

**JUNIPER SWD #1
AREA OF INFLUENCE REPORT
SAN JUAN BASIN, NEW MEXICO**

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BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 13812 Exhibit No. 10
Submitted by:
COLEMAN OIL & GAS, INC.
Hearing Date: November 9, 2006

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INTRODUCTION

Coleman Oil and Gas, Inc. is developing a coal bed methane (CBM) gas field in the southern San Juan Basin of New Mexico. Since 2002 the water produced from the Fruitland Formation was injected into the La Ventana tongue of the Cliff House Sandstone, Menefee, and the Point Lookout Sandstone Formations of the Mesa Verde Group. This is done under New Mexico Oil Conservation Division Administrative Permits SWD806 (July 20, 2001) and SWD806A (May 20, 2002) for the Juniper SWD #1 well. This study was undertaken to determine the area of injected water influence for the Juniper SWD #1 UIC well.

The study area includes a portion of New Mexico near the town of Nageezi. Sections 34, 35, and 36 in Township 13 north, Range 89 west. Sections 12, 13, 14, and 15 in Township 24 north, Range 11 west. Sections 4, 5, 6, 7, 8, 9, 10, 15, 16, 17, 18, 21, and 28 in Township 24 north, Range 10 west. The CBM gas field area encompasses 17.5 square miles.

LITERATURE REVIEW

1956- Beaumont et al. (1956) defined the La Ventana Tongue of the Cliff House Sandstone Formation of the Mesa Verde Group.

1983- Stone et al. (1983) published maps of the Cliff House Sandstone Formation. These include:

- O Elevation of Top,
- O Depth to Top,
- O Thickness,
- O Water Level Altitude and Potentiometric Surface,
- O and Specific Conductance.

The specific conductance map from Stone et al. (1983) is reproduced as Figure 1. The approximate location of the study area has been added in yellow. No specific conductance data are shown in the study area. Specific conductance of wells located on the outcrop was generally less than 2,000 micromhos/cm. Wells down dip in the formation had higher specific conductance values approaching 5,000 micromhos/cm. Stone's et al (1983) conclusion was, "...water produced from this unit with oil or gas in deeper parts of the basin probably has a specific conductance exceeding 30,000 micromhos/cm."

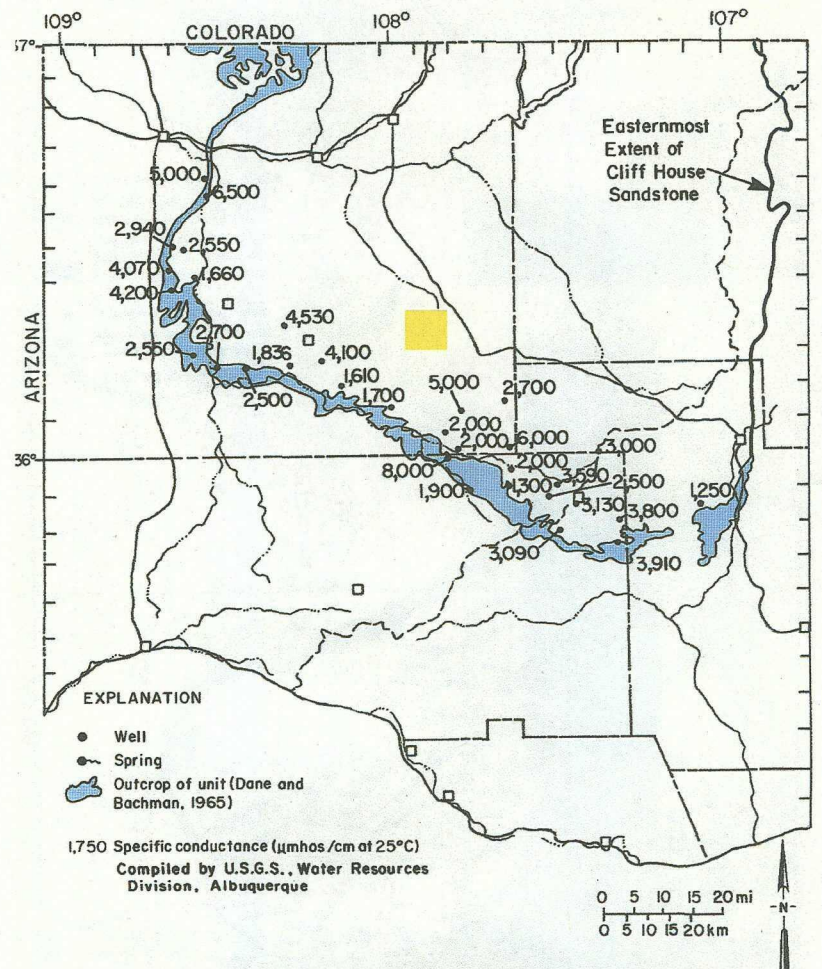
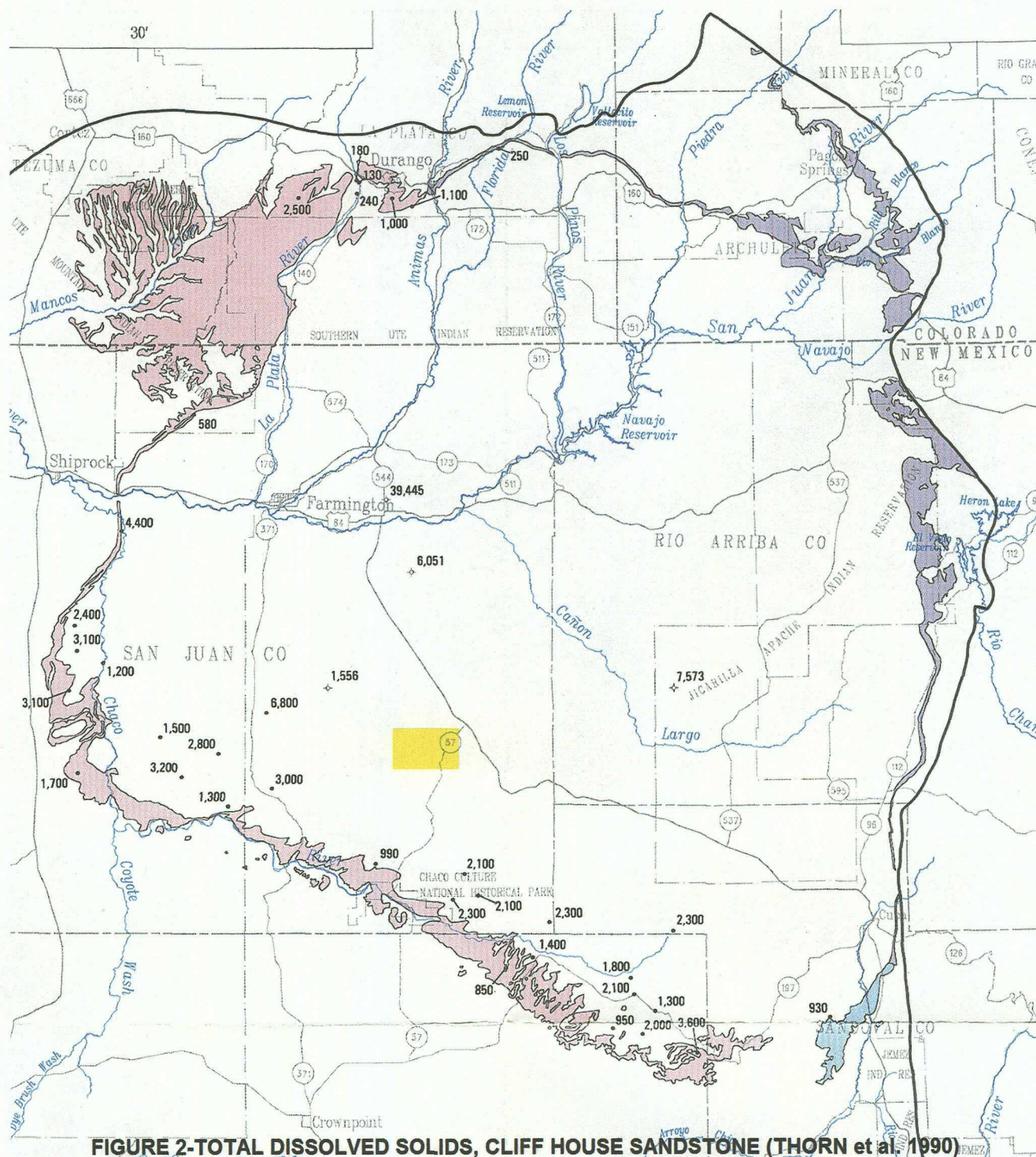


