Residential Water Well Field Data Form

Project Name: COGCC - Environmental Support Complaint # 200240886 Permit No/Receipt No: 270855
Project Number: 25087038 Owner: Lloyd Lambertson
Address: 35481 CR 124
Weld County, CO
Location: Sec 22, T-10-N, R-62-W
Date: 6/2/10
Weather: Sunny

Well Owner Survey

	Yes	No
Is there a holding tank for the well?		
Do you have a water softener/treatment system?		
Do you have an in-line filter?		
Sampling point upstream of pressure tank and treatment system?		

Location of well: Pasture
Type of pump (jet, submersible, suction): Submersible
Casing material and diameter:
Depth to Static Water Table (fluctuations):
Description of area around well: Prarie grass, pasture
Location and description of sample point: Float valve into holding tank 20' diameter, tank was full
Pump start time: 4:20 PM

Time	Volume Purged (gal.)	PH (SI Units)	Spec Cond (µs/cm)	DO (mg/L)	Turbidity (NTU)	Temperature (°C)	Clarity	Other *
4:27 PM	-	8.25	480	9.08		15.62	clr.	

* odors (if any); effervescence (if any); produced sediment (if any); evidence of bacterial fouling (bioslimes or biofilms).

Field Sample ID : Irrigation Well 1 Collection Time: 4:30 PM Number of Containers: 9 + Bart Kit

Sampler: J. Geissler

Analyte	# of Containers	Container Size	Type	Analytical Method	Preservative
Semi-volitales	2	1 L	amber	8270	4°C
Diss. Metals (Ca, Na, Fe, Mn, Mg, K, Se)	1	500 ml	poly	200.7	H_2NO_3, 4° C
Major cations and anions, Br, Cl, F, SO_4	1*	1000 ml	poly	300	4° C
BTEX	3	40 ml	vial	8260	HCl, 4°C
Total Dissolved Solids	1*	1000 ml	poly	TDS_W	4° C
Specific Conductance at 25°C	1*	1000 ml	poly	COND_W	4°C
pH	1*	1000 ml	poly	150.1	4°C
Bacteria (Slime, Sulfate)	2			BART Kit	
Alkalinity (Carbonate/Bicarbonate)	1*	1000 ml	poly	CARB/BICAR	4°C
Duplicate Sample Collected?	Yes:		No:	X	

Duplicate ID: * Samples collected in same bottle

GPS Coordinates

Latitude: (N40.81976) N40º49'11.2" Longitude: (W104.304) W104º18'14.4"

Comments:

Terracon Consultants, Inc. * 10625 West I-70 Frontage Road North, Suite 3 * Wheat Ridge, Colorado 80033

Figure 1. Well discharge

Figure 2. Location of well

Green Capped Vial – Test for Slime Forming Bacteria – Present
Black Capped Vial – Test for Sulfate Reducing Bacteria – Present
Iron Related Bacteria was not tested for.

