

From: [Bingham, Brad](#)
To: [Linton, Ron](#); [Pierce, David](#)
Cc: [Arguello, Adam](#); [Alexander, George](#)
Subject: [External_Sender] RE: Request: updated Table 2-1 & Table 2-2 for the GW Monitoring Plan
Date: Tuesday, October 08, 2019 9:57:32 AM
Attachments: [HMC-GW-Monitoring-Plan-Table 2-1 Modified October 7 2019.docx](#)
[HMC-GW-Monitoring-Plan-Table 2-2 - July 31 2019.docx](#)

Ron,

Please find the requested, updated tables attached. Let me know if you require anything else.

Thanks,

Brad R. Bingham, HSE/Compliance Officer

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From: Linton, Ron <Ron.Linton@nrc.gov>
Sent: Monday, October 7, 2019 1:52 PM
To: Pierce, David <dpierce@barrick.com>
Cc: Bingham, Brad <bbingham@barrick.com>; Arguello, Adam <aarguello@barrick.com>; Alexander, George <George.Alexander@nrc.gov>
Subject: EXT:Request: updated Table 2-1 & Table 2-2 for the GW Monitoring Plan

Dave:

Can you send me new .pdf's of Table 2-1 and 2-2 for the Groundwater Monitoring Plan License Amendment request? We had discussed last week HMC revising Table 2-1 and removing the @ symbol for Deep #2@ in two locations on Table 2-1. I think it is now Deep #2R.

I don't think there is a change for Table 2-2, but I would like you to send both tables in your correspondence so I can have only two ML#s referenced in the license amendment, the one ML# for the original amendment request and the second ML# for the updated tables. It is much cleaner that way.

Once you send me the updated Table 2-1 and 2-2, I'll get them in ADAMS, and send you the proposed license amendment language for your review. Would it be possible for HMC to get me the tables by end of the week?

Thanks

Ron C. Linton, Project Manager

U.S. NRC
phone 301-415-7777
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Table 2-1. Groundwater Monitoring at the Grants Site		
Well	Parameter List Code	Frequency of Monitoring
<i>Alluvial Background Wells</i>		
P, Q, 921	B, F	Annual
<i>Operational Monitoring</i>		
Collection system wells	Total Volume	Monthly
Injection system wells	Total Volume	Monthly
Reversal wells B, BA, KZ, DZ, SM, SN, S2, S5	Water Level	Weekly
<i>San Andres Wells</i>		
Deep #1R, Deep #2R, 943M, 951R	B, F H	Annual Semiannual
<i>Alluvial Compliance Monitoring Wells</i>		
On-Site Monitoring Wells (Evap. Ponds) DD, DD2, X	B, F plus Mn H	Annual Quarterly
Additonal On-Site Monitoring Wells 1A, 1K, 639, 802, B11, D1, F, FB, GH, GN, L, L5, K9, M3, MX, MB, MQ, NC, S4, SUB3, T2, T19, T23, T41, T54	B, F	Annual
South Off-Site Wells 490, 497, 540, 631, 643#, 644, 864, 869, Q5, R3, SUB2	B, F	Annual
Section 34 Land application wells 555, 556, 557, 844, 845, 846	B, F	Annual
North Off-Site Wells(includes Section 28 Land application wells) 688, 881, 882, 883, 884, 886, 888, 893, 659, H2A, MR, H55, MO	B, F	Annual
Western Portion of North Off-Site Wells (Includes Section 33 Land application wells) 541, 551, 647, 649, 654, 899, 996	B, F	Annual
<i>Chinle Compliance Monitoring Wells</i>		
Upper Chinle Wells 494, CE2, CE8, CE9, CE15, CF4, CW3, CW13#, CW18, CW25#	B, F	Annual
Middle Chinle Wells 493, ACW, CW17, CW2, CW28, CW45, CW55, CW62, CW76, R3, Y7	B, F	Annual
Lower Chinle Wells CW29, CW32, CW41, CW42, CW43, V6	B, F	Annual

Note: # Monitoring will start after well ceasing to be used for injection

Table 2-2. Site Analytical Suites

Parameter List Code	Included Parameters (Dissolved)	Method	Reporting Limits	Units
B	Water level			
	pH	A4500-HB	0.01	s.u.
	Total dissolved solids (TDS)	A2540 C	20	mg/L
	Sulfate (SO ₄)	E300.0	4	mg/L
	Chloride (Cl)	E300.0	1	mg/L
	Bicarbonate (HCO ₃)	A2320 B	5	mg/L
	Carbonate (CO ₃)	A2320 B	5	mg/L
	Sodium (Na)	E200.7	0.9	mg/L
	Calcium (Ca)	E200.7	0.5	mg/L
	Magnesium (Mg)	E200.7	0.5	mg/L
	Potassium (K)	E200.7	0.5	mg/L
	Nitrate (NO ₃)	E353.2	0.1	mg/L
	Uranium (U)	E200.8	0.0003	mg/L
	Selenium (Se)	E200.8	0.005	mg/L
	Molybdenum (Mo)	E200.8	0.03	mg/L
	Radium-226 (Ra-226)	E903.0	Precision Variable	pCi/L
F	Vanadium (V)	E200.8	0.01	mg/L
	Radium-228 (Ra-228)	RA-05	Precision Variable	pCi/L
	Thorium-230 (Th-230)	E908.0	Precision Variable	pCi/L
H	Water Level			
	TDS	A2540 C	20	mg/L
	SO ₄	E300.0	4	mg/L
	U	E200.8	0.0003	mg/L
	Se	E200.8	0.005	mg/L
	Mo	E200.8	0.03	mg/L
	Cl	E300.0	1	mg/L