

JAMES BRUCE
ATTORNEY AT LAW

POST OFFICE BOX 1056
SANTA FE, NEW MEXICO 87504

369 MONTEZUMA, NO. 213
SANTA FE, NEW MEXICO 87501

(505) 982-2043 (Phone)
(505) 660-6612 (Cell)
(505) 982-2151 (Fax)

jamesbruc@aol.com

RECEIVED OCD

2010 MAY -6 A 7:42

May 5, 2010

Hand Delivered

Richard Ezeanyim
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Case Nos. 14353 and 14354/Chi Energy, Inc.

Dear Richard:

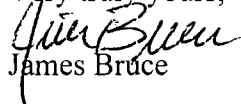
Regarding your request for water information:

1. Attached as Exhibit A are Delaware water sample from several Chi wells in the area of the unit.
2. Chi has inquired of the State Engineer Office in Roswell, and there is no groundwater within 2 miles of the proposed injection wells.
3. As to the Capitan Reef (which lies about three miles south of the unit), Chi has not yet been able to get a good sample, after a month or so of effort. One problem is that you lose circulation as you drill through it. Chi has inquired of the State Engineer and the City of Carlsbad if they have samples, and I will get back to you in the next day or so.

In addition, although Chi thought they would use water from the Capitan Reef, it has now obtained a produced water supply from Shackleford Oil Co.

Please allow Chi a couple more days to try to obtain a Capitan Reef sample.

Very truly yours,


James Bruce

Attorney for Chi Energy, Inc.



Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

Water Analysis Report

Customer:	Chi Operating Inc	Sample #:	11099
Area:	Artesia	Analysis ID #:	1168
Lease:	Munchkin		
Location:	1		0
Sample Point:	Wellhead		

		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling Date:	10/1/2008	Chloride:	146160.6	Sodium:	66317.4
Analysis Date:	10/6/2008	Bicarbonate:	85.5	Magnesium:	1629.9
Analyst:	Mitchell	Carbonate:	0.0	Calcium:	22238.6
TDS (mg/l or g/m3):	236657.7	Sulfate:	220.0	Strontium:	
Density (g/cm3):	1.165			Barium:	
				Iron:	2.6
Hydrogen Sulfide:				Manganese:	3.070
Carbon Dioxide:	86.00				
Comments:		pH at time of sampling:	6.7		
		pH at time of analysis:			
		pH used in Calculation:	6.7		
		Temperature @ lab conditions (F):	75	Conductivity (micro-ohms/cm):	232000
				Resistivity (ohm meter):	.0431

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO ₃		Gypsum CaSO ₄ *2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	0.66	4.75	-0.49	0.00	-0.45	0.00	0.00	0.00	0.00	0.00
100	0.70	5.59	-0.57	0.00	-0.46	0.00	0.00	0.00	0.00	0.00
120	0.75	6.14	-0.63	0.00	-0.44	0.00	0.00	0.00	0.00	0.00
140	0.79	6.98	-0.68	0.00	-0.40	0.00	0.00	0.00	0.00	0.00

EXHIBIT **A**



Catalyst Oilfield Services
 11999 E Hwy 158
 Gardendale, TX 79758
 (432) 563-0727
 Fax: (432) 224-1038

Water Analysis Report

Customer:	Chi Operating Inc	Sample #:	11100
Area:	Artesia	Analysis ID #:	1171
Lease:	Munchkin		
Location:	4		0
Sample Point:	Wellhead		

		mg/l		meq/l	mg/l		meq/l
Sampling Date:	10/1/2008	Anions			Cations		
Analysis Date:	10/6/2008	Chloride:		109119.9	Sodium:		48802.7
Analyst:	Mitchell	Bicarbonate:		73.3	Magnesium:		2157.0
TDS (mg/l or g/m3):	176245.6	Carbonate:			Calcium:		15742.3
Density (g/cm3):	1.123	Sulfate:		340.0	Strontium:		
Hydrogen Sulfide:					Barium:		
Carbon Dioxide:	82.00				Iron:		1.4
Comments:					Manganese:		9.000
		pH at time of sampling:		6.4			
		pH at time of analysis:					
		pH used in Calculation:		6.4			
		Temperature @ lab conditions (F):		75	Conductivity (micro-ohms/cm):		200600
					Resistivity (ohm meter):		.0499

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO ₃		Gypsum CaSO ₄ *2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	0.09	0.89	-0.42	0.00	-0.41	0.00	0.00	0.00	0.00	0.00
100	0.16	1.48	-0.48	0.00	-0.41	0.00	0.00	0.00	0.00	0.00
120	0.24	2.36	-0.53	0.00	-0.37	0.00	0.00	0.00	0.00	0.00
140	0.32	3.25	-0.57	0.00	-0.32	0.00	0.00	0.00	0.00	0.00