FIGURE 1-SPECIFIC CONDUCTANCE, CLIFF HOUSE SANDSTONE (STONE et al. 1983)

1990- Thorn et al. (1990) published maps of the Cliff House Sandstone Formation. These include:

- O Approximate Depth to Top,
- O Approximate Altitude and Configuration of the Top,
- O Altitude of Potentiometric Surface,
- O Discharge and Specific Capacity,
- O Temperature of Water,
- O Concentration of Dissolved Solids,
- O and Chemical Constituent Diagrams.

The total dissolved solids map from Thorn et al. (1990) is reproduced as Figure 2. The approximate location of the study area has been added in yellow. No total dissolved solids data are shown in the study area. Total dissolved solids concentration of wells located on the outcrop was generally less than 2,000 mg/l. Wells down dip in the formation had higher total dissolved solids above 5,000 mg/l.

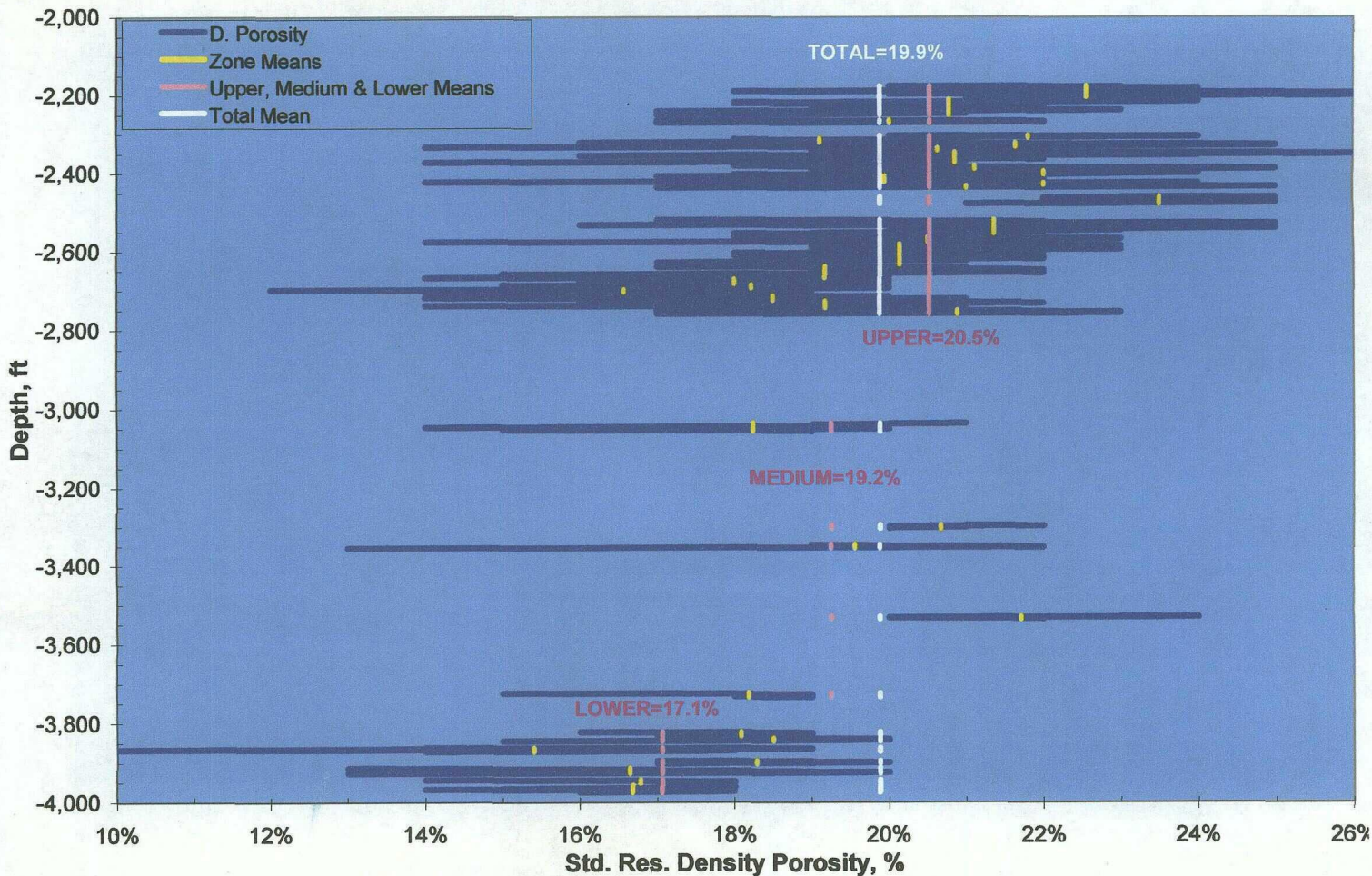


POROSITY DETERMINATION

The Juniper SWD #1 well was geophysically logged on April 6, 2002. The density measurement can be directly read as porosity in sandstone lithologies. Based on the logging, 501 feet of perforations were made in the La Ventana tongue of the Cliff House Sandstone Formation of the Mesa Verde Group, portions of the Menefee Formation, and portions of the Point Lookout Sandstone Formation of the Mesa Verde Group. There is 1,297 feet of interburden that was not perforated, but may be accepting water from adjacent perforations.

