



Environmental Laboratory and Consulting Company

Analytical Laboratory - Environmental Consulting - Permit Application and Compliance

Certificate of Analysis

ODEQ ID # 9953

To: MR. TONY CLYDE

TULSA DISTRICT CORPS OF ENGINEERS
1645 S 101st EAST AVE
TULSA, OK 74128-4609

Project #: W912BV-07-P0189

Date Received: 7/1/2008

Project Name: WATER QUALITY MONITORING

Report Date: 7/15/2008

Lab Number	Sample Identification	Date Sampled	Analysis Date	Time	Analized By	Parameter	Q	Results	Units	MDL	SQL	Method
200802646	07312100					METALS-TUL-D:						
		6/29/2008	7/8/2008	9:30	JL	Dissolved Arsenic	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Dissolved Barium		0.14	mg/L	0.0006	0.0006	200.7/6010B
			7/8/2008		JL	Dissolved Cadmium	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Dissolved Chromium	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Dissolved Copper	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Dissolved Iron	U	BDL	mg/L	0.0008	0.0008	200.7/6010B
			7/8/2008		JL	Dissolved Lead	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Dissolved Manganese	U	BDL	mg/L	0.0001	0.0001	200.7/6010B
			7/8/2008		JL	Dissolved Nickel	U	BDL	mg/L	0.0069	0.0069	200.7/6010B
			7/8/2008		JL	Dissolved Silver	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Dissolved Zinc		0.03	mg/L	0.0006	0.0006	200.7/6010B
200802646	07312100					METALS-TULSA:						
		6/29/2008	7/8/2008	11:30	JL	Arsenic, Total	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Barium, Total		0.13	mg/L	0.0006	0.0006	200.7/6010B
			7/8/2008		JL	Cadmium, Total	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Chromium, Total	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Copper, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Iron, Total	U	BDL	mg/L	0.0008	0.0008	200.7/6010B
			7/8/2008		JL	Lead, Total	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Manganese, Total	U	BDL	mg/L	0.0001	0.0001	200.7/6010B
			7/8/2008		JL	Nickel, Total	U	BDL	mg/L	0.0069	0.0069	200.7/6010B
			7/8/2008		JL	Silver, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Zinc, Total		0.03	mg/L	0.0006	0.0006	200.7/6010B
			7/14/2008	14:30	OP	Mercury, Dissolved	U	BDL	mg/l	0.0002	0.0002	EPA_245.1
			7/9/2008	15:00	OP	Mercury	U	BDL	mg/l	0.0002	0.0002	EPA_245.1
			7/10/2008	15:35	OL	Selenium, Dissolved	U	BDL	mg/l	0.0014	0.0014	EPA_7440
			7/10/2008	16:49	OL	Selenium	U	BDL	mg/l	0.0014	0.0014	EPA_7740

Laboratory Authorized Signature



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TULSA DISTRICT CORPS OF ENGINEERS
1645 S 101st EAST AVE
TULSA, OK 74128-4609

Project #: W912BV-07-P0189

Date Received: 7/1/2008

Project Name: WATER QUALITY MONITORING

Report Date: 7/15/2008

Lab Number	Sample Identification	Date Sampled	Analysis Date	Time	Analized By	Parameter	Q	Results	Units	MDL	SQL	Method
200802646	07312100	6/29/2008	7/8/2008	11:30	JL	Silicon Dioxide (silica)	5		mg/l	0.006	0.006	200.7/6010B
200802646	07312100					SALTS-TULSA:						
		6/29/2008	7/9/2008	9:50	JL	Calcium, Dissolved		246.8	mg/L	0.0039	0.0039	200.7/6010B
			7/9/2008		JL	Magnesium, Dissolved		77.27	mg/L	0.0006	0.0006	200.7/6010B
			7/9/2008		JL	Phosphorus, Total		1.04	mg/L	0.0096	0.0096	200.7/6010B
			7/9/2008		JL	Potassium, Dissolved		11.4	mg/L	0.0009	0.0009	200.7/6010B
			7/9/2008		JL	Sodium, Dissolved		801.7	mg/L	0.0018	0.0018	200.7/6010B
			7/9/2008	13:03	JL	Total Hardness		946	mg/l	0.06	0.06	200.7/6010B
			7/10/2008	10:00	BL	Total Alkalinity		106	mg/l	2	2	EPA_310.1
			7/2/2008	15:30	BL	Chloride		1150	mg/l	0.383	0.383	EPA 9253
		6/29/2008	7/9/2008	12:42	JL	Dissolved Oxygen		12.4	mg/l	0.1	0.1	EPA_360.1
			7/14/2008	10:55	YZ	Fluoride	J	0.41	mg/L	0.04	0.04	EPA 340.1
			7/9/2008	17:00	MY	Nitrate/nitrite As Nitroge	U	BDL	mg/l	1.2	1.2	EPA 353.3
		6/29/2008	7/9/2008	12:42	JL	pH		7.6	s.u.			EPA_150.1
			7/15/2008	8:23	YZ	Sulfate		1000	mg/l	1.2	1.2	EPA_375.2
			7/2/2008	13:00	BL	Total Dissolved Solids		3148	mg/l	5.5	5.5	EPA_160.1
			7/2/2008	13:00	OP	Total Kjeldahl Nitrogen	J	0.9	mg/l	0.4	0.4	EPA_351.3M
			7/2/2008	11:00	BL	Total Suspended Solids		7.3	mg/l	1.7	1.7	EPA_160.2
			7/9/2008	11:00	BL	Turbidity		7	NTU	0.078	0.078	EPA_180.1
200802647	07311900					METALS-TUL-D:						
		6/29/2008	7/8/2008	9:30	JL	Dissolved Arsenic	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Dissolved Barium		0.27	mg/L	0.0006	0.0006	200.7/6010B
			7/8/2008		JL	Dissolved Cadmium	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Dissolved Chromium	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Dissolved Copper	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Dissolved Iron		0.47	mg/L	0.0008	0.0008	200.7/6010B
			7/8/2008		JL	Dissolved Lead	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Dissolved Manganese		1.7	mg/L	0.0001	0.0001	200.7/6010B
			7/8/2008		JL	Dissolved Nickel		0.05	mg/L	0.0069	0.0069	200.7/6010B

