

NAVAJO NATION ENVIRONMENTAL PROTECTION AGENCY

Underground Injection Control Program
P.O. Box 1999
Shiprock, New Mexico 87420
(505) 368-1040
nnepauic@frontiernet.net



Ben Shelly PRESIDENT Rex Lee Jim VICE-PRESIDENT

September 17, 2013

Vision Energy (Praxair) c/o Brian Wood, Permits West, Inc. 37 Verano Loop Santa Fe, NM 87508

Re: Minor Permit Modification: NNEPA/UIC Permit NN 4 (Class IID) - USG 18 #43 Hogback Field, San Juan County, NM

Dear Mr. Wood:

Pursuant to your request:

II.C.5(b) *Injection Fluid Limitation* - The disposal of produced waters from the Pennsylvanian and Mississippian Formations derived from Hogback Field may be included with Dakota Formation produced water as set forth under this permit.

All other parameters and conditions in Permit NN 4 shall be unchanged, and remain in full force and effect.

This change constitutes a minor permit modification and no public notice will be necessary.

If you have any questions, you may contact me at the above letterhead address/telephone number.

Sincerely,

William E. Freeman

Sr Hydrologist/Program Manager NNEPA/UIC Program Shiprock

Water Type:	Receiving Formation (Entrada)	Dakota	Penn.	Miss.	1/3 Each Mix - Dakota, Penn. & Miss. (calculated)					
Well:	USG 19 #17	UGS Section 19	Navajo C 1	Hamrah Navajo 1						
API#	30-045- 26420	30-045- 08082	30-045- 08885	30-045- 08479						
Location:	I-19-29n- 16w	G-19-29n- 16w	D-1-29n- 17w	N-11-29n- 17w						
Distance from USG 18 #43	1.5 miles	1.15 miles	2.4 miles	1.9 miles						
TDS (mg/L)	82190	90216	71206	58769	78558	Calculated Separately - balanced with sodium ions				ons
Sulfate (SO)	993	764	1099	1770	1265	PHREEQC-balanced with sodium ions				
Chloride (Cl)	49756	54553	43000	34353	46160	PHREEQC-balanced with sodium ions				
Bicarbonate (HCO3)	465	608	427	261	453	PHREEQC-balanced with sodium ions				



2013 OCT 18 P 2: 24

October 18, 2013

Phil Goetze NM Oil Conservation Division 1220 S. St. Francis Dr. Santa Fe, NM 87505

Dear Phil,

On behalf of Vision Energy Group LLC I am requesting an amendment to SWD-642 for the USG 18 #143 (30-045-26420) to allow for the disposal of Pennsylvanian and Mississippian water in this well. It is currently permitted to accept only Dakota water. Only Dakota wells currently produce in the field. However, Vision will spud its first Pennsylvanian-Mississippian well (Hogback Deep 12 #34) this week.

Attached are sample results from WAIDS, including a calculated mix of the 3 water types. Also attached is The Navajo EPA UIC approval.

Please call me if you have any questions.

Sincerely,

Brian Wood

cc: Afolabi