

Cow Palace #1 and #2 Dairies

Station Location	Sample Number	Analysis Type	Analyte	Result	Qualifier	Units
SO-07	10164237		Ammonia Solid	3600		mg/Kg
			NO3N/Total Solid	18.9		mg/Kg
			Total Nitrogen/Solid	16100		mg/Kg
		<i>Pesticides</i>	2,3,4,5-Tetrachlorophenol	62	U	ug/Kg
			2,3,4,6-Tetrachlorophenol	62	U	ug/Kg
			2,4,5-T	62	U	ug/Kg
			2,4,5-Trichlorophenol	62	U	ug/Kg
			2,4,6-Trichlorophenol	62	UJ	ug/Kg
			2,4-D	62	U	ug/Kg
			2,4-DB	62	U	ug/Kg
			3,5-Dichlorobenzoic acid	62	U	ug/Kg
			4-Nitrophenol	44	J	ug/Kg
			Acifluorfen	62	UJ	ug/Kg
			Alachlor	87	U	ug/Kg
			Atrazine	87	U	ug/Kg
			Azinphos-methyl	87	UJ	ug/Kg
			Bentazon	62	U	ug/Kg
			Benzonitrile, 2,6-dichloro-	87	U	ug/Kg
			Bromoxynil	62	U	ug/Kg
			Chloramben	62	UJ	ug/Kg
			Chlorpyrifos, Ethyl	13	J	ug/Kg
			Clopyralid	62	U	ug/Kg
			DACTHAL-DCPA	10	J	ug/Kg
			Diazinon	87	U	ug/Kg
			Dicamba	4.4	J	ug/Kg
			Dichlorprop	62	U	ug/Kg
			Diclofop, Methyl	62	U	ug/Kg
			Dinoseb	62	UJ	ug/Kg
			Diuron	22	J	ug/Kg
			Endosulfan I	87	U	ug/Kg
			Endosulfan II	87	U	ug/Kg
			Endosulfan Sulfate	87	U	ug/Kg
			Fenhexamid	87	UJ	ug/Kg
			Fenpropathrin	87	U	ug/Kg
			Imidan	87	UJ	ug/Kg
			Ioxynil	62	U	ug/Kg
			Kresoxim-methyl	87	U	ug/Kg
			MCPA	62	U	ug/Kg
			MCPP	62	U	ug/Kg
			Metribuzin	87	UJ	ug/Kg
			Myclobutanil	87	U	ug/Kg
			Oxyfluorfen	87	U	ug/Kg
			Pendimethalin	87	U	ug/Kg
			Pentachlorophenol	3.2	J	ug/Kg
			Picloram	62	U	ug/Kg
			Propargite	87	U	ug/Kg
			Silvex	62	U	ug/Kg
			Simazine	87	U	ug/Kg
			SURFLAN	170	UJ	ug/Kg
			Terbacil	87	U	ug/Kg
			Trichlorpyr	62	U	ug/Kg
			Triflumizole	87	U	ug/Kg
			Trifluralin	87	U	ug/Kg

Cow Palace #1 and #2 Dairies

<i>Steroids / Hormones</i>	11-Keto Testosterone	8.8		ug/Kg
	17a-Hydroxyprogesterone	3.64		ug/Kg
	17alpha-trenbolone	0.1	U	ug/Kg
	17beta-estradiol	8.35		ug/Kg
	17beta-trenbolone	0.1	U	ug/Kg
	4-Androstenedione	10.2		ug/Kg
	a-Estradiol	18.7		ug/Kg
	Androstenedienedione	13.5		ug/Kg
	Androsterone	0.1	U	ug/Kg
	a-Zearalanol	0.1	U	ug/Kg
	a-Zearalenol	0.1	U	ug/Kg
	b-Zearalanol	0.1	U	ug/Kg
	b-Zearalenol	0.1	U	ug/Kg
	Epitestosterone	2.78		ug/Kg
	Estriol	0.1	U	ug/Kg
	Estrone	0.1	U	ug/Kg
	Ethynyl Estradiol	8.52		ug/Kg
	Melengesterol Acetate	0.1	U	ug/Kg
	Progesterone	39		ug/Kg
	Testosterone	0.1	U	ug/Kg
<i>Veterinary Pharmaceuticals</i>	Chlortetracycline(total)	2303		mg/Kg
	Erythromycin	0.5	U	mg/Kg
	Lincomycin	0.5	U	mg/Kg
	Monensin	283		mg/Kg
	Oxytetracycline	134		mg/Kg
	Ractopamine	0.5	U	mg/Kg
	Sulfachloropyridazine	0.5	U	mg/Kg
	Sulfadimethoxine	6.8		mg/Kg
	Sulfamerazine	0.5	U	mg/Kg
	Sulfamethazine	2		mg/Kg
	Sulfamethazole	0.5	U	mg/Kg
	Sulfamethoxazole	0.5	U	mg/Kg
	Sulfathiazole	0.5	U	mg/Kg
	Tetracycline	2484		mg/Kg
	Tiamulin	0.5	U	mg/Kg
	Tylosin	21.1		mg/Kg
	Virginiamycin	0.5		mg/Kg
<i>Wastewater Pharmaceuticals</i>	Acetaminophen	100	U	ug/Kg
	Amphetamine	50	U	ug/Kg
	Azithromycin	NR		ug/Kg
	Caffeine	50	U	ug/Kg
	Carbamazepine	50	U	ug/Kg
	Cotinine	50	U	ug/Kg
	DEET	50	U	ug/Kg
	Diphenhydramine	50	U	ug/Kg
	Ibuprofen	50	U	ug/Kg
	Methamphetamine	50	U	ug/Kg
	Naproxen	50	U	ug/Kg
	Paraxanthine	50	U	ug/Kg
	Thiabendazole	50	U	ug/Kg
	Triclosan	50	U	ug/Kg