The density measurements (per foot) for these perforations are shown on Figure 3. The minimum porosity was 10% and the maximum porosity was 26%. Means were calculated for each perforation zone, ranging from 15% to 23.5% (shown in yellow). Upper zone, medium zone, and lower zone means ranged from 17.1% to 20.5% (shown in violet). Total perforation interval mean was 19.9% (shown in white).

FIGURE 3-POROSITY vs. DEPTH, JUNIPER SWD #1

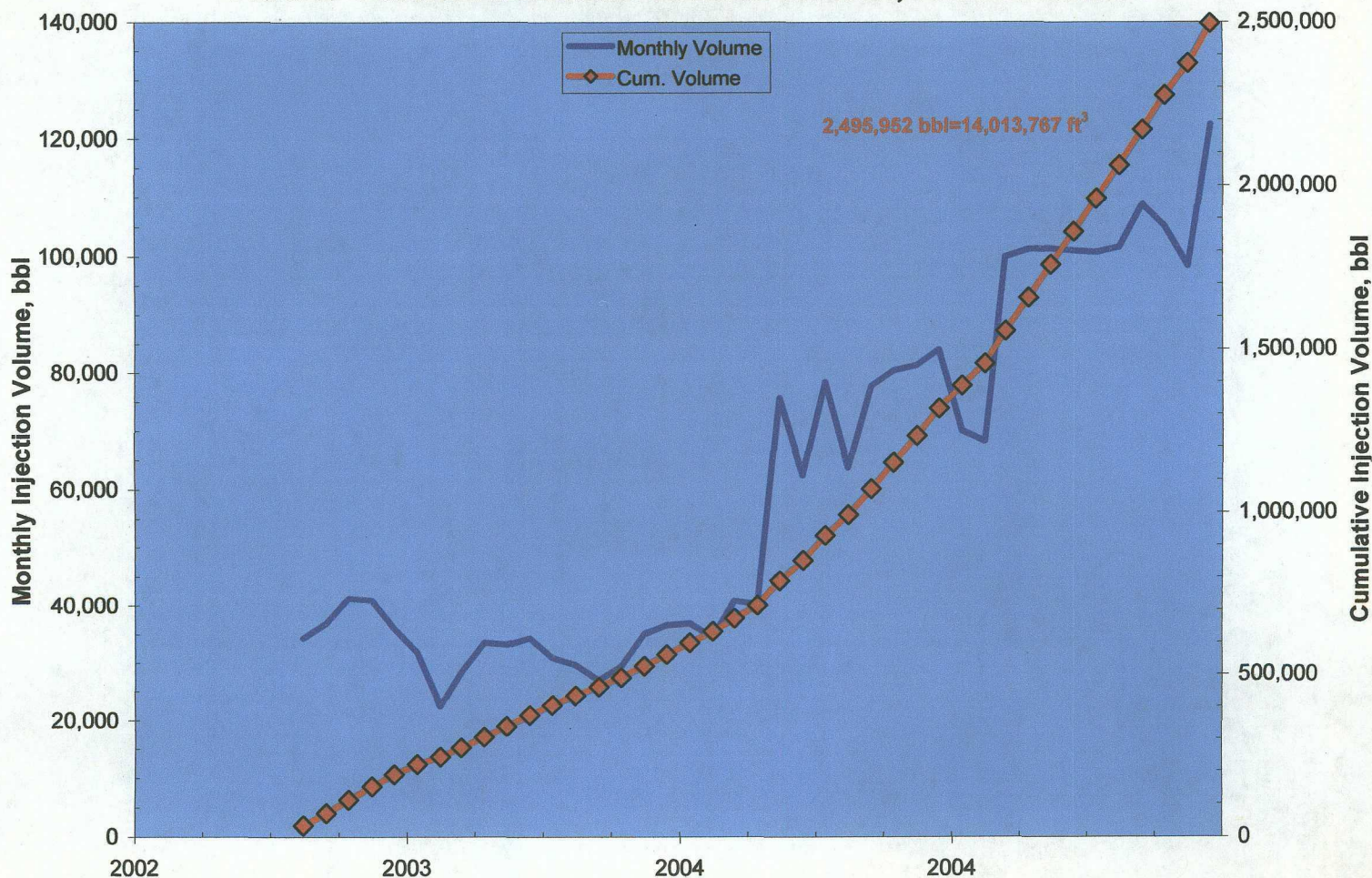


WATER INJECTION VOLUME

Beginning in August 2002, produced water from the Fruitland Formation CBM field was injected into the Juniper SWD #1 well. The well did not require pumping pressure for injection. Monthly volumes were recorded in barrels and reported to the New Mexico Energy and Minerals Department. The data through the end of 2005 is shown on Figure 4. The minimum rate was 22,482 bbl/month in February 2003 (22 gallons per minute, gpm, 0.05 cubic feet per second, cfs). The maximum rate was 122,443 bbl/month in December 2005 (119 gpm, 0.3 cfs). The water injection has increased over three and a half years. The well still does not require pumping pressure for injection.

The cumulative injection volume is shown on the right axis. The total through 2005 was 2,495,952 barrels or 14,013,767 cubic feet. Overall a large amount of water for an oil and gas operation to dispose of, but a relatively small amount compared to surface water.