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200802647	07311900	6/29/2008	7/8/2008		JL	Dissolved Silver	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Dissolved Zinc	U	BDL	mg/L	0.0006	0.0006	200.7/6010B
200802647	07311900					METALS-TULSA:						
		6/29/2008	7/8/2008	11:30	JL	Arsenic, Total		0.24	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Barium, Total		1.86	mg/L	0.0006	0.0006	200.7/6010B
			7/8/2008		JL	Cadmium, Total	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Chromium, Total	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Copper, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Iron, Total		6.9	mg/L	0.0008	0.0008	200.7/6010B
			7/8/2008		JL	Lead, Total		0.2	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Manganese, Total		2.67	mg/L	0.0001	0.0001	200.7/6010B
			7/8/2008		JL	Nickel, Total		0.08	mg/L	0.0069	0.0069	200.7/6010B
			7/8/2008		JL	Silver, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Zinc, Total		0.08	mg/L	0.0006	0.0006	200.7/6010B
			7/14/2008	14:30	OP	Mercury, Dissolved	U	BDL	mg/l	0.0002	0.0002	EPA_245.1
			7/9/2008	15:00	OP	Mercury	U	BDL	mg/l	0.0002	0.0002	EPA_245.1
			7/10/2008	15:38	OL	Selenium, Dissolved	U	BDL	mg/l	0.0014	0.0014	EPA_7440
			7/10/2008	16:52	OL	Selenium	J	0.00257	mg/l	0.0014	0.0014	EPA_7740
			7/8/2008	11:30	JL	Silicon Dioxide (silica)		90.7	mg/l	0.006	0.006	200.7/6010B
200802647	07311900					SALTS-TULSA:						
		6/29/2008	7/9/2008	9:50	JL	Calcium, Dissolved		254.4	mg/L	0.0039	0.0039	200.7/6010B
			7/9/2008		JL	Magnesium, Dissolved		64.9	mg/L	0.0006	0.0006	200.7/6010B
			7/9/2008		JL	Phosphorus, Total		5.6	mg/L	0.0096	0.0096	200.7/6010B
			7/9/2008		JL	Potassium, Dissolved		10.61	mg/L	0.0009	0.0009	200.7/6010B
			7/9/2008		JL	Sodium, Dissolved		337.3	mg/L	0.0018	0.0018	200.7/6010B
			7/9/2008	13:03	JL	Total Hardness		1213	mg/l	0.06	0.06	200.7/6010B
			7/10/2008	10:00	BL	Total Alkalinity		52	mg/l	2	2	EPA_310.1
			7/2/2008	15:30	BL	Chloride		466.5	mg/l	0.383	0.383	EPA 9253
			6/29/2008	13:26	JL	Dissolved Oxygen		10.3	mg/l	0.1	0.1	EPA_360.1
			7/14/2008	10:55	YZ	Fluoride	J	0.52	mg/L	0.04	0.04	EPA 340.1

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Lab Number	Sample Identification	Date Sampled	Analysis Date	Time	Analyst	Parameter	Q	Results	Units	MDL	SQL	Method	
200802647	07311900	6/29/2008	7/9/2008	17:00	MY	Nitrate/nitrite As Nitroge	U	BDL	mg/l	1.2	1.2	EPA 353.3	
			6/29/2008	13:26	JL	pH			7.4	s.u.			EPA_150.1
			7/15/2008	8:23	YZ	Sulfate			460	mg/l	1.2	1.2	EPA_375.2
			7/2/2008	13:00	BL	Total Dissolved Solids			1324	mg/l	5.5	5.5	EPA_160.1
			7/2/2008	13:00	OP	Total Kjeldahl Nitrogen			2.24	mg/l	0.4	0.4	EPA_351.3M
			7/2/2008	11:00	BL	Total Suspended Solids			11535	mg/l	1.7	1.7	EPA_160.2
			7/9/2008	11:00	BL	Turbidity			12540	NTU	0.078	0.078	EPA_180.1
200802648	07311800	6/29/2008	METALS-TUL-D:										
			7/8/2008	9:30	JL	Dissolved Arsenic	U	BDL	mg/L	0.009	0.009	200.7/6010B	
			7/8/2008		JL	Dissolved Barium			0.18	mg/L	0.0006	0.0006	200.7/6010B
			7/8/2008		JL	Dissolved Cadmium	U	BDL	mg/L	0.0009	0.0009	200.7/6010B	
			7/8/2008		JL	Dissolved Chromium	U	BDL	mg/L	0.0009	0.0009	200.7/6010B	
			7/8/2008		JL	Dissolved Copper	U	BDL	mg/L	0.0003	0.0003	200.7/6010B	
			7/8/2008		JL	Dissolved Iron			0.4	mg/L	0.0008	0.0008	200.7/6010B
			7/8/2008		JL	Dissolved Lead	U	BDL	mg/L	0.009	0.009	200.7/6010B	
			7/8/2008		JL	Dissolved Manganese			0.1	mg/L	0.0001	0.0001	200.7/6010B
			7/8/2008		JL	Dissolved Nickel			0.05	mg/L	0.0069	0.0069	200.7/6010B
			7/8/2008		JL	Dissolved Silver	U	BDL	mg/L	0.0003	0.0003	200.7/6010B	
7/8/2008		JL	Dissolved Zinc			0.04	mg/L	0.0006	0.0006	200.7/6010B			
200802648	07311800	6/29/2008	METALS-TULSA:										
			7/8/2008	11:30	JL	Arsenic, Total	U	BDL	mg/L	0.009	0.009	200.7/6010B	
			7/8/2008		JL	Barium, Total			0.2	mg/L	0.0006	0.0006	200.7/6010B
			7/8/2008		JL	Cadmium, Total	U	BDL	mg/L	0.0009	0.0009	200.7/6010B	
			7/8/2008		JL	Chromium, Total	U	BDL	mg/L	0.0009	0.0009	200.7/6010B	
			7/8/2008		JL	Copper, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B	
			7/8/2008		JL	Iron, Total			0.36	mg/L	0.0008	0.0008	200.7/6010B
			7/8/2008		JL	Lead, Total	U	BDL	mg/L	0.009	0.009	200.7/6010B	
			7/8/2008		JL	Manganese, Total			0.1	mg/L	0.0001	0.0001	200.7/6010B
7/8/2008		JL	Nickel, Total			0.05	mg/L	0.0069	0.0069	200.7/6010B			