Cow Palace #1 and #2 Dairies

SO-08	10164238	Ammonium-N	2.9		mg/Kg
		Nitrate-N/Nitrite	84.3		mg/Kg
		Total Nitrogen/Solid	3040		mg/Kg
		<i>Pesticides</i>			
		2,3,4,5-Tetrachlorophenol	11	U	ug/Kg
		2,3,4,6-Tetrachlorophenol	11	U	ug/Kg
		2,4,5-T	11	U	ug/Kg
		2,4,5-Trichlorophenol	11	U	ug/Kg
		2,4,6-Trichlorophenol	11	UJ	ug/Kg
		2,4-D	11	U	ug/Kg
		2,4-DB	11	U	ug/Kg
		3,5-Dichlorobenzoic acid	11	U	ug/Kg
		4-Nitrophenol	300	J	ug/Kg
		Acifluorfen	11	UJ	ug/Kg
		Alachlor	23	U	ug/Kg
		Atrazine	23	U	ug/Kg
		Azinphos-methyl	23	UJ	ug/Kg
		Bentazon	11	U	ug/Kg
		Benzonitrile, 2,6-dichloro-	23	U	ug/Kg
		Bromoxynil	11	U	ug/Kg
		Chloramben	11	UJ	ug/Kg
		Chlorpyrifos, Ethyl	1.5	J	ug/Kg
		Clopyralid	11	U	ug/Kg
		DACTHAL-DCPA	11	U	ug/Kg
		Diazinon	23	U	ug/Kg
		Dicamba	11	U	ug/Kg
		Dichlorprop	11	U	ug/Kg
		Diclofop, Methyl	11	U	ug/Kg
		Dinoseb	11	UJ	ug/Kg
		Diuron	2.6	J	ug/Kg
		Endosulfan I	23	U	ug/Kg
		Endosulfan II	23	U	ug/Kg
		Endosulfan Sulfate	23	U	ug/Kg
		Fenhexamid	23	UJ	ug/Kg
		Fenpropathrin	23	U	ug/Kg
		Imidan	23	UJ	ug/Kg
		Ioxynil	11	U	ug/Kg
		Kresoxim-methyl	23	U	ug/Kg
		MCPA	11	U	ug/Kg
		MCPP	11	U	ug/Kg
		Metribuzin	23	UJ	ug/Kg
		Myclobutanil	23	U	ug/Kg
		Oxyfluorfen	23	U	ug/Kg
		Pendimethalin	23	U	ug/Kg
		Pentachlorophenol	11	U	ug/Kg
		Picloram	11	U	ug/Kg
		Propargite	23	U	ug/Kg
		Silvex	11	U	ug/Kg
		Simazine	23	U	ug/Kg
		SURFLAN	46	UJ	ug/Kg
		Terbacil	23	U	ug/Kg
		Trichlorpyr	11	U	ug/Kg
		Triflumizole	23	U	ug/Kg
		Trifluralin	23	U	ug/Kg
		<i>Steroids / Hormones</i>			
		11-Keto Testosterone	0.1	U	ug/Kg

Cow Palace #1 and #2 Dairies

	17a-Hydroxyprogesterone	0.1	U	ug/Kg	
	17alpha-trenbolone	0.1	U	ug/Kg	
	17beta-estradiol	0.1	U	ug/Kg	
	17beta-trenbolone	0.29		ug/Kg	
	4-Androstenedione	0.1	U	ug/Kg	
	a-Estradiol	0.1	U	ug/Kg	
	Androstenedienedione	0.1	U	ug/Kg	
	Androsterone	0.1	U	ug/Kg	
	a-Zearalanol	0.1	U	ug/Kg	
	a-Zearalenol	0.1	U	ug/Kg	
	b-Zearalanol	0.1	U	ug/Kg	
	b-Zearalenol	0.1	U	ug/Kg	
	Epitestosterone	0.1	U	ug/Kg	
	Estriol	0.48		ug/Kg	
	Estrone	0.1	U	ug/Kg	
	Ethynyl Estradiol	0.1	U	ug/Kg	
	Melengesterol Acetate	0.1	U	ug/Kg	
	Progesterone	0.1	U	ug/Kg	
	Testosterone	0.1	U	ug/Kg	
<i>Veterinary Pharmaceuticals</i>	Chlortetracycline(total)	13.5		mg/Kg	
	Erythromycin	0.5	U	mg/Kg	
	Lincomycin	0.5	U	mg/Kg	
	Monensin	7.9		mg/Kg	
	Oxytetracycline	2.4		mg/Kg	
	Ractopamine	0.5	U	mg/Kg	
	Sulfachloropyridazine	0.5	U	mg/Kg	
	Sulfadimethoxine	0.5	U	mg/Kg	
	Sulfamerazine	0.5	U	mg/Kg	
	Sulfamethazine	0.5	U	mg/Kg	
	Sulfamethazole	0.5	U	mg/Kg	
	Sulfamethoxazole	0.5	U	mg/Kg	
	Sulfathiazole	0.5	U	mg/Kg	
	Tetracycline	104		mg/Kg	
	Tiamulin	0.5	U	mg/Kg	
	Tylosin	0.5	U	mg/Kg	
	Virginiamycin	0.5	U	mg/Kg	
<i>Wastewater Pharmaceuticals</i>	Acetaminophen	100	U	ug/Kg	
	Amphetamine	50	U	ug/Kg	
	Azithromycin	NR		ug/Kg	
	Caffeine	50	U	ug/Kg	
	Carbamazepine	50	U	ug/Kg	
	Cotinine	50	U	ug/Kg	
	DEET	50	U	ug/Kg	
	Diphenhydramine	50	U	ug/Kg	
	Ibuprofen	50	U	ug/Kg	
	Methamphetamine	50	U	ug/Kg	
	Naproxen	50	U	ug/Kg	
	Paraxanthine	50	U	ug/Kg	
	Thiabendazole	50	U	ug/Kg	
	Triclosan	50	U	ug/Kg	
LG-10	10164260	Ammonia (NH3+NH4) as N	190	J	mg/L
		Nitrate+Nitrite as N	1	UJ	mg/L
		Total Kjeldahl Nitrogen	380	J	mg/L

