GROUNDWATER MONITORING REPORT JORDAN RANCH DUBLIN, CALIFORNIA

Submitted to:

Mr. Ravi Nandwana Mission Valley Homes 5000 Hopyard Road, #170 Pleasanton, CA 94588

Prepared by: ENGEO Incorporated

September 21, 2010 Project No. 7828.000.001



Project No. **7828.000.000**

September 21, 2010

Paresh C. Khatri Alameda County Environmental Health 1131 Harbor Bay Parkway Alameda, CA 94502-6577

Subject: Jordan Ranch – Former Leaking Underground Storage Tank

4233 Fallon Road Dublin, California

ACEH Case No. R00002918

GROUNDWATER MONITORING REPORT

Dear Mr. Khatr:

This letter summarizes results of the August 2010 groundwater monitoring event completed for the Jordan Ranch (Site) located at 4233 Fallon Road in Dublin, California. A Vicinity Map is attached as Figure 1.

GROUNDWATER MONITORING

Groundwater Elevations

ENGEO measured and recorded groundwater depths from the top of well casings (TOC) for wells MW-1 through MW-5 on August 24, 2010. The locations of monitoring wells MW-1 through MW-5 are shown on Figure 3.

The depths to groundwater at the site ranged from 11.75 feet below the TOC in MW-1 to 14.17 feet below the TOC in MW-2. During this sampling event, the direction of groundwater flow appeared to be towards the south-southwest at a gradient of approximately 0.0175 feet per foot (ft/ft). Groundwater elevation contours for this event are depicted on Figure 4. The cumulative groundwater elevation data from this event, along with data collected by former project consultants is summarized in Table 1 (attached).

Well Sampling

After recording groundwater depth measurements, we collected groundwater samples from wells MW-1, MW-2, MW-3, MW-4, and MW-5. Well sampling logs are attached.

ENGEO conducted the following activities during sampling:

- Purged wells MW-1 through MW-5 using a submersible pump.
- Monitored and recorded pH, temperature, and conductivity measurements during purging.

- Obtained groundwater samples using a submersible pump.
- Transferred the groundwater to laboratory provided pre-preserved sample containers, which
 were labeled to include sample identification, date, and time of collection and requested
 analyses.
- Stored the groundwater samples on ice during transportation to California Laboratory Services, in Rancho Cordova, California using a chain-of custody record.
- Submitted the samples for the analysis of total petroleum hydrocarbon as gasoline (TPHg) and diesel (TPHd), BTEX, and MTBE.

Groundwater Analytical Results

Concentrations of contaminants detected during the August 24, 2010 monitoring event are tabulated below:

Well Location	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- Benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)
MW-1	<50	<50	< 0.5	< 0.5	< 0.5	<1.0	<0.5
MW-2	<50	15,000	780	93	1,200	2,600	170
MW-3	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5
MW-4	<50	<50	<0.5	<0.5	<0.5	<1.0	80
MW-5	<50	74,000	7,500	11,000	2,700	13,000	100

Cumulative groundwater analytical data, including data collected by former project consultant is summarized in Table 2. A copy of the groundwater laboratory report and chain-of-custody record is attached.

FINDINGS

- Based on the data presented herein, concentrations of MTBE have decreased in wells MW-2, MW-4 and MW-5 since December 2005. MTBE has not been detected in MW-1 or MW-3 in past monitoring events presented in this report.
- Concentrations of TPHg have shown an increasing trend in wells MW-2 and MW-5 since December 2005. Concentrations of TPHg was not detected in the remaining wells during the August 2010 monitoring event.
- TPHd was not detected in the wells during the August 2010 monitoring event.
- Concentrations of BTEX constituents appear to be relatively consistent with past monitoring events.

No. HG 413 CERTIFIED HYDROGEOLOGIST

FUTURE WORK ACTIVITIES

As previously discussed by phone, we are in the process of developing a revised Corrective Action Plan (CAP) for the Site. We anticipate a draft CAP will be provided to Alameda County by October 1, 2010.

LIMITATIONS

At the time we performed our professional services, they were consistent with those generally accepted environmental engineering principles and practices currently employed in Northern California. ENGEO does not express or imply any other warranty. Findings in this report are valid as of the day of monitoring. However, changes in groundwater conditions can occur with the passage of time, whether due to natural processes or human activity on the Site or on surrounding properties. ENGEO prepared this report for the exclusive use of our client. This report is applicable only for the subject property. We are not responsible for others' interpretations of this report's data. This report does not represent a legal opinion.

If you have any questions or comments regarding this report, please call and we will be glad to discuss them with you.

