Monitoring Well Purging Form

Project: Travis County - Colorado River Corridor Plan
Location: Austin, TX
Well Identification: Holweger well
Well Diameter: 5 inches
Screen Interval: Unknown
Pump/Purging Device: Private pump
Sample Time: 1115

Date: 3/27/12
Field Personnel: Kim Nguyen, Arthur Potts
Initial Water Level (ft, BTOC): 31.25
Well Depth (ft, BTOC): 39.75
Well Volume: 8.50' x 1.02 = 8.67 gal
Pump Intake Depth: Unknown
Analyses/Notes: Ammonia (EPA 350.1), Cl/F/N/SO_4 (EPA 300.0), Ca/Mg/K/Na (EPA 200.7), HCO_3/CO_3 (SM2320B), Total Suspended Solids (SM 2540D)

Time	Water Level (ft BTOC)	Purge Rate (gal/min) (mL/min)	Volume Purged (gal)	Temperature (°C) +/- 1°C	Specific Conductivity (mS/cm) +/- 5%	pH (SU) * +/- 0.1	Turbidity (NTU) <10 NTU or +/- 10%	DO (mg/L)	ORP (mV)	Comments
1053	-	-	-	-	-	-	-	-	-	Pump On
1055 (3½")	31.29	1.5	–	21.30	0.839	7.12	0.14	11.49	101.7	*pH measured on Mettler Toledo
1057 (3½")	31.29	1.5	–	21.72	0.846	7.08	0.00	8.13	87.5	
1059	31.29	1.5	–	21.85	~~0.859~~	7.07	0.07	6.74	78.6	
1101	31.29	1.5	12	21.99	(FM) 0.849 0.852	7.06	0.00	6.35	73.6	
1103 (3¼")	31.27	1.5	–	22.09	0.855	7.06	0.33	6.11	71.1	
1105	31.25	1.5	–	22.19	0.859	7.05	0.19	(FM) ~~5.86~~	68.7	
1107	31.25	1.5	21	22.27	0.858	7.05	0.00	5.71	67.1	
1109	31.25	1.5	–	22.34	0.860	7.05	0.35	5.54	65.3	
1111	31.25	1.5	27	22.41	0.862	7.04	0.00	5.43	63.3	
1115	Collect CRCP-Holweger-053 (MS/MSD)									

Well Diameter (in)	2	3	4	5	6	8	10	30
Volume (gal/ft)	0.16	0.37	0.65	1.02	1.47	2.61	4.08	36.70
Volume (L/ft)	0.62	1.40	2.46	3.86	5.56	9.88	15.44	138.93

DTW @ NTN Well 1 = 27.60' BTOC @ 950 on 3/27/12

Monitoring Well Purging Form

Project: Travis County - Colorado River Corridor Plan
Date: 3/27/12

Location: Austin, TX
Field Personnel: Kim Nguyen, Arthur Potts

Well Identification: NTN Well 2
Initial Water Level (ft, BTOC): 30.42

Well Diameter: 18 inches
Well Depth (ft, BTOC): 40.77

Screen Interval: Unknown
Well Volume: 10.35' x 13.21 = 136.72 gal

Pump/Purging Device: Private pump
Pump Intake Depth: Unknown

Sample Time: 1025 at spigot
Analyses/Notes: Ammonia (EPA 350.1), Cl/F/N/SO_4 (EPA 300.0), Ca/Mg/K/Na (EPA 200.7), HCO_3/CO_3 (SM2320B), Total Suspended Solids (SM 2540D)

Time	Water Level (ft BTOC)	Purge Rate (gal/min) ~~(mL/min)~~	Volume Purged (gal)	Temperature (°C) +/- 1°C	Specific Conductivity (mS/cm) +/- 5%	pH (SU) * +/- 0.1	Turbidity (NTU) <10 NTU or +/- 10%	DO (mg/L)	ORP (mV)	Comments
1008	-	-	-	-	-	-	-	-	-	Pump On
1010	36.94	~10	—	21.59	1.773	7.08	0.00	8.70	65.1	* pH measured on Mettler Toledo
1012	36.96	~10	—	21.59	1.772	7.06	0.00	8.08	61.9	
1014	36.96	~10	—	21.60	1.773	7.06	0.06	7.71	59.8	
1016	36.96	~10	—	21.61	1.775	7.07	0.00	7.42	58.2	
1018	36.94	~10		21.62	1.774	7.06	0.07	7.24	57.8	
1025	Collect	CRCP-NTNW2-050								
		CRCP-NTNW2-051								(DUP)

11¼"
11½"
11½"
11½"
11¼"

Well Diameter (in)	2	3	4	5	6	8	10	30
Volume (gal/ft)	0.16	0.37	0.65	1.02	1.47	2.61	4.08	36.70
Volume (L/ft)	0.62	1.40	2.48	3.86	5.56	9.88	15.44	138.93

0945

Monitoring Well Purging Form

Project: Travis County - Colorado River Corridor Plan
Date: 3/26/12
Location: Austin, TX
Field Personnel: Kim Nguyen, Arthur Potts
Well Identification: Wisian Well 1
Initial Water Level (ft, BTOC): 49.33
Well Diameter: 8 inches
Well Depth (ft, BTOC): 65.10
Screen Interval: Unknown
Well Volume: 15.77' x 2.61 = 41.2 gal
Pump/Purging Device: Submersible pump
Pump Intake Depth: ~52' BTOC
Sample Time: 1020
Analyses/Notes: Ammonia (EPA 350.1), Cl/F/N/SO_4 (EPA 300.0), Ca/Mg/K/Na (EPA 200.7), HCO_3/CO_3 (SM2320B), Total Suspended Solids (SM 2540D)

Time	Water Level (ft BTOC)	Purge Rate (mL/min)	Volume Purged (gal)	Temperature (°C) +/- 1°C	Specific Conductivity (mS/cm) +/- 5%	pH (SU) +/- 0.1 *	Turbidity (NTU) <10 NTU or +/- 10%	DO (mg/L)	ORP (mV)	Comments
0958	-	-	-	-	-	-	-	-	-	Pump On
~~0910~~ 1001	49.33	750	~1.0	21.99	0.818	6.82	1.11	6.38	48.7	*pH measured on Mettler
1004	49.33	750	~1.2	22.04	0.821	6.81	0.24	6.01	48.2	Toledo
1007	49.33	750	~1.6	22.07	0.818	6.79	0.22	5.67	49.0	Water is clear
1010	49.33	750	~2.4	22.05	0.820	6.79	0.03	5.39	49.7	
1013	49.33	750	~3.0	22.06	0.822	6.79	0.00	5.17	50.9	
1020	Collect CRCP-WisianW1-050									
1035	Collect CRCP-WisianW1-055 (EB)									

Well Diameter (in)	2	3	4	5	6	8	10	30
Volume (gal/ft)	0.16	0.37	0.65	1.02	1.47	2.61	4.08	36.70
Volume (L/ft)	0.62	1.40	2.46	3.86	5.56	9.88	15.44	138.93

0900

Monitoring Well Purging Form

Project: Travis County - Colorado River Corridor Plan
Date: 3/26/12

Location: Austin, TX
Field Personnel: Kim Nguyen, Arthur Potts

Well Identification: Wisian Well 2
Initial Water Level (ft, BTOC): 44.90

Well Diameter: 6 inches
Well Depth (ft, BTOC): 62.18

Screen Interval: Unknown
Well Volume: 17.28' x 1.47 = 25.4 gal

Pump/Purging Device: Submersible pump
Pump Intake Depth: ~50' BTOC

Sample Time: 0935
Analyses/Notes: Ammonia (EPA 350.1), Cl/F/N/SO_4 (EPA 300.0), Ca/Mg/K/Na (EPA 200.7), HCO_3/CO_3 (SM2320B), Total Suspended Solids (SM 2540D)

Time	Water Level (ft BTOC)	Purge Rate (mL/min)	Volume Purged (gal)	Temperature (°C) +/- 1°C	Specific Conductivity (mS/cm) +/- 5%	pH (SU) * +/- 0.1	Turbidity (NTU) <10 NTU or +/- 10%	DO (mg/L)	ORP (mV)	Comments
0914	-	-	-	-	-	-	-	-	-	Pump On
0917	44.91	530	-	21.14	1.042	6.82	0.94	10.54	24.4	* pH measured on Mettler
0920	44.90	530	~1.0	21.84	1.061	6.75	0.75	6.86	27.3	Toledo unit
0923	44.90	530	-	21.87	1.062	6.73	0.53	5.93	28.4	water is clear
0926	44.90	530	~2.0	21.88	1.062	6.71	0.74	4.92	30.5	
0929	44.91	530	~3.0	21.91	1.061	6.71	1.98	4.40	30.5	
0935	Collect CRCP-WisianW2-050									

Well Diameter (in)	2	3	4	5	6	8	10	30
Volume (gal/ft)	0.16	0.37	0.65	1.02	1.47	2.61	4.08	36.70
Volume (L/ft)	0.62	1.40	2.46	3.86	5.58	9.88	15.44	138.93

Monitoring Well Purging Form

Project: Travis County - Colorado River Corridor Plan
Location: Austin, TX
Well Identification: 58522 (Edgar)
Well Diameter: 4 inches
Screen Interval: Unknown
Pump/Purging Device: Private pump
Sample Time: 1435

Date: 5/7/12
Field Personnel: Kim Nguyen, Arthur Potts
Initial Water Level (ft, BTOC): 38.75
Well Depth (ft, BTOC): 56.36
Well Volume: 17.61 x 0.65 = 11.45 gal
Pump Intake Depth: Unknown
Analyses/Notes: Ammonia (EPA 350.1), Cl/F/N/SO_4 (EPA 300.0), Ca/Mg/K/Na (EPA 200.7), HCO_3/CO_3 (SM2320B), Total Suspended Solids (SM 2540D)

Time	Water Level (ft BTOC)	Purge Rate (gal/min) ~~(ml/min)~~	Volume Purged (gal)	Temperature (°C) +/- 1°C	Specific Conductivity (mS/cm) +/- 5%	pH (SU) +/- 0.1	Turbidity (NTU) <10 NTU or +/- 10%	DO (mg/L)	ORP (mV)	Comments
1417	-	-	-	-	-	-	-	-	-	Pump On
1419	38.75	1.5	3	23.21	1.231	6.89	0.00	3.72	71.9	Clear water
9.5' 1421	38.79	1.5	6	22.39	1.205	6.88	0.00	2.54	62.2	" "
1423	38.79	1.5	9	22.30	1.201	6.84	0.00	2.36	58.6	" "
1425 ~~1424~~	38.79	1.5	12	22.24	1.200	6.80	0.00	2.13	54.2	" "
1427	38.79	1.5	15	22.26	1.200	6.79	0.00	2.04	51.8	" "
1429	38.79	1.5	18	22.27	1.200	6.78	0.16	1.95	49.4	" "
1431	38.79	1.5	21	22.27	1.200	6.77	0.34	1.83	46.4	" "
1435	Collect CRCP-58522-060									

Well Diameter (in)	2	3	4	5	6	8	10	30
Volume (gal/ft)	0.16	0.37	0.65	1.02	1.47	2.61	4.08	36.70
Volume (L/ft)	0.62	1.40	2.46	3.86	5.56	9.88	15.44	138.93

Monitoring Well Purging Form

Project: **Travis County - Colorado River Corridor Plan**

Date: 5/8/12

Location: **Austin, TX**

Field Personnel: **Kim Nguyen, Arthur Potts**

Well Identification: 221049 (Sarah King)

Initial Water Level (ft, BTOC): 31.21

Well Diameter: 5 inches

Well Depth (ft, BTOC): 43.98

Screen Interval: Unknown

Well Volume: 12.77 x 1.02 = 13.0 gal

Pump/Purging Device: Private pump

Pump Intake Depth: Unknown

Sample Time: 1110

Analyses/Notes: **Ammonia (EPA 350.1), Cl/F/N/SO_4 (EPA 300.0), Ca/Mg/K/Na (EPA 200.7), HCO_3/CO_3 (SM2320B), Total Suspended Solids (SM 2540D)**

Time	Water Level (ft BTOC)	(gal/min) Purge Rate ~~(mL/min)~~	Volume Purged (gal)	Temperature (°C) +/- 1°C	Specific Conductivity (mS/cm) +/- 5%	pH (SU) +/- 0.1	Turbidity (NTU) <10 NTU or +/- 10%	DO (mg/L)	ORP (mV)	Comments
1055	-	-	-	-	-	-	-	-	-	Pump On
1057	31.58	6.5	13	22.29	0.733	7.28	1.04	7.05	72.3	Water is clear
1059	31.67	6.5	26	22.36	0.734	7.24	1.39	6.35	71.3	" " "
1101	31.63	6.5	39	22.30	0.732	7.21	1.65	5.96	70.9	" " "
1103	31.63	6.5	52	22.21	0.731	7.20	1.41	5.72	70.5	" " "
1105	31.63	6.5	65	22.14	0.729	7.20	1.81	5.55	69.7	" " "
1110	Collect CRCP-221049-060									