Cow Palace #1 and #2 Dairies

	<i>Bacteria</i> Fecal Coliform	1100000000		CFU/100 ml
<i>General Chemistry</i>	Alkalinity as CaCO3	1170		mg/L
	Bromide	10	U	mg/L
	Chloride	62.4		mg/L
	Fluoride	2	U	mg/L
	Phosphorus, total	57.1		mg/L
	Sulfate	181		mg/L
<i>Metals</i>	Arsenic	160	U	ug/L
	Barium	220		ug/L
	Cadmium	11	U	ug/L
	Calcium	103000		ug/L
	Chromium	37	U	ug/L
	Copper	193		ug/L
	Iron	5960		ug/L
	Lead	91	U	ug/L
	Magnesium	63100		ug/L
	Manganese	660		ug/L
	Mercury	0.065	J	ug/L
	Potassium	327000		ug/L
	Selenium	180	U	ug/L
	Silver	37	U	ug/L
	Sodium	142000		ug/L
	Zinc	926		ug/L
<i>Wastewater Organics</i>	1,4-dichlorobenzene	0.2	UJ	ug/L
	1-methylnaphthalene	0.2	R	ug/L
	2,2',4,4'-tetrabromodiphenyl ether	0.3	UJ	ug/L
	2,6-dimethylnaphthalene	0.2	R	ug/L
	2-methylnaphthalene	0.2	R	ug/L
	3,4-dichlorophenyl isocyanate	1.6	UJ	ug/L
	3-beta-coprostanol	12	J	ug/L
	3-methyl-1h-indole (skatol)	6.93	J	ug/L
	3-tert-butyl-4-hydroxyanisole (bha)	0.2	UJ	ug/L
	4-cumylphenol	0.2	UJ	ug/L
	4-n-octylphenol	0.2	UJ	ug/L
	4-nonylphenol monoethoxylate - total (np1eo)	23.8	J	ug/L
	4-octylphenol diethoxylate (op2eo)	0.5	UJ	ug/L
	4-octylphenol monoethoxylate (op1eo)	1	UJ	ug/L
	4-tert-octylphenol	0.4	UJ	ug/L
	5-methyl-1h-benzotriazole	1.6	UJ	ug/L
	acetophenone	0.4	UJ	ug/L
	acetyl-hexamethyl-tetrahydro-naphthalene (ahtn)	0.2	UJ	ug/L
	anthracene	0.2	R	ug/L
	anthraquinone	0.2	UJ	ug/L
	atrazine	0.2	UJ	ug/L
	benz[a]pyrene	0.2	R	ug/L
	benzophenone	0.2	R	ug/L
	beta-sitosterol	14.6	J	ug/L
	beta-stigmastanol	12.5	J	ug/L
	bis-(2-ethylhexyl) phthalate (dehp)	4.58	J	ug/L
	bisphenol a	0.4	UJ	ug/L
	bromacil	0.8	UJ	ug/L
	bromoform	0.2	UJ	ug/L

Cow Palace #1 and #2 Dairies

caffeine	0.282	J	ug/L
camphor	34	U	ug/L
carbaryl	0.2	UJ	ug/L
carbazole	0.2	UJ	ug/L
chlorpyrifos	0.2	UJ	ug/L
cholesterol	76.4	J	ug/L
cotinine	0.8	UJ	ug/L
diazinon	0.2	UJ	ug/L
dichlorvos	0.2	UJ	ug/L
diethoxynonylphenols- total (np2eo)	36.4	J	ug/L
diethyl phthalate	15.1	J	ug/L
d-limonene	12.2	J	ug/L
fluoranthene	0.2	R	ug/L
hexahydrohexamethyl cyclopentabenzopyran (hhcb)	0.2	UJ	ug/L
indole	6.46		ug/L
isoborneol	37.2	J	ug/L
isophorone	5.33	J	ug/L
isopropylbenzene (cumene)	0.2	UJ	ug/L
isoquinoline	0.2	UJ	ug/L
menthol	0.2	UJ	ug/L
metalaxyl	0.2	UJ	ug/L
methyl salicylate	0.2	UJ	ug/L
metolachlor	0.2	UJ	ug/L
n,n-diethyl-meta-toluamide (deet)	0.2	UJ	ug/L
naphthalene	0.2	R	ug/L
para-nonylphenol total	7.16	J	ug/L
p-cresol	787	J	ug/L
pentachlorophenol	0.8	UJ	ug/L
phenanthrene	0.2	R	ug/L
phenol	56.6	J	ug/L
prometon	0.2	UJ	ug/L
pyrene	0.2	R	ug/L
tetrachloroethylene	0.4	UJ	ug/L
tri(2-butoxyethyl) phosphate	0.2	UJ	ug/L
tri(2-chloroethyl) phosphate	0.2	UJ	ug/L
tri(dichloroisopropyl) phosphate	0.2	UJ	ug/L
tributyl phosphate	0.2	UJ	ug/L
triclosan	0.2	UJ	ug/L
triethyl citrate (ethyl citrate)	0.2	UJ	ug/L
triphenyl phosphate	1.47	J	ug/L

Pesticides Due to matrix interference the laboratory could not provide quantitative results for the pesticide analysis of the lagoon sludge samples.

<i>Hormones</i>	17-a-estradiol	292		ng/L
	17-a-ethynyl-estradiol	20	U	ng/L
	17-b-estradiol	16	J	ng/L
	Estriol	8.8	U	ng/L
	Estrone	73		ng/L

<i>Steroids / Hormones</i>	11-Keto Testosterone	0.002	U	ug/L
	17a-Hydroxyprogesterone	0.002	U	ug/L
	17alpha-trenbolone	0.002	U	ug/L
	17beta-estradiol	0.002	U	ug/L
	17beta-trenbolone	0.002	U	ug/L

