

HRI, Inc.

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October 20, 1996

Robert D. Carlson
Project Manager

Overnight mailing address:

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40-8968

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RE: Response to several inquiries for additional information concerning HRI's proposed
New Mexico ISL operations.

Dear Bob:

The additional information that you and Bill Ford requested concerning HRI's proposed New Mexico ISL operations is detailed below.

1) Chemical analyses for waters from the Town of Crownpoint water wells are shown in Table 1 (attached). These samples were taken in September, 1990. Note that the waters from wells BIA #3 and BIA #5 were comingled because of their proximity to each other. Because of its distance from the Town, NTUA Littlewater was not sampled.

2) It appears that one or more wells in the Crownpoint area might be open to the Cow Springs aquifer. The Cow Springs is below the Westwater Canyon aquifer and separated by 200 - 260 feet of the Recapture clay. This includes the Town of Crownpoint water well BIA #5 (designated as "L" in Table 2.3-1 of the Crownpoint Project *In Situ* Mining Technical Report, June, 1992). Well "G" from that same table, noted as completed to 3,100 feet and produced by "windmill", is also likely completed into the Cow Springs.

Since the Recapture shale in the area provides such a positive barrier to vertical migration of waters, HRI does not feel that it would be appropriate to monitor sands below the Recapture. HRI's response to NRC's Q1/63 said in part:

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C PDR

X1205/1



Letter: Robert D. Carlson, NRC from HRI, October 20, 1996
RE: Reponse to various requests for additional information.
Page 2

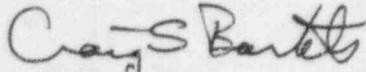
"Due to the 200 to 260 foot thickness [of] the underlying Recapture shale, there is no possibility for interformational transfer of mine fluids which would affect any underlying fresh water aquifers.

The primary risk to any underlying water bearing sand would be deep drilling through the recapture shale which, if not properly abandoned, could provide a conduit for fluid migration.

For all reasons articulated above we do not propose to monitor the underlying aquifer at any of the proposed mine sites."

Please call if there are additional questions on these or any other items.

Sincerely yours,

A handwritten signature in cursive script, reading "Craig S. Bartels".

Craig S. Bartels
VP - Technology
HRI, Inc.

Attachment

cc: Mark Pelizza, HRI

Table 1
 Water Analyses
 Town of Crownpoint water wells.

Constituents		Units	NTUA #1	NTUA #2 Corioco	BIA #3 and BIA #5	BIA #6
		Date [1]-->	07-Sep-90	07-Sep-90	10-Sep-90	10-Sep-90
Calcium	Ca	mg/l	5	1.3	9.2	1.8
Magnesium	Mg	mg/l	2	0.08	4.5	0.14
Sodium	Na	mg/l	131	121	119	111
Potassium	K	mg/l	4.9	1.2	2.3	1.7
Carbonate	CO3	mg/l	17	20	1	8
Bicarbonate	HCO3	mg/l	234	221	249	223
Sulfate	SO4	mg/l	82	52	98	49
Chloride	Cl	mg/l	7.7	3.2	3.2	2
Nitrate	NO3 - N	mg/l	0.01	0.02	0.02	0.01
Fluoride	F	mg/l	1.1	0.32	0.34	0.27
Silica	SiO2	mg/l	10	18	20	18
TDS (180 deg-C)		mg/l	402	351	406	325
EC (25 deg-C)		umhos/cm	625	529	603	484
Alkalinity	as CaCO3	mg/l	220	215	206	197
pH			8.79	8.91	8.33	8.7
Arsenic	As	mg/l	<0.001	<0.001	<0.001	<0.001
Barium	Ba	mg/l	0.02	0.05	0.05	0.06
Cadmium	Cd	mg/l	0.0002	<0.0001	<0.0001	<0.0001
Chromium	Cr	mg/l	<0.01	<0.01	<0.01	<0.01
Copper	Cu	mg/l	<0.01	<0.01	<0.01	<0.01
Iron	Fe	mg/l	0.02	<0.01	0.01	<0.01
Lead	Pb	mg/l	<0.001	0.002	<0.001	<0.001
Manganese	Mn	mg/l	0.01	<0.01	0.01	<0.01
Mercury	Hg	mg/l	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum	Mo	mg/l	<0.01	<0.01	<0.01	<0.01
Nickel	Ni	mg/l	<0.01	<0.01	<0.01	<0.01
Selenium	Se	mg/l	<0.001	<0.001	<0.001	<0.001
Silver	Ag	mg/l	<0.01	<0.01	<0.01	<0.01
Uranium	U	mg/l	<0.001	<0.001	0.007	<0.001
Vanadium	V	mg/l	<0.01	<0.01	<0.01	<0.01
Zinc	Zn	mg/l	0.01	0.01	<0.01	<0.01
Boron	B	mg/l	0.05	0.06	0.07	0.05
Ammonia-N	N	mg/l	<0.01	<0.01	<0.01	<0.01
Ra 226		pCi/l	0.6	0.3	0.6	0.3

[1] Date sample recieved at Jordan Laboratories, Inc.