Well Diameter (in)	2	3	4	5	6	8	10	30
Volume (gal/ft)	0.16	0.37	0.65	1.02	1.47	2.61	4.08	36.70
Volume (L/ft)	0.62	1.40	2.46	3.86	5.56	9.88	15.44	138.93

Monitoring Well Purging Form

Project: Travis County - Colorado River Corridor Plan
Date: 5/7/12
Location: Austin, TX
Field Personnel: Kim Nguyen, Arthur Potts
Well Identification: 5852213 (TX1)
Initial Water Level (ft, BTOC): 27.96
Well Diameter: 5 inches
Well Depth (ft, BTOC): 36.38
Screen Interval: Unknown
Well Volume: 8.42 x 1.02 = 8.6 gal
Pump/Purging Device: Submersible pump
Pump Intake Depth: —
Sample Time: 1000
Analyses/Notes: Ammonia (EPA 350.1), Cl/F/N/SO_4 (EPA 300.0), Ca/Mg/K/Na (EPA 200.7), HCO_3/CO_3 (SM2320B), Total Suspended Solids (SM 2540D)

Time	Water Level (ft BTOC)	Purge Rate (mL/min)	(L) Volume Purged ~~(gal)~~	Temperature (°C) +/- 1°C	Specific Conductivity (mS/cm) +/- 5%	pH (SU) +/- 0.1	Turbidity (NTU) <10 NTU or +/- 10%	DO (mg/L)	ORP (mV)	Comments
0941	-	-	-	-	-	-	-	-	-	Pump On
0944	28.00	200	0.6	21.39	0.959	6.69	1.68	2.82	-86.6	Clear water
0947	28.00	250	1.35	21.79	0.965	6.62	1.37	2.32	-89.2	" "
0950	28.00	250	2.10	21.85	0.969	6.53	1.27	1.95	-103.6	" "
0953	28.00	250	2.85	21.69	0.966	6.51	1.76	1.78	-112.8	" "
0956	28.00	250	3.60	21.57	0.963	6.51	1.48	1.66	-123.0	" "
1000	Collect	CRCP-5852213-060								

Well Diameter (in)	2	3	4	5	6	8	10	30
Volume (gal/ft)	0.16	0.37	0.65	1.02	1.47	2.61	4.08	36.70
Volume (L/ft)	0.62	1.40	2.46	3.86	5.56	9.88	15.44	138.93

Monitoring Well Purging Form

Project: Travis County - Colorado River Corridor Plan

Date: 5/7/12

Location: Austin, TX

Field Personnel: Kim Nguyen, Arthur Potts

Well Identification: 5852314 (Mansville WSC)

Initial Water Level (ft, BTOC): 36.25

Well Diameter: 12 inches

Well Depth (ft, BTOC): 60.00

Screen Interval: Unknown

Well Volume: 23.75 x 5.87 = 139 gal

Pump/Purging Device: Private pump

Pump Intake Depth: Unknown

Sample Time: 1105 (at spigot)

Analyses/Notes: Ammonia (EPA 350.1), Cl/F/N/SO_4 (EPA 300.0), Ca/Mg/K/Na (EPA 200.7), HCO_3/CO_3 (SM2320B), Total Suspended Solids (SM 2540D)

10"
11.5"
2"

Time	Water Level (ft BTOC)	Purge Rate gal/min ~~(mL/min)~~	Volume Purged (gal)	Temperature (°C) +/- 1°C	Specific Conductivity (mS/cm) +/- 5%	pH (SU) +/- 0.1	Turbidity (NTU) <10 NTU or +/- 10%	DO (mg/L)	ORP (mV)	Comments
1052	-	-	-	-	-	-	-	-	-	Pump On
1054	40.83	~4	–	20.78	1.297	6.87	12.9	12.92	12.6	Pump is pumping 345 gpm
1056	40.96	~4	–	20.60	1.292	6.80	4.10	7.36	21.3	Sand accumulating @ bottom of
1058	41.04	~4	–	20.53	1.291	6.76	1.05	5.26	29.0	bucket
1100	41.13	~4	–	20.51	1.290	6.74	0.39	4.76	30.4	
1102	41.17	~4	3450	20.51	1.290	6.73	0.12	4.50	32.6	
1105	Collect	CRCP-5852314-0607								

Well Diameter (in)	2	3	4	5	6	8	10	30
Volume (gal/ft)	0.16	0.37	0.65	1.02	1.47	2.61	4.08	36.70
Volume (L/ft)	0.62	1.40	2.46	3.86	5.56	9.88	15.44	138.93

Monitoring Well Purging Form

Project: Travis County - Colorado River Corridor Plan

Date: 5/8/12

Location: Austin, TX

Field Personnel: Kim Nguyen, Arthur Potts

Well Identification: ATF Well 1

Initial Water Level (ft, BTOC): 27.17

Well Diameter: 16 inches

Well Depth (ft, BTOC): 50.58

Screen Interval: Unknown

Well Volume: 23.41 x 10.44 = 244.4 gal

Pump/Purging Device: Private Pump

Pump Intake Depth: Unknown

Sample Time: (at spigot) 0905

Analyses/Notes: Ammonia (EPA 350.1), Cl/F/N/SO_4 (EPA 300.0), Ca/Mg/K/Na (EPA 200.7), HCO_3/CO_3 (SM2320B), Total Suspended Solids (SM 2540D)

Time	Water Level (ft BTOC)	Purge Rate (gal/min) (mL/min)	Volume Purged (gal)	Temperature (°C) +/- 1°C	Specific Conductivity (mS/cm) +/- 5%	pH (SU) +/- 0.1	Turbidity (NTU) <10 NTU or +/- 10%	DO (mg/L)	ORP (mV)	Comments
0851	-	-	-	-	-	-	-	-	-	Pump On
0853	—	5.5	—	21.25	1.444	7.00	0.00	4.94	43.2	Water is clear
0855	—	5.5	—	21.27	1.445	6.97	0.00	4.28	37.6	" " "
11" 0857	40.92	5.5	—	21.28	1.445	6.94	0.00	3.69	31.4	" " "
11" 0859	40.92	5.5	—	21.28	1.445	6.93	0.16	3.38	27.1	" " "
10.5" 0901	40.88	5.5		21.28	1.446	6.92	0.65	3.10	22.4	" " "
0905	Collect	CRCP-ATF1-060								

Well Diameter (in)	2	3	4	5	6	8	10	30
Volume (gal/ft)	0.16	0.37	0.65	1.02	1.47	2.61	4.08	36.70
Volume (L/ft)	0.62	1.40	2.46	3.86	5.56	9.88	15.44	138.93

Monitoring Well Purging Form

Project: Travis County - Colorado River Corridor Plan

Date: 5/7/12

Location: Austin, TX

Field Personnel: Kim Nguyen, Arthur Potts

Well Identification: Buchheit well

Initial Water Level (ft, BTOC): 25.33

Well Diameter: 4 inches

Well Depth (ft, BTOC): 30.75

Screen Interval: Unknown

Well Volume: 5.42 × 0.65 = 3.5 gal

Pump/Purging Device: Private pump

Pump Intake Depth: Unknown

Sample Time: 1515

Analyses/Notes: **Ammonia (EPA 350.1), Cl/F/N/SO_4 (EPA 300.0), Ca/Mg/K/Na (EPA 200.7), HCO_3/CO_3 (SM2320B), Total Suspended Solids (SM 2540D)**

Time	Water Level (ft BTOC)	Purge Rate (gal/min) ~~(mL/min)~~	Volume Purged (gal)	Temperature (°C) +/- 1°C	Specific Conductivity (mS/cm) +/- 5%	pH (SU) +/- 0.1	Turbidity (NTU) <10 NTU or +/- 10%	DO (mg/L)	ORP (mV)	Comments
1500	-	-	-	-	-	-	-	-	-	Pump On
1502	25.46	5.5	11	23.29	0.975	6.83	0.21	7.51	96.1	Water is clear
1504	25.46	5.5	22	22.46	0.958	6.78	0.00	6.02	90.6	" " "
1506	25.46	5.5	33	22.32	0.958	6.78	0.00	5.40	87.7	" " "
1508	25.46	5.5	44	22.29	0.958	6.73	0.00	4.89	81.2	" " "
1510	25.46	5.5	55	22.29	0.959	6.71	0.00	4.69	78.3	" " "
1512	25.46	5.5	66	22.68	0.964	6.69	0.00	4.44	75.6	" " "
1515	Collect	CRCP-Buchheit-060								

5.5"

Well Diameter (in)	2	3	4	5	6	8	10	30
Volume (gal/ft)	0.16	0.37	0.65	1.02	1.47	2.61	4.08	36.70
Volume (L/ft)	0.62	1.40	2.48	3.86	5.56	9.88	15.44	138.93

Monitoring Well Purging Form

Project: Travis County - Colorado River Corridor Plan

Date: 5/8/12

Location: Austin, TX

Field Personnel: Kim Nguyen, Arthur Potts

Well Identification: Holweger well

Initial Water Level (ft, BTOC): 31.38

Well Diameter: 5 inches

Well Depth (ft, BTOC): 39.75

Screen Interval: Unknown

Well Volume: 8.37 x 1.02 = 8.54 gal

Pump/Purging Device: Private pump

Pump Intake Depth: Unknown

Sample Time: 1035

Analyses/Notes: Ammonia (EPA 350.1), Cl/F/N/SO_4 (EPA 300.0), Ca/Mg/K/Na (EPA 200.7), HCO_3/CO_3 (SM2320B), Total Suspended Solids (SM 2540D)

5"

Time	Water Level (ft BTOC)	Purge Rate (gal/min) (mL/min)	Volume Purged (gal)	Temperature (°C) +/- 1°C	Specific Conductivity (mS/cm) +/- 5%	pH (SU) +/- 0.1	Turbidity (NTU) <10 NTU or +/- 10%	DO (mg/L)	ORP (mV)	Comments
1019	-	-	-	-	-	-	-	-	-	Pump On
1021	31.42	2.25	4.5	21.50	0.802	7.28	0.12	7.63	41.8	Water is clear
1023	31.42	2.25	9.0	21.56	0.802	7.25	0.29	6.82	41.9	" " "
1025	31.42	2.25	13.5	21.72	0.805	7.21	0.00	5.61	43.1	" " "
1027	31.42	2.25	18.0	21.79	0.806	7.19	0.17	5.34	44.1	" " "
1029	—	2.25	22.5	21.84	0.807	7.18	0.00	5.17	44.9	" " " ; WL meter stopped working
1031	31.42	2.25	27.0	21.87	0.808	7.18	0.00	5.01	45.8	" " "
1035	Collect	CRCP-Holweger-0663					(MS/MSD)			

Well Diameter (in)	2	3	4	5	6	8	10	30
Volume (gal/ft)	0.16	0.37	0.65	1.02	1.47	2.61	4.08	36.70
Volume (L/ft)	0.62	1.40	2.46	3.86	5.56	9.88	15.44	138.93

836499770
836499779

NTN Well 1 - DTW = 27.96' BTOC @ 925 AM on 5/8/12

Monitoring Well Purging Form

Project: Travis County - Colorado River Corridor Plan

Date: 5/8/12

Location: Austin, TX

Field Personnel: Kim Nguyen, Arthur Potts

Well Identification: NTN Well 2

Initial Water Level (ft, BTOC): 30.33

Well Diameter: 18 inches

Well Depth (ft, BTOC): 40.77

Screen Interval: Unknown

Well Volume: 10.44 x 13.21 = 137.9 gal

Pump/Purging Device: Private pump

Pump Intake Depth: Unknown

Sample Time: (at spigot) 0955

Analyses/Notes: Ammonia (EPA 350.1), Cl/F/N/SO_4 (EPA 300.0), Ca/Mg/K/Na (EPA 200.7), HCO_3/CO_3 (SM2320B), Total Suspended Solids (SM 2540D)

Time	Water Level (ft BTOC)	Purge Rate (gal/min) (mL/min)	Volume Purged (gal)	Temperature (°C) +/- 1°C	Specific Conductivity (mS/cm) +/- 5%	pH (SU) +/- 0.1	Turbidity (NTU) <10 NTU or +/- 10%	DO (mg/L)	ORP (mV)	Comments
0935	-	-	-	-	-	-	-	-	-	Pump On
0930	—	~30	—	21.52	1.696	7.25	0.09	5.96	31.8	Water is clear
0940	—	~30	—	21.53	1.695	7.23	2.25	6.19	33.4	" " "
0942	—	~30	—	21.53	1.694	7.22	0.00	6.24	35.1	" " "
0944	—	~30	—	21.54	1.694	7.21	0.00	6.27	37.8	" " "
0946	—	~30	—	21.54	1.695	7.20	1.77	6.29	38.5	" " "
0948	—	~30	>390	21.54	1.694	7.21	0.86	6.23	39.5	" " "
										WL meter not working
0955	Collect	CRCP-NTNW2-060								
		CRCP-NTNW2-061								

