

Red Butte Creek Oil Release Air Monitoring Journal

Date	Location (Time)	Analyte	Method	Result	GPS Location	Comment
6/30/10	~1800 East Sunnyside Ave. (1110-1145)	Volatile Organic Compounds (VOCs)	Photo Ionization Detector (PID)	0.2-1.0 ppm ¹	40°45'4.89"N, 111°50'23.37"W	Upstream of pressure-washing crews. Water is murky. Low odor.
		Volatile Organic Compounds (VOCs)	Photo Ionization Detector (PID)	20.0-50.0 ppm ¹		25 yards downstream from pressure-washing crews. Water is very muddy. Moderate odor.
		Volatile Organic Compounds (VOCs)	Photo Ionization Detector (PID)	10.0-20.0 ppm ¹		30 yards downstream from pressure-washing crews at creek outlet. 5 feet from water. Water is very muddy. Moderate odor.
		Volatile Organic Compounds (VOCs)	Photo Ionization Detector (PID)	30.0-33.0 ppm ¹		100 yards downstream from pressure-washing crews. At water's edge. Water is very muddy. Moderate odor.
		Volatile Organic Compounds (VOCs)	Photo Ionization Detector (PID)	0.4-0.8 ppm ¹		100 yards downstream from pressure-washing crews. 10 feet from water. Water is very muddy. Low odor.
		Hydrogen Sulfide (H ₂ S)	QRAEII	0.0 ppm ²		Samples were taken along the area in which crews were working.
		Carbon Monoxide (CO)	QRAEII	0.0 ppm		
		Lower Explosive Limit (LEL)	QRAEII	0.0%		
		Benzene	Draeger Tube	None Detected ³		
	Miller Park, along Red Butte Creek (1150-1210)	Volatile Organic Compounds (VOCs)	PID	1.5-3.0 ppm ¹	40°44'46.37"N, 111°50'48.60"W	~20 yards from outlet from Miller Park, 10 ft above creek
				1.5-2.2 ppm ¹	40°44'46.60"N, 111°50'46.30"W	~50 yards from outlet, on edge of creek
				2.0 ppm ¹	40°44'47.10"N, 111°50'45.55"W	~75 yards from outlet, 2 ft above creek
				1.8-2.5 ppm ¹	40°44'47.72"N, 111°50'43.65"W	At waterfall on bridge, 12 ft above creek
		Hydrogen Sulfide (H ₂ S)	QRAEII	0.0 ppm ²	At all locations along Red Butte Creek at Miller Park. There were no workers scrubbing the creek in this area. Odors were moderate in this area. Sheen visible in water.	
		Carbon Monoxide (CO)	QRAEII	0.0 ppm		
Lower Explosive Limit (LEL)		QRAEII	0.0%			

¹ PID readings for VOCs are used as a screening method to determine contaminants typically associated with crude oil. If high levels of VOCs are detected, additional sampling is conducted

² 10ppm Hydrogen Sulfide (ceiling) - NIOSH recommended exposure level

³ 0.5 ppm Benzene- 29 CFR 1910.1028

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6/30/10	Confluence of Jordan River and Red Butte Creek (1250-1300)	Volatile Organic Compounds (VOCs)	Photo Ionization Detector (PID)	0.0 ppm ¹	40°44'29.75"N, 111°55'3.68"W	At inlet to Jordan River, 3 ft from water. No odors were detected.
		Hydrogen Sulfide (H ₂ S)	QRAEII	0.0 ppm ²		
		Carbon Monoxide (CO)	QRAEII	0.0 ppm		
		Lower Explosive Limit (LEL)	QRAEII	0.0%		
	Garden Park Ward, 1140 East Harvard (1215-1220)	Volatile Organic Compounds (VOCs)	Photo Ionization Detector (PID)	0.0-0.1 ppm ¹	40°44'42.01"N, 111°51'29.60"W	At the creek's edge. There were workers in the creek. No odor detected by technician on bridge near the entrance or along creek.
		Hydrogen Sulfide (H ₂ S)	QRAEII	0.0 ppm ²		
		Carbon Monoxide (CO)	QRAEII	0.0 ppm		
		Lower Explosive Limit (LEL)	QRAEII	0.0%		
	1100 East Harvard (1220-1225)	Volatile Organic Compounds (VOCs)	Photo Ionization Detector (PID)	1.0-2.5 ppm ¹	40°44'42.1"N, 111°51'34.0"W	Sample taken at culvert opening.
		Volatile Organic Compounds (VOCs)	Photo Ionization Detector (PID)	0.3-2.5 ppm ¹		North of Harvard where Red Butte Creek goes underneath 1100 East. Faint odors detected by technician.
		Hydrogen Sulfide (H ₂ S)	QRAEII	0.0 ppm ²		
		Carbon Monoxide (CO)	QRAEII	0.0 ppm		
		Lower Explosive Limit (LEL)	QRAEII	0.0%		
	Liberty Park (1230-1245)	Volatile Organic Compounds (VOCs)	Photo Ionization Detector (PID)	0.0 ppm ¹	In between 40°44'37.96"N, 111°52'25.29"W and 40°44'38.41"N, 111°52'21.04"W	Sampling along the north side of the lake. No odor was detected by technician.
		Hydrogen Sulfide (H ₂ S)	QRAEII	0.0 ppm ²		
		Carbon Monoxide (CO)	QRAEII	0.0 ppm		
Lower Explosive Limit (LEL)		QRAEII	0.0%			

