

# Table 1

## CECMC Rule 915 Soil Analysis - Inorganics

Chaco Energy Company - Kindt 1

CECMC Project #: 24530

Sample ID	Depth	Sample Date	Location Description	EC <sup>1</sup>	SAR <sup>1</sup>	pH <sup>1</sup>	Boron <sup>2</sup>
	ft bgs			mmhos/cm	ratio		mg/L
CECMC Table 915-1 Clean Up Concentrations				< 4	< 6	6-8.3	2
Tank 01 @ 3'	3	8/31/2023	Former Tank Location	0.416	0.111	8.08	0.189
Sep 01 @ 3'	3	8/31/2023	Former Separator Location	0.880	3.71	<b>8.58</b>	<b>3.53</b>
BKG 01 @ 2'	2	8/31/2023	West Background	0.338	0.299	8.13	0.310
WH 01 @ 2'	2	8/31/2023	Well Head	0.867	0.877	7.71	0.210
BKG 02 @ 2'	2	8/31/2023	East Background	0.265	0.218	8.08	0.227
PWC 01 @ 2'	2	8/31/2023	Produced Water Pit Center	2.66	5.52	<b>9.88</b>	<b>25.6</b>
PWN 01 @ 1'	1	8/31/2023	Produced Water Pit North	<b>5.12</b>	<b>10.1</b>	7.29	<b>3.26</b>
PWW 01 @ 1'	1	8/31/2023	Produced Water Pit West	<b>4.93</b>	4.76	7.35	0.618
PWE 01 @ 2'	2	8/31/2023	Produced Water Pit East	<b>4.59</b>	3.08	7.05	0.562
PWS 01 @ 3'	3	8/31/2023	Produced Water Pit South	<b>6.52</b>	2.08	6.95	0.240
BKB 03 @ 2'	2	8/31/2023	South Background	<b>8.69</b>	2.79	7.05	0.157

Concentrations exceeding the CECMC Table 915-1 allowable concentrations are expressed in **bold** type face

<sup>1</sup> By Saturated Paste Method

<sup>2</sup> Hot Water Soluble Soil Extract

EC = Electrical Conductivity

SAR = Sodium Adsorption Ratio

ft bgs - Feet below ground surface

mmhos/cm - Millimhos per centimeter

mg/L - Milligrams per liter

NA - Not Analyzed

CECMC - Colorado Energy and Carbon Management Commission



## Table 2

### CECMC Rule 915 Soil Analysis - Organics

Chaco Energy Company - Kindt 1

CECMC Project #: 24530

Sample ID	Depth	Sample Date	Location Description	PID	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	1,2,4-TMB	1,3,5-TMB	TPH
	ft bgs			ppm	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
CECMC Table 915-1 Residential Soil Screening Level Concentrations					1.2	490	5.8	58	2	30	27	500
Tank 01 @ 3'	3	8/31/2023	Former Tank Location	11.5	ND	ND	ND	ND	ND	ND	ND	ND
Sep 01 @ 3'	3	8/31/2023	Former Separator Location	8.7	ND	ND	ND	ND	ND	ND	ND	ND
BKG 01 @ 2'	2	8/31/2023	West Background	NA	NA	NA	NA	NA	NA	NA	NA	NA
WH 01 @ 2'	2	8/31/2023	Well Head	6.4	ND	ND	ND	ND	ND	ND	ND	ND
BKG 02 @ 2'	2	8/31/2023	East Background	NA	NA	NA	NA	NA	NA	NA	NA	NA
PWC 01 @ 2'	2	8/31/2023	Produced Water Pit Center	3.3	ND	ND	ND	ND	ND	ND	ND	ND
PWN 01 @ 1'	1	8/31/2023	Produced Water Pit North	1.9	ND	ND	ND	ND	ND	ND	ND	ND
PWW 01 @ 1'	1	8/31/2023	Produced Water Pit West	4.1	ND	ND	ND	ND	ND	ND	ND	ND
PWE 01 @ 2'	2	8/31/2023	Produced Water Pit East	4	ND	ND	ND	ND	ND	ND	ND	ND
PWS 01 @ 3'	3	8/31/2023	Produced Water Pit South	5.5	ND	ND	ND	ND	ND	ND	ND	ND
BKB 03 @ 2'	2	8/31/2023	South Background	NA	NA	NA	NA	NA	NA	NA	NA	NA