Well Diameter (in)	2	3	4	5	6	8	10	30
Volume (gal/ft)	0.16	0.37	0.65	1.02	1.47	2.61	4.08	36.70
Volume (L/ft)	0.62	1.40	2.46	3.86	5.56	9.88	15.44	138.93

Monitoring Well Purging Form

Project: Travis County - Colorado River Corridor Plan

Date: 5/7/12

Location: Austin, TX

Field Personnel: Kim Nguyen, Arthur Potts

Well Identification: Wisian Well 1

Initial Water Level (ft, BTOC): 49.54

Well Diameter: 8 inches

Well Depth (ft, BTOC): 65.10

Screen Interval: Unknown

Well Volume: 15.56 x 2.61 = 40.6gal

Pump/Purging Device: Submersible pump

Pump Intake Depth: ~54

Sample Time: 1240 / 1250 (EB)

Analyses/Notes: Ammonia (EPA 350.1), Cl/F/N/SO_4 (EPA 300.0), Ca/Mg/K/Na (EPA 200.7), HCO_3/CO_3 (SM2320B), Total Suspended Solids (SM 2540D)

Time	Water Level (ft BTOC)	Purge Rate (mL/min)	Volume Purged (L) ~~(gal)~~	Temperature (°C) +/- 1°C	Specific Conductivity (mS/cm) +/- 5%	pH (SU) +/- 0.1	Turbidity (NTU) <10 NTU or +/- 10%	DO (mg/L)	ORP (mV)	Comments
1210	-	-	-	-	-	-	-	-	-	Pump On
1213	49.54	500	1.5	23.89	0.832	6.98	0.24	4.11	63.9	Clear water
1216	49.50	500	3.0	23.64	0.830	6.86	0.00	3.96	43.6	
1219	49.50	500	4.5	23.89	0.834	6.79	—	3.74	27.4	Pump stopped @ 1220
1226 ~~1222~~	49.50	650	6.45	23.00	0.824	6.84	Very 0.03 ~~100~~ (3)	3.98	44.1	
1229 ~~1225~~	49.50	650	8.4	22.64	0.814	6.74	~~0.03~~ 0.16 (6)	6.59	49.0	
1232	49.50	650	10.35	22.59	0.813	6.74	0.00	4.04	53.1	
1235	49.50	650	12.3	22.53	0.811	6.74	0.00	3.76	51.4	
1240	Collect CRCP-WisianW1-060									
1250	Collect CRCP-WisianW1-065 (EB)									

Well Diameter (in)	2	3	4	5	6	8	10	30
Volume (gal/ft)	0.16	0.37	0.65	1.02	1.47	2.61	4.08	36.70
Volume (L/ft)	0.62	1.40	2.46	3.86	5.56	9.88	15.44	138.93

Monitoring Well Purging Form

Project: **Travis County - Colorado River Corridor Plan**

Date: 5/7/12

Location: **Austin, TX**

Field Personnel: **Kim Nguyen, Arthur Potts**

Well Identification: Wisian Well 2

Initial Water Level (ft, BTOC): 44.83

Well Diameter: 6 **inches**

Well Depth (ft, BTOC): 62.18

Screen Interval: Unknown

Well Volume: 17.35 x 1.47 = 25.5 gal

Pump/Purging Device: Submersible pump

Pump Intake Depth: ~50' BTOC

Sample Time: 1325

Analyses/Notes: **Ammonia (EPA 350.1), Cl/F/N/SO_4 (EPA 300.0), Ca/Mg/K/Na (EPA 200.7), HCO_3/CO_3 (SM2320B), Total Suspended Solids (SM 2540D)**

Time	Water Level (ft BTOC)	Purge Rate (mL/min)	(4) Volume Purged ~~(gal)~~	Temperature (°C) +/- 1°C	Specific Conductivity (mS/cm) +/- 5%	pH (SU) +/- 0.1	Turbidity (NTU) <10 NTU or +/- 10%	DO (mg/L)	ORP (mV)	Comments
1307	-	-	-	-	-	-	-	-	-	Pump On
1310	44.83	1000	3.0	23.50	1.032	6.68	0.28	2.01	28.9	Water is clear
1313	44.83	400	4.2	23.13	1.028	6.72	0.08	2.12	41.7	* Problems with knob on
1316 (11.5')	44.96	400	5.4	23.22	1.029	6.69	0.00	1.97	41.4	low flow controller. Hard to get control of rate.
1319	44.96	400	6.6	23.31	1.030	6.68	0.24	1.94	42.6	
1322	44.96	400	7.8	23.88	1.039	6.68	0.18	1.90	42.8	
1325	Collect CRCP-WisianW2-0607									

Well Diameter (in)	2	3	4	5	6	8	10	30
Volume (gal/ft)	0.16	0.37	0.65	1.02	1.47	2.61	4.08	36.70
Volume (L/ft)	0.62	1.40	2.46	3.86	5.56	9.88	15.44	138.93

APPENDIX B

Laboratory Analytical Reports

URS

TO: Kevin Pasternak

FROM: Carol Lovett, Austin QA/QC Group

PROJECT: Colorado River Corridor (CRC)

DATE: May 31, 2012

SUBJECT: Data Validation Summary for the October 2011 through May 2012 Sampling Events

I have completed the data review and validation of the October 2011 through May 2012 sampling events. This was a general review of the results that were reported from one laboratory: Lower Colorado River Authority Environmental Laboratory Services, Austin, Texas. The quality control (QC) results that were submitted by the laboratory were reviewed to confirm that the analyses were performed according to the CRC Quality Assurance Project Plan, August 2011 and to assess the quality of the reported laboratory data.

The QC results indicate that the data are usable for the intended purposes. Additional observations are:

- Some matrix spike/matrix spike duplicate results for metals could not be evaluated since the concentrations in the parent samples were greater than four times the spike concentrations.

- Some analytes were detected in the equipment blanks (EBs) but most associated results were not qualified since the results in these samples were either greater than five times the EB concentrations or the analytes were not detected in the associated samples. However, the result for fluoride of 0.240 mg/L in sample CRCP-WisianW1-040 was within five times of the associated EB and was qualified with “B” as similar to the associated EB.

- The nitrate results for samples CRCP-NTNW2-020 and its field duplicate CRCP-NTNW2-021 were reported from analyses that were performed slightly past the holding time of 48 hours. The original analyses were performed within the holding time but the results exceeded the calibration range; therefore, the samples had to be reanalyzed with dilutions. No results were qualified since the diluted samples were analyzed about two hours past the holding time. Three other samples were analyzed for nitrate one day past the holding time due to dilutions. These results were qualified with "JL" as estimated/biased low and are presented in Table 1.

Table 1
Nitrate Results Qualified Due to Holding Time Exceedance

Sample Identification	Analyte	Result (mg/L)	Qualification	Reason
CRCP-5852314-060	Nitrate	11.3	JL	Sample analyzed one day past holding time
CRCP-WisianW1-060		8.88		
CRCP-WisianW2-060		12.3		

JL – Estimated/biased low
mg/L – Milligram per liter

LCRA Environmental Laboratory Services

REMIT TO: **Lower Colorado River Authority**
P. O. Box 200870
Houston, Texas 77216-0870
TEL: (512) 356-6022

INVOICE

DATE: *October 28, 2011*

Invoice No: LB89073
Customer No: 000000

Invoice TO: Environmental and Regulatory Affairs
Mail Stop: EL-101
3505 Montopolis Drive
Austin, TX 78744

PO Number:
2282009

Attn: Alicia C. Gill
Phone: (512) 356-6022
Work Order: 1110568 Order Name Colorado River Corridor - Grou Date Received 10/18/2011

Item	Remarks	Matrix	Qty	Mult	Quoted	Test Total
ALKALINITY	HCO3,CO3	Aqueous	5	1	$24.00	$120.00
AMMONIA as N	Ammonia-N	Aqueous	5	1	$15.00	$75.00
ANIONS by ION CHROMATOGRAPHY	Cl,F,NO3,SO4	Aqueous	5	1	$72.00	$360.00
AQPREP TOTAL RECOVERABLE METALS: I	Prep Ca,Mg,Na,	Aqueous	5	1	$15.00	$75.00
ICP METALS, TOTAL RECOVERABLE	Ca,Mg,Na,K	Aqueous	5	1	$48.00	$240.00
TOTAL SUSPENDED SOLIDS	TSS	Aqueous	4	1	$12.00	$48.00

Subtotal: **$918.00**

Misc Charges: $0.00

INVOICE Total: **$918.00**

This is an internal billing for your records. Please do not forward to Accounts Payable.

Environmental Laboratory Services
The Solution Lab

October 28, 2011

Kevin Pasternak
URS Corporation
9400 Amberglen Blvd
Austin, TX 78729

TEL: (512) 419-5293
FAX

RE: Colorado River Corridor - Groundwater

COC ID.: 107744
Order No.: 1110568

Dear Kevin Pasternak:

On 10/18/2011, LCRA Environmental Laboratory Services (ELS) received 5 sample(s) for analyses under Lab Order No. 1110568. This final report provides results related only to the sample(s) as received for the above referenced lab order number.

ELS is accredited under the National Environmental Laboratory Accreditation Program (NELAP) and certifies that all reported results meet NELAP requirements, unless otherwise noted. The Case Narrative provides explanations for any deviations, additions to, or exclusions from the method requirements.

This report contains a total of 22 pages (including the cover letter) and may not be reproduced, except in full, without written approval from ELS.

Thank you for selecting ELS for your analytical needs. If you have questions regarding this report, please contact us at (512) 356-6022. We look forward to assisting you again.

Sincerely,

Tess Abbott
Project Manager

Certificate: T104704218-11-5

LCRA Environmental Laboratory Services

Date: *28-Oct-11*

CLIENT: URS Corporation
Project: Colorado River Corridor - Groundwater
Lab Order: 1110568

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Date Collected	Date Received
1110568-001A	CRCP-Wisian W1-010		10/18/2011 10:10:00 AM	10/18/2011 4:30:00 PM
1110568-001B	CRCP-Wisian W1-010		10/18/2011 10:10:00 AM	10/18/2011 4:30:00 PM
1110568-001C	CRCP-Wisian W1-010		10/18/2011 10:10:00 AM	10/18/2011 4:30:00 PM
1110568-001D	CRCP-Wisian W1-010		10/18/2011 10:10:00 AM	10/18/2011 4:30:00 PM
1110568-002A	CRCP-Wisian W1-015		10/18/2011 10:20:00 AM	10/18/2011 4:30:00 PM
1110568-002B	CRCP-Wisian W1-015		10/18/2011 10:20:00 AM	10/18/2011 4:30:00 PM
1110568-002C	CRCP-Wisian W1-015		10/18/2011 10:20:00 AM	10/18/2011 4:30:00 PM
1110568-003A	CRCP-Glass-010		10/18/2011 11:20:00 AM	10/18/2011 4:30:00 PM
1110568-003B	CRCP-Glass-010		10/18/2011 11:20:00 AM	10/18/2011 4:30:00 PM
1110568-003C	CRCP-Glass-010		10/18/2011 11:20:00 AM	10/18/2011 4:30:00 PM
1110568-003D	CRCP-Glass-010		10/18/2011 11:20:00 AM	10/18/2011 4:30:00 PM
1110568-004A	CRCP-5852213-010		10/18/2011 1:30:00 PM	10/18/2011 4:30:00 PM
1110568-004B	CRCP-5852213-010		10/18/2011 1:30:00 PM	10/18/2011 4:30:00 PM
1110568-004C	CRCP-5852213-010		10/18/2011 1:30:00 PM	10/18/2011 4:30:00 PM
1110568-004D	CRCP-5852213-010		10/18/2011 1:30:00 PM	10/18/2011 4:30:00 PM
1110568-005A	CRCP-5852314-010		10/18/2011 2:55:00 PM	10/18/2011 4:30:00 PM
1110568-005B	CRCP-5852314-010		10/18/2011 2:55:00 PM	10/18/2011 4:30:00 PM
1110568-005C	CRCP-5852314-010		10/18/2011 2:55:00 PM	10/18/2011 4:30:00 PM
1110568-005D	CRCP-5852314-010		10/18/2011 2:55:00 PM	10/18/2011 4:30:00 PM