FIGURE 4-WATER INJECTION VOLUME vs. TIME, JUNIPER SWD #1



WATER CYLINDER CALCULATIONS

The injected water would enter the formation through the perforations. If radial and consistent flow throughout the perforations is assumed, then the injected water volume is a cylinder around the wellbore. The equation of a cylinder with porosity is:

$$r^2 (\text{radius}) * \text{Pi} * h (\text{thickness}) * \text{Porosity} = V (\text{volume injected})$$

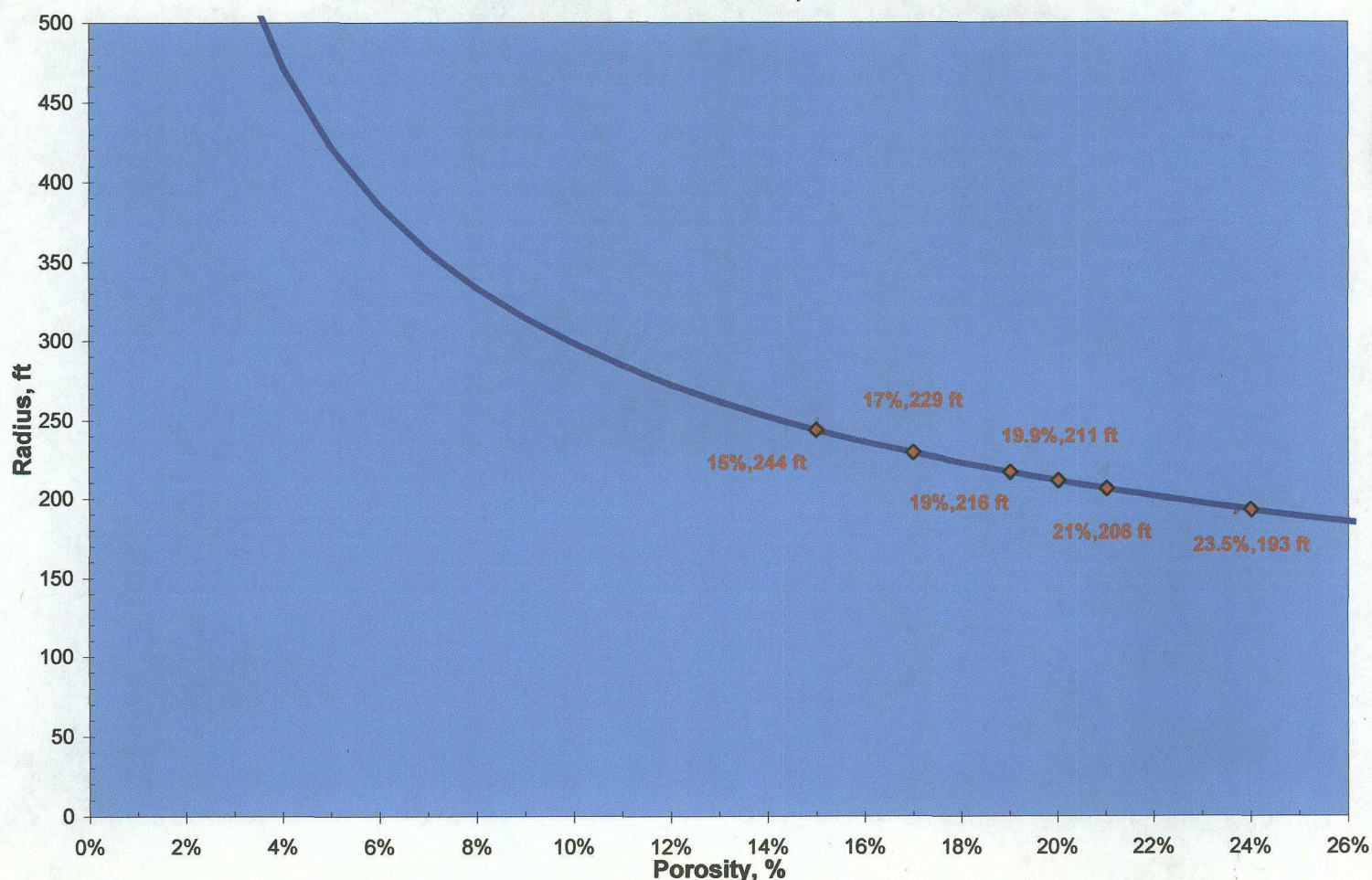
The equation solved for radius is:

$$r (\text{radius}) = \text{SQRT} \{ V (\text{volume injected}) / [h \text{ thickness} * \text{Porosity} * \text{Pi}] \}$$

$$r (\text{radius}) = \text{SQRT} \{ 14,013,767 \text{ ft}^3 / [501 \text{ ft} * \text{Porosity} * \text{Pi}] \}$$

This equation is plotted as radius versus porosity on Figure 5. For the zone porosity range of 15 to 23.5%, the radius varies from 193 to 244 feet with the total mean of 19.9% resulting in a radius of 211 feet. The small range in radius is mainly due to the relatively small amount of water injected.

FIGURE 5-RADIUS vs. POROSITY, JUNIPER SWD #1



The equation of a cylinder with porosity can also be solved for area as follows:

$$r^2 (\text{radius}) * \pi * h (\text{thickness}) * \text{Porosity} = V (\text{volume injected})$$