Cow Palace #1 and #2 Dairies

	4-Androstenedione	0.033		ug/L	
	a-Estradiol	0.459		ug/L	
	Androstenedienedione	0.002	U	ug/L	
	Androsterone	0.002	U	ug/L	
	a-Zearalanol	1.434		ug/L	
	a-Zearalenol	0.002	U	ug/L	
	b-Zearalanol	0.002	U	ug/L	
	b-Zearalenol	0.002	U	ug/L	
	Epitestosterone	0.002	U	ug/L	
	Estriol	0.002	U	ug/L	
	Estrone	0.002	U	ug/L	
	Ethynyl Estradiol	0.002	U	ug/L	
	Melengesterol Acetate	0.002	U	ug/L	
	Progesterone	0.002	U	ug/L	
	Testosterone	0.028		ug/L	
<i>Veterinary Pharmaceuticals</i>	Chlortetracycline(total)	0.079	J	ug/L	
	Erythromycin	0.02	R	ug/L	
	Lincomycin	1.7	J	ug/L	
	Monensin	2.24	J	ug/L	
	Oxytetracycline	0.02	R	ug/L	
	Ractopamine	0.048	J	ug/L	
	Sulfachloropyridazine	0.043	J	ug/L	
	Sulfadimethoxine	0.065	J	ug/L	
	Sulfamerazine	0.02	R	ug/L	
	Sulfamethazine	0.077	J	ug/L	
	Sulfamethazole	0.114	J	ug/L	
	Sulfamethoxazole	0.133	J	ug/L	
	Sulfathiazole	0.038	J	ug/L	
	Tetracycline	6.55	J	ug/L	
	Tiamulin	0.02	R	ug/L	
	Tylosin	0.02	R	ug/L	
	Virginiamycin	0.816	J	ug/L	
<i>Wastewater Pharmaceuticals</i>	Acetaminophen	0.2	U	ug/L	
	Amphetamine	0.2	U	ug/L	
	Azithromycin	0.2	U	ug/L	
	Caffeine	0.2	U	ug/L	
	Carbamazepine	0.2	U	ug/L	
	Cotinine	0.2	U	ug/L	
	DEET	0.48		ug/L	
	Diphenhydramine	0.2	U	ug/L	
	Ibuprofen	0.2	U	ug/L	
	Methamphetamine	0.2	U	ug/L	
	Naproxen	0.2	U	ug/L	
	Paraxanthine	0.2	U	ug/L	
	Thiabendazole	0.2	U	ug/L	
	Triclosan	0.2	U	ug/L	
<i>Isotopes</i>	Nitrate	NM		mg/L	
	δ15N-NO3	NM		‰	
	Ammonia	NM		mg/L	
	δ15N-NH4	NM		‰	
	δ18O-NO3	NM		‰ SMOW	
LG-11	10164261	Ammonia (NH3+NH4) as N	240	J	mg/L

Cow Palace #1 and #2 Dairies

	Nitrate+Nitrite as N	1	UJ	mg/L
	Phosphorus, total	82.9		mg/L
	Total Kjeldahl Nitrogen	500	J	mg/L
<i>Bacteria</i>	Fecal Coliform	5410000		CFU/100 ml
<i>General Chemistry</i>	Alkalinity as CaCO3	2060		mg/L
	Bromide	10	U	mg/L
	Chloride	113		mg/L
	Fluoride	2	U	mg/L
	Sulfate	15	U	mg/L
<i>Metals</i>	Arsenic	170	U	ug/L
	Barium	259		ug/L
	Cadmium	11	U	ug/L
	Calcium	124000		ug/L
	Chromium	38	U	ug/L
	Copper	148		ug/L
	Iron	1560	J	ug/L
	Lead	94	U	ug/L
	Magnesium	84500		ug/L
	Manganese	793		ug/L
	Mercury	0.05	UJ	ug/L
	Potassium	394000		ug/L
	Selenium	190	U	ug/L
	Silver	38	U	ug/L
	Sodium	175000		ug/L
	Zinc	496		ug/L
<i>Wastewater Organics</i>	1,4-dichlorobenzene	0.2	UJ	ug/L
	1-methylnaphthalene	0.2	R	ug/L
	2,2',4,4'-tetrabromodiphenyl ether	0.3	UJ	ug/L
	2,6-dimethylnaphthalene	0.2	R	ug/L
	2-methylnaphthalene	0.2	R	ug/L
	3,4-dichlorophenyl isocyanate	1.6	UJ	ug/L
	3-beta-coprostanol	2.82	J	ug/L
	3-methyl-1h-indole (skatol)	45.4	J	ug/L
	3-tert-butyl-4-hydroxyanisole (bha)	0.2	UJ	ug/L
	4-cumylphenol	0.2	UJ	ug/L
	4-n-octylphenol	0.2	UJ	ug/L
	4-nonylphenol monoethoxylate - total (np1eo)	3.14	J	ug/L
	4-octylphenol diethoxylate (op2eo)	0.5	UJ	ug/L
	4-octylphenol monoethoxylate (op1eo)	1	UJ	ug/L
	4-tert-octylphenol	0.4	UJ	ug/L
	5-methyl-1h-benzotriazole	1.6	UJ	ug/L
	acetophenone	0.4	UJ	ug/L
	acetyl-hexamethyl-tetrahydro-naphthalene (ahtn)	0.2	UJ	ug/L
	anthracene	0.2	R	ug/L
	anthraquinone	0.2	UJ	ug/L
	atrazine	0.2	UJ	ug/L
	benz[a]pyrene	0.2	R	ug/L
	benzophenone	0.2	R	ug/L
	beta-sitosterol	2.41	J	ug/L
	beta-stigmastanol	2.73	J	ug/L
	bis-(2-ethylhexyl) phthalate (dehp)	2	U	ug/L
	bisphenol a	0.4	UJ	ug/L

Cow Palace #1 and #2 Dairies

bromacil	0.8	UJ	ug/L
bromoform	0.2	UJ	ug/L
caffeine	0.2	UJ	ug/L
camphor	0.2	UJ	ug/L
carbaryl	0.2	UJ	ug/L
carbazole	0.2	UJ	ug/L
chlorpyrifos	0.2	UJ	ug/L
cholesterol	3.83	J	ug/L
cotinine	0.8	UJ	ug/L
diazinon	0.2	UJ	ug/L
dichlorvos	0.2	UJ	ug/L
diethoxynonylphenols- total (np2eo)	2.24	J	ug/L
diethyl phthalate	0.2	UJ	ug/L
d-limonene	0.2	UJ	ug/L
fluoranthene	0.2	R	ug/L
hexahydrohexamethyl cyclopentabenzopyran (hhcb)	0.2	U	ug/L
indole	4.04	J	ug/L
isoborneol	0.2	UJ	ug/L
isophorone	0.2	U	ug/L
isopropylbenzene (cumene)	0.2	UJ	ug/L
isoquinoline	0.2	UJ	ug/L
menthol	0.2	UJ	ug/L
metalaxyl	0.2	UJ	ug/L
methyl salicylate	0.2	UJ	ug/L
metolachlor		UJ	ug/L
n,n-diethyl-meta-toluamide (deet)	0.2	UJ	ug/L
naphthalene	0.2	R	ug/L
para-nonylphenol total	37.4	J	ug/L
p-cresol	889	J	ug/L
pentachlorophenol	0.8	UJ	ug/L
phenanthrene	0.2	R	ug/L
phenol	66.6	J	ug/L
prometon	0.2	UJ	ug/L
pyrene	0.2	R	ug/L
tetrachloroethylene	0.4	UJ	ug/L
tri(2-butoxyethyl) phosphate	0.2	UJ	ug/L
tri(2-chloroethyl) phosphate	0.2	UJ	ug/L
tri(dichloroisopropyl) phosphate	0.2	UJ	ug/L
tributyl phosphate	0.2	UJ	ug/L
triclosan	0.2	UJ	ug/L
triethyl citrate (ethyl citrate)	0.2	UJ	ug/L
triphenyl phosphate	0.2	UJ	ug/L

Pesticides Due to matrix interference the laboratory could not provide quantitative results for the pesticide analysis of the lagoon sludge samples.