Principal

Sincerely,

ENGEO Incorporated

Michael Turner, CEG Senior Geologist

Attachments: Figure 1: Vicinity Map

Figure 2: Development Plan

Figure 3: Groundwater Elevation Contour Map

Figure 4: Groundwater Contaminant Plume

Figure 5: Concentrations of Contaminants in Groundwater

Table 1: Groundwater Elevations

Table 2: Groundwater Analytical Data

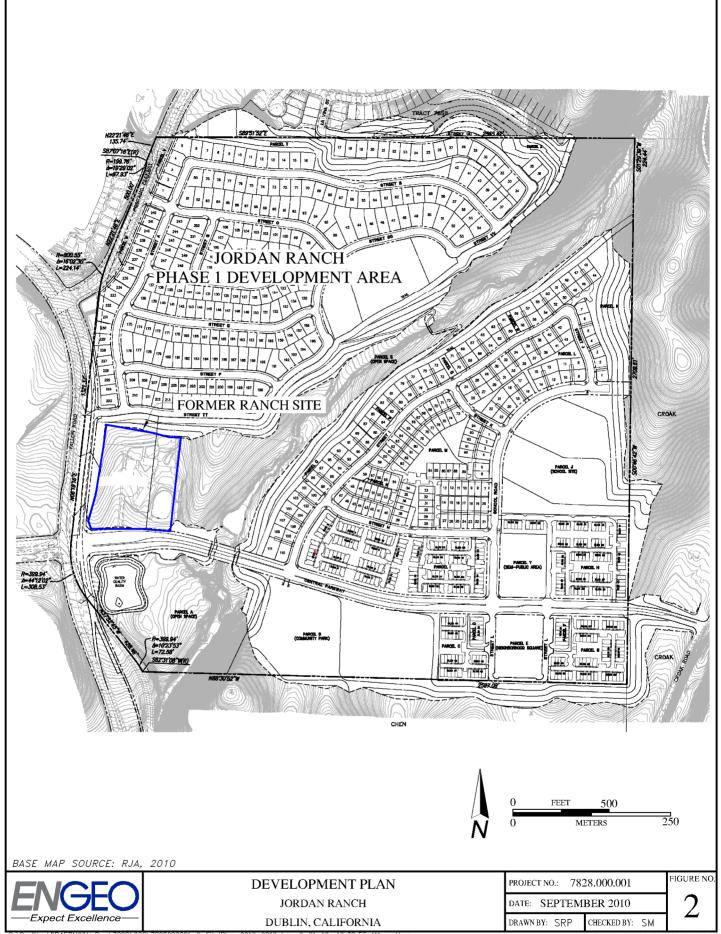
Monitoring Well Sampling Logs

Groundwater Laboratory Analytical Report and Chain-of-Custody Record

Shawn Munger, CHG

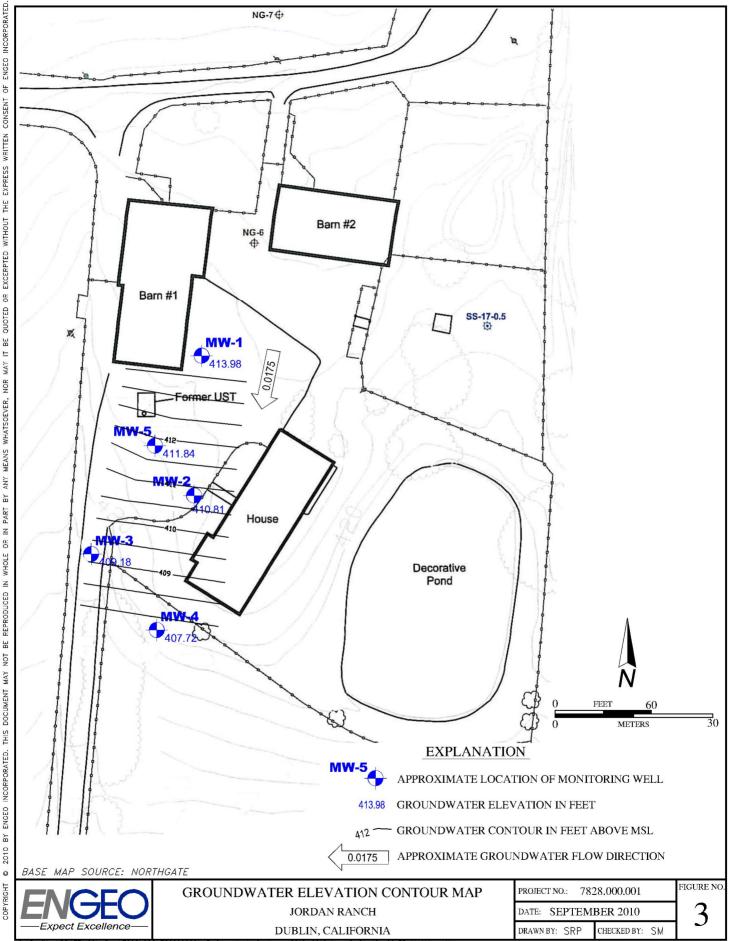
CC: Mr. Ravi Nandwana, Mission Valley Homes



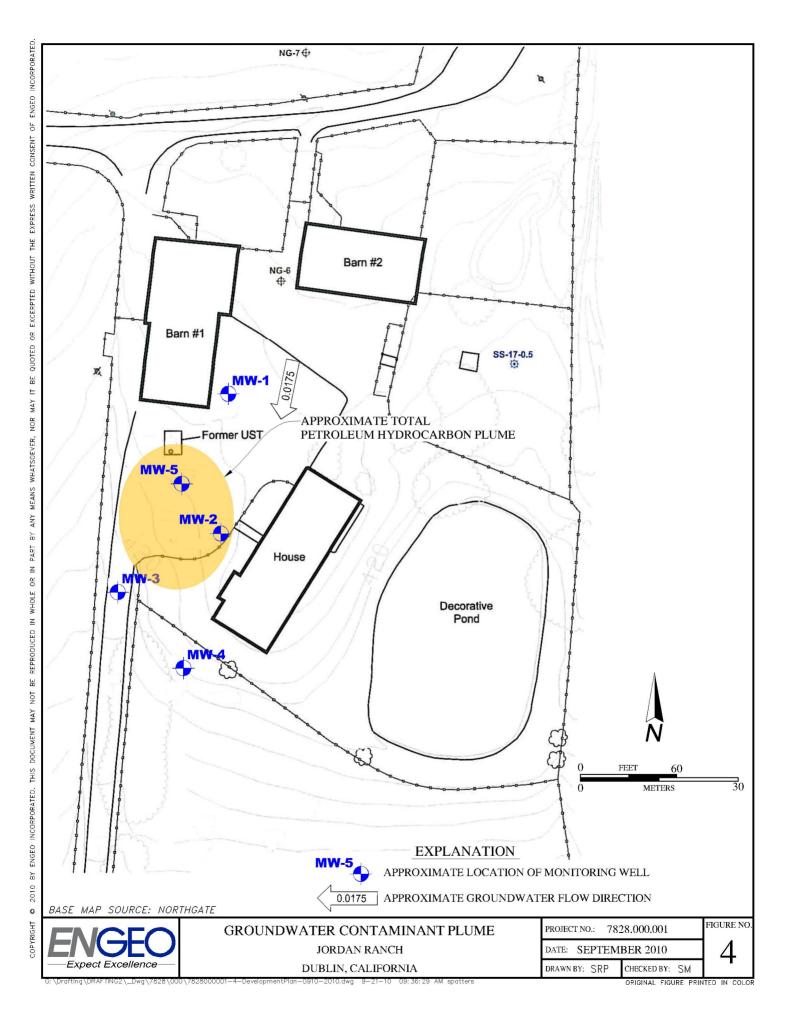


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ORIGINAL FIGURE PRINTED IN COLOR