Catalyst Oilfield Services
 11999 E Hwy 158
 Gardendale, TX 79758
 (432) 563-0727
 Fax: (432) 224-1038

Water Analysis Report

Customer:	Chi Operating Inc	Sample #:	10850
Area:	Artesia	Analysis ID #:	1085
Lease:	Munchkin		
Location:	5		0
Sample Point:	Wellhead		

		mg/l		meq/l	mg/l		meq/l
Sampling Date:	8/26/2008	Anions			Cations		
Analysis Date:	9/3/2008	Chloride:		154169.4	Sodium:		69736.0
Analyst:	Mitchell	Bicarbonate:		48.9	Magnesium:		3230.6
TDS (mg/l or g/m3):	248629.9	Carbonate:			Calcium:		21161.3
Density (g/cm3):	1.173	Sulfate:		280.0	Strontium:		
				5.83	Barium:		
Hydrogen Sulfide:					Iron:		1.2
Carbon Dioxide:	38.00				Manganese:		2.540
Comments:		pH at time of sampling:		5.6			0.04
		pH at time of analysis:					0.09
		pH used in Calculation:		5.6			
		Temperature @ lab conditions (F):		75	Conductivity (micro-ohms/cm):		226300
					Resistivity (ohm meter):		.0442

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO ₃		Gypsum CaSO ₄ *2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	-0.67	0.00	-0.40	0.00	-0.35	0.00	0.00	0.00	0.00	0.00
100	-0.59	0.00	-0.47	0.00	-0.36	0.00	0.00	0.00	0.00	0.00
120	-0.51	0.00	-0.54	0.00	-0.35	0.00	0.00	0.00	0.00	0.00
140	-0.42	0.00	-0.59	0.00	-0.31	0.00	0.00	0.00	0.00	0.00



Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

Water Analysis Report

Customer:	Chi Operating Inc	Sample #:	10851
Area:	Artesia	Analysis ID #:	1088
Lease:	Munchkin		
Location:	6		0
Sample Point:	Wellhead		

		mg/l		meq/l	mg/l		meq/l
Sampling Date:	8/26/2008	Anions			Cations		
Analysis Date:	9/3/2008	Chloride:		158173.8	Sodium:		70408.8
Analyst:	Mitchell	Bicarbonate:		36.7	Magnesium:		3001.2
TDS (mg/l or g/m3):	255060.2	Carbonate:			Calcium:		23195.4
Density (g/cm3):	1.177	Sulfate:		240.0	Strontium:		
					Barium:		
Hydrogen Sulfide:					Iron:		1.1
Carbon Dioxide:	32.00				Manganese:		3.230
Comments:		pH at time of sampling:		5.8	Conductivity (micro-ohms/cm):		226700
		pH at time of analysis:			Resistivity (ohm meter):		.0441
		pH used in Calculation:		5.8			
		Temperature @ lab conditions (F):		75			

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO ₃		Gypsum CaSO ₄ *2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	-0.56	0.00	-0.43	0.00	-0.39	0.00	0.00	0.00	0.00	0.00
100	-0.48	0.00	-0.51	0.00	-0.40	0.00	0.00	0.00	0.00	0.00
120	-0.40	0.00	-0.57	0.00	-0.38	0.00	0.00	0.00	0.00	0.00
140	-0.32	0.00	-0.63	0.00	-0.34	0.00	0.00	0.00	0.00	0.00



Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

Water Analysis Report

Customer:	Chi Operating Inc	Sample #:	10852
Area:	Artesia	Analysis ID #:	1090
Lease:	Munchkin		
Location:	8		0
Sample Point:	Wellhead		

		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling Date:	8/26/2008	Chloride:	154169.4	Sodium:	69386.1
Analysis Date:	9/3/2008	Bicarbonate:	61.1	Magnesium:	3552.6
Analyst:	Mitchell	Carbonate:		Calcium:	20944.2
TDS (mg/l or g/m3):	248406.3	Sulfate:	290.0	Strontium:	
Density (g/cm3):	1.173			Barium:	
				Iron:	0.6
Hydrogen Sulfide:				Manganese:	2.270
Carbon Dioxide:	24.00				
Comments:		pH at time of sampling:	5.9		
		pH at time of analysis:			
		pH used in Calculation:	5.9		
		Temperature @ lab conditions (F):	75	Conductivity (micro-ohms/cm):	226500
				Resistivity (ohm meter):	.0442

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	-0.28	0.00	-0.39	0.00	-0.34	0.00	0.00	0.00	0.00	0.00
100	-0.20	0.00	-0.46	0.00	-0.35	0.00	0.00	0.00	0.00	0.00
120	-0.12	0.00	-0.53	0.00	-0.34	0.00	0.00	0.00	0.00	0.00
140	-0.04	0.00	-0.58	0.00	-0.30	0.00	0.00	0.00	0.00	0.00