<i>Hormones</i> 17-a-estradiol	570		ng/L
17-a-ethynyl-estradiol	20	U	ng/L
17-b-estradiol	12	J	ng/L
Estriol	8.8	U	ng/L
Estrone	453		ng/L

<i>Steroids / Hormones</i> 11-Keto Testosterone	0.002	U	ug/L
17a-Hydroxyprogesterone	0.085		ug/L
17alpha-trenbolone	0.002	U	ug/L

Cow Palace #1 and #2 Dairies

	17beta-estradiol	0.002	U	ug/L
	17beta-trenbolone	0.002	U	ug/L
	4-Androstenedione	0.411		ug/L
	a-Estradiol	2.92		ug/L
	Androstenedienedione	0.166		ug/L
	Androsterone	0.002	U	ug/L
	a-Zearalanol	1.664		ug/L
	a-Zearalenol	0.002	U	ug/L
	b-Zearalanol	0.002	U	ug/L
	b-Zearalenol	0.002	U	ug/L
	Epitestosterone	0.002	U	ug/L
	Estriol	0.002	U	ug/L
	Estrone	0.002	U	ug/L
	Ethynyl Estradiol	0.002	U	ug/L
	Melengesterol Acetate	0.043		ug/L
	Progesterone	0.251		ug/L
	Testosterone	0.002	U	ug/L
<i>Veterinary Pharmaceuticals</i>	Chlortetracycline(total)	0.02	R	ug/L
	Erythromycin	2	J	ug/L
	Lincomycin	2.64	J	ug/L
	Monensin	85	J	ug/L
	Oxytetracycline	0.02	R	ug/L
	Ractopamine	0.066	J	ug/L
	Sulfachloropyridazine	0.156	J	ug/L
	Sulfadimethoxine	0.841	J	ug/L
	Sulfamerazine	0.02	R	ug/L
	Sulfamethazine	0.064	J	ug/L
	Sulfamethazole	0.02	R	ug/L
	Sulfamethoxazole	0.269	J	ug/L
	Sulfathiazole	0.089	J	ug/L
	Tetracycline	1.76	J	ug/L
	Tiamulin	0.02	R	ug/L
	Tylosin	0.02	R	ug/L
	Virginiamycin	0.413	J	ug/L
<i>Wastewater Pharmaceuticals</i>	Acetaminophen	0.2	U	ug/L
	Amphetamine	0.2	U	ug/L
	Azithromycin	0.2	U	ug/L
	Caffeine	0.2	U	ug/L
	Carbamazepine	0.2	U	ug/L
	Cotinine	0.2	U	ug/L
	DEET	0.61		ug/L
	Diphenhydramine	0.2	U	ug/L
	Ibuprofen	0.2	U	ug/L
	Methamphetamine	0.2	U	ug/L
	Naproxen	0.2	U	ug/L
	Paraxanthine	0.2	U	ug/L
	Thiabendazole	1.3		ug/L
	Triclosan	0.2	U	ug/L
<i>Isotopes</i>	Nitrate	NM		mg/L
	δ15N-NO3	NM		‰
	Ammonia	274		mg/L
	δ15N-NH4	3.13		‰
	δ18O-NO3	NM		‰ SMOW

Cow Palace #1 and #2 Dairies

LG-12	10164262	Ammonia (NH3+NH4) as N	240	J	mg/L
		Nitrate+Nitrite as N	1	UJ	mg/L
		Total Kjeldahl Nitrogen	290	J	mg/L
		<i>Bacteria</i> Fecal Coliform	4500000		CFU/100 ml
		<i>General Chemistry</i> Alkalinity as CaCO3	2060		mg/L
		Bromide	10	U	mg/L
		Chloride	113		mg/L
		Fluoride	2	U	mg/L
		Phosphorus, total	58.5		mg/L
		Sulfate	15	U	mg/L
		<i>Metals</i> Arsenic	160	U	ug/L
		Barium	240		ug/L
		Cadmium	11	U	ug/L
		Calcium	102000		ug/L
		Chromium	36	U	ug/L
		Copper	157		ug/L
		Iron	1470	J	ug/L
		Lead	90	U	ug/L
		Magnesium	85000		ug/L
		Manganese	673		ug/L
		Mercury	0.05	UJ	ug/L
		Potassium	400000		ug/L
		Selenium	180	U	ug/L
		Silver	36	U	ug/L
		Sodium	177000		ug/L
		Zinc	377		ug/L
		<i>Wastewater Organics</i> 1,4-dichlorobenzene	0.2	UJ	ug/L
		1-methylnaphthalene	0.2	R	ug/L
		2,2',4,4'-tetrabromodiphenyl ether	0.3	UJ	ug/L
		2,6-dimethylnaphthalene	0.2	R	ug/L
		2-methylnaphthalene	0.2	R	ug/L
		3,4-dichlorophenyl isocyanate	1.6	UJ	ug/L
		3-beta-coprostanol	2.6	J	ug/L
		3-methyl-1h-indole (skatol)	48.3	J	ug/L
		3-tert-butyl-4-hydroxyanisole (bha)	0.2	UJ	ug/L
		4-cumylphenol	0.2	R	ug/L
		4-n-octylphenol	0.2	R	ug/L
		4-nonylphenol monoethoxylate-total (np1eo)	3.06	J	ug/L
		4-octylphenol diethoxylate (op2eo)	0.5	R	ug/L
		4-octylphenol monoethoxylate (op1eo)	1	R	ug/L
		4-tert-octylphenol	0.4	R	ug/L
		5-methyl-1h-benzotriazole	1.6	UJ	ug/L
		acetophenone	0.4	R	ug/L
		acetyl-hexamethyl-tetrahydro-naphthalene (ahtn)	0.2	UJ	ug/L
		anthracene	0.2	R	ug/L
		anthraquinone	0.2	UJ	ug/L
		atrazine	0.2	UJ	ug/L
		benz[a]pyrene	0.2	R	ug/L
		benzophenone	0.2	R	ug/L
		beta-sitosterol	2.22	J	ug/L
		beta-stigmastanol	2.64	J	ug/L