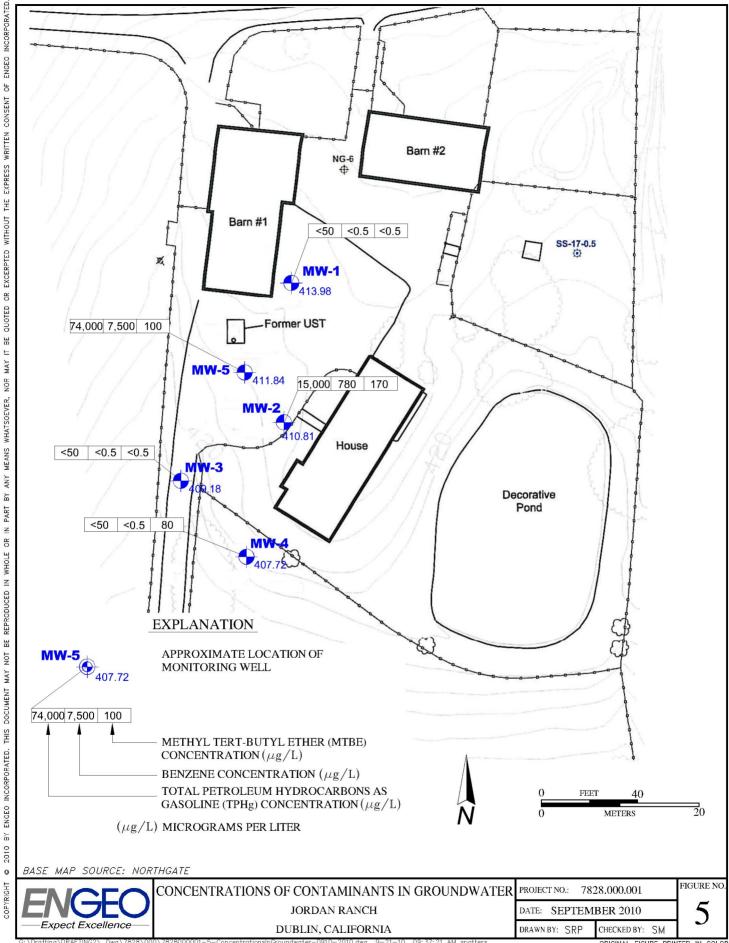


TABLE 1 **Groundwater Elevations Jordan Ranch** 4233 Fallon Road

Dublin, California

Well Number	Date	Depth to Groundwater ⁽¹⁾ (feet bgs)	Top of Casing Elevation ⁽²⁾ (feet)	Groundwater Elevation (feet msl)
	12/6/2005	17.08	425.73	408.65
MW-1	7/26/2006	13.92	425.73	411.81
IVI VV - I	4/10/2008	11.64	425.73	414.09
	8/24/2010*	11.75	425.73	413.98
	12/6/2005	18.01	424.98	406.97
MW-2	7/26/2006	15.44	424.98	409.54
IVI VV -2	4/10/2008	14.02	424.98	410.96
	8/24/2010*	14.17	424.98	410.81
	12/6/2005	17.35	421.47	404.12
MW-3	7/26/2006	14.20	421.47	407.27
IVI W - 3	4/10/2008	12.31	421.47	409.16
	8/24/2010*	12.29	421.47	409.18
	12/6/2005	18.58	421.60	403.02
MW-4	7/26/2006	15.75	421.60	405.85
IVI VV -4	4/10/2008	13.89	421.60	407.71
	8/24/2010*	13.88	421.60	407.72
	12/6/2005	16.40	424.04	407.64
MW-5	7/26/2006	13.89	424.04	410.15
IVI VV - 3	4/10/2008	12.24	424.04	411.80
	8/24/2010*	12.20	424.04	411.84

bgs = Below ground surface

msl = Mean sea level

- (1) Depth to groundwater measured from top of well casing.(2) Well casing elevations surveyed by Quite River Services, Inc. January 16, 2007.
- * Depth to water measurement collected by ENGEO



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TABLE 2

Groundwater Analytical Data

Jordan Ranch 4233 Fallon Road Dublin, California

Well ID	Date	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- Benzene (ug/L)	Total Xylenes (ug/L)	TBA (mg/L)	MTBE (ug/L)	DIPE (mg/L)	ETBE (mg/L)	TAME (mg/L)	1,2- DCA (mg/L)
	12/6/2005	NA	64	2	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	7/26/2006	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5
IVI VV - 1	4/10/2008	NA	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 50	<1.0	< 0.5	< 0.5	< 0.5
	8/24/2010*	< 50	< 50	< 0.5	< 0.5	< 0.5	<1.0	NA	< 0.5	NA	NA	NA	NA
	12/6/2005	NA	3,400	470	<25	55	120	<250	800	<25	<25	<25	57
MW-2	7/26/2006	150	650	130	< 0.5	< 0.5	< 0.5	< 5.0	510	< 0.5	< 0.5	< 0.5	14
IVI VV -2	4/10/2008	NA	8,700	1,600	350	370	790	110	810	<10	< 5.0	5.8	15
	8/24/2010*	< 50	15,000	780	93	1,200	2,600	NA	170	NA	NA	NA	NA
	12/6/2005	NA	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	7/26/2006	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5
IVI VV -3	4/10/2008	NA	430	45	34	22	90	< 5.0	< 0.5	<1.0	< 0.5	< 0.5	< 0.5
	8/24/2010*	< 50	< 50	< 0.5	< 0.5	< 0.5	<1.0	NA	< 0.5	NA	NA	NA	NA
	12/6/2005	NA	70	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	7/26/2006	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<5	< 0.5	< 0.5	< 0.5	< 0.5
IVI VV -4	4/10/2008	NA	830	29	19	16	54	< 50	1,200	<10	< 5.0	< 5.0	26
	8/24/2010*	< 50	< 50	< 0.5	< 0.5	< 0.5	<1.0	NA	80	NA	NA	NA	NA
	12/6/2005	NA	53,000	13,000	1,300	930	4,400	<2,500	7,000	<250	<250	<250	290
MW-5	7/26/2006	560	15,000	4,100	580	200	870	< 5.0	2,200	< 0.5	< 0.5	< 0.5	< 0.5
IVI VV - 3	4/10/2008	NA	66,000	24,000	7,600	2,200	9,200	<1,300	<130	<250	<130	<130	<130
	8/24/2010*	< 50	74,000	7,500	11,000	2,700	13,000	NA	100	NA	NA	NA	NA

NOTES:

TPHg = Total petroleum hydrocarbons as gasoline TPHd = Total petroleum hydrocarbons as diesel

Trice rotal peroteaning and

TBA = Tert-butyl alcohol

MTBE = Methyl tert-butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl Tert-butyl ether

