

Technical Memorandum

By Mike Buchanan at 10:44 am, Oct 10, 2023

То:	Mike Buchanan, NMOCD	Page 1
From:	Mike Holder, HF Sinclair	
	Bryan Gilbert, PG, TRC	
CC:	Teal Glass, TRC	
Subject:	North Monument 6-Inch Gathering Line, AP #34	
	Lea County, New Mexico	
Date:	September 11, 2023	

As you know, we are currently conducting monthly LNAPL recovery and quarterly groundwater monitoring activities at the North Monument Site. During each quarterly event, groundwater samples are collected from five monitoring wells for laboratory analysis of TPH-GRO, TPH-DRO, and BTEX. The first quarter event was conducted in March 2023. The second quarter event was scheduled for June 2023, but the event was canceled due to safety concerns. Notably, potentially low oxygen readings in ambient air were observed by the field staff during the first morning of the event. While the cause of the low oxygen readings is unknown, there are several active oil and gas wells in the site vicinity that may have contributed to the observed readings. After developing appropriate safety measures (this took a bit), field staff returned to the site in August 2023 (i.e., during the third quarter) and safely completed the groundwater monitoring event. The next monitoring event will be conducted during the fourth quarter 2023.

The March and August 2023 monitoring results were generally consistent with historical results. TPH and BTEX were non-detect in monitoring wells MW-1, MW-3, MW-5, and MW-7, while low concentrations of TPH GRO and DRO were detected at monitoring well MW-6, consistent with historical. Water levels in the five monitoring wells decreased sharply from 2022 to 2023 and are at or near historical lows as of August 2023. Due to the historically low water levels, the apparent thickness and extent of LNAPL in site borehole wells overall increased during 2023 (low water levels are strongly correlated with increased apparent LNAPL thicknesses).

Based on stable TPH and BTEX concentrations in March and August 2023, we believe that three quarterly events in 2023 (i.e., the first, third, and fourth quarters) are sufficient to monitor the dissolved-phase plume at the site, and that the second quarter 2023 event that was canceled due to safety concerns does not need to be "made up" during the third or fourth quarters of 2023.

We appreciate your September 11, 2023, e-mail concurrence with this plan regarding omission of the second quarter 2023 groundwater monitoring event. Please let us know if you have any additional questions or comments.

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CONDITIONS

Action 264458

CONDITIONS			
Operator:	OGRID:		
HF Sinclair Navajo Refining LLC	15694		
ATTN: GENERAL COUNSEL	Action Number:		
Dallas, TX 75201	264458		
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)		

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	None	10/10/2023