Cow Palace #1 and #2 Dairies

bis-(2-ethylhexyl) phthalate (dehp)	2	UJ	ug/L
bisphenol a	0.4	R	ug/L
bromacil	0.8	UJ	ug/L
bromoform	0.2	UJ	ug/L
caffeine	0.2	UJ	ug/L
camphor	0.2	UJ	ug/L
carbaryl	0.2	UJ	ug/L
carbazole	0.2	UJ	ug/L
chlorpyrifos	0.2	UJ	ug/L
cholesterol	3.71	J	ug/L
cotinine	0.8	UJ	ug/L
diazinon	0.2	UJ	ug/L
dichlorvos	0.2	UJ	ug/L
diethoxynonylphenols- total (np2eo)	2.02	J	ug/L
diethyl phthalate	0.2	U	ug/L
d-limonene	0.2	UJ	ug/L
fluoranthene	0.2	R	ug/L
hexahydrohexamethyl cyclopentabenzopyran (hhcb)	0.2	UJ	ug/L
indole	4.57	J	ug/L
isoborneol	0.2	UJ	ug/L
isophorone	0.2	U	ug/L
isopropylbenzene (cumene)	0.2	UJ	ug/L
isoquinoline	0.2	UJ	ug/L
menthol	0.2	UJ	ug/L
metalaxyl	0.2	UJ	ug/L
methyl salicylate	0.2	UJ	ug/L
metolachlor	0.2	UJ	ug/L
n,n-diethyl-meta-toluamide (deet)	0.2	UJ	ug/L
naphthalene	0.2	R	ug/L
para-nonylphenol total	32.1	J	ug/L
p-cresol	1350	J	ug/L
pentachlorophenol	0.8	R	ug/L
phenanthrene	0.2	R	ug/L
phenol	125	J	ug/L
prometon	0.2	UJ	ug/L
pyrene	0.2	R	ug/L
tetrachloroethylene	0.4	UJ	ug/L
tri(2-butoxyethyl) phosphate	0.2	UJ	ug/L
tri(2-chloroethyl) phosphate	0.2	UJ	ug/L
tri(dichloroisopropyl) phosphate	0.2	UJ	ug/L
tributyl phosphate	0.2	UJ	ug/L
triclosan	0.2	UJ	ug/L
triethyl citrate (ethyl citrate)	0.2	UJ	ug/L
triphenyl phosphate	0.2	UJ	ug/L

Pesticides Due to matrix interference the laboratory could not provide quantitative results for the pesticide analysis of the lagoon sludge samples.

<i>Hormones</i> 17-a-estradiol	559		ng/L
17-a-ethynyl-estradiol	20	U	ng/L
17-b-estradiol	11	J	ng/L
Estriol		U	ng/L
Estrone	451		ng/L

<i>Steroids / Hormones</i> 11-Keto Testosterone	0.002	U	ug/L
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Cow Palace #1 and #2 Dairies

	17a-Hydroxyprogesterone	0.107		ug/L
	17alpha-trenbolone	0.002	U	ug/L
	17beta-estradiol	0.002	U	ug/L
	17beta-trenbolone	0.002	U	ug/L
	4-Androstenedione	0.23		ug/L
	a-Estradiol	3.268		ug/L
	Androstenedienedione	0.2		ug/L
	Androsterone	0.002	U	ug/L
	a-Zearalanol	2.576		ug/L
	a-Zearalenol	0.002	U	ug/L
	b-Zearalanol	0.002	U	ug/L
	b-Zearalenol	0.002	U	ug/L
	Epitestosterone	0.002	U	ug/L
	Estriol	0.002	U	ug/L
	Estrone	0.002	U	ug/L
	Ethynyl Estradiol	0.002	U	ug/L
	Melengesterol Acetate	0.002	U	ug/L
	Progesterone	0.248		ug/L
	Testosterone	0.024		ug/L
<i>Veterinary Pharmaceuticals</i>	Chlortetracycline(total)	0.02	R	ug/L
	Erythromycin	1.11	J	ug/L
	Lincomycin	1.54	J	ug/L
	Monensin	135	J	ug/L
	Oxytetracycline	0.02	R	ug/L
	Ractopamine	0.046	J	ug/L
	Sulfachloropyridazine	0.172	J	ug/L
	Sulfadimethoxine	0.875	J	ug/L
	Sulfamerazine	0.02	R	ug/L
	Sulfamethazine	0.07	J	ug/L
	Sulfamethazole	0.02	R	ug/L
	Sulfamethoxazole	0.264	J	ug/L
	Sulfathiazole	0.065	J	ug/L
	Tetracycline	1.91	J	ug/L
	Tiamulin	0.02	R	ug/L
	Tylosin	0.02	R	ug/L
	Virginiamycin	0.314	J	ug/L
<i>Wastewater Pharmaceuticals</i>	Acetaminophen	0.2	U	ug/L
	Amphetamine	0.2	U	ug/L
	Azithromycin	0.2	U	ug/L
	Caffeine	0.2	U	ug/L
	Carbamazepine	0.2	U	ug/L
	Cotinine	0.2	U	ug/L
	DEET	0.58		ug/L
	Diphenhydramine	0.2	U	ug/L
	Ibuprofen	0.2	U	ug/L
	Methamphetamine	0.2	U	ug/L
	Naproxen	0.2	U	ug/L
	Paraxanthine	0.2	U	ug/L
	Thiabendazole	0.2	U	ug/L
	Triclosan	0.2	U	ug/L
<i>Isotopes</i>	Nitrate	NM		mg/L
	δ15N-NO3	NM		‰
	Ammonia	222		mg/L