Figure 3. Bart Test for Irrigation Well

Sample Point: Irrigation Well 1			
Analyte	**Result**	**Unit**	**Reporting Limit**
Manganese	**0.66**	**ug/L**	**10**
Calcium	**56000**	**ug/L**	**200**
Magnesium	**11000**	**ug/L**	**200**
Selenium	**5**	**ug/L**	**15**
Potassium	**7000**	**ug/L**	**3000**
Iron	ND	ug/L	100
Sodium	**43000**	**ug/L**	**1000**
Methane	ND	ug/L	5
Nitrate Nitrite as N	**6.2**	**mg/L**	**0.1**
Specific Conductance	**578**	**umhos/cm**	**2**
Bromide	**0.32**	**mg/L**	**0.2**
Chloride	**35**	**mg/L**	**3**
Sulfate	**44**	**mg/L**	**5**
Fluoride	**0.35**	**mg/L**	**0.5**
Hydroxide Alkalinity	ND	mg/L	5
Bicarbonate Alkalinity as CaCO3	**190**	**mg/L**	**5**
Carbonate Alkalinity as CaCO3	ND	mg/L	5
Alkalinity	**190**	**mg/L**	**5**
Total Dissolved Solids	**400**	**mg/L**	**10**
Xylenes, Total	ND	ug/L	2
m-Xylene & p-Xylene	ND	ug/L	2
Benzene	ND	ug/L	1
o-Xylene	ND	ug/L	1
Toluene	ND	ug/L	1
Ethylbenzene	ND	ug/L	1
Dimethyl phthalate	ND	ug/L	3.8
Hexachloroethane	ND	ug/L	9.4
3,3'-Dichlorobenzidine	ND	ug/L	47
2,4-Dinitrophenol	ND	ug/L	28
Acetophenone	ND	ug/L	9.4
4-Nitrophenol	ND	ug/L	9.4
Nitrobenzene	ND	ug/L	9.4
2-Chloronaphthalene	ND	ug/L	3.8
Bis(2-chloroethyl)ether	ND	ug/L	9.4
Anthracene	ND	ug/L	3.8
2,4,5-Trichlorophenol	ND	ug/L	9.4
2,4,6-Trichlorophenol	ND	ug/L	9.4
Indeno[1,2,3-cd]pyrene	ND	ug/L	3.8
Diethyl phthalate	ND	ug/L	3.8
1,2,4-Trichlorobenzene	ND	ug/L	3.8
2,6-Dinitrotoluene	ND	ug/L	9.4
Phenol	ND	ug/L	9.4
Bis(2-ethylhexyl) phthalate	ND	ug/L	9.4
Di-n-butyl phthalate	ND	ug/L	3.8
Butyl benzyl phthalate	ND	ug/L	3.8
4-Chlorophenyl phenyl ether	ND	ug/L	9.4
4-Chloro-3-methylphenol	ND	ug/L	9.4
2,2'-oxybis[1-chloropropane]	ND	ug/L	9.4
Naphthalene	ND	ug/L	3.8
Acenaphthene	ND	ug/L	3.8

2-Methylnaphthalene	ND	ug/L	3.8
Hexachlorobenzene	ND	ug/L	9.4
Pyrene	ND	ug/L	9.4
N-Nitrosodi-n-propylamine	ND	ug/L	9.4
2-Methylphenol	ND	ug/L	9.4
Benzo[b]fluoranthene	ND	ug/L	3.8
Fluoranthene	ND	ug/L	3.8
3-Nitroaniline	ND	ug/L	9.4
Caprolactam	ND	ug/L	9.4
Phenanthrene	ND	ug/L	3.8
2,4-Dichlorophenol	ND	ug/L	9.4
Benzo[g,h,i]perylene	ND	ug/L	3.8
Atrazine	ND	ug/L	9.4
Benzo[k]fluoranthene	ND	ug/L	3.8
2,4-Dinitrotoluene	ND	ug/L	9.4
4-Chloroaniline	ND	ug/L	9.4
4,6-Dinitro-2-methylphenol	ND	ug/L	47
Hexachlorocyclopentadiene	ND	ug/L	47
Chrysene	ND	ug/L	3.8
Benzo[a]anthracene	ND	ug/L	3.8
Dibenzofuran	ND	ug/L	3.8
Pentachlorophenol	ND	ug/L	47
2-Nitroaniline	ND	ug/L	9.4
4-Bromophenyl phenyl ether	ND	ug/L	9.4
2-Chlorophenol	ND	ug/L	9.4
Benzidine	ND	ug/L	94
Acenaphthylene	ND	ug/L	3.8
n-Nitrosodiphenylamine(as diphenylamine)	ND	ug/L	9.4
Bis(2-chloroethoxy)methane	ND	ug/L	9.4
4-Nitroaniline	ND	ug/L	9.4
1,4-Dichlorobenzene	ND	ug/L	3.8
Benzo[a]pyrene	ND	ug/L	3.8
3 & 4 Methylphenol	ND	ug/L	9.4
Hexachlorobutadiene	ND	ug/L	9.4
Carbazole	ND	ug/L	3.8
Di-n-octyl phthalate	ND	ug/L	3.8
Fluorene	ND	ug/L	3.8
2,4-Dimethylphenol	ND	ug/L	9.4
Dibenz(a,h)anthracene	ND	ug/L	3.8
2-Nitrophenol	ND	ug/L	9.4
Cresols, Total	ND	ug/L	9.4

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Project Name: COGCC - Environmental Support Complaint # 200240886 Permit No/Receipt No: n/a
Project Number: 25087038 Owner: Lloyd Lambertson
Address: 35481 CR 124
Weld County, CO
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Date: 6/2/10
Weather: Sunny

Well Owner Survey

	Yes	No
Is there a holding tank for the well?		
Do you have a water softener/treatment system?		
Do you have an in-line filter?		
Sampling point upstream of pressure tank and treatment system?		