TAME = tert-Amyl methyl ether

(ug/L) = micrograms per liter or parts per billion

2005 Northgate Env. Mgt., Volatile organics by SW8260B; MTBE, BTEX, TPHg by SW8021B/8015Cm

2006 ICES, Volatile organics by SW8260B; MTBE, BTEX, TPHg by SW8021B/8015Cm; TPHd by SW8015C

2008 ATC, Volatile organics by 8260B; MTBE, BTEX, TPHg by 8260B

2010 ENGEO, Volatile organics by 8260B; MTBE, BTEX, TPHg by 8015M 5030; TPHd by 8015M

(mg/L) = milligrams per liter or parts per million

(ug/L) = micrograms per liter

<50 = Less than laboratory reporting limits

* = Indicates the sample was collected by ENGEO

NA = Not analyzed



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Technician:						- M	W-1	
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WELL SE	CHDITY	Quarterly San	npring		Semiannu	al Sampling	D-4-	Olimit Lin
	in Concrete?			()			Date	8/24/10
		Bolts and Gask	-40	Yes	No	N la/ 1 6	Comments	
		1 Well Seal and		Yes	No		irredin	
		TION AND			No	but Cai	Date	, No lock
Well Type		Monitoring	WAIDKI	Extraction \		umn	Other	
Well Diamete		ZII	Free P	roduct Well?	ALTERNATION CONTRACTOR OF THE PARTY OF THE P	ипр 📋	Outer	
DTW (fbtoc)		11.75		roduct mem.		_		*
BOC (fbtoc)		29.68	_	DTFP (fbtoc)			WCV Fac	tors
WC (f)		17.93	····			_	2" =	0.17
WCV (gal)		3.04	_	DTW (fbtoc)			4" =	0.66
3 X WCV (P	urge Vol)	9.11	_			-	6" =	1.50
			-	FPT (ft)			L	
PURGING	G, SAMPLII	NG AND DI	ECON EQ	UIPMENT			Date	8/24/10
Purging:		Disposable	2	12-V		Subm.	Co	mments
		Bailer	<u></u>	Pump		Pump		
Sampling:		Disposable	1	12-V		Subm.		
		Bailer		Pump		L Pump		
Decon:		ımp decontami	nated-before	and after this	use?	i Yes	☐ No	
DUDGEX	Decon Produ		TSP/Alcono		Decon Rin	se: Tes i	luke	
		DRAGE/DIS	7		ell Sam	oled Only)	Date	8/24/10
Drums Onsite	AND THE PROPERTY OF THE PARTY O	0	Drums All I		Yes	The second secon	ach Inventory)	
Drums Used 7 Total Drums (Drums Leal		Yes	No		Gallons
	L PARAMI	TTEDS	Purge Wate	r Processed T	hrough GW	/TS?	Yes	No
Time	Volume	MA LIVE-CAMPAGEMENT	T	rc I		Т	Date	8/24/10
Tille	Purged	Temp (C or F)	pН	EC	Odor	Sheen	DTW	80% Recovery
10:55	SOM	71.0	8.66	1039				Recovery
11:00	10 901	24.5	8.24	1060		_		
-1, -0	10 Jen		10.01	1-00				
	Design Statement Property							
				4				

Sample	collected thro	ugh groundwat	ter treatment	system using	active extra	ection pump; no pu	rging required	
	RY ANALYS					F. WELLER	C C -1	
Number/Type	Containers		3	VOA's	i	1-liter Ambers	0	500ml Plastic
Preservative:); HNO3(Plas	tic)			
Analysis:			See COC	,		250		
Laboratory/TA	NT:			Analytical/Std	I.			ļ
DTW - Donth		***************************************						::::::::::::::::::::::::::::::::::::::

DTW = Depth to Water

BOC = Bottom of Well Casing

DTFP = Depth to Free Product

fbtoc = feet below top of casing

WC = Water Column Height

Engeo Incorporated

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Location:	Mu-					W	5-W	
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Activity:		Quarterly San	pling		Semiannua	l Sampling		,
WELL SE	CURITY					***	Date	01/25/3
Well Box Set	in Concrete?			(Yes)	No		Comments	
		Bolts and Gask		Yes	No			
		Well Seal and		Yes	No	7 No lock		
WELL CO	NSTRUCT	'ION AND	WATER L	EVEL DI	ETAILS		Date	
Well Type		Monitoring		Extraction '	Well with Pu	ımp 🔲	Other	
Well Diamete	r	ZIL	Free P	roduct Well?		_		180
DTW (fbtoc)		14.17						
BOC (fbtoc)		29.01	1	OTFP (fbtoc)		_	WCV Fac	ctors
WC (f)	,	1494	_				2" =	0.17
WCV (gal)		2.51	_	DTW (fbtoc)		_	4" =	0.66
3 X WCV (P	urge Vol)	7.62	<u> </u>				6" =	1.50
		Sus	V	FPT (ft)				
PURGING	, SAMPLI	NG AND DI	ECON EQ	UIPMEN	Γ		Date	8129/10
Purging:	Γ-	Disposable		12-V		Subm.	Co	omments
		Bailer		Pump		Pump		
Sampling:	1	Disposable	Г	12-V		Subm.		
	,	Bailer	L	Pump		└ Pump		
Decon:	Was purge pu	ımp decontami	nated before	and after this	s use?	Yes	☐ No	28 at a
	Decon Produc		TSP/Alcono		Decon Rin		nce	
PURGE W	ATER STO	DRAGE/DIS	SPOSAL (For Last V	Vell Samp	oled Only)	Date	8/24/10
Drums Onsite		O	Drums All I	Labeled?	(Yes)	No (Att	ach Inventory	
Drums Used 7	HATCHES CONTRACTOR OF THE PARTY.	\	Drums Leak		Yes	No		Gallons
Total Drums (1	Purge Wate	r Processed	Through GW	TS?	Yes	No.
PHYSICA	L PARAMI	ETERS					Date	8/24/10
Time	Volume	Temp	pН	EC	Odor	Sheen	DTW	80%
	Purged	(C or F)		1-1-	12.			Recovery
12.13	4.991	ZUI	7.04	1245	Ces	Yes		
12/17	9991	227	7.35	1250	Yés	res		
					<u></u>			
140110								
			ter treatment	system using	g active extra	ection pump; no pu	arging required	l.
	RY ANALYS	IS		,	_			
Number/Type	Containers		3	VOA's	į	1-liter Ambers	0	500ml Plastic
Preservative:			HCl(VOA's); HNO3(Pla	stic)	250MC		
Analysis:			See COC					
Laboratory/TA	AT:		Excelchem A	Analytical/St	d.			

DTW = Depth to Water

fbtoc = feet below top of casing

BOC = Bottom of Well Casing

WC = Water Column Height

DTFP = Depth to Free Product

Engeo Incorporated

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Project No. Location:		728.000	1.00			-		ь
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		LUINE			T = .		100)
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							Date	8/29/10
2002 00000 00000	t in Concrete?			Yes	No	2 7 S. (1-2-18-180)	Comments	
		Bolts and Gask		Yes	No		10	
Well Casing	Equipped With	n Well Seal and	Lock?	(Yeş	No	> No la	rt_	T 5/
	JNSTRUC	ΓΙΟΝ AND	WATERI		The state of the s	<u> </u>	Date	2/24/10
Well Type		Monitoring			Well with Pr	лшь СП	Other	
Well Diamete		17.20	_ Free P	roduct Well's		=		
DTW (fbtoc)								
BOC (fbtoc)		293		DTFP (fbtoc))	<u>-</u>	WCV Fa	600 1500 C
WC (f)		17.51	-				2" =	0.17
WCV (gal)		299	=	DTW (fbtoc))	_	4" =	0.66
3 X WCV (P	urge Vol)	8.95	_	EDT (5)			6" =	1.50
PURCING	CAMDIT	NG AND DI	ECON FO	FPT (ft)			Data	(")[20]]
	s, SAMITLI		ECON EQ		1		Date	8/24/10
Purging:		Disposable	[12-V		Subm.	Co	omments
C !!		Bailer		Pump		Pump		
Sampling:		Disposable Bailer		12-V		Subm.		
	T	1.0000000000000000000000000000000000000	7 (V 12 C) 440	Pump	0122	Pump	<u> </u>	
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Total Drums			Drums Leal		Yes	(No)	I v	Gallons No
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Time	Purged	Temp (C or F)	pН	EC	Odor	Sheen	DTW	80% Recovery
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11:26	વલ્લા	220	747	1061	_	_		
11.00	1 00-10	000	151	1001				
Sample	collected thro	ugh groundwa	ler treatment	system using	active extra	tion pump; no pu	roino required	L
	RY ANALYS		io. ii caiment	ayatem dame	, active extra	enon pump, no pu	ignig required	
Number/Type			3	VOA's	l i	L-liter Ambers	\mathcal{O}	500ml Plastic
Preservative:	Containers			j voas); HNO3(Pla	ctic)	ZSOML		Journ Flastic
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Educator y/ 17	11.		Excelchen /	maryticai/St	u.			