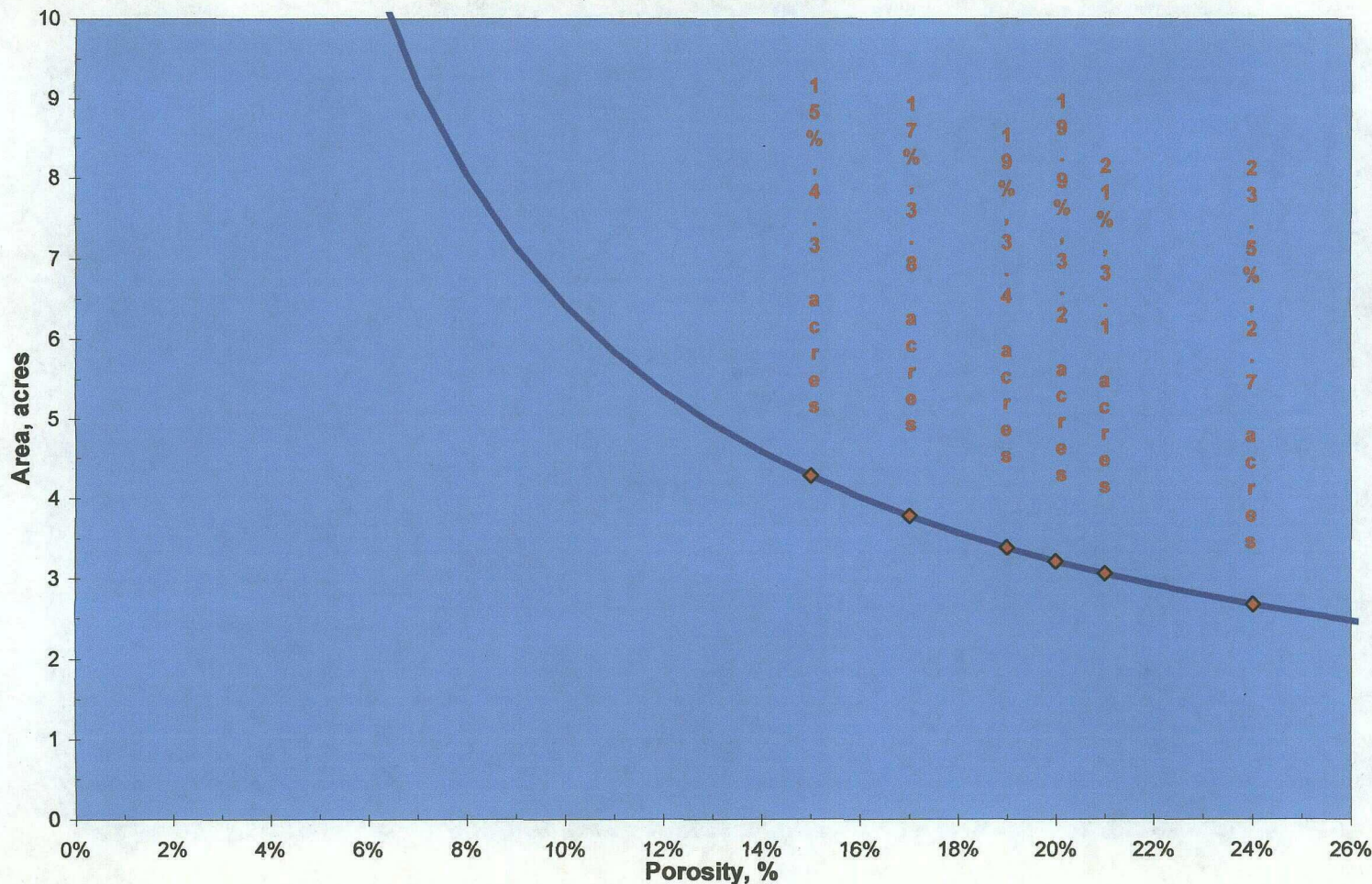
The equation solved for area is:

$$A = r^2 (\text{radius}) * \pi = V (\text{volume injected}) / [h \text{ thickness} * \text{Porosity}]$$

$$A (\text{acres}) = \{14,013,767 \text{ ft}^3 / [501 \text{ ft} * \text{Porosity}]\} / 43,560 \text{ ft}^2 / \text{acre}$$

This equation is plotted as area versus porosity on Figure 6. For the porosity range of 15 to 23.5%, the area varies from 2.7 to 4.3 acres with the total mean of 19.9% resulting in a radius of 3.2 acres. The small range in area is mainly due to the relatively small amount of water injected.

FIGURE 6-AREA vs. POROSITY, JUNIPER SWD #1



WATER CHEMISTRY-CLIFF HOUSE

Water chemistry data is contained in Appendix 1. The Juniper SWD #1 was sampled after perforation and swabbing on May 16, 2002. The Juniper SWD #4 was sampled by RFT tool on November 9, 2005 before being cased.

The specific conductance of the Juniper SWD #1 and Juniper SWD #4 samples were 42,735 micromhos/cm and 17,271 micromhos/cm. The values are above the data published in Stone et al. 1983. The study area is further down dip than the data in Stone et al 1983. So the prediction by Stone et al. (1983) of values approaching 30,000 micromhos/cm is confirmed by the data from the study area.

The total dissolved solids concentrations of the Juniper SWD #1 and Juniper SWD #4 samples were 27,300 mg/l and 9,740 mg/l. These levels were classified as moderately to highly saline. These levels are too high for most uses. The values are within the range of those published in Thorn et al. 1990. As discussed above, the study area is further down dip and higher concentrations than outcrop locations would be expected.

The sodium plus potassium percentage of the samples was 94.8% and 99.3%. The calcium percentage of the samples was 4.0% and 0.7%. The magnesium percentage of the samples was 1.3% and 0.0%. The Cliff House samples were predominately sodium.

The chloride percentage of the samples was 97.1% and 91.7%. The bicarbonate plus carbonate percentage of the samples was 2.6% and 4.4%. The sulfate percentage of the samples was 0.2% and 3.9%. The Cliff House samples were predominately chloride.

The water type for the Cliff House water samples was sodium chloride which is consistent with lithologies deposited in a marine environment.

WATER CHEMISTRY-FRUITLAND

Water chemistry data of the 23 Fruitland samples is contained in Appendix 1.

The total dissolved solids concentrations range from 12,800 to 18,189 mg/l. These levels were classified as highly saline. These levels are too high for most uses.

The sodium plus potassium percentage of the samples ranged from 85.1% to 96.8%. The calcium percentage of the samples ranged from 0.9% and 3.6%. The magnesium percentage of the samples ranged from 0.9% and 12.2%. The Fruitland samples were predominately sodium.

The chloride percentage of the samples ranged from 91.6% and 96.8%. The bicarbonate plus carbonate percentage of the samples ranged from 3.2% and 8.4%. The sulfate percentage of the samples was all 0.0%. The Fruitland samples were predominately chloride.

The water type for the Fruitland water samples was sodium chloride which is consistent with lithologies deposited in a marine environment.

