0	0	45-126		%REC	1	03/29/13 03:01 AM
Surr: 2-Fluorobiphenyl	74.0	0	60-125		%REC	1	03/29/13 03:01 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303223-19

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82		Analyst: AJR			
Surr: 2-Fluorophenol	79.0	0	37-125		%REC	1	03/29/13 03:01 AM
Surr: 4-Terphenyl-d14	67.0	0	45-125		%REC	1	03/29/13 03:01 AM
Surr: Nitrobenzene-d5	77.0	0	45-125		%REC	1	03/29/13 03:01 AM
Surr: Phenol-d6	77.0	0	40-125		%REC	1	03/29/13 03:01 AM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 03:13 AM
Aroclor 1221	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 03:13 AM
Aroclor 1232	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 03:13 AM
Aroclor 1242	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 03:13 AM
Aroclor 1248	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 03:13 AM
Aroclor 1254	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 03:13 AM
Aroclor 1260	ND	0.0186	0.0373		mg/Kg-dry	1	03/29/13 03:13 AM
Surr: 2-Fluorobiphenyl	63.8	0	43-125		%REC	1	03/29/13 03:13 AM
Surr: 4-Terphenyl-d14	73.6	0	32-125		%REC	1	03/29/13 03:13 AM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Toluene	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Carbon tetrachloride	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
1,2-Dichloroethane	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
1,1-Dichloroethylene	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Tetrachloroethylene	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Trichloroethylene	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Ethylbenzene	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Total Xylenes	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Methylene chloride	ND	0.00532	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Chloroform	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
1,1-Dichloroethane	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Ethylene bromide	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
1,1,1-Trichloroethane	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
1,1,2-Trichloroethane	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
1,1,2,2-Tetrachloroethane	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Vinyl chloride	ND	0.00106	0.00532		mg/Kg-dry	1	03/28/13 07:50 PM
Surr: 1,2-Dichloroethane-d4	103	0	52-149		%REC	1	03/28/13 07:50 PM
Surr: 4-Bromofluorobenzene	105	0	84-118		%REC	1	03/28/13 07:50 PM
Surr: Dibromofluoromethane	98.1	0	65-135		%REC	1	03/28/13 07:50 PM
Surr: Toluene-d8	104	0	84-116		%REC	1	03/28/13 07:50 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303223-19

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:00 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418		Analyst: JAW			
Petroleum Hydrocarbons, TR	ND	5.68	11.4	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.213	0.533		mg/Kg-dry	1	03/28/13 04:50 PM
ANIONS BY IC METHOD - SOIL	E300						Analyst: JBC
Chloride	470	56.5	56.5		mg/Kg-dry	10	03/28/13 05:38 PM
Fluoride	1.62	1.13	1.13		mg/Kg-dry	1	03/28/13 02:12 PM
Nitrate-N	ND	5.65	5.65		mg/Kg-dry	1	03/28/13 02:12 PM
Sulfate	38.6	11.3	11.3		mg/Kg-dry	1	03/28/13 02:12 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: JCG
рН	7.94	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	6				Analyst: MK
Percent Moisture	11.9	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303223-20

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:10 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0101	0.0252		mg/Kg-dry	1	04/02/13 01:53 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	1.79	0.331	0.662		mg/Kg-dry	5	03/28/13 05:13 AM
Barium	356	0.331	1.32		mg/Kg-dry	5	03/28/13 05:13 AM
Cadmium	0.0765	0.0662	0.199	J	mg/Kg-dry	5	03/28/13 05:13 AM
Chromium	3.79	0.331	1.32		mg/Kg-dry	5	04/01/13 03:48 PM
Copper	1.29	0.331	1.32	J	mg/Kg-dry	5	04/01/13 03:48 PM
Iron	4990	82.8	82.8		mg/Kg-dry	50	03/30/13 02:08 AM
Lead	2.29	0.0662	0.199		mg/Kg-dry	5	03/28/13 05:13 AM
Manganese	40.6	0.331	1.32		mg/Kg-dry	5	03/28/13 05:13 AM
Selenium	0.699	0.0994	0.331		mg/Kg-dry	5	03/28/13 05:13 AM
Silver	ND	0.0662	0.132		mg/Kg-dry	5	03/28/13 05:13 AM
Zinc	7.02	0.662	1.66		mg/Kg-dry	5	03/28/13 05:13 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: AJR
1-Methylnaphthalene	ND	0.0129	0.0344	N	mg/Kg-dry	1	03/29/13 03:25 AM
2-Methylnaphthalene	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
Naphthalene	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
Benzo[a]pyrene	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
2,3,4,6-Tetrachlorophenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
2,4,5-Trichlorophenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
2,4,6-Trichlorophenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
2,4-Dichlorophenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
2,4-Dimethylphenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
2,4-Dinitrophenol	ND	0.0647	0.171		mg/Kg-dry	1	03/29/13 03:25 AM
2,6-Dichlorophenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
2-Chlorophenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
2-Methylphenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
2-Nitrophenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
4,6-Dinitro-2-methylphenol	ND	0.0388	0.0854		mg/Kg-dry	1	03/29/13 03:25 AM
4-Chloro-3-methylphenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
4-Methylphenol	ND	0.0259	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
4-Nitrophenol	ND	0.0647	0.171		mg/Kg-dry	1	03/29/13 03:25 AM
Pentachlorophenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
Phenol	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
Total Phenol (Calculated)	ND	0.0129	0.0344		mg/Kg-dry	1	03/29/13 03:25 AM
Surr: 2,4,6-Tribromophenol	78.0	0	45-126		%REC	1	03/29/13 03:25 AM
Surr: 2-Fluorobiphenyl	70.0	0	60-125		%REC	1	03/29/13 03:25 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303223-20

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:10 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: AJR
Surr: 2-Fluorophenol	76.0	0	37-125		%REC	1	03/29/13 03:25 AM
Surr: 4-Terphenyl-d14	73.0	0	45-125		%REC	1	03/29/13 03:25 AM
Surr: Nitrobenzene-d5	72.0	0	45-125		%REC	1	03/29/13 03:25 AM
Surr: Phenol-d6	74.0	0	40-125		%REC	1	03/29/13 03:25 AM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0216	0.0431		mg/Kg-dry	1	03/29/13 03:44 AM
Aroclor 1221	ND	0.0216	0.0431		mg/Kg-dry	1	03/29/13 03:44 AM
Aroclor 1232	ND	0.0216	0.0431		mg/Kg-dry	1	03/29/13 03:44 AM
Aroclor 1242	ND	0.0216	0.0431		mg/Kg-dry	1	03/29/13 03:44 AM
Aroclor 1248	ND	0.0216	0.0431		mg/Kg-dry	1	03/29/13 03:44 AM
Aroclor 1254	ND	0.0216	0.0431		mg/Kg-dry	1	03/29/13 03:44 AM
Aroclor 1260	ND	0.0216	0.0431		mg/Kg-dry	1	03/29/13 03:44 AM
Surr: 2-Fluorobiphenyl	61.1	0	43-125		%REC	1	03/29/13 03:44 AM
Surr: 4-Terphenyl-d14	76.9	0	32-125		%REC	1	03/29/13 03:44 AM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Toluene	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Carbon tetrachloride	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
1,2-Dichloroethane	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
1,1-Dichloroethylene	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Tetrachloroethylene	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Trichloroethylene	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Ethylbenzene	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Total Xylenes	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Methylene chloride	ND	0.00480	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Chloroform	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
1,1-Dichloroethane	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Ethylene bromide	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
1,1,1-Trichloroethane	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
1,1,2-Trichloroethane	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
1,1,2,2-Tetrachloroethane	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Vinyl chloride	ND	0.000960	0.00480		mg/Kg-dry	1	03/28/13 08:24 PM
Surr: 1,2-Dichloroethane-d4	101	0	52-149		%REC	1	03/28/13 08:24 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	03/28/13 08:24 PM
Surr: Dibromofluoromethane	97.2	0	65-135		%REC	1	03/28/13 08:24 PM
Surr: Toluene-d8	104	0	84-116		%REC	1	03/28/13 08:24 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-9 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303223-20

Project No: 11-0109-09 **Collection Date:** 03/23/13 09:10 AM

Lab Order: 1303223 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	6.45	12.9	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.189	0.471		mg/Kg-dry	1	03/28/13 04:50 PM
ANIONS BY IC METHOD - SOIL	E300						Analyst: JBC
Chloride	29.6	6.61	6.61		mg/Kg-dry	1	03/28/13 02:43 PM
Fluoride	3.65	1.32	1.32		mg/Kg-dry	1	03/28/13 02:43 PM
Nitrate-N	ND	6.61	6.61		mg/Kg-dry	1	03/28/13 02:43 PM
Sulfate	26.9	13.2	13.2		mg/Kg-dry	1	03/28/13 02:43 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: JCG
pH	8.57	0	0		pH Units	1	03/27/13 10:15 AM
PERCENT MOISTURE		D221	6				Analyst: MK
Percent Moisture	24.8	0	0		WT%	1	03/28/13 11:10 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
 - ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

Date: 06-Jun-13

ANALYTICAL QC SUMMARY REPORT

CLIENT: Larson & Associates

Work Order: 1303223

RunID: CETAC_HG_130402A R360 Artesia Landfarm **Project:**

The QC data in batch 56622 applies to the following samples: 1303223-02C, 1303223-03C, 1303223-04C, 1303223-06C, 1303223-07C, 1303223-08C, 1303223-09C, 1303223-11C, 1303223-12C, 1303223-13C, 1303223-14C, 1303223-15C, 1303223-17C, 1303223-18C, 1303223-19C, 1303223-1

Sample ID: MB-56622	Batch ID:	56622		TestNo:	SW	7471B		Units:	mg/Kg
SampType: MBLK	Run ID:	CETAC	_HG_130402 <i>k</i>	A Analysis	Date: 4/2/	2013 12:59:	51 PM	Prep Date:	3/27/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD RPDLimit Qua
Mercury		ND	0.0400						
Sample ID: LCS-56622	Batch ID:	56622		TestNo:	SW	7471B		Units:	mg/Kg
SampType: LCS	Run ID:	CETAC	_HG_130402 <i>k</i>	A Analysis	Date: 4/2/	2013 1:01:5	3 PM	Prep Date:	3/27/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit S	%RPD RPDLimit Qua
Mercury		0.207	0.0400	0.2000	0	104	85	115	
Sample ID: LCSD-56622	Batch ID:	56622		TestNo:	SW	7471B		Units:	mg/Kg
SampType: LCSD	Run ID:	CETAC	_HG_130402 <i>F</i>	A Analysis	Date: 4/2/	2013 1:03:5	5 PM	Prep Date:	3/27/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD RPDLimit Qua
Mercury		0.209	0.0400	0.2000	0	104	85	115	0.962 25
Sample ID: 1303223-18C SD	Batch ID:	56622		TestNo:	SW	7471B		Units:	mg/Kg-dry
SampType: SD	Run ID:	CETAC	_HG_130402 <i>F</i>	A Analysis	Date: 4/2/	2013 1:08:0	0 PM	Prep Date:	3/27/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD RPDLimit Qua
Mercury		0	0.176	0	0				0 10
Sample ID: 1303223-18C PDS	Batch ID:	56622		TestNo:	SW	7471B		Units:	mg/Kg-dry
SampType: PDS	Run ID:	CETAC	_HG_130402 <i>k</i>	A Analysis	Date: 4/2/	2013 1:10:0	1 PM	Prep Date:	3/27/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD RPDLimit Qua
Mercury		0.217	0.0351	0.2195	0	98.8	85	115	
Sample ID: 1303223-18C MS	Batch ID:	56622		TestNo:	SW	7471B		Units:	mg/Kg-dry
SampType: MS	Run ID:	CETAC	_HG_130402 <i>A</i>	A Analysis	Date: 4/2/	2013 1:12:0	4 PM	Prep Date:	3/27/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD RPDLimit Qua
Mercury		0.192	0.0348	0.1742	0	110	80	120	
Sample ID: 1303223-18C MSD	Batch ID:	56622		TestNo:	SW	7471B		Units:	mg/Kg-dry
SampType: MSD	Run ID:	CETAC	_HG_130402 <i>F</i>	A Analysis	Date: 4/2/	2013 1:14:0	6 PM	Prep Date:	3/27/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD RPDLimit Qua
Mercury		0.192	0.0347	0.1733	0	111	80	120	0.083 25

Qualifiers: Analyte detected in the associated Method Blank

Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

Dilution Factor DF

MDL Method Detection Limit

RPD outside accepted control limits

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R Spike Recovery outside control limits

Parameter not NELAC certified

Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: CETAC_HG_130402A

Sample ID: ICV-130402	Batch ID:	R65623		TestNo	: SW	7471B		Units:	mg/Kg
SampType: ICV	Run ID:	CETAC	_HG_130402 <i>F</i>	A Analysi	is Date: 4/2/	2013 12:55:	45 PM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Mercury	C	0.00404	0.0400	0.004000	0	101	90	110	
Sample ID: CCV1-130402	Batch ID:	R65623		TestNo	: SW	7471B		Units:	mg/Kg
SampType: CCV	Run ID:	CETAC	_HG_130402 <i>k</i>	A Analysi	is Date: 4/2/	2013 1:20:5	3 PM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Mercury	C	0.00193	0.0400	0.002000	0	96.5	90	110	
Sample ID: CCV2-130402	Batch ID:	R65623		TestNo	: SW	7471B		Units:	mg/Kg
SampType: CCV	Run ID:	CETAC	_HG_130402 <i>k</i>	A Analysi	is Date: 4/2/	2013 1:45:3	1 PM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Mercury	C	0.00207	0.0400	0.002000	0	104	90	110	
Sample ID: CCV3-130402	Batch ID:	R65623		TestNo	: SW	7471B		Units:	mg/Kg
SampType: CCV	Run ID:	CETAC	_HG_130402 <i>k</i>	A Analysi	is Date: 4/2/	2013 1:55:4	9 PM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Mercury	C	0.00202	0.0400	0.002000	0	101	90	110	

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

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S Spike Recovery outside control limits

N Parameter not NELAC certified

Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: ICP-MS3_130327A

The QC data in batch 56621 applies to the following samples: 1303223-02C, 1303223-03C, 1303223-04C, 1303223-06C, 1303223-07C, 1303223-07C, 1303223-07C, 1303223-17C, 1303223-1

Sample ID: MB-56621	Batch ID:	56621		TestNo	: SW	6020A		Units:	mg/K	9
SampType: MBLK	Run ID:	ICP-MS	3_130327A	Analys	is Date: 3/28	3/2013 1:48:	00 AM	Prep Date	e: 3/27/2	2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD R	RPDLimit Qua
Arsenic		ND	1.00							
Barium		ND	2.00							
Cadmium		ND	0.300							
Iron		ND	12.5							
Lead		ND	0.300							
Manganese		ND	2.00							
Selenium		ND	0.500							
Silver		ND	0.200							
Zinc		ND	2.50							
Sample ID: LCS-56621	Batch ID:	56621		TestNo	SW(6020A		Units:	mg/K	9
SampType: LCS	Run ID:	ICP-MS	3_130327A	Analys	is Date: 3/28	/2013 1:54:	00 AM	Prep Date	e: 3/27/2	2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD R	RPDLimit Qua
Arsenic		48.1	1.00	50.00	0	96.2	80	120		
Barium		49.0	2.00	50.00	0	98.0	80	120		
Cadmium		47.9	0.300	50.00	0	95.9	80	120		
Iron		249	12.5	250.0	0	99.4	80	120		
Lead		51.3	0.300	50.00	0	103	80	120		
Manganese		49.2	2.00	50.00	0	98.5	80	120		
Selenium		47.0	0.500	50.00	0	94.0	80	120		
Silver		51.9	0.200	50.00	0	104	80	120		
Zinc		45.8	2.50	50.00	0	91.6	80	120		
Sample ID: LCSD-56621	Batch ID:	56621		TestNo	: SW	6020A		Units:	mg/K	9
SampType: LCSD	Run ID:	ICP-MS	3_130327A	Analys	is Date: 3/28	3/2013 2:00:	00 AM	Prep Date	e: 3/27/2	2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD R	RPDLimit Qua
Arsenic		47.4	1.00	50.00	0	94.9	80	120	1.36	20
Barium		44.8	2.00	50.00	0	89.6	80	120	8.90	20
Cadmium		44.1	0.300	50.00	0	88.2	80	120	8.37	20
Iron		248	12.5	250.0	0	99.2	80	120	0.232	20
Lead		49.7	0.300	50.00	0	99.4	80	120	3.17	20
		47.4	2.00	50.00	0	94.9	80	120	3.78	20
Manganese		40.4	0.500	50.00	0	92.8	80	120	1.34	20
=		46.4	0.500	00.00						
Manganese Selenium Silver		46.4 47.5	0.200	50.00	0	95.0	80	120	8.85	20

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

a Pacovary outside control limits

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Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_130327A **Project:** R360 Artesia Landfarm

Project: R360 Ai	rtesia Landia	arm				Kunn	<i>)</i> ; 1	CP-MSS_	13034	/A
Sample ID: 1303223-18C SD	Batch ID:	56621	<u> </u>	TestNo	o: SW	6020A		Units:	mg/K	g-dry
SampType: SD	Run ID:	ICP-MS	3_130327A	Analys	is Date: 3/28	3/2013 2:19:	00 AM	Prep Date:	3/27/2	2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD F	RPDLimit Qu
Arsenic		0	4.55	0	1.501				0	10
Barium		19.4	9.11	0	20.86				7.35	10
Cadmium		0	1.37	0	0				0	10
Lead		2.53	1.37	0	2.575				1.60	10
Manganese		43.8	9.11	0	42.56				2.82	10
Selenium		0	2.28	0	0.5895				0	10
Silver		0	0.911	0	0				0	10
Zinc		10.7	11.4	0	9.771				8.85	10
Sample ID: 1303223-18C PD	S Batch ID:	56621		TestNo): SW	6020A		Units:	mg/Kg	g-dry
SampType: PDS	Run ID:	ICP-MS	3_130327A	Analys	is Date: 3/28	3/2013 3:21:	00 AM	Prep Date:	3/27/2	2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD F	RPDLimit Qu
Arsenic		40.8	0.911	45.54	1.501	86.2	80	120		
Barium		62.8	1.82	45.54	20.86	92.0	80	120		
Cadmium		40.5	0.273	45.54	0	88.8	80	120		
Lead		46.9	0.273	45.54	2.575	97.4	80	120		
Manganese		80.2	1.82	45.54	42.56	82.7	80	120		
Selenium		39.6	0.455	45.54	0.5895	85.6	80	120		
Silver		42.4	0.182	45.54	0	93.1	80	120		
Zinc		47.0	2.28	45.54	9.771	81.6	80	120		
Sample ID: 1303223-18C MS	Batch ID:	56621		TestNo	o: SW	6020A		Units:	mg/K	g-dry
SampType: MS	Run ID:	ICP-MS	3_130327A	Analys	is Date: 3/28	3/2013 3:27:	00 AM	Prep Date:	3/27/2	2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD F	RPDLimit Qu
Arsenic		44.5	0.919	45.95	1.501	93.5	80	120		
Barium		64.0	1.84	45.95	20.86	94.0	80	120		
Cadmium		41.6	0.276	45.95	0	90.6	80	120		
Iron		5060	11.5	229.7	4802	111	80	120		
Lead		50.0	0.276	45.95	2.575	103	80	120		
Manganese		81.3	1.84	45.95	42.56	84.2	80	120		
Selenium		42.8	0.459	45.95	0.5895	91.9	80	120		
Silver		44.7	0.184	45.95	0	97.3	80	120		
Zinc		50.5	2.30	45.95	9.771	88.6	80	120		
Sample ID: 1303223-18C MS	D Batch ID:	56621		TestNo	o: SW	6020A		Units:	mg/K	g-dry
SampType: MSD	Run ID:	ICP-MS	3_130327A	Analys	is Date: 3/28	3/2013 3:33:	00 AM	Prep Date:	3/27/2	2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD F	RPDLimit Qu
Arsenic		44.8	0.927	46.36	1.501	93.3	80	120	0.630	20
Qualifiers: B Analyte d	letected in the a	ssociated M	Iethod Blank	DF	Dilution Facto	or				

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

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CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1303223

ICP-MS3_130327A **RunID: Project:** R360 Artesia Landfarm

Sample ID: 1303223-18C MSD SampType: MSD	Batch ID: Run ID:	56621 ICP-MS	3_130327A	TestNo Analysi		V6020A 28/2013 3:33:	00 AM	Units: Prep Date	•	Kg-dry /2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD	RPDLimit	Qual
Barium		65.2	1.85	46.36	20.86	95.7	80	120	1.78	20	
Cadmium		42.2	0.278	46.36	0	91.0	80	120	1.27	20	
Iron		5170	11.6	231.8	4802	158	80	120	2.15	20	S
Lead		50.9	0.278	46.36	2.575	104	80	120	1.80	20	
Manganese		84.3	1.85	46.36	42.56	90.1	80	120	3.70	20	
Selenium		43.1	0.464	46.36	0.5895	91.7	80	120	0.674	20	
Silver		45.1	0.185	46.36	0	97.2	80	120	0.837	20	
Zinc		50.9	2.32	46.36	9.771	88.8	80	120	0.889	20	

Qualifiers: В Analyte detected in the associated Method Blank

> J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits Parameter not NELAC certified

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Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: ICP-MS3_130327A

Sample ID: I	LCVL-130327	Batch ID:	R65526		TestNo	o: SW	6020A		Units:	mg/	L
SampType: I	CVL	Run ID:	ICP-MS3	3_130327A	Analys	is Date: 3/2 7	7/2013 1:29:	00 PM	Prep Date	: :	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD	RPDLimit Qua
Arsenic		(0.00542	0.00500	0.00500	0	108	70	130		
Barium			0.00485	0.0100	0.00500	0	97.0	70	130		
Cadmium			0.00103	0.00100	0.00100	0	103	70	130		
Chromium			0.00516	0.00500	0.00500	0	103	70	130		
Copper			0.00548	0.0100	0.00500	0	110	70	130		
Iron			0.114	0.100	0.100	0	114	70	130		
Lead		C	0.000989	0.00100	0.00100	0	98.9	70	130		
Manganese			0.00544	0.0100	0.00500	0	109	70	130		
Selenium			0.00550	0.00500	0.00500	0	110	70	130		
Silver			0.00199	0.00200	0.00200	0	99.3	70	130		
Zinc		(0.00566	0.00500	0.00500	0	113	70	130		
Sample ID: L	CVL4-130327	Batch ID:	R65526		TestNo	: SW	6020A		Units:	mg/	L
SampType: I	CVL	Run ID:	ICP-MS3	3_130327A	Analys	is Date: 3/2 8	3/2013 1:29:	00 AM	Prep Date	: :	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD	RPDLimit Qua
Arsenic		(0.00527	0.00500	0.00500	0	105	70	130		
Barium		(0.00482	0.0100	0.00500	0	96.5	70	130		
Cadmium		C	0.000952	0.00100	0.00100	0	95.2	70	130		
Iron			0.110	0.100	0.100	0	110	70	130		
Lead		C	0.000950	0.00100	0.00100	0	95.0	70	130		
Manganese			0.00507	0.0100	0.00500	0	101	70	130		
Selenium			0.00510	0.00500	0.00500	0	102	70	130		
Silver			0.00187	0.00200	0.00200	0	93.6	70	130		
Zinc		ı	0.00504	0.00500	0.00500	0	101	70	130		
Sample ID: L	CVL5-130327	Batch ID:	R65526		TestNo	: SW	6020A		Units:	mg/	L
SampType: L	CVL	Run ID:	ICP-MS3	3_130327A	Analys	is Date: 3/28	3/2013 4:23:	00 AM	Prep Date):	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD	RPDLimit Qua
Arsenic	_		0.00556	0.00500	0.00500	0	111	70	130		
Barium			0.00506	0.0100	0.00500	0	101	70	130		
Cadmium			0.00108	0.00100	0.00100	0	108	70	130		
Iron			0.107	0.100	0.100	0	107	70	130		
Lead			0.00102	0.00100	0.00100	0	102	70	130		
Manganese			0.00553	0.0100	0.00500	0	111	70	130		
Selenium			0.00558	0.00500	0.00500	0	112	70	130		
Silver			0.00203	0.00200	0.00200	0	101	70	130		
Zinc			0.00553	0.00500	0.00500	0	111	70	130		

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

ICP-MS3_130327A **RunID: Project:** R360 Artesia Landfarm

Sample ID: LCVL6-130327	Batch ID:	R65526		TestNo	: SW	6020A		Units:	mg/L
SampType: LCVL	Run ID:	ICP-MS	3_130327A	Analys	is Date: 3/28	3/2013 6:03:	00 AM	Prep Date	e:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Arsenic		0.00545	0.00500	0.00500	0	109	70	130	
Barium		0.00498	0.0100	0.00500	0	99.5	70	130	
Cadmium	(0.000971	0.00100	0.00100	0	97.1	70	130	
Lead	(0.000999	0.00100	0.00100	0	99.9	70	130	
Manganese		0.00525	0.0100	0.00500	0	105	70	130	
Selenium		0.00563	0.00500	0.00500	0	113	70	130	
Silver		0.00199	0.00200	0.00200	0	99.4	70	130	
Zinc		0.00525	0.00500	0.00500	0	105	70	130	
Sample ID: ICV2-130327	Batch ID:	R65526		TestNo	: SW	6020A		Units:	mg/L
SampType: ICV	Run ID:	ICP-MS	3_130327A	Analys	is Date: 3/27	7/2013 4:29:	00 PM	Prep Date	e:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	: %RPD RPDLimit Qual
Arsenic		0.0987	0.00500	0.100	0	98.7	90	110	
Barium		0.0914	0.0100	0.100	0	91.4	90	110	
Cadmium		0.0944	0.00100	0.100	0	94.4	90	110	
Chromium		0.0936	0.00500	0.100	0	93.6	90	110	
Copper		0.0970	0.0100	0.100	0	97.0	90	110	
Iron		2.50	0.100	2.50	0	99.8	90	110	
Lead		0.0918	0.00100	0.100	0	91.8	90	110	
Manganese		0.0994	0.0100	0.100	0	99.4	90	110	
Selenium		0.104	0.00500	0.100	0	104	90	110	
Silver		0.0917	0.00200	0.100	0	91.7	90	110	
Zinc		0.103	0.00500	0.100	0	103	90	110	
Sample ID: CCV4-130327	Batch ID:	R65526		TestNo	: SW	6020A		Units:	mg/L
SampType: CCV	Run ID:	ICP-MS	3_130327A	Analys	is Date: 3/28	3/2013 12:20	0:00 AM	Prep Date	e:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Arsenic		0.201	0.00500	0.200	0	101	90	110	
Barium		0.182	0.0100	0.200	0	91.2	90	110	
Cadmium		0.184	0.00100	0.200	0	92.0	90	110	
Iron		4.68	0.100	5.00	0	93.6	90	110	
Lead		0.201	0.00100	0.200	0	100	90	110	
Manganese		0.196	0.0100	0.200	0	98.2	90	110	
Selenium		0.210	0.00500	0.200	0	105	90	110	
Silver		0.192	0.00200	0.200	0	95.8	90	110	
Zinc		0.195	0.00500	0.200	0	97.5	90	110	

Qualifiers: В Analyte detected in the associated Method Blank

> J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits Parameter not NELAC certified

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Work Order: 1303223

Project: R360 Artesia Landfarm RunID: ICP-MS3_130327A

ANALYTICAL QC SUMMARY REPORT

Batch ID:								
Baton ID.	R65526		TestNo:	SW	/6020A	•	Units:	mg/L
Run ID:	ICP-MS	3_130327A	Analysis	s Date: 3/2	8/2013 3:39:	00 AM	Prep Date	: :
	Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qua
	0.201	0.00500	0.200	0	101	90	110	
	0.181	0.0100	0.200	0	90.4	90	110	
	0.184	0.00100	0.200	0	92.0	90	110	
	4.73	0.100	5.00	0	94.6	90	110	
	0.203	0.00100	0.200	0	102	90	110	
	0.196	0.0100	0.200	0	98.2	90	110	
	0.209	0.00500	0.200	0	105	90	110	
	0.193	0.00200	0.200	0	96.5	90	110	
	0.192	0.00500	0.200	0	96.2	90	110	
Batch ID:	R65526		TestNo:	SW	/6020A		Units:	mg/L
Run ID:	ICP-MS	3_130327A	Analysis	s Date: 3/2	8/2013 5:19:	00 AM	Prep Date	e :
	Batch ID:	Result 0.201 0.181 0.184 4.73 0.203 0.196 0.209 0.193 0.192 Batch ID: R65526	Result RL 0.201 0.00500 0.181 0.0100 0.184 0.00100 4.73 0.100 0.203 0.00100 0.196 0.0100 0.209 0.00500 0.193 0.00200 0.192 0.00500 Batch ID: R65526	Result RL SPK value 0.201 0.00500 0.200 0.181 0.0100 0.200 0.184 0.00100 0.200 4.73 0.100 5.00 0.203 0.00100 0.200 0.196 0.0100 0.200 0.209 0.00500 0.200 0.193 0.00200 0.200 0.192 0.00500 0.200 Batch ID: R65526 TestNo:	Result RL SPK value Ref Val 0.201 0.00500 0.200 0 0.181 0.0100 0.200 0 0.184 0.00100 0.200 0 4.73 0.100 5.00 0 0.203 0.00100 0.200 0 0.196 0.0100 0.200 0 0.209 0.00500 0.200 0 0.193 0.00200 0.200 0 0.192 0.00500 0.200 0 Batch ID: R65526 TestNo: SW	Result RL SPK value Ref Val %REC 0.201 0.00500 0.200 0 101 0.181 0.0100 0.200 0 90.4 0.184 0.00100 0.200 0 92.0 4.73 0.100 5.00 0 94.6 0.203 0.00100 0.200 0 102 0.196 0.0100 0.200 0 98.2 0.209 0.00500 0.200 0 105 0.193 0.00200 0.200 0 96.5 0.192 0.00500 0.200 0 96.2 Batch ID: R65526 TestNo: SW6020A	Result RL SPK value Ref Val %REC LowLimi 0.201 0.00500 0.200 0 101 90 0.181 0.0100 0.200 0 90.4 90 0.184 0.00100 0.200 0 92.0 90 4.73 0.100 5.00 0 94.6 90 0.203 0.00100 0.200 0 102 90 0.196 0.0100 0.200 0 98.2 90 0.209 0.00500 0.200 0 105 90 0.193 0.00200 0.200 0 96.5 90 0.192 0.00500 0.200 0 96.5 90 Batch ID: R65526 TestNo: SW6020A	Result RL SPK value Ref Val %REC LowLimit HighLimit 0.201 0.00500 0.200 0 101 90 110 0.181 0.0100 0.200 0 90.4 90 110 0.184 0.00100 0.200 0 92.0 90 110 4.73 0.100 5.00 0 94.6 90 110 0.203 0.00100 0.200 0 102 90 110 0.196 0.0100 0.200 0 98.2 90 110 0.209 0.00500 0.200 0 105 90 110 0.193 0.00200 0.200 0 96.5 90 110 0.192 0.00500 0.200 0 96.5 90 110 Batch ID: R65526 TestNo: SW6020A Units:

SampType: CCV	Run ID:	Run ID: ICP-MS3_130327A			is Date: 3/28	Prep Date:				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	t HighLimit	%RPD	RPDLimit Qual
Arsenic		0.200	0.00500	0.200	0	100	90	110		
Barium		0.194	0.0100	0.200	0	97.0	90	110		
Cadmium		0.192	0.00100	0.200	0	96.0	90	110		
Lead		0.200	0.00100	0.200	0	100	90	110		
Manganese		0.195	0.0100	0.200	0	97.3	90	110		
Selenium		0.209	0.00500	0.200	0	104	90	110		
Silver		0.201	0.00200	0.200	0	100	90	110		
Zinc		0.194	0.00500	0.200	0	96.8	90	110		

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limitsS Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1303223

Project: R360 Artesia Landfarm RunID: ICP-MS3_130329A

The QC data in batch 56621 applies to the following samples: 1303223-02C, 1303223-03C, 1303223-04C, 1303223-06C, 1303223-07C, 1303223-07C, 1303223-07C, 1303223-07C, 1303223-17C, 1303223-1

ANALYTICAL QC SUMMARY REPORT

200											
Sample ID:	1303223-18C SD	Batch ID:	56621		TestNo:	SW	/6020A		Units:	mg/Kg	-dry
SampType:	SD	Run ID:	ICP-MS3	_130329A	Analysis	s Date: 3/2	9/2013 11:03	:00 PM	Prep Date:	3/27/20)13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit %	6RPD R	PDLimit Qua
Chromium			0	91.1	0	4.996				0	10
Copper			0	91.1	0	0				0	10
Iron			5460	569	0	5435				0.376	10
Sample ID:	1303223-18C PDS	Batch ID:	56621		TestNo:	SW	/6020A		Units:	mg/Kg	-dry
SampType:	PDS	Run ID:	ICP-MS3	_130329A	Analysis	s Date: 3/3	0/2013 12:05	:00 AM	Prep Date:	3/27/20)13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit %	6RPD R	PDLimit Qual
Chromium			430	18.2	455.4	4.996	93.4	80	120		
Copper			450	18.2	455.4	0	98.8	80	120		
Iron			17100	114	11390	5435	102	80	120		
Sample ID:	MB-56621	Batch ID:	56621		TestNo:	SW	/6020A		Units:	mg/Kg	
SampType:	MBLK	Run ID:	ICP-MS3	_130329A	Analysis	s Date: 3/3	0/2013 3:16:	00 AM	Prep Date:	3/27/20)13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit Qua
Chromium			ND	2.00							
Copper			ND	2.00							
Sample ID:	LCS-56621	Batch ID:	56621		TestNo:	SW	/6020A		Units:	mg/Kg	
SampType:	LCS	Run ID:	ICP-MS3	_130329A	Analysis	s Date: 3/3	0/2013 3:22:	00 AM	Prep Date:	3/27/20)13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit Qua
Chromium			51.0	2.00	50.00	0	102	80	120		
Copper			50.5	2.00	50.00	0	101	80	120		
Sample ID:	LCSD-56621	Batch ID:	56621		TestNo:	SW	/6020A	-	Units:	mg/Kg	
SampType:	LCSD	Run ID:	ICP-MS3	_130329A	Analysis	s Date: 3/3	0/2013 3:28:	MA 00	Prep Date:	3/27/20	013
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit %	6RPD R	PDLimit Qua
		_									
Chromium			45.5	2.00	50.00	0	91.0	80	120	11.4	20

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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RL Reporting Limit

Analyte detected between SDL and RL

Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: ICP-MS3_130329A

K300	Altesia Laliul	arm				Kunll	<i>)</i> , 1	C1 -M183	_130329A
ILCVL-130329	9 Batch ID:	R65589		TestN	o: SW	6020A		Units:	mg/L
LCVL	Run ID:	ICP-MS	3_130329A	Analy	sis Date: 3/2 9	9/2013 12:47	7:00 PM	Prep Date	e :
		Result	RL	SPK value	Ref Val	%REC	LowLim	t HighLimit	%RPD RPDLimit Qua
		0.00524	0.00500	0.00500	0	105	70	130	
			0.0100	0.00500	0	109	70	130	
		0.115	0.100	0.100	0	115	70	130	
LCVL4-13032	9 Batch ID:	R65589		TestN	o: SW	6020A		Units:	mg/L
LCVL	Run ID:	ICP-MS	3_130329A	Analy	sis Date: 3/29	9/2013 10:38	3:00 PM	Prep Date	9:
		Result	RL	SPK value	Ref Val	%REC	LowLim	t HighLimit	%RPD RPDLimit Qual
		0.00479	0.00500	0.00500	0	95.9	70	130	
		0.00519	0.0100	0.00500	0	104	70	130	
		0.107	0.100	0.100	0	107	70	130	
LCVL5-13032	9 Batch ID:	R65589	<u> </u>	TestN	o: SW	6020A		Units:	mg/L
LCVL	Run ID:	ICP-MS	3_130329A	Analy	sis Date: 3/30)/2013 1:19:	00 AM	Prep Date	e:
		Result	RL	SPK value	Ref Val	%REC	LowLim	t HighLimit	%RPD RPDLimit Qua
		0.00522	0.00500	0.00500	0	104	70	130	
		0.00575	0.0100	0.00500	0	115	70	130	
		0.113	0.100	0.100	0	113	70	130	
LCVL6-13032	9 Batch ID:	R65589	١	TestN	o: SW	6020A		Units:	mg/L
LCVL	Run ID:	ICP-MS	3_130329A	Analy	sis Date: 3/30	0/2013 2:57:	00 AM	Prep Date	e:
		Result	RL	SPK value	Ref Val	%REC	LowLim	t HighLimit	%RPD RPDLimit Qual
		0.00492	0.00500	0.00500	0	98.5	70	130	
		0.00549	0.0100	0.00500	0	110	70	130	
		0.108	0.100	0.100	0	108	70	130	
LCVL7-13032	9 Batch ID:	R65589)	TestN	o: SW	6020A		Units:	mg/L
LCVL	Run ID:	ICP-MS	3_130329A	Analy	sis Date: 3/30	0/2013 5:37:	00 AM	Prep Date	e:
		Result	RL	SPK value	Ref Val	%REC	LowLim	t HighLimit	%RPD RPDLimit Qual
		0.00490	0.00500	0.00500	0	98.0	70	130	
		0.00536	0.0100	0.00500	0	107	70	130	
ICV1-130329	Batch ID:	R65589	l	TestN	o: SW	6020A		Units:	mg/L
ICV	Run ID:	ICP-MS	3_130329A	Analy	sis Date: 3/29	9/2013 12:28	3:00 PM	Prep Date	e:
		Result	RL	SPK value	Ref Val	%REC	LowLim	t HighLimit	%RPD RPDLimit Qual
		0.0977	0.00500	0.100	0	97.7	90	110	
		0.102	0.0100	0.100	0	102	90	110	
B Analy	yte detected in the a	associated N	Method Blank	DF	Dilution Factor	or			
				MDL	Method Detec	ction Limit			Page 10 of 33
ND Not I	Detected at the Met	hod Detecti	on Limit	R	RPD outside	accepted cont	trol limits		Č
	ILCVL-130329 LCVL LCVL5-13032 LCVL LCVL-130322 LCVL ICV1-130329 ICV B Analy J Analy	ILCVL-130329 Batch ID: LCVL5-130329 Batch ID: LCVL Run ID: LCVL6-130329 Batch ID: Run ID: LCVL Run ID: LCVL Run ID: LCVL Run ID: LCVL Run ID:	LCVL		LCVL				CVL 30329

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Spike Recovery outside control limits

Parameter not NELAC certified

Work Order: 1303223

Project: R360 Artesia Landfarm RunID: ICP-MS3_130329A

ANALYTICAL QC SUMMARY REPORT

Sample ID: ICV1-130329	Batch ID:	R65589		TestNo:	SW	6020A		Units:	mg/L
SampType: ICV	Run ID:	ICP-MS	3_130329A	Analysis	s Date: 3/29	9/2013 12:28	3:00 PM	Prep Date:	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qua
Iron		2.60	0.100	2.50	0	104	90	110	
Sample ID: CCV4-130329	Batch ID:	R65589		TestNo:	SW	6020A		Units:	mg/L
SampType: CCV	Run ID:	ICP-MS	3_130329A	Analysis	s Date: 3/29	9/2013 9:55:	00 PM	Prep Date:	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qua
Chromium		0.189	0.00500	0.200	0	94.3	90	110	
Copper		0.196	0.0100	0.200	0	98.1	90	110	
Iron		5.00	0.100	5.00	0	100	90	110	
Sample ID: CCV5-130329	Batch ID:	R65589		TestNo:	SW	6020A		Units:	mg/L
SampType: CCV	Run ID:	ICP-MS	3_130329A	Analysis	s Date: 3/30	0/2013 12:48	3:00 AM	Prep Date:	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qua
Chromium		0.191	0.00500	0.200	0	95.3	90	110	
Copper		0.197	0.0100	0.200	0	98.4	90	110	
Iron		4.92	0.100	5.00	0	98.4	90	110	
Sample ID: CCV6-130329	Batch ID:	R65589		TestNo:	SW	6020A		Units:	mg/L
SampType: CCV	Run ID:	ICP-MS	3_130329A	Analysis	s Date: 3/30	0/2013 2:26:	00 AM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qua
Chromium		0.198	0.00500	0.200	0	99.2	90	110	
Copper		0.203	0.0100	0.200	0	102	90	110	
Iron		5.15	0.100	5.00	0	103	90	110	
Sample ID: CCV7-130329	Batch ID:	R65589		TestNo:	SW	6020A	_	Units:	mg/L
SampType: CCV	Run ID:	ICP-MS	3_130329A	Analysis	s Date: 3/30	0/2013 4:54:	00 AM	Prep Date:	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qua
Chromium		0.195	0.00500	0.200	0	97.4	90	110	
Cilionium					ū	• • • • •			

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

 $R \quad \ RPD \ outside \ accepted \ control \ \ limits$

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S Spike Recovery outside control limits

N Parameter not NELAC certified

Work Order: 1303223

Project: R360 Artesia Landfarm RunID: ICP-MS3_130401B

ANALYTICAL QC SUMMARY REPORT

Sample ID: ILCVL-130401	Batch ID: R65608		TestNo	SW6	020A		Units:	mg/L
SampType: LCVL	Run ID: ICP-MS	3_130401B	Analysi	s Date: 4/1/2	2013 11:49:	00 AM	Prep Date):
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Chromium	0.00535	0.00500	0.00500	0	107	70	130	
Copper	0.00586	0.0100	0.00500	0	117	70	130	
Sample ID: LCVL1-130401	Batch ID: R65608		TestNo	SW6	020A		Units:	mg/L
SampType: LCVL	Run ID: ICP-MS	3_130401B	Analysi	s Date: 4/1/2	2:35:0	0 PM	Prep Date):
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Chromium	0.00525	0.00500	0.00500	0	105	70	130	
Copper	0.00556	0.0100	0.00500	0	111	70	130	
Sample ID: LCVL2-130401	Batch ID: R65608		TestNo	SW6	020A		Units:	mg/L
SampType: LCVL	Run ID: ICP-MS	3_130401B	Analysi	s Date: 4/1/2	2013 5:20:0	0 PM	Prep Date	e:
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Chromium	0.00508	0.00500	0.00500	0	102	70	130	
Copper	0.00543	0.0100	0.00500	0	109	70	130	
Sample ID: ICV1-130401	Batch ID: R65608		TestNo	SW6	020A		Units:	mg/L
SampType: ICV	Run ID: ICP-MS	3_130401B	Analysi	s Date: 4/1/2	2013 11:36:	00 AM	Prep Date	e:
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Chromium	0.101	0.00500	0.100	0	101	90	110	
Copper	0.105	0.0100	0.100	0	105	90	110	
Sample ID: CCV1-130401	Batch ID: R65608		TestNo	SW6	020A		Units:	mg/L
SampType: CCV	Run ID: ICP-MS	3_130401B	Analysi	s Date: 4/1/2	2013 2:10:0	0 PM	Prep Date	:
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Chromium	0.203	0.00500	0.200	0	102	90	110	
Copper	0.208	0.0100	0.200	0	104	90	110	
Sample ID: CCV2-130401	Batch ID: R65608		TestNo	SW6	020A		Units:	mg/L
SampType: CCV	Run ID: ICP-MS	3_130401B	Analysi	s Date: 4/1/2	013 4:49:0	0 PM	Prep Date	: :
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Chromium	0.182	0.00500	0.200	0	91.2	90	110	
Copper	0.188	0.0100	0.200	0	93.8	90	110	
	0.100	0.0100	0.200	Ü	55.0	30	110	

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: GCMS8_130328A

The QC data in batch 56656 applies to the following samples: 1303223-02C, 1303223-03C, 1303223-04C, 1303223-06C, 1303223-07C, 1303223-07C, 1303223-07C, 1303223-07C, 1303223-17C, 1303223-1

20C										
Sample ID: LCS-56656	Batch ID:	56656		TestNo	o: SW	8270D		Units:	mg/Kg	3
SampType: LCS	Run ID:	GCMS	8_130328A	Analys	is Date: 3/28	3/2013 6:26:	00 PM	Prep Date:	3/28/2	013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD R	PDLimit Qual
Aroclor 1016		0.852	0.0500	1.000	0	85.2	41	138		
Aroclor 1260		0.916	0.0500	1.000	0	91.7	61	131		
Surr: 2-Fluorobiphenyl		0.630		1.000		63.0	43	125		
Surr: 4-Terphenyl-d14		0.784		1.000		78.4	32	125		
Sample ID: 1303223-03CMS	Batch ID:	56656		TestNo	o: SW	8270D		Units:	mg/Kg	g-dry
SampType: MS	Run ID:	GCMS	8_130328A	Analys	is Date: 3/28	3/2013 6:57:	00 PM	Prep Date:	3/28/2	013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD R	PDLimit Qual
Aroclor 1016		0.580	0.0338	0.6755	0	85.8	41	138		
Aroclor 1260		0.606	0.0338	0.6755	0	89.7	61	131		
Surr: 2-Fluorobiphenyl		0.447		0.6755		66.2	43	125		
Surr: 4-Terphenyl-d14		0.530		0.6755		78.4	32	125		
Sample ID: 1303223-03CMSD	Batch ID:	56656		TestNo	o: SW	8270D		Units:	mg/Kg	g-dry
SampType: MSD	Run ID:	GCMS	8_130328A	Analys	is Date: 3/28	3/2013 7:28:	00 PM	Prep Date:	3/28/2	013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD R	PDLimit Qual
Aroclor 1016		0.617	0.0333	0.6656	0	92.7	41	138	6.29	50
Aroclor 1260		0.691	0.0333	0.6656	0	104	61	131	13.1	50
Surr: 2-Fluorobiphenyl		0.488		0.6656		73.4	43	125	0	0
Surr: 4-Terphenyl-d14		0.578		0.6656		86.8	32	125	0	0
Sample ID: MB-56656	Batch ID:	56656		TestNo	o: SW	8270D		Units:	mg/Kg)
SampType: MBLK	Run ID:	GCMS	8_130328A	Analys	is Date: 3/28	3/2013 8:30:	00 PM	Prep Date:	3/28/2	013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD R	PDLimit Qual
Aroclor 1016		ND	0.0500							
Aroclor 1221		ND	0.0500							
Aroclor 1232		ND	0.0500							
Aroclor 1242		ND	0.0500							
Aroclor 1248		ND	0.0500							
Aroclor 1254		ND	0.0500							
Aroclor 1260		ND	0.0500							
Surr: 2-Fluorobiphenyl		0.714		1.000		71.4	43	125		
Surr: 4-Terphenyl-d14		0.857		1.000		85.7	32	125		
. ,										

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

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S Spike Recovery outside control limits

N Parameter not NELAC certified

Work Order: 1303223

Project: R360 Artesia Landfarm RunID: GCMS8_130328A

Sample ID: ICV-130328	Batch ID:	R65577		TestNo	: SW	V8270D		Units:	mg/k	(g
SampType: ICV	Run ID:	GCMS	3_130328A	Analys	is Date: 3/2	8/2013 5:55:	00 PM	Prep Date	:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	t HighLimit	%RPD	RPDLimit Qual
Aroclor 1016		2.14	0.0500	2.000	0	107	80	120		
Aroclor 1260		2.21	0.0500	2.000	0	111	80	120		
Surr: 2-Fluorobiphenyl		1.80		2.000		90.0	80	120		
Surr: 4-Terphenyl-d14		2.00		2.000		99.9	80	120		

ANALYTICAL QC SUMMARY REPORT

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1303223

Project: R360 Artesia Landfarm RunID:

ANALYTICAL QC SUMMARY REPORT

GCMS9_130328A

The QC data in batch 56654 applies to the following samples: 1303223-02C, 1303223-03C, 1303223-04C, 1303223-06C, 1303223-07C, 1303223-07C, 1303223-07C, 1303223-17C, 1303223-17C, 1303223-17C, 1303223-17C, 1303223-19C, 1303223-19C, 1303223-17C, 1303223-17C, 1303223-18C, 1303223-19C, 1303223-19C, 1303223-17C, 1303223-1

Sample ID: LCS-56654	Batch ID: 56654		TestNo	o: SV	V8270D		Units:	mg/Kg
SampType: LCS	Run ID: GCMS9	_130328A	Analys	is Date: 3/2	28/2013 8:28:	00 PM	Prep Date	3/28/2013
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qua
1-Methylnaphthalene	1.13	0.0266	1.340	0	84.2	40	125	N
2,3,4,6-Tetrachlorophenol	1.20	0.0266	1.340	0	89.7	40	125	
2,4,5-Trichlorophenol	1.16	0.0266	1.340	0	86.5	49	125	
2,4,6-Trichlorophenol	1.19	0.0266	1.340	0	89.1	43	125	
2,4-Dichlorophenol	1.12	0.0266	1.340	0	83.3	45	125	
2,4-Dimethylphenol	1.17	0.0266	1.340	0	87.4	32	125	
2,4-Dinitrophenol	1.29	0.132	1.340	0	96.4	25	132	
2,6-Dichlorophenol	1.17	0.0266	1.340	0	87.0	38	125	
2-Chlorophenol	1.11	0.0266	1.340	0	83.0	44	125	
2-Methylnaphthalene	1.10	0.0266	1.340	0	82.1	47	125	
2-Methylphenol	1.15	0.0266	1.340	0	85.8	40	125	
2-Nitrophenol	1.17	0.0266	1.340	0	87.1	42	125	
4,6-Dinitro-2-methylphenol	1.25	0.0660	1.340	0	93.6	29	137	
4-Chloro-3-methylphenol	1.16	0.0266	1.340	0	86.3	46	125	
4-Methylphenol	1.09	0.0266	1.340	0	81.1	41	125	
4-Nitrophenol	1.32	0.132	1.340	0	98.5	25	138	
Benzo[a]pyrene	1.27	0.0266	1.340	0	94.6	50	125	
Naphthalene	1.09	0.0266	1.340	0	81.6	40	125	
Pentachlorophenol	1.38	0.0266	1.340	0	103	25	125	
Phenol	1.02	0.0266	1.340	0	76.3	25	125	
Total Phenol (Calculated)	17.8	0.0266	21.44	0	83.2	25	125	
Surr: 2,4,6-Tribromophenol	0.633		0.6670		95.0	45	138	
Surr: 2-Fluorobiphenyl	0.567		0.6670		85.0	60	135	
Surr: 2-Fluorophenol	0.620		0.6670		93.0	37	125	
Surr: 4-Terphenyl-d14	0.620		0.6670		93.0	60	129	
Surr: Nitrobenzene-d5	0.607		0.6670		91.0	45	125	
Surr: Phenol-d6	0.580		0.6670		87.0	40	125	
Sample ID: 1303223-03CMS	Batch ID: 56654		TestNo	o. SV	V8270D		Units:	ma/Ka-drv

Sample ID: 1303223-03CMS	Batch ID: 56654		TestNo	: SW8	3270D		Units:	mg/Kg-dry
SampType: MS	Run ID: GCMS9	_130328A	Analys	is Date: 3/28/	/2013 8:52:	00 PM	Prep Date	3/28/2013
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	%RPD RPDLimit Qual
1-Methylnaphthalene	1.09	0.0265	1.334	0	81.5	40	125	N
2,3,4,6-Tetrachlorophenol	1.15	0.0265	1.334	0	85.9	40	125	
2,4,5-Trichlorophenol	1.10	0.0265	1.334	0	82.3	49	125	
2,4,6-Trichlorophenol	1.14	0.0265	1.334	0	85.3	43	125	
2,4-Dichlorophenol	1.07	0.0265	1.334	0	79.9	45	125	
2,4-Dimethylphenol	1.18	0.0265	1.334	0	88.1	32	125	
2,4-Dinitrophenol	0.754	0.131	1.334	0	56.5	25	132	

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1303223

Project: R360 Artesia Landfarm RunID: GCMS9_130328A

ANALYTICAL QC SUMMARY REPORT

Sample ID: 1303223-03CMS	Batch ID:	56654		TestNo	: SW	8270D		Units:	mg/Kg	g-dry	
SampType: MS	Run ID:	GCMS	9_130328A	Analys	is Date: 3/28	3/2013 8:52:	00 PM	Prep Date	3/28/2	2013	
Analyte	F	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD R	RPDLimi	t Qual
2,6-Dichlorophenol		1.13	0.0265	1.334	0	84.4	38	125			
2-Chlorophenol		1.03	0.0265	1.334	0	76.9	44	125			
2-Methylnaphthalene		1.06	0.0265	1.334	0	79.7	47	125			
2-Methylphenol		1.02	0.0265	1.334	0	76.2	40	125			
2-Nitrophenol		1.08	0.0265	1.334	0	80.9	42	125			
4,6-Dinitro-2-methylphenol	(0.994	0.0657	1.334	0	74.5	29	137			
4-Chloro-3-methylphenol		1.11	0.0265	1.334	0	83.2	46	125			
4-Methylphenol	(0.963	0.0265	1.334	0	72.1	41	125			
4-Nitrophenol		1.27	0.131	1.334	0	95.0	25	138			
Benzo[a]pyrene		1.25	0.0265	1.334	0	93.9	50	125			
Naphthalene		1.04	0.0265	1.334	0	77.9	40	125			
Pentachlorophenol		1.29	0.0265	1.334	0	96.6	25	125			
Phenol		0.905	0.0265	1.334	0	67.9	25	125			
Total Phenol (Calculated)		16.1	0.0265	21.35	0	75.6	25	125			
Surr: 2,4,6-Tribromophenol		0.597		0.6642		90.0	45	138			
Surr: 2-Fluorobiphenyl		0.538		0.6642		81.0	60	135			
Surr: 2-Fluorophenol	(0.604		0.6642		91.0	37	125			
Surr: 4-Terphenyl-d14	(0.591		0.6642		89.0	60	129			
Surr: Nitrobenzene-d5	(0.571		0.6642		86.0	45	125			
Surr: Phenol-d6	(0.511		0.6642		77.0	40	125			
Sample ID: 1303223-03CMSD	Batch ID:	56654		TestNo	: SW	8270D		Units:	mg/K	g-dry	
SampType: MSD	Run ID:	GCMS	9_130328A	Analys	is Date: 3/28	3/2013 9:15:	00 PM	Prep Date	3/28/2	2013	
Analyte	F	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD R	RPDLimi	t Qual
1-Methylnaphthalene		1.04	0.0273	1.376	0	75.5	40	125	4.68	30	N
2,3,4,6-Tetrachlorophenol		1.14	0.0273	1.376	0	82.6	40	125	0.900	30	
2,4,5-Trichlorophenol		1.08	0.0273	1.376	0	78.2	49	125	2.15	30	
2,4,6-Trichlorophenol		1.10	0.0273	1.376	0	80.3	43	125	3.01	30	
2,4-Dichlorophenol		1.04	0.0273	1.376	0	75.4	45	125	2.78	30	
2,4-Dimethylphenol		1.13	0.0273	1.376	0	81.8	32	125	4.33	30	
2,4-Dinitrophenol	(0.674	0.136	1.376	0	49.0	25	132	11.2	30	
2,6-Dichlorophenol		1.10	0.0273	1.376	0	79.6	38	125	2.83	30	
2-Chlorophenol		1.05	0.0273	1.376	0	76.4	44	125	2.41	30	
2-Methylnaphthalene		1.02	0.0273	1.376	0	74.0	47	125	4.26	30	
2-Methylphenol		1.09	0.0273	1.376	0	78.9	40	125	6.58	30	
2-Nitrophenol		1.04	0.0273	1.376	0	75.6	42	125	3.81	30	
4,6-Dinitro-2-methylphenol	(0.943	0.0678	1.376	0	68.5	29	137	5.36	30	
4-Chloro-3-methylphenol		1.10	0.0273	1.376	0	80.2	46	125	0.595	30	
4-Methylphenol		1.02	0.0273	1.376	0	74.1	41	125	5.78	30	
4-Nitrophenol		1.22	0.136	1.376	0	88.4	25	138	4.22	30	

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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ANALYTICAL QC SUMMARY REPORT

Work Order: 1303223

GCMS9_130328A **RunID: Project:** R360 Artesia Landfarm

Sample ID: 1303223-03CMSD	Batch ID:	56654		TestNo		8270D		Units:	mg/K	g-dry
SampType: MSD	Run ID:	GCMS	_130328A	Analys	is Date: 3/28	3/2013 9:15:	00 PM	Prep Date:	3/28/2	2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 🤋	%RPD F	RPDLimit Qua
Benzo[a]pyrene		1.12	0.0273	1.376	0	81.6	50	125	11.0	30
Naphthalene		1.00	0.0273	1.376	0	72.8	40	125	3.61	30
Pentachlorophenol		1.27	0.0273	1.376	0	92.0	25	125	1.80	30
Phenol		0.962	0.0273	1.376	0	69.9	25	125	6.02	30
Total Phenol (Calculated)		15.9	0.0273	22.01	0	72.2	25	125	1.56	30
Surr: 2,4,6-Tribromophenol		0.602		0.6848		88.0	45	138	0	0
Surr: 2-Fluorobiphenyl		0.520		0.6848		76.0	60	135	0	0
Surr: 2-Fluorophenol		0.575		0.6848		84.0	37	125	0	0
Surr: 4-Terphenyl-d14		0.527		0.6848		77.0	60	129	0	0
Surr: Nitrobenzene-d5		0.548		0.6848		80.0	45	125	0	0
Surr: Phenol-d6		0.534		0.6848		78.0	40	125	0	0
Sample ID: MB-56654	Batch ID:	56654		TestNo	o: SW	8270D		Units:	mg/K	g
SampType: MBLK	Run ID:	GCMS	_130328A	Analys	is Date: 3/28	3/2013 10:0 ⁻	1:00 PM	Prep Date:	3/28/2	2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD F	RPDLimit Qua
1-Methylnaphthalene		ND	0.0266							N
2,3,4,6-Tetrachlorophenol		ND	0.0266							
2,4,5-Trichlorophenol		ND	0.0266							
2,4,6-Trichlorophenol		ND	0.0266							
2,4-Dichlorophenol		ND	0.0266							
2,4-Dimethylphenol		ND	0.0266							
2,4-Dinitrophenol		ND	0.132							
2,6-Dichlorophenol		ND	0.0266							
2-Chlorophenol		ND	0.0266							
2-Methylnaphthalene		ND	0.0266							
2-Methylphenol		ND	0.0266							
2-Nitrophenol		ND	0.0266							
4,6-Dinitro-2-methylphenol		ND	0.0660							
4-Chloro-3-methylphenol		ND	0.0266							
4-Methylphenol		ND	0.0266							
4-Nitrophenol		ND	0.132							
Benzo[a]pyrene		ND	0.0266							
Naphthalene		ND	0.0266							
Pentachlorophenol		ND	0.0266							
Phenol		ND	0.0266							
Total Phenol (Calculated)		ND	0.0266							
Surr: 2,4,6-Tribromophenol		0.487		0.6670		73.0	45	138		
Surr: 2-Fluorobiphenyl		0.533		0.6670		80.0	60	135		
Surr: 2-Fluorophenol		0.580		0.6670		87.0	37	125		
Surr: 4-Terphenyl-d14		0.567		0.6670		85.0	60	129		
Qualificate D Analysis det	natad in the -	ononietad N	Anthod Dlam's	DE	Dilution East	0.0				
			Method Blank		Dilution Facto				_	15 000
J Analyte dete	ected between				Method Detec	ction Limit			Pa	ge 17 of 33

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

R RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

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CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1303223

GCMS9_130328A **RunID: Project:** R360 Artesia Landfarm

Sample ID: MB-56654	Batch ID:	56654		TestNo	: SW	8270D		Units:	mg/Kg
SampType: MBLK	Run ID:	GCMS9_	130328A	Analys	s Date: 3/2	8/2013 10:01	:00 PM	Prep Date	3/28/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	t HighLimit	%RPD RPDLimit Qual
Surr: Nitrobenzene-d5		0.547		0.6670		82.0	45	125	
Surr: Phenol-d6		0.560		0.6670		84.0	40	125	

Qualifiers:

В Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

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Work Order: 1303223

Project: R360 Artesia Landfarm RunID: GCMS9_130328A

ANALYTICAL QC SUMMARY REPORT

Sample ID: ICV2-130328	Batch ID:	R6556	5	TestNo	o: SW	8270D		Units:	mg/l	Kg
SampType: ICV	Run ID:	GCMS	9_130328A	Analys	is Date: 3/28	3/2013 8:05:	00 PM	Prep Date	:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qual
1-Methylnaphthalene		3.45	0.0266	4.000	0	86.4	80	120		N
2,3,4,6-Tetrachlorophenol		3.69	0.0266	4.000	0	92.3	80	120		
2,4,5-Trichlorophenol		3.57	0.0266	4.000	0	89.3	80	120		
2,4,6-Trichlorophenol		3.47	0.0266	4.000	0	86.8	80	120		
2,4-Dichlorophenol		3.46	0.0266	4.000	0	86.4	80	120		
2,4-Dimethylphenol		3.77	0.0266	4.000	0	94.3	80	120		
2,4-Dinitrophenol		2.91	0.132	4.000	0	72.9	80	120		S
2,6-Dichlorophenol		3.66	0.0266	4.000	0	91.4	80	120		
2-Chlorophenol		3.56	0.0266	4.000	0	89.0	80	120		
2-Methylnaphthalene		3.39	0.0266	4.000	0	84.8	80	120		
2-Methylphenol		3.65	0.0266	4.000	0	91.4	80	120		
2-Nitrophenol		3.61	0.0266	4.000	0	90.2	80	120		
4,6-Dinitro-2-methylphenol		3.32	0.0660	4.000	0	83.1	80	120		
4-Chloro-3-methylphenol		3.49	0.0266	4.000	0	87.3	80	120		
4-Methylphenol		3.20	0.0266	4.000	0	79.9	80	120		
4-Nitrophenol		3.71	0.132	4.000	0	92.7	80	120		
Benzo[a]pyrene		3.65	0.0266	4.000	0	91.2	80	120		
Naphthalene		3.39	0.0266	4.000	0	84.7	80	120		
Pentachlorophenol		3.88	0.0266	4.000	0	97.1	80	120		
Phenol		3.24	0.0266	4.000	0	81.0	80	120		
Total Phenol (Calculated)		52.6	0.0266	0						
Surr: 2,4,6-Tribromophenol		3.79		4.000		94.8	80	120		
Surr: 2-Fluorobiphenyl		3.33		4.000		83.2	80	120		
Surr: 2-Fluorophenol		3.58		4.000		89.5	80	120		
Surr: 4-Terphenyl-d14		3.72		4.000		93.0	80	120		
Surr: Nitrobenzene-d5		4.00		4.000		100	80	120		
Surr: Phenol-d6		3.58		4.000		89.5	80	120		

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: GCMS1_130328A

The QC data in batch 56668 applies to the following samples: 1303223-02A, 1303223-03A, 1303223-04A, 1303223-06A, 1303223-07A, 1303223-08A, 1303223-09A, 1303223-11A, 1303223-12A, 1303223-13A, 1303223-14A, 1303223-15A, 1303223-17A, 1303223-18A, 1303223-19A, 1303223-20A

Sample ID: LCS-56668	Batch ID:	56668		TestNo	: SW	8260C		Units:	mg/Kg
SampType: LCS	Run ID:	GCMS1	_130328A	Analysi	is Date: 3/2 8	3/2013 11:05	5:00 AM	Prep Date:	3/28/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Qua
1,1,1-Trichloroethane		0.0223	0.00500	0.0232	0	96.3	68	130	
1,1,2,2-Tetrachloroethane		0.0237	0.00500	0.0232	0	102	59	140	
1,1,2-Trichloroethane		0.0241	0.00500	0.0232	0	104	62	127	
1,1-Dichloroethane		0.0220	0.00500	0.0232	0	94.9	73	125	
1,1-Dichloroethylene		0.0207	0.00500	0.0232	0	89.4	65	136	
1,2-Dichloroethane		0.0234	0.00500	0.0232	0	101	72	137	
Benzene		0.0222	0.00500	0.0232	0	95.7	75	125	
Carbon tetrachloride		0.0227	0.00500	0.0232	0	98.1	67	133	
Chloroform		0.0225	0.00500	0.0232	0	97.0	72	124	
Ethylbenzene		0.0223	0.00500	0.0232	0	96.0	75	125	
Ethylene bromide		0.0239	0.00500	0.0232	0	103	70	124	
Methylene chloride		0.0210	0.00500	0.0232	0	90.6	63	137	
Tetrachloroethylene		0.0225	0.00500	0.0232	0	96.8	67	139	
Toluene		0.0221	0.00500	0.0232	0	95.1	75	125	
Trichloroethylene		0.0206	0.00500	0.0232	0	88.9	77	124	
Vinyl chloride		0.0189	0.00500	0.0232	0	81.5	58	126	
Total Xylenes		0.0677	0.00500	0.0696	0	97.3	75	125	
Surr: 1,2-Dichloroethane-d4		53.7		50.00		107	52	149	
Surr: 4-Bromofluorobenzene		50.8		50.00		102	84	118	
Surr: Dibromofluoromethane		51.8		50.00		104	65	135	
Surr: Toluene-d8		50.4		50.00		101	84	116	
Sample ID: MB-56668	Batch ID:	56668		TestNo	: SW	8260C		Units:	mg/Kg
SampType: MBLK	Run ID:	GCMS1	_130328A	Analysi	is Date: 3/28	3/2013 11:40	0:00 AM	Prep Date:	3/28/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Qua
1,1,1-Trichloroethane		ND	0.00500						
1,1,2,2-Tetrachloroethane		ND	0.00500						
1,1,2-Trichloroethane		ND	0.00500						
1,1-Dichloroethane		ND	0.00500						
1,1-Dichloroethylene		ND	0.00500						
1,2-Dichloroethane		ND	0.00500						
Benzene		ND	0.00500						
Carbon tetrachloride		ND	0.00500						
Chloroform		ND	0.00500						
Ethylbenzene		ND	0.00500						
Ethylene bromide		ND	0.00500						
Methylene chloride		ND	0.00500						
Tetrachloroethylene		ND	0.00500						
Qualifiers: B Analyte det	ected in the a	ssociated M	Iethod Blank	DF I	Dilution Fact	or			
T A. 1 . 1 .	4 11 4	MDI	D.I.						

Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: GCMS1_130328A

Sample ID: MB-56668	Batch ID:	56668		TestNo	: SW	8260C		Units:	mg/Kg
SampType: MBLK	Run ID:	GCMS1	_130328A	Analysi	s Date: 3/28	3/2013 11:40	0:00 AM	Prep Date:	3/28/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Qual
Toluene		ND	0.00500						
Trichloroethylene		ND	0.00500						
Vinyl chloride		ND	0.00500						
Total Xylenes		ND	0.00500						
Surr: 1,2-Dichloroethane-d4		48.4		50.00		96.9	52	149	
Surr: 4-Bromofluorobenzene		51.5		50.00		103	84	118	
Surr: Dibromofluoromethane		48.4		50.00		96.7	65	135	
Surr: Toluene-d8		54.2		50.00		108	84	116	
Sample ID: 1303223-03AMS	Batch ID:	56668		TestNo	: SW	8260C		Units:	mg/Kg-dry
SampType: MS	Run ID:	GCMS1	_130328A	Analysi	s Date: 3/28	3/2013 8:55:	00 PM	Prep Date:	3/28/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Qual
1,1,1-Trichloroethane	(0.0181	0.00438	0.0203	0	89.1	68	130	
1,1,2,2-Tetrachloroethane	(0.0166	0.00438	0.0203	0	81.8	59	140	
1,1,2-Trichloroethane	(0.0198	0.00438	0.0203	0	97.3	62	127	
1,1-Dichloroethane	(0.0178	0.00438	0.0203	0	87.6	73	125	
1,1-Dichloroethylene	(0.0164	0.00438	0.0203	0	80.5	65	136	
1,2-Dichloroethane	(0.0191	0.00438	0.0203	0	93.9	72	137	
Benzene	(0.0180	0.00438	0.0203	0	88.7	73	126	
Carbon tetrachloride	(0.0181	0.00438	0.0203	0	89.1	67	133	
Chloroform	(0.0186	0.00438	0.0203	0	91.6	72	124	
Ethylbenzene	(0.0189	0.00438	0.0203	0	93.2	74	127	
Ethylene bromide	(0.0185	0.00438	0.0203	0	91.0	70	124	
Methylene chloride	(0.0162	0.00438	0.0203	0	79.6	63	137	
Tetrachloroethylene	(0.0187	0.00438	0.0203	0	92.0	67	139	
Toluene	(0.0190	0.00438	0.0203	0	93.2	71	127	
Trichloroethylene	(0.0183	0.00438	0.0203	0	89.8	77	124	
Vinyl chloride	(0.0161	0.00438	0.0203	0	79.0	58	126	
Total Xylenes	(0.0564	0.00438	0.0610	0	92.4	75	125	
Surr: 1,2-Dichloroethane-d4		44.4		43.84		101	52	149	
Surr: 4-Bromofluorobenzene		42.3		43.84		96.4	84	118	
Surr: Dibromofluoromethane		42.7		43.84		97.4	65	135	
Surr: Toluene-d8		41.8		43.84		95.4	84	116	
Sample ID: 1303223-03AMSD	Batch ID:	56668		TestNo	: SW	8260C		Units:	mg/Kg-dry
SampType: MSD	Run ID:	GCMS1	_130328A	Analysi	s Date: 3/28	3/2013 9:27:	00 PM	Prep Date:	3/28/2013

Sample ID: 1303223-03AMSD	Batch ID:	56668		TestNo	: S	W8260C		Units:	mg/l	(g-dry
SampType: MSD	Run ID:	GCMS1	_130328A	Analysi	s Date: 3/	/28/2013 9:27:0	00 PM	Prep Date	3/28	/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
1,1,1-Trichloroethane		0.0180	0.00443	0.0205	0	87.7	68	130	0.550	30
1,1,2,2-Tetrachloroethane		0.0171	0.00443	0.0205	0	83.3	59	140	2.89	30

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

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S Spike Recovery outside control limits

N Parameter not NELAC certified

CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1303223

GCMS1_130328A **RunID: Project:** R360 Artesia Landfarm

Sample ID: 1303223-03AMSD SampType: MSD	Batch ID: Run ID:	56668 GCMS1	_130328A	TestNo Analys	: SW 8 is Date: 3/28	3260C 3/2013 9:27:0	00 PM	Units: Prep Date:	_	g-dry 2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit '	%RPD I	RPDLimit Qual
1,1,2-Trichloroethane	(0.0197	0.00443	0.0205	0	96.0	62	127	0.380	30
1,1-Dichloroethane	(0.0179	0.00443	0.0205	0	87.1	73	125	0.458	30
1,1-Dichloroethylene	(0.0167	0.00443	0.0205	0	81.1	65	136	1.79	30
1,2-Dichloroethane	(0.0194	0.00443	0.0205	0	94.4	72	137	1.51	30
Benzene	(0.0185	0.00443	0.0205	0	90.1	73	126	2.52	30
Carbon tetrachloride	(0.0179	0.00443	0.0205	0	87.1	67	133	1.32	30
Chloroform	(0.0187	0.00443	0.0205	0	91.2	72	124	0.502	30
Ethylbenzene	(0.0190	0.00443	0.0205	0	92.4	74	127	0.165	30
Ethylene bromide	(0.0194	0.00443	0.0205	0	94.3	70	124	4.56	30
Methylene chloride	(0.0161	0.00443	0.0205	0	78.3	63	137	0.667	30
Tetrachloroethylene	(0.0193	0.00443	0.0205	0	94.1	67	139	3.17	30
Toluene	(0.0191	0.00443	0.0205	0	92.7	71	127	0.534	30
Trichloroethylene	(0.0189	0.00443	0.0205	0	92.2	77	124	3.65	30
Vinyl chloride	(0.0158	0.00443	0.0205	0	77.0	58	126	1.53	30
Total Xylenes	(0.0571	0.00443	0.0616	0	92.6	75	125	1.23	30
Surr: 1,2-Dichloroethane-d4		45.4		44.29		102	52	149	0	0
Surr: 4-Bromofluorobenzene		42.5		44.29		95.9	84	118	0	0
Surr: Dibromofluoromethane		42.3		44.29		95.4	65	135	0	0
Surr: Toluene-d8		43.4		44.29		97.9	84	116	0	0

Qualifiers:

В Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

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Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: GCMS1_130328A

Sample ID: ICV-130328	Batch ID: Re	65567	TestN	o: SW	V8260C		Units:	mg/Kg
SampType: ICV	Run ID: G	CMS1_130328A	Analys	sis Date: 3/2	8/2013 10:32:	00 AM	Prep Date	e:
Analyte	Res	ult RL	SPK value	Ref Val	%REC	LowLim	t HighLimit	%RPD RPDLimit Qual
1,1,1-Trichloroethane	0.04	59 0.00500	0.0464	0	98.9	80	120	
1,1,2,2-Tetrachloroethane	0.04	36 0.00500	0.0464	0	93.9	80	120	
1,1,2-Trichloroethane	0.04	59 0.00500	0.0464	0	99.0	80	120	
1,1-Dichloroethane	0.04	53 0.00500	0.0464	0	97.6	80	120	
1,1-Dichloroethylene	0.04	29 0.00500	0.0464	0	92.5	80	120	
1,2-Dichloroethane	0.04	52 0.00500	0.0464	0	97.5	80	120	
Benzene	0.04	54 0.00500	0.0464	0	97.9	80	120	
Carbon tetrachloride	0.04	67 0.00500	0.0464	0	101	80	120	
Chloroform	0.04	71 0.00500	0.0464	0	101	80	120	
Ethylbenzene	0.04	67 0.00500	0.0464	0	101	80	120	
Ethylene bromide	0.04	67 0.00500	0.0464	0	101	80	120	
Methylene chloride	0.04	30 0.00500	0.0464	0	92.7	80	120	
Tetrachloroethylene	0.04	88 0.00500	0.0464	0	105	80	120	
Toluene	0.04	47 0.00500	0.0464	0	96.3	80	120	
Trichloroethylene	0.04	28 0.00500	0.0464	0	92.3	80	120	
Vinyl chloride	0.03	0.00500	0.0464	0	81.8	80	120	
Total Xylenes	0.14	45 0.00500	0.139	0	104	80	120	
Surr: 1,2-Dichloroethane-d4	50.	.6	50.00		101	52	149	
Surr: 4-Bromofluorobenzene	49.	2	50.00		98.4	84	118	
Surr: Dibromofluoromethane	49.	7	50.00		99.3	65	135	
Surr: Toluene-d8	49.	6	50.00		99.1	84	116	

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: IC2_130328A

The QC data in batch 56642 applies to the following samples: 1303223-02B, 1303223-03B, 1303223-04B, 1303223-06B, 1303223-07B, 1303223-08B, 1303223-09B, 1303223-11B, 1303223-12B, 1303223-13B, 1303223-14B, 1303223-15B, 1303223-17B, 1303223-18B, 1303223-19B, 1303223-12B

Sample ID: I	LCS-56642	Batch ID:	56642		TestNo	E30	0		Units:	mg/Kg	I
SampType: I	LCS	Run ID:	IC2_13)328A	Analysi	s Date: 3/28	/2013 9:11:	05 AM	Prep Date:	3/27/2	013
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit Qu
Chloride			51.4	5.00	50.00	0	103	80	120		
Fluoride			20.3	1.00	20.00	0	101	80	120		
Nitrate-N			25.6	5.00	25.00	0	102	80	120		
Sulfate			149	10.0	150.0	0	99.6	80	120		
Sample ID: I	LCSD-56642	Batch ID:	56642		TestNo	E30	0		Units:	mg/Kg	ı
SampType: I	LCSD	Run ID:	IC2_13	0328A	Analysi	s Date: 3/28	/2013 9:25:	39 AM	Prep Date:	3/27/2	013
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 🤋	6RPD R	PDLimit Qua
Chloride			51.4	5.00	50.00	0	103	80	120	0.089	20
Fluoride			20.2	1.00	20.00	0	101	80	120	0.220	20
Nitrate-N			25.2	5.00	25.00	0	101	80	120	1.29	20
Sulfate			149	10.0	150.0	0	99.5	80	120	0.082	20
Sample ID: I	MB-56642	Batch ID:	56642		TestNo	E30	0		Units:	mg/Kg	I
SampType: I	MBLK	Run ID:	IC2_13	0328A	Analysi	s Date: 3/28	/2013 9:40:	14 AM	Prep Date:	3/27/2	013
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 🤋	6RPD R	PDLimit Qua
Chloride			ND	5.00							
Fluoride			ND	1.00							
Nitrate-N			ND	5.00							
Sulfate			ND	10.0							
Sample ID: '	1303223-04B MS	Batch ID:	56642		TestNo	E30	0		Units:	mg/Kg	j-dry
SampType: I	MS	Run ID:	IC2_13	0328A	Analysi	s Date: 3/28	3/2013 11:15	5:53 AM	Prep Date:	3/27/2	013
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 🤋	6RPD R	PDLimit Qua
Fluoride			20.3	1.01	20.24	0.7367	96.5	80	120		
Nitrate-N			23.8	5.06	25.31	0	94.0	80	120		
Sulfate			256	10.1	151.8	104.4	99.6	80	120		
Sample ID:	1303223-04B MSD	Batch ID:	56642	-	TestNo	E30	0		Units:	mg/Kg	j-dry
SampType: I	MSD	Run ID:	IC2_13	0328A	Analysi	s Date: 3/28	3/2013 11:30):27 AM	Prep Date:	3/27/2	013
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit Qua
Fluoride			20.0	1.01	20.24	0.7367	95.1	80	120	1.36	20
Nitrate-N			27.2	5.06	25.31	0	107	80	120	13.4	20
Sulfate			256	10.1	151.8	104.4	100	80	120	0.332	20

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limitsN Parameter not NELAC certified

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Work Order: 1303223

Project: R360 Artesia Landfarm RunID: IC2_130328A

ANALYTICAL QC SUMMARY REPORT

Analysis Date: 3/28/2013 3:41:28 PM Prep Date: 3/27/2013 Analysis Date: 3/28/2013 3:56:02 PM Prep Date: 3/27/2013 Analysis Date: 3/28/2013 5:52:37 PM Prep Date: 3/27/2013 Analysis Date: 3/28/2013 6:07:12 PM Prep Date: 3/27/2013											
Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Northead 1250 50.6 506.1 731.4 102 80 120 Sept Value Ref Val %REC Sept Value Ref Val Northead Sept Value Ref Val Sept Value Ref Val Northead Sept Value Ref Val Northead Sept Value Ref Val	Sample ID: 1303223-04B MS	Batch ID:	56642		TestNo:	E30	00		Units:	mg/K	g-dry
Noticide 1250 50.6 506.1 731.4 102 80 120	SampType: MS	Run ID:	IC2_13032	28A	Analysis	Date: 3/28	B/2013 3:41:2	28 PM	Prep Date:	3/27/	2013
Ample ID: 1303223-04B MSD Batch ID: 56642 TestNo: E300 Units: mg/Kg-dry ampType: MSD Run ID: IC2_130328A Analysis Date: 3/28/2013 3:56:02 PM Prep Date: 3/27/2013 nalyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual hloride 1250 50.6 506.1 731.4 102 80 120 0.150 20 ample ID: 1303223-14B MS Batch ID: 56642 TestNo: E300 Units: mg/Kg-dry ampType: MS Run ID: IC2_130328A Analysis Date: 3/28/2013 5:52:37 PM Prep Date: 3/27/2013 nalyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual hloride 67.7 5.49 54.89 11.53 102 80 120 ulrate 199.3 1.10 21.95 6.590 103 80 120 <td>Analyte</td> <td>ı</td> <td>Result</td> <td>RL</td> <td>SPK value</td> <td>Ref Val</td> <td>%REC</td> <td>LowLim</td> <td>it HighLimit '</td> <td>%RPD</td> <td>RPDLimit Qual</td>	Analyte	ı	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit '	%RPD	RPDLimit Qual
Analysis Date: 3/28/2013 3:56:02 PM Prep Date: 3/27/2013 Prep Date: 3/27/2013 Run ID: IC2_130328A	Chloride		1250	50.6	506.1	731.4	102	80	120		
Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Northern	Sample ID: 1303223-04B MSD	Batch ID:	56642		TestNo:	E30)0		Units:	mg/K	g-dry
hloride 1250 50.6 506.1 731.4 102 80 120 0.150 20 ample ID: 1303223-14B MS Batch ID: 56642 TestNo: E300 Units: mg/Kg-dry ampType: MS Run ID: IC2_130328A Analysis Date: 3/28/2013 5:52:37 PM Prep Date: 3/27/2013 nalyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual hloride 67.7 5.49 54.89 11.53 102 80 120 120 120 120 120 120 120 120 120 12	SampType: MSD	Run ID:	IC2_13032	28A	Analysis	Date: 3/28	3/2013 3:56:0	02 PM	Prep Date:	3/27/	2013
ample ID: 1303223-14B MS Batch ID: 56642 TestNo: E300 Units: mg/Kg-dry ampType: MS Run ID: IC2_130328A Analysis Date: 3/28/2013 5:52:37 PM Prep Date: 3/27/2013 nalyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual hloride 67.7 5.49 54.89 11.53 102 80 120 duoride 29.3 1.10 21.95 6.590 103 80 120 uufate 199 11.0 164.7 34.99 99.4 80 120 ample ID: 1303223-14B MSD Batch ID: 56642 TestNo: E300 Units: mg/Kg-dry ampType: MSD Run ID: IC2_130328A Analysis Date: 3/28/2013 6:07:12 PM Prep Date: 3/27/2013 nalyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual hloride 67.	Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit '	%RPD	RPDLimit Qual
Analysis Date: 3/28/2013 5:52:37 PM Prep Date: 3/27/2013 Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual hloride hloride 29.3 1.10 21.95 6.590 103 80 120 120 120 120 120 120 120 120 120 12	Chloride		1250	50.6	506.1	731.4	102	80	120	0.150	20
Result RE SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Sample ID: 1303223-14B MS	Batch ID:	56642		TestNo:	E30)0		Units:	mg/K	g-dry
hloride 67.7 5.49 54.89 11.53 102 80 120	SampType: MS	Run ID:	IC2_13032	28A	Analysis	Date: 3/28	8/2013 5:52:3	37 PM	Prep Date:	3/27/	2013
Luoride 29.3 1.10 21.95 6.590 103 80 120	Analyte	ı	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit '	%RPD	RPDLimit Qual
199 11.0 164.7 34.99 99.4 80 120	Chloride		67.7	5.49	54.89	11.53	102	80	120		
ulfate 199 11.0 164.7 34.99 99.4 80 120 ample ID: 1303223-14B MSD Batch ID: 56642 TestNo: E300 Units: mg/Kg-dry ampType: MSD Run ID: IC2_130328A Analysis Date: 3/28/2013 6:07:12 PM Prep Date: 3/27/2013 nalyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual hloride 67.6 5.49 54.89 11.53 102 80 120 0.110 20 luoride 29.2 1.10 21.95 6.590 103 80 120 0.174 20 itrate-N 28.2 5.49 27.44 0 103 80 120 1.04 20	Fluoride		29.3	1.10	21.95	6.590	103	80	120		
Ample ID: 1303223-14B MSD Batch ID: 56642 TestNo: E300 Units: mg/Kg-dry ampType: MSD Run ID: IC2_130328A Analysis Date: 3/28/2013 6:07:12 PM Prep Date: 3/27/2013 nalyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual hloride 67.6 5.49 54.89 11.53 102 80 120 0.110 20 luoride 29.2 1.10 21.95 6.590 103 80 120 0.174 20 itrate-N 28.2 5.49 27.44 0 103 80 120 1.04 20	Nitrate-N		27.9	5.49	27.44	0	102	80	120		
Analysis Date: 3/28/2013 6:07:12 PM Prep Date: 3/27/2013 Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Noride 67.6 5.49 54.89 11.53 102 80 120 0.110 20 Noride 29.2 1.10 21.95 6.590 103 80 120 0.174 20 Noride 10.00 28.2 5.49 27.44 0 103 80 120 1.04 20	Sulfate		199	11.0	164.7	34.99	99.4	80	120		
Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual hloride 67.6 5.49 54.89 11.53 102 80 120 0.110 20 luoride 29.2 1.10 21.95 6.590 103 80 120 0.174 20 itrate-N 28.2 5.49 27.44 0 103 80 120 1.04 20	Sample ID: 1303223-14B MSD	Batch ID:	56642		TestNo:	E30)0		Units:	mg/K	g-dry
hloride 67.6 5.49 54.89 11.53 102 80 120 0.110 20 luoride 29.2 1.10 21.95 6.590 103 80 120 0.174 20 itrate-N 28.2 5.49 27.44 0 103 80 120 1.04 20	SampType: MSD	Run ID:	IC2_13032	28A	Analysis	Date: 3/28	3/2013 6:07: ⁴	12 PM	Prep Date:	3/27/	2013
luoride 29.2 1.10 21.95 6.590 103 80 120 0.174 20 itrate-N 28.2 5.49 27.44 0 103 80 120 1.04 20	Analyte	ı	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit '	%RPD	RPDLimit Qual
itrate-N 28.2 5.49 27.44 0 103 80 120 1.04 20	Chloride		67.6	5.49	54.89	11.53	102	80	120	0.110	20
	Fluoride		29.2	1.10	21.95	6.590	103	80	120	0.174	20
	Nitrate-N		28.2	5.49	27.44	0	103	80	120	1.04	20
	Sulfate		199	11.0	164.7	34.99	99.6	80	120	0.222	20