Cow Palace #1 and #2 Dairies

		δ15N-NH4	2.01		%
		δ18O-NO3	NM		% SMOW
WW-09	10164209	Ammonia (NH3+NH4) as N	0.05	U	mg/L
		Nitrate - Field Test	0		mg/L
		Nitrate+Nitrite as N	0.05	U	mg/L
		Nitrate-N	<0.05		mg/L
		Total Kjeldahl Nitrogen	0.51	U	mg/L
<i>Bacteria</i>	E.Coli Quanti-Tray		<1		MPN/100ml
	Fecal Coliform		0		CFU/100ml
	Total Coliform QuantiTray		<1		MPN/100ml
<i>General Chemistry</i>	Alkalinity as CaCO3		155		mg/L
	Bromide		0.2	U	mg/L
	Chloride		7.93		mg/L
	Fluoride		0.405		mg/L
	Phosphorus, total		0.0304		mg/L
	Sulfate		0.841		mg/L
<i>Metals</i>	Arsenic		45	U	ug/L
	Barium		15.1		ug/L
	Cadmium		3	U	ug/L
	Calcium		21100		ug/L
	Chromium		10	U	ug/L
	Copper		5	U	ug/L
	Iron		20	U	ug/L
	Lead		25	U	ug/L
	Magnesium		9220		ug/L
	Manganese		37.7		ug/L
	Mercury		0.05	U	ug/L
	Potassium		8570		ug/L
	Selenium		50	U	ug/L
	Silver		10	U	ug/L
	Sodium		28400		ug/L
	Zinc		5	U	ug/L
<i>Perchlorate</i>	Perchlorate		3	U	ng/L
<i>Wastewater Organics</i>	1,4-dichlorobenzene		0.2	U	ug/L
	1-methylnaphthalene		0.2	UJ	ug/L
	2,2',4,4'-tetrabromodiphenyl ether		0.3	U	ug/L
	2,6-dimethylnaphthalene		0.2	UJ	ug/L
	2-methylnaphthalene		0.2	UJ	ug/L
	3,4-dichlorophenyl isocyanate		1.6	U	ug/L
	3-beta-coprostanol		1.6	U	ug/L
	3-methyl-1h-indole (skatol)		0.2	U	ug/L
	3-tert-butyl-4-hydroxyanisole (bha)		0.2	UJ	ug/L
	4-cumylphenol		0.2	UJ	ug/L
	4-n-octylphenol		0.2	UJ	ug/L
	4-nonylphenol monoethoxylate - total (np1eo)		1.6	UJ	ug/L
	4-octylphenol diethoxylate (op2eo)		0.5	UJ	ug/L
	4-octylphenol monoethoxylate (op1eo)		1	UJ	ug/L
	4-tert-octylphenol		0.4	UJ	ug/L
	5-methyl-1h-benzotriazole		1.6	UJ	ug/L
	acetophenone		0.4	UJ	ug/L

Cow Palace #1 and #2 Dairies

acetyl-hexamethyl-tetrahydro-naphthalene (ahtn)	0.2	U	ug/L
anthracene	0.2	UJ	ug/L
anthraquinone	0.2	U	ug/L
atrazine	0.2	U	ug/L
benz[a]pyrene	0.2	UJ	ug/L
benzophenone	0.2	UJ	ug/L
beta-sitosterol	1.6	U	ug/L
beta-stigmastanol	1.7	U	ug/L
bis-(2-ethylhexyl) phthalate (dehp)	2	U	ug/L
bisphenol a	0.4	UJ	ug/L
bromacil	0.8	U	ug/L
bromoform	0.2	U	ug/L
caffeine	0.2	UJ	ug/L
camphor	0.2	U	ug/L
carbaryl	0.2	U	ug/L
carbazole	0.2	U	ug/L
chlorpyrifos	0.2	U	ug/L
cholesterol	1.6	U	ug/L
cotinine	0.8	UJ	ug/L
diazinon	0.2	U	ug/L
dichlorvos	0.2	U	ug/L
diethoxynonylphenols- total (np2eo)	3.2	U	ug/L
diethyl phthalate	0.2	U	ug/L
d-limonene	0.2	U	ug/L
fluoranthene	0.2	UJ	ug/L
hexahydrohexamethyl cyclopentabenzopyran (hhcb)	0.2	U	ug/L
indole	0.2	U	ug/L
isoborneol	0.2	U	ug/L
isophorone	0.2	U	ug/L
isopropylbenzene (cumene)	0.2	U	ug/L
isoquinoline	0.2	U	ug/L
menthol	0.2	U	ug/L
metalaxyl	0.2	U	ug/L
methyl salicylate	0.2	U	ug/L
metolachlor	0.2	U	ug/L
n,n-diethyl-meta-toluamide (deet)	0.2	U	ug/L
naphthalene	0.2	UJ	ug/L
para-nonylphenol total	1.6	U	ug/L
p-cresol	0.2	U	ug/L
pentachlorophenol	1.6	UJ	ug/L
phenanthrene	0.2	U	ug/L
phenol	0.2	UJ	ug/L
prometon	0.2	U	ug/L
pyrene	0.2	UJ	ug/L
tetrachloroethylene	0.4	U	ug/L
tri(2-butoxyethyl) phosphate	0.2	U	ug/L
tri(2-chloroethyl) phosphate	0.2	U	ug/L
tri(dichloroisopropyl) phosphate	0.2	U	ug/L
tributyl phosphate	0.2	U	ug/L
triclosan	0.2	U	ug/L
triethyl citrate (ethyl citrate)	0.2	U	ug/L
triphenyl phosphate	0.2	U	ug/L
<i>Pesticides</i> 2,3,4,5-Tetrachlorophenol	0.19	U	ug/L
2,3,4,6-Tetrachlorophenol	0.096	U	ug/L
2,4,5-T	0.48	U	ug/L