CONCLUSIONS

1. Thickness for the Juniper SWD #1 perforation zone was 501 feet with 1,297 feet of unperforated interburden.
2. Mean porosity for the Juniper SWD #1 perforation zones ranged from 15 to 23.5%. The overall mean was 19.9%.
3. The water injection rate ranged from 22,482 bbl/month to 122,443 bbl/month (22 to 119 gpm, 0.05 to 0.3 cfs). The total injected through 2005 was 2,495,952 bbl (14,013,767 ft³). Overall this is a relatively small amount of water compared to surface water.
4. The radius of injected water ranged from 193 to 244 feet with an overall mean of 211 feet. The relatively small volume of water limits the radius.
5. The area of injected water ranged from 2.7 to 4.3 acres with an overall mean of 3.2 acres. The relatively small volume of water limits the area.
6. The Cliff House water samples are moderately to highly saline. This makes the water unusable for most uses. The samples are a sodium-chloride water type, which is typical for water that was deposited in a marine environment.
7. The Fruitland water samples are highly saline. This makes the water unusable for most uses. The samples are a sodium-chloride water type, which is typical for water that was deposited in a marine environment.

REFERENCES

Beaumont E. C., C. H. Dane, and J. D. Sears 1956.

Revised Nomenclature of Mesaverde Group in San Juan Basin, New Mexico. American Association of Petroleum Geology, Bulletin , v. 40, no. 9, Pp. 2149-2162. USDOI Library.

Stone, William J., Forest P. Lyford, Peter F. Frenzel, Nancy H. Mizell, and Elizabeth T. Padgett 1983. Hydrogeology and Water Resources of San Juan Basin, New Mexico. New Mexico Bureau of Mines & Mineral Resources, Hydrologic Report 6. Authors Collection.

Thorn, Conde R., Gary W. Levings, Steven D. Craigg, William L. Dam and John M. Kernoodle 1990. Hydrogeology of the Cliff House Sandstone in the San Juan Structural Basin, New Mexico, Colorado, Arizona, and Utah. USDOI Geological Survey, Hydrologic Investigations Atlas HA-720-E. Authors Collection.

APPENDIX

Name	Date	General			
		Lab Ph	L. Specific Cond. umhos/cm	Resistivity ohm-m	Dissolved Solids mg/l
Primary Standards E.P.A. 1977					
Secondary Standards E.P.A. 1977		6.5-8.5			500
Agricul. Standards E.P.A. 1977		6.5-8.5			
U.S.G.S. Heath 1987					<1,000
U.S.G.S. Heath 1987					-3,000
U.S.G.S. Heath 1987					-10,000
U.S.G.S. Heath 1987					-35,000
U.S.G.S. Heath 1987					35,000<
U.S.P.H.S. Standards					500
U.S.G.S. Stoner 1978		5-9			
MESA VERDE-LA VENTANA					
Juniper SWD #1	2002-May-16	7.77	42,735	0.234	27,300
Juniper SWD #4	2005-Nov-09	11.10	17,271	0.579	9,740
FRUITLAND					
Juniper SWD #1-Fruitland Water	2005-Aug-09	7.72	140,000	0.071	14,000
		Filtered Sample also			
		taken			
Juniper SWD #1-Fruitland Water	2005-Aug-09				
Juniper SWD #1-Fruitland Water	2005-Aug-26	7.59	23,474	0.426	13,900
Juniper SWD #1-Fruitland Water	2006-Jan-12	7.73	31,250	0.320	15,658
Juniper 11-10	2005-Sep-08	7.50	19,608	0.510	15,678
Juniper 11-16	2004-Jun-03	7.10	35,000	0.286	16,099
Juniper 14-9	2004-Jun-03	6.90	38,750	0.258	17,007
Juniper 14-17	2006-Jan-12	7.65	27,500	0.364	14,276
Juniper 22-15	2004-Jun-03	7.20	37,500	0.267	16,210
Juniper 22-17	2006-Jan-12	7.38	30,000	0.333	15,520
Juniper 24-15	2005-Aug-26	7.34	24,510	0.408	14,300
Juniper 32-16	2004-Jun-03	7.10	35,000	0.286	15,228
Juniper 34-18	2006-Jan-12	7.81	27,500	0.364	14,196
Juniper 44-16	2005-Aug-26	7.45	24,096	0.415	14,300
Juniper Com 11-21	2005-Aug-26	7.47	22,989	0.435	12,800
Juniper Com 13-8	2004-Jul-16	7.27	27,000	0.370	13,330
Juniper Com 22-28	2006-Jan-12	7.49	30,050	0.333	15,624
Juniper Com 24-4	2004-Jul-16	7.27	32,000	0.313	18,141
Juniper Com 34-17	2005-Aug-26	7.64	23,095	0.433	13,200
Juniper Com 41-7	2004-Jul-27	7.17	29,150	0.343	15,241
Juniper Com 41-8	2004-Jul-16	7.20	29,500	0.339	14,788
Juniper Com 41-9	2004-Jun-03	6.80	40,000	0.250	18,189
Juniper Com 41-17	2004-Jun-03	7.10	32,500	0.308	13,556
Juniper Com 42-21	2005-Aug-26	7.54	22,989	0.435	15,000

Name	Date	Cations			
		Sodium Mg/l	Potassium mg/l	Calcium mg/l	Magnesium mg/l
Primary Standards E.P.A. 1977					
Secondary Standards E.P.A.1977					
Agricul. Standards E.P.A.1977					
U.S.G.S. Heath 1987		20-170		25-50	25-50
U.S.G.S. Heath 1987					
U.S.G.S. Heath 1987					
U.S.G.S. Heath 1987					
U.S.G.S. Heath 1987					
U.S.P.H.S. Standards		500			
U.S.G.S. Stoner 1978					
MESA VERDE-LA VENTANA					
Juniper SWD #1	2002-May-16	10,800.0	67.4	396.0	75.7
Juniper SWD #4	2005-Nov-09	3,540.0	82.4	22.3	0.1
FRUITLAND					
Juniper SWD #1-Fruitland Water	2005-Aug-09	5,100.0	39.0	100.0	26.0
Juniper SWD #1-Fruitland Water	2005-Aug-09				
Juniper SWD #1-Fruitland Water	2005-Aug-26	4,910.0	21.6	121.0	27.3
Juniper SWD #1-Fruitland Water	2006-Jan-12	5,882.9		120.6	34.2
Juniper 11-10	2005-Sep-08	5,824.0	55.0	124.0	39.0
Juniper 11-16	2004-Jun-03	5,510.1		136.7	341.6
Juniper 14-9	2004-Jun-03	5,834.4		132.7	366.0
Juniper 14-17	2006-Jan-12	5,298.9		128.6	34.2
Juniper 22-15	2004-Jun-03	5,475.1		128.6	390.4
Juniper 22-17	2006-Jan-12	5,800.1		120.6	29.3
Juniper 24-15	2005-Aug-26	5,410.0		133.0	31.8
Juniper 32-16	2004-Jun-03	5,350.4		48.2	292.8
Juniper 34-18	2006-Jan-12	5,299.4		120.6	34.2
Juniper 44-16	2005-Aug-26	5,250.0		139.0	30.4
Juniper Com 11-21	2005-Aug-26	4,960.0		114.0	27.7
Juniper Com 13-8	2004-Jul-16	4,825.2		160.8	68.3
Juniper Com 22-28	2006-Jan-12	5,851.1		123.6	29.3
Juniper Com 24-4	2004-Jul-16	6,709.4		184.9	68.3
Juniper Com 34-17	2005-Aug-26	5,230.0		116.0	30.1
Juniper Com 41-7	2004-Jul-27	5,537.0		176.9	102.5
Juniper Com 41-8	2004-Jul-16	5,448.2		160.8	58.6
Juniper Com 41-9	2004-Jun-03	6,577.2		104.5	195.2
Juniper Com 41-17	2004-Jun-03	4,522.9		128.6	341.6
Juniper Com 42-21	2005-Aug-26	5,220.0		132.0	29.3