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

 $\begin{array}{ll} S & \text{Spike Recovery outside control limits} \\ N & \text{Parameter not NELAC certified} \end{array}$

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Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: IC2_130328A

Project:	R360 A	Artesia Landfa	rm				RunII) :]	IC2_13032	28A
Sample ID:	ICV-130328	Batch ID:	R65542		TestNo): E30	00		Units:	mg/Kg
SampType:	ICV	Run ID:	IC2_13)328A	Analys	is Date: 3/28	3/2013 8:53:	49 AM	Prep Date	:
nalyte			Result	RL	SPK value	Ref Val	%REC	LowLin	nit HighLimit	%RPD RPDLimit Qu
Chloride			26.2	5.00	25.00	0	105	90	110	
Fluoride			10.4	1.00	10.00	0	104	90	110	
Nitrate-N			13.0	5.00	12.50	0	104	90	110	
Sulfate			77.2	10.0	75.00	0	103	90	110	
Sample ID:	CCV1-130328	Batch ID:	R65542		TestNo	E30	0		Units:	mg/Kg
SampType:	CCV	Run ID:	IC2_13)328A	Analys	is Date: 3/28	3/2013 11:45	5:02 AM	Prep Date	:
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit	%RPD RPDLimit Qua
Chloride			10.3	5.00	10.00	0	103	90	110	
Fluoride			4.04	1.00	4.000	0	101	90	110	
Nitrate-N			5.03	5.00	5.000	0	101	90	110	
Sulfate			29.8	10.0	30.00	0	99.4	90	110	
Sample ID:	CCV2-130328	Batch ID:	R65542		TestNo	E30	0		Units:	mg/Kg
SampType:	CCV	Run ID:	IC2_13	0328A	Analys	is Date: 3/28	3/2013 2:27:	19 PM	Prep Date	:
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit	%RPD RPDLimit Qua
Chloride			10.4	5.00	10.00	0	104	90	110	
Fluoride			4.11	1.00	4.000	0	103	90	110	
Nitrate-N			5.16	5.00	5.000	0	103	90	110	
Sulfate			30.1	10.0	30.00	0	100	90	110	
Sample ID:	CCV3-130328	Batch ID:	R65542		TestNo	E30	0		Units:	mg/Kg
SampType:	CCV	Run ID:	IC2_13	0328A	Analys	is Date: 3/28	3/2013 5:08:	54 PM	Prep Date	:
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit	%RPD RPDLimit Qua
Chloride			10.4	5.00	10.00	0	104	90	110	
Fluoride			4.11	1.00	4.000	0	103	90	110	
Nitrate-N			5.12	5.00	5.000	0	102	90	110	
Sulfate			30.0	10.0	30.00	0	100	90	110	
Sample ID:	CCV4-130328	Batch ID:	R65542		TestNo): E30	00		Units:	mg/Kg
SampType:	CCV	Run ID:	IC2_13	0328A	Analys	is Date: 3/28	3/2013 6:21:	46 PM	Prep Date	:
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit	%RPD RPDLimit Qua
Chloride			10.4	5.00	10.00	0	104	90	110	
Fluoride			4.09	1.00	4.000	0	102	90	110	
			5.10	5.00	5.000	0	102	90	110	
Nitrate-N										

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

MDL Method Detection Limit

R RPD outside accepted control limits

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S Spike Recovery outside control limits

N Parameter not NELAC certified

Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: IR207_130402A

Sample ID: ICV-130402	Batch ID:	418_S-	04/02/2013	TestNo:	E41	18.1		Units:	mg/Kg	
SampType: ICV	Run ID:	IR207_	_130402A	Analysis	s Date: 4/2/	/2013 4:30:00) PM	Prep Date	: :	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimi	t Qual
Petroleum Hydrocarbons, TR		232	10.0	250.0	0	92.8	90	110		N
Sample ID: CCV1-130302	Batch ID:	418_S-	04/02/2013	TestNo:	E41	18.1		Units:	mg/Kg	
SampType: CCV	Run ID:	IR207_	_130402A	Analysis	s Date: 4/2/	/2013 4:30:00	0 PM	Prep Date):	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimi	t Qual
Petroleum Hydrocarbons, TR		238	10.0	250.0	0	95.0	85	115		N
Sample ID: CCV2-130402	Batch ID:	418_S-	04/02/2013	TestNo:	E41	18.1		Units:	mg/Kg	
SampType: CCV	Run ID:	IR207_	_130402A	Analysis	s Date: 4/2/	/2013 4:30:00	0 PM	Prep Date	: :	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimi	t Qual
Petroleum Hydrocarbons, TR		239	10.0	250.0	0	95.5	85	115		N
Sample ID: CCV3-130402	Batch ID:	418_S-	04/02/2013	TestNo:	E41	18.1		Units:	mg/Kg	
SampType: CCV	Run ID:	IR207_	_130402A	Analysis	s Date: 4/2/	/2013 4:30:00	0 PM	Prep Date	e:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimi	t Qual
Petroleum Hydrocarbons, TR		241	10.0	250.0	0	96.5	85	115		N

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

Page 27 of 33

R RPD outside accepted control limitsS Spike Recovery outside control limits

N Parameter not NELAC certified

Work Order: 1303223

Project: R360 Artesia Landfarm RunID: IR207_130402A

The QC data in batch 56729 applies to the following samples: 1303223-02B, 1303223-03B, 1303223-04B, 1303223-06B, 1303223-07B, 1303223-07B, 1303223-07B, 1303223-07B, 1303223-17B, 1303223-18B, 1303223-1

ANALYTICAL QC SUMMARY REPORT

Sample ID: MB-56729	Batch ID:	56729		TestNo	E41	8.1		Units:	mg/Kg	
SampType: MBLK	Run ID:	IR207_	130402A	Analysi	s Date: 4/2/	2013 4:30:0	0 PM	Prep Date:	4/2/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD RPDLim	it Qual
Petroleum Hydrocarbons, TR		ND	10.0							N
Sample ID: LCS1-56729	Batch ID:	56729		TestNo	E41	8.1		Units:	mg/Kg	
SampType: LCS	Run ID:	IR207_	130402A	Analysi	s Date: 4/2/	2013 4:30:0	0 PM	Prep Date:	4/2/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD RPDLim	it Qual
Petroleum Hydrocarbons, TR		106	10.0	100.0	0	106	80	120		N
Sample ID: 1303223-06BMS	Batch ID:	56729		TestNo	E41	8.1		Units:	mg/Kg-dry	
o =										
SampType: MS	Run ID:	IR207_	130402A	Analysi	s Date: 4/2/	2013 4:30:0	0 PM	Prep Date:	4/2/2013	
Analyte		IR207_	130402A RL	Analysis	Ref Val	2013 4:30:0 %REC		<u> </u>	4/2/2013 6RPD RPDLim	it Qual
								<u> </u>		it Qual
Analyte		Result	RL	SPK value	Ref Val 6.738	%REC 94.4	LowLim	it HighLimit %		
Analyte Petroleum Hydrocarbons, TR		Result 109 56729	RL	SPK value 107.9 TestNo:	Ref Val 6.738	%REC 94.4	LowLim 80	it HighLimit %	6RPD RPDLim	
Analyte Petroleum Hydrocarbons, TR Sample ID: 1303223-06BMSD	Batch ID: Run ID:	Result 109 56729	RL 10.8	SPK value 107.9 TestNo:	Ref Val 6.738	%REC 94.4	LowLim 80 0 PM	it HighLimit % 120 Units: Prep Date:	mg/Kg-dry	N

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limitsN Parameter not NELAC certified

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Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: PH_130327A

The QC data in batch 56629 applies to the following samples: 1303223-02B, 1303223-03B, 1303223-04B, 1303223-06B, 1303223-07B, 1303223-0

Sample ID: 1303223-02B-DUP	Batch ID:	56629		TestNo:	SW9	045D	Units:	pH Units	
SampType: DUP	Run ID:	PH_130327	A	Analysis	Date: 3/27/	2013 10:15:00	AM Prep Date:	3/27/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC Lo	wLimit HighLimit %	6RPD RPDLimit C	Qual
рН		7.60	0	0	7.643			0.617 5	
Sample ID: 1303223-03B-DUP	Batch ID:	56629		TestNo:	SW9	045D	Units:	pH Units	
SampType: DUP	Run ID:	PH_130327	A	Analysis	Date: 3/27/ 2	2013 10:15:00	AM Prep Date:	3/27/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC Lo	wLimit HighLimit %	6RPD RPDLimit C	Qual
pH	•	8.23	0	0	8.224	•		0.036 5	

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limitsS Spike Recovery outside control limits

Parameter not NELAC certified

Page 29 of 33

Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: PH_130327A

Sample ID: ICV-130327	Batch ID:	PH_S-4	1360	TestNo	SW	9045D		Units:	pH Units
SampType: ICV	Run ID:	PH_130)327A	Analysi	s Date: 3/27	//2013 10:15	5:00 AM	Prep Date:	3/27/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	SRPD RPDLimit Qual
рН		10.0	0	10.00	0	100	99	101	
Sample ID: CCV1-130327	Batch ID:	PH_S-4	1360	TestNo	SW	9045D		Units:	pH Units
SampType: CCV	Run ID:	PH_130)327A	Analysi	s Date: 3/27	//2013 10:15	5:00 AM	Prep Date:	3/27/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	RPD RPDLimit Qual
рН		7.11	0	7.000	0	102	97.1	102.9	
Sample ID: CCV2-130327	Batch ID:	PH_S-4	1360	TestNo	SWS	9045D		Units:	pH Units
SampType: CCV	Run ID:	PH_130)327A	Analysi	s Date: 3/27	//2013 10:15	5:00 AM	Prep Date:	3/27/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	SRPD RPDLimit Qual
рН		7.11	0	7.000	0	102	97.1	102.9	

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

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S Spike Recovery outside control limits

N Parameter not NELAC certified

Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: PMOIST_130327C

The QC data in batch 56645 applies to the following samples: 1303223-02C, 1303223-03C, 1303223-04C, 1303223-06C, 1303223-07C, 1303223-07C, 1303223-07C, 1303223-17C, 1303223-1

Sample ID: 1303220-21A-DUP SampType: DUP	Batch ID: Run ID:		_130327C	TestNo Analys		2216 28/2013 11:10:	:00 AM	Units: Prep Date:	WT%	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
Percent Moisture		0.659	0	0	0.6661				1.15	30

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1303223

Project: R360 Artesia Landfarm RunID: UV/VIS_2_130328B

The QC data in batch 56632 applies to the following samples: 1303223-02B, 1303223-03B, 1303223-04B, 1303223-06B, 1303223-07B, 1303223-07B, 1303223-07B, 1303223-07B, 1303223-07B, 1303223-17B, 1303223-18B, 1303223-1

ANALYTICAL QC SUMMARY REPORT

Batch ID:	56632		TestNo:	SW9	014		Units:	mg/Kg
Run ID:	UV/VIS_2	_130328B	Analysis	Date: 3/28	/2013 4:42:	00 PM	Prep Date:	3/27/2013
	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD RPDLimit Qual
	ND	0.500						
Batch ID:	56632		TestNo:	SWS	014		Units:	mg/Kg
Run ID:	UV/VIS_2	_130328B	Analysis	Date: 3/28	/2013 4:42:	00 PM	Prep Date:	3/27/2013
	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD RPDLimit Qual
	4.91	0.500	5.000	0	98.3	85	115	
Batch ID:	4.91 56632	0.500	5.000 TestNo:	0 SW 9		85	115 Units:	mg/Kg-dry
Batch ID: Run ID:			TestNo:	SW9				mg/Kg-dry 3/27/2013
Run ID:	56632		TestNo:	SW9	0014	00 PM	Units: Prep Date:	
Run ID:	56632 UV/VIS_2	_130328B	TestNo: Analysis	SW9 Date: 3/28)014 /2013 4:43:	00 PM	Units: Prep Date:	3/27/2013
Run ID:	56632 UV/VIS_2 Result	_ 130328B RL	TestNo: Analysis SPK value	SW9 Date: 3/28	%REC	00 PM LowLimi	Units: Prep Date: it HighLimit %	3/27/2013
Run ID:	56632 UV/VIS_2 Result 5.66	_ 130328B RL 0.489	TestNo: Analysis SPK value 4.887 TestNo:	SW9 Date: 3/28 Ref Val 0 SW9	%REC	00 PM LowLimi 75	Units: Prep Date: it HighLimit %	3/27/2013 GRPD RPDLimit Qual
Run ID: Batch ID: Run ID:	56632 UV/VIS_2 Result 5.66	_ 130328B RL 0.489	TestNo: Analysis SPK value 4.887 TestNo:	SW9 Date: 3/28 Ref Val 0 SW9	%REC 116	00 PM LowLimi 75 00 PM	Units: Prep Date: it HighLimit % 125 Units: Prep Date:	3/27/2013 GRPD RPDLimit Qual
	Run ID: Batch ID: Run ID:	Run ID: UV/VIS_2 Result ND Batch ID: 56632	Run ID: UV/VIS_2_130328B Result RL ND 0.500 Batch ID: 56632 Run ID: UV/VIS_2_130328B	Run ID: UV/VIS_2_130328B Analysis Result RL SPK value ND 0.500 TestNo: Run ID: UV/VIS_2_130328B Analysis	Run ID: UV/VIS_2_130328B Analysis Date: 3/28 Result RL SPK value Ref Val ND 0.500 TestNo: SWS Run ID: UV/VIS_2_130328B Analysis Date: 3/28	Run ID: UV/VIS_2_130328B Analysis Date: 3/28/2013 4:42: Result RL SPK value Ref Val %REC ND 0.500 SW9014 Batch ID: 56632 TestNo: SW9014 Run ID: UV/VIS_2_130328B Analysis Date: 3/28/2013 4:42:	Run ID: UV/VIS_2_130328B Analysis Date: 3/28/2013 4:42:00 PM Result RL SPK value Ref Val %REC LowLim ND 0.500 TestNo: SW9014 Run ID: UV/VIS_2_130328B Analysis Date: 3/28/2013 4:42:00 PM	Run ID: UV/VIS_2_130328B Analysis Date: 3/28/2013 4:42:00 PM Prep Date: 3/28/2013 4:42:00 PM Prep Date: 3/28/2013 4:42:00 PM Prep Date: 3/28/2013 4:42:00 PM Result RESULT

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Page 32 of 33

S Spike Recovery outside control limitsN Parameter not NELAC certified

Work Order: 1303223

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: UV/VIS_2_130328B

Sample ID: ICV-130328	Batch ID:	R65561		TestNo:	SW9	014		Units:	mg/Kg
SampType: ICV	Run ID:	UV/VIS_2_	130328B	Analysis	Date: 3/28/	/2013 4:40:	00 PM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
Cyanide, Total		0.105	0.500	0.1000	0	105	85	115	
Sample ID: CCV1-130328	Batch ID:	R65561		TestNo:	SW9	014		Units:	mg/Kg
SampType: CCV	Run ID:	UV/VIS_2_	130328B	Analysis	Date: 3/28/	/2013 4:46:	00 PM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
Cyanide, Total		0.212	0.500	0.2000	0	106	85	115	
Sample ID: CCV2-130328	Batch ID:	R65561		TestNo:	SW9	014		Units:	mg/Kg
				1001110.	0113			Ornio.	mg/ng
SampType: CCV	Run ID:	UV/VIS_2	130328B			/2013 4:50:	00 PM	Prep Date	• •
SampType: CCV Analyte	Run ID:	UV/VIS_2_	_ 130328B RL					Prep Date	
	Run ID:		-	Analysis	Date: 3/28/	/2013 4:50:		Prep Date	:
Analyte	Run ID:	Result	RL	Analysis SPK value	Date: 3/28/	/2013 4:50: %REC 105	LowLimi	Prep Date	:
Analyte Cyanide, Total		Result 0.211	RL 0.500	Analysis SPK value 0.2000 TestNo:	Date: 3/28/ Ref Val 0	/2013 4:50: %REC 105	LowLimi 85	Prep Date t HighLimit 115	: %RPD RPDLimit Qual
Analyte Cyanide, Total Sample ID: CCV3-130328	Batch ID: Run ID:	Result 0.211 R65561	RL 0.500	Analysis SPK value 0.2000 TestNo:	Date: 3/28/ Ref Val 0	%REC 105	LowLimi 85 00 PM	Prep Date t HighLimit 115 Units: Prep Date	: %RPD RPDLimit Qual

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limitsS Spike Recovery outside control limits

N Parameter not NELAC certified

Page 33 of 33



June 06, 2013

Mark Larson Larson & Associates 507 N. Marienfeld #200

Midland, TX 79701

TEL: (432) 687-0901

FAX (432) 687-0456 Order No.: 1303261

RE: R360 Artesia Landfarm

Dear Mark Larson:

DHL Analytical, Inc. received 21 sample(s) on 3/28/2013 for the analyses presented in the following report.

Revision Number 1 for Work Order 1303261: This revision consists of changing the metals analyte target list, deleting subsection C per the client's request. Please replace the original report with this revised report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-13-10



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CHAIN-OF-CUSTODY

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Human Health Standards-Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

reasonably.	mouse	avd.
	(1)	Arsenic (As)
	(2)	Barium (Ba)
	(3)	Cadmium (Cd)
	(4)	Chromium (Cr)
	(5)	Cyanide (CN)
	(6)	Fluoride (F)
	(7)	Lead (Pb)
	(8)	Total Mercury (Hg)
	(9)	Nitrate (NO ₃ as N)
	(10)	Selenium (Se)
•	(11)	Silver (Ag)
•		Padiocativity Combined Padium 226 & Padium 228
•	(12)	
	(14)	Benzene
	(15)	Polychlorinated biphenyls (PCB's)0.001 mg/l
	(16)	Toluene0.75 mg/l
-	(17)	Carbon Tetrachloride
	(18)	1,2-dichloroethane (EDC)0.01 mg/l
	(19)	1,1-dichloroethylene (1,1-DCE)
	(20)	1,1,2,2-tetrachloroethylene (PCE)
	(21)	1,1,2-trichloroethylene (TCE)
	(22)	ethylbenzene
	(23)	total xylenes
	(24)	methylene chloride
	(25)	chloroform0.1 mg/l
	(26)	1,1-dichloroethane
	(27)	ethylene dibromide (EDB)
	(28)	1,1,1-trichloroethane
	(29)	1,1,2-trichloroethane
	(30)	1,1,2-tietrachloroethane
		vinyl chloride
	(31)	
	(32)	PAHs: total naphthalene plus monomethylnaphthalenes
n	(33)	benzo-a-pyrene
В		Other Standards for Domestic water Supply
	(1)	Chloride (Cl)
	(2)	Copper (Cu)
	(3)	Iron (Fe)
	(4)	Manganese (Mn)
	(6)	Phenols
	(7)	Sulfate (SO ₄)
	(8)	Total Dissolved Solids (TDS)1000.0 mg/l
	(9)	Zinc (Zn)
	(10)	pHbetween 6 and 9
· c		Standards for Irrigation Use - Ground water shall meet the standards of Subsection A, B, and C of
this section	unle	ss otherwise provided.
	(1)	Aluminum (Al)
	(2)	Boron (B)
	(3)	Cobalt (Co)
	(4)	Molybdenum (Mo)
	(5)	Nickel (Ni)
[2-18-77 1		2, 11-17-83, 3-3-86, 12-1-95; 20.6.2.3103 NMAC - Rn, 20 NMAC 6.2.III.3103, 1-15-01; A, 9-26-04]
		oses of application of the amended numeric uranium standard to past and current water discharges (as of 9-
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[2-18-77, [Note: For purposes of application of the amended numeric uranium standard to past and current water discharges (as of 9 26-04), the new standard will not become effective until June 1, 2007. For any new water discharges, the uranium standard is effective 9-26-04.]



WMW.LSO.CONI Questions? Call 800)-800-8984



Airbill No. 47376950

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	Phone (Important)
Print, Name (Person) (Physical Physical	2. From: (17) (10) 1- 232-687-0901
Company Name	Company Name ARSON & ASSOCIATES
Street Address (No P.O. Box or P.O. Box Zip Code Deliveries)	Street Address,
Street Address (NO P.O. BOX OF 1. DAX 25 COLORED DE 13	607 NORTH MARIENTELD
Suite / Floor	Suite / Floor *
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LIMIT OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional hintalions of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 08:30 AM DELIVERIES. PRIORITY SERVICE PACKAGING PROVIDED BY LSO IS NOT INTENDED FOR USE ON GROUND SERVICE. OVERSIZE RATES MAY APPLY, DELIVERY COMMITMENTS MAY VARY, ADDITIONAL FEES MAY APPLY.



WWW.LSO.COM Questions? Call 800-800-8984



Airbill No. 47376949

47376949

Print Name (Person), Phone (Important) Jenn Her Barker	2. 5000 (Important) Phone (Imp
Company Name	Company Name ARSON & ASSOCIATES
Street Address (No P.Q. Box or P.O. Box Zip Gode Deliveries)	Street Address
-300 Double Creek Or.	507 WORTH MARIENFELD
Suite / Floor	Suite / Floor
ROGAD POCK TV 21078664	City State Zip ILDLAND TX 79701
Visit www.lso.com for availability of services to your destination and enjoy added features by creating your shipping label online.	4. Package: Weight FOR COURIER USE ONLY
By 10:30 am Delivery Check availability at WWW.lso.com Saturday Delivery Check availability at (Extra charge, www.lso.com not available	Your Company's Billing Reference Information Courier Number (1)
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NATT OF LIABILITY: We are not sponsible for claims in excess of \$100 for any reason unless you: 1) declar anner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequent ckage without obtaining a delivery signature, you release us of all liability for claims resulting from such serious property of the RELEGIAN SERVICE OVERSIZE RATES MAY APPLY DELIVER.	ial damages. Additional selta server filability at the filability of the control

Sample Receipt Checklist

Client Name Larson & Associates			Date R	deceived: 3/28/20	013
Work Order Number 1303261			Receive	ed by JB	
Checklist completed by:	3/28/201	3	Review	ed by	3/28/2013 Date
	Carrier name	<u>LoneStar</u>			
Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Present	
Custody seals intact on shippping container/co	oler?	Yes 🗌	No 🗌	Not Present	
Custody seals intact on sample bottles?		Yes 🗌	No 🗆	Not Present 🗹	
Chain of custody present?		Yes 🗹	No 🗆		
Chain of custody signed when relinquished and	I received?	Yes 🗹	No 🗌		
Chain of custody agrees with sample labels?		Yes 🗹	No 🗌		
Samples in proper container/bottle?		Yes 🗹	No 🗌		
Sample containers intact?		Yes 🗹	No 🗆		
Sufficient sample volume for indicated test?		Yes 🗹	No 🗌		
All samples received within holding time?		Yes 🗹	No 🗌	() ()	
Container/Temp Blank temperature in compliar	nce?	Yes 🗹	No 🗌	4.2 °C , 2.40	
Water - VOA vials have zero headspace?		Yes 🗌	No \square	No VOA vials submit	ted 🗹
Water - pH acceptable upon receipt?		Yes 🗌	No 🗆	Not Applicable 🗹	
	Adjusted?		Checked by		
Any No response must be detailed in the comm	nents section below.			. <u></u>	
Client contacted	Date contacted:			Person contacted	
Contacted by:	Regarding				
Comments:					
Corrective Action					

CLIENT: Larson & Associates

Project: R360 Artesia Landfarm

Lab Order: 1303261

CASE NARRATIVE

Date: 06-Jun-13

Sample was analyzed using the methods outlined in the following references:

Method E300 - Anions Analysis

Method E418.1 - TRPH Analysis (This parameter is not NELAC certified)

Method SW8260C - Volatiles Analysis

Method SW8270D - PAH Analysis (The compound 1-Methylnaphthalene is not NELAC certified)

Method SW8270D - PCB Analysis Method SW6020A - Metals Analysis Method SW7471B - Mercury Analysis

Method SW9014 - Cyanide Analysis

Method SW9045D - pH of Solid Analysis

Method D2216 - Percent Moisture

LOG IN

The samples were received and log-in performed on 3/28/2013. A total of 21 samples were received and analyzed. The samples arrived in good condition and were properly packaged. The samples were collected in Mountain Standard Time.

METALS ANALYSIS

For Metals Analysis, the recovery of Iron for the Matrix Spike and Matrix Spike Duplicate (1303261-03 MS/MSD) was above the method control limits. These are flagged accordingly in the QC Summary Report. This analyte is within method control limits in the associated LCS. No further corrective action was taken.

For Metals Analysis, the RPD of Manganese for the Serial Dilution (1303261-03 SD) was above the method control limit. This is flagged accordingly in the QC Summary Report. This analyte is within method control limits in the associated Post Digestion Spike. No further corrective action was taken.

Date: 05-Apr-13

CLIENT: Larson & Associates

Project: R360 Artesia Landfarm

Lab Order: 1303261

Work Order Sample Summary

Lab Smp ID (Client Sample ID	Tag Number	Date Collected	Date Recved
1303261-01 S	SB-1 0-2'		03/26/13 09:00 AM	3/28/2013
1303261-02 S	SB-1 2-2.5'		03/26/13 09:00 AM	3/28/2013
1303261-03 S	SB-1 5-7'		03/26/13 09:15 AM	3/28/2013
1303261-04 S	SB-1 7-8.5'		03/26/13 09:15 AM	3/28/2013
1303261-05 S	SB-1 10-12'		03/26/13 09:30 AM	3/28/2013
1303261-06 S	SB-5 0-2'		03/26/13 10:02 AM	3/28/2013
1303261-07 S	SB-5 2-3'		03/26/13 10:02 AM	3/28/2013
1303261-08 S	SB-5 5-7'		03/26/13 10:10 AM	3/28/2013
1303261-09 S	SB-5 7-9'		03/26/13 10:10 AM	3/28/2013
1303261-10 S	SB-5 9-10'		03/26/13 10:10 AM	3/28/2013
1303261-11 S	SB-5 10-12'		03/26/13 10:25 AM	3/28/2013
1303261-12 S	SB-2 0-2'		03/26/13 10:55 AM	3/28/2013
1303261-13 S	SB-2 2-3'		03/26/13 10:55 AM	3/28/2013
1303261-14 S	SB-2 5-7'		03/26/13 11:10 AM	3/28/2013
1303261-15 S	SB-2 7-8.5'		03/26/13 11:10 AM	3/28/2013
1303261-16 S	SB-2 10-12'		03/26/13 10:23 AM	3/28/2013
1303261-17 S	SB-3 0-2'		03/26/13 12:05 PM	3/28/2013
1303261-18 S	SB-3 2-3'		03/26/13 12:05 PM	3/28/2013
1303261-19 S	SB-3 5-7'		03/26/13 12:15 PM	3/28/2013
1303261-20 S	SB-3 7-9'		03/26/13 12:15 PM	3/28/2013
1303261-21 S	SB-3 10-12'		03/26/13 12:25 PM	3/28/2013

Lab Order: 1303261

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
303261-02A	SB-1 2-2.5'	03/26/13 09:00 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669
303261-02B	SB-1 2-2.5'	03/26/13 09:00 AM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-1 2-2.5'	03/26/13 09:00 AM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-1 2-2.5'	03/26/13 09:00 AM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-1 2-2.5'	03/26/13 09:00 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
303261-02C	SB-1 2-2.5'	03/26/13 09:00 AM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694
	SB-1 2-2.5'	03/26/13 09:00 AM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-1 2-2.5'	03/26/13 09:00 AM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-1 2-2.5'	03/26/13 09:00 AM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-1 2-2.5'	03/26/13 09:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
	SB-1 2-2.5'	03/26/13 09:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
303261-03A	SB-1 5-7'	03/26/13 09:15 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669
303261-03B	SB-1 5-7'	03/26/13 09:15 AM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-1 5-7'	03/26/13 09:15 AM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-1 5-7'	03/26/13 09:15 AM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-1 5-7'	03/26/13 09:15 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
303261-03C	SB-1 5-7'	03/26/13 09:15 AM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694
	SB-1 5-7'	03/26/13 09:15 AM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-1 5-7'	03/26/13 09:15 AM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-1 5-7'	03/26/13 09:15 AM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-1 5-7'	03/26/13 09:15 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
	SB-1 5-7'	03/26/13 09:15 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
303261-04A	SB-1 7-8.5'	03/26/13 09:15 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669
303261-04B	SB-1 7-8.5'	03/26/13 09:15 AM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-1 7-8.5'	03/26/13 09:15 AM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-1 7-8.5'	03/26/13 09:15 AM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-1 7-8.5'	03/26/13 09:15 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
303261-04C	SB-1 7-8.5'	03/26/13 09:15 AM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694

Page 1 of 7

Lab Order: 1303261

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

ample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
303261-04C	SB-1 7-8.5'	03/26/13 09:15 AM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-1 7-8.5'	03/26/13 09:15 AM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-1 7-8.5'	03/26/13 09:15 AM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-1 7-8.5'	03/26/13 09:15 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
	SB-1 7-8.5'	03/26/13 09:15 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
303261-05A	SB-1 10-12'	03/26/13 09:30 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669
303261-05B	SB-1 10-12'	03/26/13 09:30 AM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-1 10-12'	03/26/13 09:30 AM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-1 10-12'	03/26/13 09:30 AM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-1 10-12'	03/26/13 09:30 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 09:45 AM	56729
303261-05C	SB-1 10-12'	03/26/13 09:30 AM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694
	SB-1 10-12'	03/26/13 09:30 AM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694
	SB-1 10-12'	03/26/13 09:30 AM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-1 10-12'	03/26/13 09:30 AM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-1 10-12'	03/26/13 09:30 AM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-1 10-12'	03/26/13 09:30 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
	SB-1 10-12'	03/26/13 09:30 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
303261-07A	SB-5 2-3'	03/26/13 10:02 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669
303261-07B	SB-5 2-3'	03/26/13 10:02 AM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-5 2-3'	03/26/13 10:02 AM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-5 2-3'	03/26/13 10:02 AM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-5 2-3'	03/26/13 10:02 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 01:00 PM	56733
303261-07C	SB-5 2-3'	03/26/13 10:02 AM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694
	SB-5 2-3'	03/26/13 10:02 AM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-5 2-3'	03/26/13 10:02 AM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-5 2-3'	03/26/13 10:02 AM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-5 2-3'	03/26/13 10:02 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
	SB-5 2-3'	03/26/13 10:02 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693

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Lab Order: 1303261

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1303261-08A	SB-5 5-7'	03/26/13 10:10 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669
1303261-08B	SB-5 5-7'	03/26/13 10:10 AM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-5 5-7'	03/26/13 10:10 AM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-5 5-7'	03/26/13 10:10 AM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-5 5-7'	03/26/13 10:10 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 01:00 PM	56733
1303261-08C	SB-5 5-7'	03/26/13 10:10 AM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694
	SB-5 5-7'	03/26/13 10:10 AM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-5 5-7'	03/26/13 10:10 AM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-5 5-7'	03/26/13 10:10 AM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-5 5-7'	03/26/13 10:10 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
	SB-5 5-7'	03/26/13 10:10 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
1303261-09A	SB-5 7-9'	03/26/13 10:10 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669
1303261-09B	SB-5 7-9'	03/26/13 10:10 AM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-5 7-9'	03/26/13 10:10 AM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-5 7-9'	03/26/13 10:10 AM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-5 7-9'	03/26/13 10:10 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 01:00 PM	56733
1303261-09C	SB-5 7-9'	03/26/13 10:10 AM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694
	SB-5 7-9'	03/26/13 10:10 AM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-5 7-9'	03/26/13 10:10 AM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-5 7-9'	03/26/13 10:10 AM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-5 7-9'	03/26/13 10:10 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
	SB-5 7-9'	03/26/13 10:10 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
1303261-11A	SB-5 10-12'	03/26/13 10:25 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669
1303261-11B	SB-5 10-12'	03/26/13 10:25 AM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-5 10-12'	03/26/13 10:25 AM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-5 10-12'	03/26/13 10:25 AM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-5 10-12'	03/26/13 10:25 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 01:00 PM	56733
1303261-11C	SB-5 10-12'	03/26/13 10:25 AM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694

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Lab Order: 1303261

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
303261-11C	SB-5 10-12'	03/26/13 10:25 AM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-5 10-12'	03/26/13 10:25 AM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-5 10-12'	03/26/13 10:25 AM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-5 10-12'	03/26/13 10:25 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
	SB-5 10-12'	03/26/13 10:25 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
303261-13A	SB-2 2-3'	03/26/13 10:55 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669
303261-13B	SB-2 2-3'	03/26/13 10:55 AM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-2 2-3'	03/26/13 10:55 AM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-2 2-3'	03/26/13 10:55 AM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-2 2-3'	03/26/13 10:55 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 01:00 PM	56733
303261-13C	SB-2 2-3'	03/26/13 10:55 AM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694
	SB-2 2-3'	03/26/13 10:55 AM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-2 2-3'	03/26/13 10:55 AM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-2 2-3'	03/26/13 10:55 AM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-2 2-3'	03/26/13 10:55 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
	SB-2 2-3'	03/26/13 10:55 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
303261-14A	SB-2 5-7'	03/26/13 11:10 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669
303261-14B	SB-2 5-7'	03/26/13 11:10 AM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-2 5-7'	03/26/13 11:10 AM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-2 5-7'	03/26/13 11:10 AM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-2 5-7'	03/26/13 11:10 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 01:00 PM	56733
303261-14C	SB-2 5-7'	03/26/13 11:10 AM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694
	SB-2 5-7'	03/26/13 11:10 AM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-2 5-7'	03/26/13 11:10 AM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-2 5-7'	03/26/13 11:10 AM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-2 5-7'	03/26/13 11:10 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
	SB-2 5-7'	03/26/13 11:10 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
303261-15A	SB-2 7-8.5'	03/26/13 11:10 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669

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Lab Order: 1303261

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

ample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
303261-15B	SB-2 7-8.5'	03/26/13 11:10 AM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-2 7-8.5'	03/26/13 11:10 AM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-2 7-8.5'	03/26/13 11:10 AM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-2 7-8.5'	03/26/13 11:10 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 01:00 PM	56733
03261-15C	SB-2 7-8.5'	03/26/13 11:10 AM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694
	SB-2 7-8.5'	03/26/13 11:10 AM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-2 7-8.5'	03/26/13 11:10 AM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-2 7-8.5'	03/26/13 11:10 AM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-2 7-8.5'	03/26/13 11:10 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
	SB-2 7-8.5'	03/26/13 11:10 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
03261-16A	SB-2 10-12'	03/26/13 10:23 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669
03261-16B	SB-2 10-12'	03/26/13 10:23 AM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-2 10-12'	03/26/13 10:23 AM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-2 10-12'	03/26/13 10:23 AM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-2 10-12'	03/26/13 10:23 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 01:00 PM	56733
03261-16C	SB-2 10-12'	03/26/13 10:23 AM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694
	SB-2 10-12'	03/26/13 10:23 AM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-2 10-12'	03/26/13 10:23 AM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-2 10-12'	03/26/13 10:23 AM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-2 10-12'	03/26/13 10:23 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
	SB-2 10-12'	03/26/13 10:23 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
803261-18A	SB-3 2-3'	03/26/13 12:05 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669
03261-18B	SB-3 2-3'	03/26/13 12:05 PM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-3 2-3'	03/26/13 12:05 PM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-3 2-3'	03/26/13 12:05 PM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-3 2-3'	03/26/13 12:05 PM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-3 2-3'	03/26/13 12:05 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 01:00 PM	56733
03261-18C	SB-3 2-3'	03/26/13 12:05 PM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694

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Lab Order: 1303261

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1303261-18C	SB-3 2-3'	03/26/13 12:05 PM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-3 2-3'	03/26/13 12:05 PM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-3 2-3'	03/26/13 12:05 PM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-3 2-3'	03/26/13 12:05 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
	SB-3 2-3'	03/26/13 12:05 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
1303261-19A	SB-3 5-7'	03/26/13 12:15 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669
1303261-19B	SB-3 5-7'	03/26/13 12:15 PM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-3 5-7'	03/26/13 12:15 PM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-3 5-7'	03/26/13 12:15 PM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-3 5-7'	03/26/13 12:15 PM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-3 5-7'	03/26/13 12:15 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 01:00 PM	56733
1303261-19C	SB-3 5-7'	03/26/13 12:15 PM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694
	SB-3 5-7'	03/26/13 12:15 PM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-3 5-7'	03/26/13 12:15 PM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-3 5-7'	03/26/13 12:15 PM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-3 5-7'	03/26/13 12:15 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
	SB-3 5-7'	03/26/13 12:15 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
1303261-20A	SB-3 7-9'	03/26/13 12:15 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669
1303261-20B	SB-3 7-9'	03/26/13 12:15 PM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-3 7-9'	03/26/13 12:15 PM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-3 7-9'	03/26/13 12:15 PM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-3 7-9'	03/26/13 12:15 PM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-3 7-9'	03/26/13 12:15 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 01:00 PM	56733
1303261-20C	SB-3 7-9'	03/26/13 12:15 PM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694
	SB-3 7-9'	03/26/13 12:15 PM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-3 7-9'	03/26/13 12:15 PM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-3 7-9'	03/26/13 12:15 PM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-3 7-9'	03/26/13 12:15 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693

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Lab Order: 1303261

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1303261-20C	SB-3 7-9'	03/26/13 12:15 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
1303261-21A	SB-3 10-12'	03/26/13 12:25 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	03/28/13 09:56 AM	56669
1303261-21B	SB-3 10-12'	03/26/13 12:25 PM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-3 10-12'	03/26/13 12:25 PM	Soil	E300	Anion Prep	04/01/13 01:58 PM	56718
	SB-3 10-12'	03/26/13 12:25 PM	Soil	SW9010C	Cyanide Soil Prep	04/01/13 01:00 PM	56705
	SB-3 10-12'	03/26/13 12:25 PM	Soil	SW9045C	pH Preparation	04/01/13 10:01 AM	56707
	SB-3 10-12'	03/26/13 12:25 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/02/13 01:00 PM	56733
1303261-21C	SB-3 10-12'	03/26/13 12:25 PM	Soil	SW7471A	Mercury Soil Prep, Total	04/02/13 09:00 AM	56694
	SB-3 10-12'	03/26/13 12:25 PM	Soil	D2216	Moisture Preparation	04/01/13 12:20 PM	56716
	SB-3 10-12'	03/26/13 12:25 PM	Soil	SW3550C	Soil Prep Sonication: BNA	04/01/13 09:12 AM	56702
	SB-3 10-12'	03/26/13 12:25 PM	Soil	SW3550C	Soil Prep Sonication: PCB	04/01/13 09:10 AM	56701
	SB-3 10-12'	03/26/13 12:25 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693
	SB-3 10-12'	03/26/13 12:25 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/02/13 09:00 AM	56693

Lab Order: 1303261

Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1303261-02A	SB-1 2-2.5'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 12:16 PM	GCMS2_130328A
1303261-02B	SB-1 2-2.5'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 10:06 AM	IC2_130402A
	SB-1 2-2.5'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:21 AM	UV/VIS_2_130402A
	SB-1 2-2.5'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-1 2-2.5'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303261-02C	SB-1 2-2.5'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/02/13 05:48 PM	GCMS8_130402A
	SB-1 2-2.5'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-1 2-2.5'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 01:54 PM	GCMS9_130402C
	SB-1 2-2.5'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:03 PM	CETAC_HG_130403A
	SB-1 2-2.5'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 05:25 AM	ICP-MS3_130403A
	SB-1 2-2.5'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 04:18 PM	ICP-MS3_130403A
1303261-03A	SB-1 5-7'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 12:47 PM	GCMS2_130328A
1303261-03B	SB-1 5-7'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 11:13 AM	IC2_130402A
	SB-1 5-7'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:21 AM	UV/VIS_2_130402A
	SB-1 5-7'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-1 5-7'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303261-03C	SB-1 5-7'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/02/13 06:19 PM	GCMS8_130402A
	SB-1 5-7'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-1 5-7'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 02:19 PM	GCMS9_130402C
	SB-1 5-7'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 12:39 PM	CETAC_HG_130403A
	SB-1 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 05:19 AM	ICP-MS3_130403A
	SB-1 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 04:06 PM	ICP-MS3_130403A
1303261-04A	SB-1 7-8.5'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 01:19 PM	GCMS2_130328A
1303261-04B	SB-1 7-8.5'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 11:27 AM	IC2_130402A
	SB-1 7-8.5'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:23 AM	UV/VIS_2_130402A
	SB-1 7-8.5'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-1 7-8.5'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303261-04C	SB-1 7-8.5'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/02/13 06:51 PM	GCMS8_130402A

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Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1303261-04C	SB-1 7-8.5'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-1 7-8.5'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 02:42 PM	GCMS9_130402C
	SB-1 7-8.5'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:05 PM	CETAC_HG_130403A
	SB-1 7-8.5'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 05:31 AM	ICP-MS3_130403A
	SB-1 7-8.5'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 04:24 PM	ICP-MS3_130403A
1303261-05A	SB-1 10-12'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 01:50 PM	GCMS2_130328A
1303261-05B	SB-1 10-12'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 11:42 AM	IC2_130402A
	SB-1 10-12'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:23 AM	UV/VIS_2_130402A
	SB-1 10-12'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-1 10-12'	Soil	E418.1	TRPH	56729	1	04/02/13 04:30 PM	IR207_130402A
1303261-05C	SB-1 10-12'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/02/13 07:22 PM	GCMS8_130402A
	SB-1 10-12'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-1 10-12'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 03:06 PM	GCMS9_130402C
	SB-1 10-12'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:08 PM	CETAC_HG_130403A
	SB-1 10-12'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:13 PM	CETAC_HG_130403A
	SB-1 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 05:37 AM	ICP-MS3_130403A
	SB-1 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 04:30 PM	ICP-MS3_130403A
1303261-07A	SB-5 2-3'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 02:21 PM	GCMS2_130328A
1303261-07B	SB-5 2-3'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 11:56 AM	IC2_130402A
	SB-5 2-3'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:24 AM	UV/VIS_2_130402A
	SB-5 2-3'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-5 2-3'	Soil	E418.1	TRPH	56733	1	04/02/13 04:30 PM	IR207_130402B
1303261-07C	SB-5 2-3'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/02/13 07:53 PM	GCMS8_130402A
	SB-5 2-3'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-5 2-3'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 03:29 PM	GCMS9_130402C
	SB-5 2-3'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:16 PM	CETAC_HG_130403A
	SB-5 2-3'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 05:43 AM	ICP-MS3_130403A
	SB-5 2-3'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 04:36 PM	ICP-MS3_130403A

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Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1303261-08A	SB-5 5-7'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 02:52 PM	GCMS2_130328A
1303261-08B	SB-5 5-7'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 12:27 PM	IC2_130402A
	SB-5 5-7'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:24 AM	UV/VIS_2_130402A
	SB-5 5-7'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-5 5-7'	Soil	E418.1	TRPH	56733	1	04/02/13 04:30 PM	IR207_130402B
1303261-08C	SB-5 5-7'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/02/13 08:24 PM	GCMS8_130402A
	SB-5 5-7'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-5 5-7'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 04:52 PM	GCMS9_130402C
	SB-5 5-7'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:18 PM	CETAC_HG_130403A
	SB-5 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 05:50 AM	ICP-MS3_130403A
	SB-5 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 04:43 PM	ICP-MS3_130403A
1303261-09A	SB-5 7-9'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 03:24 PM	GCMS2_130328A
1303261-09B	SB-5 7-9'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 12:41 PM	IC2_130402A
	SB-5 7-9'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:24 AM	UV/VIS_2_130402A
	SB-5 7-9'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-5 7-9'	Soil	E418.1	TRPH	56733	1	04/02/13 04:30 PM	IR207_130402B
1303261-09C	SB-5 7-9'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/02/13 08:54 PM	GCMS8_130402A
	SB-5 7-9'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-5 7-9'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 04:16 PM	GCMS9_130402C
	SB-5 7-9'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:20 PM	CETAC_HG_130403A
	SB-5 7-9'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 05:56 AM	ICP-MS3_130403A
	SB-5 7-9'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 04:50 PM	ICP-MS3_130403A
1303261-11A	SB-5 10-12'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 03:55 PM	GCMS2_130328A
1303261-11B	SB-5 10-12'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 12:56 PM	IC2_130402A
	SB-5 10-12'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:26 AM	UV/VIS_2_130402A
	SB-5 10-12'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-5 10-12'	Soil	E418.1	TRPH	56733	1	04/02/13 04:30 PM	IR207_130402B
303261-11C	SB-5 10-12'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/02/13 09:26 PM	GCMS8 130402A

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Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1303261-11C	SB-5 10-12'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-5 10-12'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 04:39 PM	GCMS9_130402C
	SB-5 10-12'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:22 PM	CETAC_HG_130403A
	SB-5 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 04:56 PM	ICP-MS3_130403A
	SB-5 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 06:02 AM	ICP-MS3_130403A
1303261-13A	SB-2 2-3'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 04:26 PM	GCMS2_130328A
1303261-13B	SB-2 2-3'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 01:11 PM	IC2_130402A
	SB-2 2-3'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:26 AM	UV/VIS_2_130402A
	SB-2 2-3'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-2 2-3'	Soil	E418.1	TRPH	56733	1	04/02/13 04:30 PM	IR207_130402B
1303261-13C	SB-2 2-3'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/02/13 09:57 PM	GCMS8_130402A
	SB-2 2-3'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-2 2-3'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 05:02 PM	GCMS9_130402C
	SB-2 2-3'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:24 PM	CETAC_HG_130403A
	SB-2 2-3'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 05:02 PM	ICP-MS3_130403A
	SB-2 2-3'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 06:08 AM	ICP-MS3_130403A
1303261-14A	SB-2 5-7'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 04:58 PM	GCMS2_130328A
1303261-14B	SB-2 5-7'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 01:25 PM	IC2_130402A
	SB-2 5-7'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:26 AM	UV/VIS_2_130402A
	SB-2 5-7'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-2 5-7'	Soil	E418.1	TRPH	56733	1	04/02/13 04:30 PM	IR207_130402B
1303261-14C	SB-2 5-7'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/02/13 10:28 PM	GCMS8_130402A
	SB-2 5-7'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-2 5-7'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 05:26 PM	GCMS9_130402C
	SB-2 5-7'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:30 PM	CETAC_HG_130403A
	SB-2 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 05:08 PM	ICP-MS3_130403A
	SB-2 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 06:14 AM	ICP-MS3_130403A
1303261-15A	SB-2 7-8.5'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 05:29 PM	GCMS2_130328A

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Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

ample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
303261-15B	SB-2 7-8.5'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 01:40 PM	IC2_130402A
	SB-2 7-8.5'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:26 AM	UV/VIS_2_130402A
	SB-2 7-8.5'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-2 7-8.5'	Soil	E418.1	TRPH	56733	1	04/02/13 04:30 PM	IR207_130402B
303261-15C	SB-2 7-8.5'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/02/13 10:59 PM	GCMS8_130402A
	SB-2 7-8.5'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-2 7-8.5'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 05:49 PM	GCMS9_130402C
	SB-2 7-8.5'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:32 PM	CETAC_HG_130403A
	SB-2 7-8.5'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 07:23 PM	ICP-MS3_130403A
	SB-2 7-8.5'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 07:22 AM	ICP-MS3_130403A
303261-16A	SB-2 10-12'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 06:01 PM	GCMS2_130328A
303261-16B	SB-2 10-12'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 01:55 PM	IC2_130402A
	SB-2 10-12'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:26 AM	UV/VIS_2_130402A
	SB-2 10-12'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-2 10-12'	Soil	E418.1	TRPH	56733	1	04/02/13 04:30 PM	IR207_130402B
303261-16C	SB-2 10-12'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/02/13 11:30 PM	GCMS8_130402A
	SB-2 10-12'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-2 10-12'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 06:12 PM	GCMS9_130402C
	SB-2 10-12'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:34 PM	CETAC_HG_130403A
	SB-2 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 07:29 PM	ICP-MS3_130403A
	SB-2 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 07:28 AM	ICP-MS3_130403A
303261-18A	SB-3 2-3'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 06:32 PM	GCMS2_130328A
303261-18B	SB-3 2-3'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 02:10 PM	IC2_130402A
	SB-3 2-3'	Soil	E300	Anions by IC method - Soil	56718	10	04/02/13 03:59 PM	IC2_130402A
	SB-3 2-3'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:26 AM	UV/VIS_2_130402A
	SB-3 2-3'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-3 2-3'	Soil	E418.1	TRPH	56733	1	04/02/13 04:30 PM	IR207_130402B
303261-18C	SB-3 2-3'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/03/13 12:01 AM	GCMS8 130402A

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Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1303261-18C	SB-3 2-3'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-3 2-3'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 06:35 PM	GCMS9_130402C
	SB-3 2-3'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:37 PM	CETAC_HG_130403A
	SB-3 2-3'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 07:35 PM	ICP-MS3_130403A
	SB-3 2-3'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 07:34 AM	ICP-MS3_130403A
303261-19A	SB-3 5-7'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 07:04 PM	GCMS2_130328A
303261-19B	SB-3 5-7'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 02:25 PM	IC2_130402A
	SB-3 5-7'	Soil	E300	Anions by IC method - Soil	56718	10	04/02/13 03:12 PM	IC2_130402A
	SB-3 5-7'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:28 AM	UV/VIS_2_130402A
	SB-3 5-7'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-3 5-7'	Soil	E418.1	TRPH	56733	1	04/02/13 04:30 PM	IR207_130402B
303261-19C	SB-3 5-7'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/03/13 12:32 AM	GCMS8_130402A
	SB-3 5-7'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-3 5-7'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 07:44 PM	GCMS9_130402C
	SB-3 5-7'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:39 PM	CETAC_HG_130403A
	SB-3 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 07:41 PM	ICP-MS3_130403A
	SB-3 5-7'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 07:40 AM	ICP-MS3_130403A
303261-20A	SB-3 7-9'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 07:36 PM	GCMS2_130328A
303261-20B	SB-3 7-9'	Soil	E300	Anions by IC method - Soil	56718	10	04/02/13 03:27 PM	IC2_130402A
	SB-3 7-9'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 02:39 PM	IC2_130402A
	SB-3 7-9'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:28 AM	UV/VIS_2_130402A
	SB-3 7-9'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-3 7-9'	Soil	E418.1	TRPH	56733	1	04/02/13 04:30 PM	IR207_130402B
303261-20C	SB-3 7-9'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/03/13 01:03 AM	GCMS8_130402A
	SB-3 7-9'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-3 7-9'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 08:08 PM	GCMS9_130402C
	SB-3 7-9'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:41 PM	CETAC_HG_130403A
	SB-3 7-9'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 07:46 AM	ICP-MS3_130403A
	SB-3 7-9'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 07:46 AM	ICP-MS3_1

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Lab Order: 1303261

Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1303261-20C	SB-3 7-9'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 07:47 PM	ICP-MS3_130403A
1303261-21A	SB-3 10-12'	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56669	1	03/28/13 08:07 PM	GCMS2_130328A
1303261-21B	SB-3 10-12'	Soil	E300	Anions by IC method - Soil	56718	10	04/02/13 04:13 PM	IC2_130402A
	SB-3 10-12'	Soil	E300	Anions by IC method - Soil	56718	1	04/02/13 03:41 PM	IC2_130402A
	SB-3 10-12'	Soil	SW9014	Cyanide - Solid Sample	56705	1	04/02/13 10:28 AM	UV/VIS_2_130402A
	SB-3 10-12'	Soil	SW9045D	pH of Solid (Corrosivity)	56707	1	04/01/13 10:01 AM	PH_130401A
	SB-3 10-12'	Soil	E418.1	TRPH	56733	1	04/02/13 04:30 PM	IR207_130402B
1303261-21C	SB-3 10-12'	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56701	1	04/02/13 03:51 PM	GCMS8_130402A
	SB-3 10-12'	Soil	D2216	Percent Moisture	56716	1	04/02/13 08:50 AM	PMOIST_130401A
	SB-3 10-12'	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56702	1	04/02/13 08:31 PM	GCMS9_130402C
	SB-3 10-12'	Soil	SW7471B	Total Mercury: Soil/Solid	56694	1	04/03/13 01:43 PM	CETAC_HG_130403A
	SB-3 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	5	04/04/13 07:52 AM	ICP-MS3_130403A
	SB-3 10-12'	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56693	50	04/03/13 07:53 PM	ICP-MS3_130403A

CLIENT: Larson & Associates Client Sample ID: SB-1 2-2.5'

Project: R360 Artesia Landfarm Lab ID: 1303261-02

Project No: 11-0109-09 **Collection Date:** 03/26/13 09:00 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0158	0.0396		mg/Kg-dry	1	04/03/13 01:03 PM
TRACE METALS: ICP-MS - SOLID		SW60:	20A				Analyst: SW
Arsenic	1.41	0.492	0.984		mg/Kg-dry	5	04/04/13 05:25 AM
Barium	25.1	0.492	1.97		mg/Kg-dry	5	04/04/13 05:25 AM
Cadmium	ND	0.0984	0.295		mg/Kg-dry	5	04/04/13 05:25 AM
Chromium	5.54	0.492	1.97		mg/Kg-dry	5	04/04/13 05:25 AM
Copper	1.52	0.492	1.97	J	mg/Kg-dry	5	04/04/13 05:25 AM
Iron	6090	123	123		mg/Kg-dry	50	04/03/13 04:18 PM
Lead	2.94	0.0984	0.295		mg/Kg-dry	5	04/04/13 05:25 AM
Manganese	47.4	0.492	1.97		mg/Kg-dry	5	04/04/13 05:25 AM
Selenium	0.866	0.148	0.492		mg/Kg-dry	5	04/04/13 05:25 AM
Silver	ND	0.0984	0.197		mg/Kg-dry	5	04/04/13 05:25 AM
Zinc	11.0	0.984	2.46		mg/Kg-dry	5	04/04/13 05:25 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.0101	0.0269	N	mg/Kg-dry	1	04/02/13 01:54 PM
2-Methylnaphthalene	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
Naphthalene	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
Benzo[a]pyrene	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
2,3,4,6-Tetrachlorophenol	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
2,4,5-Trichlorophenol	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
2,4,6-Trichlorophenol	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
2,4-Dichlorophenol	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
2,4-Dimethylphenol	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
2,4-Dinitrophenol	ND	0.0506	0.134		mg/Kg-dry	1	04/02/13 01:54 PM
2,6-Dichlorophenol	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
2-Chlorophenol	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
2-Methylphenol	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
2-Nitrophenol	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
4,6-Dinitro-2-methylphenol	ND	0.0303	0.0668		mg/Kg-dry	1	04/02/13 01:54 PM
4-Chloro-3-methylphenol	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
4-Methylphenol	ND	0.0202	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
4-Nitrophenol	ND	0.0506	0.134		mg/Kg-dry	1	04/02/13 01:54 PM
Pentachlorophenol	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
Phenol	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
Total Phenol (Calculated)	ND	0.0101	0.0269		mg/Kg-dry	1	04/02/13 01:54 PM
Surr: 2,4,6-Tribromophenol	89.0	0	45-126		%REC	1	04/02/13 01:54 PM
Surr: 2-Fluorobiphenyl	84.0	0	60-125		%REC	1	04/02/13 01:54 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-1 2-2.5'

Project: R360 Artesia Landfarm Lab ID: 1303261-02

Project No: 11-0109-09 **Collection Date:** 03/26/13 09:00 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
Surr: 2-Fluorophenol	82.0	0	37-125		%REC	1	04/02/13 01:54 PM
Surr: 4-Terphenyl-d14	90.0	0	45-125		%REC	1	04/02/13 01:54 PM
Surr: Nitrobenzene-d5	77.0	0	45-125		%REC	1	04/02/13 01:54 PM
Surr: Phenol-d6	88.0	0	40-125		%REC	1	04/02/13 01:54 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0169	0.0337		mg/Kg-dry	1	04/02/13 05:48 PM
Aroclor 1221	ND	0.0169	0.0337		mg/Kg-dry	1	04/02/13 05:48 PM
Aroclor 1232	ND	0.0169	0.0337		mg/Kg-dry	1	04/02/13 05:48 PM
Aroclor 1242	ND	0.0169	0.0337		mg/Kg-dry	1	04/02/13 05:48 PM
Aroclor 1248	ND	0.0169	0.0337		mg/Kg-dry	1	04/02/13 05:48 PM
Aroclor 1254	ND	0.0169	0.0337		mg/Kg-dry	1	04/02/13 05:48 PM
Aroclor 1260	ND	0.0169	0.0337		mg/Kg-dry	1	04/02/13 05:48 PM
Surr: 2-Fluorobiphenyl	79.7	0	43-125		%REC	1	04/02/13 05:48 PM
Surr: 4-Terphenyl-d14	86.2	0	32-125		%REC	1	04/02/13 05:48 PM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
Toluene	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
Carbon tetrachloride	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
1,2-Dichloroethane	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
1,1-Dichloroethylene	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
Tetrachloroethylene	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
Trichloroethylene	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
Ethylbenzene	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
Total Xylenes	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
Methylene chloride	ND	0.00517	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
Chloroform	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
1,1-Dichloroethane	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
Ethylene bromide	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
1,1,1-Trichloroethane	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
1,1,2-Trichloroethane	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
1,1,2,2-Tetrachloroethane	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
Vinyl chloride	ND	0.00103	0.00517		mg/Kg-dry	1	03/28/13 12:16 PM
Surr: 1,2-Dichloroethane-d4	96.9	0	52-149		%REC	1	03/28/13 12:16 PM
Surr: 4-Bromofluorobenzene	97.5	0	84-118		%REC	1	03/28/13 12:16 PM
Surr: Dibromofluoromethane	98.2	0	65-135		%REC	1	03/28/13 12:16 PM
Surr: Toluene-d8	94.5	0	84-116		%REC	1	03/28/13 12:16 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-1 2-2.5'

Project: R360 Artesia Landfarm Lab ID: 1303261-02

Project No: 11-0109-09 **Collection Date:** 03/26/13 09:00 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.18	10.4	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.205	0.511		mg/Kg-dry	1	04/02/13 10:21 AM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	11.9	5.20	5.20		mg/Kg-dry	1	04/02/13 10:06 AM
Fluoride	1.28	1.04	1.04		mg/Kg-dry	1	04/02/13 10:06 AM
Nitrate-N	ND	5.20	5.20		mg/Kg-dry	1	04/02/13 10:06 AM
Sulfate	26.1	10.4	10.4		mg/Kg-dry	1	04/02/13 10:06 AM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK
рН	8.25	0	0		pH Units	1	04/01/13 10:01 AM
PERCENT MOISTURE		D221	6				Analyst: JCG
Percent Moisture	4.15	0	0		WT%	1	04/02/13 08:50 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-1 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303261-03

Project No: 11-0109-09 **Collection Date:** 03/26/13 09:15 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0168	0.0420		mg/Kg-dry	1	04/03/13 12:39 PM
TRACE METALS: ICP-MS - SOLID		SW60:	20A				Analyst: SW
Arsenic	0.973	0.529	1.06	J	mg/Kg-dry	5	04/04/13 05:19 AM
Barium	36.1	0.529	2.12		mg/Kg-dry	5	04/04/13 05:19 AM
Cadmium	ND	0.106	0.318		mg/Kg-dry	5	04/04/13 05:19 AM
Chromium	4.19	0.529	2.12		mg/Kg-dry	5	04/04/13 05:19 AM
Copper	1.10	0.529	2.12	J	mg/Kg-dry	5	04/04/13 05:19 AM
Iron	3910	132	132		mg/Kg-dry	50	04/03/13 04:06 PM
Lead	2.22	0.106	0.318		mg/Kg-dry	5	04/04/13 05:19 AM
Manganese	27.3	0.529	2.12		mg/Kg-dry	5	04/04/13 05:19 AM
Selenium	0.678	0.159	0.529		mg/Kg-dry	5	04/04/13 05:19 AM
Silver	ND	0.106	0.212		mg/Kg-dry	5	04/04/13 05:19 AM
Zinc	6.58	1.06	2.65		mg/Kg-dry	5	04/04/13 05:19 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.0106	0.0283	N	mg/Kg-dry	1	04/02/13 02:19 PM
2-Methylnaphthalene	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
Naphthalene	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
Benzo[a]pyrene	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
2,3,4,6-Tetrachlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
2,4,5-Trichlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
2,4,6-Trichlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
2,4-Dichlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
2,4-Dimethylphenol	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
2,4-Dinitrophenol	ND	0.0531	0.140		mg/Kg-dry	1	04/02/13 02:19 PM
2,6-Dichlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
2-Chlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
2-Methylphenol	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
2-Nitrophenol	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
4,6-Dinitro-2-methylphenol	ND	0.0319	0.0701		mg/Kg-dry	1	04/02/13 02:19 PM
4-Chloro-3-methylphenol	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
4-Methylphenol	ND	0.0213	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
4-Nitrophenol	ND	0.0531	0.140		mg/Kg-dry	1	04/02/13 02:19 PM
Pentachlorophenol	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
Phenol	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
Total Phenol (Calculated)	ND	0.0106	0.0283		mg/Kg-dry	1	04/02/13 02:19 PM
Surr: 2,4,6-Tribromophenol	84.0	0.0100	45-126		%REC	1	04/02/13 02:19 PM
Surr: 2-Fluorobiphenyl	80.0	0	60-125		%REC	1	04/02/13 02:19 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-1 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303261-03

Project No: 11-0109-09 **Collection Date:** 03/26/13 09:15 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: CZ
Surr: 2-Fluorophenol	81.0	0	37-125		%REC	1	04/02/13 02:19 PM
Surr: 4-Terphenyl-d14	89.0	0	45-125		%REC	1	04/02/13 02:19 PM
Surr: Nitrobenzene-d5	75.0	0	45-125		%REC	1	04/02/13 02:19 PM
Surr: Phenol-d6	85.0	0	40-125		%REC	1	04/02/13 02:19 PM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0177	0.0354		mg/Kg-dry	1	04/02/13 06:19 PM
Aroclor 1221	ND	0.0177	0.0354		mg/Kg-dry	1	04/02/13 06:19 PM
Aroclor 1232	ND	0.0177	0.0354		mg/Kg-dry	1	04/02/13 06:19 PM
Aroclor 1242	ND	0.0177	0.0354		mg/Kg-dry	1	04/02/13 06:19 PM
Aroclor 1248	ND	0.0177	0.0354		mg/Kg-dry	1	04/02/13 06:19 PM
Aroclor 1254	ND	0.0177	0.0354		mg/Kg-dry	1	04/02/13 06:19 PM
Aroclor 1260	ND	0.0177	0.0354		mg/Kg-dry	1	04/02/13 06:19 PM
Surr: 2-Fluorobiphenyl	69.6	0	43-125		%REC	1	04/02/13 06:19 PM
Surr: 4-Terphenyl-d14	81.4	0	32-125		%REC	1	04/02/13 06:19 PM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
Toluene	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
Carbon tetrachloride	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
1,2-Dichloroethane	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
1,1-Dichloroethylene	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
Tetrachloroethylene	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
Trichloroethylene	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
Ethylbenzene	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
Total Xylenes	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
Methylene chloride	ND	0.00447	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
Chloroform	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
1,1-Dichloroethane	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
Ethylene bromide	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
1,1,1-Trichloroethane	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
1,1,2-Trichloroethane	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
1,1,2,2-Tetrachloroethane	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
Vinyl chloride	ND	0.000894	0.00447		mg/Kg-dry	1	03/28/13 12:47 PM
Surr: 1,2-Dichloroethane-d4	101	0	52-149		%REC	1	03/28/13 12:47 PM
Surr: 4-Bromofluorobenzene	96.7	0	84-118		%REC	1	03/28/13 12:47 PM
Surr: Dibromofluoromethane	101	0	65-135		%REC	1	03/28/13 12:47 PM
Surr: Toluene-d8	94.9	0	84-116		%REC	1	03/28/13 12:47 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-1 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303261-03

Project No: 11-0109-09 **Collection Date:** 03/26/13 09:15 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.32	10.6	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.190	0.475		mg/Kg-dry	1	04/02/13 10:21 AM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	26.5	5.31	5.31		mg/Kg-dry	1	04/02/13 11:13 AM
Fluoride	2.01	1.06	1.06		mg/Kg-dry	1	04/02/13 11:13 AM
Nitrate-N	ND	5.31	5.31		mg/Kg-dry	1	04/02/13 11:13 AM
Sulfate	60.1	10.6	10.6		mg/Kg-dry	1	04/02/13 11:13 AM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK
рН	8.65	0	0		pH Units	1	04/01/13 10:01 AM
PERCENT MOISTURE		D221	16				Analyst: JCG
Percent Moisture	6.47	0	0		WT%	1	04/02/13 08:50 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-1 7-8.5'

Project: R360 Artesia Landfarm Lab ID: 1303261-04

Project No: 11-0109-09 **Collection Date:** 03/26/13 09:15 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0149	0.0372		mg/Kg-dry	1	04/03/13 01:05 PM
TRACE METALS: ICP-MS - SOLID		SW60:	20A				Analyst: SW
Arsenic	3.71	0.541	1.08		mg/Kg-dry	5	04/04/13 05:31 AM
Barium	52.6	0.541	2.16		mg/Kg-dry	5	04/04/13 05:31 AM
Cadmium	0.161	0.108	0.325	J	mg/Kg-dry	5	04/04/13 05:31 AM
Chromium	11.5	0.541	2.16		mg/Kg-dry	5	04/04/13 05:31 AM
Copper	3.94	0.541	2.16		mg/Kg-dry	5	04/04/13 05:31 AM
Iron	14300	135	135		mg/Kg-dry	50	04/03/13 04:24 PM
Lead	5.51	0.108	0.325		mg/Kg-dry	5	04/04/13 05:31 AM
Manganese	61.2	0.541	2.16		mg/Kg-dry	5	04/04/13 05:31 AM
Selenium	0.909	0.162	0.541		mg/Kg-dry	5	04/04/13 05:31 AM
Silver	ND	0.108	0.216		mg/Kg-dry	5	04/04/13 05:31 AM
Zinc	22.6	1.08	2.71		mg/Kg-dry	5	04/04/13 05:31 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.0106	0.0281	N	mg/Kg-dry	1	04/02/13 02:42 PM
2-Methylnaphthalene	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
Naphthalene	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
Benzo[a]pyrene	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
2,3,4,6-Tetrachlorophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
2,4,5-Trichlorophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
2,4,6-Trichlorophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
2,4-Dichlorophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
2,4-Dimethylphenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
2,4-Dinitrophenol	ND	0.0529	0.140		mg/Kg-dry	1	04/02/13 02:42 PM
2,6-Dichlorophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
2-Chlorophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
2-Methylphenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
2-Nitrophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
4,6-Dinitro-2-methylphenol	ND	0.0317	0.0698		mg/Kg-dry	1	04/02/13 02:42 PM
4-Chloro-3-methylphenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
4-Methylphenol	ND	0.0211	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
4-Nitrophenol	ND	0.0529	0.140		mg/Kg-dry	1	04/02/13 02:42 PM
Pentachlorophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
Phenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
Total Phenol (Calculated)	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 02:42 PM
Surr: 2,4,6-Tribromophenol	86.0	0.0100	45-126		%REC	1	04/02/13 02:42 PM
Surr: 2-Fluorobiphenyl	80.0	0	60-125		%REC	1	04/02/13 02:42 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-1 7-8.5'

Project: R360 Artesia Landfarm Lab ID: 1303261-04

Project No: 11-0109-09 **Collection Date:** 03/26/13 09:15 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
Surr: 2-Fluorophenol	82.0	0	37-125		%REC	1	04/02/13 02:42 PM
Surr: 4-Terphenyl-d14	87.0	0	45-125		%REC	1	04/02/13 02:42 PM
Surr: Nitrobenzene-d5	74.0	0	45-125		%REC	1	04/02/13 02:42 PM
Surr: Phenol-d6	87.0	0	40-125		%REC	1	04/02/13 02:42 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0176	0.0352		mg/Kg-dry	1	04/02/13 06:51 PM
Aroclor 1221	ND	0.0176	0.0352		mg/Kg-dry	1	04/02/13 06:51 PM
Aroclor 1232	ND	0.0176	0.0352		mg/Kg-dry	1	04/02/13 06:51 PM
Aroclor 1242	ND	0.0176	0.0352		mg/Kg-dry	1	04/02/13 06:51 PM
Aroclor 1248	ND	0.0176	0.0352		mg/Kg-dry	1	04/02/13 06:51 PM
Aroclor 1254	ND	0.0176	0.0352		mg/Kg-dry	1	04/02/13 06:51 PM
Aroclor 1260	ND	0.0176	0.0352		mg/Kg-dry	1	04/02/13 06:51 PM
Surr: 2-Fluorobiphenyl	71.3	0	43-125		%REC	1	04/02/13 06:51 PM
Surr: 4-Terphenyl-d14	82.1	0	32-125		%REC	1	04/02/13 06:51 PM
8260 SOIL VOLATILES BY GC/MS		SW82	:60C				Analyst: KL
Benzene	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
Toluene	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
Carbon tetrachloride	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
1,2-Dichloroethane	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
1,1-Dichloroethylene	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
Tetrachloroethylene	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
Trichloroethylene	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
Ethylbenzene	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
Total Xylenes	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
Methylene chloride	ND	0.00449	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
Chloroform	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
1,1-Dichloroethane	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
Ethylene bromide	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
1,1,1-Trichloroethane	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
1,1,2-Trichloroethane	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
1,1,2,2-Tetrachloroethane	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
Vinyl chloride	ND	0.000897	0.00449		mg/Kg-dry	1	03/28/13 01:19 PM
Surr: 1,2-Dichloroethane-d4	102	0	52-149		%REC	1	03/28/13 01:19 PM
Surr: 4-Bromofluorobenzene	98.4	0	84-118		%REC	1	03/28/13 01:19 PM
Surr: Dibromofluoromethane	102	0	65-135		%REC	1	03/28/13 01:19 PM
Surr: Toluene-d8	95.6	0	84-116		%REC	1	03/28/13 01:19 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-1 7-8.5'

Project: R360 Artesia Landfarm Lab ID: 1303261-04

Project No: 11-0109-09 **Collection Date:** 03/26/13 09:15 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.56	11.1	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.205	0.511		mg/Kg-dry	1	04/02/13 10:23 AM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	45.6	5.52	5.52		mg/Kg-dry	1	04/02/13 11:27 AM
Fluoride	5.44	1.10	1.10		mg/Kg-dry	1	04/02/13 11:27 AM
Nitrate-N	ND	5.52	5.52		mg/Kg-dry	1	04/02/13 11:27 AM
Sulfate	95.2	11.0	11.0		mg/Kg-dry	1	04/02/13 11:27 AM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK
рН	8.15	0	0		pH Units	1	04/01/13 10:01 AM
PERCENT MOISTURE		D221	6				Analyst: JCG
Percent Moisture	10.3	0	0		WT%	1	04/02/13 08:50 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-1 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303261-05

Project No: 11-0109-09 **Collection Date:** 03/26/13 09:30 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0162	0.0405		mg/Kg-dry	1	04/03/13 01:08 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	3.87	0.539	1.08		mg/Kg-dry	5	04/04/13 05:37 AM
Barium	61.7	0.539	2.16		mg/Kg-dry	5	04/04/13 05:37 AM
Cadmium	0.226	0.108	0.324	J	mg/Kg-dry	5	04/04/13 05:37 AM
Chromium	9.58	0.539	2.16		mg/Kg-dry	5	04/04/13 05:37 AM
Copper	3.15	0.539	2.16		mg/Kg-dry	5	04/04/13 05:37 AM
Iron	10900	135	135		mg/Kg-dry	50	04/03/13 04:30 PM
Lead	5.74	0.108	0.324		mg/Kg-dry	5	04/04/13 05:37 AM
Manganese	90.5	0.539	2.16		mg/Kg-dry	5	04/04/13 05:37 AM
Selenium	3.26	0.162	0.539		mg/Kg-dry	5	04/04/13 05:37 AM
Silver	ND	0.108	0.216		mg/Kg-dry	5	04/04/13 05:37 AM
Zinc	18.8	1.08	2.70		mg/Kg-dry	5	04/04/13 05:37 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.0106	0.0282	N	mg/Kg-dry	1	04/02/13 03:06 PM
2-Methylnaphthalene	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
Naphthalene	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
Benzo[a]pyrene	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
2,3,4,6-Tetrachlorophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
2,4,5-Trichlorophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
2,4,6-Trichlorophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
2,4-Dichlorophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
2,4-Dimethylphenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
2,4-Dinitrophenol	ND	0.0530	0.140		mg/Kg-dry	1	04/02/13 03:06 PM
2,6-Dichlorophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
2-Chlorophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
2-Methylphenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
2-Nitrophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
4,6-Dinitro-2-methylphenol	ND	0.0318	0.0700		mg/Kg-dry	1	04/02/13 03:06 PM
4-Chloro-3-methylphenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
4-Methylphenol	ND	0.0212	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
4-Nitrophenol	ND	0.0530	0.140		mg/Kg-dry	1	04/02/13 03:06 PM
Pentachlorophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
Phenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
Total Phenol (Calculated)	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 03:06 PM
Surr: 2,4,6-Tribromophenol	80.0	0	45-126		%REC	1	04/02/13 03:06 PM
Surr: 2-Fluorobiphenyl	76.0	0	60-125		%REC	1	04/02/13 03:06 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-1 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303261-05

Project No: 11-0109-09 **Collection Date:** 03/26/13 09:30 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	.70D				Analyst: CZ
Surr: 2-Fluorophenol	76.0	0	37-125		%REC	1	04/02/13 03:06 PM
Surr: 4-Terphenyl-d14	83.0	0	45-125		%REC	1	04/02/13 03:06 PM
Surr: Nitrobenzene-d5	71.0	0	45-125		%REC	1	04/02/13 03:06 PM
Surr: Phenol-d6	79.0	0	40-125		%REC	1	04/02/13 03:06 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0177	0.0353		mg/Kg-dry	1	04/02/13 07:22 PM
Aroclor 1221	ND	0.0177	0.0353		mg/Kg-dry	1	04/02/13 07:22 PM
Aroclor 1232	ND	0.0177	0.0353		mg/Kg-dry	1	04/02/13 07:22 PM
Aroclor 1242	ND	0.0177	0.0353		mg/Kg-dry	1	04/02/13 07:22 PM
Aroclor 1248	ND	0.0177	0.0353		mg/Kg-dry	1	04/02/13 07:22 PM
Aroclor 1254	ND	0.0177	0.0353		mg/Kg-dry	1	04/02/13 07:22 PM
Aroclor 1260	ND	0.0177	0.0353		mg/Kg-dry	1	04/02/13 07:22 PM
Surr: 2-Fluorobiphenyl	70.6	0	43-125		%REC	1	04/02/13 07:22 PM
Surr: 4-Terphenyl-d14	82.6	0	32-125		%REC	1	04/02/13 07:22 PM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
Toluene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
Carbon tetrachloride	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
1,2-Dichloroethane	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
1,1-Dichloroethylene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
Tetrachloroethylene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
Trichloroethylene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
Ethylbenzene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
Total Xylenes	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
Methylene chloride	ND	0.00514	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
Chloroform	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
1,1-Dichloroethane	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
Ethylene bromide	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
1,1,1-Trichloroethane	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
1,1,2-Trichloroethane	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
1,1,2,2-Tetrachloroethane	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
Vinyl chloride	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 01:50 PM
Surr: 1,2-Dichloroethane-d4	103	0	52-149		%REC	1	03/28/13 01:50 PM
Surr: 4-Bromofluorobenzene	98.7	0	84-118		%REC	1	03/28/13 01:50 PM
Surr: Dibromofluoromethane	101	0	65-135		%REC	1	03/28/13 01:50 PM
Surr: Toluene-d8	96.0	0	84-116		%REC	1	03/28/13 01:50 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-1 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303261-05

Project No: 11-0109-09 **Collection Date:** 03/26/13 09:30 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.39	10.8	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.178	0.445		mg/Kg-dry	1	04/02/13 10:23 AM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	45.7	5.41	5.41		mg/Kg-dry	1	04/02/13 11:42 AM
Fluoride	7.84	1.08	1.08		mg/Kg-dry	1	04/02/13 11:42 AM
Nitrate-N	ND	5.41	5.41		mg/Kg-dry	1	04/02/13 11:42 AM
Sulfate	73.2	10.8	10.8		mg/Kg-dry	1	04/02/13 11:42 AM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK
рН	8.04	0	0		pH Units	1	04/01/13 10:01 AM
PERCENT MOISTURE		D221	6				Analyst: JCG
Percent Moisture	8.21	0	0		WT%	1	04/02/13 08:50 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-5 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303261-07

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:02 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0150	0.0376		mg/Kg-dry	1	04/03/13 01:16 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	1.77	0.471	0.941		mg/Kg-dry	5	04/04/13 05:43 AM
Barium	25.4	0.471	1.88		mg/Kg-dry	5	04/04/13 05:43 AM
Cadmium	0.107	0.0941	0.282	J	mg/Kg-dry	5	04/04/13 05:43 AM
Chromium	5.96	0.471	1.88		mg/Kg-dry	5	04/04/13 05:43 AM
Copper	2.35	0.471	1.88		mg/Kg-dry	5	04/04/13 05:43 AM
Iron	4890	118	118		mg/Kg-dry	50	04/03/13 04:36 PM
Lead	3.33	0.0941	0.282		mg/Kg-dry	5	04/04/13 05:43 AM
Manganese	73.7	0.471	1.88		mg/Kg-dry	5	04/04/13 05:43 AM
Selenium	1.08	0.141	0.471		mg/Kg-dry	5	04/04/13 05:43 AM
Silver	ND	0.0941	0.188		mg/Kg-dry	5	04/04/13 05:43 AM
Zinc	13.5	0.941	2.35		mg/Kg-dry	5	04/04/13 05:43 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.00973	0.0259	N	mg/Kg-dry	1	04/02/13 03:29 PM
2-Methylnaphthalene	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
Naphthalene	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
Benzo[a]pyrene	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
2,3,4,6-Tetrachlorophenol	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
2,4,5-Trichlorophenol	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
2,4,6-Trichlorophenol	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
2,4-Dichlorophenol	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
2,4-Dimethylphenol	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
2,4-Dinitrophenol	ND	0.0487	0.128		mg/Kg-dry	1	04/02/13 03:29 PM
2,6-Dichlorophenol	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
2-Chlorophenol	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
2-Methylphenol	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
2-Nitrophenol	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
4,6-Dinitro-2-methylphenol	ND	0.0292	0.0642		mg/Kg-dry	1	04/02/13 03:29 PM
4-Chloro-3-methylphenol	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
4-Methylphenol	ND	0.0195	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
4-Nitrophenol	ND	0.0487	0.128		mg/Kg-dry	1	04/02/13 03:29 PM
Pentachlorophenol	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
Phenol	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
Total Phenol (Calculated)	ND	0.00973	0.0259		mg/Kg-dry	1	04/02/13 03:29 PM
Surr: 2,4,6-Tribromophenol	92.0	0.0007.0	45-126		%REC	1	04/02/13 03:29 PM
Surr: 2-Fluorobiphenyl	85.0	0	60-125		%REC	1	04/02/13 03:29 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-5 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303261-07

