## **BEFORE THE**

### ENVIRONMENTAL QUALITY COUNCIL

# STATE OF WYOMING

IN THE MATTER OF THE NOTICE OF	)	
VIOLATION AND ORDER ISSUED TO:	)	
	)	
Tommy C. Wilson	)	DOCKET NUMBER 3460-03
Cortez Energy, Inc.	)	•
d/b/a Astro Services, Inc.	)	
P.O. Box 630	)	
Douglas, WY 82633	)	
	)	

### NOTICE OF VIOLATION

<u>AND</u>

### **ORDER**

#### NOTICE IS HEREBY GIVEN THAT:

1. Cortez Energy, Inc. and its operating branch, Astro Services, Inc., operate The Cortez Energy Water Disposal Well No. 1 (Formerly 1-24 Federal), which is located in the SW ¼ SW ¼, Section 24, Township 36 North, Range 72 West, of the 6th Principal Meridian, in Converse County. This is a class I injection well regulated under Chapter 13, Wyoming Water Quality Rules and Regulations, and is covered by permit number UIC 95-030, issued April 24, 1995. This well is required by both regulations and permit conditions to be tested for mechanical integrity at least once every five years. The last mechanical integrity test run on this well was done September 19, 1996. Permit UIC 95-030 also requires that pressure falloff tests be conducted annually. Cortez Energy, Inc. and Astro Services, Inc. have not conducted a pressure falloff test on this well since December 29, 1997.

The annulus is the space between the casing and the tubing on an injection well. Permit UIC 95-030 requires that the annulus pressure cannot be allowed to fall below 200 psig nor rise above 600 psig. The maximum annulus pressure has been allowed to remain at 1,200 psig for the entire period from September, 1998 though December, 2002. On several occasions the minimum annulus pressure reported was higher than the maximum pressure, indicating that for the entire month the annulus pressure was never within the permitted range.

- 2. Cortez Energy, Inc. and Astro Services, Inc. have been in non-compliance with Mechanical Integrity requirements since September 19, 2001. Cortez Energy, Inc. and Astro Services, Inc. have been in non-compliance on the pressure falloff requirements since December 29, 1997. Cortez Energy, Inc. and Astro Services, Inc. have been in non-compliance on annulus pressure requirements since September of 1998. The permit was only issued April 24, 1995, so Cortez Energy, Inc. and Astro Services, Inc. have been in non-compliance for half of the operating history of this well.
- 3. Chapter 13, Section 13 (e) Wyoming Water Quality Rules and Regulations states that: "(e) At a minimum, the permittee shall monitor the pressure in the injection zone annually, including at a minimum, a shut down of the well for a time sufficient to conduct a valid observation of the pressure falloff curve."

Section M of permit UIC 95-030 states that: "Mechanical Integrity shall be maintained continuously and reviewed at least once every five (5) years. The test used to determine mechanical integrity shall be a two part test approved by the Administrator.

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Part I of the Mechanical Integrity test shall demonstrate the absence of leaks through the packer, tubing, casing and wellhead. This test shall consist of a pressure test of the annulus to a pressure of 1,000 psig. A successful test shall be one which holds 1,000 psig for 15 minutes with no more than 25 psig of pressure loss. Part II of the Mechanical Integrity test shall demonstrate the absence of fluid movement behind the casing. The approved method of demonstrating the absence of fluid movement behind the casing is to run a Radioactive Tracer Survey (RATS) and a Temperature Log. The RATS test shall include a check of the fluid movement around the packer, above the top perforation and below the bottom perforation. The temperature survey shall be a shut-in survey after 24 hours."

