

MINOR MODIFICATION TO PERMIT NO. R9UIC-HI5-FY16-1R ISSUED TO PUNA GEOTHERMAL VENTURE

In accordance with 40 CFR §144.41(f), Underground Injection Control (UIC) permit no. R9UIC-HI5-FY16-1R is hereby modified to reflect changes in the approved list of chemical additives. Specifically, the modification revises Appendix H of the Permit to include 2, 7-Naphthalenedisulfonic Acid Disodium Salt and Sulfur Hexafluoride. Portions of Appendix H are revised to incorporate the above changes and now read as follows (for clarity, changes on page 39 of the Appendices are shown below with new additions in bold):

Appendix H- Chemical Additives

		Maximum Injection
Product Function	Active Chemical Ingredient	Concentration(ppm)
Corrosion Inhibitor/Oxygen Scavenger	Sodium Sulfite Salt (10% solution)	15
Corrosion Inhibitor	Filming Amine (<30% solution)	30
Corrosion Inhibitor	Filming Amine Chloride Salt (<30% solution)	30
Corrosion Inhibitor	Filming Amine Acid (<30% solution)	30
Corrosion Inhibitor	Soya Amine Poly (<30% solution)	30
Anti-Scalant/pH adjustor	Sulfuric Acid	3
Anti-Scalant	Phosphonate (<30% solution)	15
pH Adjustor and H2S Abator	Sodium Hydroxide	3
Microbiocide	Isothiazoline	1
Barrier Oil	Lubricant Oil	1
Tracer Flow Test	2, 7-Naphthalenedisulfonic Acid Disodium Salt	5
Tracer Flow Test	Sulfur Hexafluoride	1

This minor modification is effective immediately; all other permit conditions remain unchanged.

/s/ 2024-12-04

Tomás Torres

Director, Water Division