Location of well: Lake
Type of pump (jet, submersible, suction): None
Casing material and diameter: None
Depth to Static Water Table (fluctuations): N/A
Description of area around well: Prarie land, scrub grass
Location and description of sample point: Sample point was a small lake
Pump start time: -

Time	Volume Purged (gal.)	PH (SI Units)	Spec Cond (µs/cm)	DO (mg/L)	Turbidity (NTU)	Temperature (°C)	Clarity	Other *
4:01 PM	-	8.94	1653	13.04		23.78	clr-cldy	
							yellowish	

* odors (if any); effervescence (if any); produced sediment (if any); evidence of bacterial fouling (bioslimes or biofilms).

Field Sample ID : Lake 1 Collection Time: 4:05 PM Number of Containers: 9

Sampler: J. Geissler

Analyte	# of Container	Container Size	Type	Analytical Method	Preservative
Semi-volitales	2	1 L	amber	8270	4°C
Diss. Metals (Ca, Na, Fe, Mn, Mg, K, Se)	1	500 ml	poly	200.7	H_2NO_3, 4° C
Major cations and anions, Br, Cl, F, SO_4	1*	1000 ml	poly	300	4° C
BTEX	3	40 ml	vial	8260	HCl, 4°C
Total Dissolved Solids	1*	1000 ml	poly	TDS_W	4° C
Specific Conductance at 25°C	1*	1000 ml	poly	COND_W	4°C
pH	1*	1000 ml	poly	150.1	4°C
Alkalinity (Carbonate/Bicarbonate)	1*	1000 ml	poly	CARB/BICAR	4°C
Duplicate Sample Collected?	Yes:		No:	X	

Duplicate ID: * Samples collected in same bottle

GPS Coordinates

Latitude: (N40.8267) N40º49'36.4" Longitude: (W104.3085) W104º18'30.6"

Comments:

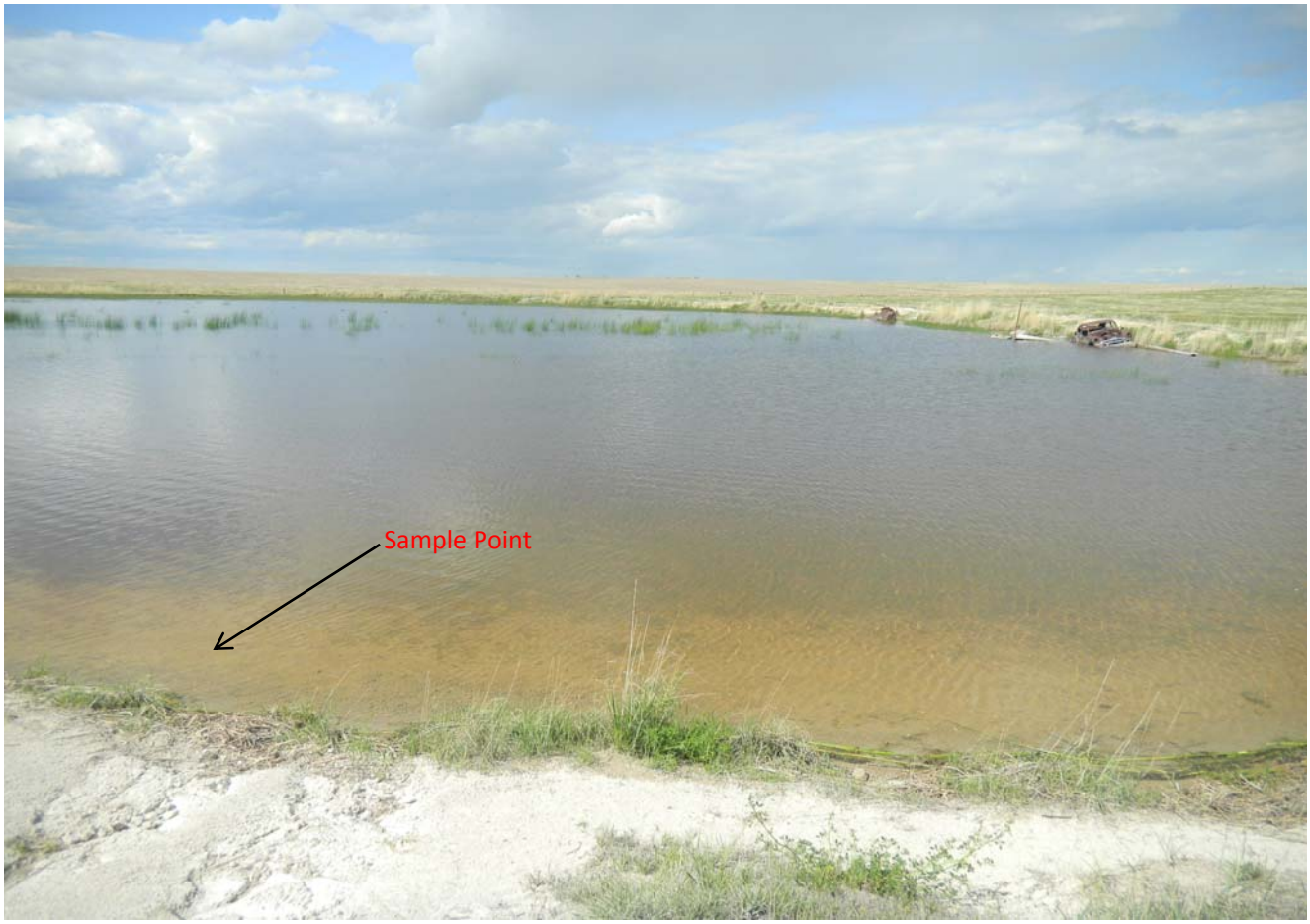

Figure 4. Lake Sample Point

Sample Point: Lake 1			
Analyte	**Result**	**Unit**	**Reporting Limit**
Manganese	**8.1**	**ug/L**	**10**
Calcium	**56000**	**ug/L**	**200**
Magnesium	**37000**	**ug/L**	**200**
Selenium	ND	ug/L	15
Potassium	**34000**	**ug/L**	**3000**
Iron	**130**	**ug/L**	**100**
Sodium	**250000**	**ug/L**	**1000**
Methane	**33**	**ug/L**	**5**
Methane	**33**	**ug/L**	**5**
Nitrate Nitrite as N	ND	mg/L	0.1
Chloride	**240**	**mg/L**	**30**
Sulfate	**340**	**mg/L**	**50**
Bromide	**1.1**	**mg/L**	**0.2**
Fluoride	**0.66**	**mg/L**	**0.5**
Hydroxide Alkalinity	ND	mg/L	5
Bicarbonate Alkalinity as CaCO3	**110**	**mg/L**	**5**
Carbonate Alkalinity as CaCO3	**79**	**mg/L**	**5**
Alkalinity	**190**	**mg/L**	**5**
Total Dissolved Solids	**1100**	**mg/L**	**10**
Specific Conductance	**1700**	**umhos/cm**	**2**
Xylenes, Total	ND	ug/L	2
m-Xylene & p-Xylene	ND	ug/L	2
Benzene	ND	ug/L	1
o-Xylene	ND	ug/L	1
Toluene	ND	ug/L	1
Ethylbenzene	ND	ug/L	1
Dimethyl phthalate	ND	ug/L	3.8
Hexachloroethane	ND	ug/L	9.4
3,3'-Dichlorobenzidine	ND	ug/L	47
2,4-Dinitrophenol	ND	ug/L	28
Acetophenone	ND	ug/L	9.4
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