Laboratory Authorized Signature



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TULSA, OK 74128-4609

Project #: W912BV-07-P0189

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Lab Number	Sample Identification	Date Sampled	Analysis Date	Time	By	Parameter	Q	Results	Units	MDL	SQL	Method
200802648	07311800	6/29/2008	7/8/2008		JL	Silver, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Zinc, Total		0.02	mg/L	0.0006	0.0006	200.7/6010B
			7/14/2008	14:30	OP	Mercury, Dissolved	U	BDL	mg/l	0.0002	0.0002	EPA_245.1
			7/9/2008	15:00	OP	Mercury	U	BDL	mg/l	0.0002	0.0002	EPA_245.1
			7/10/2008	15:47	OL	Selenium, Dissolved	<	0.0042	mg/l	0.0014	0.0042	EPA_7440
			7/10/2008	16:55	OL	Selenium	<	0.0042	mg/l	0.0014	0.0042	EPA_7740
			7/8/2008	11:30	JL	Silicon Dioxide (silica)		7.4	mg/l	0.006	0.006	200.7/6010B
200802648	07311800	6/29/2008	SALTS-TULSA:									
			7/9/2008	9:50	JL	Calcium, Dissolved		639.5	mg/L	0.0039	0.0039	200.7/6010B
			7/9/2008		JL	Magnesium, Dissolved		161.5	mg/L	0.0006	0.0006	200.7/6010B
			7/9/2008		JL	Phosphorus, Total		1.43	mg/L	0.0096	0.0096	200.7/6010B
			7/9/2008		JL	Potassium, Dissolved		29.2	mg/L	0.0009	0.0009	200.7/6010B
			7/9/2008		JL	Sodium, Dissolved		283.2	mg/L	0.0018	0.0018	200.7/6010B
			7/9/2008	13:03	JL	Total Hardness		2237	mg/l	0.06	0.06	200.7/6010B
			7/10/2008	10:00	BL	Total Alkalinity		96	mg/l	2	2	EPA_310.1
			7/2/2008	15:30	BL	Chloride		3799	mg/l	0.383	0.383	EPA 9253
			6/29/2008	14:35	JL	Dissolved Oxygen		11.8	mg/l	0.1	0.1	EPA_360.1
			7/14/2008	10:55	YZ	Fluoride	J	1.04	mg/L	0.04	0.04	EPA 340.1
			7/9/2008	17:00	MY	Nitrate/nitrite As Nitroge	U	BDL	mg/l	1.2	1.2	EPA 353.3
			6/29/2008	14:35	JL	pH		7.4	s.u.			EPA_150.1
			7/15/2008	8:23	YZ	Sulfate		1850	mg/l	1.2	1.2	EPA_375.2
			7/2/2008	13:00	BL	Total Dissolved Solids		7630	mg/l	5.5	5.5	EPA_160.1
7/2/2008	13:00	OP	Total Kjeldahl Nitrogen	J	0.84	mg/l	0.4	0.4	EPA_351.3M			
7/2/2008	11:00	BL	Total Suspended Solids		50.7	mg/l	1.7	1.7	EPA_160.2			
7/9/2008	11:00	BL	Turbidity		60	NTU	0.078	0.078	EPA_180.1			
200802649	07311700	6/29/2008	METALS-TUL-D:									
			7/8/2008	9:30	JL	Dissolved Arsenic	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Dissolved Barium		0.17	mg/L	0.0006	0.0006	200.7/6010B
			7/8/2008		JL	Dissolved Cadmium	U	BDL	mg/L	0.0009	0.0009	200.7/6010B

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Table with columns: Lab Number, Sample Identification, Date Sampled, Analysis Date, Analyzed Time, By, Parameter, Q Results, Units, MDL, SQL Method. Contains data for various chemical analyses including Dissolved Chromium, Copper, Iron, Lead, Manganese, Nickel, Silver, Zinc, and Metals-Tulsa (Arsenic, Barium, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Nickel, Silver, Zinc, Mercury, Selenium, Silicon Dioxide).

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200802649	07311700	6/29/2008	7/9/2008		JL	Sodium, Dissolved		1845	mg/L	0.0018	0.0018 200.7/6010B			
			7/9/2008	13:03	JL	Total Hardness		1453	mg/l	0.06	0.06 200.7/6010B			
			7/10/2008	10:00	BL	Total Alkalinity		62	mg/l	2	2 EPA_310.1			
			7/2/2008	15:30	BL	Chloride		2499	mg/l	0.383	0.383 EPA 9253			
			6/29/2008	14:50	JL	Dissolved Oxygen		11.3	mg/l	0.1	0.1 EPA_360.1			
			7/14/2008	10:55	YZ	Fluoride	J	0.98	mg/L	0.04	0.04 EPA 340.1			
			7/9/2008	17:00	MY	Nitrate/nitrite As Nitroge	U	BDL	mg/l	1.2	1.2 EPA 353.3			
			6/29/2008	14:50	JL	pH		7.3	s.u.		EPA_150.1			
			7/15/2008	8:23	YZ	Sulfate		1600	mg/l	1.2	1.2 EPA_375.2			
			7/2/2008	13:00	BL	Total Dissolved Solids		5742	mg/l	5.5	5.5 EPA_160.1			
			7/2/2008	13:00	OP	Total Kjeldahl Nitrogen	J	0.67	mg/l	0.4	0.4 EPA_351.3M			
			7/2/2008	11:00	BL	Total Suspended Solids		50.5	mg/l	1.7	1.7 EPA_160.2			
			7/9/2008	11:00	BL	Turbidity		52.2	NTU	0.078	0.078 EPA_180.1			
			200802650	07311630	6/29/2008	METALS-TUL-D:								
7/8/2008	9:30	JL				Dissolved Arsenic	U	BDL	mg/L	0.009	0.009 200.7/6010B			
7/8/2008		JL				Dissolved Barium		0.06	mg/L	0.0006	0.0006 200.7/6010B			
7/8/2008		JL				Dissolved Cadmium	U	BDL	mg/L	0.0009	0.0009 200.7/6010B			
7/8/2008		JL				Dissolved Chromium	U	BDL	mg/L	0.0009	0.0009 200.7/6010B			
7/8/2008		JL				Dissolved Copper	U	BDL	mg/L	0.0003	0.0003 200.7/6010B			
7/8/2008		JL				Dissolved Iron	U	BDL	mg/L	0.0008	0.0008 200.7/6010B			
7/8/2008		JL				Dissolved Lead	U	BDL	mg/L	0.009	0.009 200.7/6010B			
7/8/2008		JL				Dissolved Manganese		0.13	mg/L	0.0001	0.0001 200.7/6010B			
7/8/2008		JL				Dissolved Nickel	U	BDL	mg/L	0.0069	0.0069 200.7/6010B			
7/8/2008		JL				Dissolved Silver	U	BDL	mg/L	0.0003	0.0003 200.7/6010B			
7/8/2008		JL				Dissolved Zinc		0.03	mg/L	0.0006	0.0006 200.7/6010B			
200802650	07311630	6/29/2008				METALS-TULSA:								
						7/8/2008	11:30	JL	Arsenic, Total	U	BDL	mg/L	0.009	0.009 200.7/6010B
			7/8/2008		JL	Barium, Total		0.06	mg/L	0.0006	0.0006 200.7/6010B			
	7/8/2008		JL	Cadmium, Total	U	BDL	mg/L	0.0009	0.0009 200.7/6010B					