DTW = Depth to Water

BOC = Bottom of Well Casing

DTFP = Depth to Free Product

fbtoc = feet below top of casing

WC = Water Column Height

Engeo Incorporated

Well Box Set in Concrete? Vest No										
Location: Country Country Comments	1, 100 to						- T	M/-III NT-		
Technician:	3.00			000			_			
Activity:			,					1111-6	1	
WELL SECURITY Well Box Set in Concrete? Box Cover Equipped With Bolts and Gasked Comments Well Casing Equipped With Well Sedimand Goek? WELL CONSTRUCTION AND WATER LEVEL DETAILS Well Type				<u> </u>				100	,	
Well Box Set in Concrete? Box Cover Equipped With Bolts and Gigsker Well Casing Equipped With Well Schräfid Loek? Well ConSTRUCTION AND WATER LEVEL DETAILS Well Type Monitoring Extraction Well with Pump Other Well Diameter Tere Product Well? DTFV (fiboc) BOC (fiboe) J23.71 DTFP (fiboc) WCV (gal) J2.70 DTW (fiboc) SWCV (gal) J2.70 DTW (fiboc) WCV (gal) J2.70 DTW (fiboc) WCV (gal) J2.70 PURGING, SAMPLING AND DECON EQUIPMENT Pump Disposable Bailer Disposable Bailer Pump Decon: Was purge pump decontaminated before and after this use? Was purge pump decontaminated before and after this use? PURGE WATER STORAGE/DISPOSAL (For Last Well Sampled Only) Drums Onsite Arrival Drums Onsite Arrival Drums Onsite Arrival Drums Onsite Arrival Drums Onsite Now PHYSICAL PARAMETERS Time Volume Temp Purge Temp Purge Ves Ves No No Adatach inventory) Purge Water Processed Through GWTS? Yes No (Attach inventory) Purge Water Processed Through GWTS? Purge Odor Sheen DTW 809 PHYSICAL PARAMETERS Time Volume Temp Purge Temp Purge Temp Purge Temp Purge Ves No Odor Sheen DTW Recon 11.757 Augo Somil Plastic Processer Analysis: See COC Somil Plastic Somil Plastic Somil Plastic Processer Analysis: See COC		CUDITY	J Quarterly San	npling		Semiannua	al Sampling		T	
Box Cover Equipped With Bolts and Gasket Yes No No No Coccy Well Casing Equipped With Well Seffarial Geet? Yes No No Coccy WELL CONSTRUCTION AND WATER LEVEL DETAILS Date Well Type Monitoring Extraction Well with Pump Other Well Diameter To Free Product Well? DTW (fbloc) 3.92 BOC (fbloc) 2.71 DTFP (fbloc) WCV Factors WCV (i) 4" = 0.66 G" = 1.50 SX WCV (Purge Vol) 8.40 FPT (ft) PURGING, SAMPLING AND DECON EQUIPMENT Date Average Pump Bailer Pump Sampling: Disposable Bailer Pump Subming: Disposable Bailer Pump Decon: Was purge pump decontaminated before and after this use? Ves No Decon Product: Ts??/Alconox Decon Rinse: Yes No Pump Drums Onsite Arrival Drums Onsite Arrival Drums Consite Arrival Correct Arrival Constant C								Date	8/24/10)
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BOC (fbtoe) WC (f) SC (f) WCV (gal) BOC (gal)	10,000,000				roduct Well?		- *			
WC (f)										
WCV (gal) 3 X WCV (Purge Vol) 8 \(\) O FPT (fi) PURGING, SAMPLING AND DECON EQUIPMENT Purging: Disposable Bailer Disposable Bailer Decon: Was purge pump decontaminated before and after this use? Decon Product: D'SP/Alconox Decon Rinse: PURGE WATER STORAGE/DISPOSAL (For Last Well Sampled Only) Drums Onsite Arrival Drums Used This Event Total Drums Onsite Now PHYSICAL PARAMETERS Time Volume Purged Temp Purge Water Processed Through GWTS? Time Volume Purged Temp Purged (C or F) Time Volume Purged Temp Purged (C or F) Time Volume Purged Temp P	0.0000000000000000000000000000000000000			- 2	DTFP (fbtoc)		- 0	1		9
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PURGING, SAMPLING AND DECON EQUIPMENT Purging: Disposable Bailer Pump P	JA WCV (P)	urge voi)	0.0	-	CDT (A)			6" =	1.50	
Purging: Disposable Bailer Pump Disposable Bailer Disposable Disp	PURGING	SAMPLI	NC AND DI	FCON FO				Doto	012:11	- 4
Sampling: Disposable Bailer Pump Pump Pump Pump		, OANII LII	-	ECON EQ	20.00					
Sampling: Disposable Bailer Pump	ruiging.		F) 1650		1		10 XE-61 E-61	Co	mments	-
Bailer Pump	Sampling									
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Decon Product:	Decon:	Was nurse n		natad bacan						
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PHYSICAL PARAMETERS Time Volume Temp pH EC Odor Sheen DTW Recover the purged (C or F) PH EC Odor Sheen DTW Recover the purged (C or F) Recove	Drums Onsite	Decon Produ ATER STO Arrival	ct:	SPOSAL (I	ox For Last V Labeled?	Decon Rins Vell Samp	se: 105 oled Only) No (Att	Date		
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Number/Type Containers Preservative: HCl(VOA's); HNO3(Plastic) See COC Juiter Ambers 500ml Plastic	Drums Onsite Drums Used 1 Total Drums O PHYSICA Time	Decon Produ /ATER STO Arrival This Event Onsite Now L PARAMI Volume Purged STO	ct: DRAGE/DIS D (PH T.12 7.63	For Last V Labeled? king? r Processed T EC 1322 1440	Decon Rins Vell Samp Yes Yes Through GW	Se: Tespoled Only) No (Att No) /TS? Sheen	Yes Date DTW	Gallo (No) 2(24 (C) 80% Recove	ns J
Preservative: HCI(VOA's); HNO3(Plastic) See COC	Drums Onsite Drums Used 1 Total Drums O PHYSICA Time U-MC U-SS	Decon Produ /ATER STO Arrival This Event Onsite Now L PARAMI Volume Purged E ON	Ct: DRAGE/DIS D (PH T.12 7.63	For Last V Labeled? king? r Processed T EC 1322 1440	Decon Rins Vell Samp Yes Yes Through GW	Se: Tespoled Only) No (Att No) /TS? Sheen	Yes Date DTW	Gallo (No) 2(24 (C) 80% Recove	ns J
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7 (0.1 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	Drums Onsite Drums Used 1 Total Drums O PHYSICA Time \(\begin{align*} \cdot \	Decon Produ ATER STO Arrival This Event Onsite Now L PARAMI Volume Purged B GAL E GAL E Collected thro RY ANALYS	Ct: DRAGE/DIS D (Proposition of the proposition o	For Last V Labeled? king? r Processed T EC 1322 1440 system using	Decon Rins Vell Samp Yes Through GW Odor active extra	Se: Tespoled Only) No (Attention (No) TS? Sheen ction pump; no pu	Yes Date DTW	Gallo (No) 2(24 (C) 80% Recove	ns J
Laboratory/TAT: Excelchem Analytical/Std.	Drums Onsite Drums Used 1 Total Drums O PHYSICA Time \(\begin{align*} \text{V-M-N} \\ \text{V-S-S} \end{align*} Sample LABORATO Number/Type Preservative: Analysis:	Decon Produ ATER STO Arrival This Event Onsite Now L PARAMI Volume Purged B GAL B GAL B GAL Collected through the collected through	Ct: DRAGE/DIS D (Proposed (1) Proposed (2) Proposed (3) Proposed (4) Pr	For Last V Labeled? king? r Processed T EC 1322 1440 system using VOA's p; HNO3(Plast)	Decon Rins Vell Samp Yes Through GW Odor active extra tic)	Se: Tespoled Only) No (Attention (No) TS? Sheen ction pump; no pu	Yes Date DTW	Gallo (No) 2(24 (C) 80% Recove	ns J
-aboratory/TAT: Excelchem Analytical/Std.	Drums Onsite Drums Used 1 Fotal Drums (PHYSICA) Time (1.253) Sample LABORATO Number/Type Preservative:	Decon Produ ATER STO Arrival This Event Onsite Now L PARAMI Volume Purged B GAL E GAL E Collected thro RY ANALYS	Ct: DRAGE/DIS D (Proposition of the proposition o	For Last V Labeled? king? r Processed T EC 1322 1440 system using	Decon Rins Vell Samp Yes Through GW Odor active extra	Se: Tespoled Only) No (Attention (No) TS? Sheen ction pump; no pu	Yes Date DTW	Gallo (No) 2(24 (C) 80% Recove	ns J