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Weather Conditions for:		K7PB Salt Lake City, UT (AS230)			Elev: 4615 ft; Latitude: 40.73067; Longitude: -111.82667				
Time: (MDT)	Temp. (f)	Dew	Relative	Wind	Wind	Altimeter	Station	Precip	Quality
		Point (f)	Humidity (%)	Direction	Speed (mph)	Setting (inches)	Pressure (inches)	24 hour (inches)	Control
30 Jun 1:09 pm	89	50	26	S	15G15	29.53	24.923	0.00	Caution
30 Jun 12:59 pm	90	51	26	SW	5G16	29.54	24.932	0.00	Caution
30 Jun 12:49 pm	88	48	25	SE	3G16	29.56	24.950	0.00	Caution
30 Jun 12:39 pm	87	48	26	SSW	5G16	29.56	24.950	0.00	Caution
30 Jun 12:29 pm	87	49	27	S	10G16	29.57	24.958	0.00	Caution
30 Jun 12:19 pm	86	48	27	SSW	2G11	29.57	24.958	0.00	Caution
30 Jun 12:09 pm	85	50	30	SSE	4G10	29.58	24.967	0.00	Caution
30 Jun 11:59 am	85	52	32	SSE	2G11	29.57	24.958	0.00	Caution
30 Jun 11:49 am	84	51	32	SSW	5G11	29.57	24.958	0.00	Caution
30 Jun 11:39 am	84	53	34	S	2G10	29.57	24.958	0.00	Caution
30 Jun 11:29 am	84	53	34	W	3G10	29.57	24.958	0.00	Caution
30 Jun 11:19 am	84	53	34	S	G10	29.58	24.967	0.00	Caution
30 Jun 11:09 am	84	50	31	SW	8G10	29.57	24.958	0.00	Caution
30 Jun 10:59 am	85	47	27	SSW	G13	29.58	24.967	0.00	Caution