Final Analysis Report

LCRA Environmental Laboratory Services

Date: *28-Oct-11*

CLIENT:	URS Corporation	**Client Sample ID:**	CRCP-Wisian W1-010
Lab Order:	1110568	**Collection Date:**	10/18/2011 10:10:00 AM
Project:	Colorado River Corridor - Groundwater	**Matrix:**	GROUNDWATER
Lab ID:	1110568-001	**Tag No:**	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, TOTAL RECOVERABLE		**E200.7**				Analyst: **MV**
Calcium	87.0	0.200		mg/L	1	10/24/2011 1:10:08 PM
Magnesium	11.0	0.200		mg/L	1	10/24/2011 1:10:08 PM
Potassium	2.64	0.200		mg/L	1	10/24/2011 1:10:08 PM
Sodium	56.8	0.600		mg/L	1	10/24/2011 1:10:08 PM
ANIONS BY ION CHROMATOGRAPHY		**E300.0**				Analyst: **WR**
Chloride	18.5	1.00		mg/L	1	10/19/2011 12:05:00 PM
Fluoride	0.238	0.010		mg/L	1	10/19/2011 12:05:00 PM
Nitrogen, Nitrate (As N)	8.62	0.100		mg/L	10	10/19/2011 1:42:00 PM
Sulfate	27.2	1.00		mg/L	1	10/19/2011 12:05:00 PM
ALKALINITY		**SM2320 B**				Analyst: **KH**
Alkalinity, Bicarbonate (As CaCO3)	308	2	A	mg/L CaCO3	1	10/19/2011
Alkalinity, Carbonate (As CaCO3)	< 2	2	A	mg/L CaCO3	1	10/19/2011
AMMONIA AS N		**E350.1**				Analyst: **JB**
Nitrogen, Ammonia (As N)	< 0.020	0.020		mg/L	1	10/21/2011
TOTAL SUSPENDED SOLIDS		**SM2540D**				Analyst: **JB**
Suspended Solids (Residue, Non-Filterable)	2.3	1.0		mg/L	1	10/20/2011

Qualifiers:

A Not Available for Accreditation
E Value Above Quantitation Range
N Not Accredited
X Value Exceeds Maximum Contaminant Level (MCL)
B Analyte Detected in Method Blank
H Holding Time Exceeded
S Spike Recovery Outside Recovery Limits

PQL: Practical Quantitation Limit

Values Below PQL Considered Estimated

LCRA Environmental Laboratory Services

Date: *28-Oct-11*

CLIENT:	URS Corporation	**Client Sample ID:**	CRCP-Wisian W1-015
Lab Order:	1110568	**Collection Date:**	10/18/2011 10:20:00 AM
Project:	Colorado River Corridor - Groundwater	**Matrix:**	GROUNDWATER
Lab ID:	1110568-002	**Tag No:**	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, TOTAL RECOVERABLE		**E200.7**				Analyst: **MV**
Calcium	< 0.200	0.200		mg/L	1	10/24/2011 1:17:55 PM
Magnesium	< 0.200	0.200		mg/L	1	10/24/2011 1:17:55 PM
Potassium	< 0.200	0.200		mg/L	1	10/24/2011 1:17:55 PM
Sodium	< 0.600	0.600		mg/L	1	10/24/2011 1:17:55 PM
ANIONS BY ION CHROMATOGRAPHY		**E300.0**				Analyst: **WR**
Chloride	< 1.00	1.00		mg/L	1	10/19/2011 12:21:00 PM
Fluoride	< 0.010	0.010		mg/L	1	10/19/2011 12:21:00 PM
Nitrogen, Nitrate (As N)	< 0.010	0.010		mg/L	1	10/19/2011 12:21:00 PM
Sulfate	< 1.00	1.00		mg/L	1	10/19/2011 12:21:00 PM
ALKALINITY		**SM2320 B**				Analyst: **KH**
Alkalinity, Bicarbonate (As CaCO3)	2	2	A	mg/L CaCO3	1	10/19/2011
Alkalinity, Carbonate (As CaCO3)	< 2	2	A	mg/L CaCO3	1	10/19/2011
AMMONIA AS N		**E350.1**				Analyst: **JB**
Nitrogen, Ammonia (As N)	< 0.020	0.020		mg/L	1	10/21/2011

Qualifiers:

A Not Available for Accreditation
B Analyte Detected in Method Blank
E Value Above Quantitation Range
H Holding Time Exceeded
N Not Accredited
S Spike Recovery Outside Recovery Limits
X Value Exceeds Maximum Contaminant Level (MCL)

PQL: Practical Quantitation Limit

Values Below PQL Considered Estimated

LCRA Environmental Laboratory Services

Date: *28-Oct-11*

CLIENT:	URS Corporation	**Client Sample ID:**	CRCP-Glass-010
Lab Order:	1110568	**Collection Date:**	10/18/2011 11:20:00 AM
Project:	Colorado River Corridor - Groundwater	**Matrix:**	GROUNDWATER
Lab ID:	1110568-003	**Tag No:**	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, TOTAL RECOVERABLE		**E200.7**				Analyst: **MV**
Calcium	3040	20.0		mg/L	100	10/27/2011 2:38:49 PM
Magnesium	73.2	0.200		mg/L	1	10/27/2011 1:08:17 PM
Potassium	22.1	0.200		mg/L	1	10/27/2011 1:08:17 PM
Sodium	58.3	0.600		mg/L	1	10/27/2011 1:08:17 PM
ANIONS BY ION CHROMATOGRAPHY		**E300.0**				Analyst: **WR**
Chloride	18.6	1.00		mg/L	1	10/19/2011 12:37:00 PM
Fluoride	0.232	0.010		mg/L	1	10/19/2011 12:37:00 PM
Nitrogen, Nitrate (As N)	10.5	0.100	X	mg/L	10	10/19/2011 1:59:00 PM
Sulfate	32.5	1.00		mg/L	1	10/19/2011 12:37:00 PM
ALKALINITY		**SM2320 B**				Analyst: **KH**
Alkalinity, Bicarbonate (As CaCO3)	882	2	A	mg/L CaCO3	1	10/19/2011
Alkalinity, Carbonate (As CaCO3)	< 2	2	A	mg/L CaCO3	1	10/19/2011
AMMONIA AS N		**E350.1**				Analyst: **JB**
Nitrogen, Ammonia (As N)	3.54	0.100		mg/L	5	10/21/2011
TOTAL SUSPENDED SOLIDS		**SM2540D**				Analyst: **JB**
Suspended Solids (Residue, Non-Filterable)	3120	50.0		mg/L	50	10/20/2011

Qualifiers:

A Not Available for Accreditation
B Analyte Detected in Method Blank
E Value Above Quantitation Range
H Holding Time Exceeded
N Not Accredited
S Spike Recovery Outside Recovery Limits
X Value Exceeds Maximum Contaminant Level (MCL)

PQL: Practical Quantitation Limit

Values Below PQL Considered Estimated

LCRA Environmental Laboratory Services

Date: *28-Oct-11*

CLIENT:	URS Corporation	**Client Sample ID:**	CRCP-5852213-010
Lab Order:	1110568	**Collection Date:**	10/18/2011 1:30:00 PM
Project:	Colorado River Corridor - Groundwater	**Matrix:**	GROUNDWATER
Lab ID:	1110568-004	**Tag No:**	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, TOTAL RECOVERABLE		**E200.7**				Analyst: **MV**
Calcium	130	0.200		mg/L	1	10/24/2011 1:23:24 PM
Magnesium	24.8	0.200		mg/L	1	10/24/2011 1:23:24 PM
Potassium	4.68	0.200		mg/L	1	10/24/2011 1:23:24 PM
Sodium	31.9	0.600		mg/L	1	10/24/2011 1:23:24 PM
ANIONS BY ION CHROMATOGRAPHY		**E300.0**				Analyst: **WR**
Chloride	27.8	1.00		mg/L	1	10/19/2011 12:53:00 PM
Fluoride	0.293	0.010		mg/L	1	10/19/2011 12:53:00 PM
Nitrogen, Nitrate (As N)	0.070	0.010		mg/L	1	10/19/2011 12:53:00 PM
Sulfate	7.11	1.00		mg/L	1	10/19/2011 12:53:00 PM
ALKALINITY		**SM2320 B**				Analyst: **KH**
Alkalinity, Bicarbonate (As CaCO3)	460	2	A	mg/L CaCO3	1	10/19/2011
Alkalinity, Carbonate (As CaCO3)	< 2	2	A	mg/L CaCO3	1	10/19/2011
AMMONIA AS N		**E350.1**				Analyst: **JB**
Nitrogen, Ammonia (As N)	6.35	0.100		mg/L	5	10/21/2011
TOTAL SUSPENDED SOLIDS		**SM2540D**				Analyst: **JB**
Suspended Solids (Residue, Non-Filterable)	60.0	10.0		mg/L	10	10/20/2011

Qualifiers:

A Not Available for Accreditation
B Analyte Detected in Method Blank
E Value Above Quantitation Range
H Holding Time Exceeded
N Not Accredited
S Spike Recovery Outside Recovery Limits
X Value Exceeds Maximum Contaminant Level (MCL)

PQL: Practical Quantitation Limit

Values Below PQL Considered Estimated

LCRA Environmental Laboratory Services

Date: *28-Oct-11*

CLIENT:	URS Corporation	**Client Sample ID:**	CRCP-5852314-010
Lab Order:	1110568	**Collection Date:**	10/18/2011 2:55:00 PM
Project:	Colorado River Corridor - Groundwater	**Matrix:**	GROUNDWATER
Lab ID:	1110568-005	**Tag No:**	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, TOTAL RECOVERABLE		**E200.7**				Analyst: **MV**
Calcium	137	0.200		mg/L	1	10/24/2011 1:31:11 PM
Magnesium	39.9	0.200		mg/L	1	10/24/2011 1:31:11 PM
Potassium	2.22	0.200		mg/L	1	10/24/2011 1:31:11 PM
Sodium	81.2	0.600		mg/L	1	10/24/2011 1:31:11 PM
ANIONS BY ION CHROMATOGRAPHY		**E300.0**				Analyst: **WR**
Chloride	61.0	1.00		mg/L	1	10/19/2011 1:09:00 PM
Fluoride	0.235	0.010		mg/L	1	10/19/2011 1:09:00 PM
Nitrogen, Nitrate (As N)	10.8	0.100	X	mg/L	10	10/19/2011 2:15:00 PM
Sulfate	188	10.0		mg/L	10	10/19/2011 2:15:00 PM
ALKALINITY		**SM2320 B**				Analyst: **KH**
Alkalinity, Bicarbonate (As CaCO3)	364	2	A	mg/L CaCO3	1	10/19/2011
Alkalinity, Carbonate (As CaCO3)	< 2	2	A	mg/L CaCO3	1	10/19/2011
AMMONIA AS N		**E350.1**				Analyst: **JB**
Nitrogen, Ammonia (As N)	< 0.020	0.020		mg/L	1	10/21/2011
TOTAL SUSPENDED SOLIDS		**SM2540D**				Analyst: **JB**
Suspended Solids (Residue, Non-Filterable)	< 1.1	1.1		mg/L	1.1	10/20/2011

Qualifiers:

A Not Available for Accreditation
B Analyte Detected in Method Blank
E Value Above Quantitation Range
H Holding Time Exceeded
N Not Accredited
S Spike Recovery Outside Recovery Limits
X Value Exceeds Maximum Contaminant Level (MCL)

PQL: Practical Quantitation Limit

Values Below PQL Considered Estimated

Analytical Comments for METHOD E300.0, SAMPLE 1110568-003A, Batch R85929A: The nitrate MCL of 10 mg/L has been exceeded under the EPA National Primary Drinking Water Standards.

Analytical Comments for METHOD E300.0, SAMPLE 1110568-005A, Batch R85929A: The nitrate MCL of 10 mg/L has been exceeded under the EPA National Primary Drinking Water Standards.

Analytical Comments for METHOD E200.7, SAMPLE 1110641-001BLFM, Batch R85992A: The calcium LFM recovery was not reported because the spike amount was less than 30 percent of the sample background concentration.

Analytical Comments for METHOD E200.7, SAMPLE 1110641-001BLFMD, Batch R85992A: The calcium LFMD recovery was not reported because the spike amount was less than 30 percent of the sample background concentration.

Analytical Comments for METHOD E200.7, SAMPLE 1110582-003ALFM, Batch R86053A: The sodium LFM recovery was not reported because the spike amount was less than 30 percent of the sample background concentration.

Analytical Comments for METHOD E200.7, SAMPLE 1110582-003ALFMD, Batch R86053A: The sodium LFMD recovery was not reported because the spike amount was less than 30 percent of the sample background concentration.