Name	Date	Anions					
		Alkalinity mg/l	Bicarb. mg/l	Carbonate mg/l	Hydroxide mg/l	Sulfate mg/l	Chloride mg/l
Primary Standards E.P.A. 1977							
Secondary Standards E.P.A.1977						250	250
Agricul. Standards E.P.A.1977							
U.S.G.S. Heath 1987			150-200	150-200		300-400	250
U.S.G.S. Heath 1987							
U.S.G.S. Heath 1987							
U.S.G.S. Heath 1987							
U.S.G.S. Heath 1987							
U.S.P.H.S. Standards			500			250	250
U.S.G.S. Stoner 1978						250	250
MESA VERDE-LA VENTANA							
Juniper SWD #1	2002-May-16	590.0	590.0	ND		52.2	15,400.0
Juniper SWD #4	2005-Nov-09	461.0	ND	371.0	90.0	315.0	5,440.0
FRUITLAND							
Juniper SWD #1-Fruitland Water	2005-Aug-09	570.0	570.0	ND		ND	9,300.0
Juniper SWD #1-Fruitland Water	2005-Aug-09						
Juniper SWD #1-Fruitland Water	2005-Aug-26	469.0	469.0	ND		0.2	8,340.0
Juniper SWD #1-Fruitland Water	2006-Jan-12		562.1	48.0		0.0	9,009.9
Juniper 11-10	2005-Sep-08		637.0	0.0		0.0	9,000.0
Juniper 11-16	2004-Jun-03		1,010.4	0.0	0.0	2.0	9,009.9
Juniper 14-9	2004-Jun-03		1,047.3	0.0	0.0	2.0	9,510.5
Juniper 14-17	2006-Jan-12		757.6	48.0	0.0	0.0	8,008.8
Juniper 22-15	2004-Jun-03		1,083.9	0.0	0.0	1.0	9,009.9
Juniper 22-17	2006-Jan-12		757.6	0.0	0.0	2.0	8,809.7
Juniper 24-15	2005-Aug-26		411.0	ND	ND	0.2	8,840.0
Juniper 32-16	2004-Jun-03		936.4	0.0	0.0	2.0	8,509.4
Juniper 34-18	2006-Jan-12		635.4	96.0	0.0	1.0	8,008.8
Juniper 44-16	2005-Aug-26		418.0	ND	ND	0.2	8,380.0
Juniper Com 11-21	2005-Aug-26		545.0	ND	ND	0.1	7,310.0
Juniper Com 13-8	2004-Jul-16		757.6	0.0	0.0	0.0	7,508.3
Juniper Com 22-28	2006-Jan-12		700.5	0.0	0.0	1.0	8,800.6
Juniper Com 24-4	2004-Jul-16		659.9	0.0	0.0	0.0	10,511.6
Juniper Com 34-17	2005-Aug-26		628.0	ND	ND	0.2	7,900.0
Juniper Com 41-7	2004-Jul-27		611.0	0.0	0.0	0.0	8,809.7
Juniper Com 41-8	2004-Jul-16		611.0	0.0	0.0	0.0	8,509.4
Juniper Com 41-9	2004-Jun-03		1,181.7	0.0	0.0	1.0	10,011.0
Juniper Com 41-17	2004-Jun-03		973.3	0.0	0.0	2.0	7,508.3
Juniper Com 42-21	2005-Aug-26		426.0	ND	ND	0.1	8,120.0

Name	Date	Hardness as CaCO3 mg/l	Total Iron mg/l	Total Manganese mg/l
Primary Standards E.P.A. 1977				
Secondary Standards E.P.A.1977			0.300	
Agricul. Standards E.P.A.1977			5.000	
U.S.G.S. Heath 1987			0.300	
U.S.G.S. Heath 1987				
U.S.G.S. Heath 1987				
U.S.G.S. Heath 1987				
U.S.G.S. Heath 1987				
U.S.P.H.S. Standards				
U.S.G.S. Stoner 1978			0.300	
MESA VERDE-LA VENTANA				
Juniper SWD #1	2002-May-16	1,300.0	0.34	
Juniper SWD #4	2005-Nov-09	56.0	0.08	
FRUITLAND				
Juniper SWD #1-Fruitland Water	2005-Aug-09	430.0	8.30	0.130
Juniper SWD #1-Fruitland Water	2005-Aug-09			
Juniper SWD #1-Fruitland Water	2005-Aug-26	420.0	ND	
Juniper SWD #1-Fruitland Water	2006-Jan-12	441.6	0.28	0.17
Juniper 11-10	2005-Sep-08		0.00	
Juniper 11-16	2004-Jun-03	1,742.3	0.07	0.14
Juniper 14-9	2004-Jun-03	1,832.3	0.14	0.14
Juniper 14-17	2006-Jan-12	461.7	0.15	0.09
Juniper 22-15	2004-Jun-03	1,922.2	4.83	1.45
Juniper 22-17	2006-Jan-12	421.6	0.15	0.45
Juniper 24-15	2005-Aug-26	460.0	0.75	
Juniper 32-16	2004-Jun-03	1,321.1	0.71	0.03
Juniper 34-18	2006-Jan-12	441.6	0.06	0.26
Juniper 44-16	2005-Aug-26	470.0	0.42	
Juniper Com 11-21	2005-Aug-26	400.0	0.08	
Juniper Com 13-8	2004-Jul-16	682.1	9.24	0.29
Juniper Com 22-28	2006-Jan-12	428.6	0.18	0.39
Juniper Com 24-4	2004-Jul-16	742.4	6.87	0.48
Juniper Com 34-17	2005-Aug-26	410.0	ND	
Juniper Com 41-7	2004-Jul-27	862.4	3.89	0.31
Juniper Com 41-8	2004-Jul-16	642.1	0.14	0.35
Juniper Com 41-9	2004-Jun-03	1,061.6	0.21	0.04
Juniper Com 41-17	2004-Jun-03	1,722.2	0.34	0.17
Juniper Com 42-21	2005-Aug-26	450.0	ND	