Laboratory Authorized Signature



Environmental Laboratory and Consulting Company

Analytical Laboratory - Environmental Consulting - Permit Application and Compliance

Certificate of Analysis

ODEQ ID # 9953

To: MR. TONY CLYDE

TULSA DISTRICT CORPS OF ENGINEERS
1645 S 101st EAST AVE
TULSA, OK 74128-4609

Project #: W912BV-07-P0189

Date Received: 7/1/2008

Project Name: WATER QUALITY MONITORING

Report Date: 7/15/2008

Lab Number	Sample Identification	Date Sampled	Analysis Date	Time	Analized By	Parameter	Q	Results	Units	MDL	SQL	Method			
200802650	07311630	6/29/2008	7/8/2008		JL	Chromium, Total	U	BDL	mg/L	0.0009	0.0009	200.7/6010B			
			7/8/2008		JL	Copper, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B			
			7/8/2008		JL	Iron, Total	U	BDL	mg/L	0.0008	0.0008	200.7/6010B			
			7/8/2008		JL	Lead, Total	U	BDL	mg/L	0.009	0.009	200.7/6010B			
			7/8/2008		JL	Manganese, Total		0.12	mg/L	0.0001	0.0001	200.7/6010B			
			7/8/2008		JL	Nickel, Total	U	BDL	mg/L	0.0069	0.0069	200.7/6010B			
			7/8/2008		JL	Silver, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B			
			7/8/2008		JL	Zinc, Total		0.03	mg/L	0.0006	0.0006	200.7/6010B			
			7/14/2008	14:30	OP	Mercury, Dissolved	U	BDL	mg/l	0.0002	0.0002	EPA_245.1			
			7/9/2008	15:00	OP	Mercury	U	BDL	mg/l	0.0002	0.0002	EPA_245.1			
			7/10/2008	15:53	OL	Selenium, Dissolved	U	BDL	mg/l	0.0014	0.0014	EPA_7440			
			7/10/2008	17:08	OL	Selenium	U	BDL	mg/l	0.0014	0.0014	EPA_7740			
			7/8/2008	11:30	JL	Silicon Dioxide (silica)		9.4	mg/l	0.006	0.006	200.7/6010B			
			200802650	07311630	6/29/2008	SALTS-TULSA:									
						7/9/2008	9:50	JL	Calcium, Dissolved		755.5	mg/L	0.0039	0.0039	200.7/6010B
7/9/2008		JL				Magnesium, Dissolved		158.6	mg/L	0.0006	0.0006	200.7/6010B			
7/9/2008		JL				Phosphorus, Total		1.1	mg/L	0.0096	0.0096	200.7/6010B			
7/9/2008		JL				Potassium, Dissolved		19.4	mg/L	0.0009	0.0009	200.7/6010B			
7/9/2008		JL				Sodium, Dissolved		2338	mg/L	0.0018	0.0018	200.7/6010B			
7/9/2008	13:03	JL				Total Hardness		2507	mg/l	0.06	0.06	200.7/6010B			
7/10/2008	10:00	BL				Total Alkalinity		154	mg/l	2	2	EPA_310.1			
7/2/2008	15:30	BL				Chloride		2949	mg/l	0.383	0.383	EPA 9253			
6/29/2008	15:50	JL				Dissolved Oxygen		11.6	mg/l	0.1	0.1	EPA_360.1			
7/14/2008	10:55	YZ				Fluoride	J	1	mg/L	0.04	0.04	EPA 340.1			
7/9/2008	17:00	MY				Nitrate/nitrite As Nitroge	U	BDL	mg/l	1.2	1.2	EPA 353.3			
6/29/2008	15:50	JL				pH		7.6	s.u.			EPA_150.1			
7/15/2008	8:23	YZ				Sulfate		2750	mg/l	1.2	1.2	EPA_375.2			
7/2/2008	13:00	BL				Total Dissolved Solids		8170	mg/l	5.5	5.5	EPA_160.1			
7/2/2008	13:00	OP	Total Kjeldahl Nitrogen	J	0.73	mg/l	0.4	0.4	EPA_351.3M						
7/2/2008	11:00	BL	Total Suspended Solids		7.5	mg/l	1.7	1.7	EPA_160.2						
7/9/2008	11:00	BL	Turbidity		9	NTU	0.078	0.078	EPA_180.1						