CLIENT: URS Corporation
Work Order: 1110568
Project: Colorado River Corridor - Groundwater

ANALYTICAL QC SUMMARY REPORT

BatchID: R85911

Sample ID: **Blank**	SampType: **MBLK**	TestCode: **ALK**	Units: **mg/L CaCO3**	Prep Date:	RunNo: **85911**
Client ID: **PBW**	Batch ID: **R85911**	TestNo: **SM2320 B**		Analysis Date: **10/19/2011**	SeqNo: **2903167**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	< 2	2									A
Alkalinity, Carbonate (As CaCO3)	< 2	2									A

Sample ID: **Blank**	SampType: **MBLK**	TestCode: **ALK**	Units: **mg/L CaCO3**	Prep Date:	RunNo: **85911**
Client ID: **PBW**	Batch ID: **R85911**	TestNo: **SM2320 B**		Analysis Date: **10/19/2011**	SeqNo: **2903168**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	2	2									A
Alkalinity, Carbonate (As CaCO3)	< 2	2									A

Sample ID: **1110547-001ADUP**	SampType: **DUP**	TestCode: **ALK**	Units: **mg/L CaCO3**	Prep Date:	RunNo: **85911**
Client ID: **ZZZZZZ**	Batch ID: **R85911**	TestNo: **SM2320 B**		Analysis Date: **10/19/2011**	SeqNo: **2903172**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	205	2						197.8	3.77	0	A
Alkalinity, Carbonate (As CaCO3)	< 2	2						0	0	0	A

Qualifiers:

A	Not Available for Accreditation	B	Analyte Detected in Method Blank	E	Value Above Quantitation Range
H	Holding Time Exceeded	N	Not Accredited	R	RPD Outside Recovery Limits
S	Spike Recovery Outside Recovery Limits	X	Value Exceeds Maximum Contaminant Level (MCL)		

CLIENT: URS Corporation
Work Order: 1110568
Project: Colorado River Corridor - Groundwater

ANALYTICAL QC SUMMARY REPORT

BatchID: R85920

Sample ID: MBLK	SampType: MBLK	TestCode: TSS_SM	Units: mg/L	Prep Date:	RunNo: 85920
Client ID: PBW	Batch ID: R85920	TestNo: SM2540D		Analysis Date: 10/20/2011	SeqNo: 2903434

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter	< 1.0	1.0									

Sample ID: LCS	SampType: LCS	TestCode: TSS_SM	Units: mg/L	Prep Date:	RunNo: 85920
Client ID: LCSW	Batch ID: R85920	TestNo: SM2540D		Analysis Date: 10/20/2011	SeqNo: 2903435

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter	98.0	10.0	100.0	0	98.0	80	120				

Sample ID: LCSD	SampType: LCSD	TestCode: TSS_SM	Units: mg/L	Prep Date:	RunNo: 85920
Client ID: LCSS02	Batch ID: R85920	TestNo: SM2540D		Analysis Date: 10/20/2011	SeqNo: 2903436

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter	100	10.0	100.0	0	100	0	2000	98.00	2.02	20	

Sample ID: 1110564-002BDUP	SampType: DUP	TestCode: TSS_SM	Units: mg/L	Prep Date:	RunNo: 85920
Client ID: ZZZZZZ	Batch ID: R85920	TestNo: SM2540D		Analysis Date: 10/20/2011	SeqNo: 2903456

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter	50.0	20.0						52.00	3.92	20	

Qualifiers:

A	Not Available for Accreditation	B	Analyte Detected in Method Blank	E	Value Above Quantitation Range
H	Holding Time Exceeded	N	Not Accredited	R	RPD Outside Recovery Limits
S	Spike Recovery Outside Recovery Limits	X	Value Exceeds Maximum Contaminant Level (MCL)		

CLIENT: URS Corporation
Work Order: 1110568
Project: Colorado River Corridor - Groundwater

ANALYTICAL QC SUMMARY REPORT

BatchID: R85929A

Sample ID: IC_111019_LRB	SampType: LRB	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85929
Client ID: ZZZZZZ	Batch ID: R85929A	TestNo: E300.0		Analysis Date: 10/19/2011	SeqNo: 2903696

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	< 1.00	1.00									
Fluoride	< 0.010	0.010									
Nitrogen, Nitrate (As N)	< 0.010	0.010									
Sulfate	< 1.00	1.00									

Sample ID: IC_111019_IPC	SampType: IPC	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85929
Client ID: ZZZZZZ	Batch ID: R85929A	TestNo: E300.0		Analysis Date: 10/19/2011	SeqNo: 2903697

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	30.3	1.00	30.00	0	101	90	110				
Fluoride	1.01	0.010	1.000	0	101	90	110				
Nitrogen, Nitrate (As N)	1.05	0.010	1.000	0	105	90	110				
Sulfate	30.8	1.00	30.00	0	103	90	110				

Sample ID: 1110568-002ALFM	SampType: LFM	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85929
Client ID: CRCP-Wisian W1-01	Batch ID: R85929A	TestNo: E300.0		Analysis Date: 10/19/2011	SeqNo: 2903710

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	19.1	1.00	20.00	0	95.6	80	120				
Fluoride	0.948	0.010	1.000	0	94.8	80	120				
Nitrogen, Nitrate (As N)	0.976	0.010	1.000	0	97.6	80	120				
Sulfate	19.3	1.00	20.00	0	96.3	80	120				

Sample ID: 1110568-002ALFMD	SampType: LFMD	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85929
Client ID: CRCP-Wisian W1-01	Batch ID: R85929A	TestNo: E300.0		Analysis Date: 10/19/2011	SeqNo: 2903711

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	19.1	1.00	20.00	0	95.6	0	2000	19.12	0.0371	20	
Fluoride	0.949	0.010	1.000	0	94.9	0	2000	0.9482	0.0633	20	
Nitrogen, Nitrate (As N)	0.979	0.010	1.000	0	97.9	0	2000	0.9765	0.245	20	

Qualifiers:

A	Not Available for Accreditation	B	Analyte Detected in Method Blank	E	Value Above Quantitation Range
H	Holding Time Exceeded	N	Not Accredited	R	RPD Outside Recovery Limits
S	Spike Recovery Outside Recovery Limits	X	Value Exceeds Maximum Contaminant Level (MCL)		

CLIENT: URS Corporation
Work Order: 1110568
Project: Colorado River Corridor - Groundwater

ANALYTICAL QC SUMMARY REPORT

BatchID: R85929A

Sample ID: 1110568-002ALFMD	SampType: LFMD	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85929
Client ID: CRCP-Wisian W1-01	Batch ID: R85929A	TestNo: E300.0		Analysis Date: 10/19/2011	SeqNo: 2903711

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	19.3	1.00	20.00	0	96.3	0	2000	19.25	0.0514	20	

Sample ID: IC_111019_LFB	SampType: LFB	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85929
Client ID: ZZZZZZ	Batch ID: R85929A	TestNo: E300.0		Analysis Date: 10/19/2011	SeqNo: 2903712

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	30.2	1.00	30.00	0	101	90	110				
Fluoride	1.01	0.010	1.000	0	101	90	110				
Nitrogen, Nitrate (As N)	1.04	0.010	1.000	0	104	90	110				
Sulfate	30.8	1.00	30.00	0	103	90	110				

Sample ID: IC_111019_IPC	SampType: IPC	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85929
Client ID: ZZZZZZ	Batch ID: R85929A	TestNo: E300.0		Analysis Date: 10/19/2011	SeqNo: 2903713

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	30.3	1.00	30.00	0	101	90	110				
Fluoride	1.01	0.010	1.000	0	101	90	110				
Nitrogen, Nitrate (As N)	1.04	0.010	1.000	0	104	90	110				
Sulfate	30.8	1.00	30.00	0	103	90	110				

Sample ID: IC_111019_LRB	SampType: LRB	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85929
Client ID: ZZZZZZ	Batch ID: R85929A	TestNo: E300.0		Analysis Date: 10/19/2011	SeqNo: 2903714

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	< 1.00	1.00									
Fluoride	< 0.010	0.010									
Nitrogen, Nitrate (As N)	< 0.010	0.010									
Sulfate	< 1.00	1.00									

Qualifiers:

A	Not Available for Accreditation	B	Analyte Detected in Method Blank	E	Value Above Quantitation Range
H	Holding Time Exceeded	N	Not Accredited	R	RPD Outside Recovery Limits
S	Spike Recovery Outside Recovery Limits	X	Value Exceeds Maximum Contaminant Level (MCL)		

CLIENT: URS Corporation
Work Order: 1110568
Project: Colorado River Corridor - Groundwater

ANALYTICAL QC SUMMARY REPORT

BatchID: R85971B

Sample ID: 1110622-002CMS	SampType: MS	TestCode: NH3-N	Units: mg/L	Prep Date:	RunNo: 85971
Client ID: ZZZZZZ	Batch ID: R85971B	TestNo: E350.1		Analysis Date: 10/21/2011	SeqNo: 2905208

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	0.903	0.020	1.000	0.01221	89.0	90	110				S

Sample ID: NH3_LFB2	SampType: LFB	TestCode: NH3-N	Units: mg/L	Prep Date:	RunNo: 85971
Client ID: ZZZZZZ	Batch ID: R85971B	TestNo: E350.1		Analysis Date: 10/21/2011	SeqNo: 2905209

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	0.951	0.020	1.000	0	95.1	90	110				

Sample ID: NH3_LRB2	SampType: LRB	TestCode: NH3-N	Units: mg/L	Prep Date:	RunNo: 85971
Client ID: ZZZZZZ	Batch ID: R85971B	TestNo: E350.1		Analysis Date: 10/21/2011	SeqNo: 2905211

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	< 0.020	0.020									

Qualifiers:

A	Not Available for Accreditation	B	Analyte Detected in Method Blank	E	Value Above Quantitation Range
H	Holding Time Exceeded	N	Not Accredited	R	RPD Outside Recovery Limits
S	Spike Recovery Outside Recovery Limits	X	Value Exceeds Maximum Contaminant Level (MCL)		

CLIENT: URS Corporation
Work Order: 1110568
Project: Colorado River Corridor - Groundwater

ANALYTICAL QC SUMMARY REPORT

BatchID: R85992A

Sample ID: LFB-28571	SampType: LFB	TestCode: 200.7	Units: mg/L	Prep Date: 10/21/2011	RunNo: 85992
Client ID: ZZZZZZ	Batch ID: R85992A	TestNo: E200.7		Analysis Date: 10/24/2011	SeqNo: 2905824

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	9.82	0.200	10.00	0	98.2	85	115				
Magnesium	10.0	0.200	10.00	0	100	85	115				
Potassium	10.2	0.200	10.00	0	102	85	115				
Sodium	10.3	0.600	10.00	0	103	85	115				

Sample ID: LFBD-28571	SampType: LFBD	TestCode: 200.7	Units: mg/L	Prep Date: 10/21/2011	RunNo: 85992
Client ID: ZZZZZZ	Batch ID: R85992A	TestNo: E200.7		Analysis Date: 10/24/2011	SeqNo: 2905825

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	9.84	0.200	10.00	0	98.4	0	2000	9.819	0.193	20	
Magnesium	10.0	0.200	10.00	0	100	0	2000	10.04	0.0118	20	
Potassium	10.3	0.200	10.00	0	103	0	2000	10.20	1.32	20	
Sodium	10.5	0.600	10.00	0	105	0	2000	10.33	1.67	20	

Sample ID: LRB-28571	SampType: LRB	TestCode: 200.7	Units: mg/L	Prep Date: 10/21/2011	RunNo: 85992
Client ID: ZZZZZZ	Batch ID: R85992A	TestNo: E200.7		Analysis Date: 10/24/2011	SeqNo: 2905826

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	< 0.200	0.200									
Magnesium	< 0.200	0.200									
Potassium	< 0.200	0.200									
Sodium	< 0.600	0.600									

Sample ID: 1110641-001BLFM	SampType: LFM	TestCode: 200.7	Units: mg/L	Prep Date: 10/21/2011	RunNo: 85992
Client ID: ZZZZZZ	Batch ID: R85992A	TestNo: E200.7		Analysis Date: 10/24/2011	SeqNo: 2905833

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	23.0	0.200	10.00	12.31	107	70	130				
Potassium	12.1	0.200	10.00	1.825	102	70	130				
Sodium	38.5	0.600	10.00	28.99	95.1	70	130				

Qualifiers:

A	Not Available for Accreditation	B	Analyte Detected in Method Blank	E	Value Above Quantitation Range
H	Holding Time Exceeded	N	Not Accredited	R	RPD Outside Recovery Limits
S	Spike Recovery Outside Recovery Limits	X	Value Exceeds Maximum Contaminant Level (MCL)		

CLIENT: URS Corporation
Work Order: 1110568
Project: Colorado River Corridor - Groundwater

ANALYTICAL QC SUMMARY REPORT

BatchID: R85992A

Sample ID: 1110641-001BLFMD	SampType: LFMD	TestCode: 200.7	Units: mg/L	Prep Date: 10/21/2011	RunNo: 85992
Client ID: ZZZZZZ	Batch ID: R85992A	TestNo: E200.7		Analysis Date: 10/24/2011	SeqNo: 2905834

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	22.9	0.200	10.00	12.31	106	0	2000	23.01	0.626	20	
Potassium	12.0	0.200	10.00	1.825	102	0	2000	12.07	0.328	20	
Sodium	38.3	0.600	10.00	28.99	93.2	0	2000	38.50	0.478	20	

Sample ID: CCB2	SampType: CCB	TestCode: 200.7	Units: mg/L	Prep Date:	RunNo: 85992
Client ID: CCB	Batch ID: R85992A	TestNo: E200.7		Analysis Date: 10/24/2011	SeqNo: 2905839

