Recd 12-01-98

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## . ENVIROCARE OF UTAH. INC. THE SAFE ALTERNATIVE

November 23, 1998

Mr. Joseph J. Holonich, Chief Uranium Recovery Branch Division of Waste Management Office of Nuclear Materials Safety and Safeguards U.S. Nuclear Regulatory Commission **MST-7J9** 11545 Rockville Pike Washington, DC 20555-0001

Re: 11e.(2) Groundwater Monitoring Well exceedances, Compliance Monitoring Plan License Number SMC-1559, 3rd Quarter 1998 11e.(2) Groundwater Sampling. Written notification of Confirmatory Round exceedance.

Dear Mr. Holonich:

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Pursuant to license condition 12.2 of Material License Number SMC-1559, Envirocare of Utah, Inc. (Envirocare) is notifying Region IV and the Chief, Uranium Recovery Branch, of apparent exceedances of the analytes listed in the included table 1, compared to baseline values in Table S-1 or Site Specific Values in Table STD-1.

On October 21,1998, Envirocare notified the Nuclear Regulatory Commission (NRC) pursuant to License Condition 12.2 that the background concentration for uranium for GW-58 was exceeded for the 3rd Quarter 1998 sampling event. Pursuant to License Condition 11.1, Envirocare is required to establish and submit for NRC approval within 30 days from receipt of the analysis results, a compliance monitoring plan and site specific concentration standards for the detected constituent, uranium. Envirocare has reviewed the analytical data for GW-58 and has hypothetically determined that the uranium detected at GW-58 is attributable to the combination of native soils and a slight increase in groundwater level. Andreyev and Chumachenko (1964) noted that in environments containing abundant humic material and H<sub>2</sub>S, the organic matter in the soil will initially concentrate low natural levels of uranium by absorption (activity is increased by rising groundwater). NLIO'0



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Table 1.

ENVIROCARE The sampling event dates that initiated this response are as follows:

GW-58 (Uranium Concentration Limit = $0.036pC/L$ )		
Date Sampled	Data Received from Lab	Result (2 <sup>nd</sup> Pass)
08/19/98	09/23/98	0.039 pC/L
09/08/98	10/21/98	0.036 pC/L
09/17/98	10/21/98	0.039 pC/L

Envirocare is confident that the integrity of the Clive landfill and liner system is secure and that the apparent exceedances are due to natural processes. There is also the possibility that the increases in background concentrations may be due to analytical methods at the laboratory. The radioactive constituents do not seem to be as affected as the organic and metal chemistries but the extremely high concentration of chlorides in local groundwater are a constant problem in obtaining valid lab data.

Envirocare's short term corrective action plan is to continue the regular sampling be hedule and report any increases in uranium detected in GW-58. The long-range corrective action is to build a historically comprehensive database using all the Point of Compliance wells as discussed in the October 7, 1998 conference call with Headquarters and Region IV. The database will also include any nearby groundwater well data that is available but not part of the Envirocare facility. This data will then be evaluated using a Regional Administrator approved statistical method. The statistical method used will be one that protects the human health and the environment and complies with NRC and EPA guidelines.

Should the results of the statistical analysis indicate that the practical quantification limits for the Envirocare site be changed; Envirocare will contact the NRC and request a meeting to discuss the best method to remain compliant and allow Envirocare to more accurately predict groundwater conditions.

Should you have any questions, please feel free to contact Richard Poulson at (801) 532-1330.

Sincerely,

Mark R.Ledoux, CHP Corporate RSO

cc: Bill Sinclair Region IV NRC

Ancreyev, P. F., and A. P. Chumachenko, "Reduction of Uranium by Natural Organic Sub stances," *Geochem. Int.* 1:3-7, 1964