DTW = Depth to Water

BOC = Bottom of Well Casing

DTFP = Depth to Free Product

fbtoc = feet below top of casing

WC = Water Column Height

Engeo Incorporated

Laboratory/TA	A1:		Excelchem .	Analytical/St	d.				
Analysis:			See COC	and the same					
Preservative:			858); HNO3(Pla	stic) Z	SUML			
Number/Type	Containers		3	VOA's		1-titer Ambers	0	500ml	Plastic
	RY ANALYS	SIS			,				
			ter treatment	system using	active extra	ction pump; no pu	irging required	1.	
						l and the second			
							V		
IVAZ	9 991	21.6	8:16	1106					
(2:37	SOM	23.9	8.05	1126	Yes	res			
Time	Volume Purged	Temp (C or F)	рН	EC	Odor		DIW		Recovery
	1	E TOWNS NATIONAL STREET	"U	FC	Odon	Sheen	Date	- 1	80%
	L PARAMI	ETERS	i uige wate	i i loccascu l	i mougii O W	10:	Date		24/10
Total Drums (-i		r Processed T			Yes	No.	Ganons
Drums Used T		Ť	Drums All I Drums Leal		Yes	No (Att	ach Inventory	,	Gallons
Drums Onsite		O					99 NOVOMO NOVOM		- VIV
PURCEW	The same the second of the sec	ORAGE/DIS	CONTRACTOR AND A SECOND OF	St. 1507			Date	Q)	124/6/
Decon:	Decon Produ	imp decontamii	TSP/Alcond		Decon Rins	The second secon	UNICP		
D	I.V.			Pump	0	Yes	□ No		
Sampling:		Disposable Bailer	1			Subm. Pump			
C1!		Bailer		Pump 12-V		Pump			
Purging:		Disposable		12-V		Subm.		mmen	ıs
Transmitted to the second	, SAIVIT LII		CONEQ			CL			
PURGING	SAMPLIN	NG AND DE	CON FO	FPT (ft)			Date	es	24/10
3 X WCV (Pt	urge Vol)	0.719	-	EDT (6)			6" =	1.50	l.
WCV (gal)	W. IV	8.94		DTW (fbtoc)		•	12.7	0.66	
WCV (cal)	6	17.33 2.98	-	DTW (A.L.			2" = 4" =	0.17	
BOC (fbtoc)		29.73		OTFP (fbtoc)		-	2" =	SECONDOCIO	
DTW (fbtoc)		12-20		OTED (C.)	147		WCV F		19
Well Diamete	r	17 22	Free P	roduct Well?		•			
Well Type		Monitoring			Well with Pu	mp 🔲	Other		
	NSTRUCT	ION AND V	VATER L		TO SHOULD		Date	8	24/10
		Well Seal and		Yes	No				D. 1.
		Bolts and Gaske		Yes	No				
Well Box Set	in Concrete?			Yes	No		Comments		
WELL SE	CURITY				.0150000.0		Date	8/8	24110
Activity:		Quarterly Sam	pling		Semiannual	Sampling			
Technician:	M.Tu	ines				111	W)		
Location:	Mu-	5				M_{c}	W-5		
Project No.		0.000.0				j V	Vell No.		
Project:	700	dan Ka	nch			0.00	THE COURSE NAMED		
			porateu						

DTW = Depth to Water

fbtoc = feet below top of casing

BOC = Bottom of Well Casing

WC = Water Column Height

DTFP = Depth to Free Product

3249 Fitzgerald Road Rancho Cordova, CA 95742

August 27, 2010 CLS Work Order #: CTH0945

COC #:

Shawn Munger ENGEO 2213 Plaza Drive Rocklin, CA 95765

Project Name: Jordan Ranch

Enclosed are the results of analyses for samples received by the laboratory on 08/24/10 15:33. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D. Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