Section I3 of permit UIC 95-030 states that: "3. The permittee shall shut the well covered by this permit in annually for a period of time long enough to observe a valid pressure falloff curve. This test shall be considered complete when the pressure curve becomes asymptotic to a straight line on the Miller-Dyes-Hutchinson (MDH) plot. The permittee shall prepare a report for each falloff curve conducted including a MDH Plot and calculations of the skin effect, the indicated transmissivity and permeability of the receiver, and the indicated reservoir pressure. This report shall include plots of the data and all calculations based on those plots. Prior to injection of any waste into this well, the permittee shall record the static reservoir pressure for the Parkman Formation."

Section I4 of permit UIC 95-030 states that: "4. The permittee shall monitor continuously the pressure on the casing/tubing annulus and shall maintain a positive pressure on that annulus. This requires that the permittee install a continuous chart recorder, or a digital interface electronic recorder. The pressure maintained shall be not less than 200 psig nor more than 600 psig.";

- 4. By failing to perform a mechanical integrity test on or before September 19, 2001, Cortez Energy, Inc. and Astro Services, Inc. have violated Section M of permit UIC 95-030. By failing to perform annual pressure falloff curves for 1998 through 2002, Cortez Energy, Inc. and Astro Services, Inc. have violated Section I3 for permit UIC 95-030 and Chapter 13, Section 13 (e) Wyoming Water Quality Rules and Regulations. By allowing the annulus pressure to exceed 600 psig on a regular basis, Cortez Energy, Inc. and Astro Services, Inc., Inc. have violated Section I4 of permit UIC 95-030;
- 5. This Notice is being sent to you pursuant to W.S. 35-11-701(c)(i), which requires that in any case of the failure to correct or remedy an alleged violation, the director of the Department of Environmental Quality shall cause a written notice to be issued and served upon the person alleged to be responsible.

#### **ORDER**

BEFORE THE ENVIRONMENTAL QUALITY COUNCIL-STATE OF WYOMING

WHEREFORE IT IS HEREBY ORDERED THAT CORTEZ ENERGY, INC. AND ASTRO SERVICES, INC. SHALL:

- 1. Within thirty (30) days of your receipt of this Order:
  - a. perform a two part Mechanical Integrity test as required by Section M of permit UIC 95-030;
  - b. perform a pressure falloff curve as required by Section I3 of permit UIC 95-030;
  - c. reduce the annulus pressure to less than 600 psig and make alterations to the

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wellhead to allow this pressure to be continuously maintained at a pressure between 200 psig and 600 psig as required by Section I4 of permit UIC 95-030.

- 2. Within ten (10) days of receipt of this Notice and Order, the recipient shall submit to this department a written description of actions that have or will be taken to implement the items above.
- 3. If the requirements of Part 1 of this Order have not been met within thirty (30) days, shut the well in until such time as they have been fully met. If the requirements of Part 1 of this Order have not been met within six months of your receipt of this Order, permanently plug and abandon this well.

THIS ORDER is final unless, not later than ten (10) days after the date this notice is received, it is appealed by filing a written petition for a hearing before the Environmental Quality Council. If a hearing is requested, the petition shall be mailed to the Chairman, Wyoming Environmental Quality Council, Room 1714, Herschler Building, 1st Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002. The second petition shall be mailed to the Director, Wyoming Department of Environmental Quality, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002. Both petitions must be sent by certified mail, return receipt requested.

NOTHING IN THIS ORDER shall be interpreted to in any way limit or contravene any other remedy available under the Environmental Quality Act, nor shall this Order be interpreted as being a condition precedent to any other enforcement action.

ORDERED this

\_day of

,2003

Dennis Hemmer

Director

Department of Environmental Quality

Gary Beach

Administrator

Water Quality Division

PLEASE DIRECT ALL INQUIRES TO: Robert Lucht, Underground Injection Control Program Principal, Water Quality Division, Department of Environmental Quality, Herschler Building, 4W, 122 West 25'th Street Cheyenne, WY, 82002 (307)777-7095 for technical matters.

RFL/bv/3-0265.ltr

cc:

Mike Barrash, Assistant Attorney General

Robert Lucht