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:02 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D			Analyst: CZ
Surr: 2-Fluorophenol	85.0	0	37-125	%REC	1	04/02/13 03:29 PM
Surr: 4-Terphenyl-d14	92.0	0	45-125	%REC	1	04/02/13 03:29 PM
Surr: Nitrobenzene-d5	80.0	0	45-125	%REC	1	04/02/13 03:29 PM
Surr: Phenol-d6	88.0	0	40-125	%REC	1	04/02/13 03:29 PM
PCB BY GC/MS - SOIL/SOLID		SW82	270D			Analyst: AJR
Aroclor 1016	ND	0.0162	0.0324	mg/Kg-dry	1	04/02/13 07:53 PM
Aroclor 1221	ND	0.0162	0.0324	mg/Kg-dry	1	04/02/13 07:53 PM
Aroclor 1232	ND	0.0162	0.0324	mg/Kg-dry	1	04/02/13 07:53 PM
Aroclor 1242	ND	0.0162	0.0324	mg/Kg-dry	1	04/02/13 07:53 PM
Aroclor 1248	ND	0.0162	0.0324	mg/Kg-dry	1	04/02/13 07:53 PM
Aroclor 1254	ND	0.0162	0.0324	mg/Kg-dry	1	04/02/13 07:53 PM
Aroclor 1260	ND	0.0162	0.0324	mg/Kg-dry	1	04/02/13 07:53 PM
Surr: 2-Fluorobiphenyl	75.2	0	43-125	%REC	1	04/02/13 07:53 PM
Surr: 4-Terphenyl-d14	86.2	0	32-125	%REC	1	04/02/13 07:53 PM
8260 SOIL VOLATILES BY GC/MS		SW82	260C			Analyst: KL
Benzene	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
Toluene	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
Carbon tetrachloride	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
1,2-Dichloroethane	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
1,1-Dichloroethylene	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
Tetrachloroethylene	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
Trichloroethylene	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
Ethylbenzene	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
Total Xylenes	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
Methylene chloride	ND	0.00492	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
Chloroform	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
1,1-Dichloroethane	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
Ethylene bromide	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
1,1,1-Trichloroethane	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
1,1,2-Trichloroethane	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
1,1,2,2-Tetrachloroethane	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
Vinyl chloride	ND	0.000985	0.00492	mg/Kg-dry	1	03/28/13 02:21 PM
Surr: 1,2-Dichloroethane-d4	103	0	52-149	%REC	1	03/28/13 02:21 PM
Surr: 4-Bromofluorobenzene	97.3	0	84-118	%REC	1	03/28/13 02:21 PM
Surr: Dibromofluoromethane	101	0	65-135	%REC	1	03/28/13 02:21 PM
Surr: Toluene-d8	96.1	0	84-116	%REC	1	03/28/13 02:21 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-5 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303261-07

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:02 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.00	10.0	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.201	0.503		mg/Kg-dry	1	04/02/13 10:24 AM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	134	5.02	5.02		mg/Kg-dry	1	04/02/13 11:56 AM
Fluoride	1.20	1.00	1.00		mg/Kg-dry	1	04/02/13 11:56 AM
Nitrate-N	8.87	5.02	5.02		mg/Kg-dry	1	04/02/13 11:56 AM
Sulfate	77.8	10.0	10.0		mg/Kg-dry	1	04/02/13 11:56 AM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK
рН	8.18	0	0		pH Units	1	04/01/13 10:01 AM
PERCENT MOISTURE		D221	6				Analyst: JCG
Percent Moisture	2.54	0	0		WT%	1	04/02/13 08:50 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
 - ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-5 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303261-08

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:10 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0175	0.0436		mg/Kg-dry	1	04/03/13 01:18 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	2.02	0.554	1.11		mg/Kg-dry	5	04/04/13 05:50 AM
Barium	150	0.554	2.22		mg/Kg-dry	5	04/04/13 05:50 AM
Cadmium	0.205	0.111	0.332	J	mg/Kg-dry	5	04/04/13 05:50 AM
Chromium	8.35	0.554	2.22		mg/Kg-dry	5	04/04/13 05:50 AM
Copper	1.89	0.554	2.22	J	mg/Kg-dry	5	04/04/13 05:50 AM
Iron	8880	138	138		mg/Kg-dry	50	04/03/13 04:43 PM
Lead	4.10	0.111	0.332		mg/Kg-dry	5	04/04/13 05:50 AM
Manganese	82.0	0.554	2.22		mg/Kg-dry	5	04/04/13 05:50 AM
Selenium	1.14	0.166	0.554		mg/Kg-dry	5	04/04/13 05:50 AM
Silver	ND	0.111	0.222		mg/Kg-dry	5	04/04/13 05:50 AM
Zinc	14.1	1.11	2.77		mg/Kg-dry	5	04/04/13 05:50 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.0122	0.0324	N	mg/Kg-dry	1	04/02/13 04:52 PM
2-Methylnaphthalene	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
Naphthalene	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
Benzo[a]pyrene	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
2,3,4,6-Tetrachlorophenol	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
2,4,5-Trichlorophenol	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
2,4,6-Trichlorophenol	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
2,4-Dichlorophenol	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
2,4-Dimethylphenol	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
2,4-Dinitrophenol	ND	0.0610	0.161		mg/Kg-dry	1	04/02/13 04:52 PM
2,6-Dichlorophenol	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
2-Chlorophenol	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
2-Methylphenol	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
2-Nitrophenol	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
4,6-Dinitro-2-methylphenol	ND	0.0366	0.0805		mg/Kg-dry	1	04/02/13 04:52 PM
4-Chloro-3-methylphenol	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
4-Methylphenol	ND	0.0244	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
4-Nitrophenol	ND	0.0610	0.161		mg/Kg-dry	1	04/02/13 04:52 PM
Pentachlorophenol	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
Phenol	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
Total Phenol (Calculated)	ND	0.0122	0.0324		mg/Kg-dry	1	04/02/13 04:52 PM
Surr: 2,4,6-Tribromophenol	81.0	0	45-126		%REC	1	04/02/13 04:52 PM
Surr: 2-Fluorobiphenyl	67.0	0	60-125		%REC	1	04/02/13 04:52 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-5 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303261-08

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:10 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: CZ
Surr: 2-Fluorophenol	70.0	0	37-125		%REC	1	04/02/13 04:52 PM
Surr: 4-Terphenyl-d14	88.0	0	45-125		%REC	1	04/02/13 04:52 PM
Surr: Nitrobenzene-d5	63.0	0	45-125		%REC	1	04/02/13 04:52 PM
Surr: Phenol-d6	76.0	0	40-125		%REC	1	04/02/13 04:52 PM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0203	0.0407		mg/Kg-dry	1	04/02/13 08:24 PM
Aroclor 1221	ND	0.0203	0.0407		mg/Kg-dry	1	04/02/13 08:24 PM
Aroclor 1232	ND	0.0203	0.0407		mg/Kg-dry	1	04/02/13 08:24 PM
Aroclor 1242	ND	0.0203	0.0407		mg/Kg-dry	1	04/02/13 08:24 PM
Aroclor 1248	ND	0.0203	0.0407		mg/Kg-dry	1	04/02/13 08:24 PM
Aroclor 1254	ND	0.0203	0.0407		mg/Kg-dry	1	04/02/13 08:24 PM
Aroclor 1260	ND	0.0203	0.0407		mg/Kg-dry	1	04/02/13 08:24 PM
Surr: 2-Fluorobiphenyl	63.1	0	43-125		%REC	1	04/02/13 08:24 PM
Surr: 4-Terphenyl-d14	87.5	0	32-125		%REC	1	04/02/13 08:24 PM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
Toluene	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
Carbon tetrachloride	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
1,2-Dichloroethane	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
1,1-Dichloroethylene	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
Tetrachloroethylene	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
Trichloroethylene	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
Ethylbenzene	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
Total Xylenes	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
Methylene chloride	ND	0.00553	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
Chloroform	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
1,1-Dichloroethane	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
Ethylene bromide	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
1,1,1-Trichloroethane	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
1,1,2-Trichloroethane	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
1,1,2,2-Tetrachloroethane	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
Vinyl chloride	ND	0.00111	0.00553		mg/Kg-dry	1	03/28/13 02:52 PM
Surr: 1,2-Dichloroethane-d4	106	0	52-149		%REC	1	03/28/13 02:52 PM
Surr: 4-Bromofluorobenzene	97.5	0	84-118		%REC	1	03/28/13 02:52 PM
Surr: Dibromofluoromethane	102	0	65-135		%REC	1	03/28/13 02:52 PM
Surr: Toluene-d8	94.1	0	84-116		%REC	1	03/28/13 02:52 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-5 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303261-08

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:10 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	6.06	12.1	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.222	0.556		mg/Kg-dry	1	04/02/13 10:24 AM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	202	6.21	6.21		mg/Kg-dry	1	04/02/13 12:27 PM
Fluoride	2.63	1.24	1.24		mg/Kg-dry	1	04/02/13 12:27 PM
Nitrate-N	ND	6.21	6.21		mg/Kg-dry	1	04/02/13 12:27 PM
Sulfate	51.1	12.4	12.4		mg/Kg-dry	1	04/02/13 12:27 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK
pH	7.90	0	0		pH Units	1	04/01/13 10:01 AM
PERCENT MOISTURE		D221	6				Analyst: JCG
Percent Moisture	20.8	0	0		WT%	1	04/02/13 08:50 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-5 7-9'
Project: R360 Artesia Landfarm Lab ID: 1303261-09

Project No: 11-0109-09 Collection Date: 03/26/13 10:10 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0175	0.0436		mg/Kg-dry	1	04/03/13 01:20 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	1.60	0.557	1.11		mg/Kg-dry	5	04/04/13 05:56 AM
Barium	149	0.557	2.23		mg/Kg-dry	5	04/04/13 05:56 AM
Cadmium	0.149	0.111	0.334	J	mg/Kg-dry	5	04/04/13 05:56 AM
Chromium	7.71	0.557	2.23		mg/Kg-dry	5	04/04/13 05:56 AM
Copper	1.62	0.557	2.23	J	mg/Kg-dry	5	04/04/13 05:56 AM
Iron	8110	139	139		mg/Kg-dry	50	04/03/13 04:50 PM
Lead	3.44	0.111	0.334		mg/Kg-dry	5	04/04/13 05:56 AM
Manganese	41.0	0.557	2.23		mg/Kg-dry	5	04/04/13 05:56 AM
Selenium	0.831	0.167	0.557		mg/Kg-dry	5	04/04/13 05:56 AM
Silver	ND	0.111	0.223		mg/Kg-dry	5	04/04/13 05:56 AM
Zinc	13.9	1.11	2.79		mg/Kg-dry	5	04/04/13 05:56 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.0111	0.0296	N	mg/Kg-dry	1	04/02/13 04:16 PM
2-Methylnaphthalene	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
Naphthalene	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
Benzo[a]pyrene	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
2,3,4,6-Tetrachlorophenol	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
2,4,5-Trichlorophenol	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
2,4,6-Trichlorophenol	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
2,4-Dichlorophenol	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
2,4-Dimethylphenol	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
2,4-Dinitrophenol	ND	0.0557	0.147		mg/Kg-dry	1	04/02/13 04:16 PM
2,6-Dichlorophenol	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
2-Chlorophenol	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
2-Methylphenol	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
2-Nitrophenol	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
4,6-Dinitro-2-methylphenol	ND	0.0334	0.0735		mg/Kg-dry	1	04/02/13 04:16 PM
4-Chloro-3-methylphenol	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
4-Methylphenol	ND	0.0223	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
4-Nitrophenol	ND	0.0557	0.147		mg/Kg-dry	1	04/02/13 04:16 PM
Pentachlorophenol	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
Phenol	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
Total Phenol (Calculated)	ND	0.0111	0.0296		mg/Kg-dry	1	04/02/13 04:16 PM
Surr: 2,4,6-Tribromophenol	76.0	0	45-126		%REC	1	04/02/13 04:16 PM
Surr: 2-Fluorobiphenyl	70.0	0	60-125		%REC	1	04/02/13 04:16 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-5 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303261-09

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:10 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
Surr: 2-Fluorophenol	75.0	0	37-125		%REC	1	04/02/13 04:16 PM
Surr: 4-Terphenyl-d14	76.0	0	45-125		%REC	1	04/02/13 04:16 PM
Surr: Nitrobenzene-d5	71.0	0	45-125		%REC	1	04/02/13 04:16 PM
Surr: Phenol-d6	76.0	0	40-125		%REC	1	04/02/13 04:16 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0186	0.0371		mg/Kg-dry	1	04/02/13 08:54 PM
Aroclor 1221	ND	0.0186	0.0371		mg/Kg-dry	1	04/02/13 08:54 PM
Aroclor 1232	ND	0.0186	0.0371		mg/Kg-dry	1	04/02/13 08:54 PM
Aroclor 1242	ND	0.0186	0.0371		mg/Kg-dry	1	04/02/13 08:54 PM
Aroclor 1248	ND	0.0186	0.0371		mg/Kg-dry	1	04/02/13 08:54 PM
Aroclor 1254	ND	0.0186	0.0371		mg/Kg-dry	1	04/02/13 08:54 PM
Aroclor 1260	ND	0.0186	0.0371		mg/Kg-dry	1	04/02/13 08:54 PM
Surr: 2-Fluorobiphenyl	65.2	0	43-125		%REC	1	04/02/13 08:54 PM
Surr: 4-Terphenyl-d14	70.3	0	32-125		%REC	1	04/02/13 08:54 PM
8260 SOIL VOLATILES BY GC/MS		SW82	:60C				Analyst: KL
Benzene	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
Toluene	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
Carbon tetrachloride	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
1,2-Dichloroethane	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
1,1-Dichloroethylene	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
Tetrachloroethylene	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
Trichloroethylene	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
Ethylbenzene	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
Total Xylenes	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
Methylene chloride	ND	0.00562	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
Chloroform	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
1,1-Dichloroethane	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
Ethylene bromide	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
1,1,1-Trichloroethane	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
1,1,2-Trichloroethane	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
1,1,2,2-Tetrachloroethane	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
Vinyl chloride	ND	0.00112	0.00562		mg/Kg-dry	1	03/28/13 03:24 PM
Surr: 1,2-Dichloroethane-d4	105	0	52-149		%REC	1	03/28/13 03:24 PM
Surr: 4-Bromofluorobenzene	98.5	0	84-118		%REC	1	03/28/13 03:24 PM
Surr: Dibromofluoromethane	102	0	65-135		%REC	1	03/28/13 03:24 PM
Surr: Toluene-d8	95.3	0	84-116		%REC	1	03/28/13 03:24 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-5 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303261-09

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:10 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.57	11.1	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.201	0.504		mg/Kg-dry	1	04/02/13 10:24 AM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	251	5.63	5.63		mg/Kg-dry	1	04/02/13 12:41 PM
Fluoride	6.24	1.13	1.13		mg/Kg-dry	1	04/02/13 12:41 PM
Nitrate-N	ND	5.63	5.63		mg/Kg-dry	1	04/02/13 12:41 PM
Sulfate	ND	11.3	11.3		mg/Kg-dry	1	04/02/13 12:41 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK
рН	7.93	0	0		pH Units	1	04/01/13 10:01 AM
PERCENT MOISTURE		D221	16				Analyst: JCG
Percent Moisture	12.9	0	0		WT%	1	04/02/13 08:50 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-5 10-12'

 Project:
 R360 Artesia Landfarm
 Lab ID: 1303261-11

 Project No:
 11-0109-09
 Collection Date: 03/26/13 10:25 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0152	0.0379		mg/Kg-dry	1	04/03/13 01:22 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	2.13	0.471	0.941		mg/Kg-dry	5	04/04/13 06:02 AM
Barium	252	0.471	1.88		mg/Kg-dry	5	04/04/13 06:02 AM
Cadmium	0.113	0.0941	0.282	J	mg/Kg-dry	5	04/04/13 06:02 AM
Chromium	3.44	0.471	1.88		mg/Kg-dry	5	04/04/13 06:02 AM
Copper	1.28	0.471	1.88	J	mg/Kg-dry	5	04/04/13 06:02 AM
Iron	4600	118	118		mg/Kg-dry	50	04/03/13 04:56 PM
Lead	2.38	0.0941	0.282		mg/Kg-dry	5	04/04/13 06:02 AM
Manganese	55.5	0.471	1.88		mg/Kg-dry	5	04/04/13 06:02 AM
Selenium	0.909	0.141	0.471		mg/Kg-dry	5	04/04/13 06:02 AM
Silver	ND	0.0941	0.188		mg/Kg-dry	5	04/04/13 06:02 AM
Zinc	6.93	0.941	2.35		mg/Kg-dry	5	04/04/13 06:02 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.0104	0.0276	N	mg/Kg-dry	1	04/02/13 04:39 PM
2-Methylnaphthalene	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
Naphthalene	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
Benzo[a]pyrene	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
2,3,4,6-Tetrachlorophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
2,4,5-Trichlorophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
2,4,6-Trichlorophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
2,4-Dichlorophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
2,4-Dimethylphenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
2,4-Dinitrophenol	ND	0.0519	0.137		mg/Kg-dry	1	04/02/13 04:39 PM
2,6-Dichlorophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
2-Chlorophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
2-Methylphenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
2-Nitrophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
4,6-Dinitro-2-methylphenol	ND	0.0311	0.0685		mg/Kg-dry	1	04/02/13 04:39 PM
4-Chloro-3-methylphenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
4-Methylphenol	ND	0.0207	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
4-Nitrophenol	ND	0.0519	0.137		mg/Kg-dry	1	04/02/13 04:39 PM
Pentachlorophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
Phenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
Total Phenol (Calculated)	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 04:39 PM
Surr: 2,4,6-Tribromophenol	87.0	0	45-126		%REC	1	04/02/13 04:39 PM
Surr: 2-Fluorobiphenyl	83.0	0	60-125		%REC	1	04/02/13 04:39 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-5 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303261-11

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:25 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D			Analyst: CZ
Surr: 2-Fluorophenol	85.0	0	37-125	%REC	1	04/02/13 04:39 PM
Surr: 4-Terphenyl-d14	90.0	0	45-125	%REC	1	04/02/13 04:39 PM
Surr: Nitrobenzene-d5	81.0	0	45-125	%REC	1	04/02/13 04:39 PM
Surr: Phenol-d6	86.0	0	40-125	%REC	1	04/02/13 04:39 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D			Analyst: AJR
Aroclor 1016	ND	0.0173	0.0346	mg/Kg-dry	1	04/02/13 09:26 PM
Aroclor 1221	ND	0.0173	0.0346	mg/Kg-dry	1	04/02/13 09:26 PM
Aroclor 1232	ND	0.0173	0.0346	mg/Kg-dry	1	04/02/13 09:26 PM
Aroclor 1242	ND	0.0173	0.0346	mg/Kg-dry	1	04/02/13 09:26 PM
Aroclor 1248	ND	0.0173	0.0346	mg/Kg-dry	1	04/02/13 09:26 PM
Aroclor 1254	ND	0.0173	0.0346	mg/Kg-dry	1	04/02/13 09:26 PM
Aroclor 1260	ND	0.0173	0.0346	mg/Kg-dry	1	04/02/13 09:26 PM
Surr: 2-Fluorobiphenyl	73.9	0	43-125	%REC	1	04/02/13 09:26 PM
Surr: 4-Terphenyl-d14	80.1	0	32-125	%REC	1	04/02/13 09:26 PM
8260 SOIL VOLATILES BY GC/MS		SW82	60C			Analyst: KL
Benzene	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
Toluene	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
Carbon tetrachloride	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
1,2-Dichloroethane	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
1,1-Dichloroethylene	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
Tetrachloroethylene	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
Trichloroethylene	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
Ethylbenzene	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
Total Xylenes	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
Methylene chloride	ND	0.00524	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
Chloroform	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
1,1-Dichloroethane	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
Ethylene bromide	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
1,1,1-Trichloroethane	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
1,1,2-Trichloroethane	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
1,1,2,2-Tetrachloroethane	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
Vinyl chloride	ND	0.00105	0.00524	mg/Kg-dry	1	03/28/13 03:55 PM
Surr: 1,2-Dichloroethane-d4	108	0	52-149	%REC	1	03/28/13 03:55 PM
Surr: 4-Bromofluorobenzene	98.1	0	84-118	%REC	1	03/28/13 03:55 PM
Surr: Dibromofluoromethane	104	0	65-135	%REC	1	03/28/13 03:55 PM
Surr: Toluene-d8	93.8	0	84-116	%REC	1	03/28/13 03:55 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-5 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303261-11

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:25 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.34	10.7	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.196	0.490		mg/Kg-dry	1	04/02/13 10:26 AM
ANIONS BY IC METHOD - SOIL		E300	0				Analyst: JBC
Chloride	18.0	5.40	5.40		mg/Kg-dry	1	04/02/13 12:56 PM
Fluoride	6.92	1.08	1.08		mg/Kg-dry	1	04/02/13 12:56 PM
Nitrate-N	ND	5.40	5.40		mg/Kg-dry	1	04/02/13 12:56 PM
Sulfate	16.1	10.8	10.8		mg/Kg-dry	1	04/02/13 12:56 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK
pH	8.41	0	0		pH Units	1	04/01/13 10:01 AM
PERCENT MOISTURE		D221	6				Analyst: JCG
Percent Moisture	8.41	0	0		WT%	1	04/02/13 08:50 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-2 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303261-13

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:55 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0144	0.0359		mg/Kg-dry	1	04/03/13 01:24 PM
TRACE METALS: ICP-MS - SOLID		SW60:	20A				Analyst: SW
Arsenic	1.36	0.481	0.962		mg/Kg-dry	5	04/04/13 06:08 AM
Barium	21.3	0.481	1.92		mg/Kg-dry	5	04/04/13 06:08 AM
Cadmium	0.0972	0.0962	0.289	J	mg/Kg-dry	5	04/04/13 06:08 AM
Chromium	5.14	0.481	1.92		mg/Kg-dry	5	04/04/13 06:08 AM
Copper	1.37	0.481	1.92	J	mg/Kg-dry	5	04/04/13 06:08 AM
Iron	5720	120	120		mg/Kg-dry	50	04/03/13 05:02 PM
Lead	2.71	0.0962	0.289		mg/Kg-dry	5	04/04/13 06:08 AM
Manganese	46.7	0.481	1.92		mg/Kg-dry	5	04/04/13 06:08 AM
Selenium	0.745	0.144	0.481		mg/Kg-dry	5	04/04/13 06:08 AM
Silver	ND	0.0962	0.192		mg/Kg-dry	5	04/04/13 06:08 AM
Zinc	10.3	0.962	2.41		mg/Kg-dry	5	04/04/13 06:08 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.00971	0.0258	N	mg/Kg-dry	1	04/02/13 05:02 PM
2-Methylnaphthalene	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
Naphthalene	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
Benzo[a]pyrene	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
2,3,4,6-Tetrachlorophenol	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
2,4,5-Trichlorophenol	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
2,4,6-Trichlorophenol	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
2,4-Dichlorophenol	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
2,4-Dimethylphenol	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
2,4-Dinitrophenol	ND	0.0485	0.128		mg/Kg-dry	1	04/02/13 05:02 PM
2,6-Dichlorophenol	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
2-Chlorophenol	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
2-Methylphenol	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
2-Nitrophenol	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
4,6-Dinitro-2-methylphenol	ND	0.0291	0.0641		mg/Kg-dry	1	04/02/13 05:02 PM
4-Chloro-3-methylphenol	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
4-Methylphenol	ND	0.0194	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
4-Nitrophenol	ND	0.0485	0.128		mg/Kg-dry	1	04/02/13 05:02 PM
Pentachlorophenol	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
Phenol	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
Total Phenol (Calculated)	ND	0.00971	0.0258		mg/Kg-dry	1	04/02/13 05:02 PM
Surr: 2,4,6-Tribromophenol	89.0	0	45-126		%REC	1	04/02/13 05:02 PM
Surr: 2-Fluorobiphenyl	87.0	0	60-125		%REC	1	04/02/13 05:02 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-2 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303261-13

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:55 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
Surr: 2-Fluorophenol	88.0	0	37-125		%REC	1	04/02/13 05:02 PM
Surr: 4-Terphenyl-d14	91.0	0	45-125		%REC	1	04/02/13 05:02 PM
Surr: Nitrobenzene-d5	83.0	0	45-125		%REC	1	04/02/13 05:02 PM
Surr: Phenol-d6	90.0	0	40-125		%REC	1	04/02/13 05:02 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0162	0.0324		mg/Kg-dry	1	04/02/13 09:57 PM
Aroclor 1221	ND	0.0162	0.0324		mg/Kg-dry	1	04/02/13 09:57 PM
Aroclor 1232	ND	0.0162	0.0324		mg/Kg-dry	1	04/02/13 09:57 PM
Aroclor 1242	ND	0.0162	0.0324		mg/Kg-dry	1	04/02/13 09:57 PM
Aroclor 1248	ND	0.0162	0.0324		mg/Kg-dry	1	04/02/13 09:57 PM
Aroclor 1254	ND	0.0162	0.0324		mg/Kg-dry	1	04/02/13 09:57 PM
Aroclor 1260	ND	0.0162	0.0324		mg/Kg-dry	1	04/02/13 09:57 PM
Surr: 2-Fluorobiphenyl	81.1	0	43-125		%REC	1	04/02/13 09:57 PM
Surr: 4-Terphenyl-d14	86.4	0	32-125		%REC	1	04/02/13 09:57 PM
8260 SOIL VOLATILES BY GC/MS		SW82	:60C				Analyst: KL
Benzene	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
Toluene	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
Carbon tetrachloride	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
1,2-Dichloroethane	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
1,1-Dichloroethylene	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
Tetrachloroethylene	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
Trichloroethylene	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
Ethylbenzene	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
Total Xylenes	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
Methylene chloride	ND	0.00456	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
Chloroform	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
1,1-Dichloroethane	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
Ethylene bromide	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
1,1,1-Trichloroethane	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
1,1,2-Trichloroethane	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
1,1,2,2-Tetrachloroethane	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
Vinyl chloride	ND	0.000912	0.00456		mg/Kg-dry	1	03/28/13 04:26 PM
Surr: 1,2-Dichloroethane-d4	105	0	52-149		%REC	1	03/28/13 04:26 PM
Surr: 4-Bromofluorobenzene	96.7	0	84-118		%REC	1	03/28/13 04:26 PM
Surr: Dibromofluoromethane	104	0	65-135		%REC	1	03/28/13 04:26 PM
Surr: Toluene-d8	95.5	0	84-116		%REC	1	03/28/13 04:26 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-2 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303261-13

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:55 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.00	10.0	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.169	0.423		mg/Kg-dry	1	04/02/13 10:26 AM
ANIONS BY IC METHOD - SOIL		E300	0				Analyst: JBC
Chloride	80.3	5.03	5.03		mg/Kg-dry	1	04/02/13 01:11 PM
Fluoride	1.13	1.01	1.01		mg/Kg-dry	1	04/02/13 01:11 PM
Nitrate-N	ND	5.03	5.03		mg/Kg-dry	1	04/02/13 01:11 PM
Sulfate	122	10.1	10.1		mg/Kg-dry	1	04/02/13 01:11 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK
pH	7.75	0	0		pH Units	1	04/01/13 10:01 AM
PERCENT MOISTURE		D221	6				Analyst: JCG
Percent Moisture	1.94	0	0		WT%	1	04/02/13 08:50 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-2 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303261-14

Project No: 11-0109-09 **Collection Date:** 03/26/13 11:10 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0156	0.0389		mg/Kg-dry	1	04/03/13 01:30 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	1.58	0.514	1.03		mg/Kg-dry	5	04/04/13 06:14 AM
Barium	50.0	0.514	2.06		mg/Kg-dry	5	04/04/13 06:14 AM
Cadmium	0.151	0.103	0.308	J	mg/Kg-dry	5	04/04/13 06:14 AM
Chromium	7.27	0.514	2.06		mg/Kg-dry	5	04/04/13 06:14 AM
Copper	1.68	0.514	2.06	J	mg/Kg-dry	5	04/04/13 06:14 AM
Iron	7580	128	128		mg/Kg-dry	50	04/03/13 05:08 PM
Lead	3.52	0.103	0.308		mg/Kg-dry	5	04/04/13 06:14 AM
Manganese	41.9	0.514	2.06		mg/Kg-dry	5	04/04/13 06:14 AM
Selenium	1.28	0.154	0.514		mg/Kg-dry	5	04/04/13 06:14 AM
Silver	ND	0.103	0.206		mg/Kg-dry	5	04/04/13 06:14 AM
Zinc	12.8	1.03	2.57		mg/Kg-dry	5	04/04/13 06:14 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.0102	0.0272	N	mg/Kg-dry	1	04/02/13 05:26 PM
2-Methylnaphthalene	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
Naphthalene	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
Benzo[a]pyrene	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
2,3,4,6-Tetrachlorophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
2,4,5-Trichlorophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
2,4,6-Trichlorophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
2,4-Dichlorophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
2,4-Dimethylphenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
2,4-Dinitrophenol	ND	0.0511	0.135		mg/Kg-dry	1	04/02/13 05:26 PM
2,6-Dichlorophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
2-Chlorophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
2-Methylphenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
2-Nitrophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
4,6-Dinitro-2-methylphenol	ND	0.0306	0.0674		mg/Kg-dry	1	04/02/13 05:26 PM
4-Chloro-3-methylphenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
4-Methylphenol	ND	0.0204	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
4-Nitrophenol	ND	0.0511	0.135		mg/Kg-dry	1	04/02/13 05:26 PM
Pentachlorophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
Phenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
Total Phenol (Calculated)	ND	0.0102	0.0272		mg/Kg-dry	1	04/02/13 05:26 PM
Surr: 2,4,6-Tribromophenol	86.0	0	45-126		%REC	1	04/02/13 05:26 PM
Surr: 2-Fluorobiphenyl	83.0	0	60-125		%REC	1	04/02/13 05:26 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-2 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303261-14

Project No: 11-0109-09 **Collection Date:** 03/26/13 11:10 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82		Analyst: CZ			
Surr: 2-Fluorophenol	82.0	0	37-125		%REC	1	04/02/13 05:26 PM
Surr: 4-Terphenyl-d14	86.0	0	45-125		%REC	1	04/02/13 05:26 PM
Surr: Nitrobenzene-d5	77.0	0	45-125		%REC	1	04/02/13 05:26 PM
Surr: Phenol-d6	85.0	0	40-125		%REC	1	04/02/13 05:26 PM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0170	0.0340		mg/Kg-dry	1	04/02/13 10:28 PM
Aroclor 1221	ND	0.0170	0.0340		mg/Kg-dry	1	04/02/13 10:28 PM
Aroclor 1232	ND	0.0170	0.0340		mg/Kg-dry	1	04/02/13 10:28 PM
Aroclor 1242	ND	0.0170	0.0340		mg/Kg-dry	1	04/02/13 10:28 PM
Aroclor 1248	ND	0.0170	0.0340		mg/Kg-dry	1	04/02/13 10:28 PM
Aroclor 1254	ND	0.0170	0.0340		mg/Kg-dry	1	04/02/13 10:28 PM
Aroclor 1260	ND	0.0170	0.0340		mg/Kg-dry	1	04/02/13 10:28 PM
Surr: 2-Fluorobiphenyl	80.1	0	43-125		%REC	1	04/02/13 10:28 PM
Surr: 4-Terphenyl-d14	87.0	0	32-125		%REC	1	04/02/13 10:28 PM
8260 SOIL VOLATILES BY GC/MS	SW8260C						Analyst: KL
Benzene	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
Toluene	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
Carbon tetrachloride	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
1,2-Dichloroethane	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
1,1-Dichloroethylene	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
Tetrachloroethylene	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
Trichloroethylene	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
Ethylbenzene	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
Total Xylenes	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
Methylene chloride	ND	0.00483	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
Chloroform	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
1,1-Dichloroethane	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
Ethylene bromide	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
1,1,1-Trichloroethane	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
1,1,2-Trichloroethane	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
1,1,2,2-Tetrachloroethane	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
Vinyl chloride	ND	0.000967	0.00483		mg/Kg-dry	1	03/28/13 04:58 PM
Surr: 1,2-Dichloroethane-d4	107	0	52-149		%REC	1	03/28/13 04:58 PM
Surr: 4-Bromofluorobenzene	96.8	0	84-118		%REC	1	03/28/13 04:58 PM
Surr: Dibromofluoromethane	103	0	65-135		%REC	1	03/28/13 04:58 PM
Surr: Toluene-d8	95.6	0	84-116		%REC	1	03/28/13 04:58 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-2 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303261-14

Project No: 11-0109-09 **Collection Date:** 03/26/13 11:10 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418		Analyst: JAW			
Petroleum Hydrocarbons, TR	ND	5.22	10.4	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.188	0.471		mg/Kg-dry	1	04/02/13 10:26 AM
ANIONS BY IC METHOD - SOIL		E300		Analyst: JBC			
Chloride	44.5	5.30	5.30		mg/Kg-dry	1	04/02/13 01:25 PM
Fluoride	1.72	1.06	1.06		mg/Kg-dry	1	04/02/13 01:25 PM
Nitrate-N	ND	5.30	5.30		mg/Kg-dry	1	04/02/13 01:25 PM
Sulfate	ND	10.6	10.6		mg/Kg-dry	1	04/02/13 01:25 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK
pH	7.80	0	0		pH Units	1	04/01/13 10:01 AM
PERCENT MOISTURE		D221	6				Analyst: JCG
Percent Moisture	6.45	0	0		WT%	1	04/02/13 08:50 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-2 7-8.5'

Project: R360 Artesia Landfarm **Lab ID:** 1303261-15 **Project No:** 11-0109-09 **Collection Date:** 03/26/13 11:10 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0158	0.0396		mg/Kg-dry	1	04/03/13 01:32 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	2.77	0.570	1.14		mg/Kg-dry	5	04/04/13 07:22 AM
Barium	51.2	0.570	2.28		mg/Kg-dry	5	04/04/13 07:22 AM
Cadmium	0.133	0.114	0.342	J	mg/Kg-dry	5	04/04/13 07:22 AM
Chromium	10.3	0.570	2.28		mg/Kg-dry	5	04/04/13 07:22 AM
Copper	2.58	0.570	2.28		mg/Kg-dry	5	04/04/13 07:22 AM
Iron	11200	142	142		mg/Kg-dry	50	04/03/13 07:23 PM
Lead	5.04	0.114	0.342		mg/Kg-dry	5	04/04/13 07:22 AM
Manganese	62.3	0.570	2.28		mg/Kg-dry	5	04/04/13 07:22 AM
Selenium	1.65	0.171	0.570		mg/Kg-dry	5	04/04/13 07:22 AM
Silver	ND	0.114	0.228		mg/Kg-dry	5	04/04/13 07:22 AM
Zinc	20.5	1.14	2.85		mg/Kg-dry	5	04/04/13 07:22 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.0113	0.0301	N	mg/Kg-dry	1	04/02/13 05:49 PM
2-Methylnaphthalene	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
Naphthalene	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
Benzo[a]pyrene	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
2,3,4,6-Tetrachlorophenol	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
2,4,5-Trichlorophenol	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
2,4,6-Trichlorophenol	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
2,4-Dichlorophenol	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
2,4-Dimethylphenol	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
2,4-Dinitrophenol	ND	0.0566	0.149		mg/Kg-dry	1	04/02/13 05:49 PM
2,6-Dichlorophenol	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
2-Chlorophenol	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
2-Methylphenol	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
2-Nitrophenol	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
4,6-Dinitro-2-methylphenol	ND	0.0339	0.0747		mg/Kg-dry	1	04/02/13 05:49 PM
4-Chloro-3-methylphenol	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
4-Methylphenol	ND	0.0226	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
4-Nitrophenol	ND	0.0566	0.149		mg/Kg-dry	1	04/02/13 05:49 PM
Pentachlorophenol	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
Phenol	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
Total Phenol (Calculated)	ND	0.0113	0.0301		mg/Kg-dry	1	04/02/13 05:49 PM
Surr: 2,4,6-Tribromophenol	89.0	0	45-126		%REC	1	04/02/13 05:49 PM
Surr: 2-Fluorobiphenyl	85.0	0	60-125		%REC	1	04/02/13 05:49 PM

Qualifiers:

- Value exceeds TCLP Maximum Concentration Level
- \mathbf{C} Sample Result or QC discussed in the Case Narrative
- Е TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- Reporting Limit
- Parameter not NELAC certified

В Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- Not Detected at the Method Detection Limit ND
- Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-2 7-8.5'

Project: R360 Artesia Landfarm Lab ID: 1303261-15

Project No: 11-0109-09 **Collection Date:** 03/26/13 11:10 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: CZ
Surr: 2-Fluorophenol	86.0	0	37-125		%REC	1	04/02/13 05:49 PM
Surr: 4-Terphenyl-d14	89.0	0	45-125		%REC	1	04/02/13 05:49 PM
Surr: Nitrobenzene-d5	81.0	0	45-125		%REC	1	04/02/13 05:49 PM
Surr: Phenol-d6	87.0	0	40-125		%REC	1	04/02/13 05:49 PM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0189	0.0377		mg/Kg-dry	1	04/02/13 10:59 PM
Aroclor 1221	ND	0.0189	0.0377		mg/Kg-dry	1	04/02/13 10:59 PM
Aroclor 1232	ND	0.0189	0.0377		mg/Kg-dry	1	04/02/13 10:59 PM
Aroclor 1242	ND	0.0189	0.0377		mg/Kg-dry	1	04/02/13 10:59 PM
Aroclor 1248	ND	0.0189	0.0377		mg/Kg-dry	1	04/02/13 10:59 PM
Aroclor 1254	ND	0.0189	0.0377		mg/Kg-dry	1	04/02/13 10:59 PM
Aroclor 1260	ND	0.0189	0.0377		mg/Kg-dry	1	04/02/13 10:59 PM
Surr: 2-Fluorobiphenyl	77.5	0	43-125		%REC	1	04/02/13 10:59 PM
Surr: 4-Terphenyl-d14	84.4	0	32-125		%REC	1	04/02/13 10:59 PM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
Toluene	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
Carbon tetrachloride	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
1,2-Dichloroethane	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
1,1-Dichloroethylene	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
Tetrachloroethylene	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
Trichloroethylene	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
Ethylbenzene	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
Total Xylenes	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
Methylene chloride	ND	0.00559	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
Chloroform	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
1,1-Dichloroethane	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
Ethylene bromide	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
1,1,1-Trichloroethane	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
1,1,2-Trichloroethane	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
1,1,2,2-Tetrachloroethane	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
Vinyl chloride	ND	0.00112	0.00559		mg/Kg-dry	1	03/28/13 05:29 PM
Surr: 1,2-Dichloroethane-d4	116	0	52-149		%REC	1	03/28/13 05:29 PM
Surr: 4-Bromofluorobenzene	96.3	0	84-118		%REC	1	03/28/13 05:29 PM
Surr: Dibromofluoromethane	105	0	65-135		%REC	1	03/28/13 05:29 PM
Surr: Toluene-d8	94.3	0	84-116		%REC	1	03/28/13 05:29 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-2 7-8.5'

Project: R360 Artesia Landfarm Lab ID: 1303261-15

Project No: 11-0109-09 **Collection Date:** 03/26/13 11:10 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418		Analyst: JAW			
Petroleum Hydrocarbons, TR	ND	5.79	11.6	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.211	0.528		mg/Kg-dry	1	04/02/13 10:26 AM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	7.06	5.77	5.77		mg/Kg-dry	1	04/02/13 01:40 PM
Fluoride	2.91	1.15	1.15		mg/Kg-dry	1	04/02/13 01:40 PM
Nitrate-N	ND	5.77	5.77		mg/Kg-dry	1	04/02/13 01:40 PM
Sulfate	ND	11.5	11.5		mg/Kg-dry	1	04/02/13 01:40 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK
pH	7.86	0	0		pH Units	1	04/01/13 10:01 AM
PERCENT MOISTURE		D221	16				Analyst: JCG
Percent Moisture	14.0	0	0		WT%	1	04/02/13 08:50 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-2 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303261-16

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:23 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0189	0.0473		mg/Kg-dry	1	04/03/13 01:34 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	2.45	0.607	1.21		mg/Kg-dry	5	04/04/13 07:28 AM
Barium	48.9	0.607	2.43		mg/Kg-dry	5	04/04/13 07:28 AM
Cadmium	ND	0.121	0.364		mg/Kg-dry	5	04/04/13 07:28 AM
Chromium	12.5	0.607	2.43		mg/Kg-dry	5	04/04/13 07:28 AM
Copper	3.82	0.607	2.43		mg/Kg-dry	5	04/04/13 07:28 AM
Iron	13600	152	152		mg/Kg-dry	50	04/03/13 07:29 PM
Lead	5.98	0.121	0.364		mg/Kg-dry	5	04/04/13 07:28 AM
Manganese	73.3	0.607	2.43		mg/Kg-dry	5	04/04/13 07:28 AM
Selenium	0.932	0.182	0.607		mg/Kg-dry	5	04/04/13 07:28 AM
Silver	ND	0.121	0.243		mg/Kg-dry	5	04/04/13 07:28 AM
Zinc	22.4	1.21	3.04		mg/Kg-dry	5	04/04/13 07:28 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.0122	0.0325	N	mg/Kg-dry	1	04/02/13 06:12 PM
2-Methylnaphthalene	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
Naphthalene	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
Benzo[a]pyrene	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
2,3,4,6-Tetrachlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
2,4,5-Trichlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
2,4,6-Trichlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
2,4-Dichlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
2,4-Dimethylphenol	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
2,4-Dinitrophenol	ND	0.0610	0.161		mg/Kg-dry	1	04/02/13 06:12 PM
2,6-Dichlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
2-Chlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
2-Methylphenol	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
2-Nitrophenol	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
4,6-Dinitro-2-methylphenol	ND	0.0366	0.0805		mg/Kg-dry	1	04/02/13 06:12 PM
4-Chloro-3-methylphenol	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
4-Methylphenol	ND	0.0244	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
4-Nitrophenol	ND	0.0610	0.161		mg/Kg-dry	1	04/02/13 06:12 PM
Pentachlorophenol	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
Phenol	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
Total Phenol (Calculated)	ND	0.0122	0.0325		mg/Kg-dry	1	04/02/13 06:12 PM
Surr: 2,4,6-Tribromophenol	82.0	0	45-126		%REC	1	04/02/13 06:12 PM
Surr: 2-Fluorobiphenyl	79.0	0	60-125		%REC	1	04/02/13 06:12 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-2 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303261-16

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:23 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL	SW8270D						Analyst: CZ
Surr: 2-Fluorophenol	81.0	0	37-125		%REC	1	04/02/13 06:12 PM
Surr: 4-Terphenyl-d14	81.0	0	45-125		%REC	1	04/02/13 06:12 PM
Surr: Nitrobenzene-d5	76.0	0	45-125		%REC	1	04/02/13 06:12 PM
Surr: Phenol-d6	81.0	0	40-125		%REC	1	04/02/13 06:12 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0203	0.0407		mg/Kg-dry	1	04/02/13 11:30 PM
Aroclor 1221	ND	0.0203	0.0407		mg/Kg-dry	1	04/02/13 11:30 PM
Aroclor 1232	ND	0.0203	0.0407		mg/Kg-dry	1	04/02/13 11:30 PM
Aroclor 1242	ND	0.0203	0.0407		mg/Kg-dry	1	04/02/13 11:30 PM
Aroclor 1248	ND	0.0203	0.0407		mg/Kg-dry	1	04/02/13 11:30 PM
Aroclor 1254	ND	0.0203	0.0407		mg/Kg-dry	1	04/02/13 11:30 PM
Aroclor 1260	ND	0.0203	0.0407		mg/Kg-dry	1	04/02/13 11:30 PM
Surr: 2-Fluorobiphenyl	72.2	0	43-125		%REC	1	04/02/13 11:30 PM
Surr: 4-Terphenyl-d14	80.3	0	32-125		%REC	1	04/02/13 11:30 PM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
Toluene	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
Carbon tetrachloride	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
1,2-Dichloroethane	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
1,1-Dichloroethylene	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
Tetrachloroethylene	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
Trichloroethylene	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
Ethylbenzene	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
Total Xylenes	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
Methylene chloride	ND	0.00606	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
Chloroform	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
1,1-Dichloroethane	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
Ethylene bromide	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
1,1,1-Trichloroethane	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
1,1,2-Trichloroethane	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
1,1,2,2-Tetrachloroethane	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
Vinyl chloride	ND	0.00121	0.00606		mg/Kg-dry	1	03/28/13 06:01 PM
Surr: 1,2-Dichloroethane-d4	108	0	52-149		%REC	1	03/28/13 06:01 PM
Surr: 4-Bromofluorobenzene	98.1	0	84-118		%REC	1	03/28/13 06:01 PM
Surr: Dibromofluoromethane	102	0	65-135		%REC	1	03/28/13 06:01 PM
Surr: Toluene-d8	95.7	0	84-116		%REC	1	03/28/13 06:01 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-2 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303261-16

Project No: 11-0109-09 **Collection Date:** 03/26/13 10:23 AM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418		Analyst: JAW			
Petroleum Hydrocarbons, TR	ND	6.09	12.2	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90		Analyst: JCG			
Cyanide, Total	ND	0.194	0.485		mg/Kg-dry	1	04/02/13 10:26 AM
ANIONS BY IC METHOD - SOIL		E30		Analyst: JBC			
Chloride	ND	6.29	6.29		mg/Kg-dry	1	04/02/13 01:55 PM
Fluoride	2.93	1.26	1.26		mg/Kg-dry	1	04/02/13 01:55 PM
Nitrate-N	ND	6.29	6.29		mg/Kg-dry	1	04/02/13 01:55 PM
Sulfate	ND	12.6	12.6		mg/Kg-dry	1	04/02/13 01:55 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK
рН	7.86	0	0		pH Units	1	04/01/13 10:01 AM
PERCENT MOISTURE		D2216					Analyst: JCG
Percent Moisture	21.6	0	0		WT%	1	04/02/13 08:50 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
 - ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-3 2-3'

 Project:
 R360 Artesia Landfarm
 Lab ID: 1303261-18

 Project No:
 11-0109-09
 Collection Date: 03/26/13 12:05 PM

Lab Order: 1303261 Matrix: SOIL

Lab Order: 1303261	Matrix: SOIL									
Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed			
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM			
Mercury	ND	0.00826	0.0207		mg/Kg-dry	1	04/03/13 01:37 PM			
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW			
Arsenic	1.05	0.258	0.517		mg/Kg-dry	5	04/04/13 07:34 AM			
Barium	15.8	0.258	1.03		mg/Kg-dry	5	04/04/13 07:34 AM			
Cadmium	0.0917	0.0517	0.155	J	mg/Kg-dry	5	04/04/13 07:34 AM			
Chromium	3.55	0.258	1.03		mg/Kg-dry	5	04/04/13 07:34 AM			
Copper	1.16	0.258	1.03		mg/Kg-dry	5	04/04/13 07:34 AM			
Iron	4050	64.6	64.6		mg/Kg-dry	50	04/03/13 07:35 PM			
Lead	1.93	0.0517	0.155		mg/Kg-dry	5	04/04/13 07:34 AM			
Manganese	35.7	0.258	1.03		mg/Kg-dry	5	04/04/13 07:34 AM			
Selenium	0.540	0.0775	0.258		mg/Kg-dry	5	04/04/13 07:34 AM			
Silver	ND	0.0517	0.103		mg/Kg-dry	5	04/04/13 07:34 AM			
Zinc	6.71	0.517	1.29		mg/Kg-dry	5	04/04/13 07:34 AM			
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ			
1-Methylnaphthalene	ND	0.0106	0.0281	N	mg/Kg-dry	1	04/02/13 06:35 PM			
2-Methylnaphthalene	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
Naphthalene	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
Benzo[a]pyrene	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
2,3,4,6-Tetrachlorophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
2,4,5-Trichlorophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
2,4,6-Trichlorophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
2,4-Dichlorophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
2,4-Dimethylphenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
2,4-Dinitrophenol	ND	0.0529	0.140		mg/Kg-dry	1	04/02/13 06:35 PM			
2,6-Dichlorophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
2-Chlorophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
2-Methylphenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
2-Nitrophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
4,6-Dinitro-2-methylphenol	ND	0.0317	0.0698		mg/Kg-dry	1	04/02/13 06:35 PM			
4-Chloro-3-methylphenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
4-Methylphenol	ND	0.0211	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
4-Nitrophenol	ND	0.0529	0.140		mg/Kg-dry	1	04/02/13 06:35 PM			
Pentachlorophenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
Phenol	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
Total Phenol (Calculated)	ND	0.0106	0.0281		mg/Kg-dry	1	04/02/13 06:35 PM			
Surr: 2,4,6-Tribromophenol	84.0	0	45-126		%REC	1	04/02/13 06:35 PM			
Surr: 2-Fluorobiphenyl	81.0	0	60-125		%REC	1	04/02/13 06:35 PM			

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-3 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303261-18

Project No: 11-0109-09 **Collection Date:** 03/26/13 12:05 PM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82		Analyst: CZ			
Surr: 2-Fluorophenol	83.0	0	37-125		%REC	1	04/02/13 06:35 PM
Surr: 4-Terphenyl-d14	84.0	0	45-125		%REC	1	04/02/13 06:35 PM
Surr: Nitrobenzene-d5	78.0	0	45-125		%REC	1	04/02/13 06:35 PM
Surr: Phenol-d6	84.0	0	40-125		%REC	1	04/02/13 06:35 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0176	0.0352		mg/Kg-dry	1	04/03/13 12:01 AM
Aroclor 1221	ND	0.0176	0.0352		mg/Kg-dry	1	04/03/13 12:01 AM
Aroclor 1232	ND	0.0176	0.0352		mg/Kg-dry	1	04/03/13 12:01 AM
Aroclor 1242	ND	0.0176	0.0352		mg/Kg-dry	1	04/03/13 12:01 AM
Aroclor 1248	ND	0.0176	0.0352		mg/Kg-dry	1	04/03/13 12:01 AM
Aroclor 1254	ND	0.0176	0.0352		mg/Kg-dry	1	04/03/13 12:01 AM
Aroclor 1260	ND	0.0176	0.0352		mg/Kg-dry	1	04/03/13 12:01 AM
Surr: 2-Fluorobiphenyl	74.7	0	43-125		%REC	1	04/03/13 12:01 AM
Surr: 4-Terphenyl-d14	78.7	0	32-125		%REC	1	04/03/13 12:01 AM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
Toluene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
Carbon tetrachloride	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
1,2-Dichloroethane	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
1,1-Dichloroethylene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
Tetrachloroethylene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
Trichloroethylene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
Ethylbenzene	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
Total Xylenes	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
Methylene chloride	ND	0.00514	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
Chloroform	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
1,1-Dichloroethane	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
Ethylene bromide	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
1,1,1-Trichloroethane	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
1,1,2-Trichloroethane	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
1,1,2,2-Tetrachloroethane	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
Vinyl chloride	ND	0.00103	0.00514		mg/Kg-dry	1	03/28/13 06:32 PM
Surr: 1,2-Dichloroethane-d4	108	0	52-149		%REC	1	03/28/13 06:32 PM
Surr: 4-Bromofluorobenzene	98.6	0	84-118		%REC	1	03/28/13 06:32 PM
Surr: Dibromofluoromethane	104	0	65-135		%REC	1	03/28/13 06:32 PM
Surr: Toluene-d8	97.5	0	84-116		%REC	1	03/28/13 06:32 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-3 2-3'

Project: R360 Artesia Landfarm Lab ID: 1303261-18

Project No: 11-0109-09 **Collection Date:** 03/26/13 12:05 PM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed		
TRPH		E418		Analyst: JAW					
Petroleum Hydrocarbons, TR	ND	5.13	10.3	N	mg/Kg-dry	1	04/02/13 04:30 PM		
CYANIDE - SOLID SAMPLE	SW9014						Analyst: JCG		
Cyanide, Total	ND	0.206	0.514		mg/Kg-dry	1	04/02/13 10:26 AM		
ANIONS BY IC METHOD - SOIL	E300						Analyst: JBC		
Chloride	386	52.6	52.6		mg/Kg-dry	10	04/02/13 03:59 PM		
Fluoride	2.18	1.05	1.05		mg/Kg-dry	1	04/02/13 02:10 PM		
Nitrate-N	8.45	5.26	5.26		mg/Kg-dry	1	04/02/13 02:10 PM		
Sulfate	163	10.5	10.5		mg/Kg-dry	1	04/02/13 02:10 PM		
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK		
рН	8.61	0	0		pH Units	1	04/01/13 10:01 AM		
PERCENT MOISTURE		D221	6				Analyst: JCG		
Percent Moisture	5.62	0	0		WT%	1	04/02/13 08:50 AM		

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-3 5-7'
Project: R360 Artesia Landfarm Lab ID: 1303261-19

Project No: 11-0109-09 **Collection Date:** 03/26/13 12:15 PM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0150	0.0375		mg/Kg-dry	1	04/03/13 01:39 PM
TRACE METALS: ICP-MS - SOLID		SW60:	20A				Analyst: SW
Arsenic	2.04	0.466	0.932		mg/Kg-dry	5	04/04/13 07:40 AM
Barium	87.8	0.466	1.86		mg/Kg-dry	5	04/04/13 07:40 AM
Cadmium	0.207	0.0932	0.280	J	mg/Kg-dry	5	04/04/13 07:40 AM
Chromium	7.63	0.466	1.86		mg/Kg-dry	5	04/04/13 07:40 AM
Copper	3.31	0.466	1.86		mg/Kg-dry	5	04/04/13 07:40 AM
Iron	8150	117	117		mg/Kg-dry	50	04/03/13 07:41 PM
Lead	4.16	0.0932	0.280		mg/Kg-dry	5	04/04/13 07:40 AM
Manganese	98.2	0.466	1.86		mg/Kg-dry	5	04/04/13 07:40 AM
Selenium	1.21	0.140	0.466		mg/Kg-dry	5	04/04/13 07:40 AM
Silver	ND	0.0932	0.186		mg/Kg-dry	5	04/04/13 07:40 AM
Zinc	15.5	0.932	2.33		mg/Kg-dry	5	04/04/13 07:40 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.0106	0.0282	N	mg/Kg-dry	1	04/02/13 07:44 PM
2-Methylnaphthalene	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
Naphthalene	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
Benzo[a]pyrene	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
2,3,4,6-Tetrachlorophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
2,4,5-Trichlorophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
2,4,6-Trichlorophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
2,4-Dichlorophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
2,4-Dimethylphenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
2,4-Dinitrophenol	ND	0.0531	0.140		mg/Kg-dry	1	04/02/13 07:44 PM
2,6-Dichlorophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
2-Chlorophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
2-Methylphenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
2-Nitrophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
4,6-Dinitro-2-methylphenol	ND	0.0318	0.0701		mg/Kg-dry	1	04/02/13 07:44 PM
4-Chloro-3-methylphenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
4-Methylphenol	ND	0.0212	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
4-Nitrophenol	ND	0.0531	0.140		mg/Kg-dry	1	04/02/13 07:44 PM
Pentachlorophenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
Phenol	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
Total Phenol (Calculated)	ND	0.0106	0.0282		mg/Kg-dry	1	04/02/13 07:44 PM
Surr: 2,4,6-Tribromophenol	88.0	0	45-126		%REC	1	04/02/13 07:44 PM
Surr: 2-Fluorobiphenyl	82.0	0	60-125		%REC	1	04/02/13 07:44 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-3 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303261-19

Project No: 11-0109-09 **Collection Date:** 03/26/13 12:15 PM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
Surr: 2-Fluorophenol	81.0	0	37-125		%REC	1	04/02/13 07:44 PM
Surr: 4-Terphenyl-d14	89.0	0	45-125		%REC	1	04/02/13 07:44 PM
Surr: Nitrobenzene-d5	76.0	0	45-125		%REC	1	04/02/13 07:44 PM
Surr: Phenol-d6	84.0	0	40-125		%REC	1	04/02/13 07:44 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0177	0.0354		mg/Kg-dry	1	04/03/13 12:32 AM
Aroclor 1221	ND	0.0177	0.0354		mg/Kg-dry	1	04/03/13 12:32 AM
Aroclor 1232	ND	0.0177	0.0354		mg/Kg-dry	1	04/03/13 12:32 AM
Aroclor 1242	ND	0.0177	0.0354		mg/Kg-dry	1	04/03/13 12:32 AM
Aroclor 1248	ND	0.0177	0.0354		mg/Kg-dry	1	04/03/13 12:32 AM
Aroclor 1254	ND	0.0177	0.0354		mg/Kg-dry	1	04/03/13 12:32 AM
Aroclor 1260	ND	0.0177	0.0354		mg/Kg-dry	1	04/03/13 12:32 AM
Surr: 2-Fluorobiphenyl	75.8	0	43-125		%REC	1	04/03/13 12:32 AM
Surr: 4-Terphenyl-d14	90.0	0	32-125		%REC	1	04/03/13 12:32 AM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
Toluene	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
Carbon tetrachloride	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
1,2-Dichloroethane	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
1,1-Dichloroethylene	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
Tetrachloroethylene	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
Trichloroethylene	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
Ethylbenzene	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
Total Xylenes	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
Methylene chloride	ND	0.00486	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
Chloroform	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
1,1-Dichloroethane	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
Ethylene bromide	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
1,1,1-Trichloroethane	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
1,1,2-Trichloroethane	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
1,1,2,2-Tetrachloroethane	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
Vinyl chloride	ND	0.000971	0.00486		mg/Kg-dry	1	03/28/13 07:04 PM
Surr: 1,2-Dichloroethane-d4	114	0	52-149		%REC	1	03/28/13 07:04 PM
Surr: 4-Bromofluorobenzene	97.5	0	84-118		%REC	1	03/28/13 07:04 PM
Surr: Dibromofluoromethane	106	0	65-135		%REC	1	03/28/13 07:04 PM
Surr: Toluene-d8	94.7	0	84-116		%REC	1	03/28/13 07:04 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-3 5-7'

Project: R360 Artesia Landfarm Lab ID: 1303261-19

Project No: 11-0109-09 **Collection Date:** 03/26/13 12:15 PM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed		
TRPH	E418.1						Analyst: JAW		
Petroleum Hydrocarbons, TR	ND	5.21	10.4	N	mg/Kg-dry	1	04/02/13 04:30 PM		
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG		
Cyanide, Total	ND	0.198	0.494		mg/Kg-dry	1	04/02/13 10:28 AM		
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC		
Chloride	802	53.5	53.5		mg/Kg-dry	10	04/02/13 03:12 PM		
Fluoride	1.42	1.07	1.07		mg/Kg-dry	1	04/02/13 02:25 PM		
Nitrate-N	8.36	5.35	5.35		mg/Kg-dry	1	04/02/13 02:25 PM		
Sulfate	284	10.7	10.7		mg/Kg-dry	1	04/02/13 02:25 PM		
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK		
pH	7.86	0	0		pH Units	1	04/01/13 10:01 AM		
PERCENT MOISTURE		D221	16				Analyst: JCG		
Percent Moisture	6.73	0	0		WT%	1	04/02/13 08:50 AM		

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-3 7-9'
Project: R360 Artesia Landfarm Lab ID: 1303261-20

Project No: 11-0109-09 **Collection Date:** 03/26/13 12:15 PM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.00822	0.0206		mg/Kg-dry	1	04/03/13 01:41 PM
TRACE METALS: ICP-MS - SOLID		SW60:	20A				Analyst: SW
Arsenic	0.822	0.255	0.510		mg/Kg-dry	5	04/04/13 07:46 AM
Barium	40.6	0.255	1.02		mg/Kg-dry	5	04/04/13 07:46 AM
Cadmium	0.0827	0.0510	0.153	J	mg/Kg-dry	5	04/04/13 07:46 AM
Chromium	5.11	0.255	1.02		mg/Kg-dry	5	04/04/13 07:46 AM
Copper	0.929	0.255	1.02	J	mg/Kg-dry	5	04/04/13 07:46 AM
Iron	5120	63.7	63.7		mg/Kg-dry	50	04/03/13 07:47 PM
Lead	2.24	0.0510	0.153		mg/Kg-dry	5	04/04/13 07:46 AM
Manganese	25.8	0.255	1.02		mg/Kg-dry	5	04/04/13 07:46 AM
Selenium	0.731	0.0765	0.255		mg/Kg-dry	5	04/04/13 07:46 AM
Silver	ND	0.0510	0.102		mg/Kg-dry	5	04/04/13 07:46 AM
Zinc	8.20	0.510	1.27		mg/Kg-dry	5	04/04/13 07:46 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.00994	0.0264	N	mg/Kg-dry	1	04/02/13 08:08 PM
2-Methylnaphthalene	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
Naphthalene	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
Benzo[a]pyrene	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
2,3,4,6-Tetrachlorophenol	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
2,4,5-Trichlorophenol	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
2,4,6-Trichlorophenol	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
2,4-Dichlorophenol	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
2,4-Dimethylphenol	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
2,4-Dinitrophenol	ND	0.0497	0.131		mg/Kg-dry	1	04/02/13 08:08 PM
2,6-Dichlorophenol	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
2-Chlorophenol	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
2-Methylphenol	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
2-Nitrophenol	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
4,6-Dinitro-2-methylphenol	ND	0.0298	0.0656		mg/Kg-dry	1	04/02/13 08:08 PM
4-Chloro-3-methylphenol	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
4-Methylphenol	ND	0.0199	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
4-Nitrophenol	ND	0.0497	0.131		mg/Kg-dry	1	04/02/13 08:08 PM
Pentachlorophenol	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
Phenol	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
Total Phenol (Calculated)	ND	0.00994	0.0264		mg/Kg-dry	1	04/02/13 08:08 PM
Surr: 2,4,6-Tribromophenol	76.0	0	45-126		%REC	1	04/02/13 08:08 PM
Surr: 2-Fluorobiphenyl	72.0	0	60-125		%REC	1	04/02/13 08:08 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-3 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303261-20

Project No: 11-0109-09 **Collection Date:** 03/26/13 12:15 PM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	270D				Analyst: CZ
Surr: 2-Fluorophenol	73.0	0	37-125		%REC	1	04/02/13 08:08 PM
Surr: 4-Terphenyl-d14	83.0	0	45-125		%REC	1	04/02/13 08:08 PM
Surr: Nitrobenzene-d5	69.0	0	45-125		%REC	1	04/02/13 08:08 PM
Surr: Phenol-d6	75.0	0	40-125		%REC	1	04/02/13 08:08 PM
PCB BY GC/MS - SOIL/SOLID		SW82	270D				Analyst: AJR
Aroclor 1016	ND	0.0166	0.0331		mg/Kg-dry	1	04/03/13 01:03 AM
Aroclor 1221	ND	0.0166	0.0331		mg/Kg-dry	1	04/03/13 01:03 AM
Aroclor 1232	ND	0.0166	0.0331		mg/Kg-dry	1	04/03/13 01:03 AM
Aroclor 1242	ND	0.0166	0.0331		mg/Kg-dry	1	04/03/13 01:03 AM
Aroclor 1248	ND	0.0166	0.0331		mg/Kg-dry	1	04/03/13 01:03 AM
Aroclor 1254	ND	0.0166	0.0331		mg/Kg-dry	1	04/03/13 01:03 AM
Aroclor 1260	ND	0.0166	0.0331		mg/Kg-dry	1	04/03/13 01:03 AM
Surr: 2-Fluorobiphenyl	63.5	0	43-125		%REC	1	04/03/13 01:03 AM
Surr: 4-Terphenyl-d14	77.1	0	32-125		%REC	1	04/03/13 01:03 AM
8260 SOIL VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
Toluene	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
Carbon tetrachloride	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
1,2-Dichloroethane	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
1,1-Dichloroethylene	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
Tetrachloroethylene	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
Trichloroethylene	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
Ethylbenzene	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
Total Xylenes	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
Methylene chloride	ND	0.00383	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
Chloroform	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
1,1-Dichloroethane	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
Ethylene bromide	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
1,1,1-Trichloroethane	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
1,1,2-Trichloroethane	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
1,1,2,2-Tetrachloroethane	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
Vinyl chloride	ND	0.000766	0.00383		mg/Kg-dry	1	03/28/13 07:36 PM
Surr: 1,2-Dichloroethane-d4	112	0	52-149		%REC	1	03/28/13 07:36 PM
Surr: 4-Bromofluorobenzene	98.9	0	84-118		%REC	1	03/28/13 07:36 PM
Surr: Dibromofluoromethane	107	0	65-135		%REC	1	03/28/13 07:36 PM
Surr: Toluene-d8	95.7	0	84-116		%REC	1	03/28/13 07:36 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-3 7-9'

Project: R360 Artesia Landfarm Lab ID: 1303261-20

Project No: 11-0109-09 **Collection Date:** 03/26/13 12:15 PM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.09	10.2	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.179	0.447		mg/Kg-dry	1	04/02/13 10:28 AM
ANIONS BY IC METHOD - SOIL		E300	0				Analyst: JBC
Chloride	532	52.4	52.4		mg/Kg-dry	10	04/02/13 03:27 PM
Fluoride	2.76	1.05	1.05		mg/Kg-dry	1	04/02/13 02:39 PM
Nitrate-N	ND	5.24	5.24		mg/Kg-dry	1	04/02/13 02:39 PM
Sulfate	98.1	10.5	10.5		mg/Kg-dry	1	04/02/13 02:39 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK
pH	7.86	0	0		pH Units	1	04/01/13 10:01 AM
PERCENT MOISTURE		D221	6				Analyst: JCG
Percent Moisture	4.80	0	0		WT%	1	04/02/13 08:50 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-3 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303261-21

Project No: 11-0109-09 **Collection Date:** 03/26/13 12:25 PM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0156	0.0391		mg/Kg-dry	1	04/03/13 01:43 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Arsenic	1.03	0.472	0.944		mg/Kg-dry	5	04/04/13 07:52 AM
Barium	61.0	0.472	1.89		mg/Kg-dry	5	04/04/13 07:52 AM
Cadmium	0.160	0.0944	0.283	J	mg/Kg-dry	5	04/04/13 07:52 AM
Chromium	6.88	0.472	1.89		mg/Kg-dry	5	04/04/13 07:52 AM
Copper	1.83	0.472	1.89	J	mg/Kg-dry	5	04/04/13 07:52 AM
Iron	6040	118	118		mg/Kg-dry	50	04/03/13 07:53 PM
Lead	3.39	0.0944	0.283		mg/Kg-dry	5	04/04/13 07:52 AM
Manganese	72.0	0.472	1.89		mg/Kg-dry	5	04/04/13 07:52 AM
Selenium	1.03	0.142	0.472		mg/Kg-dry	5	04/04/13 07:52 AM
Silver	ND	0.0944	0.189		mg/Kg-dry	5	04/04/13 07:52 AM
Zinc	11.0	0.944	2.36		mg/Kg-dry	5	04/04/13 07:52 AM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.0104	0.0276	N	mg/Kg-dry	1	04/02/13 08:31 PM
2-Methylnaphthalene	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
Naphthalene	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
Benzo[a]pyrene	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
2,3,4,6-Tetrachlorophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
2,4,5-Trichlorophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
2,4,6-Trichlorophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
2,4-Dichlorophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
2,4-Dimethylphenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
2,4-Dinitrophenol	ND	0.0519	0.137		mg/Kg-dry	1	04/02/13 08:31 PM
2,6-Dichlorophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
2-Chlorophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
2-Methylphenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
2-Nitrophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
4,6-Dinitro-2-methylphenol	ND	0.0311	0.0685		mg/Kg-dry	1	04/02/13 08:31 PM
4-Chloro-3-methylphenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
4-Methylphenol	ND	0.0208	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
4-Nitrophenol	ND	0.0519	0.137		mg/Kg-dry	1	04/02/13 08:31 PM
Pentachlorophenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
Phenol	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
Total Phenol (Calculated)	ND	0.0104	0.0276		mg/Kg-dry	1	04/02/13 08:31 PM
Surr: 2,4,6-Tribromophenol	89.0	0	45-126		%REC	1	04/02/13 08:31 PM
Surr: 2-Fluorobiphenyl	84.0	0	60-125		%REC	1	04/02/13 08:31 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
 - RL Reporting Limit
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-3 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303261-21

Project No: 11-0109-09 **Collection Date:** 03/26/13 12:25 PM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
Surr: 2-Fluorophenol	84.0	0	37-125		%REC	1	04/02/13 08:31 PM
Surr: 4-Terphenyl-d14	89.0	0	45-125		%REC	1	04/02/13 08:31 PM
Surr: Nitrobenzene-d5	80.0	0	45-125		%REC	1	04/02/13 08:31 PM
Surr: Phenol-d6	85.0	0	40-125		%REC	1	04/02/13 08:31 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0173	0.0346		mg/Kg-dry	1	04/02/13 03:51 PM
Aroclor 1221	ND	0.0173	0.0346		mg/Kg-dry	1	04/02/13 03:51 PM
Aroclor 1232	ND	0.0173	0.0346		mg/Kg-dry	1	04/02/13 03:51 PM
Aroclor 1242	ND	0.0173	0.0346		mg/Kg-dry	1	04/02/13 03:51 PM
Aroclor 1248	ND	0.0173	0.0346		mg/Kg-dry	1	04/02/13 03:51 PM
Aroclor 1254	ND	0.0173	0.0346		mg/Kg-dry	1	04/02/13 03:51 PM
Aroclor 1260	ND	0.0173	0.0346		mg/Kg-dry	1	04/02/13 03:51 PM
Surr: 2-Fluorobiphenyl	69.4	0	43-125		%REC	1	04/02/13 03:51 PM
Surr: 4-Terphenyl-d14	78.0	0	32-125		%REC	1	04/02/13 03:51 PM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
Toluene	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
Carbon tetrachloride	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
1,2-Dichloroethane	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
1,1-Dichloroethylene	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
Tetrachloroethylene	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
Trichloroethylene	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
Ethylbenzene	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
Total Xylenes	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
Methylene chloride	ND	0.00490	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
Chloroform	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
1,1-Dichloroethane	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
Ethylene bromide	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
1,1,1-Trichloroethane	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
1,1,2-Trichloroethane	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
1,1,2,2-Tetrachloroethane	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
Vinyl chloride	ND	0.000980	0.00490		mg/Kg-dry	1	03/28/13 08:07 PM
Surr: 1,2-Dichloroethane-d4	110	0	52-149		%REC	1	03/28/13 08:07 PM
Surr: 4-Bromofluorobenzene	100	0	84-118		%REC	1	03/28/13 08:07 PM
Surr: Dibromofluoromethane	106	0	65-135		%REC	1	03/28/13 08:07 PM
Surr: Toluene-d8	96.1	0	84-116		%REC	1	03/28/13 08:07 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SB-3 10-12'

Project: R360 Artesia Landfarm Lab ID: 1303261-21

Project No: 11-0109-09 **Collection Date:** 03/26/13 12:25 PM

Lab Order: 1303261 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		E418	.1				Analyst: JAW
Petroleum Hydrocarbons, TR	ND	5.18	10.4	N	mg/Kg-dry	1	04/02/13 04:30 PM
CYANIDE - SOLID SAMPLE		SW90	14				Analyst: JCG
Cyanide, Total	ND	0.182	0.454		mg/Kg-dry	1	04/02/13 10:28 AM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	488	53.0	53.0		mg/Kg-dry	10	04/02/13 04:13 PM
Fluoride	10.0	1.06	1.06		mg/Kg-dry	1	04/02/13 03:41 PM
Nitrate-N	ND	5.30	5.30		mg/Kg-dry	1	04/02/13 03:41 PM
Sulfate	19.8	10.6	10.6		mg/Kg-dry	1	04/02/13 03:41 PM
PH OF SOLID (CORROSIVITY)		SW904	15D				Analyst: MK
рН	7.69	0	0		pH Units	1	04/01/13 10:01 AM
PERCENT MOISTURE		D221	6				Analyst: JCG
Percent Moisture	6.25	0	0		WT%	1	04/02/13 08:50 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

Date: 06-Jun-13

CLIENT: Larson & Associates

Work Order: 1303261

CETAC_HG_130403A **RunID: Project:** R360 Artesia Landfarm

The QC data in batch 56694 applies to the following samples: 1303261-02C, 1303261-03C, 1303261-04C, 1303261-05C, 1303261-07C, 1303261-09C, 1303261-16C, 1303261-1

ANALYTICAL QC SUMMARY REPORT

Sample ID:	MB-56694	Batch ID:	56694		TestNo:	SW	7471B		Units:	mg/Kg
SampType:	MBLK	Run ID:	CETAC	_HG_130403 <i>A</i>	A Analysis	Date: 4/3/2	2013 12:33:	38 PM	Prep Date:	4/2/2013
nalyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Q
Mercury			ND	0.0400						
Sample ID:	LCS-56694	Batch ID:	56694		TestNo:	sw	7471B		Units:	mg/Kg
SampType:	LCS	Run ID:	CETAC	_HG_130403 <i>A</i>	A Analysis	Date: 4/3/2	2013 12:35:	39 PM	Prep Date:	4/2/2013
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Q
Mercury			0.221	0.0400	0.2000	0	110	85	115	
Sample ID:	LCSD-56694	Batch ID:	56694		TestNo:	sw	7471B		Units:	mg/Kg
SampType:	LCSD	Run ID:	CETAC	_HG_130403 <i>A</i>	A Analysis	Date: 4/3/2	2013 12:37:	41 PM	Prep Date:	4/2/2013
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Q
Mercury			0.218	0.0400	0.2000	0	109	85	115	1.37 25
Sample ID:	1303261-03C SD	Batch ID:	56694		TestNo:	SW	7471B		Units:	mg/Kg-dry
SampType:	SD	Run ID:	CETAC	_HG_130403 <i>A</i>	A Analysis	Date: 4/3/2	2013 12:41:	46 PM	Prep Date:	4/2/2013
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Qu
/lercury			0	0.210	0	0				0 10
Sample ID:	1303261-03C PDS	Batch ID:	56694		TestNo:	SW	7471B		Units:	mg/Kg-dry
SampType:	PDS	Run ID:	CETAC	_HG_130403 <i>A</i>	A Analysis	Date: 4/3/2	2013 12:43:	48 PM	Prep Date:	4/2/2013
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Q
/lercury			0.279	0.0420	0.2626	0	106	85	115	
Sample ID:	1303261-03C MS	Batch ID:	56694		TestNo:	SW	7471B		Units:	mg/Kg-dry
SampType:	MS	Run ID:	CETAC	_HG_130403 <i>A</i>	A Analysis	Date: 4/3/2	2013 12:45:	50 PM	Prep Date:	4/2/2013
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Q
Mercury			0.234	0.0419	0.2094	0	111	80	120	
Sample ID:	1303261-03C MSD	Batch ID:	56694		TestNo:	SW	7471B		Units:	mg/Kg-dry
SampType:	MSD	Run ID:	CETAC	_HG_130403 <i>A</i>	A Analysis	Date: 4/3/2	2013 12:47:	53 PM	Prep Date:	4/2/2013
nalyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Q
/lercury			0.227	0.0421	0.2104	0	108	80	120	2.74 25

Analyte detected between MDL and RL

MDL Method Detection Limit

Page 1 of 34

Not Detected at the Method Detection Limit ND

Reporting Limit

Analyte detected between SDL and RL

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified **CLIENT:** Larson & Associates

Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

CETAC_HG_130403A **RunID: Project:** R360 Artesia Landfarm

Sample ID: ICV-130403	Batch ID	: R65668		TestNo:	SW	7471B		Units:	mg/Kg
SampType: ICV	Run ID:	CETAC	_HG_130403 <i>A</i>	A Analysis	S Date: 4/3/	2013 12:29:	32 PM	Prep Date	p:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Mercury		0.00421	0.0400	0.004000	0	105	90	110	
Sample ID: CCV1-130403	Batch ID	: R65668		TestNo:	SW	7471B		Units:	mg/Kg
SampType: CCV	Run ID:	CETAC	_HG_130403 <i>A</i>	A Analysis	Date: 4/3/	2013 12:54:	38 PM	Prep Date	e:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Mercury		0.00206	0.0400	0.002000	0	103	90	110	
Sample ID: CCV2-130403	5								
Sample ID. CCV2-130403	Batch ID	: R65668		TestNo:	SW	7471B		Units:	mg/Kg
SampType: CCV	Run ID:		_HG_130403 <i>A</i>		-	7471B 2013 1:26:1	7 PM	Units: Prep Date	
•			_ HG_130403 A		-			Prep Date	
SampType: CCV		CETAC		A Analysis	Date: 4/3/	2013 1:26:1		Prep Date):
SampType: CCV Analyte		CETAC	RL	A Analysis	Ref Val	2013 1:26:1 %REC	LowLim	Prep Date):
SampType: CCV Analyte Mercury	Run ID:	CETAC Result 0.00211 : R65668	RL	A Analysis SPK value 0.002000 TestNo:	Ref Val	2013 1:26:1 %REC 106	LowLim 90	Prep Date	%RPD RPDLimit Qual
SampType: CCV Analyte Mercury Sample ID: CCV3-130403	Run ID:	CETAC Result 0.00211 : R65668	RL 0.0400	A Analysis SPK value 0.002000 TestNo:	Ref Val	%REC 106	90 7 PM	Prep Date it HighLimit 110 Units: Prep Date	%RPD RPDLimit Qual

Qualifiers: Analyte detected in the associated Method Blank

> J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits Parameter not NELAC certified

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CLIENT: Larson & Associates

Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: ICP-MS3_130403A

The QC data in batch 56693 applies to the following samples: 1303261-02C, 1303261-03C, 1303261-04C, 1303261-05C, 1303261-07C, 1303261-08C, 1303261-09C, 1303261-11C, 1303261-13C, 1303261-14C, 1303261-15C, 1303261-16C, 1303261-18C, 1303261-19C, 1303261-20C, 1303261-21C

Sample ID:	MB-56693	Batch ID:	56693		TestNo	SW	6020A		Units:	mg/K	9
SampType:	MBLK	Run ID:	ICP-MS	3_130403A	Analysi	s Date: 4/3/	2013 3:41:0	0 PM	Prep Date:	4/2/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 🤋	6RPD F	PDLimit Qua
Arsenic			ND	1.00							
Barium			ND	2.00							
Cadmium			ND	0.300							
Chromium			ND	2.00							
Copper			ND	2.00							
Iron			ND	12.5							
Lead			ND	0.300							
Manganese			ND	2.00							
Selenium			ND	0.500							
Silver			ND	0.200							
Zinc			ND	2.50							
Sample ID:	LCS-56693	Batch ID:	56693		TestNo	SW	6020A		Units:	mg/K	9
SampType:	LCS	Run ID:	ICP-MS	3_130403A	Analysi	s Date: 4/3/	2013 3:47:0	0 PM	Prep Date:	4/2/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 🤋	6RPD F	PDLimit Qua
Arsenic			48.8	1.00	50.00	0	97.6	80	120		
Barium			48.8	2.00	50.00	0	97.5	80	120		
Cadmium			48.6	0.300	50.00	0	97.2	80	120		
Chromium			49.0	2.00	50.00	0	98.0	80	120		
Copper			50.3	2.00	50.00	0	101	80	120		
Iron			266	12.5	250.0	0	107	80	120		
Lead			49.6	0.300	50.00	0	99.2	80	120		
Manganese			51.2	2.00	50.00	0	102	80	120		
Selenium			47.9	0.500	50.00	0	95.9	80	120		
Silver			49.2	0.200	50.00	0	98.5	80	120		
Zinc			49.4	2.50	50.00	0	98.8	80	120		
Sample ID:	LCSD-56693	Batch ID:	56693		TestNo	SW	6020A		Units:	mg/K	9
SampType:	LCSD	Run ID:	ICP-MS	3_130403A	Analysi	s Date: 4/3/	2013 3:53:0	0 PM	Prep Date:	4/2/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD F	PDLimit Qua
Arsenic			48.0	1.00	50.00	0	95.9	80	120	1.71	20
Barium			47.6	2.00	50.00	0	95.2	80	120	2.39	20
Cadmium			47.7	0.300	50.00	0	95.4	80	120	1.87	20
Chromium			48.7	2.00	50.00	0	97.4	80	120	0.512	20
Copper			50.3	2.00	50.00	0	101	80	120	0	20
Iron			265	12.5	250.0	0	106	80	120	0.564	20
Lead			49.2	0.300	50.00	0	98.4	80	120	0.759	20
Oualifiers:	D Analyta	detected in the a	ssociated M	othed Plank	DE I	Dilution Facto					

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

MDL Method Detection Limit

R RPD outside accepted control limits

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S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: ICP-MS3_130403A

Project: R360 Arte	esia Landia	arm				Kullii	<i>)</i> ; 1	ICP-M55_	13040.)A	
Sample ID: LCSD-56693	Batch ID:	56693		TestNo	: SW	6020A		Units:	mg/Kg	9	
SampType: LCSD	Run ID:	ICP-MS3	3_130403A	Analys	is Date: 4/3/	2013 3:53:0	0 PM	Prep Date:	4/2/20	13	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit	t Qual
Manganese		50.6	2.00	50.00	0	101	80	120	1.08	20	
Selenium		46.6	0.500	50.00	0	93.1	80	120	2.91	20	
Silver		48.1	0.200	50.00	0	96.2	80	120	2.31	20	
Zinc		49.1	2.50	50.00	0	98.2	80	120	0.660	20	
Sample ID: 1303261-03C SD	Batch ID:	56693		TestNo	: SW	6020A		Units:	mg/Kg	g-dry	
SampType: SD	Run ID:	ICP-MS3	3_130403A	Analys	is Date: 4/3/ 2	2013 4:12:0	0 PM	Prep Date:	4/2/20	13	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit	t Qual
Arsenic		0	52.9	0	0				0	10	
Barium		34.2	106	0	34.67				1.23	10	
Cadmium		0	15.9	0	0				0	10	
Chromium		0	106	0	0				0	10	
Copper		0	106	0	0				0	10	
Iron		3930	662	0	3909				0.540	10	
Lead		0	15.9	0	2.296				0	10	
Manganese		31.2	106	0	27.37				13.1	10	R
Selenium		0	26.5	0	1.796				0	10	
Silver		0	10.6	0	0				0	10	
Zinc		0	132	0	0				0	10	
Sample ID: 1303261-03C PDS	Batch ID:	56693		TestNo	: SW	6020A		Units:	mg/Kg	g-dry	
SampType: PDS	Run ID:	ICP-MS3	3_130403A	Analys	is Date: 4/3/	2013 5:14:0	0 PM	Prep Date:	4/2/20	13	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit	t Qual
Arsenic		536	10.6	529.3	0	101	80	120			
Barium		550	21.2	529.3	34.67	97.4	80	120			
Cadmium		525	3.18	529.3	0	99.2	80	120			
Chromium		537	21.2	529.3	0	101	80	120			
Copper		547	21.2	529.3	0	103	80	120			
Iron		19100	132	13230	3909	115	80	120			
Lead		528	3.18	529.3	2.296	99.3	80	120			
Manganese		589	21.2	529.3	27.37	106	80	120			
Selenium		543	5.29	529.3	1.796	102	80	120			
Silver		522	2.12	529.3	0	98.5	80	120			
Zinc		563	26.5	529.3	0	106	80	120			
Sample ID: 1303261-03C MS	Batch ID:	56693		TestNo	: SW	6020A		Units:	mg/Kg	g-dry	
			4004004		- D-1- 4/0/	2042 5.20.0	O DM	Dran Data	4/2/20	42	
SampType: MS	Run ID:	ICP-MS3	3_130403A	Analys	is Date: 4/3/ 2	2013 5:20:0	UPIVI	Prep Date:	4/2/20	113	

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

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S Spike Recovery outside control limits

N Parameter not NELAC certified

CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1303261

ICP_MS3 130/03A

Project: R36	60 Artesia Lan	dfarm				RunII): I(CP-MS3_	_13040	3A	
Sample ID: 1303261-030	C MS Batch	D: 56693		TestNo	: SW	6020A		Units:	mg/K	g-dry	
SampType: MS	Run ID	: ICP-MS	3_130403A	Analys	is Date: 4/3/2	2013 5:20:0	0 PM	Prep Date:	4/2/2	013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD I	RPDLimi	t Qual
Arsenic		52.5	10.6	52.93	0	99.1	80	120			
Barium		86.2	21.2	52.93	34.67	97.3	80	120			
Cadmium		52.7	3.18	52.93	0	99.5	80	120			
Chromium		55.5	21.2	52.93	0	105	80	120			
Copper		53.7	21.2	52.93	0	101	80	120			
Iron		4290	132	264.7	3909	143	80	120			S
Lead		54.1	3.18	52.93	2.296	97.9	80	120			
Manganese		77.5	21.2	52.93	27.37	94.7	80	120			
Selenium		53.7	5.29	52.93	1.796	98.1	80	120			
Silver		51.9	2.12	52.93	0	98.0	80	120			
Zinc		60.7	26.5	52.93	0	115	80	120			
Sample ID: 1303261-030	C MSD Batch	D: 56693		TestNo	: SW	6020A		Units:	mg/K	g-dry	
SampType: MSD	Run ID	: ICP-MS	3_130403A	Analys	is Date: 4/3/ 2	2013 5:26:0	0 PM	Prep Date:	4/2/2	013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD I	RPDLimi	t Qual
Arsenic		51.7	10.3	51.41	0	101	80	120	1.47	20	
Barium		83.8	20.6	51.41	34.67	95.6	80	120	2.80	20	

Camprype. W3D	Ruilib. 10	1 -WI33_130403/	A Alle	arysis Date. 47.	3/2013 3.20.0	70 I WI	1 Top Date	· 4/2/	2013	
Analyte	Resi	ult RL	SPK valu	e Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimi	t Qual
Arsenic	51.	7 10.3	51.41	0	101	80	120	1.47	20	
Barium	83.8	8 20.6	51.41	34.67	95.6	80	120	2.80	20	
Cadmium	50.3	3 3.08	51.41	0	97.8	80	120	4.60	20	
Chromium	54.3	3 20.6	51.41	0	106	80	120	2.21	20	
Copper	52.9	9 20.6	51.41	0	103	80	120	1.46	20	
Iron	438	0 129	257.0	3909	184	80	120	2.19	20	S
Lead	51.9	9 3.08	51.41	2.296	96.5	80	120	4.11	20	
Manganese	77.3	3 20.6	51.41	27.37	97.2	80	120	0.231	20	
Selenium	54.	8 5.14	51.41	1.796	103	80	120	2.07	20	
Silver	49.	7 2.06	51.41	0	96.6	80	120	4.37	20	
Zinc	60.	1 25.7	51.41	0	117	80	120	1.03	20	

Qualifiers: В Analyte detected in the associated Method Blank

> J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits Spike Recovery outside control limits

Parameter not NELAC certified

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Work Order: 1303261

ICP-MS3_130403A **RunID:** Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

Sample ID:	ILCVL-130403	Batch ID:	R65658		TestN	lo: SW	6020A		Units:	mg/	L
SampType:	LCVL	Run ID:	ICP-MS	3_130403A	Analy	sis Date: 4/3/ 2	2013 12:21:	00 PM	Prep Date	e:	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qu
Arsenic			0.00560	0.00500	0.00500	0	112	70	130		
Barium			0.00485	0.0100	0.00500	0	96.9	70	130		
Cadmium			0.00115	0.00100	0.00100	0	115	70	130		
Chromium			0.00528	0.00500	0.00500	0	106	70	130		
Copper			0.00546	0.0100	0.00500	0	109	70	130		
Iron			0.118	0.100	0.100	0	118	70	130		
Lead			0.00105	0.00100	0.00100	0	105	70	130		
Manganese			0.00556	0.0100	0.00500	0	111	70	130		
Selenium			0.00610	0.00500	0.00500	0	122	70	130		
Silver			0.00207	0.00200	0.00200	0	103	70	130		
Zinc			0.00567	0.00500	0.00500	0	113	70	130		
Sample ID:	LCVL1-130403	Batch ID:	R65658		TestN	lo: SW	6020A		Units:	mg/	L
SampType:	LCVL	Run ID:	ICP-MS	3_130403A	Analy	sis Date: 4/3/2	2013 3:22:0	00 PM	Prep Date	e:	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qu
Arsenic			0.00548	0.00500	0.00500	0	110	70	130		
Barium			0.00500	0.0100	0.00500	0	99.9	70	130		
Cadmium			0.00120	0.00100	0.00100	0	120	70	130		
Chromium			0.00515	0.00500	0.00500	0	103	70	130		
Copper			0.00552	0.0100	0.00500	0	110	70	130		
Iron			0.117	0.100	0.100	0	117	70	130		
Lead			0.00109	0.00100	0.00100	0	109	70	130		
Manganese			0.00555	0.0100	0.00500	0	111	70	130		
Selenium			0.00544	0.00500	0.00500	0	109	70	130		
Silver			0.00211	0.00200	0.00200	0	106	70	130		
Zinc			0.00543	0.00500	0.00500	0	109	70	130		
Sample ID:	LCVL2-130403	Batch ID:	R65658		TestN	lo: SW	6020A		Units:	mg/	L
SampType:	LCVL	Run ID:	ICP-MS	3_130403A	Analy	sis Date: 4/3/	2013 6:09:0	00 PM	Prep Date	e:	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qu
Arsenic			0.00562	0.00500	0.00500	0	112	70	130		
Barium			0.00504	0.0100	0.00500	0	101	70	130		
Cadmium			0.00116	0.00100	0.00100	0	116	70	130		
Chromium			0.00504	0.00500	0.00500	0	101	70	130		
Copper			0.00538	0.0100	0.00500	0	108	70	130		
Iron			0.116	0.100	0.100	0	116	70	130		
Lead			0.00106	0.00100	0.00100	0	106	70	130		
Manganese			0.00555	0.0100	0.00500	0	111	70	130		
Selenium			0.00546	0.00500	0.00500	0	109	70	130		
Qualifiers:	B Analyte d	etected in the	associated N	lethod Blank	DF	Dilution Facto	Of .				
~	2 many to d			Dimin	D.						

Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

MDL Method Detection Limit

R RPD outside accepted control limits Page 6 of 34

Spike Recovery outside control limits

Parameter not NELAC certified

Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm

RL Reporting Limit

Analyte detected between SDL and RL

RunID: ICP-MS3_130403A

Sample ID: LCVL2-130403	Batch ID: R65658		TestN	o: SW6	020A		Units:	mg/L
SampType: LCVL	Run ID: ICP-MS	3_130403A	Analys	sis Date: 4/3/2 0	013 6:09:0	00 PM	Prep Date	:
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	%RPD RPDLimit Qua
Silver	0.00211	0.00200	0.00200	0	106	70	130	
Zinc	0.00533	0.00500	0.00500	0	107	70	130	
Sample ID: LCVL3-130403	Batch ID: R65658		TestN	o: SW6	020A		Units:	mg/L
SampType: LCVL	Run ID: ICP-MS	3_130403A	Analys	sis Date: 4/3/2 0	013 8:36:0	00 PM	Prep Date	:
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	%RPD RPDLimit Qua
Arsenic	0.00577	0.00500	0.00500	0	115	70	130	
Barium	0.00518	0.0100	0.00500	0	104	70	130	
Cadmium	0.00122	0.00100	0.00100	0	122	70	130	
Chromium	0.00532	0.00500	0.00500	0	106	70	130	
Copper	0.00579	0.0100	0.00500	0	116	70	130	
Iron	0.122	0.100	0.100	0	122	70	130	
Lead	0.00111	0.00100	0.00100	0	111	70	130	
Manganese	0.00587	0.0100	0.00500	0	117	70	130	
Selenium	0.00625	0.00500	0.00500	0	125	70	130	
Silver	0.00215	0.00200	0.00200	0	108	70	130	
Zinc	0.00567	0.00500	0.00500	0	113	70	130	
Sample ID: LCVL6-130403	Batch ID: R65658		TestN	o: SW6	020A		Units:	mg/L
SampType: LCVL	Run ID: ICP-MS	3_130403A	Analys	sis Date: 4/4/2	013 5:00:0	00 AM	Prep Date	:
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	%RPD RPDLimit Qua
Arsenic	0.00585	0.00500	0.00500	0	117	70	130	
Barium	0.00531	0.0100	0.00500	0	106	70	130	
Cadmium	0.00126	0.00100	0.00100	0	126	70	130	
Chromium	0.00521	0.00500	0.00500	0	104	70	130	
Copper	0.00538	0.0100	0.00500	0	108	70	130	
Iron	0.118	0.100	0.100	0	118	70	130	
Lead	0.00110	0.00100	0.00100	0	110	70	130	
Manganese	0.00550	0.0100	0.00500	0	110	70	130	
Selenium	0.00531	0.00500	0.00500	0	106	70	130	
Silver	0.00218	0.00200	0.00200	0	109	70	130	
Zinc	0.00564	0.00500	0.00500	0	113	70	130	
Sample ID: LCVL7-130403	Batch ID: R65658		TestN	o: SW 6	020A		Units:	mg/L
SampType: LCVL	Run ID: ICP-MS	3_130403A	Analys	sis Date: 4/4/2	013 6:57:0	00 AM	Prep Date	:
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	%RPD RPDLimit Qua
Arsenic	0.00567	0.00500	0.00500	0	113	70	130	
Barium	0.00503	0.0100	0.00500	0	101	70	130	
Qualifiers: B Analyte de	etected in the associated M	ethod Blank	DF	Dilution Factor	<u> </u>			
•	etected between MDL and	RL	MDL	Method Detecti	ion Limit			Page 7 of 34
	ted at the Method Detection		R	RPD outside ac		trol limits		1 460 / 01 54
	** **			G '1 D				

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Spike Recovery outside control limits

Parameter not NELAC certified

Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: ICP-MS3_130403A

(((((((((((((((((((Result 0.00113 0.00524 0.00540 0.00110 0.00560 0.00574 0.00215 0.00557	RL 0.00100 0.00500 0.0100 0.00100 0.00100 0.00500 0.00200 0.00500 -130403A RL	SPK value 0.00100 0.00500 0.00500 0.00100 0.00500 0.00500 0.00500 TestNo	is Date: 4/4/	%REC 113 105 108 110 112 115 107 111	70 70 70 70 70 70 70 70 70	Prep Date it HighLimit 130 130 130 130 130 130 130 130 Units: Prep Date	%RPD	RPDLimit Qua
(((((((((((((((((((0.00113 0.00524 0.00540 0.00110 0.00560 0.00574 0.00215 0.00557 R65658 ICP-MS3	0.00100 0.00500 0.0100 0.00100 0.0100 0.00500 0.00200 0.00500	0.00100 0.00500 0.00500 0.00100 0.00500 0.00500 0.00500 TestNo	0 0 0 0 0 0 0 0 0	113 105 108 110 112 115 107 111	70 70 70 70 70 70 70 70	130 130 130 130 130 130 130 130 Units:	mg/	
(((((((((((((((((((0.00524 0.00540 0.00110 0.00560 0.00574 0.00215 0.00557 R65658 ICP-MS3	0.00500 0.0100 0.00100 0.0100 0.00500 0.00200 0.00500	0.00500 0.00500 0.00100 0.00500 0.00500 0.00200 0.00500 TestNo	0 0 0 0 0 0 0 0	105 108 110 112 115 107 111	70 70 70 70 70 70 70	130 130 130 130 130 130 130 Units:	•	L
((() () (tch ID: n ID:	0.00540 0.00110 0.00560 0.00574 0.00215 0.00557 R65658 ICP-MS3	0.0100 0.00100 0.0100 0.00500 0.00200 0.00500	0.00500 0.00100 0.00500 0.00500 0.00200 0.00500 TestNo	0 0 0 0 0 0 0 0 s: SW (108 110 112 115 107 111	70 70 70 70 70 70	130 130 130 130 130 130 130	•	L
() () () () () () () () () () () () () (0.00110 0.00560 0.00574 0.00215 0.00557 R65658 ICP-MS3	0.00100 0.0100 0.00500 0.00200 0.00500	0.00100 0.00500 0.00500 0.00200 0.00500 TestNo	0 0 0 0 0 0 0: SW (110 112 115 107 111	70 70 70 70 70	130 130 130 130 130 Units:	•	L
tch ID:	0.00560 0.00574 0.00215 0.00557 R65658 ICP-MS3	0.0100 0.00500 0.00200 0.00500	0.00500 0.00500 0.00200 0.00500 TestNo	0 0 0 0 0: SW 0 is Date: 4/4/	112 115 107 111	70 70 70 70	130 130 130 130 Units:	•	L
tch ID:	0.00574 0.00215 0.00557 R65658 ICP-MS3	0.00500 0.00200 0.00500	0.00500 0.00200 0.00500 TestNo Analys	0 0 0 o: SW 0 is Date: 4/4/	115 107 111 6020A	70 70 70	130 130 130 Units:	•	L
tch ID:	0.00215 0.00557 R65658 ICP-MS3	0.00200 0.00500	0.00200 0.00500 TestNo Analys	0 0 0: SW 0 is Date: 4/4/ 2	107 111 6020A	70 70	130 130 Units:	•	L
tch ID: n ID:	0.00557 R65658 ICP-MS3 Result	0.00500 _130403A	0.00500 TestNo Analys	0 o: SW 0 is Date: 4/4/	111 6020A	70	130 Units:	•	L
tch ID: n ID:	R65658 ICP-MS3	_130403A	TestNo Analys	o: SW (is Date: 4/4/)	6020A		Units:	•	L
n ID:	ICP-MS3	_	Analys	is Date: 4/4/		0 AM		•	L
(Result	_			2013 8:41:0	0 AM	Prep Date	:	
(RL	SPK value	Def Val					
	0.00563			Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qua
(0.00500	0.00500	0	113	70	130	_	
	0.00508	0.0100	0.00500	0	102	70	130		
(0.00123	0.00100	0.00100	0	123	70	130		
(0.00530	0.00500	0.00500	0	106	70	130		
(0.00550	0.0100	0.00500	0	110	70	130		
(0.00110	0.00100	0.00100	0	110	70	130		
(0.00591	0.0100	0.00500	0	118	70	130		
(0.00581	0.00500	0.00500	0	116	70	130		
(0.00219	0.00200	0.00200	0	109	70	130		
(0.00552	0.00500	0.00500	0	110	70	130		
tch ID:	R65658		TestNo	: SW	6020A		Units:	mg/	L
n ID:	ICP-MS3	_130403A	Analys	is Date: 4/3/ 2	2013 12:02:	00 PM	Prep Date) :	
	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qua
	0.0953	0.00500	0.100	0	95.3	90	110		
	0.0911	0.0100	0.100	0	91.1	90	110		
	0.0958	0.00100	0.100	0	95.8	90	110		
	0.0909	0.00500	0.100	0	90.9	90	110		
	0.0942	0.0100	0.100	0	94.2	90	110		
	2.57	0.100	2.50	0	103	90	110		
	0.0928	0.00100	0.100	0	92.8	90	110		
	0.0965	0.0100	0.100	0	96.4	90	110		
	0.102	0.00500	0.100	0	102	90	110		
	0.0913	0.00200	0.100	0	91.3	90	110		
	0.100	0.00500	0.100	0	100	90	110		
	tch ID:	0.00123 0.00530 0.00550 0.00110 0.00591 0.00581 0.00219 0.00552 tch ID: R65658 In ID: ICP-MS3 Result 0.0953 0.0911 0.0958 0.0909 0.0942 2.57 0.0928 0.0965 0.102 0.0913	0.00123 0.00100 0.00530 0.00500 0.00550 0.0100 0.00110 0.00100 0.00591 0.0100 0.00581 0.00500 0.00219 0.00200 0.00552 0.00500 tch ID: R65658 In ID: ICP-MS3_130403A Result RL 0.0953 0.00500 0.0911 0.0100 0.0958 0.00100 0.0958 0.00100 0.0942 0.0100 2.57 0.100 0.0928 0.00100 0.0928 0.00100 0.0928 0.00100 0.0965 0.0100 0.0965 0.0100 0.0913 0.00500	0.00123 0.00100 0.00100 0.00530 0.00500 0.00500 0.00550 0.0100 0.00500 0.00110 0.00100 0.00500 0.00591 0.0100 0.00500 0.00581 0.00500 0.00500 0.00219 0.00200 0.00200 0.00552 0.00500 0.00500 tch ID: R65658 TestNo n ID: ICP-MS3_130403A Analys Result RL SPK value 0.0953 0.00500 0.100 0.0911 0.0100 0.100 0.0958 0.00100 0.100 0.0958 0.00100 0.100 0.0942 0.0100 0.100 0.0942 0.0100 0.100 0.0942 0.0100 0.100 0.0928 0.00100 0.100 0.0928 0.00100 0.100 0.0965 0.0100 0.100 0.102 0.00500 0.100 0.0913 0.00200 0.100	0.00123 0.00100 0.00100 0 0.00530 0.00500 0.00500 0 0.00550 0.0100 0.00500 0 0.00110 0.00100 0.00100 0 0.00591 0.0100 0.00500 0 0.00581 0.00500 0.00500 0 0.00219 0.00200 0.00200 0 0.00552 0.00500 0.00500 0 tch ID: R65658 TestNo: SW In ID: ICP-MS3_130403A Analysis Date: 4/3/ Result RL SPK value Ref Val 0.0953 0.00500 0.100 0 0.0911 0.0100 0.100 0 0.0958 0.00100 0.100 0 0.0942 0.0100 0.100 0 0.0942 0.0100 0.100 0 0.0942 0.0100 0.100 0 0.0942 0.0100 0.100 0 0.0928 0.00100 0.100 0 0.0928 0.00100 0.100 0 0.0928 0.00100 0.100 0 0.0965 0.0100 0.100 0 0.0965 0.0100 0.100 0 0.0913 0.00200 0.100 0	0.00123 0.00100 0.00100 0 123 0.00530 0.00500 0.00500 0 106 0.00550 0.0100 0.00500 0 110 0.00110 0.00100 0.00100 0 110 0.00591 0.0100 0.00500 0 118 0.00581 0.00500 0.00500 0 109 0.00219 0.00200 0.00200 0 109 0.00552 0.00500 0.00500 0 110 tch ID: R65658 TestNo: SW6020A Result RL SPK value Ref Val %REC 0.0953 0.00500 0.100 0 95.3 0.0911 0.0100 0.100 0 95.8 0.09953 0.00500 0.100 0 95.8 0.0991 0.00500 0.100 0 95.8 0.0999 0.00500 0.100 0 94.2 2.57 0.100 0.100 0 92.8<	0.00123 0.00100 0.00100 0 123 70 0.00530 0.00500 0.00500 0 106 70 0.00550 0.0100 0.00500 0 110 70 0.00110 0.00100 0.00100 0 110 70 0.00591 0.0100 0.00500 0 118 70 0.00581 0.00500 0.00500 0 116 70 0.00219 0.00200 0.00200 0 109 70 0.00552 0.00500 0.00500 0 110 70 tch ID: R65658 TestNo: SW6020A Result RL SPK value Ref Val %REC LowLim 0.0953 0.00500 0.100 0 95.3 90 0.0911 0.0100 0.100 0 95.3 90 0.0958 0.00100 0.100 0 95.8 90 0.0909 0.00500 0.100 0 95.8 90 0.0942 0.0100 0.100 0 95.8 90 0.0942 0.0100 0.100 0 90.9 90 0.0942 0.0100 0.100 0 94.2 90 0.0928 0.00100 0.100 0 92.8 90 0.0928 0.00100 0.100 0 92.8 90 0.0965 0.0100 0.100 0 96.4 90 0.0965 0.0100 0.100 0 96.4 90 0.102 0.00500 0.100 0 91.3 90	0.00123 0.00100 0.00100 0 123 70 130 0.00530 0.00500 0.00500 0 106 70 130 0.00550 0.0100 0.00500 0 110 70 130 0.00110 0.00100 0.00100 0 110 70 130 0.00591 0.0100 0.00500 0 118 70 130 0.00581 0.00500 0.00500 0 116 70 130 0.00219 0.00200 0.00200 0 109 70 130 0.00552 0.00500 0.00500 0 110 70 130 tch ID: R65658 TestNo: SW6020A Units: ID: ICP-MS3_130403A Analysis Date: 4/3/2013 12:02:00 PM Prep Date Result RL SPK value Ref Val %REC LowLimit HighLimit 0.0953 0.00500 0.100 0 95.3 90	0.00123 0.00100 0.00100 0 123 70 130 0.00530 0.00500 0.00500 0 106 70 130 0.00550 0.0100 0.00500 0 110 70 130 0.00110 0.00100 0.00100 0 110 70 130 0.00591 0.0100 0.00500 0 118 70 130 0.00581 0.00500 0.00500 0 116 70 130 0.00219 0.00200 0.00200 0 109 70 130 0.00552 0.00500 0.00500 0 110 70 130 tch ID: R65658 TestNo: SW6020A Units: mg/ n ID: ICP-MS3_130403A Analysis Date: 4/3/2013 12:02:00 PM Prep Date: Result Resul

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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RL Reporting Limit

Analyte detected between SDL and RL

Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: ICP-MS3_130403A

Sample ID:	CCV1-130403	Batch ID:	R65658		TestNo	: SW	6020A		Units:	mg/L	
SampType:	CCV	Run ID:	ICP-MS	3_130403A	Analysi	s Date: 4/3/	2013 2:45:0	0 PM	Prep Date	e:	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	: %RPD I	RPDLimit Qua
Arsenic			0.211	0.00500	0.200	0	106	90	110		
Barium			0.202	0.0100	0.200	0	101	90	110		
Cadmium			0.210	0.00100	0.200	0	105	90	110		
Chromium			0.207	0.00500	0.200	0	103	90	110		
Copper			0.212	0.0100	0.200	0	106	90	110		
Lead			0.207	0.00100	0.200	0	103	90	110		
Manganese			0.213	0.0100	0.200	0	106	90	110		
Selenium			0.218	0.00500	0.200	0	109	90	110		
Silver			0.205	0.00200	0.200	0	102	90	110		
Zinc			0.219	0.00500	0.200	0	109	90	110		
Sample ID:	CCV1-130403	Batch ID:	R65658		TestNo	: SW	6020A		Units:	mg/L	
SampType:	CCV	Run ID:	ICP-MS	3_130403A	Analysi	s Date: 4/3/	2013 2:52:0	0 PM	Prep Date	e:	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	: %RPD I	RPDLimit Qua
Iron			5.48	0.100	5.00	0	110	90	110		
Sample ID:	CCV2-130403	Batch ID:	R65658		TestNo	: SW	6020A		Units:	mg/L	
SampType:	CCV	Run ID:	ICP-MS	3_130403A	Analysi	s Date: 4/3/	2013 5:32:0	0 PM	Prep Date	e:	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	: %RPD I	RPDLimit Qua
Arsenic			0.204	0.00500	0.200	0	102	90	110		
Barium			0.200	0.0100	0.200	0	100	90	110		
Cadmium			0.207	0.00100	0.200	0	104	90	110		
Chromium			0.198	0.00500	0.200	0	99.1	90	110		
Copper			0.204	0.0100	0.200	0	102	90	110		
Iron			5.46	0.100	5.00	0	109	90	110		
Lead			0.204	0.00100	0.200	0	102	90	110		
Manganese			0.204	0.0100	0.200	0	102	90	110		
Selenium			0.216	0.00500	0.200	0	108	90	110		
Silver			0.204	0.00200	0.200	0	102	90	110		
Zinc			0.211	0.00500	0.200	0	106	90	110		
Sample ID:	CCV3-130403	Batch ID:	R65658		TestNo	: sw	6020A		Units:	mg/L	
SampType:	CCV	Run ID:	ICP-MS	3_130403A	Analysi	s Date: 4/3/	2013 8:06:0	0 PM	Prep Date	e:	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	: %RPD I	RPDLimit Qua
Arsenic			0.197	0.00500	0.200	0	98.6	90	110		
Barium			0.194	0.0100	0.200	0	97.2	90	110		
Cadmium			0.196	0.00100	0.200	0	98.0	90	110		
Chromium			0.194	0.00500	0.200	0	96.9	90	110		
Qualifiers:	B Analy	yte detected in the a	ssociated M	lethod Blank	DF I	Dilution Fact	or				
	J Analy	yte detected between	n MDL and	RL	MDL 1	Method Detec	ction Limit			F	Page 9 of 34
	ND Not I	Detected at the Meth	od Detection	on Limit	R I	RPD outside	accepted cont	rol limits		_	<u> </u>
	DI D					7 D					

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Spike Recovery outside control limits

Parameter not NELAC certified

Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

ICP-MS3_130403A **RunID:** Project: R360 Artesia Landfarm

Sample ID: CCV3-130403	Batch ID:	R65658		TestNo	: sw	/6020A		Units:	mg/L	_
SampType: CCV	Run ID:	ICP-MS3	_130403A	Analysi	s Date: 4/3 /	/2013 8:06:0	0 PM	Prep Date	: :	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPD	Limit Qual
Copper		0.201	0.0100	0.200	0	101	90	110		
Iron		5.48	0.100	5.00	0	110	90	110		
Lead		0.195	0.00100	0.200	0	97.6	90	110		
Manganese		0.204	0.0100	0.200	0	102	90	110		
Selenium		0.203	0.00500	0.200	0	102	90	110		
Silver		0.189	0.00200	0.200	0	94.6	90	110		
Zinc		0.207	0.00500	0.200	0	104	90	110		
Sample ID: CCV6-130403	Batch ID:	R65658		TestNo	: sw	/6020A		Units:	mg/L	
SampType: CCV	Run ID:	ICP-MS3	3_130403A	Analysi	s Date: 4/4/	/2013 4:23:0	0 AM	Prep Date) :	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPD	Limit Qual
Arsenic		0.200	0.00500	0.200	0	100	90	110		
Barium		0.198	0.0100	0.200	0	98.9	90	110		
Cadmium		0.202	0.00100	0.200	0	101	90	110		
Chromium		0.195	0.00500	0.200	0	97.6	90	110		
Copper		0.198	0.0100	0.200	0	99.2	90	110		
Iron		5.51	0.100	5.00	0	110	90	110		
Lead		0.199	0.00100	0.200	0	99.3	90	110		
Manganese		0.208	0.0100	0.200	0	104	90	110		
Selenium		0.207	0.00500	0.200	0	104	90	110		
Silver		0.192	0.00200	0.200	0	96.1	90	110		
Zinc		0.205	0.00500	0.200	0	103	90	110		
Sample ID: CCV7-130403	Batch ID:	R65658		TestNo	: SW	/6020A		Units:	mg/L	
SampType: CCV	Run ID:	ICP-MS3	3_130403A	Analysi	s Date: 4/4/	/2013 6:26:0	0 AM	Prep Date):	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPD	Limit Qual
Arsenic		0.200	0.00500	0.200	0	100	90	110		
Barium		0.193	0.0100	0.200	0	96.5	90	110		
Cadmium		0.196	0.00100	0.200	0	98.2	90	110		
Chromium		0.192	0.00500	0.200	0	96.0	90	110		
Copper		0.197	0.0100	0.200	0	98.3	90	110		
Lead		0.195	0.00100	0.200	0	97.6	90	110		
Manganese		0.204	0.0100	0.200	0	102	90	110		
Selenium		0.206	0.00500	0.200	0	103	90	110		
Silver		0.188	0.00200	0.200	0	94.0	90	110		
Zinc		0.207	0.00500	0.200	0	103	90	110		

Qualifiers: В

Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits Page 10 of 34

Parameter not NELAC certified

CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1303261

ICP-MS3_130403A **RunID: Project:** R360 Artesia Landfarm

Sample ID: CCV8-130403	Batch ID:	R65658		TestNo	: SW	6020A		Units:	mg/L
SampType: CCV	Run ID:	ICP-MS	3_130403A	Analys	is Date: 4/4/	2013 8:04:0	0 AM	Prep Date	e:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
Arsenic		0.199	0.00500	0.200	0	99.7	90	110	
Barium		0.194	0.0100	0.200	0	97.0	90	110	
Cadmium		0.196	0.00100	0.200	0	97.9	90	110	
Chromium		0.195	0.00500	0.200	0	97.4	90	110	
Copper		0.198	0.0100	0.200	0	98.9	90	110	
Lead		0.197	0.00100	0.200	0	98.3	90	110	
Manganese		0.207	0.0100	0.200	0	104	90	110	
Selenium		0.202	0.00500	0.200	0	101	90	110	
Silver		0.188	0.00200	0.200	0	94.2	90	110	
Zinc		0.206	0.00500	0.200	0	103	90	110	

Qualifiers: Analyte detected in the associated Method Blank

> J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

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Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: GCMS8_130402A

The QC data in batch 56701 applies to the following samples: 1303261-02C, 1303261-03C, 1303261-04C, 1303261-05C, 1303261-07C, 1303261-08C, 1303261-09C, 1303261-11C, 1303261-13C, 1303261-14C, 1303261-15C, 1303261-16C, 1303261-18C, 1303261-19C, 1303261-20C, 1303261-21C

Sample ID: LCS-56701	Batch ID:	56701		TestNo	SW	8270D		Units:	mg/K	9
SampType: LCS	Run ID:	GCMS	3_130402A	Analysi	s Date: 4/2/ 2	2013 1:14:0	00 PM	Prep Date:	4/1/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD F	RPDLimit Qual
Aroclor 1016		0.890	0.0500	1.000	0	89.0	41	138		
Aroclor 1260		0.929	0.0500	1.000	0	92.9	61	131		
Surr: 2-Fluorobiphenyl		0.709		1.000		70.9	43	125		
Surr: 4-Terphenyl-d14		0.800		1.000		80.0	32	125		
Sample ID: 1303261-21CMS	Batch ID:	56701		TestNo	SW	8270D		Units:	mg/K	g-dry
SampType: MS	Run ID:	GCMS	3_130402A	Analysi	s Date: 4/2/	2013 1:46:0	00 PM	Prep Date:	4/1/20	113
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD F	RPDLimit Qual
Aroclor 1016		0.622	0.0338	0.6760	0	92.0	41	138		
Aroclor 1260		0.629	0.0338	0.6760	0	93.0	61	131		
Surr: 2-Fluorobiphenyl		0.488		0.6760		72.2	43	125		
Surr: 4-Terphenyl-d14		0.550		0.6760		81.3	32	125		
Sample ID: 1303261-21CMSD	Batch ID:	56701		TestNo	SW	8270D		Units:	mg/K	g-dry
SampType: MSD	Run ID:	GCMS	3_130402A	Analysi	s Date: 4/2/	2013 2:17:0	0 PM	Prep Date:	4/1/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD F	RPDLimit Qual
Aroclor 1016		0.644	0.0345	0.6908	0	93.2	41	138	3.51	50
Aroclor 1260		0.674	0.0345	0.6908	0	97.5	61	131	6.95	50
Surr: 2-Fluorobiphenyl		0.531		0.6908		76.8	43	125	0	0
Surr: 4-Terphenyl-d14		0.597		0.6908		86.4	32	125	0	0
Sample ID: MB-56701	Batch ID:	56701		TestNo	SW	8270D		Units:	mg/K	9
SampType: MBLK	Run ID:	GCMS	3_130402A	Analysi	s Date: 4/2/	2013 3:20:0	0 PM	Prep Date:	4/1/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit S	%RPD F	RPDLimit Qual
Aroclor 1016		ND	0.0500							
Aroclor 1221		ND	0.0500							
Aroclor 1232		ND	0.0500							
		ND	0.0500							
Aroclor 1242		ND	0.0500							
Aroclor 1242 Aroclor 1248		110								
		ND	0.0500							
Aroclor 1248										
Aroclor 1248 Aroclor 1254		ND	0.0500	1.000		73.2	43	125		

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: GCMS8_130402A

Sample ID: ICV-130402 SampType: ICV	Batch ID: Run ID:	R65625 GCMS8	3_130402A	TestNo Analys		:W8270D /2/2013 10:38:0	00 AM	Units: Prep Date	mg/Kg
Analyte		Result	RL	SPK value	Ref Va	l %REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Aroclor 1016		1.97	0.0500	2.000	0	98.3	80	120	
Aroclor 1260		2.06	0.0500	2.000	0	103	80	120	
Surr: 2-Fluorobiphenyl		1.68		2.000		84.0	80	120	
Surr: 4-Terphenyl-d14		1.89		2.000		94.4	80	120	

Sample ID: ICV2-130402	Batch ID:	R65625	i	TestNo	: SW	8270D		Units:	mg/Kg
SampType: ICV	Run ID:	GCMS	3_130402A	Analys	is Date: 4/2/	2013 4:46:0	0 PM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qua
Aroclor 1016		1.97	0.0500	2.000	0	98.6	80	120	
Aroclor 1260		2.06	0.0500	2.000	0	103	80	120	
Surr: 2-Fluorobiphenyl		1.68		2.000		84.1	80	120	
Surr: 4-Terphenyl-d14		1.85		2.000		92.5	80	120	

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

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R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_130402C **Project:** R360 Artesia Landfarm

The QC data in batch 56702 applies to the following samples: 1303261-02C, 1303261-03C, 1303261-04C, 1303261-05C, 1303261-07C, 1305261-07C, 1305261-07C, 1305261-07C, 1305261-07C, 1305261-07C, 1305261-07C, 1305261-0 08C, 1303261-09C, 1303261-11C, 1303261-13C, 1303261-14C, 1303261-15C, 1303261-16C, 1303261-18C, 1303261-19C, 1303261-20C, 1303261-21C

Sample ID: LCS-56702	Batch ID:	56702		TestNo:	SW	8270D		Units:	mg/Kg	
SampType: LCS	Run ID:	GCMS9	_130402C	Analysis	Date: 4/2/	2013 9:14:00) AM	Prep Date:	4/1/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLim	it Qua
1-Methylnaphthalene		1.19	0.0266	1.340	0	88.8	40	125		N
2,3,4,6-Tetrachlorophenol		1.24	0.0266	1.340	0	92.6	40	125		
2,4,5-Trichlorophenol		1.30	0.0266	1.340	0	97.1	49	125		
2,4,6-Trichlorophenol		1.33	0.0266	1.340	0	99.4	43	125		
2,4-Dichlorophenol		1.28	0.0266	1.340	0	95.5	45	125		
2,4-Dimethylphenol		1.27	0.0266	1.340	0	95.0	32	125		
2,4-Dinitrophenol		1.18	0.132	1.340	0	88.2	25	132		
2,6-Dichlorophenol		1.25	0.0266	1.340	0	93.0	38	125		
2-Chlorophenol		1.22	0.0266	1.340	0	91.1	44	125		
2-Methylnaphthalene		1.16	0.0266	1.340	0	86.5	47	125		
2-Methylphenol		1.20	0.0266	1.340	0	89.6	40	125		
2-Nitrophenol		1.19	0.0266	1.340	0	88.6	42	125		
4,6-Dinitro-2-methylphenol		1.27	0.0660	1.340	0	94.7	29	137		
4-Chloro-3-methylphenol		1.27	0.0266	1.340	0	94.6	46	125		
4-Methylphenol		1.22	0.0266	1.340	0	91.0	41	125		
4-Nitrophenol		1.22	0.132	1.340	0	90.9	25	138		
Benzo[a]pyrene		1.31	0.0266	1.340	0	97.4	50	125		
Naphthalene		1.17	0.0266	1.340	0	87.7	40	125		
Pentachlorophenol		1.34	0.0266	1.340	0	99.9	25	125		
Phenol		1.15	0.0266	1.340	0	86.0	25	125		
Surr: 2,4,6-Tribromophenol		0.680	****	0.6670	•	102	45	138		
Surr: 2-Fluorobiphenyl		0.607		0.6670		91.0	60	135		
Surr: 2-Fluorophenol		0.607		0.6670		91.0	37	125		
Surr: 4-Terphenyl-d14		0.633		0.6670		95.0	60	129		
Surr: Nitrobenzene-d5		0.593		0.6670		89.0	45	125		
Surr: Phenol-d6		0.633		0.6670		95.0	40	125		
Sample ID: MB-56702	Batch ID:	56702		TestNo:	SW	8270D		Units:	mg/Kg	
SampType: MBLK	Run ID:	GCMS9	_130402C	Analysis	Date: 4/2/	2013 10:24:0	00 AM	Prep Date:	4/1/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLim	it Qua
1-Methylnaphthalene		ND	0.0266							N
2,3,4,6-Tetrachlorophenol		ND	0.0266							
2,4,5-Trichlorophenol		ND	0.0266							
2,4,6-Trichlorophenol		ND	0.0266							
2,4-Dichlorophenol		ND	0.0266							
2,4-Dimethylphenol		ND	0.0266							
			0.132							
2,4-Dinitrophenol		ND	0.132							

Qualifiers: Analyte detected in the associated Method Blank

Analyte detected between MDL and RL

Not Detected at the Method Detection Limit ND

Reporting Limit

Analyte detected between SDL and RL

Dilution Factor DF

MDL Method Detection Limit

R RPD outside accepted control limits Page 14 of 34

S Spike Recovery outside control limits

Parameter not NELAC certified

CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1303261

GCMS9_130402C **RunID: Project:** R360 Artesia Landfarm

Batch ID: 5670)2	TestNo): SW 8	3270D		Units:	mg/Kg
Run ID: GCI	MS9_130402C	Analys	is Date: 4/2/2	2013 10:24:	00 AM	Prep Date:	4/1/2013
Resul	t RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit %	%RPD RPDLimit Qu
ND	0.0266						
ND	0.0266						
ND	0.0266						
ND	0.0266						
ND	0.0660						
ND	0.0266						
ND	0.0266						
ND	0.132						
ND	0.0266						
	0.0266						
		0.6670		79.0	45	138	
0.595		0.0070		03.0	40	123	
Datab ID F07	20	T (N.)	0)4/6	20700		11-26-	
Batch ID: 5670		TestNo		3270D		Units:	mg/Kg-dry
	02 MS9_130402C		o: SW 8		00 PM	Units: Prep Date:	mg/Kg-dry 4/1/2013
	/IS9_130402C					Prep Date:	
Run ID: GCI	/IS9_130402C	Analys	is Date: 4/2/ 2	2013 8:54:0		Prep Date:	4/1/2013
Run ID: GCI	MS9_130402C	Analys	is Date: 4/2/2 Ref Val	%REC	LowLim	Prep Date:	4/1/2013 %RPD RPDLimit Qu
Run ID: GCI Result	#S9_130402C RL 0.0279	Analys SPK value 1.406	is Date: 4/2/2 Ref Val	%REC 86.5	LowLim 40	Prep Date: hit HighLimit 9	4/1/2013 %RPD RPDLimit Qu
Run ID: GCI Result 1.22 1.26	MS9_130402C RL 0.0279 0.0279	SPK value 1.406 1.406	Ref Val 0 0	%REC 86.5 89.4	LowLim 40 40	Prep Date: ait HighLimit 9 125 125	4/1/2013 %RPD RPDLimit Qu
Run ID: GCI Result 1.22 1.26 1.32	RL 0.0279 0.0279 0.0279	Analys SPK value 1.406 1.406	Ref Val 0 0 0	%REC 86.5 89.4 94.2	40 40 40 49	Prep Date: nit HighLimit 9 125 125 125	4/1/2013 %RPD RPDLimit Qu
Run ID: GCI Result 1.22 1.26 1.32 1.31	RL 0.0279 0.0279 0.0279 0.0279 0.0279	Analys SPK value 1.406 1.406 1.406	Ref Val 0 0 0 0 0	%REC 86.5 89.4 94.2 93.0	40 40 49 43	Prep Date: 125 125 125 125 125	4/1/2013 %RPD RPDLimit Qu
Run ID: Result 1.22 1.26 1.32 1.31 1.29 1.34	RL 0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.0279	Analys SPK value 1.406 1.406 1.406 1.406	Ref Val 0 0 0 0 0 0	%REC 86.5 89.4 94.2 93.0 91.7	40 40 49 43 45	Prep Date: 125 125 125 125 125 125 125 125	4/1/2013 %RPD RPDLimit Qu
Run ID: GCI Result 1.22 1.26 1.32 1.31 1.29	0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.138	Analys SPK value 1.406 1.406 1.406 1.406 1.406	Ref Val 0 0 0 0 0 0 0 0	%REC 86.5 89.4 94.2 93.0 91.7 95.3	40 40 49 43 45 32	Prep Date: 125 125 125 125 125 125 125 125 125 12	4/1/2013 %RPD RPDLimit Qu
Run ID: Result 1.22 1.26 1.32 1.31 1.29 1.34 0.703 1.28	0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.138 0.0279	Analys SPK value 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406	Ref Val 0 0 0 0 0 0 0 0 0 0 0	%REC 86.5 89.4 94.2 93.0 91.7 95.3 50.0 90.7	40 40 49 43 45 32 25 38	Prep Date: 125 125 125 125 125 125 125 125 125 12	4/1/2013 %RPD RPDLimit Qu
Run ID: Result 1.22 1.26 1.32 1.31 1.29 1.34 0.703 1.28 1.16	0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.138 0.0279 0.0279	Analys SPK value 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406	Ref Val 0 0 0 0 0 0 0 0 0 0 0 0	%REC 86.5 89.4 94.2 93.0 91.7 95.3 50.0 90.7 82.7	40 40 49 43 45 32 25 38 44	Prep Date: 125 125 125 125 125 125 125 125 125 12	4/1/2013 %RPD RPDLimit Qu
Run ID: Result 1.22 1.26 1.31 1.29 1.34 0.703 1.28 1.16 1.17	0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.138 0.0279 0.0279 0.0279	Analys SPK value 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406	Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0	%REC 86.5 89.4 94.2 93.0 91.7 95.3 50.0 90.7 82.7 83.2	40 40 49 43 45 32 25 38 44 47	Prep Date: 125 125 125 125 125 125 125 125 125 12	4/1/2013 %RPD RPDLimit Qu
Run ID: Result 1.22 1.26 1.32 1.31 1.29 1.34 0.703 1.28 1.16 1.17 1.37	0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.138 0.0279 0.0279 0.0279	Analys SPK value 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406	Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	%REC 86.5 89.4 94.2 93.0 91.7 95.3 50.0 90.7 82.7 83.2 97.3	40 40 49 43 45 32 25 38 44 47 40	Prep Date: 125 125 125 125 125 125 125 125 125 12	4/1/2013 %RPD RPDLimit Qu
Run ID: Result 1.22 1.26 1.32 1.31 1.29 1.34 0.703 1.28 1.16 1.17 1.37 1.15	0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.138 0.0279 0.0279 0.0279 0.0279	Analys SPK value 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406	Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	86.5 89.4 94.2 93.0 91.7 95.3 50.0 90.7 82.7 83.2 97.3 81.8	40 40 49 43 45 32 25 38 44 47 40 42	Prep Date: 125 125 125 125 125 125 125 125 125 12	4/1/2013 %RPD RPDLimit Qu
Run ID: Result 1.22 1.26 1.32 1.31 1.29 1.34 0.703 1.28 1.16 1.17 1.37 1.15 0.952	0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.138 0.0279 0.0279 0.0279 0.0279	Analys SPK value 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406	Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	%REC 86.5 89.4 94.2 93.0 91.7 95.3 50.0 90.7 82.7 83.2 97.3 81.8 67.7	40 40 49 43 45 32 25 38 44 47 40 42 29	Prep Date: 125 125 125 125 125 125 125 125 125 12	4/1/2013 %RPD RPDLimit Qu
Run ID: Result 1.22 1.26 1.32 1.31 1.29 1.34 0.703 1.28 1.16 1.17 1.37 1.15 0.952 1.29	0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.138 0.0279 0.0279 0.0279 0.0279 0.0279	Analys SPK value 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406	Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	%REC 86.5 89.4 94.2 93.0 91.7 95.3 50.0 90.7 82.7 83.2 97.3 81.8 67.7 91.8	40 40 49 43 45 32 25 38 44 47 40 42 29 46	Prep Date: 125 125 125 125 125 125 125 125 125 12	4/1/2013 %RPD RPDLimit Qu
Run ID: Result 1.22 1.26 1.32 1.31 1.29 1.34 0.703 1.28 1.16 1.17 1.37 1.15 0.952	0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.0279 0.138 0.0279 0.0279 0.0279 0.0279	Analys SPK value 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406 1.406	Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	%REC 86.5 89.4 94.2 93.0 91.7 95.3 50.0 90.7 82.7 83.2 97.3 81.8 67.7	40 40 49 43 45 32 25 38 44 47 40 42 29	Prep Date: 125 125 125 125 125 125 125 125 125 12	4/1/2013 %RPD RPDLimit Qu
	Run ID: Result ND	Run ID: GCMS9_130402C Result RL ND 0.0266 ND 0.132 ND 0.0266 ND 0.0266	Run ID: GCMS9_130402C Analys ND 0.0266 ND 0.527 0.6670 0.6670 0.580 0.6670 0.527 0.6670 0.527 0.6670	Run ID: GCMS9_130402C Analysis Date: 4/2/2 Result RL SPK value Ref Val ND 0.0266 ND 0.0266 ND 0.0266 ND 0.06670 0.527 0.6670 0.6670 0.580 0.6670 0.6670 0.527 0.6670 0.6670	Run ID: GCMS9_130402C Analysis Date: 4/2/2013 10:24: Result RL SPK value Ref Val %REC ND 0.0266 ND 0.0266 ND 0.0266 ND 0.6670 84.0 0.527 0.6670 86.0 0.6670 87.0 0.527 0.6670 87.0 0.6670 87.0 </td <td>Run ID: GCMS9_130402C Analysis Date: 4/2/2013 10:24:00 AM ND 0.0266 ND 0.0266 ND 0.0266 ND 45 0.527 0.6670 84.0 60 0.573 0.6670 86.0 37 0.580 0.6670 87.0 60 0.527 0.6670 79.0 45</td> <td>Run ID: GCMS9_130402C Analysis Date: 4/2/2013 10:24:00 AM Prep Date: Result RL SPK value Ref Val %REC LowLimit HighLimit 9 ND 0.0266 ND 0.0266 ND 0.0266 ND 0.0266 ND 0.0266 ND 0.0266 138 0.527 0.6670 84.0 60 135 0.573 0.6670 86.0 37 125 0.580 0.6670 87.0 60 129 0.527 0.6670 79.0 45</td>	Run ID: GCMS9_130402C Analysis Date: 4/2/2013 10:24:00 AM ND 0.0266 ND 0.0266 ND 0.0266 ND 45 0.527 0.6670 84.0 60 0.573 0.6670 86.0 37 0.580 0.6670 87.0 60 0.527 0.6670 79.0 45	Run ID: GCMS9_130402C Analysis Date: 4/2/2013 10:24:00 AM Prep Date: Result RL SPK value Ref Val %REC LowLimit HighLimit 9 ND 0.0266 ND 0.0266 ND 0.0266 ND 0.0266 ND 0.0266 ND 0.0266 138 0.527 0.6670 84.0 60 135 0.573 0.6670 86.0 37 125 0.580 0.6670 87.0 60 129 0.527 0.6670 79.0 45

Qualifiers: Analyte detected in the associated Method Blank

Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

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Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Art	esia Landfa				RunID	: (GCMS9_1	30402C	
Sample ID: 1303261-21CMS	Batch ID:	56702		TestNo:	SI	W8270D		Units:	mg/Kg-dry
SampType: MS	Run ID:	GCMS	9_130402C	Analysis	s Date: 4/ 2	2/2013 8:54:00	PM	Prep Date:	4/1/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Naphthalene		1.12	0.0279	1.406	0	80.0	40	125	
Pentachlorophenol		1.38	0.0279	1.406	0	97.9	25	125	
Phenol		1.09	0.0279	1.406	0	77.7	25	125	
Surr: 2,4,6-Tribromophenol		0.657		0.6998		94.0	45	138	
Surr: 2-Fluorobiphenyl		0.574		0.6998		82.0	60	135	
Surr: 2-Fluorophenol		0.581		0.6998		83.0	37	125	
Surr: 4-Terphenyl-d14		0.595		0.6998		85.0	60	129	
Surr: Nitrobenzene-d5		0.567		0.6998		81.0	45	125	
Surr: Phenol-d6		0.588		0.6998		84.0	40	125	

Sample ID: 1303261-21CMSD	Batch ID:	56702		TestNo): SW 8	3270D		Units:	mg/l	Kg-dry	
SampType: MSD	Run ID:	GCMS	9_130402C	Analys	is Date: 4/2/ 2	2013 9:18:0	00 PM	Prep Date	: 4/1/2	J/1/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimi	t Qual
1-Methylnaphthalene		1.29	0.0279	1.406	0	91.9	40	125	6.13	30	N
2,3,4,6-Tetrachlorophenol		1.37	0.0279	1.406	0	97.5	40	125	8.63	30	
2,4,5-Trichlorophenol		1.44	0.0279	1.406	0	102	49	125	8.11	30	
2,4,6-Trichlorophenol		1.37	0.0279	1.406	0	97.7	43	125	4.96	30	
2,4-Dichlorophenol		1.35	0.0279	1.406	0	96.1	45	125	4.66	30	
2,4-Dimethylphenol		1.40	0.0279	1.406	0	99.3	32	125	4.09	30	
2,4-Dinitrophenol		0.807	0.138	1.406	0	57.4	25	132	13.8	30	
2,6-Dichlorophenol		1.33	0.0279	1.406	0	94.8	38	125	4.40	30	
2-Chlorophenol		1.21	0.0279	1.406	0	85.9	44	125	3.84	30	
2-Methylnaphthalene		1.24	0.0279	1.406	0	88.3	47	125	5.86	30	
2-Methylphenol		1.42	0.0279	1.406	0	101	40	125	4.11	30	
2-Nitrophenol		1.21	0.0279	1.406	0	86.1	42	125	5.10	30	
4,6-Dinitro-2-methylphenol		1.08	0.0692	1.406	0	76.8	29	137	12.6	30	
4-Chloro-3-methylphenol		1.38	0.0279	1.406	0	98.3	46	125	6.80	30	
4-Methylphenol		1.29	0.0279	1.406	0	91.9	41	125	5.22	30	
4-Nitrophenol		1.38	0.138	1.406	0	98.0	25	138	11.4	30	
Benzo[a]pyrene		1.42	0.0279	1.406	0	101	50	125	9.43	30	
Naphthalene		1.20	0.0279	1.406	0	85.1	40	125	6.15	30	
Pentachlorophenol		1.51	0.0279	1.406	0	107	25	125	9.02	30	
Phenol		1.16	0.0279	1.406	0	82.6	25	125	6.15	30	
Surr: 2,4,6-Tribromophenol		0.734		0.6998		105	45	138	0	0	
Surr: 2-Fluorobiphenyl		0.630		0.6998		90.0	60	135	0	0	
Surr: 2-Fluorophenol		0.616		0.6998		88.0	37	125	0	0	
Surr: 4-Terphenyl-d14		0.685		0.6998		98.0	60	129	0	0	
Surr: Nitrobenzene-d5		0.616		0.6998		88.0	45	125	0	0	
Surr: Phenol-d6		0.643		0.6998		92.0	40	125	0	0	

Qualifiers:

В Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

Parameter not NELAC certified

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Work Order: 1303261

GCMS9 130402C Project: R360 Artesia Landfarm RunID:

ANALYTICAL QC SUMMARY REPORT

Project: R360 Art	esia Landfa	arm				RunII): (GCMS9_1	30402C
Sample ID: ICV-130402	Batch ID:	R65632		TestNo	SW	8270D		Units:	mg/Kg
SampType: ICV	Run ID:	GCMS9_	130402C	Analysi	s Date: 4/2/2	2013 8:27:0	0 AM	Prep Date:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit '	%RPD RPDLimit Q
1-Methylnaphthalene		3.82	0.0266	4.000	0	95.5	80	120	
2,3,4,6-Tetrachlorophenol		3.93	0.0266	4.000	0	98.4	80	120	
2,4,5-Trichlorophenol		4.06	0.0266	4.000	0	102	80	120	
2,4,6-Trichlorophenol		4.06	0.0266	4.000	0	102	80	120	
2,4-Dichlorophenol		4.12	0.0266	4.000	0	103	80	120	
2,4-Dimethylphenol		4.01	0.0266	4.000	0	100	80	120	
2,4-Dinitrophenol		3.85	0.132	4.000	0	96.3	80	120	
2,6-Dichlorophenol		3.94	0.0266	4.000	0	98.6	80	120	
2-Chlorophenol		4.30	0.0266	4.000	0	107	80	120	
2-Methylnaphthalene		3.83	0.0266	4.000	0	95.8	80	120	
2-Methylphenol		3.94	0.0266	4.000	0	98.6	80	120	
2-Nitrophenol		3.89	0.0266	4.000	0	97.3	80	120	
4,6-Dinitro-2-methylphenol		3.90	0.0660	4.000	0	97.4	80	120	
4-Chloro-3-methylphenol		4.23	0.0266	4.000	0	106	80	120	
4-Methylphenol		3.82	0.0266	4.000	0	95.4	80	120	
4-Nitrophenol		3.84	0.132	4.000	0	95.9	80	120	
Benzo[a]pyrene		4.13	0.0266	4.000	0	103	80	120	
Naphthalene		3.60	0.0266	4.000	0	89.9	80	120	
Pentachlorophenol		4.00	0.0266	4.000	0	100	80	120	
Phenol		4.11	0.0266	4.000	0	103	80	120	
Total Phenol (Calculated)		59.7	0.0266	0	Ü	100	00	.20	
Surr: 2,4,6-Tribromophenol		4.00	0.0200	4.000		100	80	120	
Surr: 2-Fluorobiphenyl		3.59		4.000		89.8	80	120	
Surr: 2-Fluorophenol		4.19		4.000		105	80	120	
Surr: 4-Terphenyl-d14		4.04		4.000		103	80	120	
Surr: Nitrobenzene-d5		4.00		4.000		100	80	120	
Surr: Phenol-d6		4.13		4.000		103	80	120	
Sample ID: ICV2-130402	Batch ID:	R65632		TestNo	SW8	8270D		Units:	mg/Kg
SampType: ICV	Run ID:	GCMS9_	130402C	Analysi	s Date: 4/2/2	2013 7:21:0	0 PM	Prep Date:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit '	%RPD RPDLimit Q
1-Methylnaphthalene		3.73	0.0266	4.000	0	93.2	80	120	
2,3,4,6-Tetrachlorophenol		3.92	0.0266	4.000	0	97.9	80	120	
2,4,5-Trichlorophenol		4.19	0.0266	4.000	0	105	80	120	
2.4.6-Trichlorophenol		4.02	0.0266	4.000	0	101	80	120	

Sample ID: ICV2-130402	Batch ID:	R65632		TestNo	o: SW	8270D		Units:	mg/Kg
SampType: ICV	Run ID:	GCMS	9_130402C	Analys	is Date: 4/2/	2013 7:21:0	0 PM	Prep Date	9:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
1-Methylnaphthalene		3.73	0.0266	4.000	0	93.2	80	120	N
2,3,4,6-Tetrachlorophenol		3.92	0.0266	4.000	0	97.9	80	120	
2,4,5-Trichlorophenol		4.19	0.0266	4.000	0	105	80	120	
2,4,6-Trichlorophenol		4.02	0.0266	4.000	0	101	80	120	
2,4-Dichlorophenol		4.04	0.0266	4.000	0	101	80	120	
2,4-Dimethylphenol		3.88	0.0266	4.000	0	96.9	80	120	
2,4-Dinitrophenol		3.34	0.132	4.000	0	83.5	80	120	
2,6-Dichlorophenol		3.88	0.0266	4.000	0	97.0	80	120	
2-Chlorophenol		3.95	0.0266	4.000	0	98.6	80	120	

Qualifiers:

Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

Parameter not NELAC certified

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CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1303261

GCMS9_130402C **RunID: Project:** R360 Artesia Landfarm

Sample ID: ICV2-130402	Batch ID:	R65632		TestNo	SW	8270D		Units:	mg/Kg	9
SampType: ICV	Run ID:	GCMS9	_130402C	Analysi	s Date: 4/2/	2013 7:21:0) PM	Prep Date:		
Analyte	ļ	Result	RL	SPK value	Ref Val	%REC	LowLim	t HighLimit	%RPD R	PDLimit Qual
2-Methylnaphthalene		3.73	0.0266	4.000	0	93.2	80	120		
2-Methylphenol		3.71	0.0266	4.000	0	92.7	80	120		
2-Nitrophenol		3.86	0.0266	4.000	0	96.5	80	120		
4,6-Dinitro-2-methylphenol		3.67	0.0660	4.000	0	91.7	80	120		
4-Chloro-3-methylphenol		4.15	0.0266	4.000	0	104	80	120		
4-Methylphenol		3.45	0.0266	4.000	0	86.3	80	120		
4-Nitrophenol		3.91	0.132	4.000	0	97.7	80	120		
Benzo[a]pyrene		4.06	0.0266	4.000	0	102	80	120		
Naphthalene		3.60	0.0266	4.000	0	90.1	80	120		
Pentachlorophenol		4.19	0.0266	4.000	0	105	80	120		
Phenol		3.62	0.0266	4.000	0	90.5	80	120		
Total Phenol (Calculated)		57.8	0.0266	0						
Surr: 2,4,6-Tribromophenol		4.19		4.000		105	80	120		
Surr: 2-Fluorobiphenyl		3.66		4.000		91.5	80	120		
Surr: 2-Fluorophenol		4.14		4.000		104	80	120		
Surr: 4-Terphenyl-d14		3.86		4.000		96.5	80	120		
Surr: Nitrobenzene-d5		3.99		4.000		99.8	80	120		
Surr: Phenol-d6		3.68		4.000		92.0	80	120		

Qualifiers:

В Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

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Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: GCMS2_130328A

The QC data in batch 56669 applies to the following samples: 1303261-02A, 1303261-03A, 1303261-04A, 1303261-05A, 1303261-07A, 1303261-08A, 1303261-09A, 1303261-11A, 1303261-13A, 1303261-14A, 1303261-15A, 1303261-16A, 1303261-18A, 1303261-19A, 1303261-20A, 1303261-21A

Sample ID: LCS-56669	Batch ID:	56669		TestNo	: SW	8260C		Units:	mg/Kg
SampType: LCS	Run ID:	GCMS2	_130328A	Analys	is Date: 3/28	3/2013 11:12	2:00 AM	Prep Date:	3/28/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD RPDLimit Qua
1,1,1-Trichloroethane		0.0217	0.00500	0.0232	0	93.5	68	130	
1,1,2,2-Tetrachloroethane		0.0249	0.00500	0.0232	0	107	59	140	
1,1,2-Trichloroethane		0.0245	0.00500	0.0232	0	105	62	127	
1,1-Dichloroethane		0.0219	0.00500	0.0232	0	94.2	73	125	
1,1-Dichloroethylene		0.0209	0.00500	0.0232	0	90.3	65	136	
1,2-Dichloroethane		0.0227	0.00500	0.0232	0	97.8	72	137	
Benzene		0.0225	0.00500	0.0232	0	97.1	75	125	
Carbon tetrachloride		0.0216	0.00500	0.0232	0	93.1	67	133	
Chloroform		0.0224	0.00500	0.0232	0	96.4	72	124	
Ethylbenzene		0.0222	0.00500	0.0232	0	95.9	75	125	
Ethylene bromide		0.0226	0.00500	0.0232	0	97.6	70	124	
Methylene chloride		0.0237	0.00500	0.0232	0	102	63	137	
Tetrachloroethylene		0.0220	0.00500	0.0232	0	94.9	67	139	
Toluene		0.0225	0.00500	0.0232	0	97.0	75	125	
Trichloroethylene		0.0214	0.00500	0.0232	0	92.1	77	124	
Vinyl chloride		0.0188	0.00500	0.0232	0	81.1	58	126	
Total Xylenes		0.0682	0.00500	0.0696	0	98.0	75	125	
Surr: 1,2-Dichloroethane-d4		52.7	0.0000	50.00		105	52	149	
Surr: 4-Bromofluorobenzene		50.1		50.00		100	84	118	
Surr: Dibromofluoromethane		51.2		50.00		102	65	135	
Surr: Toluene-d8		47.6		50.00		95.1	84	116	
Sample ID: MB-56669	Batch ID:	56669		TestNo	: SW	8260C		Units:	mg/Kg
SampType: MBLK	Run ID:	GCMS2	_130328A	Analys	is Date: 3/28	3/2013 11:44	4:00 AM	Prep Date:	3/28/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD RPDLimit Qua
1,1,1-Trichloroethane		ND	0.00500						
1,1,2,2-Tetrachloroethane		ND	0.00500						
1,1,2-Trichloroethane		ND	0.00500						
1,1-Dichloroethane		ND	0.00500						
1,1-Dichloroethylene		ND	0.00500						
1,2-Dichloroethane		ND	0.00500						
Benzene		ND	0.00500						
Carbon tetrachloride		ND	0.00500						
Chloroform		ND	0.00500						
Ethylbenzene		ND	0.00500						
Ethylene bromide		ND	0.00500						
Methylene chloride		ND	0.00500						
Tetrachloroethylene		ND	0.00500						
		ND	0.00000						
Qualifiers: B Analyte det	ected in the a	ssociated N	Iethod Blank	DF 1	Dilution Facto	or			
T A., 1 , 1 ,	. 11	MIDT 1	DI	MDI					D 10 001

Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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R360 Artesia Landfarm

Work Order: 1303261

Project:

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2_130328A

Sample ID: MB-56669	Batch ID:	56669		TestNo:		SW8260C		Units:	mg/Kg
SampType: MBLK	Run ID:	GCMS2_	130328A	Analysis	s Date:	3/28/2013 11:44	1:00 AM	Prep Date	3/28/2013
Analyte		Result	RL	SPK value	Ref V	'al %REC	LowLimit	HighLimit	%RPD RPDLimit Qual
Toluene		ND	0.00500						
Trichloroethylene		ND	0.00500						
Vinyl chloride		ND	0.00500						

viriyi oriionae	110	0.0000			
Total Xylenes	ND	0.00500			
Surr: 1,2-Dichloroethane-d4	47.6	50.00	95.3	52	149
Surr: 4-Bromofluorobenzene	48.6	50.00	97.2	84	118
Surr: Dibromofluoromethane	49.4	50.00	98.7	65	135
Surr: Toluene-d8	47.9	50.00	95.8	84	116

Sample ID: 1303261-02AMS	Batch ID:	56669		TestNo): SV	V8260C		Units:	mg/	Kg-dry
SampType: MS	Run ID:	GCMS2	_130328A	Analys	is Date: 3/2	28/2013 8:38:0	00 PM	Prep Date	3/28	/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qual
1,1,1-Trichloroethane		0.0213	0.00484	0.0225	0	95.0	68	130		
1,1,2,2-Tetrachloroethane		0.0193	0.00484	0.0225	0	85.9	59	140		
1,1,2-Trichloroethane		0.0217	0.00484	0.0225	0	96.5	62	127		
1,1-Dichloroethane		0.0205	0.00484	0.0225	0	91.4	73	125		
1,1-Dichloroethylene		0.0188	0.00484	0.0225	0	83.9	65	136		
1,2-Dichloroethane		0.0228	0.00484	0.0225	0	102	72	137		
Benzene		0.0202	0.00484	0.0225	0	89.9	73	126		
Carbon tetrachloride		0.0215	0.00484	0.0225	0	95.6	67	133		
Chloroform		0.0220	0.00484	0.0225	0	98.1	72	124		
Ethylbenzene		0.0208	0.00484	0.0225	0	92.5	74	127		
Ethylene bromide		0.0201	0.00484	0.0225	0	89.5	70	124		
Methylene chloride		0.0208	0.00484	0.0225	0	92.7	63	137		
Tetrachloroethylene		0.0207	0.00484	0.0225	0	92.0	67	139		
Toluene		0.0209	0.00484	0.0225	0	93.0	71	127		
Trichloroethylene		0.0200	0.00484	0.0225	0	89.0	77	124		
Vinyl chloride		0.0174	0.00484	0.0225	0	77.6	58	126		
Total Xylenes		0.0639	0.00484	0.0674	0	94.8	75	125		
Surr: 1,2-Dichloroethane-d4		53.9		48.39		111	52	149		
Surr: 4-Bromofluorobenzene		46.9		48.39		96.9	84	118		
Surr: Dibromofluoromethane		50.4		48.39		104	65	135		
Surr: Toluene-d8		46.4		48.39		96.0	84	116		

Sample ID: 1303261-02AMSD	Batch ID:	56669		TestNo	: 8	SW8260C		Units:	mg/	Kg-dry
SampType: MSD	Run ID:	GCMS2	_130328A	Analysi	s Date: 3	3/28/2013 9:09:0	00 PM	Prep Date	3/28	/2013
Analyte		Result	RL	SPK value	Ref Va	l %REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane		0.0215 0.0203	0.00501 0.00501	0.0232 0.0232	0 0	92.8 87.2	68 59	130 140	1.01 4.94	30 30

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1303261

RunID: GCMS2_130328A **Project:** R360 Artesia Landfarm

Sample ID: 1303261-02AMSD	Batch ID:	56669		TestNo	: SW	/8260C		Units:	mg/k	(g-dry
SampType: MSD	Run ID:	GCMS	2_130328A	Analysi	s Date: 3/2	8/2013 9:09:0	00 PM	Prep Date:	3/28/	2 013
Analyte	F	Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit ⁴	%RPD	RPDLimit Qual
1,1,2-Trichloroethane	(0.0220	0.00501	0.0232	0	94.8	62	127	1.68	30
1,1-Dichloroethane	(0.0210	0.00501	0.0232	0	90.2	73	125	2.07	30
1,1-Dichloroethylene	(0.0197	0.00501	0.0232	0	84.6	65	136	4.27	30
1,2-Dichloroethane	(0.0230	0.00501	0.0232	0	99.1	72	137	0.904	30
Benzene	(0.0206	0.00501	0.0232	0	88.7	73	126	2.09	30
Carbon tetrachloride	(0.0212	0.00501	0.0232	0	91.3	67	133	1.12	30
Chloroform	(0.0219	0.00501	0.0232	0	94.3	72	124	0.636	30
Ethylbenzene	(0.0210	0.00501	0.0232	0	90.3	74	127	0.945	30
Ethylene bromide	(0.0207	0.00501	0.0232	0	89.1	70	124	2.96	30
Methylene chloride	(0.0209	0.00501	0.0232	0	90.1	63	137	0.566	30
Tetrachloroethylene	(0.0206	0.00501	0.0232	0	88.8	67	139	0.084	30
Toluene	(0.0211	0.00501	0.0232	0	91.0	71	127	1.19	30
Trichloroethylene	(0.0203	0.00501	0.0232	0	87.4	77	124	1.54	30
Vinyl chloride	(0.0182	0.00501	0.0232	0	78.4	58	126	4.45	30
Total Xylenes	(0.0642	0.00501	0.0697	0	92.2	75	125	0.599	30
Surr: 1,2-Dichloroethane-d4		55.0		50.06		110	52	149	0	0
Surr: 4-Bromofluorobenzene		48.2		50.06		96.4	84	118	0	0
Surr: Dibromofluoromethane		51.4		50.06		103	65	135	0	0
Surr: Toluene-d8		47.5		50.06		94.8	84	116	0	0

Qualifiers:

Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

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Work Order: 1303261

Project: R360 Artesia Landfarm RunID: GCMS2_130328A

ANALYTICAL QC SUMMARY REPORT

Sample ID: ICV-130328	Batch ID: I	R65568		TestNo	: SW	8260C		Units:	mg/Kg
SampType: ICV	Run ID:	GCMS2_1	130328A	Analysi	s Date: 3/28	8/2013 10:41	:00 AM	Prep Date:	
Analyte	Re	esult	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	RPD RPDLimit Qual
1,1,1-Trichloroethane	0.0)444	0.00500	0.0464	0	95.8	80	120	
1,1,2,2-Tetrachloroethane	0.0	0460	0.00500	0.0464	0	99.1	80	120	
1,1,2-Trichloroethane	0.0	0466	0.00500	0.0464	0	100	80	120	
1,1-Dichloroethane	0.0)449	0.00500	0.0464	0	96.7	80	120	
1,1-Dichloroethylene	0.0	0435	0.00500	0.0464	0	93.8	80	120	
1,2-Dichloroethane	0.0	0450	0.00500	0.0464	0	96.9	80	120	
Benzene	0.0	0456	0.00500	0.0464	0	98.4	80	120	
Carbon tetrachloride	0.0	0441	0.00500	0.0464	0	95.1	80	120	
Chloroform	0.0	0459	0.00500	0.0464	0	99.0	80	120	
Ethylbenzene	0.0	0469	0.00500	0.0464	0	101	80	120	
Ethylene bromide	0.0	0449	0.00500	0.0464	0	96.8	80	120	
Methylene chloride	0.0	0464	0.00500	0.0464	0	100	80	120	
Tetrachloroethylene	0.0	0448	0.00500	0.0464	0	96.5	80	120	
Toluene	0.0	0462	0.00500	0.0464	0	99.5	80	120	
Trichloroethylene	0.0	0429	0.00500	0.0464	0	92.5	80	120	
Vinyl chloride	0.0	0402	0.00500	0.0464	0	86.6	80	120	
Total Xylenes	0.	142	0.00500	0.139	0	102	80	120	
Surr: 1,2-Dichloroethane-d4	5	1.1		50.00		102	52	149	
Surr: 4-Bromofluorobenzene	4	9.1		50.00		98.2	84	118	
Surr: Dibromofluoromethane	4	9.7		50.00		99.4	65	135	
Surr: Toluene-d8	4	7.9		50.00		95.8	84	116	

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_130402A **Project:** R360 Artesia Landfarm

The QC data in batch 56718 applies to the following samples: 1303261-02B, 1303261-03B, 1303261-04B, 1303261-05B, 1303261-07B, 1303261-08B, 1303261-09B, 1303261-11B, 1303261-13B, 1303261-14B, 1303261-15B, 1303261-16B, 1303261-18B, 1303261-19B, 1303261-19B, 1303261-19B, 1303261-18B, 1303261-18B, 1303261-19B, 1303261-18B, 1303261-19B, 1303261-1

21B	1.00 50740	Detak ID:	50740		Taathi	- 520	•		I laita		
·	LCS-56718	Batch ID:	56718	1402A	TestN			4 AM	Units:	mg/Kg	
SampType:	103	Run ID:	IC2_130	J4UZA	Analys	sis Date: 4/2/	2013 9:22:4	1 AW	Prep Date:	4/1/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	%RPD R	PDLimit Qu
Chloride			51.7	5.00	50.00	0	103	80	120		
Fluoride			20.3	1.00	20.00	0	102	80	120		
Nitrate-N			25.7	5.00	25.00	0	103	80	120		
Sulfate			149	10.0	150.0	0	99.6	80	120		
	LCSD-56718	Batch ID:	56718		TestN				Units:	mg/Kg	l
SampType:	LCSD	Run ID:	IC2_130)402A	Analys	sis Date: 4/2/	2013 9:37:1	6 AM	Prep Date:	4/1/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	%RPD R	PDLimit Qua
Chloride			51.6	5.00	50.00	0	103	80	120	0.256	20
Fluoride			20.4	1.00	20.00	0	102	80	120	0.238	20
Nitrate-N			25.6	5.00	25.00	0	102	80	120	0.286	20
Sulfate			149	10.0	150.0	0	99.2	80	120	0.339	20
Sample ID:	MB-56718	Batch ID:	56718		TestN	o: E30	0		Units:	mg/Kg	I
SampType:	MBLK	Run ID:	IC2_130)402A	Analys	sis Date: 4/2/	2013 9:51:5	0 AM	Prep Date:	4/1/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	%RPD R	PDLimit Qua
Chloride			ND	5.00							
Fluoride			ND	1.00							
Nitrate-N			ND	5.00							
Sulfate			ND	10.0							
Sample ID:	1303261-02B MS	Batch ID:	56718		TestN	o: E30	0		Units:	mg/Kg	j-dry
SampType:	MS	Run ID:	IC2_130	0402A	Analys	sis Date: 4/2/	2013 10:44:	00 AM	Prep Date:	4/1/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	%RPD R	PDLimit Qua
Chloride			60.2	5.20	51.96	7.127	102	80	120		
Fluoride			21.7	1.04	20.78	0.7647	101	80	120		
Nitrate-N			26.9	5.20	25.98	0	104	80	120		
Sulfate			170	10.4	155.9	15.69	99.0	80	120		
Sample ID:	1303261-02B MSD	Batch ID:	56718		TestN	o: E30	0		Units:	mg/Kg	j-dry
SampType:	MSD	Run ID:	IC2_130)402A	Analys	sis Date: 4/2/	2013 10:58:	35 AM	Prep Date:	4/1/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	%RPD R	PDLimit Qua
Chloride			60.0	5.20	51.96	7.127	102	80	120	0.315	20
Fluoride			21.7	1.04	20.78	0.7647	101	80	120	0.156	20
Nitrate-N			26.9	5.20	25.98	0	104	80	120	0.131	20
Qualifiers:	B Analyte dete	ected in the a	ssociated M	Iethod Blank	DF	Dilution Fact	or				
	J Analyte dete	ected between	n MDL and	RL	MDL	Method Detec	ction Limit			Pag	ge 23 of 34
	ND Not Detected	d at the Math	and Datasti	on Limit	D	PPD outside	agganted cont	rol limita			

Not Detected at the Method Detection Limit ND

Reporting Limit

Analyte detected between SDL and RL

R RPD outside accepted control limits

S Spike Recovery outside control limits

Parameter not NELAC certified

Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: IC2_130402A

Sample ID: 1	303261-02B MSD	Batch ID:	56718		TestNo:	E300)		Units:	mg/Kg	g-dry
SampType: N	MSD	Run ID:	IC2_130	402A	Analysis	Date: 4/2/2	2013 10:58:	35 AM	Prep Date	4/1/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD R	PDLimit Qual
Sulfate			169	10.4	155.9	15.69	98.5	80	120	0.439	20
Sample ID: 1	303261-15B MS	Batch ID:	56718		TestNo:	E300)		Units:	mg/Kg	g-dry
SampType: N	MS	Run ID:	IC2_130	402A	Analysis	Date: 4/2/2	2013 4:28:1	8 PM	Prep Date	4/1/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD R	PDLimit Qual
Chloride			64.3	5.77	57.66	4.234	104	80	120		
Fluoride			25.7	1.15	23.06	1.744	104	80	120		
Nitrate-N			30.7	5.77	28.83	0	107	80	120		
Sulfate			175	11.5	173.0	0	101	80	120		
Sample ID: 1	303261-15B MSD	Batch ID:	56718		TestNo:	E300)		Units:	mg/Kg	g-dry
SampType: N	MSD	Run ID:	IC2_130	402A	Analysis	Date: 4/2/2	013 4:42:5	2 PM	Prep Date	4/1/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD R	PDLimit Qual
Chloride			64.2	5.77	57.66	4.234	104	80	120	0.063	20
Fluoride			25.7	1.15	23.06	1.744	104	80	120	0.043	20
Nitrate-N			30.8	5.77	28.83	0	107	80	120	0.097	20
Sulfate			175	11.5	173.0	0	101	80	120	0.083	20

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: IC2_130402A

110ject. R5007	rtesia Danara	1111				Rumm			U 211
Sample ID: ICV-130402	Batch ID:	R65616		TestNo	: E30	0		Units:	mg/Kg
SampType: ICV	Run ID:	IC2_130	402A	Analys	is Date: 4/2/ 2	2013 8:45:5	4 AM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Chloride		26.1	5.00	25.00	0	105	90	110	
Fluoride		10.3	1.00	10.00	0	103	90	110	
Nitrate-N		13.0	5.00	12.50	0	104	90	110	
Sulfate		77.4	10.0	75.00	0	103	90	110	
Sample ID: CCV1-130402	Batch ID:	R65616		TestNo	: E30	0		Units:	mg/Kg
SampType: CCV	Run ID:	IC2_130	402A	Analys	is Date: 4/2/ 2	2013 12:11:	27 PM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Chloride		10.4	5.00	10.00	0	104	90	110	
Fluoride		4.15	1.00	4.000	0	104	90	110	
Nitrate-N		5.19	5.00	5.000	0	104	90	110	
Sulfate		30.2	10.0	30.00	0	101	90	110	
Sample ID: CCV2-130402	Batch ID:	R65616		TestNo	: E30	0		Units:	mg/Kg
SampType: CCV	Run ID:	IC2_130	402A	Analys	is Date: 4/2/ 2	2013 2:54:1	6 PM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Chloride		10.5	5.00	10.00	0	105	90	110	
Fluoride		4.18	1.00	4.000	0	105	90	110	
Nitrate-N		5.21	5.00	5.000	0	104	90	110	
Sulfate		30.3	10.0	30.00	0	101	90	110	
Sample ID: CCV3-130402	Batch ID:	R65616		TestNo	: E30	0		Units:	mg/Kg
Sample ID: CCV3-130402 SampType: CCV	Batch ID: Run ID:	R65616 IC2_130)402A		E30		7 PM	Units: Prep Date	
-	Run ID:		1 402A RL					Prep Date	
SampType: CCV	Run ID:	IC2_130		Analys	is Date: 4/2/ 2	2013 4:57:2		Prep Date	:
SampType: CCV Analyte	Run ID:	IC2_130	RL	Analys SPK value	is Date: 4/2/ Ref Val	2013 4:57:2 %REC	LowLim	Prep Date	:
SampType: CCV Analyte Chloride	Run ID:	IC2_130 Result 10.6	RL 5.00	Analys SPK value	Ref Val	2013 4:57:2 %REC 106	LowLim	Prep Date it HighLimit 110	:

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: IR207_130402A

Sample ID: ICV-130402	Batch ID:	418_S-04/0	2/2013	TestNo:	E418.	.1		Units:	mg/Kg	
SampType: ICV	Run ID:	IR207_1304	102A	Analysis	Date: 4/2/20	013 4:30:0	0 PM	Prep Date	:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLim	t Qual
Petroleum Hydrocarbons, TR		232	10.0	250.0	0	92.8	90	110		N
Sample ID: CCV1-130302	Batch ID:	418_S-04/0	2/2013	TestNo:	E418.	.1		Units:	mg/Kg	
SampType: CCV	Run ID:	IR207_1304	402A	Analysis	Date: 4/2/20	013 4:30:0	0 PM	Prep Date	:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLim	t Qual
Petroleum Hydrocarbons, TR		238	10.0	250.0	0	95.0	85	115		N
Sample ID: CCV2-130402	Batch ID:	418_S-04/0	2/2013	TestNo:	E418.	.1		Units:	mg/Kg	
SampType: CCV	Run ID:	IR207_1304	402A	Analysis	Date: 4/2/20	013 4:30:0	0 PM	Prep Date	:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLim	t Qual
Petroleum Hydrocarbons, TR		239	10.0	250.0	0	95.5	85	115		N
			10.0	230.0	0	95.5	60	113		
Sample ID: CCV3-130402	Batch ID:	418_S-04/0		TestNo:	E418		00	Units:	mg/Kg	
Sample ID: CCV3-130402 SampType: CCV	Batch ID: Run ID:	418_S-04/0 IR207_1304	2/2013	TestNo:		.1			• •	
,	Run ID:		2/2013	TestNo:	E418.	.1	0 PM	Units: Prep Date	• •	

Qualifiers: B Ana

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

 $R \quad \ RPD \ outside \ accepted \ control \ \ limits$

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S Spike Recovery outside control limits

N Parameter not NELAC certified

Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: IR207_130402A

The QC data in batch 56729 app	lies to the fo	llowing s	amples: 13032	261-02B, 13032	61-03B, 1	303261-04B, 1	303261	-05B		
Sample ID: MB-56729	Batch ID:	56729		TestNo:	E4	18.1		Units:	mg/Kg	
SampType: MBLK	Run ID:	IR207_	130402A	Analysis	Date: 4/2	2/2013 4:30:00	PM	Prep Date:	4/2/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimi	t Qual
Petroleum Hydrocarbons, TR		ND	10.0							N
Sample ID: LCS1-56729	Batch ID:	56729		TestNo:	E4	18.1		Units:	mg/Kg	
SampType: LCS	Run ID:	IR207_	130402A	Analysis	Date: 4/2	2/2013 4:30:00	PM	Prep Date:	4/2/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD RPDLimi	t Qual
Petroleum Hydrocarbons, TR		106	10.0	100.0	0	106	80	120		N
Sample ID: 1303223-06BMS	Batch ID:	56729		TestNo:	E4	18.1		Units:	mg/Kg-dry	
SampType: MS	Run ID:	IR207_	130402A	Analysis	Date: 4/2	2/2013 4:30:00	PM	Prep Date:	4/2/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimi	t Qual
Petroleum Hydrocarbons, TR		109	10.8	107.9	6.738	94.4	80	120		N
Sample ID: 1303223-06BMSD	Batch ID:	56729		TestNo:	E4	18.1		Units:	mg/Kg-dry	
SampType: MSD	Run ID:	IR207_	130402A	Analysis	Date: 4/2	2/2013 4:30:00	PM	Prep Date:	4/2/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimi	t Qual
Petroleum Hydrocarbons, TR		113	10.8	107.9	6.738	98.1	80	120	3.66 20	N

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limitsN Parameter not NELAC certified

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Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: IR207_130402B