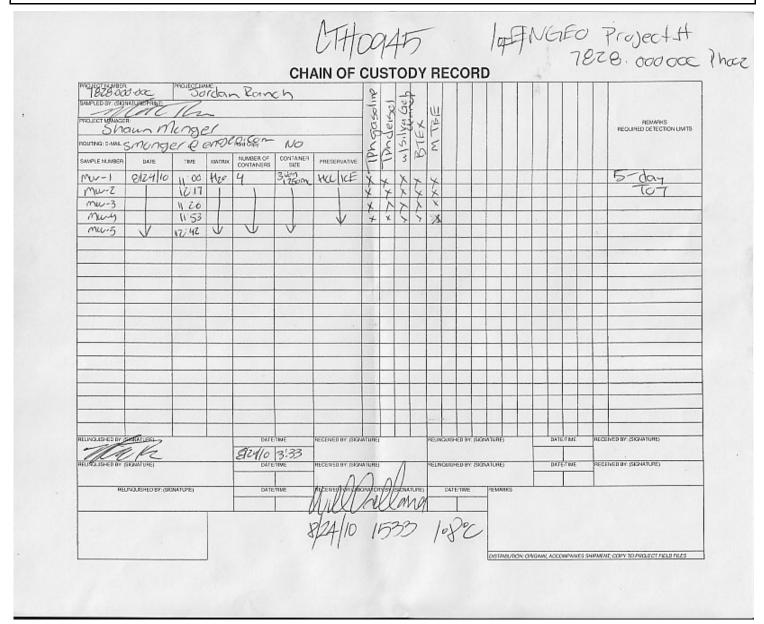
Page 1 of 9 08/27/10 14:14

ENGEO Project: Jordan Ranch
2213 Plaza Drive Project Number: 7828.000.000

Rocklin, CA 95765

CLS Work Order #: CTH0945

Project Manager: Shawn Munger COC #:



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ENGEO Project: Jordan Ranch

2213 Plaza Drive Project Number: 7828.000.000 CLS Work Order #: CTH0945 Rocklin, CA 95765

Project Manager: Shawn Munger COC #:

Extractable Petroleum Hydrocarbons by EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (CTH0945-01) Water	Sampled: 08/24/10 11:00	Received:	08/24/1	0 15:33					EXT-6
Diesel	ND	0.050	mg/L	1	CT06350	08/26/10	08/27/10	EPA 8015M	
Surrogate: o-Terphenyl		113 %	65	5-135	"	"	"	"	
MW-2 (CTH0945-02) Water	Sampled: 08/24/10 12:17	Received:	08/24/1	0 15:33					EXT-6
Diesel	ND	0.050	mg/L	1	CT06350	08/26/10	08/27/10	EPA 8015M	A-COM
Surrogate: o-Terphenyl		218 %	65	5-135	"	"	"	"	
MW-3 (CTH0945-03) Water	Sampled: 08/24/10 11:20	Received:	08/24/1	0 15:33					EXT-6
Diesel	ND	0.050	mg/L	1	CT06350	08/26/10	08/27/10	EPA 8015M	
Surrogate: o-Terphenyl		118 %	65	5-135	"	"	"	"	
MW-4 (CTH0945-04) Water	Sampled: 08/24/10 11:53	Received:	08/24/1	0 15:33					EXT-6
Diesel	ND	0.050	mg/L	1	CT06350	08/26/10	08/27/10	EPA 8015M	
Surrogate: o-Terphenyl		134 %	65	5-135	"	"	"	"	
MW-5 (CTH0945-05) Water	Sampled: 08/24/10 12:42	Received:	08/24/1	0 15:33					EXT-6
Diesel	ND	0.050	mg/L	1	CT06350	08/26/10	08/27/10	EPA 8015M	A-COM
Surrogate: o-Terphenyl		117 %	65	5-135	"	"	"	"	

CA DOHS ELAP Accreditation/Registration Number 1233

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ENGEO Project: Jordan Ranch
2213 Plaza Drive Project Number: 7828.000.000

Rocklin, CA 95765 Project Manager: Shawn Munger COC #:

TPH-Gasoline by GC FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (CTH0945-01) Water	Sampled: 08/24/10 11:00	Received:	08/24/1	0 15:33					
Gasoline	ND	50	μg/L	1	CT06278	08/25/10	08/26/10	EPA 8015M	
Surrogate: o-Chlorotoluene (G	as)	71 %	65	5-135	"	"	"	"	
MW-2 (CTH0945-02) Water	Sampled: 08/24/10 12:17	Received:	08/24/1	0 15:33					
Gasoline	15000	500	μg/L	10	CT06278	08/25/10	08/26/10	EPA 8015M	
Surrogate: o-Chlorotoluene (G	as)	82 %	65	5-135	"	"	"	"	
MW-3 (CTH0945-03) Water	Sampled: 08/24/10 11:20	Received:	08/24/1	0 15:33					
Gasoline	ND	50	μg/L	1	CT06278	08/25/10	08/26/10	EPA 8015M	
Surrogate: o-Chlorotoluene (G	as)	73 %	65	5-135	"	"	"	"	
MW-4 (CTH0945-04) Water	Sampled: 08/24/10 11:53	Received:	08/24/1	0 15:33					
Gasoline	ND	50	μg/L	1	CT06278	08/25/10	08/26/10	EPA 8015M	
Surrogate: o-Chlorotoluene (G	as)	75 %	65	5-135	"	"	"	"	
MW-5 (CTH0945-05) Water	Sampled: 08/24/10 12:42	Received:	08/24/1	0 15:33					
Gasoline	74000	2500	μg/L	50	CT06278	08/25/10	08/26/10	EPA 8015M	
Surrogate: o-Chlorotoluene (G	as)	82 %	65	5-135	"	"	"	"	

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ENGEO Project: Jordan Ranch 2213 Plaza Drive Project Number: 7828.000.000

Rocklin, CA 95765 Project Manager: Shawn Munger COC #:

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (CTH0945-01) Water	Sampled: 08/24/10 11:00	Received:	08/24/1	0 15:33					
Methyl tert-butyl ether	ND	0.50	$\mu g/L$	1	CT06316	08/25/10	08/25/10	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		101 %	72	2-125	"	"	"	n	
MW-2 (CTH0945-02) Water	Sampled: 08/24/10 12:17	Received:	08/24/1	0 15:33					
Methyl tert-butyl ether	170	5.0	μg/L	10	CT06316	08/25/10	08/25/10	EPA 8260B	
Benzene	780	5.0	"	"	"	"	"	"	
Toluene	93	5.0	"	"	"	"	"	"	
Ethylbenzene	1200	25	"	50	"	"	"	"	
Xylenes (total)	2600	50	"	"	"	"	"	"	
Surrogate: Toluene-d8		96 %	72	2-125	"	"	"	"	
MW-3 (CTH0945-03) Water	Sampled: 08/24/10 11:20	Received:	08/24/1	0 15:33					
Methyl tert-butyl ether	ND	0.50	μg/L	1	CT06316	08/25/10	08/25/10	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	••	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Surrogate: Toluene-d8		99 %	72	2-125	"	"	"	"	
MW-4 (CTH0945-04) Water	Sampled: 08/24/10 11:53	Received:	08/24/1	0 15:33					
Methyl tert-butyl ether	80	0.50	μg/L	1	CT06316	08/25/10	08/25/10	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	