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	< 0.200	0.200									
Magnesium	< 0.200	0.200									
Potassium	< 0.200	0.200									
Sodium	< 0.600	0.600									

Sample ID: IPC2	SampType: IPC	TestCode: 200.7	Units: mg/L	Prep Date:	RunNo: 85992
Client ID: ZZZZZZ	Batch ID: R85992A	TestNo: E200.7		Analysis Date: 10/24/2011	SeqNo: 2905840

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	97.9	0.200	100.0	0	97.9	90	110				
Magnesium	109	0.200	100.0	0	109	90	110				
Potassium	99.9	0.200	100.0	0	99.9	90	110				
Sodium	93.1	0.600	100.0	0	93.1	90	110				

Qualifiers:

A	Not Available for Accreditation	B	Analyte Detected in Method Blank	E	Value Above Quantitation Range
H	Holding Time Exceeded	N	Not Accredited	R	RPD Outside Recovery Limits
S	Spike Recovery Outside Recovery Limits	X	Value Exceeds Maximum Contaminant Level (MCL)		

CLIENT: URS Corporation
Work Order: 1110568
Project: Colorado River Corridor - Groundwater

ANALYTICAL QC SUMMARY REPORT

BatchID: R85997

Sample ID: IC_111024_LRB	SampType: LRB	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85997
Client ID: ZZZZZZ	Batch ID: R85997	TestNo: E300.0		Analysis Date: 10/24/2011	SeqNo: 2905888

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	< 1.00	1.00									
Fluoride	< 0.010	0.010									
Nitrogen, Nitrate (As N)	< 0.010	0.010									
Sulfate	< 1.00	1.00									

Sample ID: IC_111024_IPC	SampType: IPC	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85997
Client ID: ZZZZZZ	Batch ID: R85997	TestNo: E300.0		Analysis Date: 10/24/2011	SeqNo: 2905889

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	30.7	1.00	30.00	0	102	90	110				
Fluoride	0.974	0.010	1.000	0	97.4	90	110				
Nitrogen, Nitrate (As N)	1.03	0.010	1.000	0	103	90	110				
Sulfate	30.9	1.00	30.00	0	103	90	110				

Sample ID: 1110568-002ALFM	SampType: LFM	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85997
Client ID: CRCP-Wisian W1-01	Batch ID: R85997	TestNo: E300.0		Analysis Date: 10/24/2011	SeqNo: 2905902

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	19.3	1.00	20.00	0	96.7	80	120				
Fluoride	0.947	0.010	1.000	0	94.7	80	120				
Nitrogen, Nitrate (As N)	0.989	0.010	1.000	0	98.9	80	120				
Sulfate	19.5	1.00	20.00	0	97.4	80	120				

Sample ID: 1110568-002ALFMD	SampType: LFMD	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85997
Client ID: CRCP-Wisian W1-01	Batch ID: R85997	TestNo: E300.0		Analysis Date: 10/24/2011	SeqNo: 2905903

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	19.3	1.00	20.00	0	96.7	0	2000	19.12	1.10	20	
Fluoride	0.944	0.010	1.000	0	94.4	0	2000	0.9482	0.444	20	
Nitrogen, Nitrate (As N)	0.990	0.010	1.000	0	99.0	0	2000	0.9765	1.34	20	

Qualifiers:

A	Not Available for Accreditation	B	Analyte Detected in Method Blank	E	Value Above Quantitation Range
H	Holding Time Exceeded	N	Not Accredited	R	RPD Outside Recovery Limits
S	Spike Recovery Outside Recovery Limits	X	Value Exceeds Maximum Contaminant Level (MCL)		

CLIENT: URS Corporation
Work Order: 1110568
Project: Colorado River Corridor - Groundwater

ANALYTICAL QC SUMMARY REPORT

BatchID: R85997

Sample ID: 1110568-002ALFMD	SampType: LFMD	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85997
Client ID: CRCP-Wisian W1-01	Batch ID: R85997	TestNo: E300.0		Analysis Date: 10/24/2011	SeqNo: 2905903

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	19.5	1.00	20.00	0	97.4	0	2000	19.25	1.19	20	

Sample ID: IC_111024_LFB	SampType: LFB	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85997
Client ID: ZZZZZZ	Batch ID: R85997	TestNo: E300.0		Analysis Date: 10/24/2011	SeqNo: 2905904

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	30.8	1.00	30.00	0	103	90	110				
Fluoride	0.981	0.010	1.000	0	98.1	90	110				
Nitrogen, Nitrate (As N)	1.09	0.010	1.000	0	109	90	110				
Sulfate	31.0	1.00	30.00	0	103	90	110				

Sample ID: IC_111024_IPC	SampType: IPC	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85997
Client ID: ZZZZZZ	Batch ID: R85997	TestNo: E300.0		Analysis Date: 10/24/2011	SeqNo: 2905905

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	30.8	1.00	30.00	0	103	90	110				
Fluoride	0.980	0.010	1.000	0	98.0	90	110				
Nitrogen, Nitrate (As N)	1.09	0.010	1.000	0	109	90	110				
Sulfate	31.0	1.00	30.00	0	103	90	110				

Sample ID: IC_111024_LRB	SampType: LRB	TestCode: 300_48H	Units: mg/L	Prep Date:	RunNo: 85997
Client ID: ZZZZZZ	Batch ID: R85997	TestNo: E300.0		Analysis Date: 10/24/2011	SeqNo: 2905906

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	< 1.00	1.00									
Fluoride	< 0.010	0.010									
Nitrogen, Nitrate (As N)	< 0.010	0.010									
Sulfate	< 1.00	1.00									

Qualifiers:

A	Not Available for Accreditation	B	Analyte Detected in Method Blank	E	Value Above Quantitation Range
H	Holding Time Exceeded	N	Not Accredited	R	RPD Outside Recovery Limits
S	Spike Recovery Outside Recovery Limits	X	Value Exceeds Maximum Contaminant Level (MCL)		

CLIENT: URS Corporation
Work Order: 1110568
Project: Colorado River Corridor - Groundwater

ANALYTICAL QC SUMMARY REPORT

BatchID: R86053A

Sample ID: LFB-28587	SampType: LFB	TestCode: 200.7	Units: mg/L	Prep Date: 10/25/2011	RunNo: 86053
Client ID: ZZZZZZ	Batch ID: R86053A	TestNo: E200.7		Analysis Date: 10/26/2011	SeqNo: 2907403

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	9.65	0.200	10.00	0	96.5	85	115				
Magnesium	10.0	0.200	10.00	0	100	85	115				
Sodium	9.86	0.600	10.00	0	98.6	85	115				

Sample ID: LFBD-28587	SampType: LFBD	TestCode: 200.7	Units: mg/L	Prep Date: 10/25/2011	RunNo: 86053
Client ID: ZZZZZZ	Batch ID: R86053A	TestNo: E200.7		Analysis Date: 10/26/2011	SeqNo: 2907404

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	9.63	0.200	10.00	0	96.3	0	2000	9.649	0.222	20	
Magnesium	10.0	0.200	10.00	0	100	0	2000	10.02	0.148	20	
Sodium	10.0	0.600	10.00	0	100	0	2000	9.863	1.79	20	

Sample ID: LRB-28587	SampType: LRB	TestCode: 200.7	Units: mg/L	Prep Date: 10/25/2011	RunNo: 86053
Client ID: ZZZZZZ	Batch ID: R86053A	TestNo: E200.7		Analysis Date: 10/26/2011	SeqNo: 2907405

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	< 0.200	0.200									
Magnesium	< 0.200	0.200									
Sodium	< 0.600	0.600									

Sample ID: 1110582-003ALFM	SampType: LFM	TestCode: 200.7	Units: mg/L	Prep Date: 10/25/2011	RunNo: 86053
Client ID: ZZZZZZ	Batch ID: R86053A	TestNo: E200.7		Analysis Date: 10/26/2011	SeqNo: 2907408

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	45.9	0.200	10.00	36.63	92.9	70	130				
Magnesium	19.1	0.200	10.00	8.534	106	70	130				

Qualifiers:

A	Not Available for Accreditation	B	Analyte Detected in Method Blank	E	Value Above Quantitation Range
H	Holding Time Exceeded	N	Not Accredited	R	RPD Outside Recovery Limits
S	Spike Recovery Outside Recovery Limits	X	Value Exceeds Maximum Contaminant Level (MCL)		

CLIENT: URS Corporation
Work Order: 1110568
Project: Colorado River Corridor - Groundwater

ANALYTICAL QC SUMMARY REPORT

BatchID: R86053A

Sample ID: 1110582-003ALFMD	SampType: LFMD	TestCode: 200.7	Units: mg/L	Prep Date: 10/25/2011	RunNo: 86053
Client ID: ZZZZZZ	Batch ID: R86053A	TestNo: E200.7		Analysis Date: 10/26/2011	SeqNo: 2907409

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	46.3	0.200	10.00	36.63	97.0	0	2000	45.92	0.894	20	
Magnesium	19.2	0.200	10.00	8.534	106	0	2000	19.12	0.279	20	

Sample ID: CCB2	SampType: CCB	TestCode: 200.7	Units: mg/L	Prep Date:	RunNo: 86053
Client ID: CCB	Batch ID: R86053A	TestNo: E200.7		Analysis Date: 10/26/2011	SeqNo: 2907414

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	< 0.200	0.200									
Magnesium	< 0.200	0.200									
Sodium	< 0.600	0.600									

Sample ID: IPC2	SampType: IPC	TestCode: 200.7	Units: mg/L	Prep Date:	RunNo: 86053
Client ID: ZZZZZZ	Batch ID: R86053A	TestNo: E200.7		Analysis Date: 10/26/2011	SeqNo: 2907415

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	96.9	0.200	100.0	0	96.9	90	110				
Magnesium	105	0.200	100.0	0	105	90	110				
Sodium	110	0.600	100.0	0	110	90	110				

Qualifiers:

A	Not Available for Accreditation	B	Analyte Detected in Method Blank	E	Value Above Quantitation Range
H	Holding Time Exceeded	N	Not Accredited	R	RPD Outside Recovery Limits
S	Spike Recovery Outside Recovery Limits	X	Value Exceeds Maximum Contaminant Level (MCL)		

CLIENT: URS Corporation
Work Order: 1110568
Project: Colorado River Corridor - Groundwater

ANALYTICAL QC SUMMARY REPORT

BatchID: R86082A

Sample ID: LFB-28587	SampType: LFB	TestCode: 200.7	Units: mg/L	Prep Date: 10/25/2011	RunNo: 86082
Client ID: ZZZZZZ	Batch ID: R86082A	TestNo: E200.7		Analysis Date: 10/27/2011	SeqNo: 2907982

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	10.7	0.200	10.00	0	107	85	115				
Magnesium	10.7	0.200	10.00	0	107	85	115				
Potassium	10.0	0.200	10.00	0	100	85	115				
Sodium	10.5	0.600	10.00	0	105	85	115				

Sample ID: LFBD-28587	SampType: LFBD	TestCode: 200.7	Units: mg/L	Prep Date: 10/25/2011	RunNo: 86082
Client ID: ZZZZZZ	Batch ID: R86082A	TestNo: E200.7		Analysis Date: 10/27/2011	SeqNo: 2907983

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	10.5	0.200	10.00	0	105	0	2000	10.68	1.82	20	
Magnesium	10.5	0.200	10.00	0	105	0	2000	10.75	2.66	20	
Potassium	9.91	0.200	10.00	0	99.1	0	2000	10.01	1.00	20	
Sodium	10.2	0.600	10.00	0	102	0	2000	10.46	2.77	20	

Sample ID: LRB-28587	SampType: LRB	TestCode: 200.7	Units: mg/L	Prep Date: 10/25/2011	RunNo: 86082
Client ID: ZZZZZZ	Batch ID: R86082A	TestNo: E200.7		Analysis Date: 10/27/2011	SeqNo: 2907984

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	< 0.200	0.200									
Magnesium	< 0.200	0.200									
Potassium	< 0.200	0.200									
Sodium	< 0.600	0.600									

Sample ID: 1110582-003ALFM	SampType: LFM	TestCode: 200.7	Units: mg/L	Prep Date: 10/25/2011	RunNo: 86082
Client ID: ZZZZZZ	Batch ID: R86082A	TestNo: E200.7		Analysis Date: 10/27/2011	SeqNo: 2907987

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	19.1	0.200	10.00	8.534	106	70	130				
Potassium	15.5	0.200	10.00	4.945	106	70	130				

Qualifiers:

A	Not Available for Accreditation	B	Analyte Detected in Method Blank	E	Value Above Quantitation Range
H	Holding Time Exceeded	N	Not Accredited	R	RPD Outside Recovery Limits
S	Spike Recovery Outside Recovery Limits	X	Value Exceeds Maximum Contaminant Level (MCL)		

CLIENT: URS Corporation
Work Order: 1110568
Project: Colorado River Corridor - Groundwater