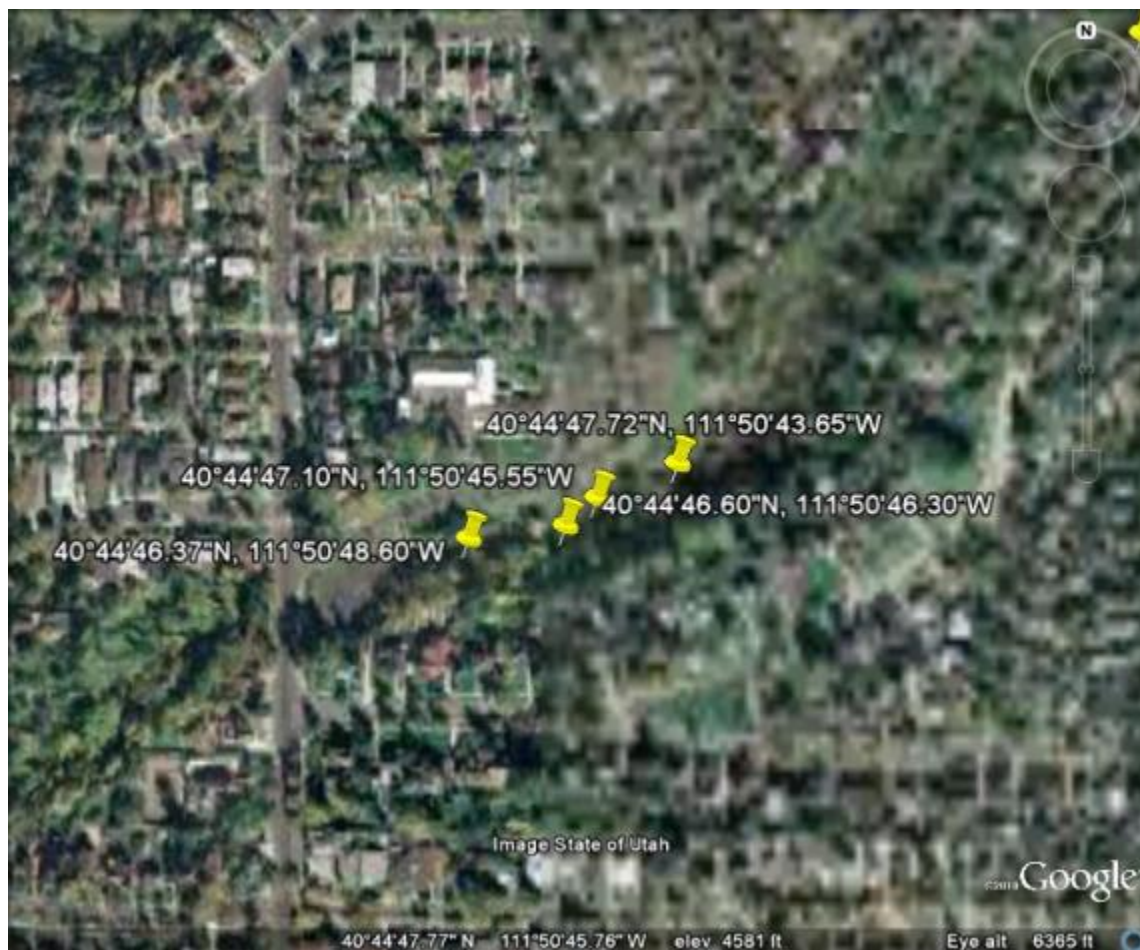
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Liberty Park Sample Sites



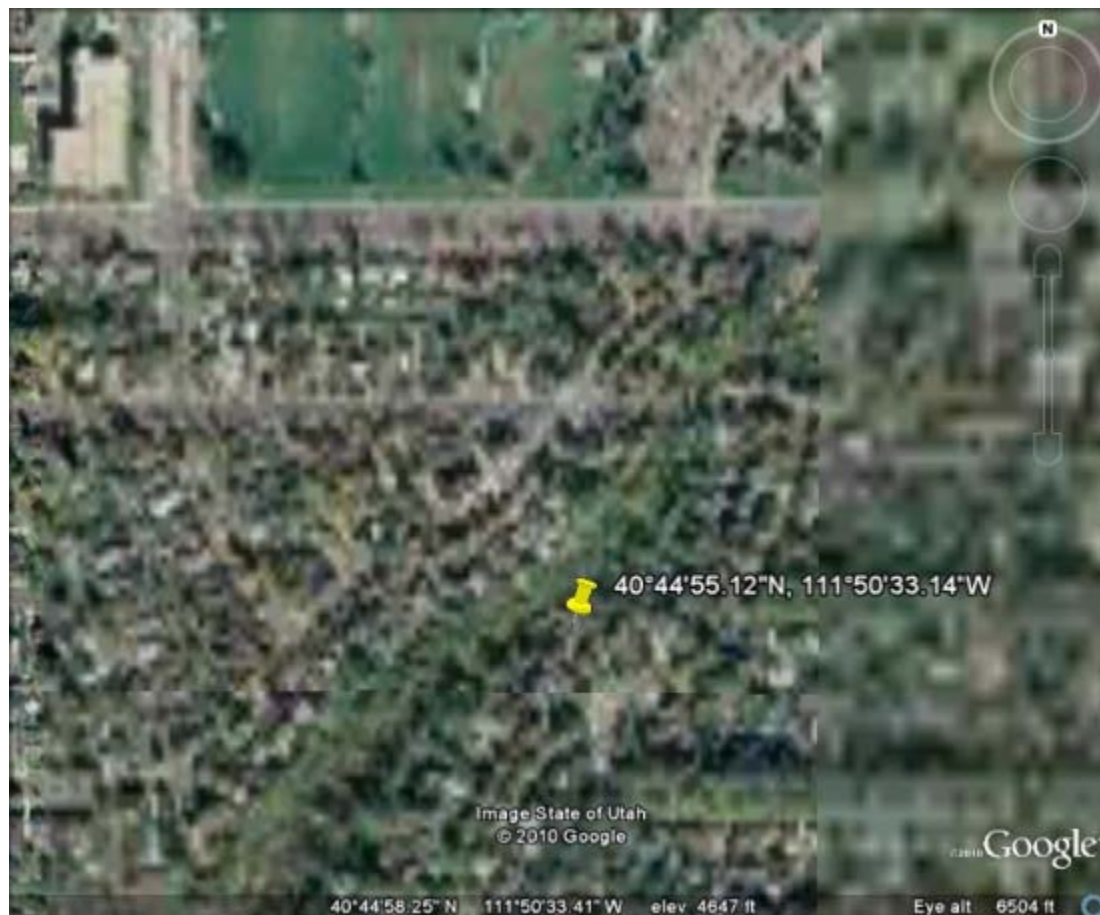
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Miller Park Sample Sites