CA DOHS ELAP Accreditation/Registration Number 1233

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ENGEO Project: Jordan Ranch 2213 Plaza Drive Project Number: 7828.000.000

Rocklin, CA 95765 Project Manager: Shawn Munger COC #:

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (CTH0945-04) Water	Sampled: 08/24/10 11:53	Received:	08/24/1	0 15:33					
Xylenes (total)	ND	1.0	μg/L	1	CT06316	"	08/25/10	EPA 8260B	
Surrogate: Toluene-d8		99 %	72	2-125	"	"	"	"	
MW-5 (CTH0945-05) Water	Sampled: 08/24/10 12:42	Received:	08/24/1	0 15:33					
Methyl tert-butyl ether	100	5.0	μg/L	10	CT06316	08/25/10	08/25/10	EPA 8260B	
Benzene	7500	50	"	100	"	"	"	"	
Toluene	11000	50	"	"	"	"	"	"	
Ethylbenzene	2700	50	"	"	"	"	"	"	
Xylenes (total)	13000	100	"	"	"	"	"	"	
Surrogate: Toluene-d8		92 %	72	2-125	"	"	"	"	

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ENGEO Project: Jordan Ranch
2213 Plaza Drive Project Number: 7828.000.000

2213 Plaza Drive Project Number: 7828.000.000 CLS Work Order #: CTH0945
Rocklin, CA 95765 Project Manager: Shawn Munger COC #:

Extractable Petroleum Hydrocarbons by EPA Method 8015M - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CT06350 - EPA 3510B GCNV										
Blank (CT06350-BLK1)				Prepared:	08/26/10	Analyzed	1: 08/27/10			
Diesel	ND	0.050	mg/L							
Motor Oil	ND	0.050	"							
Mineral Oil	ND	0.050	"							
JP-5/JP-8	ND	0.050	"							
Surrogate: o-Terphenyl	0.0263		"	0.0250		105	65-135			
LCS (CT06350-BS1)				Prepared:	08/26/10	Analyzed	1: 08/27/10			
Diesel	2.32	0.050	mg/L	2.50		93	65-135			
Surrogate: o-Terphenyl	0.0303		"	0.0250		121	65-135			
LCS Dup (CT06350-BSD1)			Prepared: 08/26/10 Analyzed: 08/27/10							
Diesel	2.26	0.050	mg/L	2.50		91	65-135	2	30	
Surrogate: o-Terphenyl	0.0314		"	0.0250		126	65-135			
Matrix Spike (CT06350-MS1)	Source: CTH0904-01			Prepared: 08/26/10 Analyzed: 08/27/10						
Diesel	2.02	0.050	mg/L	2.50	ND	81	46-137			
Surrogate: o-Terphenyl	0.0262		"	0.0250		105	65-135			
Matrix Spike Dup (CT06350-MSD1)	Source: CTH0904-01			Prepared: 08/26/10 Analyzed: 08/27/10						
Diesel	1.94	0.050	mg/L	2.50	ND	78	46-137	4	30	
Surrogate: o-Terphenyl	0.0262		"	0.0250		105	65-135			

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ENGEO Project: Jordan Ranch 2213 Plaza Drive Project Number: 7828.000.000 Rocklin, CA 95765

Project Manager: Shawn Munger COC #:

CLS Work Order #: CTH0945

TPH-Gasoline by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CT06278 - EPA 5030 Water GC										
Blank (CT06278-BLK1)	Prepared: 08/25/10 Analyzed: 08/26/10									
Gasoline	ND	50	μg/L			-				
Surrogate: o-Chlorotoluene (Gas)	15.0		"	20.0		75	65-135			
LCS (CT06278-BS1)				Prepared:	08/25/10					
Gasoline	527	50	μg/L	500		105	65-135			
Surrogate: o-Chlorotoluene (Gas)	17.0		"	20.0		85	65-135			
LCS Dup (CT06278-BSD1)	Prepared: 08/25/10 Analyzed: 08/26/10									
Gasoline	543	50	μg/L	500		109	65-135	3	30	
Surrogate: o-Chlorotoluene (Gas)	17.5		"	20.0		87	65-135			
Matrix Spike (CT06278-MS1)	Sor	arce: CTH09	04-01	Prepared:	Analyzed					
Gasoline	542	50	μg/L	500	12.2	106	68-132			
Surrogate: o-Chlorotoluene (Gas)	17.6		"	20.0		88	65-135			
Matrix Spike Dup (CT06278-MSD1)	Source: CTH0904-01		Prepared: 08/25/10 Analyzed: 08/26/10							
Gasoline	546	50	μg/L	500	12.2	107	68-132	0.8	32	
Surrogate: o-Chlorotoluene (Gas)	17.4		"	20.0		87	65-135			

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ENGEO Project: Jordan Ranch 2213 Plaza Drive Project Number: 7828.000.000

2213 Plaza Drive Project Number: 7828.000.000 CLS Work Order #: CTH0945
Rocklin, CA 95765 Project Manager: Shawn Munger COC #:

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Assista	D 1	Reporting	T T : 4.	Spike	Source	0/ DEC	%REC	DDD	RPD	NI-4	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	
Batch CT06316 - EPA 5030 Water	r MS										
Blank (CT06316-BLK1)		Prepared & Analyzed: 08/25/10									
Di-isopropyl ether	ND	0.50	$\mu g/L$								
Ethyl tert-butyl ether	ND	0.50	"								
Methyl tert-butyl ether	ND	0.50	"								
tert-Amyl methyl ether	ND	0.50	"								
tert-Butyl alcohol	ND	5.0	"								
Surrogate: Toluene-d8	9.81		"	10.0		98	72-125				
LCS (CT06316-BS1)		Prepared & Analyzed: 08/25/10									
Methyl tert-butyl ether	20.1	0.50	μg/L	20.0		100	52-130				
Surrogate: Toluene-d8	10.1		"	10.0		101	72-125				
LCS Dup (CT06316-BSD1)		Prepared & Analyzed: 08/25/10									
Methyl tert-butyl ether	20.1	0.50	$\mu g/L$	20.0	·	101	52-130	0.3	30		
Surrogate: Toluene-d8	10.2		"	10.0		102	72-125				

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ENGEO Project: Jordan Ranch
2213 Plaza Drive Project Number: 7828.000.000

Rocklin, CA 95765 Project Manager: Shawn Munger COC #:

Notes and Definitions

EXT-6 Silica gel treatment was not performed because the sample is ND.

A-COM The sample contains kerosene or gasoline.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

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