ANALYTICAL QC SUMMARY REPORT

BatchID: R86082A

Sample ID: 1110582-003ALFMD	SampType: LFMD	TestCode: 200.7	Units: mg/L	Prep Date: 10/25/2011	RunNo: 86082
Client ID: ZZZZZZ	Batch ID: R86082A	TestNo: E200.7		Analysis Date: 10/27/2011	SeqNo: 2907988

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	19.1	0.200	10.00	8.534	105	0	2000	19.12	0.234	20	
Potassium	15.4	0.200	10.00	4.945	105	0	2000	16.70	8.00	20	

Sample ID: CCB2	SampType: CCB	TestCode: 200.7	Units: mg/L	Prep Date:	RunNo: 86082
Client ID: CCB	Batch ID: R86082A	TestNo: E200.7		Analysis Date: 10/27/2011	SeqNo: 2907992

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	< 0.200	0.200									
Potassium	< 0.200	0.200									
Sodium	< 0.600	0.600									

Sample ID: IPC2	SampType: IPC	TestCode: 200.7	Units: mg/L	Prep Date:	RunNo: 86082
Client ID: ZZZZZZ	Batch ID: R86082A	TestNo: E200.7		Analysis Date: 10/27/2011	SeqNo: 2907993

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	101	0.200	100.0	0	101	90	110				
Potassium	99.5	0.200	100.0	0	99.5	90	110				

Qualifiers:

A	Not Available for Accreditation	B	Analyte Detected in Method Blank	E	Value Above Quantitation Range
H	Holding Time Exceeded	N	Not Accredited	R	RPD Outside Recovery Limits
S	Spike Recovery Outside Recovery Limits	X	Value Exceeds Maximum Contaminant Level (MCL)		

CLIENT: URS Corporation
Work Order: 1110568
Project: Colorado River Corridor - Groundwater

ANALYTICAL QC SUMMARY REPORT

BatchID: R86082B

Sample ID: **CCB3**	SampType: **CCB**	TestCode: **200.7**	Units: **mg/L**	Prep Date:	RunNo: **86082**
Client ID: **CCB**	Batch ID: **R86082B**	TestNo: **E200.7**		Analysis Date: **10/27/2011**	SeqNo: **2907998**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	< 0.200	0.200									

Sample ID: **IPC3**	SampType: **IPC**	TestCode: **200.7**	Units: **mg/L**	Prep Date:	RunNo: **86082**
Client ID: **ZZZZZZ**	Batch ID: **R86082B**	TestNo: **E200.7**		Analysis Date: **10/27/2011**	SeqNo: **2907999**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	102	0.200	100.0	0	102	90	110				

Qualifiers:

A	Not Available for Accreditation	B	Analyte Detected in Method Blank	E	Value Above Quantitation Range
H	Holding Time Exceeded	N	Not Accredited	R	RPD Outside Recovery Limits
S	Spike Recovery Outside Recovery Limits	X	Value Exceeds Maximum Contaminant Level (MCL)		

Environmental Laboratory Services
The Solution Lab

LCRA ENVIRONMENTAL LABORATORY SERVICES (ELS)
CHAIN OF CUSTODY RECORD

NOTE: Relinquishing sample(s) to ELS obligates the submitter to all Standard Terms and Conditions stated on the back of this form.

Target Due Date: 11/1/11
Work Order No.: 1110568
COC No.: 107749
Page 1 of 1

Results To: Kevin Pasternak 9400 Amberglen Blvd, Austin, TX 78729 — Sampled By: Arthur Potts, Kim Nguyen
Bill To: Travis County - Colorado River Corridor Plan — PO No.:
Phone No.: 512-454-4797 Fax No.: 512-454-8807 Method of Transport: Hand delivery TAT Requested: Standard Working days E-mail: kevin.pasternak@cwrs.com
Relinquished By: [signature] Date: 10/18/11 Time: 4:30 Received By: LCRA Date: 10/18/11 Time: 4:30 Relinquished By: _____ Date: _____ Time: _____

Report Requirements: ☑ Hardcopy ☑ E-mail ☐ Fax ☐ EDD (Generic)
Regulatory Requirements: ☑ None ☐ NELAP ☐ _____
Received at ELS By: [signature] Date: 10/18/11 Time: 1630
☐ Received on Ice Temp: 2.0 °C
Login Review: [signature] Date: 10/18/11
ELS Mgmt. Approval for RUSH: _____
Surcharge for RUSH: _____ %

ELS ID:	SAMPLE DESCRIPTION (Custody Seals (circle): Cooler Bottles None)	MATRIX	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	CONTAINERS NUMBER	CONTAINERS SIZE	CONTAINERS TYPE	ANALYSIS REQUESTED: E350.1	E300.0 / SM4500-P E	E200.7 / SM2540D (TSS)	PRESERVATIVES	pH
001	CRCP-WisianW1-010	W	10/14/11	1010	4	Vary	Plast	*	*	*	H_2SO_4	
002	CRCP-WisianW1-015	W		1020	3	Vary	Plast	*	*	*		
003	CRCP-Glass-010	W		1120	4	Vary	Plast	*	*	*		
004	CRCP-585213-010	W		1330	4	Vary	Plast	*	*	*		
005	CRCP-585214-010	W		1455	4	Vary	Plast	*	*	*		

Special Instructions: _____
ELS Comments: Metals PRESERVED IN LAB 1:1 HNO3: 09/09/11 BY: CAM DATE/TIME: 10/18/11 @ 1900

LCRA Environmental Laboratory Services

REMIT TO: **Lower Colorado River Authority**
P. O. Box 200870
Houston, Texas 77216-0870
TEL: (512) 356-6022

INVOICE

DATE: *October 28, 2011*

Invoice No: LB89074
Customer No: 000000

Invoice TO: Environmental and Regulatory Affairs
Mail Stop: EL-101
3505 Montopolis Drive
Austin, TX 78744

PO Number:
2282009

Attn: Alicia C. Gill
Phone: (512) 356-6022
Work Order: 1110641 Order Name Colorado River Corridor - Grou Date Received 10/19/2011

Item	Remarks	Matrix	Qty	Mult	Quoted	Test Total
ALKALINITY	HCO3,CO3	Aqueous	7	1	$24.00	$168.00
AMMONIA as N	Ammonia-N	Aqueous	7	1	$15.00	$105.00
ANIONS by ION CHROMATOGRAPHY	Cl,F,NO3,SO4	Aqueous	7	1	$72.00	$504.00
AQPREP TOTAL RECOVERABLE METALS: I	Prep Ca,Mg,Na,	Aqueous	7	1	$15.00	$105.00
ICP METALS, TOTAL RECOVERABLE	Ca,Mg,Na,K	Aqueous	7	1	$48.00	$336.00
TOTAL SUSPENDED SOLIDS	TSS	Aqueous	7	1	$12.00	$84.00

Subtotal: $1,302.00

Misc Charges: $0.00

INVOICE Total: $1,302.00

This is an internal billing for your records. Please do not forward to Accounts Payable.

Environmental Laboratory Services

The Solution Lab

October 28, 2011

Kevin Pasternak
URS Corporation
9400 Amberglen Blvd
Austin, TX 78729

TEL: (512) 419-5293
FAX

RE: Colorado River Corridor - Groundwater

COC ID.: 107817
Order No.: 1110641

Dear Kevin Pasternak:

On 10/19/2011, LCRA Environmental Laboratory Services (ELS) received 7 sample(s) for analyses under Lab Order No. 1110641. This final report provides results related only to the sample(s) as received for the above referenced lab order number.

ELS is accredited under the National Environmental Laboratory Accreditation Program (NELAP) and certifies that all reported results meet NELAP requirements, unless otherwise noted. The Case Narrative provides explanations for any deviations, additions to, or exclusions from the method requirements.

This report contains a total of 26 pages (including the cover letter) and may not be reproduced, except in full, without written approval from ELS.

Thank you for selecting ELS for your analytical needs. If you have questions regarding this report, please contact us at (512) 356-6022. We look forward to assisting you again.

Sincerely,

Tess Abbott
Project Manager

Certificate: T104704218-11-5

ACCREDITED IN ACCORDANCE WITH nelac

LCRA Environmental Laboratory Services

Date: *28-Oct-11*

CLIENT: URS Corporation
Project: Colorado River Corridor - Groundwater
Lab Order: 1110641

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Date Collected	Date Received
1110641-001A	CRCP-221049-010		10/19/2011 8:40:00 AM	10/19/2011 4:00:00 PM
1110641-001B	CRCP-221049-010		10/19/2011 8:40:00 AM	10/19/2011 4:00:00 PM
1110641-001C	CRCP-221049-010		10/19/2011 8:40:00 AM	10/19/2011 4:00:00 PM
1110641-001D	CRCP-221049-010		10/19/2011 8:40:00 AM	10/19/2011 4:00:00 PM
1110641-002A	CRCP-Buchert-010		10/19/2011 10:00:00 AM	10/19/2011 4:00:00 PM
1110641-002B	CRCP-Buchert-010		10/19/2011 10:00:00 AM	10/19/2011 4:00:00 PM
1110641-002C	CRCP-Buchert-010		10/19/2011 10:00:00 AM	10/19/2011 4:00:00 PM
1110641-002D	CRCP-Buchert-010		10/19/2011 10:00:00 AM	10/19/2011 4:00:00 PM
1110641-003A	CRCP-58522-010		10/19/2011 11:50:00 AM	10/19/2011 4:00:00 PM
1110641-003B	CRCP-58522-010		10/19/2011 11:50:00 AM	10/19/2011 4:00:00 PM
1110641-003C	CRCP-58522-010		10/19/2011 11:50:00 AM	10/19/2011 4:00:00 PM
1110641-003D	CRCP-58522-010		10/19/2011 11:50:00 AM	10/19/2011 4:00:00 PM
1110641-004A	CRCP-NTNW2-010		10/19/2011 12:55:00 PM	10/19/2011 4:00:00 PM
1110641-004B	CRCP-NTNW2-010		10/19/2011 12:55:00 PM	10/19/2011 4:00:00 PM
1110641-004C	CRCP-NTNW2-010		10/19/2011 12:55:00 PM	10/19/2011 4:00:00 PM
1110641-004D	CRCP-NTNW2-010		10/19/2011 12:55:00 PM	10/19/2011 4:00:00 PM
1110641-005A	CRCP-NTNW2-011		10/19/2011 12:55:00 PM	10/19/2011 4:00:00 PM
1110641-005B	CRCP-NTNW2-011		10/19/2011 12:55:00 PM	10/19/2011 4:00:00 PM
1110641-005C	CRCP-NTNW2-011		10/19/2011 12:55:00 PM	10/19/2011 4:00:00 PM
1110641-005D	CRCP-NTNW2-011		10/19/2011 12:55:00 PM	10/19/2011 4:00:00 PM
1110641-006A	CRCP-ATF1-010		10/19/2011 1:55:00 PM	10/19/2011 4:00:00 PM
1110641-006B	CRCP-ATF1-010		10/19/2011 1:55:00 PM	10/19/2011 4:00:00 PM
1110641-006C	CRCP-ATF1-010		10/19/2011 1:55:00 PM	10/19/2011 4:00:00 PM
1110641-006D	CRCP-ATF1-010		10/19/2011 1:55:00 PM	10/19/2011 4:00:00 PM
1110641-007A	CRCP-Holweger-013		10/19/2011 2:55:00 PM	10/19/2011 4:00:00 PM
1110641-007B	CRCP-Holweger-013		10/19/2011 2:55:00 PM	10/19/2011 4:00:00 PM
1110641-007C	CRCP-Holweger-013		10/19/2011 2:55:00 PM	10/19/2011 4:00:00 PM
1110641-007D	CRCP-Holweger-013		10/19/2011 2:55:00 PM	10/19/2011 4:00:00 PM

Final Analysis Report

LCRA Environmental Laboratory Services

Date: *28-Oct-11*

CLIENT:	URS Corporation	**Client Sample ID:**	CRCP-221049-010
Lab Order:	1110641	**Collection Date:**	10/19/2011 8:40:00 AM
Project:	Colorado River Corridor - Groundwater	**Matrix:**	GROUNDWATER
Lab ID:	1110641-001	**Tag No:**	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, TOTAL RECOVERABLE		**E200.7**				Analyst: **MV**
Calcium	99.0	0.200		mg/L	1	10/24/2011 1:39:15 PM
Magnesium	12.3	0.200		mg/L	1	10/24/2011 1:39:15 PM
Potassium	1.83	0.200		mg/L	1	10/24/2011 1:39:15 PM
Sodium	29.0	0.600		mg/L	1	10/24/2011 1:39:15 PM
ANIONS BY ION CHROMATOGRAPHY		**E300.0**				Analyst: **WR**
Chloride	13.3	1.00		mg/L	1	10/20/2011 10:37:00 AM
Fluoride	0.267	0.010		mg/L	1	10/20/2011 10:37:00 AM
Nitrogen, Nitrate (As N)	13.6	0.100	X	mg/L	10	10/20/2011 5:40:00 PM
Sulfate	17.9	1.00		mg/L	1	10/20/2011 10:37:00 AM
ALKALINITY		**SM2320 B**				Analyst: **KH**
Alkalinity, Bicarbonate (As CaCO3)	286	2	A	mg/L CaCO3	1	10/25/2011
Alkalinity, Carbonate (As CaCO3)	< 2	2	A	mg/L CaCO3	1	10/25/2011
AMMONIA AS N		**E350.1**				Analyst: **JB**
Nitrogen, Ammonia (As N)	< 0.020	0.020		mg/L	1	10/21/2011
TOTAL SUSPENDED SOLIDS		**SM2540D**				Analyst: **JB**
Suspended Solids (Residue, Non-Filterable)	4.8	1.0		mg/L	1	10/20/2011