Name	Date	Sodium + Potassium %	Calcium %	Magnesium %
Primary Standards E.P.A. 1977				
Secondary Standards E.P.A.1977				
Agricul. Standards E.P.A.1977				
U.S.G.S. Heath 1987				
U.S.G.S. Heath 1987				
U.S.G.S. Heath 1987				
U.S.G.S. Heath 1987				
U.S.G.S. Heath 1987				
U.S.P.H.S. Standards				
U.S.G.S. Stoner 1978				
MESA VERDE-LA VENTANA				
Juniper SWD #1	2002-May-16	94.8	4.0	1.3
Juniper SWD #4	2005-Nov-09	99.3	0.7	0.0
FRUITLAND				
Juniper SWD #1-Fruitland Water	2005-Aug-09	96.9	2.2	0.9
Juniper SWD #1-Fruitland Water	2005-Aug-09			
Juniper SWD #1-Fruitland Water	2005-Aug-26	96.3	2.7	1.0
Juniper SWD #1-Fruitland Water	2006-Jan-12	96.7	2.3	1.1
Juniper 11-10	2005-Sep-08	96.4	2.3	1.2
Juniper 11-16	2004-Jun-03	87.3	2.5	10.2
Juniper 14-9	2004-Jun-03	87.4	2.3	10.4
Juniper 14-17	2006-Jan-12	96.2	2.7	1.2
Juniper 22-15	2004-Jun-03	86.1	2.3	11.6
Juniper 22-17	2006-Jan-12	96.8	2.3	0.9
Juniper 24-15	2005-Aug-26	96.2	2.7	1.1
Juniper 32-16	2004-Jun-03	89.8	0.9	9.3
Juniper 34-18	2006-Jan-12	96.3	2.5	1.2
Juniper 44-16	2005-Aug-26	96.0	2.9	1.1
Juniper Com 11-21	2005-Aug-26	96.4	2.5	1.0
Juniper Com 13-8	2004-Jul-16	93.9	3.6	2.5
Juniper Com 22-28	2006-Jan-12	96.7	2.3	0.9
Juniper Com 24-4	2004-Jul-16	95.2	3.0	1.8
Juniper Com 34-17	2005-Aug-26	96.5	2.5	1.1
Juniper Com 41-7	2004-Jul-27	93.3	3.4	3.3
Juniper Com 41-8	2004-Jul-16	94.9	3.2	1.9
Juniper Com 41-9	2004-Jun-03	93.1	1.7	5.2
Juniper Com 41-17	2004-Jun-03	85.1	2.8	12.2
Juniper Com 42-21	2005-Aug-26	96.2	2.8	1.0

Name	Date	Bicarb + Carbonate %	Sulfate %	Chloride %	% Total Change
Primary Standards E.P.A. 1977					
Secondary Standards E.P.A.1977					
Agricul. Standards E.P.A.1977					
U.S.G.S. Heath 1987					
U.S.G.S. Heath 1987					
U.S.G.S. Heath 1987					
U.S.G.S. Heath 1987					
U.S.G.S. Heath 1987					
U.S.P.H.S. Standards					
U.S.G.S. Stoner 1978					
MESA VERDE-LA VENTANA					
Juniper SWD #1	2002-May-16	2.6	0.2	97.1	11.2
Juniper SWD #4	2005-Nov-09	4.4	3.9	91.7	-6.1
FRUITLAND					
Juniper SWD #1-Fruitland Water	2005-Aug-09	4.2	0.0	95.8	-16.0
Juniper SWD #1-Fruitland Water	2005-Aug-09				
Juniper SWD #1-Fruitland Water	2005-Aug-26	3.8	0.0	96.2	-9.1
Juniper SWD #1-Fruitland Water	2006-Jan-12	4.6	0.0	95.4	-0.6
Juniper 11-10	2005-Sep-08	4.8	0.0	95.2	-0.9
Juniper 11-16	2004-Jun-03	7.4	0.0	92.6	0.1
Juniper 14-9	2004-Jun-03	7.2	0.0	92.7	0.4
Juniper 14-17	2006-Jan-12	6.7	0.0	93.3	-1.0
Juniper 22-15	2004-Jun-03	7.9	0.0	92.1	0.3
Juniper 22-17	2006-Jan-12	5.7	0.0	94.2	-1.1
Juniper 24-15	2005-Aug-26	3.2	0.0	96.8	-5.1
Juniper 32-16	2004-Jun-03	7.2	0.0	92.7	0.2
Juniper 34-18	2006-Jan-12	6.1	0.0	93.9	-0.5
Juniper 44-16	2005-Aug-26	3.4	0.0	96.6	-2.8
Juniper Com 11-21	2005-Aug-26	5.0	0.0	95.0	3.0
Juniper Com 13-8	2004-Jul-16	6.7	0.0	93.3	-1.5
Juniper Com 22-28	2006-Jan-12	5.3	0.0	94.7	0.3
Juniper Com 24-4	2004-Jul-16	4.3	0.0	95.7	-1.0
Juniper Com 34-17	2005-Aug-26	5.3	0.0	94.7	0.1
Juniper Com 41-7	2004-Jul-27	4.7	0.0	95.3	-1.0
Juniper Com 41-8	2004-Jul-16	4.8	0.0	95.2	-1.0
Juniper Com 41-9	2004-Jun-03	7.7	0.0	92.3	0.4
Juniper Com 41-17	2004-Jun-03	8.4	0.0	91.6	0.0
Juniper Com 42-21	2005-Aug-26	3.6	0.0	96.4	-0.6