Cow Palace #1 and #2 Dairies

	2,4,5-Trichlorophenol	0.19	U	ug/L
	2,4,6-Trichlorophenol	0.48	UJ	ug/L
	2,4-D	0.48	UJ	ug/L
	2,4-DB	0.096	U	ug/L
	3,5-Dichlorobenzoic acid	0.096	U	ug/L
	4-Nitrophenol	0.48	UJ	ug/L
	Acifluorfen	0.48	U	ug/L
	Alachlor	0.1	UJ	ug/L
	Atrazine	0.1	UJ	ug/L
	Azinphos-methyl	0.1	UJ	ug/L
	Bentazon	0.096	U	ug/L
	Benzonitrile, 2,6-dichloro-	0.1	UJ	ug/L
	Bromoxynil	0.096	U	ug/L
	Chloramben	0.19	UJ	ug/L
	Chlorpyrifos, Ethyl	0.1	UJ	ug/L
	Clopyralid	0.96	UJ	ug/L
	DACTHAL-DCPA	0.48	UJ	ug/L
	Diazinon	0.1	UJ	ug/L
	Dicamba	0.096	UJ	ug/L
	Dichlorprop	0.48	U	ug/L
	Diclofop, Methyl	0.096	U	ug/L
	Dinoseb	0.48	U	ug/L
	Diuron	0.1	UJ	ug/L
	Endosulfan I	0.1	UJ	ug/L
	Endosulfan II	0.1	UJ	ug/L
	Endosulfan Sulfate	0.1	UJ	ug/L
	Fenhexamid	0.96	UJ	ug/L
	Fenpropathrin	0.1	UJ	ug/L
	Imidan	0.19	UJ	ug/L
	Ioxynil	0.096	U	ug/L
	Kresoxim-methyl	0.1	UJ	ug/L
	MCPA	0.19	U	ug/L
	MCPP	0.096	U	ug/L
	Metribuzin	0.1	UJ	ug/L
	Myclobutanil	0.1	UJ	ug/L
	Oxyfluorfen	0.1	UJ	ug/L
	Pendimethalin	0.1	UJ	ug/L
	Pentachlorophenol	0.096	U	ug/L
	Picloram	0.96	UJ	ug/L
	Propargite	0.1	UJ	ug/L
	Silvex	0.19	U	ug/L
	Simazine	1.1	U	ug/L
	SURFLAN	1.9	UJ	ug/L
	Terbacil	1.9	UJ	ug/L
	Trichlorpyr	0.096	U	ug/L
	Triflumizole	0.39	UJ	ug/L
	Trifluralin	0.1	UJ	ug/L
<i>Hormones</i>	17-a-estradiol	0.21	U	ng/L
	17-a-ethynyl-estradiol	0.16	U	ng/L
	17-b-estradiol	0.14	U	ng/L
	Estriol	0.22	U	ng/L
	Estrone	0.21	U	ng/L
<i>Steroids / Hormones</i>	11-Keto Testosterone	0.003		ug/L
	17a-Hydroxyprogesterone	0.003	U	ug/L

Cow Palace #1 and #2 Dairies

	17alpha-trenbolone	0.003	U	ug/L
	17beta-estradiol	0.006		ug/L
	17beta-trenbolone	0.004		ug/L
	4-Androstenedione	0.003	U	ug/L
	a-Estradiol	0.002	U	ug/L
	Androstenedienedione	0.002	UJ	ug/L
	Androsterone	0.005	UJ	ug/L
	a-Zearalanol	0.002	UJ	ug/L
	a-Zearalenol	0.002	UJ	ug/L
	b-Zearalanol	0.002	UJ	ug/L
	b-Zearalenol	0.003	U	ug/L
	Epitestosterone	0.002	U	ug/L
	Estriol	0.002	U	ug/L
	Estrone	0.002	UJ	ug/L
	Ethynyl Estradiol	0.002	U	ug/L
	Melengesterol Acetate	0.002	U	ug/L
	Progesterone	0.005	UJ	ug/L
	Testosterone	0.008		ug/L
<i>Veterinary Pharmaceuticals</i>	Chlortetracycline(total)	0.02	U	ug/L
	Erythromycin	0.02	U	ug/L
	Lincomycin	0.02	U	ug/L
	Monensin	0.023		ug/L
	Oxytetracycline	0.02	U	ug/L
	Ractopamine	0.02	U	ug/L
	Sulfachloropyridazine	0.02	U	ug/L
	Sulfadimethoxine	0.02	U	ug/L
	Sulfamerazine	0.02	U	ug/L
	Sulfamethazine	0.02	U	ug/L
	Sulfamethazole	0.02	U	ug/L
	Sulfamethoxazole	0.02	U	ug/L
	Sulfathiazole	0.02	U	ug/L
	Tetracycline	0.02	U	ug/L
	Tiamulin	0.02	U	ug/L
	Tylosin	0.02	U	ug/L
	Virginiamycin	0.02	U	ug/L
<i>Wastewater Pharmaceuticals</i>	Acetaminophen	0.2	U	ug/L
	Amphetamine	0.2	U	ug/L
	Azithromycin	0.2	U	ug/L
	Caffeine	0.2	U	ug/L
	Carbamazepine	0.2	U	ug/L
	Cotinine	0.2	U	ug/L
	DEET	0.2	U	ug/L
	Diphenhydramine	0.2	U	ug/L
	Ibuprofen	0.2	U	ug/L
	Methamphetamine	0.2	U	ug/L
	Naproxen	0.2	U	ug/L
	Paraxanthine	0.2	U	ug/L
	Thiabendazole	0.2	U	ug/L
	Triclosan	0.2	U	ug/L
<i>Isotopes</i>	Nitrate	NM		mg/L
	δ15N-NO3	NM		‰
	Ammonia	0.1		mg/L
	δ15N-NH4	NM		‰

Cow Palace #1 and #2 Dairies

$\delta^{18}\text{O-NO}_3$	NM	‰ SMOW
Age Dating Piston Flow Model SF6 Recharge Age	51.3-58.3	years

Abbreviations

BAC32 - *Bacteroides*

ND - Analysis not done

NM - Not measured

PCR - Polymerase Chain Reaction

‰ = parts per thousand difference from the atmospheric standard

SMOW = standard mean of ocean water

TNTC - Too numerous to count

Units

CFU/100 ml = colony forming unit per 100 milliliters

MPN/100 ml = most probable number per 100 milliliters

ng/L = nanograms per liter

ug/L = micrograms per liter

mg/L = milligrams per liter

mg/Kg = milligrams per kilogram

ug/Kg = micrograms per kilogram

Data Qualifiers

< = less than

J = The analyte was positively identified. The associated numerical value is an estimate.

JN = There is evidence that the analyte is present. The associated numerical result is an estimate.

N = There is evidence the analyte is present in this sample.