Sample ID: ICV2-130402	Batch ID:	418_S-0	4/02/2013	TestNo:	E418	8.1		Units:	mg/Kg	
SampType: ICV	Run ID:	IR207_1	30402B	Analysis	s Date: 4/2/	2013 4:30:0	0 PM	Prep Date	:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit	Qual
Petroleum Hydrocarbons, TR		241	10.0	250.0	0	96.5	90	110		N
Sample ID: CCV4-130302	Batch ID:	418_S-0	4/02/2013	TestNo:	E41	8.1		Units:	mg/Kg	
SampType: CCV	Run ID:	IR207_1	30402B	Analysis	s Date: 4/2/2	2013 4:30:0	0 PM	Prep Date	:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit	Qual
Petroleum Hydrocarbons, TR		242	10.0	250.0	0	97.0	85	115		N
Sample ID: CCV5-130402	Batch ID:	418_S-0	4/02/2013	TestNo:	E41	8.1		Units:	mg/Kg	
SampType: CCV	Run ID:	IR207_1	30402B	Analysis	s Date: 4/2/2	2013 4:30:0	0 PM	Prep Date	:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit	Qual
Petroleum Hydrocarbons, TR		243	10.0	250.0	0	97.2	85	115		N

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

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R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: IR207_130402B

The QC data in batch 56733 applies to the following samples: 1303261-07B, 1303261-08B, 1303261-09B, 1303261-11B, 1303261-13B, 1303261-14B, 1303261-15B, 1303261-16B, 1303261-18B, 1303261-19B, 1303261-20B, 1303261-21B

14B, 1303261-15B, 1303261-16	B, 1303261-	18B, 130)3261-19B, 130	03261-20B, 130	3261-21B					
Sample ID: MB-56733	Batch ID:	56733		TestNo:	E41	8.1		Units:	mg/Kg	
SampType: MBLK	Run ID:	IR207	_130402B	Analysis	Date: 4/2/	2013 4:30:0	0 PM	Prep Date:	4/2/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDL	imit Qual
Petroleum Hydrocarbons, TR		ND	10.0							N
Sample ID: LCS-56733	Batch ID:	56733		TestNo:	E41	8.1		Units:	mg/Kg	
SampType: LCS	Run ID:	IR207	_130402B	Analysis	Date: 4/2/	2013 4:30:0	0 PM	Prep Date:	4/2/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDL	imit Qual
Petroleum Hydrocarbons, TR		112	10.0	100.0	0	112	80	120		N
Sample ID: 1303261-09BMS	Batch ID:	56733		TestNo:	E41	8.1		Units:	mg/Kg-dry	/
SampType: MS	Run ID:	IR207	_130402B	Analysis	Date: 4/2/	2013 4:30:0	0 PM	Prep Date:	4/2/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDL	imit Qual
Petroleum Hydrocarbons, TR		120	11.3	112.7	0	107	80	120		N
Sample ID: 1303261-09BMSD	Batch ID:	56733		TestNo:	E41	8.1		Units:	mg/Kg-dry	/
SampType: MSD	Run ID:	IR207	_130402B	Analysis	Date: 4/2/	2013 4:30:0	0 PM	Prep Date:	4/2/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDL	imit Qual
Petroleum Hydrocarbons, TR		120	11.4	113.6	0	106	80	120	0.388 2	0 N

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

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R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

Work Order: 1303261

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: PH_130401A

The QC data in batch 56707 applies to the following samples: 1303261-02B, 1303261-03B, 1303261-04B, 1303261-05B, 1303261-07B, 1303261-08B, 1303261-09B, 1303261-11B, 1303261-13B, 1303261-14B, 1303261-15B, 1303261-16B, 1303261-18B, 1303261-19B, 1303261-20B, 1303261-21B

	-								
Sample ID: 1303258-01A-DUP	Batch ID:	56707		TestNo:	SWS	9045D	Units:	pH Unit	ts
SampType: DUP	Run ID:	PH_130401	A	Analysis	s Date: 4/1/2	2013 10:01:05	AM Prep Date:	4/1/201	3
Analyte		Result	RL	SPK value	Ref Val	%REC L	owLimit HighLimit	%RPD RF	DLimit Qual
рН		10.7	0	0	10.54			1.17	5
Sample ID: 1303261-21B-DUP	Batch ID:	56707		TestNo:	SWS	0045D	Units:	pH Unit	ts
SampType: DUP	Run ID:	PH_130401	A	Analysis	s Date: 4/1/2	2013 10:01:05	AM Prep Date:	4/1/201	3
Analyte		Result	RL	SPK value	Ref Val	%REC L	owLimit HighLimit	%RPD RF	DLimit Qual
pH		7.63	0	0	7.691	<u> </u>	·	0.836	5

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

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S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1303261 ANALYTICAL QC SUMMARY REPORT

PH_130401A **RunID: Project:** R360 Artesia Landfarm

Sample ID: ICV-130401	Batch ID:	PH_S-4	1365	TestNo	SWS	9045D		Units:	pH Units
SampType: ICV	Run ID:	PH_130	0401A	Analysi	s Date: 4/1/ 2	2013 10:01:	05 AM	Prep Date:	4/1/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	t HighLimit %	6RPD RPDLimit Qual
рН		10.0	0	10.00	0	100	99	101	
Sample ID: CCV1-130401	Batch ID:	PH_S-4	1365	TestNo	SWS	9045D		Units:	pH Units
SampType: CCV	Run ID:	PH_130	0401A	Analysis	s Date: 4/1/ 2	2013 10:01:	05 AM	Prep Date:	4/1/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	t HighLimit %	6RPD RPDLimit Qual
рН		7.10	0	7.000	0	101	97.1	102.9	
Sample ID: CCV-130401	Batch ID:	PH_S-4	1365	TestNo	SWS	9045D		Units:	pH Units
SampType: CCV	Run ID:	PH_130	0401A	Analysi	s Date: 4/1/	2013 10:01:	05 AM	Prep Date:	4/1/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	t HighLimit %	6RPD RPDLimit Qual
рН		6.99	0	7.000	0	99.9	97.1	102.9	

Qualifiers: Analyte detected in the associated Method Blank

> J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

Page 31 of 34 RPD outside accepted control limits

R Spike Recovery outside control limits

Parameter not NELAC certified

Work Order: 1303261

Project: R360 Artesia Landfarm RunID: PMOIST_130401A

The QC data in batch 56716 applies to the following samples: 1303261-02C, 1303261-03C, 1303261-04C, 1303261-05C, 1303261-07C, 1303261-08C, 1303261-09C, 1303261-11C, 1303261-13C, 1303261-14C, 1303261-15C, 1303261-16C, 1303261-18C, 1303261-19C, 1303261-20C, 1303261-21C

ANALYTICAL QC SUMMARY REPORT

Sample ID: 1303261-02C-DUP	Batch ID:	56716		TestNo	: D2	2216	Units:	WT%	ó
SampType: DUP	Run ID:	PMOIST	_130401A	Analys	is Date: 4/2	2/2013 8:50:00	AM Prep Date	4/1/2	2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit HighLimit	%RPD	RPDLimit Qual
Percent Moisture		3.56	0	0	4.148			15.3	30

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

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S Spike Recovery outside control limits

N Parameter not NELAC certified

Work Order: 1303261

RunID: UV/VIS_2_130402A **Project:** R360 Artesia Landfarm

The QC data in batch 56705 applies to the following samples: 1303261-02B, 1303261-03B, 1303261-04B, 1303261-05B, 1303261-07B, 1303261-08B, 1303261-09B, 1303261-11B, 1303261-13B, 1303261-14B, 1303261-15B, 1303261-16B, 1303261-18B, 1303261-19B, 1303261-20B, 1303261-21B

ANALYTICAL QC SUMMARY REPORT

<u></u>									
Sample ID: MB-56705	Batch ID:	56705		TestNo:	sw	9014		Units:	mg/Kg
SampType: MBLK	Run ID:	UV/VIS_2_	130402A	Analysis	Date: 4/2/	/2013 10:21:0	00 AM	Prep Date:	4/1/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	RPD RPDLimit Qual
Cyanide, Total		ND	0.500						
Sample ID: LCS-56705	Batch ID:	56705		TestNo:	sw	9014		Units:	mg/Kg
SampType: LCS	Run ID:	UV/VIS_2_	130402A	Analysis	Date: 4/2/	/2013 10:21:0	00 AM	Prep Date:	4/1/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	RPD RPDLimit Qual
Cyanide, Total		5.36	0.500	5.000	0	107	85	115	
Sample ID: 1303261-02BMS	Batch ID:	56705		TestNo:	sw	9014		Units:	mg/Kg-dry
SampType: MS	Run ID:	UV/VIS_2_	130402A	Analysis	Date: 4/2/	/2013 10:21:0	00 AM	Prep Date:	4/1/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	RPD RPDLimit Qual
Cyanide, Total		4.09	0.411	4.107	0	99.5	75	125	
Sample ID: 1303261-02BMSD	Batch ID:	56705		TestNo:	sw	9014		Units:	mg/Kg-dry
SampType: MSD	Run ID:	UV/VIS_2_	130402A	Analysis	Date: 4/2/	/2013 10:21:0	00 AM	Prep Date:	4/1/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	RPD RPDLimit Qual
Cyanide, Total		4.90	0.479	4.786	0	102	75	125	18.0 30

Qualifiers: В Analyte detected in the associated Method Blank

> Analyte detected between MDL and RL J

Not Detected at the Method Detection Limit ND

Analyte detected between SDL and RL

Dilution Factor DF

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits Parameter not NELAC certified

Page 33 of 34

Work Order: 1303261

Project: R360 Artesia Landfarm RunID: UV/VIS_2_130402A

ANALYTICAL QC SUMMARY REPORT

Sample ID: ICV-130402	Batch ID:	R65614		TestNo:	SW9	014		Units:	mg/Kg
SampType: ICV	Run ID:	UV/VIS_2	_130402A	Analysis	Date: 4/2/2	2013 10:19:	00 AM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
Cyanide, Total		0.112	0.500	0.1000	0	112	85	115	
Sample ID: CCV1-130402	Batch ID:	R65614		TestNo:	SW9	014		Units:	mg/Kg
SampType: CCV	Run ID:	UV/VIS_2	_130402A	Analysis	Date: 4/2/2	2013 10:24:	00 AM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
Cyanide, Total		0.226	0.500	0.2000	0	113	85	115	
Sample ID: CCV2-130402	Batch ID:	R65614		TestNo:	SW9	014		Units:	mg/Kg
SampType: CCV	Run ID:	UV/VIS_2	_130402A	Analysis	Date: 4/2/2	2013 10:28:	00 AM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
Cyanide, Total		0.224	0.500	0.2000	0	112	85	115	

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

Page 34 of 34

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified



April 12, 2013

Mark Larson

Larson & Associates 507 N. Marienfeld #200

Midland, TX 79701

TEL: (432) 687-0901

FAX (432) 687-0456 Order No.: 1304037

RE: R360 Artesia Landfarm

Dear Mark Larson:

DHL Analytical, Inc. received 2 sample(s) on 4/4/2013 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont

General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-12-9



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Miscellaneous Documents	3
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CHAIN-OF-CUSTODY

Agrson & SSOCIAI Environment	Ses, Inc	C.				idla	nd, T	feld, X 79 7-090	701	200)	DATE PO #: PROJ LAI PI	ROJE	ECT#	ł:	<u> []-</u>	@ [09	-0	9	RK R	CO	DEF	R #:	OR	AGE 1 1 304 Heslq : L	- <i>D</i> _	ind for
TRRP report? Yes No TIME ZONE: Time zone/State:	S=SOIL W=WATEI A=AIR		INT LUDGE OTHER	I	# of Containers	PR		H ₂ SO ₄ L NaOH L	n.		15%								\ \?\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\				FIELL	The state of the s	LO L
Field Sample I.D.	Lab#	Date	Time	Matrix	# of Cor	달	HNO3	H ₂ SO ₄ U	UNPRE	NA S							\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\$\\\ \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			5/Q 2/d		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	//	//	FIELD	NOTES	
Sp-1 5p-2	01	3/27/13	830	5	3			>	al .															- 1	(Contac	11/6	ark Vark
TOTAL RELINQUISHED BY: (Signature) RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature) RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature) RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)								NO 1 2	URN ADRMAIDAY C	_ 🖸 	ND TI	ME	CUS	CEIVI STOE CARF	Y SE	EMP ALS	: <u>4</u> -	. 7 BRO	OKEI	ΝC	RM #:		JSED					



WWW.LSO.COM Questions? Call 800-800-8984

Airbill No. 47376952

Print Name (Peison) Phone (Important)	2. From:	Phone (Important) 432–687–9901
Company Name	Company Name ARSON & ASSOCIATES	
Street Address (No P.O. Box or P.O. Box Zip Code Deliveries)	Street Address 507 NORTH MARIENEELD	
Suite / Floor	Sulte / Floor 200	
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3. Services Visit www.ko.com for availability of services to your destination and enjoy added features by creating your shipping label online.	4. Package: We hit:	FOR COURIER USE ONLY
By 10:30 am Delivery Check availability at Saturday Delivery Check availability an (Extra charge, www.fso.com not available	Your Company's Billing Reference Information	2189
By 8:30 am Delivery Check availability at (Extra charge, no www.lso.com Other	Ship Date: (mm/dd/yy)	Courier Number
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	- A Company Market Company Com	II i I

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name Larson & Associates			Date Receiv	red:	4/4/2013				
Work Order Number 1304037	Received by	Received by JB							
Checklist completed by:	Date Carrier name	<u>LoneStar</u>	_ Reviewed by	Initials	4/4/2013 Date				
Obtains and single and single and		Yes 🗹	No 🗌	Mat Danas at					
Shipping container/cooler in good condition?	olo «O	, 1	No 🗔	Not Present					
Custody seals intact on shippping container/coo	oler?		No 🗆	Not Present Not Present					
Custody seals intact on sample bottles?			No 🗆	Not Present					
Chain of custody present?	received?	Yes ✓ Yes ✓	No □						
Chain of custody signed when relinquished and Chain of custody agrees with sample labels?	received?	res ⊻ . Yes ⊻	No 🗔						
		-	No 🗆						
Samples in proper container/bottle?		Yes ✓ Yes ✓	No □						
Sample containers intact?			No 🗔						
Sufficient sample volume for indicated test?		Yes ✓ Yes ✓	No 🗆						
All samples received within holding time?		res ⊻		4.7 °C					
Container/Temp Blank temperature in complian	ice :	res ▼ Yes □			submitted 🗹				
Water - VOA vials have zero headspace? Water - pH acceptable upon receipt?		Yes 🗌	· —	Not Applicable					
vvator - pri addoptable apon receipt:	Adjusted?		necked by	140t Applicable	.				
	, iajuoiou .				_				
Any No response must be detailed in the comm	nents section below.								
Client contacted	Date contacted:		Pers	on contacted					
Contacted by:	Regarding								
Comments:									
Corrective Action									
									

CLIENT: Larson & Associates

Project: R360 Artesia Landfarm

Lab Order: 1304037

CASE NARRATIVE

Date: 12-Apr-13

Sample was analyzed using the methods outlined in the following references:

Method SW8260C - Volatile Organics

Method SW8270D - Semivolatiles Organics (1-Methylnapthalene is not NELAC Certified)

Method SW6020A - Metals Analysis Method SW7471B - Mercury Analysis

Method SW8270D - PCB Analysis

Method E300 - Anions Analysis

Method E418.1 - TRPH Analysis (this parameter not NELAC Certified)

Method SW9014 - Cyanide Analysis

Method SW9045D - pH of a Soil (corrosivity)

Method D2216 - Percent Moisture

LOG IN

The samples were received and log-in performed on 4/4/2013. A total of 2 samples were received and analyzed. The time of collection was Mountain Standard Time. The samples arrived in good condition and were properly packaged.

METALS ANALYSIS

For Metals Analysis, the recoveries of several analytes for the Matrix Spike and Matrix Spike Duplicate (1304037-01 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. These compounds are within method control limits in the associated LCS. No further corrective action was taken.

For Metals Analysis, the recoveries of Aluminum and Barium for the Post Digestion Spike (1304037-01 PDS) were above the method control limits. These are flagged accordingly in the QC Summary Report. These compounds are within method control limits in the associated Serial Dilution. No further corrective action was taken.

For Metals Analysis, the RPDs of a few analytes for the Serial Dilution (1304037-01SD) were above the method control limits. These are flagged accordingly in the QC Summary Report. These compounds are within method control limits in the associated Post Digestion Spike. No further corrective action was taken.

TRPH ANALYSIS

For TRPH Analysis, the recoveries of the Matrix Spike and Matrix Spike Duplicate (1304037-02

CLIENT: Larson & Associates

Project: R360 Artesia Landfarm

Lab Order: 1304037

CASE NARRATIVE

MS/MSD) were below the method control limits. These are flagged accordingly in the QC Summary Report. The associated LCS is within method control limits. No further corrective action was taken.

VOLATILES ANALYSIS

For Volatiles Analysis, the recoveries of four compounds for the Matrix Spike and Matrix Spike Duplicate (1304037-01 MS/MSD) were below the method control limits. These are flagged accordingly in the QC Summary Report. These compounds are within method control limits in the associated LCS. No further corrective action was taken.

SEMIVOLATILES ANALYSIS

For Semivolatiles Analysis, the recovery of surrogate 4-Terpheny-d14 for the Laboratory Control Spike (LCS-56850) was above the method control limits. This is flagged accordingly in the QC Summary Report. The remaining surrogates for this sample are within method control limits. No further corrective action was taken.

For Semivolatiles Analysis, the recovery of 2,4-Dinitrophenol for the Matrix Spike and Matrix Spike Duplicate (1304037-01 MS/MSD) was below the method control limits. These are flagged accordingly in the QC Summary Report. This compound is within method control limits in the associated LCS. No further corrective action was taken.

For Semivolatiles Analysis, the recoveries of two compounds for the Initial Calibration Verification (ICV-130411) were slightly below the method control limits. These are flagged accordingly in the QC Summary Report. These compounds are within method control limits in the associated LCS. No further corrective action was taken.

For Semivolatiles Analysis, the response factor of Internal Standard Perylene-d12 for the Matrix Spike and Matrix Spike Duplicate (1304037-01 MS/MSD) was below the method control limits. The recoveries of the affected compounds are within method control limits. No further corrective action was taken.

CLIENT: Larson & Associates

Project: R360 Artesia Landfarm Work Order Sample Summary
Lab Order: 1304037

Date: 12-Apr-13

 Lab Smp ID
 Client Sample ID
 Tag Number
 Date Collected
 Date Recved

 1304037-01
 SP-1
 03/27/13 08:30 AM
 4/4/2013

 1304037-02
 SP-2
 03/27/13 08:30 AM
 4/4/2013

Lab Order: 1304037

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1304037-01A	SP-1	03/27/13 08:30 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	04/08/13 10:25 AM	56822
1304037-01B	SP-1	03/27/13 08:30 AM	Soil	E300	Anion Prep	04/08/13 01:29 PM	56830
	SP-1	03/27/13 08:30 AM	Soil	E300	Anion Prep	04/08/13 01:29 PM	56830
	SP-1	03/27/13 08:30 AM	Soil	SW9010C	Cyanide Soil Prep	04/05/13 10:25 AM	56780
	SP-1	03/27/13 08:30 AM	Soil	SW9045C	pH Preparation	04/08/13 09:00 AM	56815
	SP-1	03/27/13 08:30 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/10/13 10:52 AM	56868
304037-01C	SP-1	03/27/13 08:30 AM	Soil	SW7471A	Mercury Soil Prep, Total	04/08/13 08:44 AM	56813
	SP-1	03/27/13 08:30 AM	Soil	D2216	Moisture Preparation	04/04/13 02:40 PM	56770
	SP-1	03/27/13 08:30 AM	Soil	SW3550C	Soil Prep Sonication: BNA	04/09/13 12:05 PM	56849
	SP-1	03/27/13 08:30 AM	Soil	SW3550C	Soil Prep Sonication: PCB	04/09/13 12:08 PM	56850
	SP-1	03/27/13 08:30 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/08/13 08:42 AM	56812
	SP-1	03/27/13 08:30 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/08/13 08:42 AM	56812
	SP-1	03/27/13 08:30 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/08/13 08:42 AM	56812
1304037-02A	SP-2	03/27/13 08:30 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	04/08/13 10:25 AM	56822
1304037-02B	SP-2	03/27/13 08:30 AM	Soil	E300	Anion Prep	04/08/13 01:29 PM	56830
	SP-2	03/27/13 08:30 AM	Soil	SW9010C	Cyanide Soil Prep	04/05/13 10:25 AM	56780
	SP-2	03/27/13 08:30 AM	Soil	SW9045C	pH Preparation	04/08/13 09:00 AM	56815
	SP-2	03/27/13 08:30 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	04/10/13 10:52 AM	56868
304037-02C	SP-2	03/27/13 08:30 AM	Soil	SW7471A	Mercury Soil Prep, Total	04/08/13 08:44 AM	56813
	SP-2	03/27/13 08:30 AM	Soil	D2216	Moisture Preparation	04/04/13 02:40 PM	56770
	SP-2	03/27/13 08:30 AM	Soil	SW3550C	Soil Prep Sonication: BNA	04/09/13 12:05 PM	56849
	SP-2	03/27/13 08:30 AM	Soil	SW3550C	Soil Prep Sonication: PCB	04/09/13 12:08 PM	56850
	SP-2	03/27/13 08:30 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/08/13 08:42 AM	56812
	SP-2	03/27/13 08:30 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/08/13 08:42 AM	56812
	SP-2	03/27/13 08:30 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	04/08/13 08:42 AM	56812

Lab Order: 1304037

Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1304037-01A	SP-1	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56822	1	04/08/13 04:41 PM	GCMS2_130408B
1304037-01B	SP-1	Soil	E300	Anions by IC method - Soil	56830	1	04/10/13 11:03 AM	IC2_130410A
	SP-1	Soil	E300	Anions by IC method - Soil	56830	10	04/10/13 12:07 PM	IC2_130410A
	SP-1	Soil	SW9014	Cyanide - Solid Sample	56780	1	04/05/13 05:02 PM	UV/VIS_2_130405A
	SP-1	Soil	SW9045D	pH of Solid (Corrosivity)	56815	1	04/08/13 02:15 PM	PH_130408A
	SP-1	Soil	E418.1	TRPH	56868	10	04/10/13 04:20 PM	IR207_130410A
1304037-01C	SP-1	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56850	1	04/10/13 02:50 PM	GCMS8_130410A
	SP-1	Soil	D2216	Percent Moisture	56770	1	04/05/13 08:35 AM	PMOIST_130404A
	SP-1	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56849	1	04/11/13 06:20 PM	GCMS9_130411D
	SP-1	Soil	SW7471B	Total Mercury: Soil/Solid	56813	1	04/09/13 12:31 PM	CETAC_HG_130409A
	SP-1	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56812	5	04/08/13 06:02 PM	ICP-MS3_130408A
	SP-1	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56812	5	04/09/13 11:51 AM	ICP-MS2_130409B
	SP-1	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56812	50	04/09/13 12:09 PM	ICP-MS2_130409B
1304037-02A	SP-2	Soil	SW8260C	8260 Soil Volatiles by GC/MS	56822	1	04/08/13 05:13 PM	GCMS2_130408B
1304037-02B	SP-2	Soil	E300	Anions by IC method - Soil	56830	1	04/10/13 11:20 AM	IC2_130410A
	SP-2	Soil	SW9014	Cyanide - Solid Sample	56780	1	04/05/13 05:01 PM	UV/VIS_2_130405A
	SP-2	Soil	SW9045D	pH of Solid (Corrosivity)	56815	1	04/08/13 02:15 PM	PH_130408A
	SP-2	Soil	E418.1	TRPH	56868	1	04/10/13 04:20 PM	IR207_130410A
1304037-02C	SP-2	Soil	SW8270D	PCB by GC/MS - Soil/Solid	56850	1	04/10/13 03:21 PM	GCMS8_130410A
	SP-2	Soil	D2216	Percent Moisture	56770	1	04/05/13 08:35 AM	PMOIST_130404A
	SP-2	Soil	SW8270D	Semivolatiles by GC/MS - Soil	56849	1	04/11/13 06:43 PM	GCMS9_130411D
	SP-2	Soil	SW7471B	Total Mercury: Soil/Solid	56813	1	04/09/13 12:43 PM	CETAC_HG_130409A
	SP-2	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56812	5	04/08/13 06:14 PM	ICP-MS3_130408A
	SP-2	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56812	5	04/09/13 11:57 AM	ICP-MS2_130409B
	SP-2	Soil	SW6020A	Trace Metals: ICP-MS - Solid	56812	50	04/09/13 12:21 PM	ICP-MS2_130409B

CLIENT: Larson & Associates Client Sample ID: SP-1

Project: R360 Artesia Landfarm Lab ID: 1304037-01

Project No: 11-0109-09 **Collection Date:** 03/27/13 08:30 AM

Lab Order: 1304037 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0154	0.0384		mg/Kg-dry	1	04/09/13 12:31 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Aluminum	11300	126	126		mg/Kg-dry	50	04/09/13 12:09 PM
Arsenic	2.09	0.503	1.01		mg/Kg-dry	5	04/08/13 06:02 PM
Barium	82.2	0.503	2.01		mg/Kg-dry	5	04/08/13 06:02 PM
Boron	7.07	2.52	7.55	J	mg/Kg-dry	5	04/09/13 11:51 AM
Cadmium	0.275	0.101	0.302	J	mg/Kg-dry	5	04/08/13 06:02 PM
Chromium	9.18	0.503	2.01		mg/Kg-dry	5	04/09/13 11:51 AM
Cobalt	2.68	0.503	2.01		mg/Kg-dry	5	04/09/13 11:51 AM
Copper	4.31	0.503	2.01		mg/Kg-dry	5	04/09/13 11:51 AM
Iron	7980	126	126		mg/Kg-dry	50	04/09/13 12:09 PM
Lead	5.39	0.101	0.302		mg/Kg-dry	5	04/08/13 06:02 PM
Manganese	107	0.503	2.01		mg/Kg-dry	5	04/08/13 06:02 PM
Molybdenum	ND	0.503	2.01		mg/Kg-dry	5	04/09/13 11:51 AM
Nickel	6.15	0.503	2.01		mg/Kg-dry	5	04/09/13 11:51 AM
Selenium	1.80	0.151	0.503		mg/Kg-dry	5	04/08/13 06:02 PM
Silver	ND	0.101	0.201		mg/Kg-dry	5	04/08/13 06:02 PM
Zinc	19.5	1.01	2.52		mg/Kg-dry	5	04/08/13 06:02 PM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.0102	0.0271	N	mg/Kg-dry	1	04/11/13 06:20 PM
2-Methylnaphthalene	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
Naphthalene	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
Benzo[a]pyrene	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
2,3,4,6-Tetrachlorophenol	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
2,4,5-Trichlorophenol	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
2,4,6-Trichlorophenol	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
2,4-Dichlorophenol	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
2,4-Dimethylphenol	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
2,4-Dinitrophenol	ND	0.0510	0.135		mg/Kg-dry	1	04/11/13 06:20 PM
2,6-Dichlorophenol	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
2-Chlorophenol	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
2-Methylphenol	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
2-Nitrophenol	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
4,6-Dinitro-2-methylphenol	ND	0.0306	0.0673		mg/Kg-dry	1	04/11/13 06:20 PM
4-Chloro-3-methylphenol	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
4-Methylphenol	ND	0.0204	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
4-Nitrophenol	ND	0.0510	0.135		mg/Kg-dry	1	04/11/13 06:20 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SP-1

Project: R360 Artesia Landfarm Lab ID: 1304037-01

Project No: 11-0109-09 **Collection Date:** 03/27/13 08:30 AM

Lab Order: 1304037 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
Pentachlorophenol	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
Phenol	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
Total Phenol (Calculated)	ND	0.0102	0.0271		mg/Kg-dry	1	04/11/13 06:20 PM
Surr: 2,4,6-Tribromophenol	103	0	45-126		%REC	1	04/11/13 06:20 PM
Surr: 2-Fluorobiphenyl	81.0	0	60-125		%REC	1	04/11/13 06:20 PM
Surr: 2-Fluorophenol	76.0	0	37-125		%REC	1	04/11/13 06:20 PM
Surr: 4-Terphenyl-d14	86.0	0	45-125		%REC	1	04/11/13 06:20 PM
Surr: Nitrobenzene-d5	80.0	0	45-125		%REC	1	04/11/13 06:20 PM
Surr: Phenol-d6	78.0	0	40-125		%REC	1	04/11/13 06:20 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0170	0.0340		mg/Kg-dry	1	04/10/13 02:50 PM
Aroclor 1221	ND	0.0170	0.0340		mg/Kg-dry	1	04/10/13 02:50 PM
Aroclor 1232	ND	0.0170	0.0340		mg/Kg-dry	1	04/10/13 02:50 PM
Aroclor 1242	ND	0.0170	0.0340		mg/Kg-dry	1	04/10/13 02:50 PM
Aroclor 1248	ND	0.0170	0.0340		mg/Kg-dry	1	04/10/13 02:50 PM
Aroclor 1254	ND	0.0170	0.0340		mg/Kg-dry	1	04/10/13 02:50 PM
Aroclor 1260	ND	0.0170	0.0340		mg/Kg-dry	1	04/10/13 02:50 PM
Surr: 2-Fluorobiphenyl	72.0	0	43-125		%REC	1	04/10/13 02:50 PM
Surr: 4-Terphenyl-d14	85.9	0	32-125		%REC	1	04/10/13 02:50 PM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
Toluene	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
Carbon tetrachloride	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
1,2-Dichloroethane	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
1,1-Dichloroethylene	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
Tetrachloroethylene	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
Trichloroethylene	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
Ethylbenzene	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
Total Xylenes	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
Methylene chloride	ND	0.00458	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
Chloroform	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
1,1-Dichloroethane	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
Ethylene bromide	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
1,1,1-Trichloroethane	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
1,1,2-Trichloroethane	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
1,1,2,2-Tetrachloroethane	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM
Vinyl chloride	ND	0.000916	0.00458		mg/Kg-dry	1	04/08/13 04:41 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SP-1

Project: R360 Artesia Landfarm Lab ID: 1304037-01

Project No: 11-0109-09 **Collection Date:** 03/27/13 08:30 AM

Lab Order: 1304037 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Surr: 1,2-Dichloroethane-d4	107	0	52-149		%REC	1	04/08/13 04:41 PM
Surr: 4-Bromofluorobenzene	107	0	84-118		%REC	1	04/08/13 04:41 PM
Surr: Dibromofluoromethane	67.0	0	65-135		%REC	1	04/08/13 04:41 PM
Surr: Toluene-d8	93.1	0	84-116		%REC	1	04/08/13 04:41 PM
TRPH		E418	3.1				Analyst: JCG
Petroleum Hydrocarbons, TR	1450	50.6	101	N	mg/Kg-dry	10	04/10/13 04:20 PM
CYANIDE - SOLID SAMPLE		SW90	014				Analyst: JCG
Cyanide, Total	ND	0.200	0.501		mg/Kg-dry	1	04/05/13 05:02 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	205	5.03	5.03		mg/Kg-dry	1	04/10/13 11:03 AM
Fluoride	2.72	1.01	1.01		mg/Kg-dry	1	04/10/13 11:03 AM
Nitrate-N	ND	5.03	5.03		mg/Kg-dry	1	04/10/13 11:03 AM
Sulfate	794	101	101		mg/Kg-dry	10	04/10/13 12:07 PM
PH OF SOLID (CORROSIVITY)		SW90	45D				Analyst: MK
рН	7.46	0	0		pH Units	1	04/08/13 02:15 PM
PERCENT MOISTURE		D22	16				Analyst: JCG
Percent Moisture	2.57	0	0		WT%	1	04/05/13 08:35 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SP-2

Project: R360 Artesia Landfarm Lab ID: 1304037-02

Project No: 11-0109-09 **Collection Date:** 03/27/13 08:30 AM

Lab Order: 1304037 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		SW74	71B				Analyst: LM
Mercury	ND	0.0160	0.0401		mg/Kg-dry	1	04/09/13 12:43 PM
TRACE METALS: ICP-MS - SOLID		SW60	20A				Analyst: SW
Aluminum	10800	127	127		mg/Kg-dry	50	04/09/13 12:21 PM
Arsenic	2.94	0.508	1.02		mg/Kg-dry	5	04/08/13 06:14 PM
Barium	206	0.508	2.03		mg/Kg-dry	5	04/08/13 06:14 PM
Boron	9.36	2.54	7.62		mg/Kg-dry	5	04/09/13 11:57 AM
Cadmium	0.104	0.102	0.305	J	mg/Kg-dry	5	04/08/13 06:14 PM
Chromium	15.0	0.508	2.03		mg/Kg-dry	5	04/09/13 11:57 AM
Cobalt	3.57	0.508	2.03		mg/Kg-dry	5	04/09/13 11:57 AM
Copper	6.66	0.508	2.03		mg/Kg-dry	5	04/09/13 11:57 AM
Iron	9890	127	127		mg/Kg-dry	50	04/09/13 12:21 PM
Lead	5.69	0.102	0.305		mg/Kg-dry	5	04/08/13 06:14 PM
Manganese	109	0.508	2.03		mg/Kg-dry	5	04/08/13 06:14 PM
Molybdenum	0.670	0.508	2.03	J	mg/Kg-dry	5	04/09/13 11:57 AM
Nickel	8.18	0.508	2.03		mg/Kg-dry	5	04/09/13 11:57 AM
Selenium	1.65	0.152	0.508		mg/Kg-dry	5	04/08/13 06:14 PM
Silver	ND	0.102	0.203		mg/Kg-dry	5	04/08/13 06:14 PM
Zinc	22.0	1.02	2.54		mg/Kg-dry	5	04/08/13 06:14 PM
SEMIVOLATILES BY GC/MS - SOIL		SW82	70D				Analyst: CZ
1-Methylnaphthalene	ND	0.0102	0.0272	N	mg/Kg-dry	1	04/11/13 06:43 PM
2-Methylnaphthalene	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
Naphthalene	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
Benzo[a]pyrene	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
2,3,4,6-Tetrachlorophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
2,4,5-Trichlorophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
2,4,6-Trichlorophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
2,4-Dichlorophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
2,4-Dimethylphenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
2,4-Dinitrophenol	ND	0.0511	0.135		mg/Kg-dry	1	04/11/13 06:43 PM
2,6-Dichlorophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
2-Chlorophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
2-Methylphenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
2-Nitrophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
4,6-Dinitro-2-methylphenol	ND	0.0307	0.0675		mg/Kg-dry	1	04/11/13 06:43 PM
4-Chloro-3-methylphenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
4-Methylphenol	ND	0.0204	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
4-Nitrophenol	ND	0.0511	0.135		mg/Kg-dry	1	04/11/13 06:43 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SP-2

Project: R360 Artesia Landfarm Lab ID: 1304037-02

Project No: 11-0109-09 **Collection Date:** 03/27/13 08:30 AM

Lab Order: 1304037 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW82	.70D				Analyst: CZ
Pentachlorophenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
Phenol	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
Total Phenol (Calculated)	ND	0.0102	0.0272		mg/Kg-dry	1	04/11/13 06:43 PM
Surr: 2,4,6-Tribromophenol	105	0	45-126		%REC	1	04/11/13 06:43 PM
Surr: 2-Fluorobiphenyl	77.0	0	60-125		%REC	1	04/11/13 06:43 PM
Surr: 2-Fluorophenol	70.0	0	37-125		%REC	1	04/11/13 06:43 PM
Surr: 4-Terphenyl-d14	90.0	0	45-125		%REC	1	04/11/13 06:43 PM
Surr: Nitrobenzene-d5	77.0	0	45-125		%REC	1	04/11/13 06:43 PM
Surr: Phenol-d6	74.0	0	40-125		%REC	1	04/11/13 06:43 PM
PCB BY GC/MS - SOIL/SOLID		SW82	70D				Analyst: AJR
Aroclor 1016	ND	0.0170	0.0341		mg/Kg-dry	1	04/10/13 03:21 PM
Aroclor 1221	ND	0.0170	0.0341		mg/Kg-dry	1	04/10/13 03:21 PM
Aroclor 1232	ND	0.0170	0.0341		mg/Kg-dry	1	04/10/13 03:21 PM
Aroclor 1242	ND	0.0170	0.0341		mg/Kg-dry	1	04/10/13 03:21 PM
Aroclor 1248	ND	0.0170	0.0341		mg/Kg-dry	1	04/10/13 03:21 PM
Aroclor 1254	ND	0.0170	0.0341		mg/Kg-dry	1	04/10/13 03:21 PM
Aroclor 1260	ND	0.0170	0.0341		mg/Kg-dry	1	04/10/13 03:21 PM
Surr: 2-Fluorobiphenyl	66.4	0	43-125		%REC	1	04/10/13 03:21 PM
Surr: 4-Terphenyl-d14	80.2	0	32-125		%REC	1	04/10/13 03:21 PM
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Benzene	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
Toluene	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
Carbon tetrachloride	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
1,2-Dichloroethane	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
1,1-Dichloroethylene	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
Tetrachloroethylene	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
Trichloroethylene	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
Ethylbenzene	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
Total Xylenes	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
Methylene chloride	ND	0.00445	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
Chloroform	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
1,1-Dichloroethane	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
Ethylene bromide	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
1,1,1-Trichloroethane	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
1,1,2-Trichloroethane	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
1,1,2,2-Tetrachloroethane	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM
Vinyl chloride	ND	0.000890	0.00445		mg/Kg-dry	1	04/08/13 05:13 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: SP-2

Project: R360 Artesia Landfarm Lab ID: 1304037-02

Project No: 11-0109-09 **Collection Date:** 03/27/13 08:30 AM

Lab Order: 1304037 Matrix: SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 SOIL VOLATILES BY GC/MS		SW82	60C				Analyst: KL
Surr: 1,2-Dichloroethane-d4	109	0	52-149		%REC	1	04/08/13 05:13 PM
Surr: 4-Bromofluorobenzene	100	0	84-118		%REC	1	04/08/13 05:13 PM
Surr: Dibromofluoromethane	65.9	0	65-135		%REC	1	04/08/13 05:13 PM
Surr: Toluene-d8	93.1	0	84-116		%REC	1	04/08/13 05:13 PM
TRPH		E418	3.1				Analyst: JCG
Petroleum Hydrocarbons, TR	212	5.11	10.2	N	mg/Kg-dry	1	04/10/13 04:20 PM
CYANIDE - SOLID SAMPLE		SW90	014				Analyst: JCG
Cyanide, Total	ND	0.201	0.503		mg/Kg-dry	1	04/05/13 05:01 PM
ANIONS BY IC METHOD - SOIL		E30	0				Analyst: JBC
Chloride	95.8	5.25	5.25		mg/Kg-dry	1	04/10/13 11:20 AM
Fluoride	4.13	1.05	1.05		mg/Kg-dry	1	04/10/13 11:20 AM
Nitrate-N	ND	5.25	5.25		mg/Kg-dry	1	04/10/13 11:20 AM
Sulfate	568	10.5	10.5		mg/Kg-dry	1	04/10/13 11:20 AM
PH OF SOLID (CORROSIVITY)		SW90	45D				Analyst: MK
рН	7.83	0	0		pH Units	1	04/08/13 02:15 PM
PERCENT MOISTURE		D22	16				Analyst: JCG
Percent Moisture	5.41	0	0		WT%	1	04/05/13 08:35 AM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

Date: 12-Apr-13

CLIENT: Larson & Associates

Work Order: 1304037

CETAC_HG_130409A **RunID: Project:** R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

i rojeci.	K300 And	sia Landia	41111				Itumi	•	/L111C_11	G_1 50	10711
The QC data	a in batch 56813 app	lies to the f	ollowing sa	mples: 13040	37-01C, 13040	37-02C					
Sample ID:	MB-56813	Batch ID:	56813		TestNo:	SW	7471B		Units:	mg/Kg	
SampType:	MBLK	Run ID:	CETAC_	_HG_130409 <i>A</i>	A Analysis	Date: 4/9/	2013 12:25:	20 PM	Prep Date:	4/8/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD R	PDLimit Qua
Mercury			ND	0.0400							
Sample ID:	LCS-56813	Batch ID:	56813		TestNo:	SW	7471B		Units:	mg/Kg	
SampType:	LCS	Run ID:	CETAC_	_HG_130409 <i>A</i>	A Analysis	Date: 4/9/	2013 12:27:	22 PM	Prep Date:	4/8/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD R	PDLimit Qua
Mercury			0.203	0.0400	0.2000	0	102	85	115		
Sample ID:	LCSD-56813	Batch ID:	56813		TestNo:	sw	7471B		Units:	mg/Kg	
SampType:	LCSD	Run ID:	CETAC_	_HG_130409 <i>A</i>	A Analysis	Date: 4/9/	2013 12:29:	24 PM	Prep Date:	4/8/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD R	PDLimit Qua
Mercury			0.200	0.0400	0.2000	0	100	85	115	1.49	25
Sample ID:	1304037-01C SD	Batch ID:	56813		TestNo:	sw	7471B		Units:	mg/Kg	-dry
SampType:	SD	Run ID:	CETAC_	_HG_130409 <i>A</i>	A Analysis	Date: 4/9/	2013 12:33:	29 PM	Prep Date:	4/8/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD R	PDLimit Qua
Mercury			0	0.192	0	0				0	10
Sample ID:	1304037-01C PDS	Batch ID:	56813		TestNo:	SW	7471B		Units:	mg/Kg	-dry
SampType:	PDS	Run ID:	CETAC_	_HG_130409 <i>A</i>	A Analysis	Date: 4/9/	2013 12:35:	30 PM	Prep Date:	4/8/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD R	PDLimit Qua
Mercury			0.246	0.0384	0.2400	0	102	85	115		
Sample ID:	1304037-01C MS	Batch ID:	56813		TestNo:	SW	7471B		Units:	mg/Kg	-dry
SampType:	MS	Run ID:	CETAC_	_HG_130409 <i>A</i>	A Analysis	Date: 4/9/	2013 12:37:	33 PM	Prep Date:	4/8/20 ⁻	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit %	RPD R	PDLimit Qua
Mercury			0.199	0.0387	0.1933	0	103	80	120		
Sample ID:	1304037-01C MSD	Batch ID:	56813		TestNo:	sw	7471B		Units:	mg/Kg	-dry
SampType:	MSD	Run ID:	CETAC_	_HG_130409 <i>A</i>	A Analysis	Date: 4/9/	2013 12:39:	35 PM	Prep Date:	4/8/20 ⁻	13
ļ			Describ	DI.	CDK value	Dof Val	%REC	LowLim	it HighLimit %	DDD D	PDI imit Oual
Analyte			Result	RL	SPK value	Ref Val	70KEC	LOWLIIII	it i ligitLillit /		DEIIIII Qua

Qualifiers: В Analyte detected in the associated Method Blank

> J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits Page 1 of 35

S Spike Recovery outside control limits

Parameter not NELAC certified

CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1304037

CETAC_HG_130409A **RunID: Project:** R360 Artesia Landfarm

Sample ID: ICV-130409	Batch ID			TestNo:		7471B	44 514	Units:	mg/Kg
SampType: ICV	Run ID:	CETAC	_HG_130409A	Anaiysis	Date: 4/9/	/2013 12:21: ⁻	14 PW	Prep Date	I.
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLin	nit HighLimit	%RPD RPDLimit Qua
Mercury		0.00403	0.0400	0.004000	0	101	90	110	
Sample ID: CCV1-130409	Batch ID	: R65755		TestNo:	sw	7471B		Units:	mg/Kg
SampType: CCV	Run ID:	CETAC	_HG_130409A	Analysis	Date: 4/9/	/2013 12:45:	45 PM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLin	nit HighLimit	%RPD RPDLimit Qua
Mercury		0.00197	0.0400	0.002000	0	98.5	90	110	

Qualifiers:

В Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits Page 2 of 35

S Spike Recovery outside control limits

Parameter not NELAC certified

Work Order: 1304037

Project: R360 Artesia Landfarm RunID: ICP-MS2_130409B

ANALYTICAL QC SUMMARY REPORT

Sample ID: MB-56812	Batch ID:	56812		TestNo:	SW	6020A		Units:	mg/Kg	
SampType: MBLK	Run ID:	ICP-MS	2_130409B	Analysis	s Date: 4/9/	2013 11:21:	00 AM	Prep Date:	4/8/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD R	PDLimit Qu
Aluminum		ND	12.5							
Barium		ND	2.00							
Boron		ND	7.50							
Chromium		ND	2.00							
Cobalt		ND	2.00							
Copper		ND	2.00							
Iron		ND	12.5							
Manganese		ND	2.00							
Molybdenum		ND	2.00							
Nickel		ND	2.00							
Sample ID: LCS-56812	Batch ID:	56812		TestNo:	SW	6020A		Units:	mg/Kg	
SampType: LCS	Run ID:	ICP-MS	2_130409B	Analysis	s Date: 4/9/	2013 11:27:	00 AM	Prep Date:	4/8/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD R	PDLimit Qu
Aluminum		245	12.5	250.0	0	97.9	80	120		
Barium		45.5	2.00	50.00	0	91.0	80	120		
Boron		49.1	7.50	50.00	0	98.1	80	120		
Chromium		49.4	2.00	50.00	0	98.8	80	120		
Cobalt		50.6	2.00	50.00	0	101	80	120		
Copper		51.0	2.00	50.00	0	102	80	120		
Iron		256	12.5	250.0	0	102	80	120		
Manganese		50.0	2.00	50.00	0	100	80	120		
Molybdenum		50.1	2.00	50.00	0	100	80	120		
Nickel		51.5	2.00	50.00	0	103	80	120		
Sample ID: LCSD-56812	Batch ID:	56812		TestNo:	sw	6020A		Units:	mg/Kg	
SampType: LCSD	Run ID:	ICP-MS	2_130409B	Analysis	s Date: 4/9/	2013 11:33:	00 AM	Prep Date:	4/8/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD R	PDLimit Q
Aluminum		241	12.5	250.0	0	96.6	80	120	1.33	20
Barium		46.1	2.00	50.00	0	92.2	80	120	1.26	20
Boron		49.8	7.50	50.00	0	99.7	80	120	1.62	20
Chromium		50.2	2.00	50.00	0	101	80	120	1.71	20
Cobalt		51.0	2.00	50.00	0	102	80	120	0.738	20
Copper		51.2	2.00	50.00	0	102	80	120	0.392	20
Iron		254	12.5	250.0	0	102	80	120	0.392	20
Manganese		50.2	2.00	50.00	0	100	80	120	0.349	20
		50.3	2.00	50.00	0	101	80	120	0.399	20
Molybdenum										

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

MDL Method Detection Limit

R RPD outside accepted control limits

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S Spike Recovery outside control limits

N Parameter not NELAC certified

Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

ICP-MS2_130409B **RunID: Project:** R360 Artesia Landfarm

Sample ID: 1304037-01C SD	Batch ID:	56812		TestNo	swe	6020A		Units:	mg/K	g-dry
SampType: SD	Run ID:	ICP-MS2	_130409B	Analysis Date: 4/9/2013 12:15:00 P			D PM	Prep Date:	4/8/2	013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD I	RPDLimit Qua
Aluminum		11500	629	0	11250				2.51	10
Barium		71.7	101	0	72.38				0.925	10
Boron		0	377	0	0				0	10
Chromium		0	101	0	10.00				0	10
Cobalt		0	101	0	0				0	10
Copper		0	101	0	0				0	10
Iron		8170	629	0	7977				2.40	10
Manganese		121	101	0	121.6				0.633	10
Molybdenum		0	101	0	0				0	10
Nickel		0	101	0	6.131				0	10
Sample ID: 1304037-01C PDS	Batch ID:	56812		TestNo	SW6	6020A		Units:	mg/K	g-dry

Oampie ID. 1304037-010 1 D3	Daten ID. 3001	_	103111	o. 344	00207		Offics.	ilig/Rg-dry
SampType: PDS	Run ID: ICP-	MS2_130409B	Analys	sis Date: 4/9	/2013 12:51:	00 PM	Prep Date:	4/8/2013
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Aluminum	26000	126	12580	11250	117	80	120	
Barium	589	20.1	503.1	72.38	103	80	120	
Boron	520	75.5	503.1	0	103	80	120	
Chromium	551	20.1	503.1	10.00	108	80	120	
Cobalt	570	20.1	503.1	0	113	80	120	
Copper	557	20.1	503.1	0	111	80	120	
Iron	22100	126	12580	7977	113	80	120	
Manganese	685	20.1	503.1	121.6	112	80	120	
Molybdenum	540	20.1	503.1	0	107	80	120	
Nickel	577	20.1	503.1	6.131	113	80	120	

Sample ID: 1304037-01C MS	Batch ID:	56812		TestNo	: SW	6020A		Units:	mg/Kg-dry
SampType: MS	Run ID:	ICP-MS2	2_130409B	Analys	is Date: 4/9/	2013 12:56:	00 PM	Prep Date	: 4/8/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
Boron		49.2	7.55	50.31	0	97.8	80	120	
Chromium		52.9	2.01	50.31	10.00	85.2	80	120	
Cobalt		48.9	2.01	50.31	0	97.2	80	120	
Copper		49.6	2.01	50.31	0	98.7	80	120	
Iron		7800	12.6	251.6	7977	-72.0	80	120	S
Molybdenum		48.2	2.01	50.31	0	95.8	80	120	
Nickel		52.0	2.01	50.31	6.131	91.1	80	120	

Qualifiers: Analyte detected in the associated Method Blank

> J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

RPD outside accepted control limits R

Spike Recovery outside control limits

Parameter not NELAC certified

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CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1304037

ICP-MS2_130409B **RunID: Project:** R360 Artesia Landfarm

Sample ID: 1304037-01C MSD	Batch ID:	56812		TestNo	: SW	/6020A		Units:	mg/l	Kg-dry	
SampType: MSD	Run ID:	ICP-MS	2_130409B	Analys	s Date: 4/9	/2013 1:02:0	0 PM	Prep Date	: 4/8/2	2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit (Qual
Boron		50.2	7.62	50.81	0	98.9	80	120	2.10	20	
Chromium		53.3	2.03	50.81	10.00	85.2	80	120	0.747	20	
Cobalt		50.5	2.03	50.81	0	99.3	80	120	3.12	20	
Copper		50.7	2.03	50.81	0	99.7	80	120	2.04	20	
Iron		7840	12.7	254.1	7977	-53.9	80	120	0.565	20	S
Molybdenum		50.5	2.03	50.81	0	99.5	80	120	4.78	20	
Nickel		53.1	2.03	50.81	6.131	92.4	80	120	2.14	20	

Qualifiers:

Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

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Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: ICP-MS2_130409B

Sample ID: ILCVL-130409	Batch ID:	R65766		TestNo	: SW	6020A		Units:	mg/l	-
SampType: LCVL	Run ID:	ICP-MS2	_130409B	Analys	is Date: 4/9/	/2013 10:57:	00 AM	Prep Date	: :	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qual
Aluminum		0.112	0.0300	0.100	0	112	70	130		
Barium	(0.00495	0.0100	0.00500	0	98.9	70	130		
Boron		0.0220	0.0300	0.0200	0	110	70	130		
Chromium	(0.00533	0.00500	0.00500	0	107	70	130		
Cobalt	(0.00586	0.0100	0.00500	0	117	70	130		
Copper	(0.00588	0.0100	0.00500	0	118	70	130		
Iron		0.122	0.100	0.100	0	122	70	130		
Manganese	(0.00566	0.0100	0.00500	0	113	70	130		
Molybdenum	(0.00559	0.00500	0.00500	0	112	70	130		
Nickel	(0.00583	0.0100	0.00500	0	117	70	130		
Sample ID: LCVL1-130409	Batch ID:	R65766		TestNo	: SW	6020A		Units:	mg/l	-
SampType: LCVL	Run ID:	ICP-MS2	_130409B	Analys	is Date: 4/9/	/2013 1:31:0	0 PM	Prep Date):	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qual
Aluminum		0.116	0.0300	0.100	0	116	70	130		
Barium	(0.00482	0.0100	0.00500	0	96.5	70	130		
Boron		0.0226	0.0300	0.0200	0	113	70	130		
Chromium	(0.00525	0.00500	0.00500	0	105	70	130		
Cobalt	(0.00559	0.0100	0.00500	0	112	70	130		
Copper	(0.00569	0.0100	0.00500	0	114	70	130		
Iron		0.118	0.100	0.100	0	118	70	130		
Manganese	(0.00555	0.0100	0.00500	0	111	70	130		
Molybdenum	(0.00536	0.00500	0.00500	0	107	70	130		
Nickel	(0.00546	0.0100	0.00500	0	109	70	130		
Sample ID: ICV1-130409	Batch ID:	R65766		TestNo	: SW	6020A		Units:	mg/l	-
SampType: ICV	Run ID:	ICP-MS2	_130409B	Analys	is Date: 4/9/	/2013 10:27:	00 AM	Prep Date):	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qual
Aluminum		2.43	0.0300	2.50	0	97.4	90	110		
Barium		0.0938	0.0100	0.100	0	93.8	90	110		
Boron		0.0972	0.0300	0.100	0	97.2	90	110		
Chromium		0.101	0.00500	0.100	0	101	90	110		
Cobalt		0.106	0.0100	0.100	0	106	90	110		
Copper		0.105	0.0100	0.100	0	105	90	110		
Iron		2.57	0.100	2.50	0	103	90	110		
Manganese		0.103	0.0100	0.100	0	103	90	110		
Molybdenum		0.0975	0.00500	0.100	0	97.5	90	110		
Nickel		0.108	0.0100	0.100	0	108	90	110		

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1304037

Project: R360 Artesia Landfarm RunID: ICP-MS2_130409B

Sample ID: CCV1-130409	Batch ID:	R65766	·	TestNo	: SW	6020A	<u> </u>	Units:	mg/L
SampType: CCV	Run ID:	ICP-MS	2_130409B	Analys	s Date: 4/9/2	2013 1:08:0	0 PM	Prep Date) :
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Aluminum		5.03	0.0300	5.00	0	101	90	110	
Barium		0.186	0.0100	0.200	0	93.0	90	110	
Boron		0.199	0.0300	0.200	0	99.4	90	110	
Chromium		0.205	0.00500	0.200	0	103	90	110	
Cobalt		0.205	0.0100	0.200	0	103	90	110	
Copper		0.207	0.0100	0.200	0	104	90	110	
Iron		5.17	0.100	5.00	0	103	90	110	
Manganese		0.204	0.0100	0.200	0	102	90	110	
Molybdenum		0.206	0.00500	0.200	0	103	90	110	
Nickel		0.207	0.0100	0.200	0	104	90	110	

ANALYTICAL QC SUMMARY REPORT

Qualifiers: B

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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ANALYTICAL QC SUMMARY REPORT

CLIENT: Larson & Associates

Work Order: 1304037

Project: RunID: ICP-MS3 130408A R360 Artesia Landfarm

Project: R360 Art	tesia Landfa	arm				KunII) :	ICP-MS3_	130408	SA	
The QC data in batch 56812 ap	plies to the f	ollowing sa	mples: 1304	037-01C, 13040	037-02C						
Sample ID: MB-56812	Batch ID:	56812		TestNo:	sw	6020A		Units:	mg/Kg	l	
SampType: MBLK	Run ID:	ICP-MS	3_130408A	Analysis	s Date: 4/8/	2013 5:37:0	0 PM	Prep Date:	4/8/20	13	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLin	nit HighLimit 9	%RPD R	PDLimi	t Qu
Arsenic		ND	1.00								
Cadmium		ND	0.300								
_ead		ND	0.300								
Selenium		ND	0.500								
Silver		ND	0.200								
Zinc		ND	2.50								
Sample ID: LCS-56812	Batch ID:	56812		TestNo:	SW	6020A		Units:	mg/Kg	I	
SampType: LCS	Run ID:	ICP-MS	3_130408A	Analysis	s Date: 4/8/	2013 5:43:0	0 PM	Prep Date:	4/8/20	13	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit S	%RPD R	PDLimi	t Qu
Arsenic		45.6	1.00	50.00	0	91.1	80	120			
Cadmium		47.8	0.300	50.00	0	95.6	80	120			
_ead		49.4	0.300	50.00	0	98.8	80	120			
Selenium		44.7	0.500	50.00	0	89.4	80	120			
Silver		50.6	0.200	50.00	0	101	80	120			
Zinc		46.1	2.50	50.00	0	92.1	80	120			
Sample ID: LCSD-56812	Batch ID:	56812		TestNo:	SW	6020A		Units:	mg/Kg	I	
SampType: LCSD	Run ID:	ICP-MS	3_130408A	Analysis	s Date: 4/8/	2013 5:49:0	0 PM	Prep Date:	4/8/20	13	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit 9	%RPD R	PDLimi	t Qu
Arsenic		46.5	1.00	50.00	0	93.0	80	120	2.06	20	
Cadmium		47.6	0.300	50.00	0	95.2	80	120	0.419	20	
_ead		49.2	0.300	50.00	0	98.4	80	120	0.304	20	
Selenium		44.9	0.500	50.00	0	89.9	80	120	0.446	20	
Silver		50.8	0.200	50.00	0	102	80	120	0.345	20	
Zinc		46.8	2.50	50.00	0	93.6	80	120	1.67	20	
Sample ID: 1304037-01C SD	Batch ID:	56812		TestNo:	SW	6020A		Units:	mg/Kg	j-dry	
SampType: SD	Run ID:	ICP-MS	3_130408A	Analysis	s Date: 4/8/	2013 6:08:0	0 PM	Prep Date:	4/8/20	13	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLin	nit HighLimit S	%RPD R	PDLimi	t Qu
Arsenic		0	5.03	0	2.094				0	10	_
Cadmium		0	1.51	0	0.2755				0	10	
d		5.31	1.51	0	5.389				1.48	10	
_ead		1.62	2.52	0	1.800				10.7	10	F
		1.02	2.02								
Lead Selenium Silver		0	1.01	0	0				0	10	

Analyte detected between MDL and RL

Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits Parameter not NELAC certified

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Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

Project:	R360 Arte	sia Landfa	ırm				RunII): I	CP-MS3	_130408A
Sample ID:	1304037-01C PDS		TestNo	: SW6	6020A		Units:	mg/Kg-dry		
SampType:	PDS	Run ID:	ICP-MS3	3_130408A	Analys	is Date: 4/8/ 2	2013 7:08:0	0 PM	Prep Date	4/8/2013
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
Arsenic			47.0	1.01	50.31	2.094	89.3	80	120	_
Cadmium			50.2	0.302	50.31	0.2755	99.3	80	120	
Lead			60.4	0.302	50.31	5.389	109	80	120	
Selenium			47.3	0.503	50.31	1.800	90.4	80	120	
Silver			47.9	0.201	50.31	0	95.2	80	120	
Zinc			60.4	2.52	50.31	19.50	81.3	80	120	

Sample ID: 1304037-01C MS	Batch ID:	56812		TestNo	: SW6	6020A		Units:	mg/Kg-dry
SampType: MS	Run ID:	ICP-MS3	3_130408A	Analys	is Date: 4/8/2	2013 7:14:0	0 PM	Prep Date	4/8/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
Aluminum		11600	12.6	251.6	11470	48.0	80	120	S
Arsenic		42.8	1.01	50.31	2.094	81.0	80	120	
Barium		133	2.01	50.31	82.16	101	80	120	
Cadmium		45.9	0.302	50.31	0.2755	90.7	80	120	
Lead		53.0	0.302	50.31	5.389	94.6	80	120	
Manganese		142	2.01	50.31	106.6	69.4	80	120	S
Selenium		42.0	0.503	50.31	1.800	79.9	80	120	
Silver		45.9	0.201	50.31	0	91.2	80	120	
Zinc		55.8	2.52	50.31	19.50	72.1	80	120	S

Sample ID: 1304037-01C MSD	Batch ID:	56812		TestNo): SW (6020A		Units:	mg/k	(g-dry	
SampType: MSD	Run ID:	ICP-MS	3_130408A	Analys	is Date: 4/8/	2013 7:20:0	0 PM	Prep Date	4/8/2	2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimi	t Qual
Aluminum		12200	12.7	254.1	11470	285	80	120	5.07	20	S
Arsenic		45.3	1.02	50.81	2.094	85.0	80	120	5.57	20	
Barium		133	2.03	50.81	82.16	101	80	120	0.131	20	
Cadmium		45.9	0.305	50.81	0.2755	89.9	80	120	0.049	20	
Lead		54.8	0.305	50.81	5.389	97.3	80	120	3.38	20	
Manganese		145	2.03	50.81	106.6	76.0	80	120	2.59	20	S
Selenium		44.6	0.508	50.81	1.800	84.2	80	120	5.95	20	
Silver		45.8	0.203	50.81	0	90.2	80	120	0.173	20	
Zinc		58.6	2.54	50.81	19.50	76.9	80	120	4.88	20	S

Qualifiers: В Analyte detected in the associated Method Blank

> J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

Parameter not NELAC certified

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Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: ICP-MS3_130408A

Sample ID: ILCVL-130408	Batch ID:	R65722		TestN	o: SW	6020A		Units:	mg/L	
SampType: LCVL	Run ID:	ICP-MS	3_130408A	Analys	sis Date: 4/8/	2013 12:23:	00 PM	Prep Date	e:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	: %RPD F	RPDLimit Qual
Aluminum		0.123	0.0300	0.100	0	123	70	130		
Arsenic		0.00559	0.00500	0.00500	0	112	70	130		
Barium		0.00519	0.0100	0.00500	0	104	70	130		
Cadmium		0.00112	0.00100	0.00100	0	112	70	130		
Cobalt		0.00556	0.0100	0.00500	0	111	70	130		
Copper		0.00552	0.0100	0.00500	0	110	70	130		
Lead		0.00108	0.00100	0.00100	0	108	70	130		
Manganese		0.00522	0.0100	0.00500	0	104	70	130		
Nickel		0.00564	0.0100	0.00500	0	113	70	130		
Selenium		0.00566	0.00500	0.00500	0	113	70	130		
Silver		0.00210	0.00200	0.00200	0	105	70	130		
Zinc		0.00561	0.00500	0.00500	0	112	70	130		
Sample ID: LCVL2-130408	Batch ID:	R65722		TestN	o: SW (6020A		Units:	mg/L	
SampType: LCVL	Run ID:	ICP-MS	3_130408A	Analys	sis Date: 4/8/	2013 5:19:0	00 PM	Prep Date	e:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	: %RPD F	RPDLimit Qual
Aluminum		0.108	0.0300	0.100	0	108	70	130		
Arsenic		0.00552	0.00500	0.00500	0	110	70	130		
Barium		0.00543	0.0100	0.00500	0	109	70	130		
Cadmium		0.00107	0.00100	0.00100	0	107	70	130		
Lead		0.00106	0.00100	0.00100	0	106	70	130		
Manganese		0.00523	0.0100	0.00500	0	105	70	130		
Selenium		0.00560	0.00500	0.00500	0	112	70	130		
Silver		0.00213	0.00200	0.00200	0	107	70	130		
Zinc		0.00560	0.00500	0.00500	0	112	70	130		
Sample ID: LCVL3-130408	Batch ID:	R65722		TestN	o: SW	6020A		Units:	mg/L	
SampType: LCVL	Run ID:	ICP-MS	3_130408A	Analys	sis Date: 4/8/	2013 8:03:0	00 PM	Prep Date	e:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	: %RPD F	RPDLimit Qual
Aluminum		0.121	0.0300	0.100	0	121	70	130		
Arsenic		0.00531	0.00500	0.00500	0	106	70	130		
Barium		0.00546	0.0100	0.00500	0	109	70	130		
Cadmium		0.00109	0.00100	0.00100	0	109	70	130		
Lead		0.00108	0.00100	0.00100	0	108	70	130		
Manganese		0.00519	0.0100	0.00500	0	104	70	130		
Selenium		0.00608	0.00500	0.00500	0	122	70	130		
Silver		0.00207	0.00200	0.00200	0	104	70	130		
Zinc		0.00491	0.00500	0.00500	0	98.2	70	130		
Qualifiers: B Analyte d	etected in the	ecociated M	lethod Blank	DE	Dilution Facto	or.				

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: ICP-MS3_130408A

Sample ID:	ICV1-130408	Batch ID:	R6572	2	TestNo	: SW	6020A		Units:	mg/L	•
SampType:	ICV	Run ID:	ICP-M	S3_130408A	Analys	is Date: 4/8/	/2013 12:05:	00 PM	Prep Date	e:	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qua
Aluminum			2.48	0.0300	2.50	0	99.1	90	110		
Arsenic			0.100	0.00500	0.100	0	100	90	110		
Barium			0.0970	0.0100	0.100	0	97.0	90	110		
Cadmium			0.0995	0.00100	0.100	0	99.5	90	110		
Cobalt			0.101	0.0100	0.100	0	101	90	110		
Copper			0.102	0.0100	0.100	0	102	90	110		
Lead			0.0947	0.00100	0.100	0	94.7	90	110		
Manganese	•		0.0957	0.0100	0.100	0	95.6	90	110		
Nickel			0.0998	0.0100	0.100	0	99.8	90	110		
Selenium			0.102	0.00500	0.100	0	102	90	110		
Silver			0.0937	0.00200	0.100	0	93.7	90	110		
Zinc			0.105	0.00500	0.100	0	105	90	110		
Sample ID:	CCV2-130408	Batch ID:	R6572	2	TestNo	: SW	6020A		Units:	mg/L	
SampType:		Run ID:		S3_130408A	Analys	is Date: 4/8/	/2013 4:42:0	0 PM	Prep Date	•	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qua
Aluminum			4.90	0.0300	5.00	0	98.1	90	110		
Arsenic			0.194	0.00500	0.200	0	96.8	90	110		
Barium			0.192	0.0100	0.200	0	95.8	90	110		
Cadmium			0.189	0.00100	0.200	0	94.4	90	110		
Lead			0.189	0.00100	0.200	0	94.7	90	110		
Manganese	•		0.183	0.0100	0.200	0	91.5	90	110		
Selenium			0.202	0.00500	0.200	0	101	90	110		
Silver			0.190	0.00200	0.200	0	95.2	90	110		
Zinc			0.198	0.00500	0.200	0	99.0	90	110		
Sample ID:	CCV3-130408	Batch ID:	R6572	2	TestNo	: SW	6020A		Units:	mg/L	
SampType:	CCV	Run ID:	ICP-M	S3_130408A	Analys	is Date: 4/8/	/2013 7:26:0	0 PM	Prep Date	e:	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qua
Aluminum			5.13	0.0300	5.00	0	103	90	110		
Arsenic			0.192	0.00500	0.200	0	96.0	90	110		
Barium			0.196	0.0100	0.200	0	98.0	90	110		
			0.187	0.00100	0.200	0	93.6	90	110		
Cadmium			0.187	0.00100	0.200	0	93.4	90	110		
					0.200	0	93.7	90	110		
Lead	:		0.187	0.0100	0.200						
Cadmium Lead Manganese Selenium			0.187 0.207	0.0100	0.200	0	103	90	110		
Lead Manganese							103 93.2	90 90	110 110		

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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ANALYTICAL QC SUMMARY REPORT

CLIENT: Larson & Associates
Work Order: 1304037

RL Reporting Limit

Analyte detected between SDL and RL

Project: R360 Artesia Landfarm RunID: ICP-MS3_130408B

rroject: K500 Ai	tesia Landia	1111				Kullii	<i>)</i> . 1	C1 -N155_	130400	ш	
The QC data in batch 56812 a	oplies to the fo	ollowing san	nples: 1304	037-01C, 1304	037-02C						
Sample ID: MB-56812	Batch ID:	56812		TestNo	: SW6	6020A		Units:	mg/Kg	J	
SampType: MBLK	Run ID:	ICP-MS3	_130408B	Analys	is Date: 4/8/2	2013 5:37:0	0 PM	Prep Date:	4/8/20	13	
nalyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit	: Qu
rsenic		ND	1.00								
Barium		ND	2.00								
Cadmium		ND	0.300								
Chromium		ND	2.00								
_ead		ND	0.300								
Selenium		ND	0.500								
Silver		ND	0.200								
Sample ID: LCS-56812	Batch ID:	56812		TestNo	: SW6	6020A		Units:	mg/Kg	J	
SampType: LCS	Run ID:	ICP-MS3	_130408B	Analys	is Date: 4/8/2	2013 5:43:0	0 PM	Prep Date:	4/8/20	13	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit	(Qu
Arsenic		45.6	1.00	50.00	0	91.1	80	120			
Barium		49.9	2.00	50.00	0	99.9	80	120			
Cadmium		47.8	0.300	50.00	0	95.6	80	120			
Chromium		47.2	2.00	50.00	0	94.5	80	120			
_ead		49.4	0.300	50.00	0	98.8	80	120			
Selenium		44.7	0.500	50.00	0	89.4	80	120			
Silver		50.6	0.200	50.00	0	101	80	120			
Sample ID: LCSD-56812	Batch ID:	56812		TestNo	: SW6	6020A		Units:	mg/Kg	J	
SampType: LCSD	Run ID:	ICP-MS3	_130408B	Analys	is Date: 4/8/2	2013 5:49:0	0 PM	Prep Date:	4/8/20	13	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit	. Qu
Arsenic		46.5	1.00	50.00	0	93.0	80	120	2.06	25	
Barium		50.1	2.00	50.00	0	100	80	120	0.300	25	
Cadmium		47.6	0.300	50.00	0	95.2	80	120	0.419	25	
Chromium		48.9	2.00	50.00	0	97.9	80	120	3.48	25	
₋ead		49.2	0.300	50.00	0	98.4	80	120	0.304	25	
Selenium		44.9	0.500	50.00	0	89.9	80	120	0.446	25	
Silver		50.8	0.200	50.00	0	102	80	120	0.345	25	
Sample ID: 1304037-01C SD	Batch ID:	56812		TestNo	: SW6	6020A		Units:	mg/Kg	j-dry	
SampType: SD	Run ID:	ICP-MS3	_130408B	Analys	is Date: 4/8/2	2013 6:08:0	0 PM	Prep Date:	4/8/20	13	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit	. Qu
Arsenic		0	5.03	0	0.4187				0	10	
Cadmium		0	1.51	0	0.05509				0	10	
Chromium		9.46	10.1	0	1.775				137	10	I
Lead		5.31	1.51	0	1.078				133	10	F
Qualifiers: B Analyte d	etected in the a	ssociated Me	thod Blank	DF 1	Dilution Facto	r					
J Analyte d	etected between	n MDL and R	RL	MDL 1	Method Detect	tion Limit			Pag	ge 12 of	f 3:
ND Not Detec	ted at the Meth	od Detection	Limit	R I	RPD outside a	ccepted cont	rol limits		~~		
DI D	T :			c ·	C D						

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Spike Recovery outside control limits

Parameter not NELAC certified

Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: ICP-MS3_130408B

Project: R360 Arts	esia Landia	ırm				Kullii	<i>)</i> ;]	ICF -WISS_	130400)D	
Sample ID: 1304037-01C SD	Batch ID:	56812		TestNo	o: SW 6	6020A		Units:	mg/Kg	g-dry	
SampType: SD	Run ID:	ICP-MS	3_130408B	Analys	sis Date: 4/8/2	2013 6:08:0	0 PM	Prep Date:	4/8/20	13	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit 9	%RPD R	PDLimit	Qual
Selenium		1.62	2.52	0	0.3599				127	10	R
Silver		0	1.01	0	0				0	10	
Sample ID: 1304037-01C PDS	Batch ID:	56812		TestNo	o: SW 6	6020A		Units:	mg/Ko	g-dry	
SampType: PDS	Run ID:	ICP-MS	3_130408B	Analys	sis Date: 4/8/2	2013 7:08:0	0 PM	Prep Date:	4/8/20	13	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD R	PDLimit	Qual
Arsenic		47.0	1.01	50.31	0.4187	92.7	80	120			
Cadmium		50.2	0.302	50.31	0.05509	99.7	80	120			
Chromium		51.3	2.01	50.31	1.775	98.5	80	120			
Lead		60.4	0.302	50.31	1.078	118	80	120			
Selenium		47.3	0.503	50.31	0.3599	93.2	80	120			
Silver		47.9	0.201	50.31	0	95.2	80	120			
Sample ID: 1304037-01C MS	Batch ID:	56812		TestNo	o: SW6	6020A		Units:	mg/Kg	g-dry	
SampType: MS	Run ID:	ICP-MS	3_130408B	Analys	sis Date: 4/8/2	2013 7:14:0	0 PM	Prep Date:	4/8/20	13	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit 9	%RPD R	PDLimit	Qual
Arsenic		42.8	1.01	50.31	0.4187	84.3	80	120			
Barium		133	2.01	50.31	16.43	232	80	120			S
Cadmium		45.9	0.302	50.31	0.05509	91.1	80	120			
Chromium		47.2	2.01	50.31	1.775	90.3	80	120			
Lead		53.0	0.302	50.31	1.078	103	80	120			
Selenium		42.0	0.503	50.31	0.3599	82.7	80	120			
Silver		45.9	0.201	50.31	0	91.2	80	120			
Sample ID: 1304037-01C MSD	Batch ID:	56812		TestNo	o: SW 6	6020A		Units:	mg/K	g-dry	
SampType: MSD	Run ID:	ICP-MS	3_130408B	Analys	sis Date: 4/8/ 2	2013 7:20:0	0 PM	Prep Date:	4/8/20	13	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit 9	%RPD R	PDLimit	Qual
Arsenic	-	45.3	1.02	50.81	0.4187	88.3	80	120	5.57	25	
Barium		133	2.03	50.81	16.43	230	80	120	0.131	25	S
Cadmium		45.9	0.305	50.81	0.05509	90.3	80	120	0.049	25	
Chromium		48.8	2.03	50.81	1.775	92.6	80	120	3.36	25	
Lead		54.8	0.305	50.81	1.078	106	80	120	3.38	25	
Selenium		44.6	0.508	50.81	0.3599	87.0	80	120	5.95	25	
Silver		45.8	0.203	50.81	0	90.2	80	120	0.173	25	

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

 $R \quad \ RPD \ outside \ accepted \ control \ \ limits$

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

ICP-MS3_130408B **RunID:** Project: R360 Artesia Landfarm

Sample ID:	ICV1-130408	Batch ID:	R65742		TestNo	o: SW	6020A		Units:	mg/L	
SampType:	ICV	Run ID:	ICP-MS	3_130408B	Analys	sis Date: 4/8/ 2	2013 12:05:	00 PM	Prep Date	:	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qua
Arsenic			0.100	0.00500	0.100	0	100	90	110		
Barium			0.0970	0.0100	0.100	0	97.0	90	110		
Cadmium			0.0995	0.00100	0.100	0	99.5	90	110		
Chromium			0.0972	0.00500	0.100	0	97.2	90	110		
Lead			0.0947	0.00100	0.100	0	94.7	90	110		
Selenium			0.102	0.00500	0.100	0	102	90	110		
Silver			0.0937	0.00200	0.100	0	93.7	90	110		
Sample ID:	ILCVL-130408	Batch ID:	R65742		TestNo	o: SW	6020A		Units:	mg/L	-
SampType:	LCVL	Run ID:	ICP-MS	3_130408B	Analys	is Date: 4/8/	2013 12:23:	00 PM	Prep Date	:	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qua
Arsenic			0.00559	0.00500	0.00500	0	112	70	130		
Barium		(0.00519	0.0100	0.00500	0	104	70	130		
Cadmium		(0.00112	0.00100	0.00100	0	112	70	130		
Chromium		(0.00527	0.00500	0.00500	0	105	70	130		
Lead		(0.00108	0.00100	0.00100	0	108	70	130		
Selenium		(0.00566	0.00500	0.00500	0	113	70	130		
Silver		(0.00210	0.00200	0.00200	0	105	70	130		
Sample ID:	CCV2-130408	Batch ID:	R65742		TestNo	o: SW (6020A		Units:	mg/L	-
SampType:	CCV	Run ID:	ICP-MS	3_130408B	Analys	is Date: 4/8/	2013 4:42:0	0 PM	Prep Date	:	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qua
Arsenic			0.194	0.00500	0.200	0	96.8	90	110		
Barium			0.192	0.0100	0.200	0	95.8	90	110		
Cadmium			0.189	0.00100	0.200	0	94.4	90	110		
Chromium			0.186	0.00500	0.200	0	93.1	90	110		
Lead			0.189	0.00100	0.200	0	94.7	90	110		
Selenium			0.202	0.00500	0.200	0	101	90	110		
Silver			0.190	0.00200	0.200	0	95.2	90	110		
Sample ID:	LCVL2-130408	Batch ID:	R65742		TestNo	o: SW (6020A		Units:	mg/L	-
SampType:	LCVL	Run ID:	ICP-MS	3_130408B	Analys	is Date: 4/8/	2013 5:19:0	0 PM	Prep Date	:	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qua
Arsenic		(0.00552	0.00500	0.00500	0	110	70	130		
Barium		(0.00543	0.0100	0.00500	0	109	70	130		
Cadmium		(0.00107	0.00100	0.00100	0	107	70	130		
Chromium		(0.00528	0.00500	0.00500	0	106	70	130		
			0.00106	0.00100	0.00100	0	106	70	130		
Lead											
Lead Qualifiers:	B Analyte	detected in the a	ssociated M	Method Blank	DF	Dilution Facto	or				
	•					Dilution Factor				Pa	age 14 of 35

ND Not Detected at the Method Detection Limit

RL Reporting Limit

Analyte detected between SDL and RL

R RPD outside accepted control limits

S Spike Recovery outside control limits

Parameter not NELAC certified

Work Order: 1304037

Project: R360 Artesia Landfarm RunID: ICP-MS3_130408B

ANALYTICAL QC SUMMARY REPORT

Froject: K500 Al	itesia Lanutaini				Kullii	<i>)</i> , 1	C1 -W155_	_130400D
Sample ID: LCVL2-130408	Batch ID: R65742		TestNo	: SW6	6020A		Units:	mg/L
SampType: LCVL	Run ID: ICP-MS	3_130408B	Analys	is Date: 4/8/ 2	2013 5:19:0	0 PM	Prep Date	:
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Selenium	0.00560	0.00500	0.00500	0	112	70	130	
Silver	0.00213	0.00200	0.00200	0	107	70	130	
Sample ID: CCV3-130408	Batch ID: R65742		TestNo	: SW	6020A		Units:	mg/L
SampType: CCV	Run ID: ICP-MS	3_130408B	Analys	is Date: 4/8/ 2	2013 7:26:0	0 PM	Prep Date	:
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Arsenic	0.192	0.00500	0.200	0	96.0	90	110	
Barium	0.196	0.0100	0.200	0	98.0	90	110	
Cadmium	0.187	0.00100	0.200	0	93.6	90	110	
Lead	0.187	0.00100	0.200	0	93.4	90	110	
Selenium	0.207	0.00500	0.200	0	103	90	110	
Silver	0.186	0.00200	0.200	0	93.2	90	110	
Sample ID: CCV3-130408	Batch ID: R65742		TestNo	: SW	6020A		Units:	mg/L
SampType: CCV	Run ID: ICP-MS	3_130408B	Analys	is Date: 4/8/ 2	2013 7:32:0	0 PM	Prep Date	:
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Chromium	0.180	0.00500	0.200	0	89.9	90	110	
Sample ID: LCVL3-130408	Batch ID: R65742		TestNo	: SW	6020A		Units:	mg/L
SampType: LCVL	Run ID: ICP-MS	3_130408B	Analys	is Date: 4/8/ 2	2013 8:03:0	0 PM	Prep Date	:
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Arsenic	0.00531	0.00500	0.00500	0	106	70	130	
Barium	0.00546	0.0100	0.00500	0	109	70	130	
Cadmium	0.00109	0.00100	0.00100	0	109	70	130	
Chromium	0.00470	0.00500	0.00500	0	94.0	70	130	
Lead	0.00108	0.00100	0.00100	0	108	70	130	
Selenium	0.00608	0.00500	0.00500	0	122	70	130	
Silver	0.00207	0.00200	0.00200	0	104	70	130	

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limitsN Parameter not NELAC certified

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Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: GCMS8_130410A

Sample ID: LCS-56850	Batch ID:	56850		TestNo:	SW	8270D		Units:	mg/Kg	ı
SampType: LCS	Run ID:	GCMS	3_130410A)/2013 12:46	6:00 PM	Prep Date:		
								-		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit S	%RPD R	PDLimit Qua
Aroclor 1016		0.838	0.0500	1.000	0	83.8	41	138		
Aroclor 1260		0.884	0.0500	1.000	0	88.4	61	131		
Surr: 2-Fluorobiphenyl		0.640		1.000		64.0	43	125		
Surr: 4-Terphenyl-d14		1.64		1.000		164	32	125		S
Sample ID: MB-56850	Batch ID:	56850		TestNo:	SW	8270D		Units:	mg/Kg	l
SampType: MBLK	Run ID:	GCMS	3_130410A	Analysis	Date: 4/10	/2013 1:48:	00 PM	Prep Date:	4/9/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit S	%RPD R	PDLimit Qua
Aroclor 1016		ND	0.0500							
Aroclor 1221		ND	0.0500							
Aroclor 1232		ND	0.0500							
Aroclor 1242		ND	0.0500							
Aroclor 1248		ND	0.0500							
Aroclor 1254		ND	0.0500							
Aroclor 1260		ND	0.0500							
Surr: 2-Fluorobiphenyl		0.651		1.000		65.1	43	125		
Surr: 4-Terphenyl-d14		0.789		1.000		78.9	32	125		
Sample ID: 1304037-01CMS	Batch ID:	56850		TestNo:	SW	8270D		Units:	mg/Kg	j-dry
SampType: MS	Run ID:	GCMS	3_130410A	Analysis	Date: 4/10	/2013 3:52:	00 PM	Prep Date:	4/9/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD R	PDLimit Qua
Aroclor 1016		0.682	0.0331	0.6622	0	103	41	138		
Aroclor 1260		0.711	0.0331	0.6622	0	107	61	131		
Surr: 2-Fluorobiphenyl		0.491		0.6622		74.2	43	125		
Surr: 4-Terphenyl-d14		0.549		0.6622		83.0	32	125		
Sample ID: 1304037-01CMSD	Batch ID:	56850		TestNo:	SW	8270D		Units:	mg/Kg	j-dry
SampType: MSD	Run ID:	GCMS	3_130410A	Analysis	Date: 4/10	/2013 4:23:	00 PM	Prep Date:	4/9/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD R	PDLimit Qua
Aroclor 1016		0.657	0.0331	0.6626	0	99.1	41	138	3.74	50
Aroclor 1260		0.685	0.0331	0.6626	0	103	61	131	3.76	50
Surr: 2-Fluorobiphenyl		0.456		0.6626		68.8	43	125	0	0
Surr: 4-Terphenyl-d14		0.538		0.6626		81.1	32	125	0	0

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

a Doutside accepted control infinits

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Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: GCMS8_130410A