Qualifiers:

A Not Available for Accreditation
B Analyte Detected in Method Blank
E Value Above Quantitation Range
H Holding Time Exceeded
N Not Accredited
S Spike Recovery Outside Recovery Limits
X Value Exceeds Maximum Contaminant Level (MCL)

PQL: Practical Quantitation Limit

Values Below PQL Considered Estimated

LCRA Environmental Laboratory Services

Date: *28-Oct-11*

CLIENT:	URS Corporation	**Client Sample ID:**	CRCP-Buchert-010
Lab Order:	1110641	**Collection Date:**	10/19/2011 10:00:00 AM
Project:	Colorado River Corridor - Groundwater	**Matrix:**	GROUNDWATER
Lab ID:	1110641-002	**Tag No:**	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, TOTAL RECOVERABLE		**E200.7**				Analyst: **MV**
Calcium	122	0.200		mg/L	1	10/24/2011 2:03:15 PM
Magnesium	12.8	0.200		mg/L	1	10/24/2011 2:03:15 PM
Potassium	2.39	0.200		mg/L	1	10/24/2011 2:03:15 PM
Sodium	55.2	0.600		mg/L	1	10/24/2011 2:03:15 PM
ANIONS BY ION CHROMATOGRAPHY		**E300.0**				Analyst: **WR**
Chloride	36.8	1.00		mg/L	1	10/20/2011 10:54:00 AM
Fluoride	0.373	0.010		mg/L	1	10/20/2011 10:54:00 AM
Nitrogen, Nitrate (As N)	4.56	0.100		mg/L	10	10/20/2011 7:17:00 PM
Sulfate	76.0	10.0		mg/L	10	10/20/2011 7:17:00 PM
ALKALINITY		**SM2320 B**				Analyst: **KH**
Alkalinity, Bicarbonate (As CaCO3)	319	2	A	mg/L CaCO3	1	10/25/2011
Alkalinity, Carbonate (As CaCO3)	< 2	2	A	mg/L CaCO3	1	10/25/2011
AMMONIA AS N		**E350.1**				Analyst: **JB**
Nitrogen, Ammonia (As N)	< 0.020	0.020		mg/L	1	10/21/2011
TOTAL SUSPENDED SOLIDS		**SM2540D**				Analyst: **JB**
Suspended Solids (Residue, Non-Filterable)	< 1.0	1.0		mg/L	1	10/25/2011

Qualifiers:

A Not Available for Accreditation
B Analyte Detected in Method Blank
E Value Above Quantitation Range
H Holding Time Exceeded
N Not Accredited
S Spike Recovery Outside Recovery Limits
X Value Exceeds Maximum Contaminant Level (MCL)

PQL: Practical Quantitation Limit

Values Below PQL Considered Estimated

LCRA Environmental Laboratory Services

Date: *28-Oct-11*

CLIENT:	URS Corporation	**Client Sample ID:**	CRCP-58522-010
Lab Order:	1110641	**Collection Date:**	10/19/2011 11:50:00 AM
Project:	Colorado River Corridor - Groundwater	**Matrix:**	GROUNDWATER
Lab ID:	1110641-003	**Tag No:**	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, TOTAL RECOVERABLE		**E200.7**				Analyst: **MV**
Calcium	117	0.200		mg/L	1	10/24/2011 2:11:05 PM
Magnesium	37.5	0.200		mg/L	1	10/24/2011 2:11:05 PM
Potassium	2.02	0.200		mg/L	1	10/24/2011 2:11:05 PM
Sodium	69.5	0.600		mg/L	1	10/24/2011 2:11:05 PM
ANIONS BY ION CHROMATOGRAPHY		**E300.0**				Analyst: **WR**
Chloride	89.5	10.0		mg/L	10	10/20/2011 7:33:00 PM
Fluoride	0.262	0.010		mg/L	1	10/20/2011 11:10:00 AM
Nitrogen, Nitrate (As N)	4.27	0.100		mg/L	10	10/20/2011 7:33:00 PM
Sulfate	77.3	1.00		mg/L	1	10/20/2011 11:10:00 AM
ALKALINITY		**SM2320 B**				Analyst: **KH**
Alkalinity, Bicarbonate (As CaCO3)	382	2	A	mg/L CaCO3	1	10/25/2011
Alkalinity, Carbonate (As CaCO3)	< 2	2	A	mg/L CaCO3	1	10/25/2011
AMMONIA AS N		**E350.1**				Analyst: **JB**
Nitrogen, Ammonia (As N)	< 0.020	0.020		mg/L	1	10/21/2011
TOTAL SUSPENDED SOLIDS		**SM2540D**				Analyst: **JB**
Suspended Solids (Residue, Non-Filterable)	3.4	1.1		mg/L	1.1	10/25/2011

Qualifiers:

A Not Available for Accreditation
B Analyte Detected in Method Blank
E Value Above Quantitation Range
H Holding Time Exceeded
N Not Accredited
S Spike Recovery Outside Recovery Limits
X Value Exceeds Maximum Contaminant Level (MCL)

PQL: Practical Quantitation Limit

Values Below PQL Considered Estimated

LCRA Environmental Laboratory Services

Date: *28-Oct-11*

CLIENT:	URS Corporation	**Client Sample ID:**	CRCP-NTNW2-010
Lab Order:	1110641	**Collection Date:**	10/19/2011 12:55:00 PM
Project:	Colorado River Corridor - Groundwater	**Matrix:**	GROUNDWATER
Lab ID:	1110641-004	**Tag No:**	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, TOTAL RECOVERABLE		**E200.7**				Analyst: **MV**
Calcium	175	0.200		mg/L	1	10/24/2011 2:18:48 PM
Magnesium	56.5	0.200		mg/L	1	10/24/2011 2:18:48 PM
Potassium	2.24	0.200		mg/L	1	10/24/2011 2:18:48 PM
Sodium	41.7	0.600		mg/L	1	10/24/2011 2:18:48 PM
ANIONS BY ION CHROMATOGRAPHY		**E300.0**				Analyst: **WR**
Chloride	39.6	1.00		mg/L	1	10/20/2011 11:26:00 AM
Fluoride	0.246	0.010		mg/L	1	10/20/2011 11:26:00 AM
Nitrogen, Nitrate (As N)	24.3	0.100	X	mg/L	10	10/20/2011 7:49:00 PM
Sulfate	266	10.0		mg/L	10	10/20/2011 7:49:00 PM
ALKALINITY		**SM2320 B**				Analyst: **KH**
Alkalinity, Bicarbonate (As CaCO3)	382	2	A	mg/L CaCO3	1	10/25/2011
Alkalinity, Carbonate (As CaCO3)	< 2	2	A	mg/L CaCO3	1	10/25/2011
AMMONIA AS N		**E350.1**				Analyst: **JB**
Nitrogen, Ammonia (As N)	< 0.020	0.020		mg/L	1	10/21/2011
TOTAL SUSPENDED SOLIDS		**SM2540D**				Analyst: **JB**
Suspended Solids (Residue, Non-Filterable)	< 1.1	1.1		mg/L	1.1	10/25/2011

Qualifiers:

A Not Available for Accreditation
B Analyte Detected in Method Blank
E Value Above Quantitation Range
H Holding Time Exceeded
N Not Accredited
S Spike Recovery Outside Recovery Limits
X Value Exceeds Maximum Contaminant Level (MCL)

PQL: Practical Quantitation Limit

Values Below PQL Considered Estimated

LCRA Environmental Laboratory Services

Date: *28-Oct-11*

CLIENT:	URS Corporation	**Client Sample ID:**	CRCP-NTNW2-011
Lab Order:	1110641	**Collection Date:**	10/19/2011 12:55:00 PM
Project:	Colorado River Corridor - Groundwater	**Matrix:**	GROUNDWATER
Lab ID:	1110641-005	**Tag No:**	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, TOTAL RECOVERABLE		**E200.7**				Analyst: **MV**
Calcium	178	0.200		mg/L	1	10/24/2011 2:26:31 PM
Magnesium	57.6	0.200		mg/L	1	10/24/2011 2:26:31 PM
Potassium	2.24	0.200		mg/L	1	10/24/2011 2:26:31 PM
Sodium	41.9	0.600		mg/L	1	10/24/2011 2:26:31 PM
ANIONS BY ION CHROMATOGRAPHY		**E300.0**				Analyst: **WR**
Chloride	34.3	5.00		mg/L	5	10/20/2011 8:05:00 PM
Fluoride	0.298	0.050		mg/L	5	10/20/2011 8:05:00 PM
Nitrogen, Nitrate (As N)	24.6	0.100	X	mg/L	10	10/21/2011 11:18:00 AM
Sulfate	271	5.00		mg/L	5	10/20/2011 8:05:00 PM
ALKALINITY		**SM2320 B**				Analyst: **KH**
Alkalinity, Bicarbonate (As CaCO3)	375	2	A	mg/L CaCO3	1	10/25/2011
Alkalinity, Carbonate (As CaCO3)	< 2	2	A	mg/L CaCO3	1	10/25/2011
AMMONIA AS N		**E350.1**				Analyst: **JB**
Nitrogen, Ammonia (As N)	< 0.020	0.020		mg/L	1	10/21/2011
TOTAL SUSPENDED SOLIDS		**SM2540D**				Analyst: **JB**
Suspended Solids (Residue, Non-Filterable)	< 1.1	1.1		mg/L	1.1	10/25/2011

Qualifiers:

A Not Available for Accreditation
B Analyte Detected in Method Blank
E Value Above Quantitation Range
H Holding Time Exceeded
N Not Accredited
S Spike Recovery Outside Recovery Limits
X Value Exceeds Maximum Contaminant Level (MCL)

PQL: Practical Quantitation Limit

Values Below PQL Considered Estimated

LCRA Environmental Laboratory Services

Date: *28-Oct-11*

CLIENT:	URS Corporation	**Client Sample ID:**	CRCP-ATF1-010
Lab Order:	1110641	**Collection Date:**	10/19/2011 1:55:00 PM
Project:	Colorado River Corridor - Groundwater	**Matrix:**	GROUNDWATER
Lab ID:	1110641-006	**Tag No:**	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, TOTAL RECOVERABLE		**E200.7**				Analyst: **MV**
Calcium	194	0.200		mg/L	1	10/24/2011 2:57:28 PM
Magnesium	46.2	0.200		mg/L	1	10/24/2011 2:57:28 PM
Potassium	3.48	0.200		mg/L	1	10/24/2011 2:57:28 PM
Sodium	43.2	0.600		mg/L	1	10/24/2011 2:57:28 PM
ANIONS BY ION CHROMATOGRAPHY		**E300.0**				Analyst: **WR**
Chloride	71.3	5.00		mg/L	5	10/20/2011 8:21:00 PM
Fluoride	0.245	0.050		mg/L	5	10/20/2011 8:21:00 PM
Nitrogen, Nitrate (As N)	6.87	0.050		mg/L	5	10/20/2011 8:21:00 PM
Sulfate	148	5.00		mg/L	5	10/20/2011 8:21:00 PM
ALKALINITY		**SM2320 B**				Analyst: **KH**
Alkalinity, Bicarbonate (As CaCO3)	478	2	A	mg/L CaCO3	1	10/25/2011
Alkalinity, Carbonate (As CaCO3)	< 2	2	A	mg/L CaCO3	1	10/25/2011
AMMONIA AS N		**E350.1**				Analyst: **JB**
Nitrogen, Ammonia (As N)	< 0.020	0.020		mg/L	1	10/21/2011
TOTAL SUSPENDED SOLIDS		**SM2540D**				Analyst: **JB**
Suspended Solids (Residue, Non-Filterable)	< 1.0	1.0		mg/L	1	10/25/2011

Qualifiers:

A Not Available for Accreditation
B Analyte Detected in Method Blank
E Value Above Quantitation Range
H Holding Time Exceeded
N Not Accredited
S Spike Recovery Outside Recovery Limits
X Value Exceeds Maximum Contaminant Level (MCL)

PQL: Practical Quantitation Limit

Values Below PQL Considered Estimated