Catalyst Oilfield Services
 11999 E Hwy 158
 Gardendale, TX 79758
 (432) 563-0727
 Fax: (432) 224-1038

Water Analysis Report

Customer:	Chi Operating Inc	Sample #:	10848
Area:	Artesia	Analysis ID #:	1091
Lease:	Munchkin		
Location:	9		0
Sample Point:	Wellhead		

		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling Date:	8/26/2008	Chloride:	151166.1	Sodium:	71218.4
Analysis Date:	9/3/2008	Bicarbonate:	36.7	Magnesium:	3586.8
Analyst:	Mitchell	Carbonate:		Calcium:	17639.8
TDS (mg/l or g/m3):	244070	Sulfate:	420.0	Strontium:	
Density (g/cm3):	1.17			Barium:	
Hydrogen Sulfide:				Iron:	0.9
Carbon Dioxide:	24.00			Manganese:	1.250
Comments:		pH at time of sampling:	5.7		
		pH at time of analysis:			
		pH used in Calculation:	5.7		
		Temperature @ lab conditions (F):	75	Conductivity (micro-ohms/cm):	223400
				Resistivity (ohm meter):	.0448

	Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO ₃		Gypsum CaSO ₄ *2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄		
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	
80	-0.75	0.00	-0.28	0.00	-0.24	0.00	0.00	0.00	0.00	0.00	
100	-0.67	0.00	-0.36	0.00	-0.25	0.00	0.00	0.00	0.00	0.00	
120	-0.59	0.00	-0.42	0.00	-0.23	0.00	0.00	0.00	0.00	0.00	
140	-0.51	0.00	-0.48	0.00	-0.20	0.00	0.00	0.00	0.00	0.00	



Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

Water Analysis Report

Customer:	Chi Operating Inc	Sample #:	10849
Area:	Artesia	Analysis ID #:	1087
Lease:	Munchkin		
Location:	10		0
Sample Point:	Wellhead		

		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling Date:	8/26/2008	Chloride:	155671.1	Sodium:	68164.7
Analysis Date:	9/3/2008	Bicarbonate:	61.1	Magnesium:	6183.0
Analyst:	Mitchell	Carbonate:		Calcium:	18492.0
TDS (mg/l or g/m3):	248795	Sulfate:	220.0	Strontium:	
Density (g/cm3):	1.173			Barium:	
Hydrogen Sulfide:				Iron:	1.0
Carbon Dioxide:	20.00			Manganese:	2.140
Comments:		pH at time of sampling:	6.2		
		pH at time of analysis:			
		pH used in Calculation:	6.2		
		Temperature @ lab conditions (F):	75	Conductivity (micro-ohms/cm):	225400
				Resistivity (ohm meter):	.0444

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO ₃		Gypsum CaSO ₄ *2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	-0.03	0.00	-0.55	0.00	-0.51	0.00	0.00	0.00	0.00	0.00
100	0.05	0.55	-0.62	0.00	-0.51	0.00	0.00	0.00	0.00	0.00
120	0.13	1.10	-0.68	0.00	-0.49	0.00	0.00	0.00	0.00	0.00
140	0.21	1.66	-0.73	0.00	-0.45	0.00	0.00	0.00	0.00	0.00



Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

Water Analysis Report

Customer:	Chi Operating Inc	Sample #:	9285
Area:	Artesia	Analysis ID #:	700
Lease:	Munchkin		
Location:	12		0
Sample Point:	Wellhead		

		mg/l		meq/l		mg/l		meq/l	
Sampling Date:	1/11/2008	Anions				Cations			
Analysis Date:	1/18/2008	Chloride:	132645.8	3741.45		Sodium:	56768.7	2469.3	
Analyst:	Mitchell Labs	Bicarbonate:	85.5	1.4		Magnesium:	2117.9	174.23	
TDS (mg/l or g/m3):	213933.6	Carbonate:				Calcium:	22110.0	1103.29	
Density (g/cm3):	1.149	Sulfate:	200.0	4.16		Strontium:			
Hydrogen Sulfide:						Barium:			
Carbon Dioxide:	58					Iron:	3.7	0.13	
Comments:		pH at time of sampling:		6.5		Manganese:	2.020	0.07	
		pH at time of analysis:							
		pH used in Calculation:		6.5		Conductivity (micro-ohms/cm):		224100	
		Temperature @ lab conditions (F):		75		Resistivity (ohm meter):		.0446	

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl

Temp	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	0.41	3.71	-0.55	0.00	-0.52	0.00	0.00	0.00	0.00	0.00
100	0.48	4.56	-0.61	0.00	-0.52	0.00	0.00	0.00	0.00	0.00
120	0.54	5.42	-0.67	0.00	-0.49	0.00	0.00	0.00	0.00	0.00
140	0.60	6.28	-0.71	0.00	-0.44	0.00	0.00	0.00	0.00	0.00