Laboratory Authorized Signature



Environmental Laboratory and Consulting Company

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Certificate of Analysis

ODEQ ID # 9953

To: MR. TONY CLYDE

TULSA DISTRICT CORPS OF ENGINEERS
1645 S 101st EAST AVE
TULSA, OK 74128-4609

Project #: W912BV-07-P0189

Date Received: 7/1/2008

Project Name: WATER QUALITY MONITORING

Report Date: 7/15/2008

Lab Number	Sample Identification	Date Sampled	Analysis Date	Time	Analized By	Parameter	Q	Results	Units	MDL	SQL	Method
200802651	07311600					METALS-TUL-D:						
		6/29/2008	7/8/2008	9:30	JL	Dissolved Arsenic	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Dissolved Barium		0.09	mg/L	0.0006	0.0006	200.7/6010B
			7/8/2008		JL	Dissolved Cadmium	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Dissolved Chromium	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Dissolved Copper	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Dissolved Iron	U	BDL	mg/L	0.0008	0.0008	200.7/6010B
			7/8/2008		JL	Dissolved Lead	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Dissolved Manganese		0.1	mg/L	0.0001	0.0001	200.7/6010B
			7/8/2008		JL	Dissolved Nickel	U	BDL	mg/L	0.0069	0.0069	200.7/6010B
			7/8/2008		JL	Dissolved Silver	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Dissolved Zinc		0.03	mg/L	0.0006	0.0006	200.7/6010B
200802651	07311600					METALS-TULSA:						
		6/29/2008	7/8/2008	11:30	JL	Arsenic, Total	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Barium, Total		0.09	mg/L	0.0006	0.0006	200.7/6010B
			7/8/2008		JL	Cadmium, Total	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Chromium, Total	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Copper, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Iron, Total	U	BDL	mg/L	0.0008	0.0008	200.7/6010B
			7/8/2008		JL	Lead, Total	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Manganese, Total		0.13	mg/L	0.0001	0.0001	200.7/6010B
			7/8/2008		JL	Nickel, Total	U	BDL	mg/L	0.0069	0.0069	200.7/6010B
			7/8/2008		JL	Silver, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Zinc, Total		0.03	mg/L	0.0006	0.0006	200.7/6010B
			7/14/2008	14:30	OP	Mercury, Dissolved	U	BDL	mg/l	0.0002	0.0002	EPA_245.1
			7/9/2008	15:00	OP	Mercury	U	BDL	mg/l	0.0002	0.0002	EPA_245.1
			7/10/2008	15:57	OL	Selenium, Dissolved	<	0.0042	mg/l	0.0014	0.0042	EPA_7440
			7/10/2008	17:12	OL	Selenium	<	0.0042	mg/l	0.0014	0.0042	EPA_7740
			7/8/2008	11:30	JL	Silicon Dioxide (silica)		2.7	mg/l	0.006	0.006	200.7/6010B

Laboratory Authorized Signature



Environmental Laboratory and Consulting Company

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Certificate of Analysis

ODEQ ID # 9953

To: MR. TONY CLYDE

TULSA DISTRICT CORPS OF ENGINEERS
1645 S 101st EAST AVE
TULSA, OK 74128-4609

Project #: W912BV-07-P0189

Date Received: 7/1/2008

Project Name: WATER QUALITY MONITORING

Report Date: 7/15/2008

Lab Number	Sample Identification	Date Sampled	Analysis Date	Time	Analized By	Parameter	Q	Results	Units	MDL	SQL	Method
200802651	07311600					SALTS-TULSA:						
		6/29/2008	7/9/2008	9:50	JL	Calcium, Dissolved		754.5	mg/L	0.0039	0.0039	200.7/6010B
			7/9/2008		JL	Magnesium, Dissolved		197	mg/L	0.0006	0.0006	200.7/6010B
			7/9/2008		JL	Phosphorus, Total		1.8	mg/L	0.0096	0.0096	200.7/6010B
			7/9/2008		JL	Potassium, Dissolved		32.2	mg/L	0.0009	0.0009	200.7/6010B
			7/9/2008		JL	Sodium, Dissolved		6210	mg/L	0.0018	0.0018	200.7/6010B
			7/9/2008	13:03	JL	Total Hardness		2753	mg/l	0.06	0.06	200.7/6010B
			7/10/2008	10:00	BL	Total Alkalinity		92	mg/l	2	2	EPA_310.1
			7/2/2008	15:30	BL	Chloride		6648	mg/l	0.383	0.383	EPA 9253
			6/29/2008	17:03	JL	Dissolved Oxygen		11.6	mg/l	0.1	0.1	EPA_360.1
			7/14/2008	10:55	YZ	Fluoride	J	1.19	mg/L	0.04	0.04	EPA 340.1
			7/9/2008	17:00	MY	Nitrate/nitrite As Nitroge	U	BDL	mg/l	1.2	1.2	EPA 353.3
			6/29/2008	17:03	JL	pH		7.7	s.u.			EPA_150.1
			7/15/2008	8:23	YZ	Sulfate		2500	mg/l	1.2	1.2	EPA_375.2
			7/2/2008	13:00	BL	Total Dissolved Solids		14082	mg/l	5.5	5.5	EPA_160.1
			7/2/2008	13:00	OP	Total Kjeldahl Nitrogen	J	0.73	mg/l	0.4	0.4	EPA_351.3M
			7/2/2008	11:00	BL	Total Suspended Solids		13.2	mg/l	1.7	1.7	EPA_160.2
			7/9/2008	11:00	BL	Turbidity		6.9	NTU	0.078	0.078	EPA_180.1
200802652	07311782					METALS-TUL-D:						
		6/29/2008	7/8/2008	9:30	JL	Dissolved Arsenic	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Dissolved Barium		0.06	mg/L	0.0006	0.0006	200.7/6010B
			7/8/2008		JL	Dissolved Cadmium	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Dissolved Chromium	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Dissolved Copper	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Dissolved Iron	U	BDL	mg/L	0.0008	0.0008	200.7/6010B
			7/8/2008		JL	Dissolved Lead	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Dissolved Manganese		0.36	mg/L	0.0001	0.0001	200.7/6010B
			7/8/2008		JL	Dissolved Nickel	U	BDL	mg/L	0.0069	0.0069	200.7/6010B
			7/8/2008		JL	Dissolved Silver	U	BDL	mg/L	0.0003	0.0003	200.7/6010B

Laboratory Authorized Signature



Environmental Laboratory and Consulting Company

Analytical Laboratory - Environmental Consulting - Permit Application and Compliance