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Resident Sample Site at 966 Military



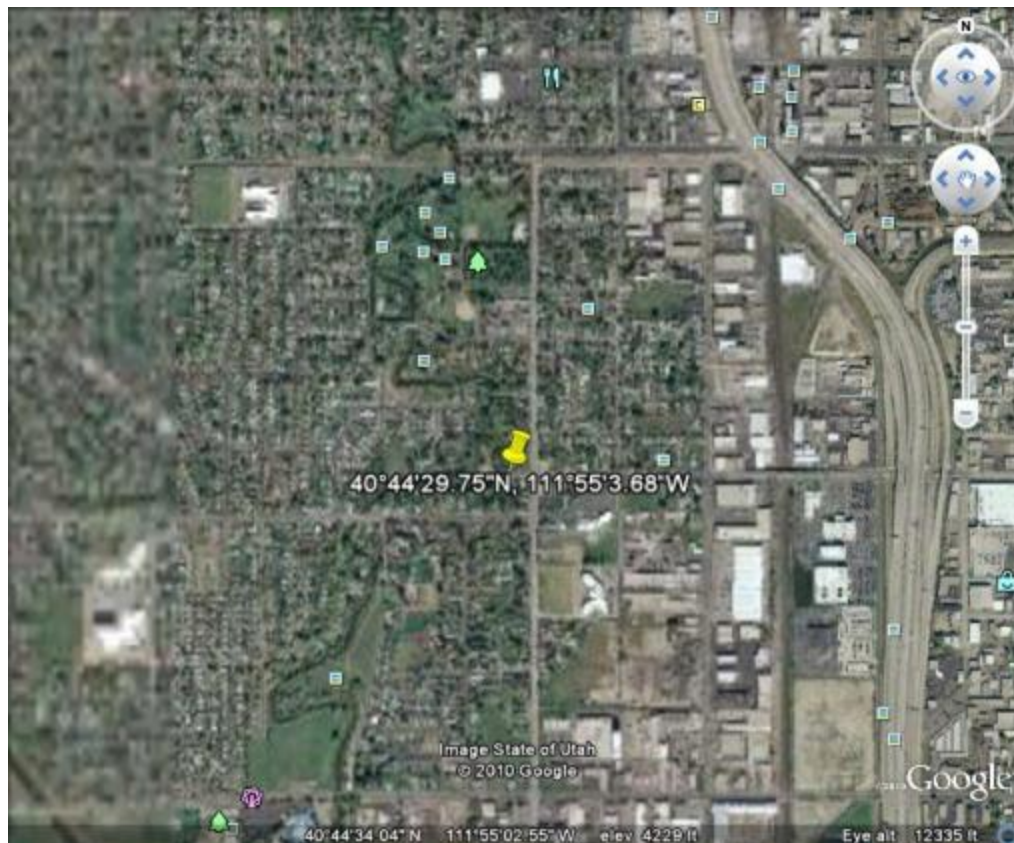
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Garden Ward Sample Site at 11th East and Harvard



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Sample Site at the Jordan River Confluence



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Sample Site at Sunnyside Park