Concentrations exceeding the CECMC Table 915-1 allowable concentrations are expressed in **bold** type face

TPH - Total volatile (C6 - C10) and extractable (C10-C36) petroleum hydrocarbons

ft bgs - Feet below ground surface

PID - Photoionization Detector

mg/kg - Milligrams per kilogram

ppm - Parts per million

TMB - Trimethylbenzene

ND - Non-detect

NA - Not Analyzed

CECMC - Colorado Energy and Carbon Management Commission



**Table 3**  
**CECMC Rule 915 Soil Analysis - Metals**

Chaco Energy Company - Kindt 1

CECMC Project #: 24530

Sample ID	Depth	Sample Date	Location Description	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Nickel	Selenium	Silver	Zinc
	ft bgs			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
CECMC Table 915-1 Allowable Residential Soil Screening Level Concentration				0.68	15000	71	0.3	3100	400	1500	390	390	23000
Tank 01 @ 3'	3	8/31/2023	Former Tank Location	0.91	299	ND	ND	1.12	7.10	1.43	ND	0.0289	4.68
Sep 01 @ 3'	3	8/31/2023	Former Separator Location	0.793	187	ND	ND	1.07	6.85	1.30	ND	0.0227	4.59
BKG 01 @ 2'	2	8/31/2023	West Background	0.832	243	ND	ND	1.35	6.84	1.57	ND	0.0406	4.74
WH 01 @ 2'	2	8/31/2023	Well Head	1.08	349	ND	ND	1.59	15.4	1.83	ND	0.0346	9.27
BKG 02 @ 2'	2	8/31/2023	East Background	0.856	413	ND	ND	0.967	6.23	1.32	ND	0.0239	4.04
PWC 01 @ 2'	2	8/31/2023	Produced Water Pit Center	0.604	234	ND	ND	1.23	7.23	1.26	ND	ND	4.49
PWN 01 @ 1'	1	8/31/2023	Produced Water Pit North	0.51	101	ND	ND	1.18	6.33	1.26	ND	0.0246	4.56
PWW 01 @ 1'	1	8/31/2023	Produced Water Pit West	0.571	110	ND	ND	1.08	6.61	1.37	ND	0.0272	4.53
PWE 01 @ 2'	2	8/31/2023	Produced Water Pit East	0.559	140	ND	ND	1.05	5.48	1.14	ND	ND	4.06
PWS 01 @ 3'	3	8/31/2023	Produced Water Pit South	0.582	124	ND	ND	1.16	6.53	1.28	ND	0.0229	4.65
BKB 03 @ 2'	2	8/31/2023	South Background	1.01	187	ND	ND	1.71	5.48	1.83	ND	0.0400	5.44

Concentrations exceeding the CECMC Table 915-1 allowable concentrations are expressed in **bold** type face

ft bgs - Feet below ground surface

mg/kg - Milligrams per kilogram

ND - Non-detect

NA - Not Analyzed

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Table 4  
CECMC Rule 915 Soil Analysis - Polycyclic Aromatic Hydrocarbons (PAHs)

Chaco Energy Company - Kindt 1

CECMC Project #: 24530

Sample ID	Depth	Sample Date	Location Description	PID	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Pyrene	1-Methylnaphthalene	2-Methylnaphthalene
	ft bgs			ppm	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
CECMC Table 915-1 Allowable Residential Soil Screening Level Concentration					360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
Tank 01 @ 3'	3	8/31/2023	Former Tank Location	11.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sep 01 @ 3'	3	8/31/2023	Former Separator Location	8.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BKG 01 @ 2'	2	8/31/2023	West Background	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WH 01 @ 2'	2	8/31/2023	Well Head	6.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BKG 02 @ 2'	2	8/31/2023	East Background	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PWC 01 @ 2'	2	8/31/2023	Produced Water Pit Center	3.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PWN 01 @ 1'	1	8/31/2023	Produced Water Pit North	1.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PWW 01 @ 1'	1	8/31/2023	Produced Water Pit West	4.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PWE 01 @ 2'	2	8/31/2023	Produced Water Pit East	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PWS 01 @ 3'	3	8/31/2023	Produced Water Pit South	5.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BKB 03 @ 2'	2	8/31/2023	South Background	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Concentrations exceeding the CECMC Table 915-1 allowable concentrations are expressed in**bold** type face

ft bgs - Feet below ground surface

mg/kg - Milligrams per kilogram

ND - Non-detect

NA - Not Analyzed

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