Certificate of Analysis

ODEQ ID # 9953

To: MR. TONY CLYDE

TULSA DISTRICT CORPS OF ENGINEERS
1645 S 101st EAST AVE
TULSA, OK 74128-4609

Project #: W912BV-07-P0189

Date Received: 7/1/2008

Project Name: WATER QUALITY MONITORING

Report Date: 7/15/2008

Lab Number	Sample Identification	Date Sampled	Analysis Date	Time	Analized By	Parameter	Q	Results	Units	MDL	SQL	Method
200802652	07311782	6/29/2008	7/8/2008		JL	Dissolved Zinc		0.04	mg/L	0.0006	0.0006	200.7/6010B
200802652	07311782					METALS-TULSA:						
		6/29/2008	7/8/2008	11:30	JL	Arsenic, Total	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Barium, Total		0.06	mg/L	0.0006	0.0006	200.7/6010B
			7/8/2008		JL	Cadmium, Total	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Chromium, Total	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Copper, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Iron, Total	U	BDL	mg/L	0.0008	0.0008	200.7/6010B
			7/8/2008		JL	Lead, Total	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Manganese, Total		0.34	mg/L	0.0001	0.0001	200.7/6010B
			7/8/2008		JL	Nickel, Total	U	BDL	mg/L	0.0069	0.0069	200.7/6010B
			7/8/2008		JL	Silver, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Zinc, Total		0.04	mg/L	0.0006	0.0006	200.7/6010B
		7/15/2008		9:30	OP	Mercury, Dissolved	U	BDL	mg/l	0.0002	0.0002	EPA_245.1
		7/9/2008		15:00	OP	Mercury	U	BDL	mg/l	0.0002	0.0002	EPA_245.1
		7/10/2008		16:00	OL	Selenium, Dissolved	<	0.0112	mg/l	0.0014	0.0112	EPA_7440
		7/10/2008		17:15	OL	Selenium	<	0.0112	mg/l	0.0014	0.0112	EPA_7740
		7/8/2008		11:30	JL	Silicon Dioxide (silica)		7	mg/l	0.006	0.006	200.7/6010B
200802652	07311782					SALTS-TULSA:						
		6/29/2008	7/9/2008	9:50	JL	Calcium, Dissolved		1316	mg/L	0.0039	0.0039	200.7/6010B
			7/9/2008		JL	Magnesium, Dissolved		387	mg/L	0.0006	0.0006	200.7/6010B
			7/9/2008		JL	Phosphorus, Total		1.99	mg/L	0.0096	0.0096	200.7/6010B
			7/9/2008		JL	Potassium, Dissolved		125.2	mg/L	0.0009	0.0009	200.7/6010B
			7/9/2008		JL	Sodium, Dissolved		18820	mg/L	0.0018	0.0018	200.7/6010B
			7/9/2008	13:03	JL	Total Hardness		4946	mg/l	0.06	0.06	200.7/6010B
			7/10/2008	10:00	BL	Total Alkalinity		118	mg/l	2	2	EPA_310.1
			7/2/2008	15:30	BL	Chloride		18490	mg/l	0.383	0.383	EPA 9253
		6/29/2008		18:35	JL	Dissolved Oxygen		11.8	mg/l	0.1	0.1	EPA_360.1
		7/14/2008		10:55	YZ	Fluoride		1.53	mg/L	0.04	0.04	EPA 340.1
		7/9/2008		17:00	MY	Nitrate/nitrite As Nitroge	U	BDL	mg/l	1.2	1.2	EPA 353.3

Laboratory Authorized Signature



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TULSA DISTRICT CORPS OF ENGINEERS
1645 S 101st EAST AVE
TULSA, OK 74128-4609

Project #: W912BV-07-P0189

Date Received: 7/1/2008

Project Name: WATER QUALITY MONITORING

Report Date: 7/15/2008

Table with columns: Lab Number, Sample Identification, Date Sampled, Analysis Date, Analyzed Time, By, Parameter, Q Results, Units, MDL, SQL Method. Contains data for samples 200802652, 200802653 (METALS-TUL-D), and 200802653 (METALS-TULSA).

Laboratory Authorized Signature



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Report Date: 7/15/2008

Table with columns: Lab Number, Sample Identification, Date Sampled, Analysis Date, Analyzed Time, By, Parameter, Q Results, Units, MDL, SQL Method. Contains data for samples 200802653, 200802653, and 200802654.

Laboratory Authorized Signature



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TULSA, OK 74128-4609

Project #: W912BV-07-P0189

Date Received: 7/1/2008

Project Name: WATER QUALITY MONITORING

Report Date: 7/15/2008

Lab Number	Sample Identification	Date Sampled	Analysis Date	Time	Analized By	Parameter	Q	Results	Units	MDL	SQL	Method
200802654	07308500	6/29/2008	7/8/2008		JL	Dissolved Copper	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Dissolved Iron		0.84	mg/L	0.0008	0.0008	200.7/6010B
			7/8/2008		JL	Dissolved Lead	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Dissolved Manganese		0.46	mg/L	0.0001	0.0001	200.7/6010B
			7/8/2008		JL	Dissolved Nickel	U	BDL	mg/L	0.0069	0.0069	200.7/6010B
			7/8/2008		JL	Dissolved Silver	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Dissolved Zinc		0.03	mg/L	0.0006	0.0006	200.7/6010B
200802654	07308500	6/29/2008	METALS-TULSA:									
			7/8/2008	11:30	JL	Arsenic, Total		0.24	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Barium, Total		0.24	mg/L	0.0006	0.0006	200.7/6010B
			7/8/2008		JL	Cadmium, Total	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Chromium, Total	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Copper, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Iron, Total		3.4	mg/L	0.0008	0.0008	200.7/6010B
			7/8/2008		JL	Lead, Total		0.12	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Manganese, Total		0.47	mg/L	0.0001	0.0001	200.7/6010B
			7/8/2008		JL	Nickel, Total	U	BDL	mg/L	0.0069	0.0069	200.7/6010B
			7/8/2008		JL	Silver, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Zinc, Total		0.04	mg/L	0.0006	0.0006	200.7/6010B
			7/15/2008	9:30	OP	Mercury, Dissolved	U	BDL	mg/l	0.0002	0.0002	EPA_245.1
			7/9/2008	15:00	OP	Mercury	U	BDL	mg/l	0.0002	0.0002	EPA_245.1
			7/10/2008	16:06	OL	Selenium, Dissolved	<	0.028	mg/l	0.0014	0.028	EPA_7440
7/10/2008	17:21	OL	Selenium	<	0.028	mg/l	0.0014	0.028	EPA_7740			
7/8/2008	11:30	JL	Silicon Dioxide (silica)		32.8	mg/l	0.006	0.006	200.7/6010B			
200802654	07308500	6/29/2008	SALTS-TULSA:									
			7/9/2008	9:50	JL	Calcium, Dissolved		409	mg/L	0.0039	0.0039	200.7/6010B
			7/9/2008		JL	Magnesium, Dissolved		122.3	mg/L	0.0006	0.0006	200.7/6010B
			7/9/2008		JL	Phosphorus, Total		1.8	mg/L	0.0096	0.0096	200.7/6010B
			7/9/2008		JL	Potassium, Dissolved		21.04	mg/L	0.0009	0.0009	200.7/6010B
7/9/2008		JL	Sodium, Dissolved		1729	mg/L	0.0018	0.0018	200.7/6010B			

Laboratory Authorized Signature



Environmental Laboratory and Consulting Company

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Certificate of Analysis

ODEQ ID # 9953

To: MR. TONY CLYDE

TULSA DISTRICT CORPS OF ENGINEERS
1645 S 101st EAST AVE
TULSA, OK 74128-4609

Project #: W912BV-07-P0189

Date Received: 7/1/2008

Project Name: WATER QUALITY MONITORING

Report Date: 7/15/2008

Table with columns: Lab Number, Sample Identification, Date Sampled, Analysis Date, Analyzed Time, Analyzed By, Parameter, Q, Results, Units, MDL, SQL Method. Contains multiple rows of analytical data for samples 07308500, 07331000, and 07331000.