Sample ID: ICV-130410	Batch ID:	R65779		TestNo		V8270D		Units:	mg/Kg
SampType: ICV	Run ID:	GCMS	8_130410A	Analys	is Date: 4/	10/2013 10:29	9:00 AM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Aroclor 1016		1.92	0.0500	2.000	0	96.2	80	120	_
Aroclor 1260		2.01	0.0500	2.000	0	100	80	120	
Surr: 2-Fluorobiphenyl		1.75		2.000		87.4	80	120	
Surr: 4-Terphenyl-d14		1.87		2.000		93.3	80	120	

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: GCMS9_130411D

Commis ID: 1 00 50040	Detail ID		amples: 1304	T (A)		070D		l leite		
Sample ID: LCS-56849	Batch ID:			TestNo		3270D		Units:	mg/Kg	
SampType: LCS	Run ID:	GCMS9	_130411D	Analysi	s Date: 4/11	/2013 7:50:	00 AM	Prep Date:	4/9/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD RPDLim	nit Qua
1-Methylnaphthalene		1.06	0.0266	1.340	0	79.3	40	125		N
2,3,4,6-Tetrachlorophenol		1.09	0.0266	1.340	0	81.3	40	125		
2,4,5-Trichlorophenol		1.18	0.0266	1.340	0	88.0	49	125		
2,4,6-Trichlorophenol		1.16	0.0266	1.340	0	86.3	43	125		
2,4-Dichlorophenol		1.17	0.0266	1.340	0	87.1	45	125		
2,4-Dimethylphenol		1.20	0.0266	1.340	0	89.4	32	125		
2,4-Dinitrophenol		0.858	0.132	1.340	0	64.0	25	132		
2,6-Dichlorophenol		1.16	0.0266	1.340	0	86.3	38	125		
2-Chlorophenol		1.01	0.0266	1.340	0	75.7	44	125		
2-Methylnaphthalene		1.08	0.0266	1.340	0	80.3	47	125		
2-Methylphenol		0.977	0.0266	1.340	0	72.9	40	125		
2-Nitrophenol		1.06	0.0266	1.340	0	79.1	42	125		
4,6-Dinitro-2-methylphenol		1.14	0.0660	1.340	0	84.8	29	137		
4-Chloro-3-methylphenol		1.21	0.0266	1.340	0	90.4	46	125		
4-Methylphenol		1.02	0.0266	1.340	0	75.9	41	125		
4-Nitrophenol		1.16	0.132	1.340	0	86.5	25	138		
Benzo[a]pyrene		1.30	0.0266	1.340	0	97.3	50	125		
Naphthalene		1.04	0.0266	1.340	0	77.3	40	125		
Pentachlorophenol		1.00	0.0266	1.340	0	74.6	25	125		
Phenol		0.948	0.0266	1.340	0	74.0	25 25	125		
			0.0200		U					
Surr: 2,4,6-Tribromophenol		0.600		0.6670		90.0	45	138		
Surr: 2-Fluorobiphenyl		0.527		0.6670		79.0	60	135		
Surr: 2-Fluorophenol		0.527		0.6670		79.0	37	125		
Surr: 4-Terphenyl-d14		0.620		0.6670		93.0	60	129		
Surr: Nitrobenzene-d5		0.513		0.6670		77.0	45	125		
Surr: Phenol-d6		0.507		0.6670		76.0	40	125		
Sample ID: MB-56849	Batch ID:	56849		TestNo	: SW8	3270D		Units:	mg/Kg	
SampType: MBLK	Run ID:	GCMS9	_130411D	Analysi	s Date: 4/11	/2013 9:46:	00 AM	Prep Date:	4/9/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD RPDLim	nit Qua
1-Methylnaphthalene		ND	0.0266							N
2,3,4,6-Tetrachlorophenol		ND	0.0266							
2,4,5-Trichlorophenol		ND	0.0266							
2,4,6-Trichlorophenol		ND	0.0266							
2,4-Dichlorophenol		ND	0.0266							
2,4-Dimethylphenol		ND	0.0266							
2,4-Dinitrophenol		ND	0.132							
2,6-Dichlorophenol		ND	0.0266							
2-Chlorophenol		ND	0.0266							

Qualifiers: B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1304037

GCMS9_130411D **RunID: Project:** R360 Artesia Landfarm

Sample ID: MB-56849	Batch ID:	56849		TestNo): SW 8	3270D		Units:	mg/Kg
SampType: MBLK	Run ID:	GCMS	9_130411D	Analys	is Date: 4/11	/2013 9:46:	00 AM	Prep Date:	4/9/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Qua
2-Methylnaphthalene		ND	0.0266						
2-Methylphenol		ND	0.0266						
2-Nitrophenol		ND	0.0266						
4,6-Dinitro-2-methylphenol		ND	0.0660						
4-Chloro-3-methylphenol		ND	0.0266						
4-Methylphenol		ND	0.0266						
4-Nitrophenol		ND	0.132						
Benzo[a]pyrene		ND	0.0266						
Naphthalene		ND	0.0266						
Pentachlorophenol		ND	0.0266						
Phenol		ND	0.0266						
Total Phenol (Calculated)		ND	0.0266						
Surr: 2,4,6-Tribromophenol		0.467		0.6670		70.0	45	138	
Surr: 2-Fluorobiphenyl		0.507		0.6670		76.0	60	135	
Surr: 2-Fluorophenol		0.493		0.6670		74.0	37	125	
Surr: 4-Terphenyl-d14		0.540		0.6670		81.0	60	129	
Surr: Nitrobenzene-d5		0.467		0.6670		70.0	45	125	
Surr: Phenol-d6		0.513		0.6670		77.0	40	125	
Sample ID: 1304037-01CMS	Batch ID:	56849		TestNo	SW8	3270D		Units:	mg/Kg-dry
SampType: MS	Run ID:	GCMS	9_130411D	Analys	is Date: 4/11	/2013 7:06:	00 PM	Prep Date:	4/9/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Qua
Analyte 1-Methylnaphthalene		Result 1.05	RL 0.0268	SPK value	Ref Val	%REC 78.1	LowLim	it HighLimit %	6RPD RPDLimit Qua
,									
1-Methylnaphthalene 2,3,4,6-Tetrachlorophenol		1.05	0.0268	1.349	0	78.1	40	125	
1-Methylnaphthalene		1.05 1.13	0.0268 0.0268	1.349 1.349	0	78.1 84.1	40 40	125 125	
1-Methylnaphthalene 2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol		1.05 1.13 1.19	0.0268 0.0268 0.0268	1.349 1.349 1.349	0 0 0	78.1 84.1 88.5	40 40 49	125 125 125	
1-Methylnaphthalene 2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dichlorophenol		1.05 1.13 1.19 1.21 1.10	0.0268 0.0268 0.0268 0.0268 0.0268	1.349 1.349 1.349 1.349 1.349	0 0 0 0	78.1 84.1 88.5 89.4 81.7	40 40 49 43 45	125 125 125 125 125	
1-Methylnaphthalene 2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol		1.05 1.13 1.19 1.21 1.10 1.13	0.0268 0.0268 0.0268 0.0268 0.0268 0.0268	1.349 1.349 1.349 1.349 1.349	0 0 0 0 0	78.1 84.1 88.5 89.4 81.7 84.1	40 40 49 43 45 32	125 125 125 125 125 125	N
1-Methylnaphthalene 2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol		1.05 1.13 1.19 1.21 1.10 1.13 0.318	0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.133	1.349 1.349 1.349 1.349 1.349 1.349	0 0 0 0 0	78.1 84.1 88.5 89.4 81.7 84.1 23.5	40 40 49 43 45 32 25	125 125 125 125 125 125 125 132	
1-Methylnaphthalene 2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,6-Dichlorophenol		1.05 1.13 1.19 1.21 1.10 1.13 0.318 1.09	0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.133 0.0268	1.349 1.349 1.349 1.349 1.349 1.349 1.349	0 0 0 0 0 0	78.1 84.1 88.5 89.4 81.7 84.1 23.5 80.7	40 40 49 43 45 32 25 38	125 125 125 125 125 125 125 132 125	N
1-Methylnaphthalene 2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol		1.05 1.13 1.19 1.21 1.10 1.13 0.318 1.09 0.950	0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.133 0.0268 0.0268	1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349	0 0 0 0 0 0 0	78.1 84.1 88.5 89.4 81.7 84.1 23.5 80.7 70.4	40 40 49 43 45 32 25 38 44	125 125 125 125 125 125 125 132 125 125	N
1-Methylnaphthalene 2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methylnaphthalene		1.05 1.13 1.19 1.21 1.10 1.13 0.318 1.09 0.950 1.04	0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.133 0.0268 0.0268 0.0268	1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349	0 0 0 0 0 0 0 0	78.1 84.1 88.5 89.4 81.7 84.1 23.5 80.7 70.4 76.9	40 40 49 43 45 32 25 38 44 47	125 125 125 125 125 125 125 132 125 125 125	N
1-Methylnaphthalene 2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dinethylphenol 2,4-Dinitrophenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methylnaphthalene 2-Methylphenol		1.05 1.13 1.19 1.21 1.10 1.13 0.318 1.09 0.950 1.04 0.879	0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.133 0.0268 0.0268 0.0268	1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349	0 0 0 0 0 0 0 0	78.1 84.1 88.5 89.4 81.7 84.1 23.5 80.7 70.4 76.9 65.1	40 40 49 43 45 32 25 38 44 47 40	125 125 125 125 125 125 125 125 125 125	N
1-Methylnaphthalene 2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dinchlorophenol 2,4-Dinitrophenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methylnaphthalene 2-Methylphenol 2-Nitrophenol		1.05 1.13 1.19 1.21 1.10 1.13 0.318 1.09 0.950 1.04 0.879 1.04	0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.133 0.0268 0.0268 0.0268	1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349	0 0 0 0 0 0 0 0 0	78.1 84.1 88.5 89.4 81.7 84.1 23.5 80.7 70.4 76.9 65.1 76.9	40 49 43 45 32 25 38 44 47 40 42	125 125 125 125 125 125 125 132 125 125 125 125	N
1-Methylnaphthalene 2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methylnaphthalene 2-Methylphenol 2-Nitrophenol 4,6-Dinitro-2-methylphenol		1.05 1.13 1.19 1.21 1.10 1.13 0.318 1.09 0.950 1.04 0.879 1.04 0.511	0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.133 0.0268 0.0268 0.0268 0.0268 0.0268	1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349	0 0 0 0 0 0 0 0 0	78.1 84.1 88.5 89.4 81.7 84.1 23.5 80.7 70.4 76.9 65.1 76.9 37.9	40 49 43 45 32 25 38 44 47 40 42 29	125 125 125 125 125 125 125 125 125 125	N
1-Methylnaphthalene 2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methylnaphthalene 2-Methylphenol 4,6-Dinitro-2-methylphenol 4-Chloro-3-methylphenol		1.05 1.13 1.19 1.21 1.10 1.13 0.318 1.09 0.950 1.04 0.879 1.04 0.511 1.19	0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.133 0.0268 0.0268 0.0268 0.0268 0.0268	1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349	0 0 0 0 0 0 0 0 0	78.1 84.1 88.5 89.4 81.7 84.1 23.5 80.7 70.4 76.9 65.1 76.9 37.9 88.3	40 49 43 45 32 25 38 44 47 40 42 29 46	125 125 125 125 125 125 125 132 125 125 125 125 125 125 125	N
1-Methylnaphthalene 2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dinethylphenol 2,4-Dinitrophenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methylnaphthalene 2-Methylphenol 2-Nitrophenol 4,6-Dinitro-2-methylphenol 4-Chloro-3-methylphenol 4-Methylphenol		1.05 1.13 1.19 1.21 1.10 1.13 0.318 1.09 0.950 1.04 0.879 1.04 0.511 1.19 0.942	0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.0268	1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349	0 0 0 0 0 0 0 0 0 0	78.1 84.1 88.5 89.4 81.7 84.1 23.5 80.7 70.4 76.9 65.1 76.9 37.9 88.3 69.8	40 49 43 45 32 25 38 44 47 40 42 29 46 41	125 125 125 125 125 125 125 132 125 125 125 125 125 125 137 125	N
1-Methylnaphthalene 2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dinitrophenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methylnaphthalene 2-Methylphenol 4,6-Dinitro-2-methylphenol 4-Chloro-3-methylphenol		1.05 1.13 1.19 1.21 1.10 1.13 0.318 1.09 0.950 1.04 0.879 1.04 0.511 1.19	0.0268 0.0268 0.0268 0.0268 0.0268 0.0268 0.133 0.0268 0.0268 0.0268 0.0268 0.0268	1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349 1.349	0 0 0 0 0 0 0 0 0	78.1 84.1 88.5 89.4 81.7 84.1 23.5 80.7 70.4 76.9 65.1 76.9 37.9 88.3	40 49 43 45 32 25 38 44 47 40 42 29 46	125 125 125 125 125 125 125 132 125 125 125 125 125 125 125	N

Qualifiers: Analyte detected in the associated Method Blank

Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

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Work Order: 1304037

Project: R360 Artesia Landfarm RunID: GCMS9_130411D

ANALYTICAL QC SUMMARY REPORT

Sample ID: 1304037-01CMS	Batch ID:	56849		TestNo	: SW8	3270D		Units:	mg/k	(g-dry	
SampType: MS	Run ID:	GCMS9	_130411D	Analys	is Date: 4/11	/2013 7:06:	00 PM	Prep Date:	4/9/2	2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimi	it Qual
Pentachlorophenol		1.24	0.0268	1.349	0	92.2	25	125			
Phenol		0.881	0.0268	1.349	0	65.3	25	125			
Surr: 2,4,6-Tribromophenol		0.718		0.6716		107	45	138			
Surr: 2-Fluorobiphenyl		0.517		0.6716		77.0	60	135			
Surr: 2-Fluorophenol		0.477		0.6716		71.0	37	125			
Surr: 4-Terphenyl-d14		0.571		0.6716		85.0	60	129			
Surr: Nitrobenzene-d5		0.530		0.6716		79.0	45	125			
Surr: Phenol-d6		0.483		0.6716		72.0	40	125			
Sample ID: 1304037-01CMSD	Batch ID:	56849		TestNo): SW 8	3270D		Units:	mg/ł	(g-dry	
SampType: MSD	Run ID:	GCMS9	_130411D	Analys	is Date: 4/11	/2013 7:30:	00 PM	Prep Date:	4/9/2	2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimi	it Qual
1-Methylnaphthalene		1.03	0.0266	1.342	0	77.0	40	125	1.87	30	N
2,3,4,6-Tetrachlorophenol		1.12	0.0266	1.342	0	83.3	40	125	1.41	30	
2,4,5-Trichlorophenol		1.15	0.0266	1.342	0	85.8	49	125	3.60	30	
2,4,6-Trichlorophenol		1.19	0.0266	1.342	0	89.0	43	125	0.912	30	
2,4-Dichlorophenol		1.11	0.0266	1.342	0	83.0	45	125	0.988	30	
2,4-Dimethylphenol		1.14	0.0266	1.342	0	84.7	32	125	0.186	30	
2,4-Dinitrophenol		0.287	0.132	1.342	0	21.4	25	132	10.0	30	S
2,6-Dichlorophenol		1.10	0.0266	1.342	0	81.7	38	125	0.703	30	
2-Chlorophenol		0.978	0.0266	1.342	0	72.8	44	125	2.88	30	
2-Methylnaphthalene		1.04	0.0266	1.342	0	77.3	47	125	0.059	30	
2-Methylphenol		0.891	0.0266	1.342	0	66.4	40	125	1.37	30	
2-Nitrophenol		1.06	0.0266	1.342	0	78.8	42	125	1.97	30	
4,6-Dinitro-2-methylphenol		0.448	0.0661	1.342	0	33.4	29	137	13.1	30	
4-Chloro-3-methylphenol		1.18	0.0266	1.342	0	87.7	46	125	1.20	30	
4-Methylphenol		0.948	0.0266	1.342	0	70.6	41	125	0.683	30	
4-Nitrophenol		1.34	0.132	1.342	0	100	25	138	3.36	30	
Benzo[a]pyrene		1.17	0.0266	1.342	0	87.1	50	125	2.44	30	
Naphthalene		1.00	0.0266	1.342	0	74.8	40	125	0.952	30	
Pentachlorophenol		1.16	0.0266	1.342	0	86.1	25	125	7.33	30	
Phenol		0.896	0.0266	1.342	0	66.8	25	125	1.74	30	
Surr: 2,4,6-Tribromophenol		0.701		0.6681		105	45	138	0	0	
Surr: 2-Fluorobiphenyl		0.508		0.6681		76.0	60	135	0	0	
Surr: 2-Fluorophenol		0.494		0.6681		74.0	37	125	0	0	
Surr: 4-Terphenyl-d14		0.561		0.6681		84.0	60	129	0	0	
Surr: Nitrobenzene-d5		0.541		0.6681		81.0	45	125	0	0	
Surr: Phenol-d6		0.487		0.6681		73.0	40	125	0	0	

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: GCMS9_130411D

Sample ID: ICV-130411	Batch ID:	R6580)	TestNo	: SW	8270D		Units:	mg/Kg
SampType: ICV	Run ID:	GCMS	9_130411D	Analys	is Date: 4/1 1	1/2013 7:04:	00 AM	Prep Date) :
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit	%RPD RPDLimit Qual
1-Methylnaphthalene		3.69	0.0266	4.000	0	92.2	80	120	N
2,3,4,6-Tetrachlorophenol		4.01	0.0266	4.000	0	100	80	120	
2,4,5-Trichlorophenol		4.01	0.0266	4.000	0	100	80	120	
2,4,6-Trichlorophenol		4.18	0.0266	4.000	0	105	80	120	
2,4-Dichlorophenol		4.07	0.0266	4.000	0	102	80	120	
2,4-Dimethylphenol		3.58	0.0266	4.000	0	89.5	80	120	
2,4-Dinitrophenol		3.60	0.132	4.000	0	89.9	80	120	
2,6-Dichlorophenol		3.91	0.0266	4.000	0	97.8	80	120	
2-Chlorophenol		3.73	0.0266	4.000	0	93.3	80	120	
2-Methylnaphthalene		3.71	0.0266	4.000	0	92.7	80	120	
2-Methylphenol		3.14	0.0266	4.000	0	78.5	80	120	S
2-Nitrophenol		3.89	0.0266	4.000	0	97.4	80	120	
4,6-Dinitro-2-methylphenol		4.00	0.0660	4.000	0	100	80	120	
4-Chloro-3-methylphenol		4.04	0.0266	4.000	0	101	80	120	
4-Methylphenol		2.96	0.0266	4.000	0	74.0	80	120	S
4-Nitrophenol		4.09	0.132	4.000	0	102	80	120	
Benzo[a]pyrene		4.23	0.0266	4.000	0	106	80	120	
Naphthalene		3.55	0.0266	4.000	0	88.8	80	120	
Pentachlorophenol		3.69	0.0266	4.000	0	92.3	80	120	
Phenol		3.25	0.0266	4.000	0	81.3	80	120	
Total Phenol (Calculated)		56.4	0.0266	0					
Surr: 2,4,6-Tribromophenol		4.13		4.000		103	80	120	
Surr: 2-Fluorobiphenyl		3.71		4.000		92.8	80	120	
Surr: 2-Fluorophenol		3.98		4.000		99.5	80	120	
Surr: 4-Terphenyl-d14		4.05		4.000		101	80	120	
Surr: Nitrobenzene-d5		4.01		4.000		100	80	120	
Surr: Phenol-d6		3.33		4.000		83.2	80	120	

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

 $R \quad \ RPD \ outside \ accepted \ control \ \ limits$

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

GCMS2_130408B **RunID:** Project: R360 Artesia Landfarm

The QC data in batch 56822 app			ampies: 1304						
Sample ID: LCS-56822	Batch ID:	56822		TestNo): SW 8	3260C		Units:	mg/Kg
SampType: LCS	Run ID:	GCMS2	2_130408B	Analys	is Date: 4/8/2	2013 10:57:	00 AM	Prep Date:	4/8/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	SRPD RPDLimit Qua
1,1,1-Trichloroethane		0.0233	0.00500	0.0232	0	101	68	130	
1,1,2,2-Tetrachloroethane		0.0221	0.00500	0.0232	0	95.2	59	140	
1,1,2-Trichloroethane		0.0248	0.00500	0.0232	0	107	62	127	
1,1-Dichloroethane		0.0221	0.00500	0.0232	0	95.3	73	125	
1,1-Dichloroethylene		0.0221	0.00500	0.0232	0	95.3	65	136	
1,2-Dichloroethane		0.0245	0.00500	0.0232	0	105	72	137	
Benzene		0.0223	0.00500	0.0232	0	95.9	75	125	
Carbon tetrachloride		0.0230	0.00500	0.0232	0	99.1	67	133	
Chloroform		0.0236	0.00500	0.0232	0	102	72	124	
Ethylbenzene		0.0208	0.00500	0.0232	0	89.7	75	125	
Ethylene bromide		0.0214	0.00500	0.0232	0	92.1	70	124	
Methylene chloride		0.0240	0.00500	0.0232	0	104	63	137	
Tetrachloroethylene		0.0209	0.00500	0.0232	0	90.2	67	139	
Toluene		0.0227	0.00500	0.0232	0	97.9	75	125	
Trichloroethylene		0.0220	0.00500	0.0232	0	94.8	77	124	
Vinyl chloride		0.0245	0.00500	0.0232	0	106	58	126	
Total Xylenes		0.0243	0.00500	0.0232	0	91.0	75	125	
Surr: 1,2-Dichloroethane-d4		57.3	0.00500	50.00	U	115	52	149	
Surr: 4-Bromofluorobenzene		48.8		50.00		97.7	84	118	
Surr: Dibromofluoromethane Surr: Toluene-d8		52.8 45.8		50.00 50.00		106 91.7	65 84	135 116	
	D-t-l-ID				0140		04		
Sample ID: MB-56822	Batch ID:			TestNo		3260C		Units:	mg/Kg
SampType: MBLK	Run ID:	GCMS2	2_130408B	Analys	is Date: 4/8/2	2013 12:00:	00 PM	Prep Date:	4/8/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD RPDLimit Qua
1,1,1-Trichloroethane		ND	0.00500						
1,1,2,2-Tetrachloroethane		ND	0.00500						
1,1,2-Trichloroethane		ND	0.00500						
1,1-Dichloroethane		ND	0.00500						
1,1-Dichloroethylene		ND	0.00500						
1,2-Dichloroethane		ND	0.00500						
Benzene		ND	0.00500						
Carbon tetrachloride		ND	0.00500						
Chloroform		ND	0.00500						
Ethylbenzene		ND	0.00500						
Ethylene bromide		ND	0.00500						
Methylene chloride		ND	0.00500						
Tetrachloroethylene		ND	0.00500						
Toluene		ND	0.00500						
I OIUGIIG		שויו	0.00000						
Qualifiers: B Analyte dete	. 11 .1	:	Method Blank	DE .	Dilution Facto				

Qualifiers: Analyte detected in the associated Method Blank

Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

MDL Method Detection Limit

R RPD outside accepted control limits Page 22 of 35

Spike Recovery outside control limits

Parameter not NELAC certified

Work Order: 1304037

Project: R360 Artesia Landfarm RunID: GCMS2_130408B

ANALYTICAL QC SUMMARY REPORT

Project: R360 Arte	esia Landfa	ırm				Kunll	D: (JCMS2_1	30408I	3
Sample ID: MB-56822	Batch ID:	56822		TestNo	o: SW	8260C		Units:	mg/Kg)
SampType: MBLK	Run ID:	GCMS	2_130408B	Analys	sis Date: 4/8/	2013 12:00:	00 PM	Prep Date:	4/8/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD R	PDLimit Qu
Trichloroethylene		ND	0.00500							
Vinyl chloride		ND	0.00500							
Total Xylenes		ND	0.00500							
Surr: 1,2-Dichloroethane-d4		49.9		50.00		99.9	52	149		
Surr: 4-Bromofluorobenzene		48.8		50.00		97.5	84	118		
Surr: Dibromofluoromethane		50.9		50.00		102	65	135		
Surr: Toluene-d8		46.8		50.00		93.7	84	116		
Sample ID: 1304037-01AMS	Batch ID:	56822		TestNo	o: SW 8	8260C		Units:	mg/Kg	g-dry
SampType: MS	Run ID:	GCMS	2_130408B	Analys	sis Date: 4/8/	2013 6:15:0	00 PM	Prep Date:	4/8/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD R	PDLimit Qu
1,1,1-Trichloroethane		0.0165	0.00482	0.0224	0	73.8	68	130		
1,1,2,2-Tetrachloroethane		0.0197	0.00482	0.0224	0	87.8	59	140		
1,1,2-Trichloroethane		0.0209	0.00482	0.0224	0	93.5	62	127		
1,1-Dichloroethane		0.0191	0.00482	0.0224	0	85.5	73	125		
1,1-Dichloroethylene		0.0172	0.00482	0.0224	0	76.6	65	136		
1,2-Dichloroethane		0.0207	0.00482	0.0224	0	92.4	72	137		
Benzene		0.0193	0.00482	0.0224	0	86.3	73	126		
Carbon tetrachloride		0.0152	0.00482	0.0224	0	67.8	67	133		
Chloroform		0.0191	0.00482	0.0224	0	85.4	72	124		
Ethylbenzene		0.0137	0.00482	0.0224	0	61.4	74	127		5
Ethylene bromide		0.0196	0.00482	0.0224	0	87.5	70	124		
Methylene chloride		0.0213	0.00482	0.0224	0	95.1	63	137		
Tetrachloroethylene		0.0123	0.00482	0.0224	0	55.1	67	139		5
Toluene		0.0174	0.00482	0.0224	0	77.9	71	127		
Trichloroethylene		0.0170	0.00482	0.0224	0	76.1	77	124		5
Vinyl chloride		0.0203	0.00482	0.0224	0	90.8	58	126		
Total Xylenes		0.0416	0.00482	0.0671	0	61.9	75	125		5
Surr: 1,2-Dichloroethane-d4		49.9		48.23		103	52	149		
Surr: 4-Bromofluorobenzene		49.6		48.23		103	84	118		
Surr: Dibromofluoromethane		32.3		48.23		66.9	65	135		
Surr: Toluene-d8		46.4		48.23		96.2	84	116		
Sample ID: 1304037-01AMSD	Batch ID:	56822		TestNo	o: SW 8	8260C		Units:	mg/Kg	g-dry
SampType: MSD	Run ID:	GCMS	2_130408B	Analys	sis Date: 4/8/	2013 6:47:0	00 PM	Prep Date:	4/8/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD R	PDLimit Qu
1,1,1-Trichloroethane		0.0157	0.00456	0.0211	0	74.4	68	130	4.79	30
1,1,2,2-Tetrachloroethane		0.0219	0.00456	0.0211	0	103	59	140	10.7	30
1,1,2-Trichloroethane		0.0203	0.00456	0.0211	0	95.9	62	127	3.16	30
Qualifiers: B Analyte det	tected in the a	ssociated I	Method Blank	DF	Dilution Facto	or				
,	tected between				Method Detec				Day	ge 23 of 35
·	ed at the Meth				RPD outside		tral limita		га	50 23 01 32

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R

RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

ND Not Detected at the Method Detection Limit

Analyte detected between SDL and RL

Reporting Limit

CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1304037

RunID: GCMS2_130408B **Project:** R360 Artesia Landfarm

Sample ID: 1304037-01AMSD	Batch ID:	56822		TestNo	: SV	W8260C		Units:	mg/k	(g-dry	
SampType: MSD	Run ID:	GCMS	2_130408B	Analysi	s Date: 4/8	8/2013 6:47:00	PM	Prep Date:	4/8/2	013	
Analyte	ı	Result	RL	SPK value	Ref Val	%REC L	owLim	it HighLimit '	%RPD	RPDLimit	Qual
1,1-Dichloroethane	(0.0183	0.00456	0.0211	0	86.4	73	125	4.66	30	
1,1-Dichloroethylene	(0.0166	0.00456	0.0211	0	78.7	65	136	3.00	30	
1,2-Dichloroethane	(0.0193	0.00456	0.0211	0	91.1	72	137	7.02	30	
Benzene	(0.0184	0.00456	0.0211	0	87.0	73	126	4.87	30	
Carbon tetrachloride	(0.0142	0.00456	0.0211	0	67.4	67	133	6.24	30	
Chloroform	(0.0182	0.00456	0.0211	0	86.0	72	124	4.96	30	
Ethylbenzene	(0.0137	0.00456	0.0211	0	64.6	74	127	0.668	30	S
Ethylene bromide	(0.0196	0.00456	0.0211	0	92.6	70	124	0.016	30	
Methylene chloride	(0.0208	0.00456	0.0211	0	98.6	63	137	2.06	30	
Tetrachloroethylene	(0.0127	0.00456	0.0211	0	60.1	67	139	3.02	30	S
Toluene	(0.0167	0.00456	0.0211	0	78.8	71	127	4.51	30	
Trichloroethylene	(0.0164	0.00456	0.0211	0	77.7	77	124	3.59	30	
Vinyl chloride	(0.0196	0.00456	0.0211	0	92.7	58	126	3.55	30	
Total Xylenes	(0.0424	0.00456	0.0634	0	66.9	75	125	2.06	30	S
Surr: 1,2-Dichloroethane-d4		46.9		45.58		103	52	149	0	0	
Surr: 4-Bromofluorobenzene		50.9		45.58		112	84	118	0	0	
Surr: Dibromofluoromethane		31.6		45.58		69.3	65	135	0	0	
Surr: Toluene-d8		43.7		45.58		95.8	84	116	0	0	

Qualifiers:

Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

Page 24 of 35

CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1304037

RunID: GCMS2_130408B **Project:** R360 Artesia Landfarm

Sample ID: ICV-130408	Batch ID:	R65746		TestNo	o: SW8	3260C		Units:	mg/Kg
SampType: ICV	Run ID:	GCMS2	_130408B	Analys	is Date: 4/8/2	2013 10:26:	00 AM	Prep Date:	:
Analyte	R	Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
1,1,1-Trichloroethane	0.	.0492	0.00500	0.0464	0	106	80	120	
1,1,2,2-Tetrachloroethane	0.	.0427	0.00500	0.0464	0	92.0	80	120	
1,1,2-Trichloroethane	0.	.0471	0.00500	0.0464	0	102	80	120	
1,1-Dichloroethane	0.	.0463	0.00500	0.0464	0	99.9	80	120	
1,1-Dichloroethylene	0.	.0455	0.00500	0.0464	0	98.0	80	120	
1,2-Dichloroethane	0.	.0496	0.00500	0.0464	0	107	80	120	
Benzene	0.	.0455	0.00500	0.0464	0	98.0	80	120	
Carbon tetrachloride	0.	.0491	0.00500	0.0464	0	106	80	120	
Chloroform	0.	.0481	0.00500	0.0464	0	104	80	120	
Ethylbenzene	0.	.0444	0.00500	0.0464	0	95.6	80	120	
Ethylene bromide	0.	.0422	0.00500	0.0464	0	90.9	80	120	
Methylene chloride	0.	.0486	0.00500	0.0464	0	105	80	120	
Tetrachloroethylene	0.	.0446	0.00500	0.0464	0	96.1	80	120	
Toluene	0.	.0469	0.00500	0.0464	0	101	80	120	
Trichloroethylene	0.	.0445	0.00500	0.0464	0	96.0	80	120	
Vinyl chloride	0.	.0515	0.00500	0.0464	0	111	80	120	
Total Xylenes	0).137	0.00500	0.139	0	98.2	80	120	
Surr: 1,2-Dichloroethane-d4	į	58.0		50.00		116	52	149	
Surr: 4-Bromofluorobenzene	4	48.8		50.00		97.7	84	118	
Surr: Dibromofluoromethane	į	52.3		50.00		105	65	135	
Surr: Toluene-d8	4	46.4		50.00		92.8	84	116	

Qualifiers: Analyte detected in the associated Method Blank

> J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits Parameter not NELAC certified

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CLIENT: Larson & Associates

Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: IC2_130410A

rroject: K500 Arte	esia Lanura	11111				Kullii	<i>)</i> . 1	C2_13041	UA	
The QC data in batch 56830 app	olies to the f	ollowing s	amples: 1304	037-01B, 1304	1037-02B					
Sample ID: LCS-56830	Batch ID:	56830		TestNo	o: E30	0		Units:	mg/Kg]
SampType: LCS	Run ID:	IC2_13	80410A	Analys	sis Date: 4/10	0/2013 10:03	3:15 AM	Prep Date:	4/8/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit [°]	%RPD R	PDLimit Qu
Chloride		50.0	5.00	50.00	0	99.9	80	120		
Fluoride		20.0	1.00	20.00	0	100	80	120		
Nitrate-N		25.4	5.00	25.00	0	102	80	120		
Sulfate		149	10.0	150.0	0	99.1	80	120		
Sample ID: LCSD-56830	Batch ID:	56830		TestNo	o: E30	00		Units:	mg/Kg	3
SampType: LCSD	Run ID:	IC2_13	0410A	Analys	sis Date: 4/10	0/2013 10:17	7:50 AM	Prep Date:	4/8/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit ⁴	%RPD R	PDLimit Qu
Chloride		49.7	5.00	50.00	0	99.5	80	120	0.460	20
Fluoride		19.9	1.00	20.00	0	99.6	80	120	0.404	20
Nitrate-N		25.4	5.00	25.00	0	102	80	120	0.063	20
Sulfate		148	10.0	150.0	0	98.6	80	120	0.474	20
Sample ID: MB-56830	Batch ID:	56830		TestNo	o: E30	00		Units:	mg/Kg	3
SampType: MBLK	Run ID:	IC2_13	0410A	Analys	sis Date: 4/10	0/2013 10:32	2:24 AM	Prep Date:	4/8/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit ⁽	%RPD R	PDLimit Qu
Chloride		ND	5.00							
Fluoride		ND	1.00							
Nitrate-N		ND	5.00							
Sulfate		ND	10.0							
Sample ID: 1304037-02B MS	Batch ID:	56830		TestNo	o: E30	0		Units:	mg/Kg	g-dry
SampType: MS	Run ID:	IC2_13	80410A	Analys	sis Date: 4/10	0/2013 11:37	7:58 AM	Prep Date:	4/8/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit ⁽	%RPD R	PDLimit Qu
Chloride		107	5.25	52.55	57.51	95.0	80	120		
Fluoride		23.3	1.05	21.02	2.480	98.8	80	120		
Nitrate-N		26.8	5.25	26.27	0	102	80	120		
Sulfate		501	10.5	157.6	340.9	102	80	120		
Sample ID: 1304037-02B MSD	Batch ID:	56830		TestNo	o: E30	00		Units:	mg/Kg	g-dry
SampType: MSD	Run ID:	IC2_13	80410A	Analys	sis Date: 4/10	0/2013 11:52	2:33 AM	Prep Date:	4/8/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit ⁽	%RPD R	PDLimit Qu
Chloride		108	5.25	52.55	57.51	95.3	80	120	0.183	20
Fluoride		23.2	1.05	21.02	2.480	98.4	80	120	0.390	20
Nitrate-N		26.7	5.25	26.27	0	102	80	120	0.332	20
Sulfate		502	10.5	157.6	340.9	102	80	120	0.115	20
Qualifiers: B Analyte det	ected in the a	ssociated 1	Method Blank	DF	Dilution Factor	or				
•	ected between				Method Detec				Pac	ge 26 of 35
ND Not Detect	d at the M-41	and Date -t	ion Limit	D	DDD outside				1 48	50 20 01 33

42

R

S

RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

ND Not Detected at the Method Detection Limit

Analyte detected between SDL and RL

RL Reporting Limit

CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1304037

IC2_130410A **RunID: Project:** R360 Artesia Landfarm

Sample ID: 1304038-11A MS SampType: MS	Batch ID: Run ID:	56830 IC2_13041	0A	TestNo: Analysis	E300 s Date: 4/10/ 2		23 PM	Units: Prep Date	mg/Kg-dry : 4/8/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD RPDLimit Qual
Chloride		1040	50.4	503.9	554.3	97.2	80	120	
Sample ID: 1304038-11A MSD	Batch ID:	56830		TestNo:	E300			Units:	mg/Kg-dry
SampType: MSD	Run ID:	IC2_13041	0A	Analysis	Date: 4/10/	2013 5:18:	57 PM	Prep Date	4/8/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD RPDLimit Qual
Chloride		1050	50.4	503.9	554.3	97.5	80	120	0.137 20

Qualifiers:

В Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits S Spike Recovery outside control limits Page 27 of 35

Parameter not NELAC certified

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CLIENT: Larson & Associates

Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: IC2_130410A

Sample ID: ICV-130410	Batch ID: F	R65774	TestNo:	E300			Units:	mg/Kg	
SampType: ICV	Run ID:	C2_130410A	Analysis	Date: 4/10/2	013 9:32:	16 AM	Prep Date	:	
Analyte	Re	sult RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual	
Chloride	25	5.6 5.00	25.00	0	102	90	110		
Fluoride	10	0.3 1.00	10.00	0	103	90	110		
Nitrate-N	1;	3.0 5.00	12.50	0	104	90	110		
Sulfate	76	5.9 10.0	75.00	0	103	90	110		
Sample ID: CCV1-130410	Batch ID: F	R65774	TestNo:	E300			Units:	mg/Kg	
SampType: CCV	Run ID: I	C2_130410A	Analysis	Date: 4/10/2	013 12:51	:42 PM	Prep Date	:	
Analyte	Re	sult RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual	
Chloride	9.	99 5.00	10.00	0	99.9	90	110		
Fluoride	3.	98 1.00	4.000	0	99.4	90	110		
Nitrate-N	5.	06 5.00	5.000	0	101	90	110		
Sulfate	29	9.6 10.0	30.00	0	98.8	90	110		
Sample ID: CCV2-130410	Batch ID: F	R65774	TestNo:	E300			Units:	mg/Kg	
SampType: CCV	Run ID: I	C2_130410A	Analysis	Date: 4/10/2	013 4:35:	14 PM	Prep Date	:	
Analyte	Re	sult RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual	
Chloride	10	0.2 5.00	10.00	0	102	90	110		
Sample ID: CCV3-130410	Batch ID: F	R65774	TestNo:	E300			Units:	mg/Kg	
SampType: CCV	Run ID: I	C2_130410A	Analysis	Date: 4/10/2	013 5:33:	32 PM	Prep Date	:	
Analyte	Re	sult RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual	
Chloride	10	0.3 5.00	10.00	0	103	90	110		

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

 $\begin{array}{ll} S & \text{Spike Recovery outside control limits} \\ N & \text{Parameter not NELAC certified} \end{array}$

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CLIENT: Larson & Associates

Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: IR207_130410A

110jecti 11500 i inte	ona Danara						-			
The QC data in batch 56868 app	lies to the fo	llowing s	amples: 1304	.037-01B, 13040	037-02B					
Sample ID: ICV-130410	Batch ID:	56868		TestNo	E41	18.1		Units:	mg/Kg	
SampType: ICV	Run ID:	IR207_	130410A	Analysis	s Date: 4/10	0/2013 4:20:	00 PM	Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLim	nit Qual
Petroleum Hydrocarbons, TR		254	10.0	250.0	0	102	90	110		N
Sample ID: MB-56868	Batch ID:	56868		TestNo	E41	18.1		Units:	mg/Kg	
SampType: MBLK	Run ID:	IR207_	130410A	Analysi	s Date: 4/10	0/2013 4:20:	00 PM	Prep Date:	4/10/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLim	nit Qual
Petroleum Hydrocarbons, TR		ND	10.0							N
Sample ID: LCS1-56868	Batch ID:	56868		TestNo	E41	18.1		Units:	mg/Kg	
SampType: LCS	Run ID:	IR207_	130410A	Analysi	s Date: 4/10	0/2013 4:20:	00 PM	Prep Date:	4/10/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLim	nit Qual
Petroleum Hydrocarbons, TR		97.5	10.0	100.0	0	97.5	80	120		N
Sample ID: CCV1-130410	Batch ID:	56868		TestNo	E41	18.1		Units:	mg/Kg	
SampType: CCV	Run ID:	IR207_	130410A	Analysi	s Date: 4/1 0	0/2013 4:20:	00 PM	Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLim	nit Qual
Petroleum Hydrocarbons, TR		254	10.0	250.0	0	102	85	115		N
Sample ID: CCV2-130410	Batch ID:	56868		TestNo	E41	18.1		Units:	mg/Kg	
SampType: CCV	Run ID:	IR207_	130410A	Analysi	s Date: 4/10	0/2013 4:20:	00 PM	Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLim	nit Qual
Petroleum Hydrocarbons, TR		247	10.0	250.0	0	98.8	85	115		N
Sample ID: 1304037-02BMS	Batch ID:	56868		TestNo	E41	18.1		Units:	mg/Kg-dry	
SampType: MS	Run ID:	IR207_	130410A	Analysi	s Date: 4/1 0	0/2013 4:20:	00 PM	Prep Date:	4/10/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLim	nit Qual
Petroleum Hydrocarbons, TR		172	10.2	102.0	211.5	-38.5	80	120		SN
Sample ID: 1304037-02BMSD	Batch ID:	56868		TestNo	E41	18.1		Units:	mg/Kg-dry	
SampType: MSD	Run ID:	IR207_	130410A	Analysi	s Date: 4/1 0	0/2013 4:20:	00 PM	Prep Date:	4/10/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD RPDLim	nit Qual
Petroleum Hydrocarbons, TR		156	10.4	103.7	211.5	-53.9	80	120	10.1 20	SN

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

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S Spike Recovery outside control limits

N Parameter not NELAC certified

CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1304037

IR207_130410A **RunID: Project:** R360 Artesia Landfarm

Sample ID: CCV3-130410	Batch ID:	56868		TestNo): E41	18.1		Units:	mg/Kg	
SampType: CCV	Run ID:	IR207_1	30410A	Analys	is Date: 4/1 0	0/2013 4:20:	00 PM	Prep Date	:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLii	mit Qual
Petroleum Hydrocarbons, TR		256	10.0	250.0	0	102	85	115		N

Qualifiers:

В Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits S Spike Recovery outside control limits

Parameter not NELAC certified

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ANALYTICAL QC SUMMARY REPORT

Work Order: 1304037

Larson & Associates

CLIENT:

Project: R360 Artesia Landfarm RunID: PH_130408A

The QC data in batch 56815 applies to the following samples: 1304037-01B, 1304037-02B								
Sample ID: 1304039-01A-DUP	Batch ID:			TestNo:		SW9045D	Units:	pH Units
SampType: DUP	Run ID:	PH_130408/	A	Analysis	Date:	4/8/2013 2:15:00	PM Prep Date:	4/8/2013
Analyte		Result	RL	SPK value	Ref Va	al %REC	LowLimit HighLimit ⁴	%RPD RPDLimit Qual

pH 8.92 0 0 8.893 0.348 5

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

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S Spike Recovery outside control limits

N Parameter not NELAC certified

CLIENT: Larson & Associates

Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: PH_130408A

Sample ID: ICV1-130408	Batch ID:	PH_S-4	1372	TestNo:	SW	9045D		Units:	pH Units
SampType: ICV	Run ID:	PH_130	408A	Analysis	s Date: 4/8/	2013 2:15:00	PM C	Prep Date:	4/8/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Qual
рН		3.99	0	4.000	0	99.8	99	101	
Sample ID: ICV2-130408	Batch ID:	PH_S-4	1372	TestNo:	SW	9045D		Units:	pH Units
SampType: ICV	Run ID:	PH_130	408A	Analysis	s Date: 4/8/	2013 2:15:00) PM	Prep Date:	4/8/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Qual
рН		6.98	0	7.000	0	99.8	99	101	
Sample ID: ICV-130408	Batch ID:	PH_S-4	1372	TestNo:	SW	9045D		Units:	pH Units
SampType: ICV	Run ID:	PH_130	408A	Analysis	s Date: 4/8/	2013 2:15:00) PM	Prep Date:	4/8/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Qual
рН		10.0	0	10.00	0	100	99	101	
Sample ID: CCV-130408	Batch ID:	PH_S-4	1372	TestNo:	SW	9045D		Units:	pH Units
SampType: CCV	Run ID:	PH_130	408A	Analysis	s Date: 4/8/	2013 2:15:00) PM	Prep Date:	4/8/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDLimit Qual
pH		7.09	0	7.000	0	101	97.1	102.9	

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

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R PD outside accepted control limits
 S pike Recovery outside control limits

N Parameter not NELAC certified

ANALYTICAL QC SUMMARY REPORT

Work Order: 1304037

CLIENT:

Project: R360 Artesia Landfarm RunID: PMOIST_130404A

ŀ	The QC data in batch 56770	applies to the following sam	ples: 1304037-01C, 1304037-02C

Larson & Associates

Sample ID: 1304042-01B-DUP	Batch ID:	56770		TestNo	D	2216		Units:	WT%	, D
SampType: DUP	Run ID:	PMOIST_	130404A	Analysi	s Date: 4,	/5/2013 8:35:00) AM	Prep Date	4/4/2	013
Analyte		Result	RL	SPK value	Ref Val	I %REC	LowLimit	HighLimit	%RPD	RPDLimit Qual

Percent Moisture 5.38 0 0 6.190 14.0 30

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

 $\begin{array}{ll} S & \text{Spike Recovery outside control limits} \\ N & \text{Parameter not NELAC certified} \end{array}$

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CLIENT: Larson & Associates

Work Order: 1304037

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: UV/VIS_2_130405A

The QC data in batch 56780 app	lies to the f	ollowing sam	ples: 13040	037-01B, 13040	37-02B					
Sample ID: LCS-56780	Batch ID:	56780		TestNo:	sw	9014		Units:	mg/Kg	
SampType: LCS	Run ID:	UV/VIS_2	_130405A	Analysis	s Date: 4/5/	2013 5:01:00) PM	Prep Date:	4/5/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	6RPD R	PDLimit Qual
Cyanide, Total		5.00	0.500	5.000	0	100	85	115		
Sample ID: 1304037-02BMS	Batch ID:	56780		TestNo:	sw	9014		Units:	mg/Kg	-dry
SampType: MS	Run ID:	UV/VIS_2	_130405A	Analysis	Date: 4/5/	2013 5:01:00	PM	Prep Date:	4/5/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	%RPD R	PDLimit Qual
Cyanide, Total		5.27	0.511	5.107	0	103	75	125		
Sample ID: 1304037-02BMSD	Batch ID:	56780		TestNo:	sw	9014		Units:	mg/Kg	-dry
SampType: MSD	Run ID:	UV/VIS_2	_130405A	Analysis	Date: 4/5/	2013 5:01:00	PM	Prep Date:	4/5/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	6RPD R	PDLimit Qual
Cyanide, Total		5.33	0.499	4.987	0	107	75	125	1.24	30
Sample ID: MB-56780	Batch ID:	56780		TestNo:	sw	9014		Units:	mg/Kg	
SampType: MBLK	Run ID:	UV/VIS_2	_130405A	Analysis	s Date: 4/5/	2013 5:03:00) PM	Prep Date:	4/5/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	6RPD R	PDLimit Qual
Cyanide, Total		ND	0.500							

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

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R PD outside accepted control limits
 S Spike Recovery outside control limits
 N Parameter not NELAC certified

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CLIENT: Larson & Associates

Work Order: 1304037

Project: R360 Artesia Landfarm RunID: UV/VIS_2_130405A

Sample ID: ICV-130405	Batch ID:	R65702		TestNo:	SW	9014		Units:	mg/Kg
SampType: ICV	Run ID:	UV/VIS_	_2_130405A	Analysis	s Date: 4/5/	2013 4:59:0	0 PM	Prep Date	e:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit	%RPD RPDLimit Qual
Cyanide, Total		0.104	0.500	0.1000	0	104	85	115	
Sample ID: CCV1-130405	Batch ID:	R65702		TestNo:	SW	9014		Units:	mg/Kg
SampType: CCV	Run ID:	UV/VIS_	_2_130405A	Analysis	s Date: 4/5/	2013 5:03:0	0 PM	Prep Date	e:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLin	nit HighLimit	%RPD RPDLimit Qual
Cyanide, Total		0.206	0.500	0.2000	0	103	85	115	

ANALYTICAL QC SUMMARY REPORT

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

 $R \quad \ RPD \ outside \ accepted \ control \ \ limits$

S Spike Recovery outside control limits

N Parameter not NELAC certified

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June 05, 2013

Coty Woolf Larson & Associates 507 N. Marienfeld #200 Midland, TX 79701

TEL: (432) 687-0901

FAX (432) 687-0456 Order No.: 1305076

RE: R360 Landfarm

Dear Coty Woolf:

DHL Analytical, Inc. received 10 sample(s) on 5/7/2013 for the analyses presented in the following report.

Revision Number 1 for Work Order 1305076: This revision consists of changing the metals analyte target list, deleting subsection C per the client's request. Please replace the original report with this revised report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-13-10



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2300 Double Creek Dr. ■ Round Rock, TX 78664 Phone (512) 388-8222 ■ FAX (512) 388-8229

Web: www.dhlanalytical.com E-Mail: login@dhlanalytical.com





№ 58673 CHAIN-OF-CUSTODY

CLIENT: DATE: 5-6-13 ADDRESS: SON N Morren Leld Ste DOO PO #: PHONE: 432.687 0901 FAX/E-MAIL: CLOSE Clarens mention mention of PROJECT LOCATION OR NAME DATA REPORTED TO: Coty Woolf ADDITIONAL REPORT COPIES TO: CLENT PROJECT #: 11-01	PAGEOFDHLWORK ORDER #: 1395076 E: R360 Candfarm 109-09COLLECTOR:
Authorize 5% surcharge for TRRP Report? Yes No S=SOIL P=PAINT W=WATER SL=SLUDGE A=AIR O=OTHER L=LIQUID SO=SOLID PRESERVATION	FIELD NOTES
My-4 01 5-6-73 1200 L 10 XXXX	X X X X X X X X X X
RELINIQUISHED BY: (Signature) DATE/TIME DATE/TIME AECEIVED BY: (Signature) 1 DAY CALL FIRST 2 DAY 2 DAY 1	LABORATORY USE ONLY: RECEIVING TEMP: 47,4 THERM #: 57 CUSTODY SEALS: BROKEN INTACT ENOT USED CARRIER BILL #: ONLY: APC DELIVERY

CHAIN-OF-CUSTODY

-	Agrson & SSOCIAL Environment Data Reported to:	es, In	Coty	. Lva	ns (f	507 N M		id, T	X 7	9701)	DA PO PR LAI	TE: #: OJE PR	SOJE	<i>5</i> ос	ATI	7- ON	/ <u>/</u>	NAI	l ME:	AB	wo <i>K</i>	RK 36	ORI Ø COI	DER	#: 210	PAC //- R:	涯 <u></u> 3つら) of ভাগ	<u>ئ</u> بو
	TRRP report? Yes No TIME ZONE: Time zone/State:	S=SOIL W=WATE A=AIR	P∕≕PA R SL≔S	NNT. BLUDGE OTHER	<u>.</u>	# of Containers	H	SEF	T	UNPRESERVED Z		J8/		/ /2 0/:								Y 							FIEL	of and	yer V
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(7)

(9)

Human Health Standards-Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured. (1) (2)Nitrate (NO₃ as N)......10.0 mg/l (9)(10)(11)Oramoni (O).......

(10)	**************************************	· · · · · · · · · · · · · · · · · · ·
(14)	Benzene	0.01 mg/l
(15)	Polychlorinated biphenyls (PCB's)	0.001 mg/l
(16)	Toluene	0.75 mg/l
(17)	Carbon Tetrachloride	0.01 mg/l
(18)	1,2-dichloroethane (EDC)	0.01 mg/l
(19)	1,1-dichloroethylene (1,1-DCE)	0.005 mg/l
(20)	1,1,2,2-tetrachloroethylene (PCE)	0.02 mg/l
(21)	1,1,2-trichloroethylene (TCE)	
(22)	ethylbenzene	
(23)	total xylenes	
(24)	methylene chloride	
(25)	chloroform	
(26)	1,1-dichloroethane	0.025 mg/l
(27)	ethylene dibromide (EDB)	0.0001 mg/l
(28)	1,1,1-trichloroethane	
(29)	1,1,2-trichloroethane	0.01 mg/l
(30)	1,1,2,2-tetrachloroethane	0.01 mg/l
(31)	vinyl chloride	0.001 mg/l
(32)	PAHs: total naphthalene plus monomethylnaphthalenes.	0.03 mg/l
(33)	benzo-a-pyrene	
B.	Other Standards for Domestic Water Supply	
(1)	Chloride (Cl)	250.0 mg/l
(2)	Copper (Cu)	1.0 mg/l
(3)	Iron (Fe)	
(4)	Manganese (Mn)	0.2 mg/l
(6)	Phenols	0.005 mg/l

Sulfate (SO₄)600.0 mg/l

 (1) Aluminum (Al).
 5.0 mg/l

 (2) Boron (B)
 0.75 mg/l

 (3) Cobalt (Co)
 0.05 mg/l

 (4) Molybdenum (Mo)
 1.0 mg/l

 (5) Nickel (Ni)
 0.2 mg/l

[2-18-77, 1-29-82, 11-17-83, 3-3-86, 12-1-95; 20.6.2.3103 NMAC - Rn, 20 NMAC 6.2.III.3103, 1-15-01; A, 9-26-04] [Note: For purposes of application of the amended numeric uranium standard to past and current water discharges (as of 9-26-04), the new standard will not become effective until June 1, 2007. For any new water discharges, the uranium standard is effective 9-26-04.]



WWW.LSO.COM Questions? Call 800-800-8984

Airbill No. 43387785

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MIT OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely siner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a cokage without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 8:30 AM DELIVERIES AND RESIDENTIAL DELIVERIES, ELIVERY COMMITMENTS MAY VARY ADDITIONAL FEES MAY APPLY.



WWW.LSO.COM Questions? Call 800-800-8984



Airbill No. 43387786

Print Name (Person) Phone (Important)	Print Name (Person)	Phone (Important)
1. 16)	2. From: 20 1900 - CASE 2	
Company Name	Company Name	
0///	LATERCE & DESCRIPTION TO THE RESERVED	************************************
Street Address (No P.O. Box or P.O. Box Zip Code Deliveries)	Street Address	
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City Record Rock State 1 20 78664	MIDLAND	· 79766
3. Service:	4. Package: Weight:	FOR COURIER USE ONLY
By 10:30om Delivery (Noon to select zip codes.)	Your Company's Billing Reference Information	Courier Number 3181
By 8:30am Delivery (Most Cities) (Extra Charge, No Signature Obtained)	Ship Date: (mm/dd/yy)	Pick-up Localion. 200
Saturday Delivery - By 12 Noon (Extra Charge)	5. Poyn nt:	Date: <u>5-7-73</u>
Other		Time:
Deliver Without Delivery Signature (See Limits of Liability below)		City code:
Release Signature		PKV/
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LIMIT OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 8:30 AM DELIVERIES AND RESIDENTIAL DELIVERIES. DELIVERY COMMITMENTS MAY VARY, ADDITIONAL FEES MAY APPLY.

Sample Receipt Checklist

Client Name Larson & Associates		Date Receive	ed: 8	5/7/2013
Work Order Number 1305076		Received by	JB	
Checklist completed by: Signature 5/7/201 Date Carrier name		Reviewed by	DL) Initiats	5/7/2013 Date
Olivity and the standard and differen	Yes 🔽	No 🗆	Not Present	
Shipping container/cooler in good condition?	res ▼ Yes □	No 🗆	Not Present	_
Custody seals intact on shippping container/cooler?	res □ Yes □	No 🗆	Not Present	
Custody seals intact on sample bottles?	res ⊡ Yes ⊻	No 🗆	Not Fresent	
Chain of custody present? Chain of custody signed when relinquished and received?	Yes 🗹	No □		
Chain of custody agrees with sample labels?	Yes 🗹	No □		
Samples in proper container/bottle?	Yes 🗹	No \square		
Sample containers intact?	Yes 🗹	No 🗆		•
Sufficient sample volume for indicated test?	Yes 🗹	No 🗆		
All samples received within holding time?	Yes 🗹	No 🗀		<i>:</i>
Container/Temp Blank temperature in compliance?	Yes 🔽	No 🗆 4	i.7 °C _ 44	23
Water - VOA vials have zero headspace?	Yes 🗌	No 🗹	No VOA vials	_
Water - pH acceptable upon receipt?	Yes 🗹	No 🗆 💮	Not Applicable	. 🗆
Adjusted?	N ⊃ Che	cked by	3	_
Any No response must be detailed in the comments section below.	=====			=========
Client contacted	3/7/13	Pers	on contacted	Coty
Contacted by: Regarding	air a	Burst	<u>10</u>	
Comments: Pu Csty, p	loceed	with	ane	kysio
is aware of the	<u>air</u>	bub	hles	is 009
uals.	·	***		
Corrective Action added tip	blank:	s to	COC	per
Clients request			· · · · · · · · · · · · · · · · · · ·	<u> </u>

CLIENT: Larson & Associates
Project: R360 Landfarm

Lab Order: 1305076

CASE NARRATIVE

Date: 05-Jun-13

Sample was analyzed using the methods outlined in the following references:

Method SW8260C - Volatile Organics

Method SW8270D - Semivolatile Organics

Method SW8270D - PCB Analysis

Method SW6020A - Metals Analysis

Method SW7470A - Mercury Analysis

Method E300 - Anions Analysis

Method M4500-H+ B - pH of A Water

LOG IN

The samples were received and log-in performed on 5/7/13. On 5/8/13 samples MW-2 and MW-E40 arrived at DHL Analytical and were added on to this work order as per the client. A total of 10 samples were received. The VOA vials arrived with air bubbles larger than pea-size. Proceeded with analysis as per the client. The Trip Blanks arrived in the cooler but were not listed on the Chain-of-Custody (COC). Added the Trip Blanks to the COC as per the client.

ANIONS ANALYSIS

For Anions analysis performed on 5/7/13 the matrix spike and matrix spike duplicate recoveries were slightly below control limits for most analytes. These are flagged accordingly in the QC summary report. The sample selected for the matrix spike and matrix spike duplicate was from this work order. The LCS was within control limits for these analytes. No further corrective actions were taken.

VOLATILE ORGANICS ANALYSIS

For Volatiles analysis performed on 5/10/13 the matrix spike and matrix spike duplicate had the RPD slightly above control limits for Vinyl chloride. This is flagged accordingly in the QC summary report. The sample selected for the matrix spike and matrix spike duplicate was not from this work order. The percent recoveries were within control limits for this compound. No further corrective actions were taken.

For Volatiles analysis, the recovery of one compound for the Initial Calibration Verification (ICV-130510) was slightly below the method control limits specified in SW8260C (80-120% recovery). This is flagged accordingly in the QC summary report. The number of target compounds outside of the method control limits for the ICV are less than 20% of the total number of compounds being reported; this is allowed in SW8260C specifications. This compound was within control limits in the associated LCS. No further corrective actions were taken.

CLIENT: Larson & Associates

1305076

Project: R360 Landfarm

Lab Order:

CASE NARRATIVE

For Volatiles analysis performed on 5/10/13 the surrogate recovery for sample MW-4 was slightly above control limits for Dibromofluoromethane. This is flagged accordingly. The remaining surrogates were within control limits. No further corrective actions were taken.

SEMIVOLATILE ORGANICS ANALYSIS

For Semivolatiles analysis performed on 5/13/13 2-Methylnaphthalene and Benzo[a]pyrene were detected below the reporting limit in the method blank (MB-57381). Samples MW-4, MW-6, MW-5, MW-2 and MW-E40 may be biased high for one or both of these compounds.

For Semivolatiles analysis an MS/MSD was not performed due to insufficient sample volume. An LCSD was performed instead.

For Semivolatiles analysis performed on 5/13/13 the surrogate recoveries for sample MW-5 were slightly below control limits for 2-Fluorophenol and Phenol-d6. These are flagged accordingly. The remaining surrogates were within control limits. No further corrective actions were taken.

PCB ANALYSIS

For PCB analysis an MS/MSD ws not performed due to insufficient sample volume. An LCS was analyzed.

CLIENT: Larson & Associates
Project: R360 Landfarm

Lab Order: 1305076

Work Order Sample Summary

Date: 15-May-13

Lab Smp II	Client Sample ID	Tag Number	Date Collected	Date Recved
1305076-01	MW-4		05/06/13 12:00 PM	5/7/2013
1305076-02	MW-6		05/06/13 12:30 PM	5/7/2013
1305076-03	MW-5		05/06/13 01:00 PM	5/7/2013
1305076-04	MW-2		05/06/13 01:30 PM	5/7/2013
1305076-05	MW-E40		05/06/13 02:00 PM	5/7/2013
1305076-06	MW-S40		05/06/13 02:30 PM	5/7/2013
1305076-07	MW-W40		05/06/13 03:00 PM	5/7/2013
1305076-08	Trip Blank		05/06/13	5/7/2013
1305076-09	MW-2		05/07/13 12:00 PM	5/8/2013
1305076-10	MW-E40		05/07/13 02:00 PM	5/8/2013

Lab Order: 1305076

Client: Larson & Associates

Project: R360 Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1305076-01A	MW-4	05/06/13 12:00 PM	Liquid	SW5030C	Purge and Trap Water GC/MS	05/10/13 10:24 AM	57380
1305076-01B	MW-4	05/06/13 12:00 PM	Liquid	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57369
	MW-4	05/06/13 12:00 PM	Liquid	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57369
	MW-4	05/06/13 12:00 PM	Liquid	SW7470A	Mercury Aq Prep, Total	05/10/13 07:41 AM	57373
1305076-01C	MW-4	05/06/13 12:00 PM	Liquid	M4500-CN E	Cyanide Water Prep	05/10/13 10:30 AM	57377
1305076-01D	MW-4	05/06/13 12:00 PM	Liquid	SW3510C	Aq Prep Sep Funnel: BNA	05/10/13 12:45 AM	57381
1305076-01E	MW-4	05/06/13 12:00 PM	Liquid	SW3510C	Aq Prep Sep Funnel: PCB	05/08/13 10:17 AM	57324
1305076-01F	MW-4	05/06/13 12:00 PM	Liquid	E300	Anion Preparation	05/07/13 01:30 PM	57287
	MW-4	05/06/13 12:00 PM	Liquid	E300	Anion Preparation	05/07/13 01:30 PM	57287
	MW-4	05/06/13 12:00 PM	Liquid	E300	Anion Preparation	05/07/13 01:30 PM	57287
	MW-4	05/06/13 12:00 PM	Liquid	M4500-H+ B	pH Preparation	05/07/13 01:45 PM	57307
1305076-02A	MW-6	05/06/13 12:30 PM	Liquid	SW5030C	Purge and Trap Water GC/MS	05/10/13 10:24 AM	57380
1305076-02B	MW-6	05/06/13 12:30 PM	Liquid	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57369
	MW-6	05/06/13 12:30 PM	Liquid	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57369
	MW-6	05/06/13 12:30 PM	Liquid	SW7470A	Mercury Aq Prep, Total	05/10/13 07:41 AM	57373
1305076-02C	MW-6	05/06/13 12:30 PM	Liquid	M4500-CN E	Cyanide Water Prep	05/10/13 10:30 AM	57377
1305076-02D	MW-6	05/06/13 12:30 PM	Liquid	SW3510C	Aq Prep Sep Funnel: BNA	05/10/13 12:45 AM	57381
1305076-02E	MW-6	05/06/13 12:30 PM	Liquid	SW3510C	Aq Prep Sep Funnel: PCB	05/08/13 10:17 AM	57324
1305076-02F	MW-6	05/06/13 12:30 PM	Liquid	E300	Anion Preparation	05/07/13 01:30 PM	57287
	MW-6	05/06/13 12:30 PM	Liquid	E300	Anion Preparation	05/07/13 01:30 PM	57287
	MW-6	05/06/13 12:30 PM	Liquid	E300	Anion Preparation	05/07/13 01:30 PM	57287
	MW-6	05/06/13 12:30 PM	Liquid	M4500-H+ B	pH Preparation	05/07/13 01:45 PM	57307
1305076-03A	MW-5	05/06/13 01:00 PM	Liquid	SW5030C	Purge and Trap Water GC/MS	05/10/13 10:24 AM	57380
305076-03B	MW-5	05/06/13 01:00 PM	Liquid	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57369
	MW-5	05/06/13 01:00 PM	Liquid	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57369
	MW-5	05/06/13 01:00 PM	Liquid	SW7470A	Mercury Aq Prep, Total	05/10/13 07:41 AM	57373
1305076-03C	MW-5	05/06/13 01:00 PM	Liquid	M4500-CN E	Cyanide Water Prep	05/10/13 10:30 AM	57377
1305076-03D	MW-5	05/06/13 01:00 PM	Liquid	SW3510C	Aq Prep Sep Funnel: BNA	05/10/13 12:45 AM	57381

Page 1 of 2

Lab Order: 1305076

Client: Larson & Associates

Project: R360 Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1305076-03E	MW-5	05/06/13 01:00 PM	Liquid	SW3510C	Aq Prep Sep Funnel: PCB	05/08/13 10:17 AM	57324
1305076-03F	MW-5	05/06/13 01:00 PM	Liquid	E300	Anion Preparation	05/07/13 01:30 PM	57287
	MW-5	05/06/13 01:00 PM	Liquid	E300	Anion Preparation	05/07/13 01:30 PM	57287
	MW-5	05/06/13 01:00 PM	Liquid	M4500-H+ B	pH Preparation	05/07/13 01:45 PM	57307
305076-04A	MW-2	05/06/13 01:30 PM	Liquid	SW5030C	Purge and Trap Water GC/MS	05/10/13 10:24 AM	57380
305076-04B	MW-2	05/06/13 01:30 PM	Liquid	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57369
	MW-2	05/06/13 01:30 PM	Liquid	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57369
	MW-2	05/06/13 01:30 PM	Liquid	SW7470A	Mercury Aq Prep, Total	05/10/13 07:41 AM	57373
305076-04C	MW-2	05/06/13 01:30 PM	Liquid	M4500-CN E	Cyanide Water Prep	05/10/13 10:30 AM	57377
305076-04D	MW-2	05/06/13 01:30 PM	Liquid	SW3510C	Aq Prep Sep Funnel: BNA	05/10/13 12:45 AM	57381
305076-04F	MW-2	05/06/13 01:30 PM	Liquid	E300	Anion Preparation	05/07/13 01:30 PM	57287
	MW-2	05/06/13 01:30 PM	Liquid	E300	Anion Preparation	05/07/13 01:30 PM	57287
	MW-2	05/06/13 01:30 PM	Liquid	E300	Anion Preparation	05/07/13 01:30 PM	57287
	MW-2	05/06/13 01:30 PM	Liquid	M4500-H+ B	pH Preparation	05/07/13 01:45 PM	57307
305076-05A	MW-E40	05/06/13 02:00 PM	Liquid	SW5030C	Purge and Trap Water GC/MS	05/10/13 10:24 AM	57380
305076-05B	MW-E40	05/06/13 02:00 PM	Liquid	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57369
	MW-E40	05/06/13 02:00 PM	Liquid	SW7470A	Mercury Aq Prep, Total	05/10/13 07:41 AM	57373
305076-05C	MW-E40	05/06/13 02:00 PM	Liquid	M4500-CN E	Cyanide Water Prep	05/10/13 10:30 AM	57377
305076-05D	MW-E40	05/06/13 02:00 PM	Liquid	E300	Anion Preparation	05/07/13 01:30 PM	57287
	MW-E40	05/06/13 02:00 PM	Liquid	E300	Anion Preparation	05/07/13 01:30 PM	57287
	MW-E40	05/06/13 02:00 PM	Liquid	M4500-H+ B	pH Preparation	05/07/13 01:45 PM	57307
1305076-06A	MW-S40	05/06/13 02:30 PM	Liquid	SW5030C	Purge and Trap Water GC/MS	05/10/13 10:24 AM	57380
305076-07A	MW-W40	05/06/13 03:00 PM	Liquid	SW5030C	Purge and Trap Water GC/MS	05/10/13 10:24 AM	57380
305076-08A	Trip Blank	05/06/13	Trip Blank	SW5030C	Purge and Trap Water GC/MS	05/10/13 10:24 AM	57380
305076-09A	MW-2	05/07/13 12:00 PM	Liquid	SW3510C	Aq Prep Sep Funnel: PCB	05/08/13 10:17 AM	57324
305076-10A	MW-E40	05/07/13 02:00 PM	Liquid	SW3510C	Aq Prep Sep Funnel: BNA	05/10/13 12:45 AM	57381
305076-10B	MW-E40	05/07/13 02:00 PM	Liquid	SW3510C	Aq Prep Sep Funnel: PCB	05/08/13 10:17 AM	57324

Lab Order: 1305076

Client: Larson & Associates

Project: R360 Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1305076-01A	MW-4	Liquid	SW8260C	8260 Water Volatiles by GC/MS	57380	1	05/10/13 05:59 PM	GCMS7_130510A
1305076-01B	MW-4	Liquid	SW7470A	Total Mercury: Aqueous	57373	1	05/13/13 09:24 AM	CETAC_HG_130513A
	MW-4	Liquid	SW6020A	Trace Metals: ICP-MS - Water	57369	10	05/14/13 12:50 PM	ICP-MS3_130514A
	MW-4	Liquid	SW6020A	Trace Metals: ICP-MS - Water	57369	1	05/14/13 01:15 PM	ICP-MS3_130514A
1305076-01C	MW-4	Liquid	M4500-CN E	Cyanide - Water Sample	57377	1	05/13/13 02:19 PM	UV/VIS_2_130513B
1305076-01D	MW-4	Liquid	SW8270D	Semivolatiles by GC/MS - Water	57381	1	05/13/13 12:59 PM	GCMS9_130513A
1305076-01E	MW-4	Liquid	SW8270D	PCB by GC/MS - Aqueous	57324	1	05/08/13 08:14 PM	GCMS8_130508A
1305076-01F	MW-4	Liquid	E300	Anions by IC method - Water	57287	10	05/07/13 02:44 PM	IC2_130507A
	MW-4	Liquid	E300	Anions by IC method - Water	57287	100	05/07/13 03:57 PM	IC2_130507A
	MW-4	Liquid	E300	Anions by IC method - Water	57287	1	05/07/13 05:40 PM	IC2_130507A
	MW-4	Liquid	M4500-H+ B	pH	57307	1	05/07/13 02:02 PM	TITRATOR_130507A
1305076-02A	MW-6	Liquid	SW8260C	8260 Water Volatiles by GC/MS	57380	1	05/10/13 06:23 PM	GCMS7_130510A
1305076-02B	MW-6	Liquid	SW7470A	Total Mercury: Aqueous	57373	1	05/13/13 09:26 AM	CETAC_HG_130513A
	MW-6	Liquid	SW6020A	Trace Metals: ICP-MS - Water	57369	10	05/14/13 12:38 PM	ICP-MS3_130514A
	MW-6	Liquid	SW6020A	Trace Metals: ICP-MS - Water	57369	1	05/14/13 01:21 PM	ICP-MS3_130514A
1305076-02C	MW-6	Liquid	M4500-CN E	Cyanide - Water Sample	57377	1	05/13/13 02:20 PM	UV/VIS_2_130513B
1305076-02D	MW-6	Liquid	SW8270D	Semivolatiles by GC/MS - Water	57381	1	05/13/13 01:23 PM	GCMS9_130513A
1305076-02E	MW-6	Liquid	SW8270D	PCB by GC/MS - Aqueous	57324	1	05/08/13 08:46 PM	GCMS8_130508A
1305076-02F	MW-6	Liquid	E300	Anions by IC method - Water	57287	10	05/07/13 02:58 PM	IC2_130507A
	MW-6	Liquid	E300	Anions by IC method - Water	57287	100	05/07/13 04:27 PM	IC2_130507A
	MW-6	Liquid	E300	Anions by IC method - Water	57287	1	05/07/13 05:55 PM	IC2_130507A
	MW-6	Liquid	M4500-H+ B	pH	57307	1	05/07/13 02:05 PM	TITRATOR_130507A
1305076-03A	MW-5	Liquid	SW8260C	8260 Water Volatiles by GC/MS	57380	1	05/10/13 06:47 PM	GCMS7_130510A
1305076-03B	MW-5	Liquid	SW7470A	Total Mercury: Aqueous	57373	1	05/13/13 09:32 AM	CETAC_HG_130513A
	MW-5	Liquid	SW6020A	Trace Metals: ICP-MS - Water	57369	10	05/14/13 12:56 PM	ICP-MS3_130514A
	MW-5	Liquid	SW6020A	Trace Metals: ICP-MS - Water	57369	1	05/14/13 01:27 PM	ICP-MS3_130514A
1305076-03C	MW-5	Liquid	M4500-CN E	Cyanide - Water Sample	57377	1	05/13/13 02:21 PM	UV/VIS_2_130513B
1305076-03D	MW-5	Liquid	SW8270D	Semivolatiles by GC/MS - Water	57381	1	05/13/13 01:46 PM	GCMS9_130513A

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Lab Order: 1305076

Client: Larson & Associates

Project: R360 Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1305076-03E	MW-5	Liquid	SW8270D	PCB by GC/MS - Aqueous	57324	1	05/08/13 10:22 PM	GCMS8_130508A
1305076-03F	MW-5	Liquid	E300	Anions by IC method - Water	57287	100	05/07/13 04:42 PM	IC2_130507A
	MW-5	Liquid	E300	Anions by IC method - Water	57287	1	05/07/13 06:09 PM	IC2_130507A
	MW-5	Liquid	M4500-H+ B	pH	57307	1	05/07/13 02:07 PM	TITRATOR_130507A
1305076-04A	MW-2	Liquid	SW8260C	8260 Water Volatiles by GC/MS	57380	1	05/10/13 03:58 PM	GCMS7_130510A
1305076-04B	MW-2	Liquid	SW7470A	Total Mercury: Aqueous	57373	1	05/13/13 09:34 AM	CETAC_HG_130513A
	MW-2	Liquid	SW6020A	Trace Metals: ICP-MS - Water	57369	10	05/14/13 01:03 PM	ICP-MS3_130514A
	MW-2	Liquid	SW6020A	Trace Metals: ICP-MS - Water	57369	1	05/14/13 01:33 PM	ICP-MS3_130514A
1305076-04C	MW-2	Liquid	M4500-CN E	Cyanide - Water Sample	57377	1	05/13/13 02:21 PM	UV/VIS_2_130513B
1305076-04D	MW-2	Liquid	SW8270D	Semivolatiles by GC/MS - Water	57381	1	05/13/13 02:09 PM	GCMS9_130513A
1305076-04F	MW-2	Liquid	E300	Anions by IC method - Water	57287	1	05/07/13 06:24 PM	IC2_130507A
	MW-2	Liquid	E300	Anions by IC method - Water	57287	10	05/07/13 03:27 PM	IC2_130507A
	MW-2	Liquid	E300	Anions by IC method - Water	57287	100	05/07/13 04:56 PM	IC2_130507A
	MW-2	Liquid	M4500-H+ B	pH	57307	1	05/07/13 02:09 PM	TITRATOR_130507A
1305076-05A	MW-E40	Liquid	SW8260C	8260 Water Volatiles by GC/MS	57380	1	05/10/13 04:22 PM	GCMS7_130510A
1305076-05B	MW-E40	Liquid	SW7470A	Total Mercury: Aqueous	57373	1	05/13/13 09:37 AM	CETAC_HG_130513A
	MW-E40	Liquid	SW6020A	Trace Metals: ICP-MS - Water	57369	1	05/14/13 01:09 PM	ICP-MS3_130514A
1305076-05C	MW-E40	Liquid	M4500-CN E	Cyanide - Water Sample	57377	1	05/13/13 02:21 PM	UV/VIS_2_130513B
1305076-05D	MW-E40	Liquid	E300	Anions by IC method - Water	57287	10	05/07/13 03:42 PM	IC2_130507A
	MW-E40	Liquid	E300	Anions by IC method - Water	57287	1	05/07/13 06:38 PM	IC2_130507A
	MW-E40	Liquid	M4500-H+ B	pH	57307	1	05/07/13 02:11 PM	TITRATOR_130507A
1305076-06A	MW-S40	Liquid	SW8260C	8260 Water Volatiles by GC/MS	57380	1	05/10/13 04:46 PM	GCMS7_130510A
1305076-07A	MW-W40	Liquid	SW8260C	8260 Water Volatiles by GC/MS	57380	1	05/10/13 05:11 PM	GCMS7_130510A
1305076-08A	Trip Blank	Trip Blank	SW8260C	8260 Water Volatiles by GC/MS	57380	1	05/10/13 05:35 PM	GCMS7_130510A
1305076-09A	MW-2	Liquid	SW8270D	PCB by GC/MS - Aqueous	57324	1	05/08/13 09:18 PM	GCMS8_130508A
1305076-10A	MW-E40	Liquid	SW8270D	Semivolatiles by GC/MS - Water	57381	1	05/13/13 02:32 PM	GCMS9_130513A
1305076-10B	MW-E40	Liquid	SW8270D	PCB by GC/MS - Aqueous	57324	1	05/08/13 09:50 PM	GCMS8_130508A

CLIENT: Larson & Associates Client Sample ID: MW-4

Project: R360 Landfarm **Lab ID:** 1305076-01

Project No: 11-0109-09 **Collection Date:** 05/06/13 12:00 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: AQUEOUS		SW7	470A				Analyst: LM
Mercury	ND	0.0000800	0.000200		mg/L	1	05/13/13 09:24 AM
TRACE METALS: ICP-MS - WATER		SW6	020A				Analyst: SW
Arsenic	0.00790	0.00200	0.00500		mg/L	1	05/14/13 01:15 PM
Barium	0.0460	0.00300	0.0100		mg/L	1	05/14/13 01:15 PM
Cadmium	ND	0.000300	0.00100		mg/L	1	05/14/13 01:15 PM
Chromium	ND	0.00200	0.00500		mg/L	1	05/14/13 01:15 PM
Copper	0.00651	0.00200	0.0100	J	mg/L	1	05/14/13 01:15 PM
Iron	0.372	0.0300	0.100		mg/L	1	05/14/13 01:15 PM
Lead	0.00343	0.000300	0.00100		mg/L	1	05/14/13 01:15 PM
Manganese	0.159	0.00300	0.0100		mg/L	1	05/14/13 01:15 PM
Selenium	0.00358	0.00200	0.00500	J	mg/L	1	05/14/13 01:15 PM
Silver	ND	0.00100	0.00200		mg/L	1	05/14/13 01:15 PM
Zinc	0.00421	0.00200	0.00500	J	mg/L	1	05/14/13 01:15 PM
SEMIVOLATILES BY GC/MS - WATER		SW8	270D				Analyst: CZ
1-Methylnaphthalene	ND	0.000200	0.000800	N	mg/L	1	05/13/13 12:59 PM
2-Methylnaphthalene	0.000420	0.000200	0.000800	J	mg/L	1	05/13/13 12:59 PM
Naphthalene	ND	0.000200	0.000800		mg/L	1	05/13/13 12:59 PM
Benzo[a]pyrene	ND	0.000200	0.000800		mg/L	1	05/13/13 12:59 PM
2,3,4,6-Tetrachlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 12:59 PM
2,4,5-Trichlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 12:59 PM
2,4,6-Trichlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 12:59 PM
2,4-Dichlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 12:59 PM
2,4-Dimethylphenol	ND	0.000400	0.000800		mg/L	1	05/13/13 12:59 PM
2,4-Dinitrophenol	ND	0.00100	0.00400		mg/L	1	05/13/13 12:59 PM
2,6-Dichlorophenol	ND	0.000400	0.000800		mg/L	1	05/13/13 12:59 PM
2-Chlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 12:59 PM
2-Methylphenol	ND	0.000200	0.000800		mg/L	1	05/13/13 12:59 PM
2-Nitrophenol	ND	0.000400	0.000800		mg/L	1	05/13/13 12:59 PM
4,6-Dinitro-2-methylphenol	ND	0.000500	0.00200		mg/L	1	05/13/13 12:59 PM
4-Chloro-3-methylphenol	ND	0.000200	0.000800		mg/L	1	05/13/13 12:59 PM
4-Methylphenol	ND	0.000200	0.000800		mg/L	1	05/13/13 12:59 PM
4-Nitrophenol	ND	0.00100	0.00400		mg/L	1	05/13/13 12:59 PM
Pentachlorophenol	ND	0.000400	0.000800		mg/L	1	05/13/13 12:59 PM
Phenol	ND	0.000400	0.000800		mg/L	1	05/13/13 12:59 PM
Total Phenol (Calculated)	ND	0.000200	0.000800	N	mg/L	1	05/13/13 12:59 PM
Surr: 2,4,6-Tribromophenol	110	0	42-124		%REC	1	05/13/13 12:59 PM
Surr: 2-Fluorobiphenyl	97.0	0	48-120		%REC	1	05/13/13 12:59 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

Project:

CLIENT: Larson & Associates Client Sample ID: MW-4

R360 Landfarm **Lab ID:** 1305076-01

Project No: 11-0109-09 **Collection Date:** 05/06/13 12:00 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - WATER		SW8	270D				Analyst: CZ
Surr: 2-Fluorophenol	84.0	0	20-120		%REC	1	05/13/13 12:59 PM
Surr: 4-Terphenyl-d14	114	0	51-135		%REC	1	05/13/13 12:59 PM
Surr: Nitrobenzene-d5	109	0	41-120		%REC	1	05/13/13 12:59 PM
Surr: Phenol-d6	59.0	0	20-120		%REC	1	05/13/13 12:59 PM
PCB BY GC/MS - AQUEOUS		SW8	270D				Analyst: AJR
Aroclor 1016	ND	0.000100	0.000250		mg/L	1	05/08/13 08:14 PM
Aroclor 1221	ND	0.000100	0.000250		mg/L	1	05/08/13 08:14 PM
Aroclor 1232	ND	0.000100	0.000250		mg/L	1	05/08/13 08:14 PM
Aroclor 1242	ND	0.000100	0.000250		mg/L	1	05/08/13 08:14 PM
Aroclor 1248	ND	0.000100	0.000250		mg/L	1	05/08/13 08:14 PM
Aroclor 1254	ND	0.000100	0.000250		mg/L	1	05/08/13 08:14 PM
Aroclor 1260	ND	0.000100	0.000250		mg/L	1	05/08/13 08:14 PM
Surr: 2-Fluorobiphenyl	99.2	0	40-140		%REC	1	05/08/13 08:14 PM
Surr: 4-Terphenyl-d14	136	0	40-140		%REC	1	05/08/13 08:14 PM
8260 WATER VOLATILES BY GC/MS	SW8260C					Analyst: KL	
Benzene	ND	0.000200	0.00100		mg/L	1	05/10/13 05:59 PM
Toluene	ND	0.000600	0.00200		mg/L	1	05/10/13 05:59 PM
Carbon tetrachloride	ND	0.000200	0.00100		mg/L	1	05/10/13 05:59 PM
1,2-Dichloroethane	ND	0.000300	0.00100		mg/L	1	05/10/13 05:59 PM
1,1-Dichloroethylene	ND	0.000200	0.00100		mg/L	1	05/10/13 05:59 PM
Tetrachloroethylene	ND	0.000600	0.00200		mg/L	1	05/10/13 05:59 PM
Trichloroethylene	ND	0.000600	0.00200		mg/L	1	05/10/13 05:59 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	05/10/13 05:59 PM
Total Xylenes	ND	0.000300	0.00100		mg/L	1	05/10/13 05:59 PM
Methylene chloride	ND	0.00250	0.00250		mg/L	1	05/10/13 05:59 PM
Chloroform	ND	0.000300	0.00100		mg/L	1	05/10/13 05:59 PM
1,1-Dichloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 05:59 PM
Ethylene dibromide	ND	0.000200	0.00100		mg/L	1	05/10/13 05:59 PM
1,1,1-Trichloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 05:59 PM
1,1,2-Trichloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 05:59 PM
1,1,2,2-Tetrachloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 05:59 PM
Vinyl chloride	ND	0.000100	0.00100		mg/L	1	05/10/13 05:59 PM
Surr: 1,2-Dichloroethane-d4	107	0	72-119		%REC	1	05/10/13 05:59 PM
Surr: 4-Bromofluorobenzene	104	0	76-119		%REC	1	05/10/13 05:59 PM
Surr: Dibromofluoromethane	117	0	85-115	S	%REC	1	05/10/13 05:59 PM
Surr: Toluene-d8	99.7	0	81-120		%REC	1	05/10/13 05:59 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates

Project: R360 Landfarm **Lab ID:** 1305076-01

Project No: 11-0109-09 **Collection Date:** 05/06/13 12:00 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual Units	DF	Date Analyzed		
ANIONS BY IC METHOD - WATER		E30	Analyst: JBC					
Chloride	658	30.0	100	mg/L	100	05/07/13 03:57 PM		
Fluoride	1.67	0.100	0.400	mg/L	1	05/07/13 05:40 PM		
Nitrate-N	1.41	0.100	0.500	mg/L	1	05/07/13 05:40 PM		
Sulfate	1390	10.0	30.0	mg/L	10	05/07/13 02:44 PM		
CYANIDE - WATER SAMPLE		M4500-	CN E		Analyst: JCG			
Cyanide, Total	ND	0.0100	0.0200	mg/L	1	05/13/13 02:19 PM		
PH	M4500-H+ B					Analyst: JBC		
рН	7.09	0	0	pH units	1	05/07/13 02:02 PM		

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 05-Jun-13

Client Sample ID: MW-4

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

Project:

CLIENT: Larson & Associates Client Sample ID: MW-6

R360 Landfarm Lab ID: 1305076-02

Project No: 11-0109-09 **Collection Date:** 05/06/13 12:30 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: AQUEOUS		SW7	470A				Analyst: LM
Mercury	ND	0.0000800	0.000200		mg/L	1	05/13/13 09:26 AM
TRACE METALS: ICP-MS - WATER		SW6	020A				Analyst: SW
Arsenic	0.00700	0.00200	0.00500		mg/L	1	05/14/13 01:21 PM
Barium	0.0297	0.00300	0.0100		mg/L	1	05/14/13 01:21 PM
Cadmium	ND	0.000300	0.00100		mg/L	1	05/14/13 01:21 PM
Chromium	ND	0.00200	0.00500		mg/L	1	05/14/13 01:21 PM
Copper	0.00404	0.00200	0.0100	J	mg/L	1	05/14/13 01:21 PM
Iron	0.324	0.0300	0.100		mg/L	1	05/14/13 01:21 PM
Lead	0.00118	0.000300	0.00100		mg/L	1	05/14/13 01:21 PM
Manganese	0.193	0.00300	0.0100		mg/L	1	05/14/13 01:21 PM
Selenium	0.0160	0.00200	0.00500		mg/L	1	05/14/13 01:21 PM
Silver	ND	0.00100	0.00200		mg/L	1	05/14/13 01:21 PM
Zinc	0.00348	0.00200	0.00500	J	mg/L	1	05/14/13 01:21 PM
SEMIVOLATILES BY GC/MS - WATER		SW8	270D				Analyst: CZ
1-Methylnaphthalene	ND	0.000200	0.000800	N	mg/L	1	05/13/13 01:23 PM
2-Methylnaphthalene	0.000340	0.000200	0.000800	J	mg/L	1	05/13/13 01:23 PM
Naphthalene	ND	0.000200	0.000800		mg/L	1	05/13/13 01:23 PM
Benzo[a]pyrene	ND	0.000200	0.000800		mg/L	1	05/13/13 01:23 PM
2,3,4,6-Tetrachlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:23 PM
2,4,5-Trichlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:23 PM
2,4,6-Trichlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:23 PM
2,4-Dichlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:23 PM
2,4-Dimethylphenol	ND	0.000400	0.000800		mg/L	1	05/13/13 01:23 PM
2,4-Dinitrophenol	ND	0.00100	0.00400		mg/L	1	05/13/13 01:23 PM
2,6-Dichlorophenol	ND	0.000400	0.000800		mg/L	1	05/13/13 01:23 PM
2-Chlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:23 PM
2-Methylphenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:23 PM
2-Nitrophenol	ND	0.000400	0.000800		mg/L	1	05/13/13 01:23 PM
4,6-Dinitro-2-methylphenol	ND	0.000500	0.00200		mg/L	1	05/13/13 01:23 PM
4-Chloro-3-methylphenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:23 PM
4-Methylphenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:23 PM
4-Nitrophenol	ND	0.00100	0.00400		mg/L	1	05/13/13 01:23 PM
Pentachlorophenol	ND	0.000400	0.000800		mg/L	1	05/13/13 01:23 PM
Phenol	ND	0.000400	0.000800		mg/L	1	05/13/13 01:23 PM
Total Phenol (Calculated)	ND	0.000200	0.000800	N	mg/L	1	05/13/13 01:23 PM
Surr: 2,4,6-Tribromophenol	116	0	42-124		%REC	1	05/13/13 01:23 PM
Surr: 2-Fluorobiphenyl	102	0	48-120		%REC	1	05/13/13 01:23 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: MW-6

Project: R360 Landfarm **Lab ID:** 1305076-02

Project No: 11-0109-09 **Collection Date:** 05/06/13 12:30 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - WATER		SW8	270D			Analyst: CZ
Surr: 2-Fluorophenol	90.0	0	20-120	%REC	1	05/13/13 01:23 PM
Surr: 4-Terphenyl-d14	116	0	51-135	%REC	1	05/13/13 01:23 PM
Surr: Nitrobenzene-d5	117	0	41-120	%REC	1	05/13/13 01:23 PM
Surr: Phenol-d6	65.5	0	20-120	%REC	1	05/13/13 01:23 PM
PCB BY GC/MS - AQUEOUS		SW8	270D			Analyst: AJR
Aroclor 1016	ND	0.000100	0.000250	mg/L	1	05/08/13 08:46 PM
Aroclor 1221	ND	0.000100	0.000250	mg/L	1	05/08/13 08:46 PM
Aroclor 1232	ND	0.000100	0.000250	mg/L	1	05/08/13 08:46 PM
Aroclor 1242	ND	0.000100	0.000250	mg/L	1	05/08/13 08:46 PM
Aroclor 1248	ND	0.000100	0.000250	mg/L	1	05/08/13 08:46 PM
Aroclor 1254	ND	0.000100	0.000250	mg/L	1	05/08/13 08:46 PM
Aroclor 1260	ND	0.000100	0.000250	mg/L	1	05/08/13 08:46 PM
Surr: 2-Fluorobiphenyl	73.6	0	40-140	%REC	1	05/08/13 08:46 PM
Surr: 4-Terphenyl-d14	92.4	0	40-140	%REC	1	05/08/13 08:46 PM
8260 WATER VOLATILES BY GC/MS		SW8	260C			Analyst: KL
Benzene	ND	0.000200	0.00100	mg/L	1	05/10/13 06:23 PM
Toluene	ND	0.000600	0.00200	mg/L	1	05/10/13 06:23 PM
Carbon tetrachloride	ND	0.000200	0.00100	mg/L	1	05/10/13 06:23 PM
1,2-Dichloroethane	ND	0.000300	0.00100	mg/L	1	05/10/13 06:23 PM
1,1-Dichloroethylene	ND	0.000200	0.00100	mg/L	1	05/10/13 06:23 PM
Tetrachloroethylene	ND	0.000600	0.00200	mg/L	1	05/10/13 06:23 PM
Trichloroethylene	ND	0.000600	0.00200	mg/L	1	05/10/13 06:23 PM
Ethylbenzene	ND	0.000300	0.00100	mg/L	1	05/10/13 06:23 PM
Total Xylenes	ND	0.000300	0.00100	mg/L	1	05/10/13 06:23 PM
Methylene chloride	ND	0.00250	0.00250	mg/L	1	05/10/13 06:23 PM
Chloroform	ND	0.000300	0.00100	mg/L	1	05/10/13 06:23 PM
1,1-Dichloroethane	ND	0.000200	0.00100	mg/L	1	05/10/13 06:23 PM
Ethylene dibromide	ND	0.000200	0.00100	mg/L	1	05/10/13 06:23 PM
1,1,1-Trichloroethane	ND	0.000200	0.00100	mg/L	1	05/10/13 06:23 PM
1,1,2-Trichloroethane	ND	0.000200	0.00100	mg/L	1	05/10/13 06:23 PM
1,1,2,2-Tetrachloroethane	ND	0.000200	0.00100	mg/L	1	05/10/13 06:23 PM
Vinyl chloride	ND	0.000100	0.00100	mg/L	1	05/10/13 06:23 PM
Surr: 1,2-Dichloroethane-d4	103	0	72-119	%REC	1	05/10/13 06:23 PM
Surr: 4-Bromofluorobenzene	107	0	76-119	%REC	1	05/10/13 06:23 PM
Surr: Dibromofluoromethane	108	0	85-115	%REC	1	05/10/13 06:23 PM
Surr: Toluene-d8	101	0	81-120	%REC	1	05/10/13 06:23 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: MW-6

Project: R360 Landfarm **Lab ID:** 1305076-02

Project No: 11-0109-09 **Collection Date:** 05/06/13 12:30 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual Units	DF	Date Analyzed		
ANIONS BY IC METHOD - WATER		E30	Analyst: JBC					
Chloride	844	30.0	100	mg/L	100	05/07/13 04:27 PM		
Fluoride	1.68	0.100	0.400	mg/L	1	05/07/13 05:55 PM		
Nitrate-N	3.68	0.100	0.500	mg/L	1	05/07/13 05:55 PM		
Sulfate	1360	10.0	30.0	mg/L	10	05/07/13 02:58 PM		
CYANIDE - WATER SAMPLE		M4500-	CN E		Analyst: JCG			
Cyanide, Total	ND	0.0100	0.0200	mg/L	1	05/13/13 02:20 PM		
РН	M4500-H+ B					Analyst: JBC		
рН	7.30	0	0	pH units	1	05/07/13 02:05 PM		

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: MW-5

Project: R360 Landfarm **Lab ID:** 1305076-03

Project No: 11-0109-09 **Collection Date:** 05/06/13 01:00 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: AQUEOUS		SW7	470A				Analyst: LM
Mercury	ND	0.0000800	0.000200		mg/L	1	05/13/13 09:32 AM
TRACE METALS: ICP-MS - WATER		SW6	020A				Analyst: SW
Arsenic	0.00718	0.00200	0.00500		mg/L	1	05/14/13 01:27 PM
Barium	0.0384	0.00300	0.0100		mg/L	1	05/14/13 01:27 PM
Cadmium	ND	0.000300	0.00100		mg/L	1	05/14/13 01:27 PM
Chromium	0.00248	0.00200	0.00500	J	mg/L	1	05/14/13 01:27 PM
Copper	0.00471	0.00200	0.0100	J	mg/L	1	05/14/13 01:27 PM
Iron	0.609	0.0300	0.100		mg/L	1	05/14/13 01:27 PM
Lead	0.00154	0.000300	0.00100		mg/L	1	05/14/13 01:27 PM
Manganese	0.128	0.00300	0.0100		mg/L	1	05/14/13 01:27 PM
Selenium	0.00854	0.00200	0.00500		mg/L	1	05/14/13 01:27 PM
Silver	ND	0.00100	0.00200		mg/L	1	05/14/13 01:27 PM
Zinc	0.00456	0.00200	0.00500	J	mg/L	1	05/14/13 01:27 PM
SEMIVOLATILES BY GC/MS - WATER		SW8	270D				Analyst: CZ
1-Methylnaphthalene	ND	0.000200	0.000800	N	mg/L	1	05/13/13 01:46 PM
2-Methylnaphthalene	0.000380	0.000200	0.000800	J	mg/L	1	05/13/13 01:46 PM
Naphthalene	ND	0.000200	0.000800		mg/L	1	05/13/13 01:46 PM
Benzo[a]pyrene	ND	0.000200	0.000800		mg/L	1	05/13/13 01:46 PM
2,3,4,6-Tetrachlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:46 PM
2,4,5-Trichlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:46 PM
2,4,6-Trichlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:46 PM
2,4-Dichlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:46 PM
2,4-Dimethylphenol	ND	0.000400	0.000800		mg/L	1	05/13/13 01:46 PM
2,4-Dinitrophenol	ND	0.00100	0.00400		mg/L	1	05/13/13 01:46 PM
2,6-Dichlorophenol	ND	0.000400	0.000800		mg/L	1	05/13/13 01:46 PM
2-Chlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:46 PM
2-Methylphenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:46 PM
2-Nitrophenol	ND	0.000400	0.000800		mg/L	1	05/13/13 01:46 PM
4,6-Dinitro-2-methylphenol	ND	0.000500	0.00200		mg/L	1	05/13/13 01:46 PM
4-Chloro-3-methylphenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:46 PM
4-Methylphenol	ND	0.000200	0.000800		mg/L	1	05/13/13 01:46 PM
4-Nitrophenol	ND	0.00100	0.00400		mg/L	1	05/13/13 01:46 PM
Pentachlorophenol	ND	0.000400	0.000800		mg/L	1	05/13/13 01:46 PM
Phenol	ND	0.000400	0.000800		mg/L	1	05/13/13 01:46 PM
Total Phenol (Calculated)	ND	0.000200	0.000800	N	mg/L	1	05/13/13 01:46 PM
Surr: 2,4,6-Tribromophenol	124	0	42-124		%REC	1	05/13/13 01:46 PM
Surr: 2-Fluorobiphenyl	103	0	48-120		%REC	1	05/13/13 01:46 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: MW-5

Project: R360 Landfarm **Lab ID:** 1305076-03

Project No: 11-0109-09 **Collection Date:** 05/06/13 01:00 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - WATER		SW8	270D				Analyst: CZ
Surr: 2-Fluorophenol	10.0	0	20-120	S	%REC	1	05/13/13 01:46 PM
Surr: 4-Terphenyl-d14	122	0	51-135		%REC	1	05/13/13 01:46 PM
Surr: Nitrobenzene-d5	116	0	41-120		%REC	1	05/13/13 01:46 PM
Surr: Phenol-d6	17.8	0	20-120	S	%REC	1	05/13/13 01:46 PM
PCB BY GC/MS - AQUEOUS		SW8	270D				Analyst: AJR
Aroclor 1016	ND	0.000100	0.000250		mg/L	1	05/08/13 10:22 PM
Aroclor 1221	ND	0.000100	0.000250		mg/L	1	05/08/13 10:22 PM
Aroclor 1232	ND	0.000100	0.000250		mg/L	1	05/08/13 10:22 PM
Aroclor 1242	ND	0.000100	0.000250		mg/L	1	05/08/13 10:22 PM
Aroclor 1248	ND	0.000100	0.000250		mg/L	1	05/08/13 10:22 PM
Aroclor 1254	ND	0.000100	0.000250		mg/L	1	05/08/13 10:22 PM
Aroclor 1260	ND	0.000100	0.000250		mg/L	1	05/08/13 10:22 PM
Surr: 2-Fluorobiphenyl	78.0	0	40-140		%REC	1	05/08/13 10:22 PM
Surr: 4-Terphenyl-d14	101	0	40-140		%REC	1	05/08/13 10:22 PM
8260 WATER VOLATILES BY GC/MS		SW8	260C				Analyst: KL
Benzene	ND	0.000200	0.00100		mg/L	1	05/10/13 06:47 PM
Toluene	ND	0.000600	0.00200		mg/L	1	05/10/13 06:47 PM
Carbon tetrachloride	ND	0.000200	0.00100		mg/L	1	05/10/13 06:47 PM
1,2-Dichloroethane	ND	0.000300	0.00100		mg/L	1	05/10/13 06:47 PM
1,1-Dichloroethylene	ND	0.000200	0.00100		mg/L	1	05/10/13 06:47 PM
Tetrachloroethylene	ND	0.000600	0.00200		mg/L	1	05/10/13 06:47 PM
Trichloroethylene	ND	0.000600	0.00200		mg/L	1	05/10/13 06:47 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	05/10/13 06:47 PM
Total Xylenes	ND	0.000300	0.00100		mg/L	1	05/10/13 06:47 PM
Methylene chloride	ND	0.00250	0.00250		mg/L	1	05/10/13 06:47 PM
Chloroform	ND	0.000300	0.00100		mg/L	1	05/10/13 06:47 PM
1,1-Dichloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 06:47 PM
Ethylene dibromide	ND	0.000200	0.00100		mg/L	1	05/10/13 06:47 PM
1,1,1-Trichloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 06:47 PM
1,1,2-Trichloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 06:47 PM
1,1,2,2-Tetrachloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 06:47 PM
Vinyl chloride	ND	0.000100	0.00100		mg/L	1	05/10/13 06:47 PM
Surr: 1,2-Dichloroethane-d4	105	0	72-119		%REC	1	05/10/13 06:47 PM
Surr: 4-Bromofluorobenzene	107	0	76-119		%REC	1	05/10/13 06:47 PM
Surr: Dibromofluoromethane	112	0	85-115		%REC	1	05/10/13 06:47 PM
Surr: Toluene-d8	99.2	0	81-120		%REC	1	05/10/13 06:47 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates

Project: R360 Landfarm

Project No: 11-0109-09 **Collection Date:** 05/06/13 01:00 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual Units	DF	Date Analyzed	
ANIONS BY IC METHOD - WATER		E30	Analyst: JBC				
Chloride	901	30.0	100	mg/L	100	05/07/13 04:42 PM	
Fluoride	1.45	0.100	0.400	mg/L	1	05/07/13 06:09 PM	
Nitrate-N	2.06	0.100	0.500	mg/L	1	05/07/13 06:09 PM	
Sulfate	1650	100	300	mg/L	100	05/07/13 04:42 PM	
CYANIDE - WATER SAMPLE		M4500-	CN E		Analyst: JCG		
Cyanide, Total	ND	0.0100	0.0200	mg/L	1	05/13/13 02:21 PM	
РН	M4500-H+ B					Analyst: JBC	
рН	7.03	0	0	pH units	1	05/07/13 02:07 PM	

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 05-Jun-13

Lab ID: 1305076-03

Client Sample ID: MW-5

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: MW-2

Project: R360 Landfarm **Lab ID:** 1305076-04

Project No: 11-0109-09 **Collection Date:** 05/06/13 01:30 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: AQUEOUS		SW7	470A				Analyst: LM
Mercury	ND	0.0000800	0.000200		mg/L	1	05/13/13 09:34 AM
TRACE METALS: ICP-MS - WATER		SW6	020A				Analyst: SW
Arsenic	0.0142	0.00200	0.00500		mg/L	1	05/14/13 01:33 PM
Barium	0.0438	0.00300	0.0100		mg/L	1	05/14/13 01:33 PM
Cadmium	0.000358	0.000300	0.00100	J	mg/L	1	05/14/13 01:33 PM
Chromium	ND	0.00200	0.00500		mg/L	1	05/14/13 01:33 PM
Copper	0.00747	0.00200	0.0100	J	mg/L	1	05/14/13 01:33 PM
Iron	0.708	0.0300	0.100		mg/L	1	05/14/13 01:33 PM
Lead	0.00349	0.000300	0.00100		mg/L	1	05/14/13 01:33 PM
Manganese	0.138	0.00300	0.0100		mg/L	1	05/14/13 01:33 PM
Selenium	0.00216	0.00200	0.00500	J	mg/L	1	05/14/13 01:33 PM
Silver	ND	0.00100	0.00200		mg/L	1	05/14/13 01:33 PM
Zinc	0.0159	0.00200	0.00500		mg/L	1	05/14/13 01:33 PM
SEMIVOLATILES BY GC/MS - WATER		SW8	270D				Analyst: CZ
1-Methylnaphthalene	ND	0.000200	0.000800	N	mg/L	1	05/13/13 02:09 PM
2-Methylnaphthalene	0.000280	0.000200	0.000800	J	mg/L	1	05/13/13 02:09 PM
Naphthalene	ND	0.000200	0.000800		mg/L	1	05/13/13 02:09 PM
Benzo[a]pyrene	ND	0.000200	0.000800		mg/L	1	05/13/13 02:09 PM
2,3,4,6-Tetrachlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:09 PM
2,4,5-Trichlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:09 PM
2,4,6-Trichlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:09 PM
2,4-Dichlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:09 PM
2,4-Dimethylphenol	ND	0.000400	0.000800		mg/L	1	05/13/13 02:09 PM
2,4-Dinitrophenol	ND	0.00100	0.00400		mg/L	1	05/13/13 02:09 PM
2,6-Dichlorophenol	ND	0.000400	0.000800		mg/L	1	05/13/13 02:09 PM
2-Chlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:09 PM
2-Methylphenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:09 PM
2-Nitrophenol	ND	0.000400	0.000800		mg/L	1	05/13/13 02:09 PM
4,6-Dinitro-2-methylphenol	ND	0.000500	0.00200		mg/L	1	05/13/13 02:09 PM
4-Chloro-3-methylphenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:09 PM
4-Methylphenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:09 PM
4-Nitrophenol	ND	0.00100	0.00400		mg/L	1	05/13/13 02:09 PM
Pentachlorophenol	ND	0.000400	0.000800		mg/L	1	05/13/13 02:09 PM
Phenol	ND	0.000400	0.000800		mg/L	1	05/13/13 02:09 PM
Total Phenol (Calculated)	ND	0.000200	0.000800	N	mg/L	1	05/13/13 02:09 PM
Surr: 2,4,6-Tribromophenol	109	0	42-124		%REC	1	05/13/13 02:09 PM
Surr: 2-Fluorobiphenyl	98.0	0	48-120		%REC	1	05/13/13 02:09 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: MW-2

Project: R360 Landfarm **Lab ID:** 1305076-04

Project No: 11-0109-09 **Collection Date:** 05/06/13 01:30 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - WATER		SW82	270D				Analyst: CZ
Surr: 2-Fluorophenol	82.5	0	20-120		%REC	1	05/13/13 02:09 PM
Surr: 4-Terphenyl-d14	113	0	51-135		%REC	1	05/13/13 02:09 PM
Surr: Nitrobenzene-d5	112	0	41-120		%REC	1	05/13/13 02:09 PM
Surr: Phenol-d6	59.0	0	20-120		%REC	1	05/13/13 02:09 PM
8260 WATER VOLATILES BY GC/MS		SW82	260C				Analyst: KL
Benzene	ND	0.000200	0.00100		mg/L	1	05/10/13 03:58 PM
Toluene	ND	0.000600	0.00200		mg/L	1	05/10/13 03:58 PM
Carbon tetrachloride	ND	0.000200	0.00100		mg/L	1	05/10/13 03:58 PM
1,2-Dichloroethane	ND	0.000300	0.00100		mg/L	1	05/10/13 03:58 PM
1,1-Dichloroethylene	ND	0.000200	0.00100		mg/L	1	05/10/13 03:58 PM
Tetrachloroethylene	ND	0.000600	0.00200		mg/L	1	05/10/13 03:58 PM
Trichloroethylene	ND	0.000600	0.00200		mg/L	1	05/10/13 03:58 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	05/10/13 03:58 PM
Total Xylenes	ND	0.000300	0.00100		mg/L	1	05/10/13 03:58 PM
Methylene chloride	ND	0.00250	0.00250		mg/L	1	05/10/13 03:58 PM
Chloroform	ND	0.000300	0.00100		mg/L	1	05/10/13 03:58 PM
1,1-Dichloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 03:58 PM
Ethylene dibromide	ND	0.000200	0.00100		mg/L	1	05/10/13 03:58 PM
1,1,1-Trichloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 03:58 PM
1,1,2-Trichloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 03:58 PM
1,1,2,2-Tetrachloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 03:58 PM
Vinyl chloride	ND	0.000100	0.00100		mg/L	1	05/10/13 03:58 PM
Surr: 1,2-Dichloroethane-d4	98.4	0	72-119		%REC	1	05/10/13 03:58 PM
Surr: 4-Bromofluorobenzene	105	0	76-119		%REC	1	05/10/13 03:58 PM
Surr: Dibromofluoromethane	104	0	85-115		%REC	1	05/10/13 03:58 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	05/10/13 03:58 PM
ANIONS BY IC METHOD - WATER		E30	00				Analyst: JBC
Chloride	539	30.0	100		mg/L	100	05/07/13 04:56 PM
Fluoride	1.77	0.100	0.400		mg/L	1	05/07/13 06:24 PM
Nitrate-N	0.670	0.100	0.500		mg/L	1	05/07/13 06:24 PM
Sulfate	1310	10.0	30.0		mg/L	10	05/07/13 03:27 PM
CYANIDE - WATER SAMPLE		M4500	-CN E				Analyst: JCG
Cyanide, Total	ND	0.0100	0.0200		mg/L	1	05/13/13 02:21 PM
РН		M4500	-H+ B				Analyst: JBC
рН	7.40	0	0		pH units	1	05/07/13 02:09 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: MW-E40 **Project:** R360 Landfarm **Lab ID:** 1305076-05

Project No: 11-0109-09 **Collection Date:** 05/06/13 02:00 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: AQUEOUS		SW7	470A				Analyst: LM
Mercury	ND	0.0000800	0.000200		mg/L	1	05/13/13 09:37 AM
TRACE METALS: ICP-MS - WATER		SW6	020A				Analyst: SW
Arsenic	0.00487	0.00200	0.00500	J	mg/L	1	05/14/13 01:09 PM
Barium	0.337	0.00300	0.0100		mg/L	1	05/14/13 01:09 PM
Cadmium	ND	0.000300	0.00100		mg/L	1	05/14/13 01:09 PM
Chromium	ND	0.00200	0.00500		mg/L	1	05/14/13 01:09 PM
Copper	0.0137	0.00200	0.0100		mg/L	1	05/14/13 01:09 PM
Iron	0.308	0.0300	0.100		mg/L	1	05/14/13 01:09 PM
Lead	0.000302	0.000300	0.00100	J	mg/L	1	05/14/13 01:09 PM
Manganese	0.650	0.00300	0.0100		mg/L	1	05/14/13 01:09 PM
Selenium	ND	0.00200	0.00500		mg/L	1	05/14/13 01:09 PM
Silver	ND	0.00100	0.00200		mg/L	1	05/14/13 01:09 PM
Zinc	ND	0.00200	0.00500		mg/L	1	05/14/13 01:09 PM
8260 WATER VOLATILES BY GC/MS		SW8	260C				Analyst: KL
Benzene	ND	0.000200	0.00100		mg/L	1	05/10/13 04:22 PM
Toluene	ND	0.000600	0.00200		mg/L	1	05/10/13 04:22 PM
Carbon tetrachloride	ND	0.000200	0.00100		mg/L	1	05/10/13 04:22 PM
1,2-Dichloroethane	ND	0.000300	0.00100		mg/L	1	05/10/13 04:22 PM
1,1-Dichloroethylene	ND	0.000200	0.00100		mg/L	1	05/10/13 04:22 PM
Tetrachloroethylene	ND	0.000600	0.00200		mg/L	1	05/10/13 04:22 PM
Trichloroethylene	ND	0.000600	0.00200		mg/L	1	05/10/13 04:22 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	05/10/13 04:22 PM
Total Xylenes	ND	0.000300	0.00100		mg/L	1	05/10/13 04:22 PM
Methylene chloride	ND	0.00250	0.00250		mg/L	1	05/10/13 04:22 PM
Chloroform	ND	0.000300	0.00100		mg/L	1	05/10/13 04:22 PM
1,1-Dichloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 04:22 PM
Ethylene dibromide	ND	0.000200	0.00100		mg/L	1	05/10/13 04:22 PM
1,1,1-Trichloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 04:22 PM
1,1,2-Trichloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 04:22 PM
1,1,2,2-Tetrachloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 04:22 PM
Vinyl chloride	ND	0.000100	0.00100		mg/L	1	05/10/13 04:22 PM
Surr: 1,2-Dichloroethane-d4	105	0	72-119		%REC	1	05/10/13 04:22 PM
Surr: 4-Bromofluorobenzene	103	0	76-119		%REC	1	05/10/13 04:22 PM
Surr: Dibromofluoromethane	112	0	85-115		%REC	1	05/10/13 04:22 PM
Surr: Toluene-d8	101	0	81-120		%REC	1	05/10/13 04:22 PM
ANIONS BY IC METHOD - WATER		E3	00				Analyst: JBC
Chloride	436	3.00	10.0		mg/L	10	05/07/13 03:42 PM

Qualifiers:

- Value exceeds TCLP Maximum Concentration Level
- \mathbf{C} Sample Result or QC discussed in the Case Narrative
- Е TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit Reporting Limit
 - Parameter not NELAC certified

В Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit
- Spike Recovery outside control limits

CLIENT: Larson & Associates

Project: R360 Landfarm

Project No: 11-0109-09 **Collection Date:** 05/06/13 02:00 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual Units	DF	Date Analyzed
ANIONS BY IC METHOD - WATER		E30	0			Analyst: JBC
Fluoride	1.02	0.100	0.400	mg/L	1	05/07/13 06:38 PM
Nitrate-N	ND	0.100	0.500	mg/L	1	05/07/13 06:38 PM
Sulfate	561	10.0	30.0	mg/L	10	05/07/13 03:42 PM
CYANIDE - WATER SAMPLE		M4500-	CN E			Analyst: JCG
Cyanide, Total	ND	0.0100	0.0200	mg/L	1	05/13/13 02:21 PM
РН		M4500-	H+ B			Analyst: JBC
рН	7.40	0	0	pH units	1	05/07/13 02:11 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 05-Jun-13

Lab ID: 1305076-05

Client Sample ID: MW-E40

- DF Dilution Factor
 - J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

Project:

CLIENT: Larson & Associates Client Sample ID: MW-S40

R360 Landfarm Lab ID: 1305076-06

Project No: 11-0109-09 **Collection Date:** 05/06/13 02:30 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		SW82	60C			Analyst: KL
Benzene	ND	0.000200	0.00100	mg/L	1	05/10/13 04:46 PM
Toluene	ND	0.000600	0.00200	mg/L	1	05/10/13 04:46 PM
Carbon tetrachloride	ND	0.000200	0.00100	mg/L	1	05/10/13 04:46 PM
1,2-Dichloroethane	ND	0.000300	0.00100	mg/L	1	05/10/13 04:46 PM
1,1-Dichloroethylene	ND	0.000200	0.00100	mg/L	1	05/10/13 04:46 PM
Tetrachloroethylene	ND	0.000600	0.00200	mg/L	1	05/10/13 04:46 PM
Trichloroethylene	ND	0.000600	0.00200	mg/L	1	05/10/13 04:46 PM
Ethylbenzene	ND	0.000300	0.00100	mg/L	1	05/10/13 04:46 PM
Total Xylenes	ND	0.000300	0.00100	mg/L	1	05/10/13 04:46 PM
Methylene chloride	ND	0.00250	0.00250	mg/L	1	05/10/13 04:46 PM
Chloroform	ND	0.000300	0.00100	mg/L	1	05/10/13 04:46 PM
1,1-Dichloroethane	ND	0.000200	0.00100	mg/L	1	05/10/13 04:46 PM
Ethylene dibromide	ND	0.000200	0.00100	mg/L	1	05/10/13 04:46 PM
1,1,1-Trichloroethane	ND	0.000200	0.00100	mg/L	1	05/10/13 04:46 PM
1,1,2-Trichloroethane	ND	0.000200	0.00100	mg/L	1	05/10/13 04:46 PM
1,1,2,2-Tetrachloroethane	ND	0.000200	0.00100	mg/L	1	05/10/13 04:46 PM
Vinyl chloride	ND	0.000100	0.00100	mg/L	1	05/10/13 04:46 PM
Surr: 1,2-Dichloroethane-d4	105	0	72-119	%REC	1	05/10/13 04:46 PM
Surr: 4-Bromofluorobenzene	105	0	76-119	%REC	1	05/10/13 04:46 PM
Surr: Dibromofluoromethane	109	0	85-115	%REC	1	05/10/13 04:46 PM
Surr: Toluene-d8	99.9	0	81-120	%REC	1	05/10/13 04:46 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: MW-W40

Project: R360 Landfarm **Lab ID:** 1305076-07

Project No: 11-0109-09 **Collection Date:** 05/06/13 03:00 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		SW82	60C			Analyst: KL
Benzene	ND	0.000200	0.00100	mg/L	1	05/10/13 05:11 PM
Toluene	ND	0.000600	0.00200	mg/L	1	05/10/13 05:11 PM
Carbon tetrachloride	ND	0.000200	0.00100	mg/L	1	05/10/13 05:11 PM
1,2-Dichloroethane	ND	0.000300	0.00100	mg/L	1	05/10/13 05:11 PM
1,1-Dichloroethylene	ND	0.000200	0.00100	mg/L	1	05/10/13 05:11 PM
Tetrachloroethylene	ND	0.000600	0.00200	mg/L	1	05/10/13 05:11 PM
Trichloroethylene	ND	0.000600	0.00200	mg/L	1	05/10/13 05:11 PM
Ethylbenzene	ND	0.000300	0.00100	mg/L	1	05/10/13 05:11 PM
Total Xylenes	ND	0.000300	0.00100	mg/L	1	05/10/13 05:11 PM
Methylene chloride	ND	0.00250	0.00250	mg/L	1	05/10/13 05:11 PM
Chloroform	ND	0.000300	0.00100	mg/L	1	05/10/13 05:11 PM
1,1-Dichloroethane	ND	0.000200	0.00100	mg/L	1	05/10/13 05:11 PM
Ethylene dibromide	ND	0.000200	0.00100	mg/L	1	05/10/13 05:11 PM
1,1,1-Trichloroethane	ND	0.000200	0.00100	mg/L	1	05/10/13 05:11 PM
1,1,2-Trichloroethane	ND	0.000200	0.00100	mg/L	1	05/10/13 05:11 PM
1,1,2,2-Tetrachloroethane	ND	0.000200	0.00100	mg/L	1	05/10/13 05:11 PM
Vinyl chloride	ND	0.000100	0.00100	mg/L	1	05/10/13 05:11 PM
Surr: 1,2-Dichloroethane-d4	104	0	72-119	%REC	1	05/10/13 05:11 PM
Surr: 4-Bromofluorobenzene	106	0	76-119	%REC	1	05/10/13 05:11 PM
Surr: Dibromofluoromethane	109	0	85-115	%REC	1	05/10/13 05:11 PM
Surr: Toluene-d8	99.9	0	81-120	%REC	1	05/10/13 05:11 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: Trip Blank

 Project:
 R360 Landfarm
 Lab ID: 1305076-08

 Project No:
 11-0109-09
 Collection Date: 05/06/13

Lab Order: 1305076 Matrix: TRIP BLANK

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		SW82	:60C				Analyst: KL
Benzene	ND	0.000200	0.00100		mg/L	1	05/10/13 05:35 PM
Toluene	ND	0.000600	0.00200		mg/L	1	05/10/13 05:35 PM
Carbon tetrachloride	ND	0.000200	0.00100		mg/L	1	05/10/13 05:35 PM
1,2-Dichloroethane	ND	0.000300	0.00100		mg/L	1	05/10/13 05:35 PM
1,1-Dichloroethylene	ND	0.000200	0.00100		mg/L	1	05/10/13 05:35 PM
Tetrachloroethylene	ND	0.000600	0.00200		mg/L	1	05/10/13 05:35 PM
Trichloroethylene	ND	0.000600	0.00200		mg/L	1	05/10/13 05:35 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	05/10/13 05:35 PM
Total Xylenes	ND	0.000300	0.00100		mg/L	1	05/10/13 05:35 PM
Methylene chloride	ND	0.00250	0.00250		mg/L	1	05/10/13 05:35 PM
Chloroform	ND	0.000300	0.00100		mg/L	1	05/10/13 05:35 PM
1,1-Dichloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 05:35 PM
Ethylene dibromide	ND	0.000200	0.00100		mg/L	1	05/10/13 05:35 PM
1,1,1-Trichloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 05:35 PM
1,1,2-Trichloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 05:35 PM
1,1,2,2-Tetrachloroethane	ND	0.000200	0.00100		mg/L	1	05/10/13 05:35 PM
Vinyl chloride	ND	0.000100	0.00100		mg/L	1	05/10/13 05:35 PM
Surr: 1,2-Dichloroethane-d4	99.3	0	72-119		%REC	1	05/10/13 05:35 PM
Surr: 4-Bromofluorobenzene	107	0	76-119		%REC	1	05/10/13 05:35 PM
Surr: Dibromofluoromethane	105	0	85-115		%REC	1	05/10/13 05:35 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	05/10/13 05:35 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
 - J Analyte detected between MDL and RL
 - ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: MW-2

Project: R360 Landfarm **Lab ID:** 1305076-09

Project No: 11-0109-09 **Collection Date:** 05/07/13 12:00 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual Units	DF	Date Analyzed
PCB BY GC/MS - AQUEOUS		SW8	270D			Analyst: AJR
Aroclor 1016	ND	0.000100	0.000250	mg/L	1	05/08/13 09:18 PM
Aroclor 1221	ND	0.000100	0.000250	mg/L	1	05/08/13 09:18 PM
Aroclor 1232	ND	0.000100	0.000250	mg/L	1	05/08/13 09:18 PM
Aroclor 1242	ND	0.000100	0.000250	mg/L	1	05/08/13 09:18 PM
Aroclor 1248	ND	0.000100	0.000250	mg/L	1	05/08/13 09:18 PM
Aroclor 1254	ND	0.000100	0.000250	mg/L	1	05/08/13 09:18 PM
Aroclor 1260	ND	0.000100	0.000250	mg/L	1	05/08/13 09:18 PM
Surr: 2-Fluorobiphenyl	77.4	0	40-140	%REC	1	05/08/13 09:18 PM
Surr: 4-Terphenyl-d14	100	0	40-140	%REC	1	05/08/13 09:18 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: MW-E40

Project: R360 Landfarm **Lab ID:** 1305076-10

Project No: 11-0109-09 **Collection Date:** 05/07/13 02:00 PM

Lab Order: 1305076 Matrix: LIQUID

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - WATER		SW8	270D				Analyst: CZ
1-Methylnaphthalene	ND	0.000200	0.000800	N	mg/L	1	05/13/13 02:32 PM
2-Methylnaphthalene	0.000320	0.000200	0.000800	J	mg/L	1	05/13/13 02:32 PM
Naphthalene	ND	0.000200	0.000800		mg/L	1	05/13/13 02:32 PM
Benzo[a]pyrene	0.000720	0.000200	0.000800	J	mg/L	1	05/13/13 02:32 PM
2,3,4,6-Tetrachlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:32 PM
2,4,5-Trichlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:32 PM
2,4,6-Trichlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:32 PM
2,4-Dichlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:32 PM
2,4-Dimethylphenol	ND	0.000400	0.000800		mg/L	1	05/13/13 02:32 PM
2,4-Dinitrophenol	ND	0.00100	0.00400		mg/L	1	05/13/13 02:32 PM
2,6-Dichlorophenol	ND	0.000400	0.000800		mg/L	1	05/13/13 02:32 PM
2-Chlorophenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:32 PM
2-Methylphenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:32 PM
2-Nitrophenol	ND	0.000400	0.000800		mg/L	1	05/13/13 02:32 PM
4,6-Dinitro-2-methylphenol	ND	0.000500	0.00200		mg/L	1	05/13/13 02:32 PM
4-Chloro-3-methylphenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:32 PM
4-Methylphenol	ND	0.000200	0.000800		mg/L	1	05/13/13 02:32 PM
4-Nitrophenol	ND	0.00100	0.00400		mg/L	1	05/13/13 02:32 PM
Pentachlorophenol	ND	0.000400	0.000800		mg/L	1	05/13/13 02:32 PM
Phenol	ND	0.000400	0.000800		mg/L	1	05/13/13 02:32 PM
Total Phenol (Calculated)	ND	0.000200	0.000800	N	mg/L	1	05/13/13 02:32 PM
Surr: 2,4,6-Tribromophenol	99.8	0	42-124		%REC	1	05/13/13 02:32 PM
Surr: 2-Fluorobiphenyl	93.5	0	48-120		%REC	1	05/13/13 02:32 PM
Surr: 2-Fluorophenol	64.8	0	20-120		%REC	1	05/13/13 02:32 PM
Surr: 4-Terphenyl-d14	101	0	51-135		%REC	1	05/13/13 02:32 PM
Surr: Nitrobenzene-d5	104	0	41-120		%REC	1	05/13/13 02:32 PM
Surr: Phenol-d6	45.2	0	20-120		%REC	1	05/13/13 02:32 PM
PCB BY GC/MS - AQUEOUS		SW8	270D				Analyst: AJR
Aroclor 1016	ND	0.000100	0.000250		mg/L	1	05/08/13 09:50 PM
Aroclor 1221	ND	0.000100	0.000250		mg/L	1	05/08/13 09:50 PM
Aroclor 1232	ND	0.000100	0.000250		mg/L	1	05/08/13 09:50 PM
Aroclor 1242	ND	0.000100	0.000250		mg/L	1	05/08/13 09:50 PM
Aroclor 1248	ND	0.000100	0.000250		mg/L	1	05/08/13 09:50 PM
Aroclor 1254	ND	0.000100	0.000250		mg/L	1	05/08/13 09:50 PM
Aroclor 1260	ND	0.000100	0.000250		mg/L	1	05/08/13 09:50 PM
Surr: 2-Fluorobiphenyl	80.9	0	40-140		%REC	1	05/08/13 09:50 PM
Surr: 4-Terphenyl-d14	95.8	0	40-140		%REC	1	05/08/13 09:50 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit RL Reporting Limit
 - N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

Date: 05-Jun-13

CLIENT: Larson & Associates

Work Order: 1305076

RunID: CETAC HG 130513A Project: R360 Landfarm

ANALYTICAL QC SUMMARY REPORT

Project: R360 Land	dfarm					Kunii): (LIAC_H	G_130	313A
The QC data in batch 57373 app	lies to the fo	llowing sa	amples: 13050	76-01B, 13050	76-02B, 13	805076-03B,	1305076	-04B, 130507	6-05B	
Sample ID: MB-57373	Batch ID:	57373		TestNo:	SW	7470A		Units:	mg/L	
SampType: MBLK	Run ID:	CETAC	_HG_130513 <i>A</i>	A Analysis	Date: 5/13	3/2013 8:33:	20 AM	Prep Date:	5/10/20)13
Analyte	F	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RI	PDLimit Qual
Mercury		ND	0.000200							
Sample ID: LCS-57373	Batch ID:	57373		TestNo:	SW	7470A		Units:	mg/L	
SampType: LCS	Run ID:	CETAC	_HG_130513 <i>A</i>	A Analysis	Date: 5/13	3/2013 8:37:	24 AM	Prep Date:	5/10/20)13
Analyte	F	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RI	PDLimit Qual
Mercury	0.	.00198	0.000200	0.00200	0	99.0	85	115		
Sample ID: LCSD-57373	Batch ID:	57373		TestNo:	sw	7470A		Units:	mg/L	
SampType: LCSD	Run ID:	CETAC	_HG_130513 <i>A</i>	A Analysis	Date: 5/13	3/2013 8:39:	26 AM	Prep Date:	5/10/20	013
Analyte	F	Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit %	6RPD RI	PDLimit Qual
Mercury	0.	.00201	0.000200	0.00200	0	101	85	115	1.50	15
Sample ID: 1305055-03A SD	Batch ID:	57373		TestNo:	sw	7470A		Units:	mg/L	
SampType: SD	Run ID:	CETAC	_HG_130513 <i>A</i>	A Analysis	Date: 5/13	3/2013 8:48:	02 AM	Prep Date:	5/10/20	013
Analyte	F	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	&RPD RI	PDLimit Qual
Mercury		0	0.00100	0	0				0	10
Sample ID: 1305055-03A PDS	Batch ID:	57373		TestNo:	sw	7470A		Units:	mg/L	
SampType: PDS	Run ID:	CETAC	_HG_130513 <i>A</i>	A Analysis	S Date: 5/13	3/2013 8:50:	06 AM	Prep Date:	5/10/20	013
Analyte	F	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	&RPD RI	PDLimit Qual
Mercury	0.	.00226	0.000200	0.00250	0	90.4	85	115		
Sample ID: 1305055-03A MS	Batch ID:	57373		TestNo:	SW	7470A		Units:	mg/L	
SampType: MS	Run ID:	CETAC	_HG_130513 <i>A</i>	A Analysis	s Date: 5/13	3/2013 8:52:	12 AM	Prep Date:	5/10/20)13
Analyte	F	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RI	PDLimit Qual
Mercury	0.	.00182	0.000200	0.00200	0	91.0	80	120		
Sample ID: 1305055-03A MSD	Batch ID:	57373		TestNo:	SW	7470A		Units:	mg/L	
SampType: MSD	Run ID:	CETAC	_HG_130513 <i>A</i>	A Analysis	S Date: 5/13	3/2013 8:54:	18 AM	Prep Date:	5/10/20	013
Analyte	F	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	&RPD RI	PDLimit Qual
Mercury	0.	.00187	0.000200	0.00200	0	93.5	80	120	2.71	15

Qualifiers: Analyte detected in the associated Method Blank

> J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

RPD outside accepted control limits

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R Spike Recovery outside control limits

Parameter not NELAC certified

Work Order: 1305076

CETAC_HG_130513A **RunID: Project:** R360 Landfarm

Sample ID: ICV-130513	Batch ID	: R66343		TestNo:	SW	/7470A		Units:	mg/L
SampType: ICV	Run ID:	CETAC	_HG_130513A	Analysis	Date: 5/1	3/2013 8:29:	14 AM	Prep Date	e:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Mercury		0.00410	0.000200	0.00400	0	103	90	110	
Sample ID: CCV1-130513	Batch ID): R66343		TestNo:	SW	/7470A		Units:	mg/L
SampType: CCV	Run ID:	CETAC	_HG_130513A	Analysis	Date: 5/1	3/2013 9:03:	46 AM	Prep Date	e:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Mercury		0.00198	0.000200	0.00200	0	99.0	90	110	
Sample ID: CCV2-130513	Batch ID): R66343		TestNo:	SW	/7470A		Units:	mg/L
SampType: CCV	Run ID:	CETAC	_HG_130513A	Analysis	Date: 5/1	3/2013 9:28:	24 AM	Prep Date	e:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Mercury		0.00204	0.000200	0.00200	0	102	90	110	
Sample ID: CCV3-130513	Batch ID): R66343		TestNo:	SW	/7470A		Units:	mg/L
SampType: CCV	Run ID:	CETAC	_HG_130513A	Analysis	Date: 5/1	3/2013 9:49:4	45 AM	Prep Date	e:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual

Qualifiers:

Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits Parameter not NELAC certified

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ANALYTICAL QC SUMMARY REPORT

Work Order: 1305076

Project: R360 Landfarm RunID: ICP-MS2_130515B

Sample ID: ICV1-130515 SampType: ICV	Batch ID: Run ID:	R66432	: 62_130515B	TestNo Analys		V6020A 15/2013 12:49	:00 PM	Units: Prep Date	mg/L :
Analyte	1	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD RPDLimit Qu
Arsenic	(0.0991	0.00500	0.100	0	99.1	90	110	
Barium	(0.0933	0.0100	0.100	0	93.3	90	110	
Cadmium	(0.0927	0.00100	0.100	0	92.7	90	110	
Chromium		0.102	0.00500	0.100	0	102	90	110	
Lead	(0.0911	0.00100	0.100	0	91.1	90	110	
Selenium		0.101	0.00500	0.100	0	101	90	110	
Silver	(0.0974	0.00200	0.100	0	97.4	90	110	

ANALYTICAL QC SUMMARY REPORT

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1305076

ANALYTICAL QC SUMMARY REPORT

Project: R360 Landfarm RunID: ICP-MS3_130514A

The QC dat		7369 applies to	the follo	wing sar	mples: 1305	076-01B, 130	5076-02B, 1	305076-03B,		04B, 13050		11.8
Sample ID:				57369	,	TestN		V6020A		Units:	mg/L	
SampType:		Run			_130514A		_	4/2013 12:14	:00 PM	Prep Date:	•	2013
Analyte				esult	RL	SPK value	Ref Val	%REC				RPDLimit Qua
Arsenic				ND	0.00500							
Barium				ND ND	0.0100							
Cadmium				ND	0.00100							
Chromium				ND	0.00500							
Copper				ND	0.0100							
Iron				ND	0.100							
Lead				ND	0.00100							
Leau Manganese				ND	0.0100							
Selenium				ND	0.00500							
Silver				ND	0.00200							
Zinc				ND ND	0.00200							
					0.00000							
Sample ID:	LCS-57369	Batch		57369		TestN	o: SV	V6020A		Units:	mg/L	
SampType:	LCS	Run	ID:	ICP-MS3	_130514A	Analy	sis Date: 5/1	4/2013 12:20	:00 PM	Prep Date:	5/10/2	2013
Analyte			Re	esult	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD F	RPDLimit Qua
Arsenic			0.	198	0.00500	0.200	0	99.1	80	120		
Barium			0.	190	0.0100	0.200	0	95.0	80	120		
Cadmium			0.	188	0.00100	0.200	0	94.0	80	120		
Chromium			0.	198	0.00500	0.200	0	98.8	80	120		
Copper			0.	196	0.0100	0.200	0	98.0	80	120		
Iron			5	.21	0.100	5.00	0	104	80	120		
Lead			0.	191	0.00100	0.200	0	95.4	80	120		
Manganese			0.	197	0.0100	0.200	0	98.7	80	120		
Selenium			0.	199	0.00500	0.200	0	99.4	80	120		
Silver			0.	194	0.00200	0.200	0	97.2	80	120		
Zinc			0.	202	0.00500	0.200	0	101	80	120		
Sample ID:	LCSD-573	69 Batch	h ID:	57369		TestN	o: SV	V6020A		Units:	mg/L	
SampType:	LCSD	Run	ID:	ICP-MS3	_130514A	Analy	sis Date: 5/1	4/2013 12:26	:00 PM	Prep Date:	5/10/2	2013
Analyte			Re	esult	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD F	RPDLimit Qua
Arsenic			0.	203	0.00500	0.200	0	102	80	120	2.49	15
Barium			0.	193	0.0100	0.200	0	96.6	80	120	1.67	15
Cadmium			0.	191	0.00100	0.200	0	95.3	80	120	1.32	15
Chromium			0.	196	0.00500	0.200	0	98.2	80	120	0.609	15
Copper			0.	197	0.0100	0.200	0	98.6	80	120	0.712	15
ron			5	.30	0.100	5.00	0	106	80	120	1.68	15
Lead			0.	190	0.00100	0.200	0	95.2	80	120	0.157	15
Manganese				197	0.0100	0.200	0	98.4	80	120	0.355	15
Qualifiers:	ВА	nalyte detected in	the asso	ciated M	ethod Blank	DF	Dilution Fac	etor				
		nalyte detected he					Method Dete				D	age 4 of 25
	<i>J</i> A			L L unu i		TIDE.	DDD	- Lion Linn			Р	age 4 01 23

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R

S

RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

ND Not Detected at the Method Detection Limit

Analyte detected between SDL and RL

Reporting Limit

Work Order: 1305076

ANALYTICAL QC SUMMARY REPORT

Project: R360	Landfarm					RunII): I	CP-MS3_	130514	A
Sample ID: LCSD-57369	Batch ID:	57369		TestNo	: SW	6020A		Units:	mg/L	
SampType: LCSD	Run ID:	ICP-MS	3_130514A	Analys	is Date: 5/14	/2013 12:26	6:00 PM	Prep Date:	5/10/2	013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit Qua
Selenium		0.198	0.00500	0.200	0	98.8	80	120	0.706	15
Silver		0.198	0.00200	0.200	0	98.8	80	120	1.63	15
Zinc		0.205	0.00500	0.200	0	103	80	120	1.62	15
Sample ID: 1305076-02B \$	Batch ID:	57369		TestNo	SW6	6020A		Units:	mg/L	
SampType: SD	Run ID:	ICP-MS	3_130514A	Analys	is Date: 5/14	/2013 12:44	4:00 PM	Prep Date:	5/10/2	013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit Qua
Arsenic		0	0.250	0	0				0	10
Barium		0	0.500	0	0				0	10
Cadmium		0	0.0500	0	0				0	10
Chromium		0	0.250	0	0				0	10
Copper		0	0.500	0	0				0	10
Iron		0	5.00	0	0.387				0	10
Lead		0	0.0500	0	0				0	10
Manganese		0.210	0.500	0	0.201				4.38	10
Selenium		0	0.250	0	0.0200				0	10
Silver		0	0.100	0	0				0	10
Zinc		0	0.250	0	0				0	10
Sample ID: 1305076-02B F	PDS Batch ID:	57369		TestNo	: SW	6020A		Units:	mg/L	
SampType: PDS	Run ID:	ICP-MS	3_130514A	Analys	is Date: 5/14	/2013 1:39:	00 PM	Prep Date:	5/10/2	013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit Qua
Arsenic		1.95	0.0500	2.00	0	97.4	80	120		
Barium		1.93	0.100	2.00	0	96.5	80	120		
Cadmium		1.83	0.0100	2.00	0	91.4	80	120		
Chromium		1.90	0.0500	2.00	0	95.0	80	120		
Copper		1.81	0.100	2.00	0	90.5	80	120		
Iron		50.1	1.00	50.0	0.387	99.4	80	120		
Lead		1.86	0.0100	2.00	0	93.0	80	120		
Manganese		2.12	0.100	2.00	0.201	96.0	80	120		
Selenium		1.87	0.0500	2.00	0.0200	92.4	80	120		
Silver		1.83	0.0200	2.00	0	91.4	80	120		
Zinc		1.91	0.0500	2.00	0	95.3	80	120		
Sample ID: 1305076-02B I	MS Batch ID:	57369		TestNo	SW6	6020A		Units:	mg/L	
SampType: MS	Run ID:	ICP-MS	3_130514A	Analys	is Date: 5/14	/2013 1:45:	00 PM	Prep Date:	5/10/2	013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit Qua
Arsenic		0.212	0.0500	0.200	0	106	80	120		
-	te detected in the a				Dilution Facto					age 5 of 25

Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

MDL Method Detection Limit

R RPD outside accepted control limits Spike Recovery outside control limits

Parameter not NELAC certified

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Work Order: 1305076

ICP-MS3 130514A **Project:** R360 Landfarm **RunID:**

ANALYTICAL QC SUMMARY REPORT

Project: R500	Landiarin					Kullii	, 1	C1 -M183_	130314A
Sample ID: 1305076-02B N	IS Batch ID:	57369		TestNo	: SW	6020A		Units:	mg/L
SampType: MS	Run ID:	ICP-MS	3_130514A	Analys	is Date: 5/1 4	4/2013 1:45:	00 PM	Prep Date:	5/10/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit ⁴	%RPD RPDLimit Qual
Barium		0.222	0.100	0.200	0	111	80	120	
Cadmium		0.194	0.0100	0.200	0	97.2	80	120	
Chromium		0.197	0.0500	0.200	0	98.7	80	120	
Copper		0.197	0.100	0.200	0	98.4	80	120	
Iron		5.29	1.00	5.00	0.387	98.1	80	120	
Lead		0.197	0.0100	0.200	0	98.6	80	120	
Manganese		0.392	0.100	0.200	0.201	95.7	80	120	
Selenium		0.218	0.0500	0.200	0.0200	98.7	80	120	
Silver		0.195	0.0200	0.200	0	97.4	80	120	
Zinc		0.194	0.0500	0.200	0	96.8	80	120	
Sample ID: 1305076-02B N	ISD Batch ID:	57369		TestNo	: SW	6020A		Units:	mg/L
SampType: MSD	Run ID:	ICP-MS	3_130514A	Analys	is Date: 5/1 4	4/2013 1:52:	00 PM	Prep Date:	5/10/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit [°]	%RPD RPDLimit Qual

SampType: MSD	Run ID:	Run ID: ICP-MS3_130514A		Analys	00 PM	Prep Date: 5/10/2013				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
Arsenic		0.212	0.0500	0.200	0	106	80	120	0	15
Barium		0.217	0.100	0.200	0	108	80	120	2.05	15
Cadmium		0.185	0.0100	0.200	0	92.5	80	120	5.01	15
Chromium		0.195	0.0500	0.200	0	97.4	80	120	1.33	15
Copper		0.192	0.100	0.200	0	95.9	80	120	2.52	15
Iron		5.16	1.00	5.00	0.387	95.5	80	120	2.49	15
Lead		0.191	0.0100	0.200	0	95.4	80	120	3.30	15
Manganese		0.388	0.100	0.200	0.201	93.7	80	120	1.02	15
Selenium		0.212	0.0500	0.200	0.0200	96.2	80	120	2.37	15
Silver		0.190	0.0200	0.200	0	95.2	80	120	2.28	15
Zinc		0.194	0.0500	0.200	0	96.9	80	120	0.051	15

Qualifiers:

ND

Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

Not Detected at the Method Detection Limit Reporting Limit

Analyte detected between SDL and RL

Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits Spike Recovery outside control limits

Parameter not NELAC certified

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Work Order: 1305076

ICP-MS3_130514A **RunID:** R360 Landfarm Project:

ANALYTICAL QC SUMMARY REPORT

Sample ID: II	LCVL-130514	Batch ID:	R66390		TestN	o: SW	6020A		Units:	mg/	L
SampType: L	CVL	Run ID:	ICP-MS	3_130514A	Analy	sis Date: 5/14	/2013 12:01	:00 PM	Prep Date	: :	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qu
Arsenic			0.00534	0.00500	0.00500	0	107	70	130		
Barium			0.00481	0.0100	0.00500	0	96.2	70	130		
Cadmium			0.00101	0.00100	0.00100	0	101	70	130		
Chromium			0.00485	0.00500	0.00500	0	97.0	70	130		
Copper			0.00476	0.0100	0.00500	0	95.2	70	130		
Iron			0.116	0.100	0.100	0	116	70	130		
Lead		(0.000976	0.00100	0.00100	0	97.6	70	130		
Manganese			0.00503	0.0100	0.00500	0	101	70	130		
Selenium			0.00488	0.00500	0.00500	0	97.7	70	130		
Silver			0.00192	0.00200	0.00200	0	96.0	70	130		
Zinc			0.00467	0.00500	0.00500	0	93.5	70	130		
Sample ID: L	.CVL1-130514	Batch ID:	R66390		TestN	o: SW	6020A		Units:	mg/	L
SampType: L	.CVL	Run ID:	ICP-MS	3_130514A	Analy	sis Date: 5/14	/2013 2:41:	00 PM	Prep Date) :	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qu
Arsenic			0.00507	0.00500	0.00500	0	101	70	130		
Barium			0.00476	0.0100	0.00500	0	95.3	70	130		
Cadmium		(0.000907	0.00100	0.00100	0	90.7	70	130		
Chromium			0.00473	0.00500	0.00500	0	94.5	70	130		
Copper			0.00470	0.0100	0.00500	0	93.9	70	130		
Iron			0.104	0.100	0.100	0	104	70	130		
Lead		(0.000944	0.00100	0.00100	0	94.4	70	130		
Manganese			0.00509	0.0100	0.00500	0	102	70	130		
Selenium			0.00512	0.00500	0.00500	0	102	70	130		
Silver			0.00192	0.00200	0.00200	0	96.0	70	130		
Zinc			0.00460	0.00500	0.00500	0	92.1	70	130		
Sample ID: I	CV1-130514	Batch ID:	R66390		TestN	o: SW	6020A		Units:	mg/	L
SampType: I	CV	Run ID:	ICP-MS	3_130514A	Analy	sis Date: 5/14	/2013 11:42	2:00 AM	Prep Date):	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD	RPDLimit Qu
Arsenic			0.108	0.00500	0.100	0	108	90	110		
Barium			0.0931	0.0100	0.100	0	93.1	90	110		
Cadmium			0.0981	0.00100	0.100	0	98.1	90	110		
Chromium			0.0970	0.00500	0.100	0	97.0	90	110		
Copper			0.0972	0.0100	0.100	0	97.2	90	110		
Iron			2.60	0.100	2.50	0	104	90	110		
Lead			0.0928	0.00100	0.100	0	92.8	90	110		
Manganese			0.0967	0.0100	0.100	0	96.7	90	110		
Selenium			0.0977	0.00500	0.100	0	97.7	90	110		
Qualifiers:	B Analyte d	etected in the	accopiated M	athod Plant	DF	Dilution Facto	or.				
Quamiers:	D Analyte d	elected III tile a	associated M	emou bialik	DF	Dilution Facto	л				

Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

Parameter not NELAC certified

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Work Order: 1305076

ANALYTICAL QC SUMMARY REPORT

Project: R360 Landfarm RunID: ICP-MS3_130514A

Sample ID: ICV1-130514 SampType: ICV	Batch ID: Run ID:	R66390 ICP-MS3_	130514A	TestNo: Analysis	_	W6020A /14/2013 11:42:00 A	Units: AM Prep Date	mg/L
Analyte		Result	RL	SPK value	Ref Val	%REC Low	Limit HighLimit	%RPD RPDLimit Qual
Silver	(0.0951	0.00200	0.100	0	95.1	90 110	
Zinc		0.109	0.00500	0.100	0	109	90 110	

Sample ID: CCV1-130514	Batch ID:	R66390		TestNo	SW	6020A		Units:	mg/L
SampType: CCV	Run ID:	ICP-MS3	3_130514A	Analysi	s Date: 5/1 4	4/2013 1:58:	00 PM	Prep Date	9:
Analyte	1	Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qu
Arsenic		0.206	0.00500	0.200	0	103	90	110	
Barium		0.193	0.0100	0.200	0	96.6	90	110	
Cadmium		0.194	0.00100	0.200	0	96.8	90	110	
Chromium		0.200	0.00500	0.200	0	100	90	110	
Copper		0.198	0.0100	0.200	0	98.8	90	110	
Iron		5.30	0.100	5.00	0	106	90	110	
Lead		0.192	0.00100	0.200	0	96.2	90	110	
Manganese		0.196	0.0100	0.200	0	98.0	90	110	
Selenium		0.201	0.00500	0.200	0	101	90	110	
Silver		0.200	0.00200	0.200	0	100	90	110	
Zinc		0.208	0.00500	0.200	0	104	90	110	

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limitsS Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1305076

ANALYTICAL QC SUMMARY REPORT

Project: R360 Landfarm RunID: GCMS8_130508A

Sample ID: MB-57324	Batch ID:	57324		TestNo	: SW	3270D		Units:	mg/L
SampType: MBLK	Run ID:	GCMS8	_130508A	Analys	is Date: 5/8/ 2	2013 3:58:0	0 PM	Prep Date:	5/8/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit '	%RPD RPDLimit Qua
Aroclor 1016		ND	0.000250						
Aroclor 1221		ND	0.000250						
Aroclor 1232		ND	0.000250						
Aroclor 1242		ND	0.000250						
Aroclor 1248		ND	0.000250						
Aroclor 1254		ND	0.000250						
Aroclor 1260		ND	0.000250						
Surr: 2-Fluorobiphenyl		2.84		4.000		71.1	40	140	
Surr: 4-Terphenyl-d14		3.72		4.000		92.9	40	140	

Sample ID: LCSD-57324	Batch ID:	57324		TestNo	: SW	/8270D		Units:	mg/L
SampType: LCS	Run ID:	GCMS8	_130508A	Analysi	s Date: 5/8 /	/2013 5:34:00	PM	Prep Date	5/8/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	HighLimit	%RPD RPDLimit Qual
Aroclor 1016	(0.00321	0.000250	0.00400	0	80.1	53	113	
Aroclor 1260	(0.00357	0.000250	0.00400	0	89.3	37	131	
Surr: 2-Fluorobiphenyl		3.58		4.000		89.6	40	140	
Surr: 4-Terphenyl-d14		4.41		4.000		110	40	140	

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

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S Spike Recovery outside control limits

N Parameter not NELAC certified

Work Order: 1305076

Project: R360 Landfarm RunID: GCMS8_130508A

Sample ID: ICV-130508	Batch ID:	R66285		TestNo		V8270D		Units:	mg/L
SampType: ICV	Run ID:	GCMS8	_130508A	Analys	is Date: 5/8	3/2013 12:29:	DO PIM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
Aroclor 1016		1.98	0.000250	2.00	0	99.2	80	120	
Aroclor 1260		2.09	0.000250	2.00	0	104	80	120	
Surr: 2-Fluorobiphenyl		1800		2000		90.0	80	120	
Surr: 4-Terphenyl-d14		1900		2000		95.0	80	120	

ANALYTICAL QC SUMMARY REPORT

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1305076

ANALYTICAL QC SUMMARY REPORT

GCMS9_130513A **RunID: Project:** R360 Landfarm

The QC data in batch 57381 ap	plies to the fo	ollowing s	amples: 13050	076-01D, 13050	76-02D,	1305076-03D,	1305076	-04D, 130507	6-10A	
Sample ID: LCS-57381	Batch ID:	57381		TestNo:	S	W8270D		Units:	mg/L	
SampType: LCS	Run ID:	GCMS	9_130513A	Analysis	s Date: 5 ,	/13/2013 10:16	:00 AM	Prep Date:	5/10/2013	
Analyte		Result	RL	SPK value	Ref Va	I %REC	LowLim	it HighLimit %	SRPD RPDLimit	(Qual
1-Methylnaphthalene	(0.0345	0.000800	0.0400	0	86.2	45	125		N
2,3,4,6-Tetrachlorophenol	(0.0333	0.000800	0.0400	0	83.3	45	125		
2,4,5-Trichlorophenol	(0.0340	0.000800	0.0400	0	84.9	49	120		
2,4,6-Trichlorophenol	(0.0367	0.000800	0.0400	0	91.8	49	126		
2,4-Dichlorophenol	(0.0365	0.000800	0.0400	0	91.2	48	120		
2,4-Dimethylphenol	(0.0382	0.000800	0.0400	0	95.4	28	120		
2,4-Dinitrophenol		0.0335	0.00400	0.0400	0	83.9	25	130		
2,6-Dichlorophenol		0.0384	0.000800	0.0400	0	95.9	35	120		
2-Chlorophenol	(0.0383	0.000800	0.0400	0	95.8	37	120		
2-Methylnaphthalene		0.0356	0.000800	0.0400	0	89.0	46	120		
2-Methylphenol	(0.0338	0.000800	0.0400	0	84.4	38	120		
2-Nitrophenol	(0.0376	0.000800	0.0400	0	94.0	39	123		
4,6-Dinitro-2-methylphenol	(0.0349	0.00200	0.0400	0	87.2	40	130		
4-Chloro-3-methylphenol	(0.0355	0.000800	0.0400	0	88.8	47	120		
4-Methylphenol	(0.0346	0.000800	0.0400	0	86.5	32	120		
4-Nitrophenol	(0.0340	0.00400	0.0400	0	85.0	20	120		
Benzo[a]pyrene	(0.0380	0.000800	0.0400	0	95.1	53	120		
Naphthalene	(0.0337	0.000800	0.0400	0	84.2	39	120		
Pentachlorophenol	(0.0364	0.000800	0.0400	0	91.1	38	120		
Phenol	(0.0270	0.000800	0.0400	0	67.4	20	120		
Surr: 2,4,6-Tribromophenol		85.6		80.00		107	42	124		
Surr: 2-Fluorobiphenyl		75.0		80.00		93.8	48	120		
Surr: 2-Fluorophenol		77.4		80.00		96.8	20	120		
Surr: 4-Terphenyl-d14		92.4		80.00		116	51	135		
Surr: Nitrobenzene-d5		88.4		80.00		110	41	120		
Surr: Phenol-d6		56.4		80.00		70.5	20	120		
Sample ID: LCSD-57381	Batch ID:	57381		TestNo:	S	W8270D		Units:	mg/L	

Sample ID: LCSD-57381	Batch ID:	57381		TestNo	SW	8270D		Units:	mg/l	_	
SampType: LCSD	Run ID:	GCMS	9_130513A	Analysi	s Date: 5/13	/2013 10:40	0:00 AM	Prep Date	: 5/10	/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD	RPDLim	t Qual
1-Methylnaphthalene	(0.0351	0.000800	0.0400	0	87.8	45	125	1.84	20	N
2,3,4,6-Tetrachlorophenol	(0.0335	0.000800	0.0400	0	83.7	45	125	0.539	20	
2,4,5-Trichlorophenol	(0.0366	0.000800	0.0400	0	91.6	49	120	7.59	20	
2,4,6-Trichlorophenol	(0.0371	0.000800	0.0400	0	92.6	49	126	0.922	20	
2,4-Dichlorophenol	(0.0363	0.000800	0.0400	0	90.7	48	120	0.495	20	
2,4-Dimethylphenol	(0.0375	0.000800	0.0400	0	93.6	28	120	1.90	20	
2,4-Dinitrophenol	(0.0323	0.00400	0.0400	0	80.8	25	130	3.77	20	
2,6-Dichlorophenol	(0.0380	0.000800	0.0400	0	95.1	35	120	0.890	20	
2-Chlorophenol	(0.0370	0.000800	0.0400	0	92.5	37	120	3.56	20	

Qualifiers:

В Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits

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Parameter not NELAC certified

Work Order: 1305076 ANALYTICAL QC SUMMARY REPORT

GCMS9_130513A **RunID:** R360 Landfarm Project:

Sample ID: LCSD-57381	Batch ID:	57381		TestNo	SW8	3270D		Units:	mg/L	
SampType: LCSD	Run ID:	GCMS	_130513A	Analysi	s Date: 5/13	/2013 10:40):00 AM	Prep Date	: 5/10/2	2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD I	RPDLimit Qual
2-Methylnaphthalene	(0.0354	0.000800	0.0400	0	88.4	46	120	0.620	20
2-Methylphenol	1	0.0337	0.000800	0.0400	0	84.2	38	120	0.237	20
2-Nitrophenol		0.0376	0.000800	0.0400	0	93.9	39	123	0.053	20
4,6-Dinitro-2-methylphenol	1	0.0345	0.00200	0.0400	0	86.2	40	130	1.10	20
4-Chloro-3-methylphenol	1	0.0361	0.000800	0.0400	0	90.2	47	120	1.56	20
4-Methylphenol	1	0.0339	0.000800	0.0400	0	84.9	32	120	1.93	20
4-Nitrophenol		0.0332	0.00400	0.0400	0	82.9	20	120	2.56	20
Benzo[a]pyrene	1	0.0399	0.000800	0.0400	0	99.8	53	120	4.83	20
Naphthalene		0.0349	0.000800	0.0400	0	87.2	39	120	3.50	20
Pentachlorophenol		0.0387	0.000800	0.0400	0	96.7	38	120	5.91	20
Phenol	1	0.0264	0.000800	0.0400	0	66.0	20	120	2.10	20
Surr: 2,4,6-Tribromophenol		87.2		80.00		109	42	124	0	0
Surr: 2-Fluorobiphenyl		77.8		80.00		97.3	48	120	0	0
Surr: 2-Fluorophenol		74.8		80.00		93.5	20	120	0	0
Surr: 4-Terphenyl-d14		95.8		80.00		120	51	135	0	0
Surr: Nitrobenzene-d5		89.4		80.00		112	41	120	0	0
Surr: Phenol-d6		55.0		80.00		68.8	20	120	0	0
Sample ID: MB-57381	Batch ID:	57381		TestNo	SW	3270D		Units:	mg/L	
SampType: MBLK	Run ID:	GCMS9	_130513A	Analysi	s Date: 5/13	/2013 12:13	3:00 PM	Prep Date	5/10/	2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD I	RPDLimit Qual
1-Methylnaphthalene		ND	0.000800							N
2,3,4,6-Tetrachlorophenol		ND	0.000800							
2,4,5-Trichlorophenol		ND	0.000800							
			0.000000							
2,4,6-Trichlorophenol		ND	0.000800							
•										
2,4,6-Trichlorophenol		ND	0.000800							
2,4,6-Trichlorophenol 2,4-Dichlorophenol		ND ND	0.000800 0.000800							
2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol		ND ND ND	0.000800 0.000800 0.000800							
2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol		ND ND ND ND	0.000800 0.000800 0.000800 0.00400							
2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,6-Dichlorophenol	0.	ND ND ND ND ND	0.000800 0.000800 0.000800 0.00400 0.000800							
2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol	0.	ND ND ND ND ND ND	0.000800 0.000800 0.000800 0.00400 0.000800							
2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methylnaphthalene	0.	ND ND ND ND ND ND ND	0.000800 0.000800 0.000800 0.00400 0.000800 0.000800							
2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methylnaphthalene 2-Methylphenol	0.	ND ND ND ND ND ND ND ND	0.000800 0.000800 0.00400 0.000800 0.000800 0.000800 0.000800							
2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methylnaphthalene 2-Methylphenol 2-Nitrophenol	0.	ND ND ND ND ND ND ND .000380 ND	0.000800 0.000800 0.00400 0.000800 0.000800 0.000800 0.000800 0.000800							
2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methylnaphthalene 2-Methylphenol 2-Nitrophenol 4,6-Dinitro-2-methylphenol	0.	ND N	0.000800 0.000800 0.00400 0.000800 0.000800 0.000800 0.000800 0.000800 0.000800							
2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methylnaphthalene 2-Methylphenol 4,6-Dinitro-2-methylphenol 4-Chloro-3-methylphenol	0.	ND N	0.000800 0.000800 0.00400 0.000800 0.000800 0.000800 0.000800 0.000800 0.00200							
2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methylnaphthalene 2-Methylphenol 2-Nitrophenol 4,6-Dinitro-2-methylphenol 4-Chloro-3-methylphenol 4-Methylphenol 4-Nitrophenol		ND N	0.000800 0.000800 0.00400 0.000800 0.000800 0.000800 0.000800 0.000800 0.00200 0.000800 0.000800							
2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methylnaphthalene 2-Methylphenol 2-Nitrophenol 4,6-Dinitro-2-methylphenol 4-Chloro-3-methylphenol 4-Methylphenol		ND N	0.000800 0.000800 0.00400 0.000800 0.000800 0.000800 0.000800 0.00200 0.000800 0.000800 0.000800 0.000800							

Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits Parameter not NELAC certified

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Work Order: 1305076

Project: R360 Landfarm RunID: GCMS9_130513A

Sample ID: MB-57381 SampType: MBLK	Batch ID: Run ID:		_130513A	TestNo: Analysis	_	8270D 3/2013 12:13	3:00 PM	Units: Prep Date	mg/L : 5/10/2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimi	t Qual
Phenol		ND	0.000800							
Total Phenol (Calculated)		ND	0.000800							Ν
Surr: 2,4,6-Tribromophenol		87.2		80.00		109	42	124		
Surr: 2-Fluorobiphenyl		78.2		80.00		97.8	48	120		
Surr: 2-Fluorophenol		68.0		80.00		85.0	20	120		
Surr: 4-Terphenyl-d14		92.4		80.00		116	51	135		
Surr: Nitrobenzene-d5		89.6		80.00		112	41	120		
Surr: Phenol-d6		46.6		80.00		58.2	20	120		

ANALYTICAL QC SUMMARY REPORT

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1305076

Project: R360 Landfarm RunID: GCMS9_130513A

ANALYTICAL QC SUMMARY REPORT

Sample ID: ICV-130513	Batch ID:	R66369		TestNo	: SW	8270D		Units:	mg/L	
SampType: ICV	Run ID:	GCMS9	_130513A	Analysi	s Date: 5/13	3/2013 9:53:	00 AM	Prep Date	:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLim	nit Qual
1-Methylnaphthalene		3.86	0.000800	4.00	0	96.5	80	120		N
2,3,4,6-Tetrachlorophenol		3.52	0.000800	4.00	0	87.9	80	120		
2,4,5-Trichlorophenol		3.98	0.000800	4.00	0	99.6	80	120		
2,4,6-Trichlorophenol		3.92	0.000800	4.00	0	98.0	80	120		
2,4-Dichlorophenol		4.06	0.000800	4.00	0	101	80	120		
2,4-Dimethylphenol		3.94	0.000800	4.00	0	98.5	80	120		
2,4-Dinitrophenol		3.78	0.00400	4.00	0	94.5	80	120		
2,6-Dichlorophenol		4.19	0.000800	4.00	0	105	80	120		
2-Chlorophenol		4.27	0.000800	4.00	0	107	80	120		
2-Methylnaphthalene		3.91	0.000800	4.00	0	97.7	80	120		
2-Methylphenol		3.69	0.000800	4.00	0	92.2	80	120		
2-Nitrophenol		4.08	0.000800	4.00	0	102	80	120		
4,6-Dinitro-2-methylphenol		3.74	0.00200	4.00	0	93.4	80	120		
4-Chloro-3-methylphenol		4.16	0.000800	4.00	0	104	80	120		
4-Methylphenol		3.92	0.000800	4.00	0	98.0	80	120		
4-Nitrophenol		3.81	0.00400	4.00	0	95.3	80	120		
Benzo[a]pyrene		3.78	0.000800	4.00	0	94.5	80	120		
Naphthalene		3.84	0.000800	4.00	0	95.9	80	120		
Pentachlorophenol		3.84	0.000800	4.00	0	96.0	80	120		
Phenol		4.11	0.000800	4.00	0	103	80	120		
Total Phenol (Calculated)		63.0	0.000800	0						Ν
Surr: 2,4,6-Tribromophenol		4030		4000		101	80	120		
Surr: 2-Fluorobiphenyl		3680		4000		92.0	80	120		
Surr: 2-Fluorophenol		4460		4000		112	80	120		
Surr: 4-Terphenyl-d14		3730		4000		93.2	80	120		
Surr: Nitrobenzene-d5		4550		4000		114	80	120		
Surr: Phenol-d6		3890		4000		97.2	80	120		

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1305076

ANALYTICAL QC SUMMARY REPORT

Project: R360 Landfarm RunID: GCMS7_130510A

The QC data in batch 57380 applies to the following samples: 1305076-01A, 1305076-02A, 1305076-03A, 1305076-04A, 1305076-05A, 1305076-0

Sample ID: LCS-57380	Batch ID:	57380		TestNo	: SW8	3260C		Units:	mg/L
SampType: LCS	Run ID:	GCMS7	′_130510A	Analys	is Date: 5/10	/2013 11:32	2:00 AM	Prep Date:	5/10/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD RPDLimit Qu
1,1,1-Trichloroethane		0.0232	0.00100	0.0232	0	100	67	132	
1,1,2,2-Tetrachloroethane		0.0241	0.00100	0.0232	0	104	63	128	
1,1,2-Trichloroethane		0.0236	0.00100	0.0232	0	102	75	125	
1,1-Dichloroethane		0.0200	0.00100	0.0232	0	86.3	69	133	
1,1-Dichloroethylene		0.0181	0.00100	0.0232	0	77.9	68	130	
1,2-Dichloroethane		0.0208	0.00100	0.0232	0	89.6	69	132	
Benzene		0.0227	0.00100	0.0232	0	97.8	81	122	
Carbon tetrachloride		0.0239	0.00100	0.0232	0	103	66	138	
Chloroform		0.0207	0.00100	0.0232	0	89.2	69	128	
Ethylbenzene		0.0228	0.00100	0.0232	0	98.4	80	120	
Ethylene dibromide		0.0240	0.00100	0.0232	0	103	80	121	
Methylene chloride		0.0214	0.00250	0.0232	0	92.2	63	137	
Tetrachloroethylene		0.0230	0.00200	0.0232	0	99.4	66	128	
Toluene		0.0225	0.00200	0.0232	0	97.1	80	120	
Trichloroethylene		0.0242	0.00200	0.0232	0	104	70	127	
Vinyl chloride		0.0224	0.00100	0.0232	0	96.4	50	134	
Total Xylenes		0.0676	0.00100	0.0696	0	97.1	80	120	
Surr: 1,2-Dichloroethane-d4		177		200.0		88.5	72	119	
Surr: 4-Bromofluorobenzene		202		200.0		101	76	119	
Surr: Dibromofluoromethane		192		200.0		95.9	85	115	
Surr: Toluene-d8		204		200.0		102	81	120	
Sample ID: MB-57380	Batch ID:	57380		TestNo	: SW8	3260C		Units:	mg/L
SampType: MBLK	Run ID:	GCMS7	′_130510A	Analys	is Date: 5/10	/2013 11:56	6:00 AM	Prep Date:	5/10/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD RPDLimit Qu
1,1,1-Trichloroethane		ND	0.00100						
1,1,2,2-Tetrachloroethane		ND	0.00100						
1,1,2-Trichloroethane		ND	0.00100						
1,1-Dichloroethane		ND	0.00100						
1,1-Dichloroethylene		ND	0.00100						
1,2-Dichloroethane		ND	0.00100						
Benzene		ND	0.00100						
Carbon tetrachloride		ND	0.00100						
Chloroform		ND	0.00100						
Ethylbenzene		ND	0.00100						
Ethylene dibromide		ND	0.00100						
Methylene chloride		ND	0.00250						

Qualifiers:

B Analyte detected in the associated Method Blank

Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1305076

GCMS7_130510A **RunID: Project:** R360 Landfarm

ANALYTICAL QC SUMMARY REPORT

Sample ID: MB-57380	Batch ID:	57380		TestNo	: SW8	260C		Units:	mg/L	
SampType: MBLK	Run ID:	GCMS7	_130510A	Analys	is Date: 5/10/	2013 11:56	6:00 AM	Prep Date:	5/10/2	013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD R	PDLimit Qua
Toluene		ND	0.00200							
Trichloroethylene		ND	0.00200							
Vinyl chloride		ND	0.00100							
Total Xylenes		ND	0.00100							
Surr: 1,2-Dichloroethane-d4		191		200.0		95.6	72	119		
Surr: 4-Bromofluorobenzene		215		200.0		107	76	119		
Surr: Dibromofluoromethane		205		200.0		102	85	115		
Surr: Toluene-d8		199		200.0		99.5	81	120		
Sample ID: 1305120-02AMS	Batch ID:	57380		TestNo): SW8	260C		Units:	mg/L	
SampType: MS	Run ID:	GCMS7	_130510A	Analys	is Date: 5/10/	2013 7:12:	00 PM	Prep Date:	5/10/2	013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	&RPD R	PDLimit Qua
1,1,1-Trichloroethane	(0.0258	0.00100	0.0232	0	111	67	132		
1,1,2,2-Tetrachloroethane	(0.0255	0.00100	0.0232	0	110	63	128		
1,1,2-Trichloroethane	(0.0259	0.00100	0.0232	0	112	75	125		
1,1-Dichloroethane		0.0240	0.00100	0.0232	0	103	69	133		
1,1-Dichloroethylene		0.0218	0.00100	0.0232	0	93.8	68	130		
1,2-Dichloroethane	(0.0255	0.00100	0.0232	0	110	68	132		
Benzene	(0.0254	0.00100	0.0232	0	109	81	120		
Carbon tetrachloride		0.0250	0.00100	0.0232	0	108	66	138		
Chloroform		0.0256	0.00100	0.0232	0	111	69	128		
Ethylbenzene		0.0255	0.00100	0.0232	0	110	80	120		
Ethylene dibromide		0.0255	0.00100	0.0232	0	110	80	121		
Methylene chloride		0.0255	0.00250	0.0232	0	110	63	137		
Tetrachloroethylene		0.0242	0.00200	0.0232	0	104	66	128		
Toluene		0.0262	0.00200	0.0232	0.000820	109	80	120		
Trichloroethylene		0.0262	0.00200	0.0232	0	113	70	127		
Vinyl chloride		0.0259	0.00100	0.0232	0	112	50	134		
Total Xylenes		0.0774	0.00100	0.0696	0	111	80	120		
Surr: 1,2-Dichloroethane-d4		197	0.00100	200.0	Ü	98.4	72	119		
Surr: 4-Bromofluorobenzene		198		200.0		99.0	76	119		
Surr: Dibromofluoromethane		207		200.0		103	85	115		
Surr: Toluene-d8		202		200.0		101	81	120		
Sample ID: 1305120-02AMSD	Batch ID:	57380		TestNo	o: SW8:	260C		Units:	mg/L	
SampType: MSD	Run ID:	GCMS7	_130510A	Analys	is Date: 5/10/	2013 7:36:	00 PM	Prep Date:	5/10/2	013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	%RPD R	PDLimit Qua
		0.0000	0.00100	0.0000	0	05.6	67	122	45.0	20
1,1,1-Trichloroethane	(0.0222	0.00100	0.0232	0	95.6	67	132	15.0	20

Qualifiers: Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

RPD outside accepted control limits R

S Spike Recovery outside control limits

Parameter not NELAC certified

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Work Order: 1305076

ANALYTICAL QC SUMMARY REPORT

Project: R360 Landfarm RunID: GCMS7_130510A

Sample ID: 1305120-02AMSD	Batch ID:	57380		TestNo	o: SW	8260C		Units:	mg/l	-
SampType: MSD	Run ID:	GCMS7	′_130510A	Analys	sis Date: 5/10	0/2013 7:36:	00 PM	Prep Date:	5/10	/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 🤋	6RPD	RPDLimit Qual
1,1,2-Trichloroethane	(0.0240	0.00100	0.0232	0	103	75	125	7.74	20
1,1-Dichloroethane	(0.0202	0.00100	0.0232	0	86.9	69	133	17.3	20
1,1-Dichloroethylene	(0.0182	0.00100	0.0232	0	78.4	68	130	17.8	20
1,2-Dichloroethane	(0.0220	0.00100	0.0232	0	95.0	68	132	14.6	20
Benzene	(0.0228	0.00100	0.0232	0	98.1	81	120	10.8	20
Carbon tetrachloride	(0.0231	0.00100	0.0232	0	99.4	66	138	7.95	20
Chloroform	(0.0213	0.00100	0.0232	0	91.8	69	128	18.6	20
Ethylbenzene	(0.0229	0.00100	0.0232	0	98.8	80	120	10.5	20
Ethylene dibromide	(0.0240	0.00100	0.0232	0	104	80	121	6.02	20
Methylene chloride	(0.0214	0.00250	0.0232	0	92.5	63	137	17.3	20
Tetrachloroethylene	(0.0223	0.00200	0.0232	0	96.1	66	128	8.18	20
Toluene	(0.0227	0.00200	0.0232	0.000820	94.4	80	120	14.0	20
Trichloroethylene	(0.0239	0.00200	0.0232	0	103	70	127	9.15	20
Vinyl chloride	(0.0209	0.00100	0.0232	0	90.1	50	134	21.3	20 R
Total Xylenes	(0.0689	0.00100	0.0696	0	99.0	80	120	11.7	20
Surr: 1,2-Dichloroethane-d4		187		200.0		93.3	72	119	0	0
Surr: 4-Bromofluorobenzene		203		200.0		102	76	119	0	0
Surr: Dibromofluoromethane		191		200.0		95.3	85	115	0	0
Surr: Toluene-d8		204		200.0		102	81	120	0	0

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1305076

Project: R360 Landfarm RunID: GCMS7_130510A

ANALYTICAL QC SUMMARY REPORT

Sample ID: ICV-130510	Batch ID:	R66337		TestNo	: SW	8260C		Units:	mg/L	
SampType: ICV	Run ID:	GCMS7	_130510A	Analys	is Date: 5/10	/2013 11:08	:00 AM	Prep Date	e :	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD R	PDLimit Qual
1,1,1-Trichloroethane		0.0451	0.00100	0.0464	0	97.2	80	120		
1,1,2,2-Tetrachloroethane		0.0523	0.00100	0.0464	0	113	80	120		
1,1,2-Trichloroethane		0.0506	0.00100	0.0464	0	109	80	120		
1,1-Dichloroethane		0.0380	0.00100	0.0464	0	81.8	80	120		
1,1-Dichloroethylene		0.0361	0.00100	0.0464	0	77.8	80	120		S
1,2-Dichloroethane		0.0416	0.00100	0.0464	0	89.7	80	120		
Benzene		0.0460	0.00100	0.0464	0	99.2	80	120		
Carbon tetrachloride		0.0489	0.00100	0.0464	0	105	80	120		
Chloroform		0.0407	0.00100	0.0464	0	87.8	80	120		
Ethylbenzene		0.0464	0.00100	0.0464	0	100	80	120		
Ethylene dibromide		0.0529	0.00100	0.0464	0	114	80	120		
Methylene chloride		0.0423	0.00250	0.0464	0	91.3	80	120		
Tetrachloroethylene		0.0476	0.00200	0.0464	0	103	80	120		
Toluene		0.0450	0.00200	0.0464	0	97.0	80	120		
Trichloroethylene		0.0496	0.00200	0.0464	0	107	80	120		
Vinyl chloride		0.0391	0.00100	0.0464	0	84.3	80	120		
Total Xylenes		0.139	0.00100	0.139	0	100	80	120		
Surr: 1,2-Dichloroethane-d4		172		200.0		86.1	72	119		
Surr: 4-Bromofluorobenzene		199		200.0		99.4	76	119		
Surr: Dibromofluoromethane		182		200.0		91.0	85	115		
Surr: Toluene-d8		204		200.0		102	81	120		

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limitsS Spike Recovery outside control limits

N Parameter not NELAC certified

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Work Order: 1305076

Project: R360 Landfarm RunID: IC2_130507A

ANALYTICAL QC SUMMARY REPORT

The QC data	a in batch 57287 app	lies to the fo	ollowing sam	ples: 1305	076-01F, 13050	76-02F, 130	5076-03F,	1305076-	- -04F, 130507	'6-05D	
Sample ID:	LCS-57287	Batch ID:	57287		TestNo:	E300)		Units:	mg/L	
SampType:	LCS	Run ID:	IC2_13050	7A	Analysis	Date: 5/7/2	013 9:34:1	9 AM	Prep Date:	5/7/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD R	PDLimit Qua
Chloride			10.4	1.00	10.00	0	104	90	110		
Fluoride			4.08	0.400	4.000	0	102	90	110		
Nitrate-N			5.15	0.500	5.000	0	103	90	110		
Sulfate			30.6	3.00	30.00	0	102	90	110		
Sample ID:	LCSD-57287	Batch ID:	57287		TestNo:	E300)		Units:	mg/L	
SampType:	LCSD	Run ID:	IC2_13050	7A	Analysis	Date: 5/7/2	013 9:48:5	4 AM	Prep Date:	5/7/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD R	PDLimit Qua
Chloride			10.4	1.00	10.00	0	104	90	110	0.523	20
Fluoride			4.10	0.400	4.000	0	103	90	110	0.430	20
Nitrate-N			5.24	0.500	5.000	0	105	90	110	1.62	20
Sulfate			30.6	3.00	30.00	0	102	90	110	0.095	20
Sample ID:	MB-57287	Batch ID:	57287		TestNo:	E300)		Units:	mg/L	
SampType:	MBLK	Run ID:	IC2_13050	7A	Analysis	Date: 5/7/2	013 10:03:	28 AM	Prep Date:	5/7/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD R	PDLimit Qua
Chloride			ND	1.00							
Fluoride			ND	0.400							
Nitrate-N			ND	0.500							
Sulfate			ND	3.00							
Sample ID:	1305033-05D MS	Batch ID:	57287		TestNo:	E300)		Units:	mg/L	
SampType:	MS	Run ID:	IC2_13050	7A	Analysis	Date: 5/7/2	013 11:04:	52 AM	Prep Date:	5/7/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD R	PDLimit Qua
Chloride			254	10.0	200.0	57.50	98.5	90	110		
Fluoride			240	4.00	200.0	49.65	95.0	90	110		
Sample ID:	1305033-05D MSD	Batch ID:	57287		TestNo:	E300)		Units:	mg/L	
SampType:	MSD	Run ID:	IC2_13050	7A	Analysis	Date: 5/7/2	013 11:19:	27 AM	Prep Date:	5/7/20	13
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD R	PDLimit Qua
Chloride			260	10.0	200.0	57.50	101	90	110	2.01	20

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

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S Spike Recovery outside control limits

N Parameter not NELAC certified

Work Order: 1305076

Project: R360 Landfarm RunID: IC2_130507A

Sample ID:	1305076-05D MS	Batch ID:	57287		TestNo:	E300)		Units:	mg/L		
SampType: I	MS	Run ID:	IC2_13	0507A	Analysis	s Date: 5/7/2	2013 5:11:2	2 PM	Prep Date:	5/7/20	13	
Analyte		l	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD R	PDLimit	t Qual
Chloride			606	10.0	200.0	435.5	85.4	90	110			S
Sulfate			776	30.0	200.0	561.4	107	90	110			
Sample ID:	1305076-05D MSD	Batch ID:	57287		TestNo:	E300)		Units:	mg/L		
SampType: I	MSD	Run ID:	IC2_13	0507A	Analysis	s Date: 5/7/2	013 5:25:5	7 PM	Prep Date:	5/7/20	13	
Analyte		I	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit 9	%RPD R	PDLimit	t Qual
Chlorido			606	10.0	200.0	435.5	85.0	90	110	0.145	20	S
Chloride			000									
Sulfate			773	30.0	200.0	561.4	106	90	110	0.427	20	
Sulfate	1305076-05D MS	Batch ID:						90	110 Units:	0.427 mg/L	20	
Sulfate		Batch ID: Run ID:	773	30.0	200.0 TestNo:)			mg/L		
Sulfate Sample ID:		Run ID:	773 57287	30.0	200.0 TestNo:	E300)	2 PM	Units:	mg/L 5/7/20	13	t Qual
Sulfate Sample ID: SampType: I		Run ID:	773 57287 IC2_13	30.0 0507A	Z00.0 TestNo: Analysis	E300 s Date: 5/7/2) 2013 7:22:3	2 PM	Units: Prep Date:	mg/L 5/7/20	13	t Qual
Sulfate Sample ID: SampType: I Analyte		Run ID:	773 57287 IC2_13 (Result	30.0 0507A	Z00.0 TestNo: Analysis SPK value	E300 s Date: 5/7/2 Ref Val	013 7:22:3 %REC	2 PM LowLim	Units: Prep Date:	mg/L 5/7/20	13	
Sulfate Sample ID: SampType: I Analyte Fluoride Nitrate-N		Run ID:	773 57287 IC2_130 Result	30.0 0507A RL 0.400	Z00.0 TestNo: Analysis SPK value 20.00	E300 s Date: 5/7/2 Ref Val 1.025 0	%REC 82.3 83.0	2 PM LowLim	Units: Prep Date: it HighLimit 9	mg/L 5/7/20	13	S
Sulfate Sample ID: SampType: I Analyte Fluoride Nitrate-N	MS 1305076-05D MSD	Run ID:	773 57287 IC2_130 Result 17.5 3.75	30.0 0507A RL 0.400 0.500	200.0 TestNo: Analysis SPK value 20.00 4.516 TestNo:	E300 s Date: 5/7/2 Ref Val 1.025 0	%REC 82.3 83.0	2 PM LowLim 90 90	Units: Prep Date: it HighLimit 9 110 110	mg/L 5/7/20 %RPD R	13 PDLimit	S
Sample ID: Analyte Fluoride Nitrate-N Sample ID: Analyte	MS 1305076-05D MSD	Run ID:	773 57287 IC2_136 Result 17.5 3.75 57287	30.0 0507A RL 0.400 0.500	200.0 TestNo: Analysis SPK value 20.00 4.516 TestNo:	E300 s Date: 5/7/2 Ref Val 1.025 0	%REC 82.3 83.0	2 PM LowLim 90 90	Units: Prep Date: it HighLimit 9 110 110 Units:	mg/L 5/7/20 %RPD R mg/L 5/7/20	13 PDLimit	S S
Sample ID: SampType: I Analyte Fluoride Nitrate-N Sample ID: SampType: I	MS 1305076-05D MSD	Run ID:	773 57287 IC2_136 Result 17.5 3.75 57287 IC2_136	30.0 0507A RL 0.400 0.500	200.0 TestNo: Analysis SPK value 20.00 4.516 TestNo: Analysis	E300 s Date: 5/7/2 Ref Val 1.025 0 E300 s Date: 5/7/2	%REC 82.3 83.0 0.013 7:37:0	2 PM LowLim 90 90	Units: Prep Date: it HighLimit 9 110 110 Units: Prep Date:	mg/L 5/7/20 %RPD R mg/L 5/7/20	13 PDLimit	S S

ANALYTICAL QC SUMMARY REPORT

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

 $\begin{array}{ll} S & \text{Spike Recovery outside control limits} \\ N & \text{Parameter not NELAC certified} \end{array}$

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Work Order: 1305076

Project: R360 Landfarm RunID: IC2_130507A

ANALYTICAL QC SUMMARY REPORT

Project:	R360 L	andfarm					Kunii);	IC2_1305	U/A	
Sample ID:	ICV-130507	Batch ID:	R66228		TestNo	o: E30	0		Units:	mg/L	
SampType:	ICV	Run ID:	IC2_130	507A	Analys	is Date: 5/7/	2013 9:06:1	2 AM	Prep Date) :	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit	%RPD RP	DLimit Qual
Chloride			27.1	1.00	25.00	0	108	90	110		
Fluoride			10.6	0.400	10.00	0	106	90	110		
Nitrate-N			13.5	0.500	12.50	0	108	90	110		
Sulfate			81.0	3.00	75.00	0	108	90	110		
Sample ID:	CCV1-130507	Batch ID:	R66228		TestNo	D: E30	0		Units:	mg/L	
SampType:	CCV	Run ID:	IC2_130	507A	Analys	is Date: 5/7/	2013 12:33:	38 PM	Prep Date) :	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit	%RPD RP	DLimit Qual
Chloride			9.94	1.00	10.00	0	99.4	90	110		
Fluoride			4.05	0.400	4.000	0	101	90	110		
Nitrate-N			4.78	0.500	5.000	0	95.6	90	110		
Sulfate			30.6	3.00	30.00	0	102	90	110		
Sample ID:	CCV2-130507	Batch ID:	R66228		TestNo	D: E30	0		Units:	mg/L	
SampType:	CCV	Run ID:	IC2_130	507A	Analys	sis Date: 5/7/	2013 4:11:3	4 PM	Prep Date) :	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit	%RPD RP	DLimit Qual
Chloride			10.4	1.00	10.00	0	104	90	110		
Fluoride			4.08	0.400	4.000	0	102	90	110		
Nitrate-N			5.12	0.500	5.000	0	102	90	110		
Sulfate			30.7	3.00	30.00	0	102	90	110		
Sample ID:	CCV3-130507	Batch ID:	R66228		TestNo	o: E30	0		Units:	mg/L	
SampType:	CCV	Run ID:	IC2_130	507A	Analys	sis Date: 5/7/	2013 7:07:5	8 PM	Prep Date	e :	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit	%RPD RP	DLimit Qual
Chloride			10.4	1.00	10.00	0	104	90	110		
Fluoride			4.09	0.400	4.000	0	102	90	110		
Nitrate-N			5.23	0.500	5.000	0	105	90	110		
Sulfate			30.6	3.00	30.00	0	102	90	110		
Sample ID:	CCV4-130507	Batch ID:	R66228		TestNo	o: E30	0		Units:	mg/L	
SampType:	CCV	Run ID:	IC2_130	507A	Analys	is Date: 5/7/	2013 8:06:1	6 PM	Prep Date) :	
Analyte			Result	RL	SPK value	Ref Val	%REC	LowLim	nit HighLimit	%RPD RP	DLimit Qual
Fluoride			4.07	0.400	4.000	0	102	90	110		
Nitrate-N			4.80	0.500	5.000	0	96.0	90	110		

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

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ANALYTICAL QC SUMMARY REPORT

Work Order: 1305076

Larson & Associates

CLIENT:

Project: R360 Landfarm RunID: TITRATOR_130507A

The QC data in batch 57307 app	lies to the f	ollowing samp	les: 13050	76-01F, 13050	76-02F, 1	305076-03F, 1305076-0	4F, 130507	'6-05D	
Sample ID: 1305076-01F DUP	Batch ID:	57307		TestNo:	M4	1500-H+ B	Units:	pH un	its
SampType: DUP	Run ID:	TITRATOR	_130507A	Analysis	Date: 5/7	7/2013 2:04:00 PM	Prep Date:	5/7/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC LowLimit	HighLimit	%RPD R	PDLimit Qual
рН		7.11	0	0	7.090			0.282	5

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

 $\begin{array}{ll} S & \text{Spike Recovery outside control limits} \\ N & \text{Parameter not NELAC certified} \end{array}$

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CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1305076

TITRATOR_130507A **RunID: Project:** R360 Landfarm

Sample ID: ICV-130507 SampType: ICV	Batch ID: Run ID:	R66229 TITRATOF	R_130507A	TestNo: Analysis		00-H+ B 2013 2:01:0	0 PM	Units: Prep Date:	pH units 5/7/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
рН		10.0	0	10.00	0	100	99	101	
Sample ID: CCV-130507	Batch ID:	R66229		TestNo:	M45	00-H+ B		Units:	pH units
SampType: CCV	Run ID:	TITRATOR	R_130507A	Analysis	Date: 5/7/2	2013 2:12:0	0 PM	Prep Date:	5/7/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
На		7.01	0	7.000	0	100	97.1	102.9	

Qualifiers:

В Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits Parameter not NELAC certified

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Work Order: 1305076

ANALYTICAL QC SUMMARY REPORT

Project: R360 Landfarm RunID: UV/VIS_2_130513B

The QC data in batch 57377 app	lies to the fo	ollowing sam	ples: 13050	76-01C, 13050	76-02C, 13	305076-03C,	1305076	-04C, 130507	6-05C	
Sample ID: MB-57377	Batch ID:	57377		TestNo:	M45	500-CN E		Units:	mg/L	
SampType: MBLK	Run ID:	UV/VIS_2_	_130513B	Analysis	Date: 5/13	3/2013 2:13:0	00 PM	Prep Date:	5/10/20)13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	RPD RI	PDLimit Qual
Cyanide, Total		ND	0.0200							
Sample ID: LCS-57377	Batch ID:	57377		TestNo:	M4	500-CN E		Units:	mg/L	
SampType: LCS	Run ID:	UV/VIS_2	_130513B	Analysis	Date: 5/13	3/2013 2:13:0	00 PM	Prep Date:	5/10/20)13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	RPD RI	PDLimit Qual
Cyanide, Total		0.183	0.0200	0.2000	0	91.7	85	115		
Sample ID: 1305081-01AMS	Batch ID:	57377		TestNo:	M4	500-CN E		Units:	mg/L	
SampType: MS	Run ID:	UV/VIS_2_	_130513B	Analysis	Date: 5/13	3/2013 2:13:0	00 PM	Prep Date:	5/10/20)13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	RPD RI	PDLimit Qual
Cyanide, Total		0.177	0.0200	0.2000	0	88.6	79	114		
Sample ID: 1305081-01AMSD	Batch ID:	57377		TestNo:	M45	500-CN E		Units:	mg/L	
SampType: MSD	Run ID:	UV/VIS_2_	_130513B	Analysis	Date: 5/13	3/2013 2:13:0	00 PM	Prep Date:	5/10/20)13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	RPD RI	PDLimit Qual
T										

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

Page 24 of 25

S Spike Recovery outside control limits

N Parameter not NELAC certified

Work Order: 1305076

Project: R360 Landfarm RunID: UV/VIS_2_130513B

ANALYTICAL QC SUMMARY REPORT

Sample ID: ICV-130513	Batch ID:	R66356		TestNo:	M450	00-CN E		Units:	mg/L
SampType: ICV	Run ID:	UV/VIS_2	_130513B	Analysis	Date: 5/13/	2013 10:32	2:00 AM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
Cyanide, Total		0.0955	0.0200	0.1000	0	95.5	85	115	
Sample ID: CCV1-130513	Batch ID:	R66356		TestNo:	M450	00-CN E		Units:	mg/L
SampType: CCV	Run ID:	UV/VIS_2	_130513B	Analysis	Date: 5/13/	2013 2:16:	00 PM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
Cyanide, Total		0.202	0.0200	0.2000	0	101	85	115	
Sample ID: CCV2-130513	Batch ID:	R66356		TestNo:	M450	00-CN E		Units:	mg/L
SampType: CCV	Run ID:	UV/VIS_2	_130513B	Analysis	Date: 5/13/	2013 2:21:	00 PM	Prep Date	:
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
Cyanide, Total		0.214	0.0200	0.2000	0	107	85	115	

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limitsN Parameter not NELAC certified

Page 25 of 25



June 06, 2013

Mark Larson Larson & Associates 507 N. Marienfeld #200

Midland, TX 79701

TEL: (432) 687-0901

FAX (432) 687-0456 Order No.: 1306004

RE: R360 Artesia Landfarm

Dear Mark Larson:

DHL Analytical, Inc. received 5 sample(s) on 6/4/2013 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont

General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-13-10



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2300 Double Creek Dr. ■ Round Rock, TX 78664 Phone (512) 388-8222 ■ FAX (512) 388-8229

Web: www.dhlanalytical.com E-Mail:login@dhlanalytical.com





№ 58673 CHAIN-OF-CUSTODY

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Sample Receipt Checklist

Client Name Larson & Associates			Date Rece	eived: 6/4/2013
Work Order Number 1306004			Received i	oy JB
Checklist completed by: Signature	Oarrier name	3 <u>LoneStar</u>	Reviewed	by 6/4/2013 Initials Date
				C==0
Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Present
Custody seals intact on shippping container/co	poler?	Yes 🗔	No 🗆	Not Present 🗹
Custody seals intact on sample bottles?		Yes ∐	No 🗌	Not Present 🗹
Chain of custody present?		Yes 🗹	No 🗌	
Chain of custody signed when relinquished and	d received?	Yes 🗹	No 🗆	
Chain of custody agrees with sample labels?		Yes 🔽	No 🗌	
Samples in proper container/bottle?		Yes 🗹	No 🗌	
Sample containers intact?		Yes 🗹	No 🗌	
Sufficient sample volume for indicated test?	•	Yes 🗹	No 🗌	
All samples received within holding time?		Yes 📙	No 🗹	
Container/Temp Blank temperature in complia	nce?	Yes 🔽	No 🗆	4.7 °C
Water - VOA vials have zero headspace?		Yes 📙	No 🗌	No VOA vials submitted ✓
Water - pH<2 acceptable upon receipt?		Yes 🗹	No 🗌	NA ☐ LOT # 7179
			<u> ၂</u>	Checked by
Water - ph>9 (S) or ph>12 (CN) acceptable up	on receipt?	Yes 📙	No 🗌	NA ☑ LOT#
		Adjusted?		Checked by
Any No response must be detailed in the comm	ments section below.			
Client contacted	Date contacted:		Pe	rson contacted
Contacted by:	Regarding			
Comments: Curt	is and	re alk	6	out of hold
proceed with	gnelys	4		
Corrective Action				
		<u> </u>		

CLIENT: Larson & Associates

Project: R360 Artesia Landfarm

Lab Order: 1306004

CASE NARRATIVE

Date: 06-Jun-13

Sample was analyzed using the methods outlined in the following references:

Method SW6020A - Metals Analysis Method M2320 B - Alkalinity Analysis

LOG IN

The samples were added on and log-in performed on 6/4/13. A total of 5 samples were received. For Alkalinity analysis the samples were added on outside of HoldTime. Proceeded with analysis as per the client. All Alkalinity results are flagged with a "C" to designate this.

METALS ANALYSIS

For Metals analysis performed on 6/4/13 the matrix spike and matrix spike duplicate recoveries were out of control limits for a few analytes. These are flagged accordingly in the QC summary report. The sample selected for the matrix spike and matrix spike duplicate was from this work order. The LCS was within control limits for these analytes. No further corrective actions were taken.

_ ___ -____

CLIENT: Larson & Associates
Project: R360 Artesia Landfarm

Lab Order: 1306004

Work Order Sample Summary

Date: 06-Jun-13

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1306004-01	MW-4		05/06/13 12:00 PM	6/4/2013
1306004-02	MW-6		05/06/13 12:30 PM	6/4/2013
1306004-03	MW-5		05/06/13 01:00 PM	6/4/2013
1306004-04	MW-2		05/06/13 01:30 PM	6/4/2013
1306004-05	MW-E40		05/06/13 02:00 PM	6/4/2013

Lab Order: 1306004

Client: Larson & Associates

Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1306004-01A	MW-4	05/06/13 12:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57754
	MW-4	05/06/13 12:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57754
1306004-01B	MW-4	05/06/13 12:00 PM	Aqueous	M2320 B	Alkalinity Preparation	06/04/13 01:45 PM	57766
1306004-02A	MW-6	05/06/13 12:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57754
	MW-6	05/06/13 12:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57754
1306004-02B	MW-6	05/06/13 12:30 PM	Aqueous	M2320 B	Alkalinity Preparation	06/04/13 01:45 PM	57766
1306004-03A	MW-5	05/06/13 01:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57754
	MW-5	05/06/13 01:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57754
1306004-03B	MW-5	05/06/13 01:00 PM	Aqueous	M2320 B	Alkalinity Preparation	06/04/13 01:45 PM	57766
1306004-04A	MW-2	05/06/13 01:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57754
	MW-2	05/06/13 01:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57754
1306004-04B	MW-2	05/06/13 01:30 PM	Aqueous	M2320 B	Alkalinity Preparation	06/04/13 01:45 PM	57766
1306004-05A	MW-E40	05/06/13 02:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57754
	MW-E40	05/06/13 02:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/10/13 07:34 AM	57754
1306004-05B	MW-E40	05/06/13 02:00 PM	Aqueous	M2320 B	Alkalinity Preparation	06/04/13 01:45 PM	57766

Lab Order: 1306004

Client: Larson & Associates

Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1306004-01A	MW-4	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	57754	10	06/04/13 02:32 PM	ICP-MS2_130604A
	MW-4	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	57754	25	06/04/13 02:09 PM	ICP-MS2_130604A
1306004-01B	MW-4	Aqueous	M2320 B	Alkalinity	57766	1	06/04/13 02:09 PM	TITRATOR_130604C
1306004-02A	MW-6	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	57754	10	06/04/13 02:38 PM	ICP-MS2_130604A
	MW-6	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	57754	25	06/04/13 01:57 PM	ICP-MS2_130604A
1306004-02B	MW-6	Aqueous	M2320 B	Alkalinity	57766	1	06/04/13 02:13 PM	TITRATOR_130604C
1306004-03A	MW-5	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	57754	10	06/04/13 02:44 PM	ICP-MS2_130604A
	MW-5	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	57754	25	06/04/13 02:15 PM	ICP-MS2_130604A
1306004-03B	MW-5	Aqueous	M2320 B	Alkalinity	57766	1	06/04/13 02:17 PM	TITRATOR_130604C
1306004-04A	MW-2	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	57754	10	06/04/13 02:49 PM	ICP-MS2_130604A
	MW-2	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	57754	25	06/04/13 02:20 PM	ICP-MS2_130604A
1306004-04B	MW-2	Aqueous	M2320 B	Alkalinity	57766	1	06/04/13 02:22 PM	TITRATOR_130604C
1306004-05A	MW-E40	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	57754	10	06/04/13 02:55 PM	ICP-MS2_130604A
	MW-E40	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	57754	25	06/04/13 02:26 PM	ICP-MS2_130604A
1306004-05B	MW-E40	Aqueous	M2320 B	Alkalinity	57766	1	06/04/13 02:39 PM	TITRATOR_130604C

CLIENT: Larson & Associates

Project: R360 Artesia Landfarm Lab ID: 1306004-01

Project No: 11-0109-09 **Collection Date:** 05/06/13 12:00 PM

Lab Order: 1306004 Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW602	0A				Analyst: SW
Calcium	334	2.50	7.50		mg/L	25	06/04/13 02:09 PM
Magnesium	246	2.50	7.50		mg/L	25	06/04/13 02:09 PM
Potassium	14.4	1.00	3.00		mg/L	10	06/04/13 02:32 PM
Sodium	432	2.50	7.50		mg/L	25	06/04/13 02:09 PM
ALKALINITY		M2320	В				Analyst: JBC
Alkalinity, Bicarbonate (As CaCO3)	428	25.0	50.0	С	mg/L	1	06/04/13 02:09 PM
Alkalinity, Carbonate (As CaCO3)	ND	25.0	50.0	С	mg/L	1	06/04/13 02:09 PM
Alkalinity, Hydroxide (As CaCO3)	ND	25.0	50.0	С	mg/L	1	06/04/13 02:09 PM
Alkalinity, Total (As CaCO3)	428	25.0	50.0	С	mg/L	1	06/04/13 02:09 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 06-Jun-13

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates

Project: R360 Artesia Landfarm Lab ID: 1306004-02

Project No: 11-0109-09 **Collection Date:** 05/06/13 12:30 PM

Lab Order: 1306004 Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW602	0A				Analyst: SW
Calcium	316	2.50	7.50		mg/L	25	06/04/13 01:57 PM
Magnesium	273	2.50	7.50		mg/L	25	06/04/13 01:57 PM
Potassium	18.0	1.00	3.00		mg/L	10	06/04/13 02:38 PM
Sodium	424	2.50	7.50		mg/L	25	06/04/13 01:57 PM
ALKALINITY		M2320	В				Analyst: JBC
Alkalinity, Bicarbonate (As CaCO3)	307	25.0	50.0	С	mg/L	1	06/04/13 02:13 PM
Alkalinity, Carbonate (As CaCO3)	ND	25.0	50.0	С	mg/L	1	06/04/13 02:13 PM
Alkalinity, Hydroxide (As CaCO3)	ND	25.0	50.0	С	mg/L	1	06/04/13 02:13 PM
Alkalinity, Total (As CaCO3)	307	25.0	50.0	С	mg/L	1	06/04/13 02:13 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 06-Jun-13

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates

Project: R360 Artesia Landfarm Lab ID: 1306004-03

Project No: 11-0109-09 **Collection Date:** 05/06/13 01:00 PM

Lab Order: 1306004 Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW602	:0A				Analyst: SW
Calcium	416	2.50	7.50		mg/L	25	06/04/13 02:15 PM
Magnesium	338	2.50	7.50		mg/L	25	06/04/13 02:15 PM
Potassium	18.2	1.00	3.00		mg/L	10	06/04/13 02:44 PM
Sodium	446	2.50	7.50		mg/L	25	06/04/13 02:15 PM
ALKALINITY		M2320	В				Analyst: JBC
Alkalinity, Bicarbonate (As CaCO3)	376	25.0	50.0	С	mg/L	1	06/04/13 02:17 PM
Alkalinity, Carbonate (As CaCO3)	ND	25.0	50.0	С	mg/L	1	06/04/13 02:17 PM
Alkalinity, Hydroxide (As CaCO3)	ND	25.0	50.0	С	mg/L	1	06/04/13 02:17 PM
Alkalinity, Total (As CaCO3)	376	25.0	50.0	С	mg/L	1	06/04/13 02:17 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 06-Jun-13

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates

Project: R360 Artesia Landfarm

Project No: 11-0109-09 **Collection Date:** 05/06/13 01:30 PM

Lab Order: 1306004 Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW602	0A				Analyst: SW
Calcium	340	2.50	7.50		mg/L	25	06/04/13 02:20 PM
Magnesium	209	1.00	3.00		mg/L	10	06/04/13 02:49 PM
Potassium	10.0	1.00	3.00		mg/L	10	06/04/13 02:49 PM
Sodium	409	2.50	7.50		mg/L	25	06/04/13 02:20 PM
ALKALINITY		M2320	В				Analyst: JBC
Alkalinity, Bicarbonate (As CaCO3)	285	25.0	50.0	С	mg/L	1	06/04/13 02:22 PM
Alkalinity, Carbonate (As CaCO3)	ND	25.0	50.0	С	mg/L	1	06/04/13 02:22 PM
Alkalinity, Hydroxide (As CaCO3)	ND	25.0	50.0	С	mg/L	1	06/04/13 02:22 PM
Alkalinity, Total (As CaCO3)	285	25.0	50.0	С	mg/L	1	06/04/13 02:22 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 06-Jun-13

Lab ID: 1306004-04

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

CLIENT: Larson & Associates Client Sample ID: MW-E40

Project: R360 Artesia Landfarm Lab ID: 1306004-05

Project No: 11-0109-09 **Collection Date:** 05/06/13 02:00 PM

Lab Order: 1306004 Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW602	0A				Analyst: SW
Calcium	265	2.50	7.50		mg/L	25	06/04/13 02:26 PM
Magnesium	179	1.00	3.00		mg/L	10	06/04/13 02:55 PM
Potassium	11.2	1.00	3.00		mg/L	10	06/04/13 02:55 PM
Sodium	230	1.00	3.00		mg/L	10	06/04/13 02:55 PM
ALKALINITY		M2320	В				Analyst: JBC
Alkalinity, Bicarbonate (As CaCO3)	613	25.0	50.0	С	mg/L	1	06/04/13 02:39 PM
Alkalinity, Carbonate (As CaCO3)	ND	25.0	50.0	С	mg/L	1	06/04/13 02:39 PM
Alkalinity, Hydroxide (As CaCO3)	ND	25.0	50.0	С	mg/L	1	06/04/13 02:39 PM
Alkalinity, Total (As CaCO3)	613	25.0	50.0	С	mg/L	1	06/04/13 02:39 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 06-Jun-13

- DF Dilution Factor
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
 - S Spike Recovery outside control limits

Date: 06-Jun-13

ANALYTICAL QC SUMMARY REPORT

CLIENT: Larson & Associates

RL Reporting Limit

Analyte detected between SDL and RL

Work Order: 1306004

Project: R360 Artesia Landfarm RunID: ICP-MS2_130604A

ND	Project:	R360 Arte	esia Landfa	arm				RunII	D:	ICP-MS2_	130604	4A
Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers Result Ref Val Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers Result Result Ref Val Ref Va	The QC data	a in batch 57754 app	lies to the f	ollowing sai	mples: 1306	004-01A, 1306	004-02A, 130	6004-03A,	1306004	4-04A, 130600	4-05A	
Result Result Ref Value	Sample ID:	MB-57754	Batch ID:	57754		TestNo	: SW60)20A		Units:	mg/L	
Sample ID: LCS-57754 Batch ID: S7754 Batch ID: 57754 Sample ID: LCS-57754 Batch ID: 527 0.300 5.00 0 106 80 120 5.27 0.300 5.00 0 105 80 120 5.28 5.17 0.300 5.00 0 105 80 120 5.28 5.17 5.28 0.300 5.00 0 105 80 120 5.28 5.17 0.300 5.00 0 105 80 120 5.28 5.17 0.300 5.00 0 105 80 120 5.28 5.17 0.300 5.00 0 105 80 120 5.28 5.27 0.300 5.00 0 105 80 120 5.28 5.27 5.30 0.300 5.00 0 105 80 120 5.28 5.27 5.300 5.00 0 105 80 120 5.28 5.27 5.300 5.00 0 105 80 120 5.28 5.27 5.300 5.00 0 105 80 120 5.28 5.27 5.300 5.00 0 105 80 120 5.28 5.27 5.300 5.00 0 105 80 120 5.28 5.27 5.300 5.00 0 105 80 120 5.28 5.27 5.300 5.00 0 105 80 120 5.28 5.27 5.300 5.00 0 105 80 120 5.28 5.28 5.27 5.300 5.00 0 105 80 120 5.28	SampType:	MBLK	Run ID:	ICP-MS2	_130604A	Analysi	s Date: 6/4/2 0	013 1:34:0	00 PM	Prep Date:	5/10/2	2013
Magnesium	Analyte			Result	RL	SPK value	Ref Val	%REC	LowLin	nit HighLimit %	6RPD F	RPDLimit Qua
ND	Calcium			ND	0.300							
Seample ID:	Magnesium			ND	0.300							
Paramorn Paramorn	Potassium			ND	0.300							
Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val MREC LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val Ref Val Ref C LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val Ref C LowLimit HighLimit %RPD RPDLimit Qualifiers: Result RL SPK value Ref Val Ref C LowLimit HighLimit %RPD RPDLimit Qualifiers: Result	Sodium			ND	0.300							
Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qualifiers: RL SPK value RL SPK val	Sample ID:	LCS-57754	Batch ID:	57754		TestNo	: SW60)20A		Units:	mg/L	
Semple ID: 1306004-02A SD Batch ID: 17754 Run ID: 17755 Run ID: 17754 Run ID: 1775	SampType:	LCS	Run ID:	ICP-MS2	_130604A	Analysi	s Date: 6/4/20	013 1:40:0	00 PM	Prep Date:	5/10/2	2013
Segretary Segr	Analyte			Result	RL	SPK value	Ref Val	%REC	LowLin	nit HighLimit %	6RPD F	RPDLimit Qua
Second S	Calcium			5.28	0.300	5.00	0	106	80	120		
Sodium	Magnesium			5.27	0.300	5.00	0	105	80	120		
Prep Company Prep	Potassium			5.17	0.300	5.00	0	103	80	120		
Result R	Sodium			5.23	0.300	5.00	0	105	80	120		
Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Question Solution Soluti	Sample ID:	LCSD-57754	Batch ID:	57754		TestNo	: SW60)20A		Units:	mg/L	
Scale Scal	SampType:	LCSD	Run ID:	ICP-MS2	_130604A	Analysi	s Date: 6/4/2 0	013 1:46:0	00 PM	Prep Date:	5/10/2	2013
Aggnesium 5.16 0.300 5.00 0 103 80 120 2.17 15 Potassium 5.07 0.300 5.00 0 101 80 120 1.85 15 Potassium 5.07 0.300 5.00 0 101 80 120 1.85 15 Potassium 5.16 0.300 5.00 0 103 80 120 1.50 15 Potassium 5.16 0.300 5.00 0 103 80 120 1.50 15 Potassium 5.16 0.300 5.00 0 103 80 120 1.50 15 Potassium 5.16 0.300 5.00 0 103 80 120 1.50 15 Potassium 5.16 0.300 Potassium 312 37.5 0 316 Potassium 312 37.5 0 316 Potassium 5.05 18.6 37.5 0 18.2 2.32 10 0.548 10 Potassium 18.6 37.5 0 18.2 2.32 10 Potassium 18.6 37.5 0 18.2 2.32 10 Potassium 18.6 37.5 0 18.2 2.32 10 Potassium 18.6 37.5 0 18.2 2.32 10 Potassium 18.6 37.5 0 18.2 2.32 10 Potassium 18.6 37.5 0 18.2 2.32 10 Potassium 18.6 37.5 0 18.2 2.32 10 Potassium 18.6 37.5 0 18.2 2.32 10 Potassium 18.6 37.5 0 18.2 2.32 10 Potassium 18.6 37.5 0 18.2 2.32 10 Potassium 18.6 37.5 0 18.2 2.32 10 Potassium 18.6 37.5 0 18.2 2.32 10 Potassium 18.6 37.5 0 18.2 2.32 10 Potassium 18.6 37.5 0 18.2 2.32 10 Potassium 18.6 37.5 0 Potassium 18.6 37.5 0 Potassium 18.6 37.5 0 Potassium 18.6 37.5 0 Potassium 18.6 2.2 2.32 2.32 2.32 2.32 2.32 2.32 2.	Analyte			Result	RL	SPK value	Ref Val	%REC	LowLin	nit HighLimit %	6RPD F	RPDLimit Qua
Sodium S	Calcium			5.05	0.300	5.00	0	101	80	120	4.32	15
Sample ID: 1306004-02A SD Batch ID: 57754 TestNo: SW6020A Units: mg/L	Magnesium			5.16	0.300	5.00	0	103	80	120	2.17	15
Cample ID: 1306004-02A SD Batch ID: 57754 TestNo: SW6020A Units: mg/L	Potassium			5.07	0.300	5.00	0	101	80	120	1.85	15
Run ID: ICP-MS2_130604A Analysis Date: 6/4/2013 2:03:00 PM Prep Date: 5/10/2013	Sodium			5.16	0.300	5.00	0	103	80	120	1.50	15
Result RE SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Question 312 37.5 0 316 1.31 10 1.31 1.31 10 1.31 1.31 10 1.31 1.31 10 1.31	Sample ID:	1306004-02A SD	Batch ID:	57754		TestNo	: SW60)20A		Units:	mg/L	
Calcium 312 37.5 0 316 1.31 10	SampType:	SD	Run ID:	ICP-MS2	_130604A	Analysi	s Date: 6/4/2 0	013 2:03:0	00 PM	Prep Date:	5/10/2	2013
Alagnesium 274 37.5 0 273 0.548 10	Analyte			Result	RL	SPK value	Ref Val	%REC	LowLin	nit HighLimit %	6RPD F	RPDLimit Qua
18.6 37.5 0 18.2 2.32 10	Calcium			312	37.5	0	316				1.31	10
Sodium 418 37.5 0 424 1.60 10 Gample ID: 1306004-02A PDS Batch ID: 57754 TestNo: SW6020A Units: mg/L mg/L SampType: PDS Run ID: ICP-MS2_130604A Analysis Date: 6/4/2013 3:01:00 PM Prep Date: 5/10/2013 Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qu Calcium 435 7.50 125 316 95.2 80 120 Magnesium 419 7.50 125 273 117 80 120 Potassium 147 7.50 125 18.2 103 80 120 Qualifiers: B Analyte detected in the associated Method Blank DF Dilution Factor J Analyte detected between MDL and RL MDL Method Detection Limit Page 1 of 5	Magnesium			274	37.5	0	273				0.548	10
Sample ID: 1306004-02A PDS Batch ID: 57754 TestNo: SW6020A Units: mg/L SampType: PDS Run ID: ICP-MS2_130604A Analysis Date: 6/4/2013 3:01:00 PM Prep Date: 5/10/2013 Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qu Calcium 435 7.50 125 316 95.2 80 120 Magnesium 419 7.50 125 273 117 80 120 Potassium 147 7.50 125 18.2 103 80 120 Qualifiers: B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL MDL Method Detection Limit Page 1 of 5	Potassium			18.6	37.5	0	18.2				2.32	10
RampType: PDS Run ID: ICP-MS2_130604A Analysis Date: 6/4/2013 3:01:00 PM Prep Date: 5/10/2013 Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qu Calcium 435 7.50 125 316 95.2 80 120 Magnesium 419 7.50 125 273 117 80 120 Potassium 147 7.50 125 18.2 103 80 120 Qualifiers: B Analyte detected in the associated Method Blank DF Dilution Factor Page 1 of 5	Sodium			418	37.5	0	424				1.60	10
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qu Calcium 435 7.50 125 316 95.2 80 120 Magnesium 419 7.50 125 273 117 80 120 Potassium 147 7.50 125 18.2 103 80 120 Qualifiers: B Analyte detected in the associated Method Blank DF Dilution Factor Dilution Factor Page 1 of 5	Sample ID:	1306004-02A PDS	Batch ID:	57754		TestNo	: SW60)20A		Units:	mg/L	
Calcium 435 7.50 125 316 95.2 80 120 Magnesium 419 7.50 125 273 117 80 120 Potassium 147 7.50 125 18.2 103 80 120 Qualifiers: B Analyte detected in the associated Method Blank JF Dilution Factor J Analyte detected between MDL and RL MDL Method Detection Limit Page 1 of 5	SampType:	PDS	Run ID:	ICP-MS2	_130604A	Analysi	s Date: 6/4/2 0	013 3:01:0	00 PM	Prep Date:	5/10/2	2013
Magnesium 419 7.50 125 273 117 80 120 Potassium 147 7.50 125 18.2 103 80 120 Qualifiers: B Analyte detected in the associated Method Blank DF Dilution Factor J Analyte detected between MDL and RL MDL Method Detection Limit Page 1 of 5	Analyte			Result	RL	SPK value	Ref Val	%REC	LowLin	nit HighLimit %	6RPD F	RPDLimit Qua
Potassium 147 7.50 125 18.2 103 80 120 Qualifiers: B Analyte detected in the associated Method Blank DF Dilution Factor J Analyte detected between MDL and RL MDL Method Detection Limit Page 1 of 5	Calcium			435	7.50	125	316	95.2	80	120		
Potassium 147 7.50 125 18.2 103 80 120 Qualifiers: B Analyte detected in the associated Method Blank DF Dilution Factor J Analyte detected between MDL and RL MDL Method Detection Limit Page 1 of 5	Magnesium			419	7.50	125	273	117	80	120		
J Analyte detected between MDL and RL MDL Method Detection Limit Page 1 of 5	Potassium				7.50	125		103	80			
J Analyte detected between MDL and RL MDL Method Detection Limit Page 1 of 5	Qualifiers:	B Analyte dete	ected in the a	ssociated M	ethod Blank	DF I	Dilution Factor					
1 4 6 1 6 1 5	•	•										Page 1 of 5
		•							trol limits	S		- 450 1 01 3

Spike Recovery outside control limits

Parameter not NELAC certified

CLIENT: Larson & Associates

ANALYTICAL QC SUMMARY REPORT Work Order: 1306004

ICP-MS2_130604A **RunID: Project:** R360 Artesia Landfarm

Sample ID: 1306004-02A PDS	Batch ID:	57754		TestNo	: SW	6020A		Units:	mg/L		
SampType: PDS	Run ID:		_130604A		_	/2013 3:01:0	0 PM	Prep Date	•	2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD F	RPDLimit	Qual
Sodium		561	7.50	125	424	109	80	120			
Sample ID: 1306004-02A MS	Batch ID:	57754		TestNo	: SW	6020A		Units:	mg/L		
SampType: MS	Run ID:	ICP-MS2	_130604A	Analys	s Date: 6/4/	/2013 3:07:00	0 PM	Prep Date	5/10/2	2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD F	RPDLimit	Qual
Calcium		314	7.50	5.00	316	-45.0	80	120			S
Magnesium		276	7.50	5.00	273	60.0	80	120			S
Potassium		23.2	7.50	5.00	18.2	100	80	120			
Sodium		426	7.50	5.00	424	40.0	80	120			S
Sample ID: 1306004-02A MSD	Batch ID:	57754		TestNo	: SW	6020A		Units:	mg/L		
SampType: MSD	Run ID:	ICP-MS2	_130604A	Analys	s Date: 6/4/	/2013 3:12:0	0 PM	Prep Date	5/10/2	2013	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD F	RPDLimit	Qual
Calcium		315	7.50	5.00	316	-25.0	80	120	0.318	15	S
Magnesium		269	7.50	5.00	273	-75.0	80	120	2.48	15	S
Potassium		22.5	7.50	5.00	18.2	85.4	80	120	3.26	15	
Sodium		420	7.50	5.00	424	-90.0	80	120	1.54	15	S

Qualifiers: В Analyte detected in the associated Method Blank

> J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits N Parameter not NELAC certified

Page 2 of 5

CLIENT: Larson & Associates

Work Order: 1306004

ANALYTICAL QC SUMMARY REPORT

Project: R360 Artesia Landfarm RunID: ICP-MS2_130604A

Froject: K500	Artesia Lanutai	.111				Kullit	, <u> </u>	C1 -W152_	_130004/A
Sample ID: ILCVL-130604	Batch ID:	R66749		TestNo	: SW	/6020A		Units:	mg/L
SampType: LCVL	Run ID:	ICP-MS2	_130604A	Analys	is Date: 6/4/	/2013 1:22:0	0 PM	Prep Date	:
Analyte	F	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Calcium	0	.0838	0.300	0.100	0	83.8	70	130	
Magnesium	(0.108	0.300	0.100	0	108	70	130	
Potassium	(0.103	0.300	0.100	0	103	70	130	
Sodium	(0.103	0.300	0.100	0	103	70	130	
Sample ID: LCVL1-130604	Batch ID:	R66749		TestNo	: SW	/6020A		Units:	mg/L
SampType: LCVL	Run ID:	ICP-MS2	_130604A	Analys	is Date: 6/4/	/2013 3:58:0	0 PM	Prep Date	:
Analyte	F	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Calcium	0	.0702	0.300	0.100	0	70.2	70	130	
Magnesium	(0.103	0.300	0.100	0	103	70	130	
Potassium	0	.0930	0.300	0.100	0	93.0	70	130	
Sodium	0	0.0953	0.300	0.100	0	95.3	70	130	
Sample ID: ICV1-130604	Batch ID:	R66749		TestNo	: SW	/6020A		Units:	mg/L
SampType: ICV	Run ID:	ICP-MS2	_130604A	Analys	is Date: 6/4/	/2013 1:05:0	0 PM	Prep Date	:
Analyte	F	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Calcium		2.54	0.300	2.50	0	102	90	110	
Magnesium		2.57	0.300	2.50	0	103	90	110	
Potassium		2.54	0.300	2.50	0	102	90	110	
Sodium		2.57	0.300	2.50	0	103	90	110	
Sample ID: CCV1-130604	Batch ID:	R66749		TestNo	: SW	/6020A		Units:	mg/L
SampType: CCV	Run ID:	ICP-MS2	_130604A	Analys	is Date: 6/4/	/2013 3:30:0	0 PM	Prep Date	:
Analyte	F	Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit	%RPD RPDLimit Qual
Calcium		5.27	0.300	5.00	0	105	90	110	
Magnesium		5.32	0.300	5.00	0	106	90	110	
Potassium		5.19	0.300	5.00	0	104	90	110	
Sodium		5.36	0.300	5.00	0	107	90	110	

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

Page 3 of 5

CLIENT: Larson & Associates ANALYTICAL QC SUMMARY REPORT

Work Order: 1306004

TITDATOD 130604C P360 Artacia I andfarm

Project: R360 Arte	sia Landfa	ırm				RunID	: 1	TTRATO	K_1300	004C
The QC data in batch 57766 app	lies to the f	ollowing samp	les: 13060	04-01B, 13060	04-02B, 1306	6004-03B, ²	1306004-	04B, 130600	4-05B	
Sample ID: LCS-57766	Batch ID:	57766		TestNo:	M2320) B		Units:	mg/L	
SampType: LCS	Run ID:	TITRATOR	_130604C	Analysis	Date: 6/4/20	13 1:48:00	PM	Prep Date:	6/4/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	6RPD R	PDLimit Qual
Alkalinity, Total (As CaCO3)		52.1	20.0	50.00	0	104	74	129		
Sample ID: MB-57766	Batch ID:	57766		TestNo:	M2320) B		Units:	mg/L	
SampType: MBLK	Run ID:	TITRATOR	_130604C	Analysis	Date: 6/4/20	13 1:51:00	PM	Prep Date:	6/4/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit %	6RPD R	PDLimit Qual
Alkalinity, Bicarbonate (As CaCC	93)	ND	20.0							
Alkalinity, Carbonate (As CaCO3)	ND	20.0							
Alkalinity, Hydroxide (As CaCO3))	ND	20.0							
Alkalinity, Total (As CaCO3)		ND	20.0							
Sample ID: 1306002-01D DUP	Batch ID:	57766		TestNo:	M2320) B		Units:	mg/L	
Sample ID: 1306002-01D DUP SampType: DUP	Batch ID: Run ID:	57766 TITRATOR	_130604C		M2320 Date: 6/4/20		PM	Units: Prep Date:	mg/L 6/4/20	13
·			_ 130604C RL						6/4/20	
SampType: DUP	Run ID:	TITRATOR		Analysis	Date: 6/4/20	13 1:57:00		Prep Date:	6/4/20	
SampType: DUP Analyte	Run ID:	TITRATOR_	RL	Analysis SPK value	Date: 6/4/20 Ref Val	13 1:57:00		Prep Date:	6/4/20 6RPD R	PDLimit Qual
SampType: DUP Analyte Alkalinity, Bicarbonate (As CaCC	Run ID: 03)	TITRATOR Result	RL 25.0	Analysis SPK value	Date: 6/4/20 Ref Val 75.30	13 1:57:00		Prep Date:	6/4/20 6RPD R 1.34	PDLimit Qual

Qualifiers: Analyte detected in the associated Method Blank

> J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

Dilution Factor

MDL Method Detection Limit

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R RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

CLIENT: Larson & Associates

ANALYTICAL QC SUMMARY REPORT Work Order: 1306004

TITRATOR_130604C **RunID: Project:** R360 Artesia Landfarm

110ject. 13007ht	esia Banare	41111							11_100010
Sample ID: ICV-130604	Batch ID:	R66742		TestNo:	M23	20 B		Units:	mg/L
SampType: ICV	Run ID:	TITRATO	R_130604C	Analysis	Date: 6/4/ 2	2013 1:45:0	0 PM	Prep Date:	6/4/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLin	nit HighLimit %	6RPD RPDLimit Qual
Alkalinity, Bicarbonate (As CaCo	O3)	8.48	20.0	0					
Alkalinity, Carbonate (As CaCO	3)	89.9	20.0	0					
Alkalinity, Hydroxide (As CaCO3	3)	0	20.0	0					
Alkalinity, Total (As CaCO3)		98.4	20.0	100.0	0	98.4	98	102	
Sample ID: CCV1-130604	Batch ID:	R66742		TestNo:	M23	20 B		Units:	mg/L
SampType: CCV	Run ID:	TITRATO	R_130604C	Analysis	Date: 6/4/ 2	2013 2:28:0	0 PM	Prep Date:	6/4/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLin	nit HighLimit %	6RPD RPDLimit Qual
Alkalinity, Bicarbonate (As CaCo	O3)	19.4	20.0	0					
Alkalinity, Carbonate (As CaCO	3)	81.6	20.0	0					
Alkalinity, Hydroxide (As CaCO3	3)	0	20.0	0					
Alkalinity, Total (As CaCO3)		101	20.0	100.0	0	101	90	110	
Sample ID: CCV2-130604	Batch ID:	R66742		TestNo:	M23	20 B		Units:	mg/L
SampType: CCV	Run ID:	TITRATO	R_130604C	Analysis	Date: 6/4/ 2	2013 2:44:0	0 PM	Prep Date:	6/4/2013
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLin	nit HighLimit %	6RPD RPDLimit Qual
Alkalinity, Bicarbonate (As CaCo	O3)	17.4	20.0	0					
Alkalinity, Carbonate (As CaCO	3)	80.6	20.0	0					
Alkalinity, Hydroxide (As CaCO3	3)	0	20.0	0					
Alkalinity, Total (As CaCO3)		98.1	20.0	100.0	0	98.1	90	110	

Qualifiers: Analyte detected in the associated Method Blank

> J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

Page 5 of 5

R RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified



June 24, 2013

Coty Woolf Larson & Associates 507 N. Marienfeld #200

Midland, TX 79701

TEL: (432) 687-0901

FAX (432) 687-0456 Order No.: 1306190

RE: Artesia Aeration Landfarm

Dear Coty Woolf:

DHL Analytical, Inc. received 1 sample(s) on 6/21/2013 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont

General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-13-11



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Miscellaneous Documents	3
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2300 Double Creek Dr. ■ Round Rock, TX 78664 Phone (512) 388-8222 ■ FAX (512) 388-8229 Web: www.dhlanalytical.com E-Mail: login@dhlanalytical.com





Nº 54990 CHAIN-OF-CUSTODY

CLIENT: LARS ADDRESS: PHONE: DATA REPORTED TO: ADDITIONAL REPORT	T: LARSON & ASSOCIATES ESS: FAX/E-MAIL: REPORTED TO: WOOLF IONAL REPORT COPIES TO:								: — —	,	PΩ	TE:) #: _ OJE(ENT								DHI A	14/	∩D!	()	סחב	D #.		PAGE 13 PATIO	?つく	L.	\overline{c}	ARsn		
Authorize 5% surcharge for TRRP Report? Yes No Field Sample I.D.	5=S(W=V A=A	OIL P=P WATER SL= IR O=0 QUID SO=	AINT SLUDO DTHER SOLID	ŝE :	Container Type	# of Containers	PR	ESE	RV.	ATIO	NC	NA.	:																		ELD NO		
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WWW.LSO.COM Questions? Call 800-800-8984

Airbill No. 43387788

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LIMIT OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 8:30 AM DELIVERIES AND RESIDENTIAL DELIVERIES. DELIVERY COMMITMENTS MAY VARY. ADDITIONAL FEES MAY APPLY.



Sample Receipt Checklist

Client Name Larson & Associates			Date Recei	ved: 6/21/2013
Work Order Number 1306190			Received by	/ JB
Checklist completed by: Signature	6/21/201 Date		Reviewed b	y 6/21/2013 Initials Date
	Carrier name	<u>LoneStar</u>		
Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Present
Custody seals intact on shippping container/coo	ler?	Yes 🗹	No 🗌	Not Present
Custody seals intact on sample bottles?		Yes 🗌	No 🗌	Not Present ✓
Chain of custody present?		Yes 🗹	No 🗆	
Chain of custody signed when relinquished and	received?	Yes 🗹	No 🗌	
Chain of custody agrees with sample labels?		Yes 🗹	No 🗌	
Samples in proper container/bottle?		Yes 🗹	No 🗆	
Sample containers intact?		Yes 🗹	No 🗆	
Sufficient sample volume for indicated test?		Yes 🗹	No 🗌	
All samples received within holding time?		Yes 🗹	No 🗆	
Container/Temp Blank temperature in complian	ce?	Yes 🗹	No 🗌	2.7 °C
Water - VOA vials have zero headspace?		Yes 🗌	No 🗌	No VOA vials submitted ☑
Water - pH<2 acceptable upon receipt?		Yes	No 🗌	NA ☑ LOT#
	N.	Adjusted?		Checked by
Water - ph>9 (S) or ph>12 (CN) acceptable upo	on receipt?	Yes	No 🗌	NA ☑ LOT#
		Adjusted?		Checked by
Any No response must be detailed in the comm	nents section below.			
Client contacted	Date contacted:		Pe	rson contacted
Contacted by:	Regarding			
Comments:				
Corrective Action				

CLIENT: Larson & Associates

Project: Artesia Aeration Landfarm

Lab Order: 1306190

CASE NARRATIVE

Date: 24-Jun-13

Sample was analyzed using the methods outlined in the following references:

Method SW6020A - Metals Analysis

LOG IN

The samples were received and log-in performed on 6/19/2013. A total of 1 sample was received and analyzed. The Time of Collection was Mountain Standard Time. The sample arrived in good condition and was properly packaged.

CLIENT: Larson & Associates

Project: Artesia Aeration Landfarm Work Order Sample Summary

Lab Order: 1306190

Lab Smp ID Client Sample ID Tag Number Date Collected Date Recved

Date: 24-Jun-13

1306190-01 Clippings 06/19/13 02:30 PM 6/21/2013

Lab Order: 1306190

Client: Larson & Associates

Project: Artesia Aeration Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1306190-01A	Clippings	06/19/13 02:30 PM	Soil	D2216	Moisture Preparation	06/21/13 04:15 PM	58050
	Clippings	06/19/13 02:30 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	06/21/13 08:36 AM	58044

Lab Order: 1306190

Client: Larson & Associates

Project: Artesia Aeration Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1306190-01A	Clippings	Soil	D2216	Percent Moisture	58050	1	06/24/13 08:50 AM	PMOIST_130621A
	Clippings	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58044	5	06/21/13 08:11 PM	ICP-MS3_130621A

CLIENT: Larson & Associates Client Sample ID: Clippings

Project: Artesia Aeration Landfarm Lab ID: 1306190-01

Project No: 11-0109-09 **Collection Date:** 06/19/13 02:30 PM

Lab Order: 1306190 Matrix: SOIL

Analyses	Result	MDL	RL	Qual Units	DF	Date Analyzed
TRACE METALS: ICP-MS - SOLID	50.4	SW602			_	Analyst: SW
Chromium PERCENT MOISTURE	53.1	0.504 D221 (2.02	mg/Kg-dry	5	06/21/13 08:11 PM Analyst: JCG
Percent Moisture	3.64	0	0	WT%	1	06/24/13 08:50 AM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

C Sample Result or QC discussed in the Case Narrative

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

B Analyte detected in the associated Method Blank

Date: 24-Jun-13

DF Dilution Factor

J Analyte detected between MDL and RLND Not Detected at the Method Detection Limit

S Spike Recovery outside control limits

Date: 24-Jun-13

CLIENT: Larson & Associates

Work Order: 1306190

ICP-MS3_130621A **RunID: Project:** Artesia Aeration Landfarm

ANALYTICAL QC SUMMARY REPORT

Troject. Artesia Ac	ration Lai	larariii				Itumii	•	CI 1/105_1		
The QC data in batch 58044 app	lies to the fo	ollowing san	nples: 1306	190-01A						
Sample ID: MB-58044	Batch ID:	58044		TestNo	swe	6020A		Units:	mg/Kg	
SampType: MBLK	Run ID:	ICP-MS3	_130621A	Analysi	s Date: 6/21	/2013 7:35:	00 PM	Prep Date:	6/21/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit %	RPD RF	PDLimit Qual
Chromium		ND	2.00							
Sample ID: LCS-58044	Batch ID:	58044		TestNo	swe	6020A		Units:	mg/Kg	
SampType: LCS	Run ID:	ICP-MS3	_130621A	Analysi	s Date: 6/21	/2013 7:41:	00 PM	Prep Date:	6/21/20	113
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit %	RPD RF	PDLimit Qual
Chromium		45.1	2.00	50.00	0	90.2	80	120		
Sample ID: LCSD-58044	Batch ID:	58044		TestNo	swe	6020A		Units:	mg/Kg	
SampType: LCSD	Run ID:	ICP-MS3	_130621A	Analysi	s Date: 6/21	/2013 7:47:	00 PM	Prep Date:	6/21/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit %	RPD RF	PDLimit Qual
Chromium		45.8	2.00	50.00	0	91.6	80	120	1.54	20
Sample ID: 1306177-04A SD	Batch ID:	58044		TestNo	swe	6020A		Units:	mg/Kg	
SampType: SD	Run ID:	ICP-MS3	_130621A	Analysi	s Date: 6/21	/2013 8:05:	00 PM	Prep Date:	6/21/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit %	RPD RF	PDLimit Qual
Chromium		12.7	9.80	0	12.17				4.36	10
Sample ID: 1306177-04A PDS	Batch ID:	58044		TestNo	swe	6020A		Units:	mg/Kg	
SampType: PDS	Run ID:	ICP-MS3	_130621A	Analysi	s Date: 6/21	/2013 9:04:	00 PM	Prep Date:	6/21/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit %	RPD RF	PDLimit Qual
Chromium		60.3	1.96	49.02	12.17	98.1	80	120		
Sample ID: 1306177-04A MS	Batch ID:	58044		TestNo	swe	6020A		Units:	mg/Kg	
SampType: MS	Run ID:	ICP-MS3	_130621A	Analysi	s Date: 6/21	/2013 9:10:	00 PM	Prep Date:	6/21/20	113
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit %	RPD RF	PDLimit Qual
Chromium		56.0	1.94	48.54	12.17	90.2	80	120		
Sample ID: 1306177-04A MSD	Batch ID:	58044		TestNo	swe	6020A		Units:	mg/Kg	
SampType: MSD	Run ID:	ICP-MS3	_130621A	Analysi	s Date: 6/21	/2013 9:16:	00 PM	Prep Date:	6/21/20	13
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	it HighLimit %	RPD RF	PDLimit Qual
Chromium		56.7	1.98	49.50	12.17	89.9	80	120	1.22	20

Qualifiers: В Analyte detected in the associated Method Blank

> J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

Reporting Limit

Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

Page 1 of 3

R RPD outside accepted control limits

S Spike Recovery outside control limits

Parameter not NELAC certified

CLIENT: Larson & Associates

Work Order: 1306190

ANALYTICAL QC SUMMARY REPORT

Project: Artesia Aeration Landfarm RunID: ICP-MS3_130621A

Result Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 7:17:00 PM Prep Date: Analysis Date: 6/21/2013 9:58:00 PM Prep Date: Analysis Date: 6/21/2013 2:33:00 PM Prep Date: Analysis Date: 6/21/2013 6:41:00 PM Prep Date: Analysis Date: 6/21/2013 9:22:00 PM Prep Date: Analysis Date: 6/2									
Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Sample ID: LCVL3-130621	Batch ID: R6706	64	TestNo:	swe	6020A		Units:	mg/L
Chromium 0.00434 0.00500 0.00500 0 86.8 70 130	SampType: LCVL	Run ID: ICP-N	IS3_130621A	Analysis	Date: 6/21	/2013 7:17:	00 PM	Prep Date	:
Sample ID: LCVL4-130621 Batch ID: R67064 TestNo: SW6020A Units: mg/L SampType: LCVL Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 9:58:00 PM Prep Date: Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Chromium 0.00428 0.00500 0.00500 0 85.6 70 130 Sample ID: ICV1-130621 Batch ID: R67064 TestNo: SW6020A Units: mg/L SampType: ICV Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 2:33:00 PM Prep Date: Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Chromium 0.100 0.00500 0.100 0 100 90 110 SampType: CCV Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 6:41:00 PM Prep Date: Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Chromium 0.181 0.00500 0.200 0 90.5 90 </td <td>Analyte</td> <td>Result</td> <td>RL</td> <td>SPK value</td> <td>Ref Val</td> <td>%REC</td> <td>LowLimi</td> <td>t HighLimit</td> <td>%RPD RPDLimit Qual</td>	Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
SampType: LCVL Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 9:58:00 PM Prep Date: Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Chromium 0.00428 0.00500 0.00500 0 85.6 70 130 Sample ID: ICV1-130621 Batch ID: R67064 TestNo: SW6020A Units: mg/L Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Chromium 0.100 0.00500 0.100 0 100 90 110 Sample ID: CCV3-130621 Batch ID: R67064 TestNo: SW6020A Units: mg/L Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Chromium 0.181 0.00500 0.200 0 90.5 90 110 Analyte Result RE <td>Chromium</td> <td>0.00434</td> <td>0.00500</td> <td>0.00500</td> <td>0</td> <td>86.8</td> <td>70</td> <td>130</td> <td></td>	Chromium	0.00434	0.00500	0.00500	0	86.8	70	130	
Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Sample ID: LCVL4-130621	Batch ID: R6706	64	TestNo:	SW	6020A		Units:	mg/L
Chromium	SampType: LCVL	Run ID: ICP-N	IS3_130621A	Analysis	Date: 6/21	/2013 9:58:	00 PM	Prep Date	:
Sample ID: ICV1-130621 Batch ID: R67064 TestNo: SW6020A Units: mg/L SampType: ICV Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 2:33:00 PM Prep Date: Analyte Result RL SPK value Ref Val REC LowLimit HighLimit %RPD RPDLimit Qual chromium 0.100 0.00500 0.100 0 100 90 110 Units: mg/L Sample ID: CCV3-130621 Batch ID: R67064 TestNo: SW6020A Units: mg/L SampType: CCV Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 6:41:00 PM Prep Date: Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual chromium 0.181 0.00500 0.200 0 90.5 90 110 Sample ID: CCV4-130621 Batch ID: R67064 TestNo: SW6020A Units: mg/L SampType: CCV Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 9:22:00 PM Prep Date: Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual chromium Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual chromium	Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
SampType: ICV Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 2:33:00 PM Prep Date: Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Chromium 0.100 0.00500 0.100 0 100 90 110 Sample ID: CCV3-130621 Batch ID: R67064 TestNo: SW6020A Units: mg/L Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Chromium 0.181 0.00500 0.200 0 90.5 90 110 Sample ID: CCV4-130621 Batch ID: R67064 TestNo: SW6020A Units: mg/L Analyte Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 9:22:00 PM Prep Date:	Chromium	0.00428	0.00500	0.00500	0	85.6	70	130	
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Chromium 0.100 0.00500 0.100 0 100 90 110 Sample ID: CCV3-130621 Batch ID: R67064 TestNo: SW6020A Units: mg/L SampType: CCV Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 6:41:00 PM Prep Date: Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Chromium 0.181 0.00500 0.200 0 90.5 90 110 Sample ID: CCV4-130621 Batch ID: R67064 TestNo: SW6020A Units: mg/L SampType: CCV Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 9:22:00 PM Prep Date:	Sample ID: ICV1-130621	Batch ID: R6706	64	TestNo:	SW	6020A		Units:	mg/L
Chromium 0.100 0.00500 0.100 0 100 90 110 Sample ID: CCV3-130621 Batch ID: R67064 TestNo: SW6020A Units: mg/L SampType: CCV Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 6:41:00 PM Prep Date: Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Chromium 0.181 0.00500 0.200 0 90.5 90 110 Sample ID: CCV4-130621 Batch ID: R67064 TestNo: SW6020A Units: mg/L SampType: CCV Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 9:22:00 PM Prep Date: Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	SampType: ICV	Run ID: ICP-N	IS3_130621A	Analysis	Date: 6/21	/2013 2:33:	00 PM	Prep Date	:
Sample ID: CCV3-130621 Batch ID: R67064 TestNo: SW6020A Units: mg/L SampType: CCV Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 6:41:00 PM Prep Date: Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Chromium 0.181 0.00500 0.200 0 90.5 90 110 Sample ID: CCV4-130621 Batch ID: R67064 TestNo: SW6020A Units: mg/L SampType: CCV Run ID: ICP-MS3_130621A Analysis Date: 6/21/2013 9:22:00 PM Prep Date: Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD RPDLimit Qual
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Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Sample ID: CCV4-130621	Batch ID: R6706	64	TestNo:	SW	6020A		Units:	mg/L
,	SampType: CCV	Run ID: ICP-N	IS3_130621A	Analysis	Date: 6/21	/2013 9:22:	00 PM	Prep Date	:
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	Chromium	0.182	0.00500	0.200	0	91.0	90	110	

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

Page 2 of 3

ANALYTICAL QC SUMMARY REPORT

3.52

30

Page 3 of 3

Work Order: 1306190

Larson & Associates

3.78

CLIENT:

Percent Moisture

RunID: PMOIST_130621A Project: Artesia Aeration Landfarm

0

The QC data in batch 58050 applies to the following samples: 1306190-01A Sample ID: 1306190-01A-DUP 58050 Batch ID: TestNo: D2216 Units: SampType: DUP Run ID: PMOIST_130621A Analysis Date: 6/24/2013 8:50:00 AM Prep Date: 6/21/2013 Analyte Result RLSPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

0

3.645

Qualifiers: Analyte detected in the associated Method Blank В

> Analyte detected between MDL and RL J

Not Detected at the Method Detection Limit ND

Reporting Limit

Analyte detected between SDL and RL

Dilution Factor DF

MDL Method Detection Limit

R RPD outside accepted control limits

Spike Recovery outside control limits

Parameter not NELAC certified

State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

David Martin Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jami Bailey, Division Director Oil Conservation Division



October 22, 2014

Tony Schmitz T-n-T Environmental, Inc. HCR 74 Box 113 Lindrith, New Mexico 87029

RE: Request To Use Fertilizer For Enhanced Bio-Remediation
T-n-T Environmental, Inc.
Permit NM1-008 (Evaporation Ponds and Landfarm)
Location: SE/4 of Section 7 and SW/4 of Section 8 (evaporation ponds) and the
SW/4 SE/4 and SE/4 NW/4 of Section 5 and NE/4 NW/4 of 8 (landfarm), Township
25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico

Dear Mr. Schmitz:

The Oil Conservation Division (OCD) has received and completed the review of an email request, submitted by Souder, Miller, & Associates on T-n-T Environmental, Inc.'s (T-n-T) behalf dated October 14, 2014, to apply fertilizer to landfarm Cells 3-14 for enhanced bioremediation. Based upon the information provided, the above-referenced request is hereby approved with the following understandings and conditions:

- 1. T-n-T is approved to utilize and apply fertilizer to landfarm Cells 3-14 for enhanced bioremediation at an application rate not to exceed two (2) pounds of nitrogen per 1000 square feet in the treatment zone (soils to be remediated);
- 2. T-n-T shall apply the fertilizer by the method of a commercial spreader, followed by tilling; and
- 3. T-n-T is approved to apply the fertilizer "once annually until remediation levels are achieved," as proposed in the October 14, 2014 request.

Please be advised that approval of this request does not relieve T-n-T of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve T-n-T of its responsibility to comply with any other applicable governmental authority's rules and regulations.

Mr. Schmitz T-n-T Environmental, Inc. Permit NM1-008 October 22, 2014 Page 2 of 2

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or brad.a.jones@state.nm.us.

Sincerely,

Brad A. Jones

Environmental Engineer

BAJ/baj

cc: OCD District III Office, Aztec

Denny Foust, Souder, Miller, & Associates, 401 W. Broadway, Farmington, NM 87401

Jones, Brad A., EMNRD

From:

Denny Foust <denny.foust@soudermiller.com>

Sent:

Tuesday, October 14, 2014 10:09 AM

To:

Jones, Brad A., EMNRD

Cc:

Griswold, Jim, EMNRD; 'Craig Schmitz'
Fertilizer Ammendment to TnT Landfarm

Subject: Attachments:

BAJ 2nd Revison Reply October 14 2014 TnT.pdf

Mr. Jones:

I hope this clarifies the original request to add fertilizer once a year to cells 3-14 at the TnT Landfarm.

A signature line has been provided for your convenience.

Denny Foust
Senior Geologist
Souder, Miller & Associates
denny.foust@soudermiller.com
505-325-5667 (office)
505-801-9727 (cell)
505-327-1496 (fax)



October 14, 2014

Brad A. Jones Environmental Engineer New Mexico Oil Conservation Division 1220 S. Saint Francis Drive Santa Fe, New Mexico 87505

Submitted via email to: brad.a.jones@state.nm.us

RE: T-n-T Environmental Landfarm NMOCD Permit #NM1-008, Fertilizer Application.

Dear Mr. Jones:

As authorized in the NMOCD letter dated October 1, 2013, T-n-T Environmental (TnT) will continue to remediate oilfield contaminated soils located outside Cells 1 and 2. To aid in remediation, TnT intends to add 2 pounds of nitrogen per 1000 square feet in a fall fertilization program, based on recommended rates for late fall application to grasses. This will be accomplished using the preferred granular 24-4-12 fertilizer at an application rate of 363 pounds per acre. The selected granular fertilizer contains 24 pounds of nitrogen, with 4 pounds of phosphorus and 12 pounds of potassium per hundred weight of fertilizer. The 24-4-12 analysis meets the preferred agronomy profile for soil health and is the preferred application. If it is unavailable another high nitrogen granular fertilizer will be used at a rate of 2 pounds of nitrogen per 1,000 square feet. The nitrogen should take advantage of the winter moisture to spread throughout the remediating soils and be in place to aid the growth of bacteria that will breakdown hydrocarbons as the soil temperature increases in the spring. Application rates may be adjusted to obtain the targeted rate of 2 pounds nitrogen per 1000 square feet based on the composition of the available fertilizer.

Example 1: A 46-0-0 granular fertilizer contains 46 pounds of nitrogen per hundred weight of fertilizer and will cover 23,000 square feet at 2 pounds of nitrogen per thousand square feet. The applications rate will be 190 pounds per acre to for a rate of 2 pounds of nitrogen per 1000 square feet.

Example 2: A 20-5-10 granular fertilizer contains 20 pounds of nitrogen, 5 pounds of phosphorus and 10 pounds of potassium per 100 hundred weight of fertilizer and will cover 10,000 square feet at 2 pounds of nitrogen per 1000 square feet. The application rate will be 436 pounds per acre for a rate of 2 pounds of nitrogen per acre.

A commercial fertilizer spreader will be used for application followed by tilling. Application is anticipated once annually for cells 3-14 until remediation levels are achieved. The 2 pounds of nitrogen per 1000 square feet application rate was selected because that concentration will be absorbed in the soil and not readily leach.

Since addition of remediation amendments requires a signature from NMOCD we have provided an approval statement and signature line below for your convenience.

Testing and lab analy the October 1, 2013 I		zone will continue as approved in
Sincerely Souder Miller and As Denny S. Feet Denny G. Foust Geologist		
NMOCD approves the nitrogen per 1,000 squa Acknowledged By:	application of granular fertilizer at a are feet.	rate of approximately 2 pounds of Date:
Title:		
EC: Craig Schmitz, Tn	т .	

Attachment: Brad Jones E-MAIL Reply to October 1, 2014 Electronic request

Jim Griswold, NMOCD

ATTACHMENT:

Denny,

OCD has completed the review of the request, dated and emailed to OCD on October 1, 2014, to use nitrogen/fertilizer to enhance remediation at the T-n-T Environmental Landfarm (Permit NM1-008). Condition 9, page 5 of the 2001 permit under the heading Landfarm Operation, states "Enhanced bio-remediation through the application of microbes (bugs) and/or fertilizers may only be permitted after prior approval from the OCD. Requests for application of microbes or fertilizers must include the location of the area designated for the program, the composition of additives, and the method, amount and frequency of application." Please include the application method of the proposed fertilizer and the frequency of application, as required by the condition. The proposed "fall fertilization program based on rates for late fall application to grasses" does not clarify the frequency of application. Please specific. OCD is unsure if one or two considerations are being proposed. The second paragraph of the request proposes "2# nitrogen /1000 square feet" (no other additives identified for composition) and/or "363#/acre of granular 24-4-12 fertilizer or adjusted for a rate of 2# nitrogen /1000 square feet..." The approval statement proposes "granular fertilizer at a rate of approximately 2# of nitrogen per 1000 square feet or approximately 363# of granular fertilizer per acre." Please clarify if the "granular fertilizer" discussed throughout the proposal will only have a fertilizer grade of 24-4-12 (N-P-K). Please resubmit the request via email for OCD's consideration of approval. If you have any questions regarding this matter, please do not hesitate to contact me.

Brad

Brad A. Jones

Environmental Engineer

EMNRD Oil Conservation Division

1220 S. Saint Francis Drive

Santa Fe, New Mexico 87505

E-mail: <u>brad.a.jones@state.nm.us</u>

Jones, Brad A., EMNRD

From: Jones, Brad A., EMNRD

Sent: Monday, July 01, 2013 1:06 PM

To: 'Mark Larson'
Cc: Zach Davis

Subject: RE: Proposed Background Composite Soil Sample Locations, R360 Artesia LLC

Landfarm, Lea County, New Mexico, NM-1-0030

Mark.

The Oil Conservation Division (OCD) has reviewed the sampling proposal and has determined that the background sampling plan is adequate and satisfies the background testing requirements of Subsection B of 19.15.36.15 NMAC. Please provide OCD a copy of the background testing analytical results for the facility permit administrative record.

Brad

Brad A. Jones

Environmental Engineer
Environmental Bureau
NM Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505
E-mail: brad.a.jones@state.nm.us

Office: (505) 476-3487 *Fax:* (505) 476-3462

From: Mark Larson [mailto:Mark@laenvironmental.com]

Sent: Friday, June 28, 2013 7:36 AM

To: Jones, Brad A., EMNRD

Cc: Zach Davis

Subject: Re: Proposed Background Composite Soil Sample Locations, R360 Artesia LLC Landfarm, Lea County, New

Mexico, NM-1-0030

Dear Brad,

Here's the revised sample location drawing showing 16 discrete samples within each of 12 grids. The discrete samples will be collected from at least 6 inches below ground surface from the unimpacted areas located north of landfarm Cells 5 and 6. The composite samples will be analyzed for TPH by method 418.1, BTEX by method SW-846-8021B, chloride by method E300 and the constituents listed in Subsection A and B of 20.6.2.3103 NMAC. Your approval of the sample locations is requested. Please contact Zack Davis with R360 at (972) 768-3359 or me if you have questions. Sincerely,

Mark J. Larson, P.G. Sr. Project Manager / President 507 N. Marienfeld Street, Ste. 200 Midland, Texas 79701 (432) 687-0901 (office) (432) 687-0456 (fax) (432) 556-8656 (cell) mark@laenvironmental.com

Jones, Brad A., EMNRD

From:

Mark Larson < Mark@laenvironmental.com>

Sent:

Friday, June 28, 2013 7:36 AM

To:

Jones, Brad A., EMNRD

Cc:

Zach Davis

Subject:

Re: Proposed Background Composite Soil Sample Locations, R360 Artesia LLC

Landfarm, Lea County, New Mexico, NM-1-0030

Attachments:

Figure 11 - Proposed Sample Location Map.pdf

Dear Brad,

Here's the revised sample location drawing showing 16 discrete samples within each of 12 grids. The discrete samples will be collected from at least 6 inches below ground surface from the unimpacted areas located north of landfarm Cells 5 and 6. The composite samples will be analyzed for TPH by method 418.1, BTEX by method SW-846-8021B, chloride by method E300 and the constituents listed in Subsection A and B of 20.6.2.3103 NMAC. Your approval of the sample locations is requested. Please contact Zack Davis with R360 at (972) 768-3359 or me if you have questions. Sincerely,

Mark J. Larson, P.G.
Sr. Project Manager / President
507 N. Marienfeld Street, Ste. 200
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com

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