Laboratory Authorized Signature



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Lab Number	Sample Identification	Date Sampled	Analysis Date	Time	Analyst	Parameter	Q	Results	Units	MDL	SQL	Method			
200802655	07331000	7/1/2008	7/8/2008		JL	Copper, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B			
			7/8/2008		JL	Iron, Total		2.4	mg/L	0.0008	0.0008	200.7/6010B			
			7/8/2008		JL	Lead, Total	U	BDL	mg/L	0.009	0.009	200.7/6010B			
			7/8/2008		JL	Manganese, Total		0.55	mg/L	0.0001	0.0001	200.7/6010B			
			7/8/2008		JL	Nickel, Total	U	BDL	mg/L	0.0069	0.0069	200.7/6010B			
			7/8/2008		JL	Silver, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B			
			7/8/2008		JL	Zinc, Total	U	BDL	mg/L	0.0006	0.0006	200.7/6010B			
			7/15/2008	9:30	OP	Mercury, Dissolved	U	BDL	mg/l	0.0002	0.0002	EPA_245.1			
			7/14/2008	14:30	OP	Mercury	U	BDL	mg/l	0.0002	0.0002	EPA_245.1			
			7/10/2008	16:09	OL	Selenium, Dissolved	<	0.007	mg/l	0.0014	0.007	EPA_7440			
			7/10/2008	17:24	OL	Selenium	<	0.007	mg/l	0.0014	0.007	EPA_7740			
			7/8/2008	11:30	JL	Silicon Dioxide (silica)		26.4	mg/l	0.006	0.006	200.7/6010B			
			200802655	07331000	7/1/2008	SALTS-TULSA:									
						7/9/2008	9:50	JL	Calcium, Dissolved		216.6	mg/L	0.0039	0.0039	200.7/6010B
7/9/2008		JL				Magnesium, Dissolved		89.4	mg/L	0.0006	0.0006	200.7/6010B			
7/9/2008		JL				Phosphorus, Total		1.3	mg/L	0.0096	0.0096	200.7/6010B			
7/9/2008		JL				Potassium, Dissolved		66	mg/L	0.0009	0.0009	200.7/6010B			
7/9/2008		JL				Sodium, Dissolved		107.8	mg/L	0.0018	0.0018	200.7/6010B			
7/9/2008	13:03	JL				Total Hardness		930	mg/l	0.06	0.06	200.7/6010B			
7/10/2008	10:00	BL				Total Alkalinity		206	mg/l	2	2	EPA_310.1			
7/2/2008	15:30	BL				Chloride		90	mg/l	0.383	0.383	EPA 9253			
7/1/2008	11:07	JL				Dissolved Oxygen		10.3	mg/l	0.1	0.1	EPA_360.1			
7/14/2008	10:55	YZ				Fluoride	J	0.82	mg/L	0.04	0.04	EPA 340.1			
7/9/2008	17:00	MY				Nitrate/nitrite As Nitroge	U	BDL	mg/l	1.2	1.2	EPA 353.3			
7/1/2008	11:07	JL				pH		8.1	s.u.			EPA_150.1			
7/15/2008	8:23	YZ				Sulfate		840	mg/l	1.2	1.2	EPA_375.2			
7/2/2008	13:00	BL				Total Dissolved Solids		1388	mg/l	5.5	5.5	EPA_160.1			
7/7/2008	9:00	OP				Total Kjeldahl Nitrogen	J	0.84	mg/l	0.4	0.4	EPA_351.3M			
7/2/2008	11:00	BL				Total Suspended Solids		380	mg/l	1.7	1.7	EPA_160.2			
7/9/2008	11:00	BL	Turbidity		346.8	NTU	0.078	0.078	EPA_180.1						

Laboratory Authorized Signature



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Certificate of Analysis

ODEQ ID # 9953

To: MR. TONY CLYDE

TULSA DISTRICT CORPS OF ENGINEERS
1645 S 101st EAST AVE
TULSA, OK 74128-4609

Project #: W912BV-07-P0189

Date Received: 7/1/2008

Project Name: WATER QUALITY MONITORING

Report Date: 7/15/2008

Lab Number	Sample Identification	Date Sampled	Analysis Date	Time	Analized By	Parameter	Q	Results	Units	MDL	SQL	Method
200802656	07331600					METALS-TUL-D:						
		7/1/2008	7/8/2008	9:30	JL	Dissolved Arsenic	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Dissolved Barium		0.13	mg/L	0.0006	0.0006	200.7/6010B
			7/8/2008		JL	Dissolved Cadmium	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Dissolved Chromium	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Dissolved Copper	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Dissolved Iron	U	BDL	mg/L	0.0008	0.0008	200.7/6010B
			7/8/2008		JL	Dissolved Lead	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Dissolved Manganese		0.2	mg/L	0.0001	0.0001	200.7/6010B
			7/8/2008		JL	Dissolved Nickel	U	BDL	mg/L	0.0069	0.0069	200.7/6010B
			7/8/2008		JL	Dissolved Silver	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Dissolved Zinc	U	BDL	mg/L	0.0006	0.0006	200.7/6010B
200802656	07331600					METALS-TULSA:						
		7/1/2008	7/8/2008	11:30	JL	Arsenic, Total	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Barium, Total		0.13	mg/L	0.0006	0.0006	200.7/6010B
			7/8/2008		JL	Cadmium, Total	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Chromium, Total	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Copper, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Iron, Total	U	BDL	mg/L	0.0008	0.0008	200.7/6010B
			7/8/2008		JL	Lead, Total	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Manganese, Total		0.14	mg/L	0.0001	0.0001	200.7/6010B
			7/8/2008		JL	Nickel, Total	U	BDL	mg/L	0.0069	0.0069	200.7/6010B
			7/8/2008		JL	Silver, Total	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Zinc, Total	U	BDL	mg/L	0.0006	0.0006	200.7/6010B
		7/15/2008		9:30	OP	Mercury, Dissolved	U	BDL	mg/l	0.0002	0.0002	EPA_245.1
		7/14/2008		14:30	OP	Mercury	U	BDL	mg/l	0.0002	0.0002	EPA_245.1
		7/10/2008		16:13	OL	Selenium, Dissolved	<	0.007	mg/l	0.0014	0.007	EPA_7440
		7/10/2008		17:28	OL	Selenium	<	0.007	mg/l	0.0014	0.007	EPA_7740
		7/8/2008		11:30	JL	Silicon Dioxide (silica)		6.4	mg/l	0.006	0.006	200.7/6010B

Laboratory Authorized Signature



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To: MR. TONY CLYDE

TULSA DISTRICT CORPS OF ENGINEERS
1645 S 101st EAST AVE
TULSA, OK 74128-4609

Project #: W912BV-07-P0189

Date Received: 7/1/2008

Project Name: WATER QUALITY MONITORING

Report Date: 7/15/2008

Lab Number	Sample Identification	Date Sampled	Analysis Date	Time	Analized By	Parameter	Q	Results	Units	MDL	SQL	Method
200802656	07331600					SALTS-TULSA:						
		7/1/2008	7/9/2008	9:50	JL	Calcium, Dissolved		88.4	mg/L	0.0039	0.0039	200.7/6010B
			7/9/2008		JL	Magnesium, Dissolved		33.27	mg/L	0.0006	0.0006	200.7/6010B
			7/9/2008		JL	Phosphorus, Total		0.7	mg/L	0.0096	0.0096	200.7/6010B
			7/9/2008		JL	Potassium, Dissolved		5.6	mg/L	0.0009	0.0009	200.7/6010B
			7/9/2008		JL	Sodium, Dissolved		128.9	mg/L	0.0018	0.0018	200.7/6010B
			7/9/2008	13:03	JL	Total Hardness		353	mg/l	0.06	0.06	200.7/6010B
			7/10/2008	11:00	BL	Total Alkalinity		138	mg/l	2	2	EPA_310.1
			7/2/2008	15:30	BL	Chloride		250	mg/l	0.383	0.383	EPA 9253
			7/1/2008	12:17	JL	Dissolved Oxygen		11.2	mg/l	0.1	0.1	EPA_360.1
			7/14/2008	10:55	YZ	Fluoride	J	0.39	mg/L	0.04	0.04	EPA 340.1
			7/9/2008	17:00	MY	Nitrate/nitrite As Nitroge	U	BDL	mg/l	1.2	1.2	EPA 353.3
			7/1/2008	12:17	JL	pH		7.7	s.u.			EPA_150.1
			7/15/2008	8:23	YZ	Sulfate		270	mg/l	1.2	1.2	EPA_375.2
			7/2/2008	14:00	BL	Total Dissolved Solids		710	mg/l	5.5	5.5	EPA_160.1
			7/7/2008	9:00	OP	Total Kjeldahl Nitrogen	U	BDL	mg/l	0.4	0.4	EPA_351.3M
			7/2/2008	11:30	BL	Total Suspended Solids		112	mg/l	1.7	1.7	EPA_160.2
			7/9/2008	11:00	BL	Turbidity		5.9	NTU	0.078	0.078	EPA_180.1
200802657	07316000					METALS-TUL-D:						
		7/1/2008	7/8/2008	9:30	JL	Dissolved Arsenic	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Dissolved Barium		0.25	mg/L	0.0006	0.0006	200.7/6010B
			7/8/2008		JL	Dissolved Cadmium	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Dissolved Chromium	U	BDL	mg/L	0.0009	0.0009	200.7/6010B
			7/8/2008		JL	Dissolved Copper	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Dissolved Iron		0.12	mg/L	0.0008	0.0008	200.7/6010B
			7/8/2008		JL	Dissolved Lead	U	BDL	mg/L	0.009	0.009	200.7/6010B
			7/8/2008		JL	Dissolved Manganese		0.2	mg/L	0.0001	0.0001	200.7/6010B
			7/8/2008		JL	Dissolved Nickel	U	BDL	mg/L	0.0069	0.0069	200.7/6010B
			7/8/2008		JL	Dissolved Silver	U	BDL	mg/L	0.0003	0.0003	200.7/6010B
			7/8/2008		JL	Dissolved Zinc		0.02	mg/L	0.0006	0.0006	200.7/6010B

Laboratory Authorized Signature



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Certificate of Analysis

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To: MR. TONY CLYDE

TULSA DISTRICT CORPS OF ENGINEERS
1645 S 101st EAST AVE
TULSA, OK 74128-4609

Project #: W912BV-07-P0189

Date Received: 7/1/2008

Project Name: WATER QUALITY MONITORING

Report Date: 7/15/2008

Table with columns: Lab Number, Sample Identification, Date Sampled, Analysis Date, Analyzed Time, Analyzed By, Parameter, Q Results, Units, MDL, SQL Method. Contains data for METALS-TULSA and SALTS-TULSA.

Laboratory Authorized Signature



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Project #: W912BV-07-P0189

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Project Name: WATER QUALITY MONITORING

Report Date: 7/15/2008

Table with columns: Lab Number, Sample Identification, Date Sampled, Analysis Date, Analyzed Time, By, Parameter, Q, Results, Units, MDL, SQL Method. Includes data for sample 07316000 and duplicate samples 07331600.

Laboratory Authorized Signature



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TULSA, OK 74128-4609

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Date Received: 7/1/2008

Project Name: WATER QUALITY MONITORING

Report Date: 7/15/2008

Table with columns: Lab Number, Sample Identification, Date Sampled, Analysis Date, Analyzed Time, By, Parameter, Q Results, Units, MDL, SQL Method. Contains data for Lab 200802658 and Lab 200802658 under SALTS-TULSA.

Laboratory Authorized Signature



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TULSA, OK 74128-4609

Project #: W912BV-07-P0189

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Project Name: WATER QUALITY MONITORING

Report Date: 7/15/2008

Lab	Sample	Date	Analysis	Analized							
Number	Identification	Sampled	Date	Time	By	Parameter	Q	Results	Units	MDL	SQL Method

Note:

MDL = Method Detection Limit. SQL* = Sample Quantitation Level.

BDL = Analyte was analyzed for but not detected above MDL.

B = Analyte was detected in both the sample and associated blank.

J = Analyte was detected above the MDL but below the PQL.

OL2 = Subcontracted to ODEQ Lab #7211.

Q = Surrogate recovery fell outside acceptance limits.

* When a sample contains a high concentration of either a target or non-target compound(s) or interference, it must be diluted.

SQL = Dilution factor x MDL. Samples are disposed of 20 days after the sample is reported.

Laboratory Authorized Signature