Smith, Cory, EMNRD

From: Jennifer Deal <jdeal@hilcorp.com>
Sent: Monday, July 22, 2019 12:21 PM

To: Smith, Cory, EMNRD

Subject: [EXT] FW: [EXTERNAL] Hilcorp's Kaufman No. 1 - Weekly Update for week of 7/15/19

Attachments: Kaufman Receptor Survey.pdf

FYI

Jennifer Deal Environmental Specialist Hilcorp Energy – L48 West ideal@hilcorp.com

Office: (505) 324-5128 Cell: 505-801-6517

From: Jim Foster [mailto:jim@teamtimberwolf.com]

Sent: Friday, July 19, 2019 3:14 PM

To: Thomas, Leigh <11thomas@blm.gov>; 'Abiodun Adeloye' <aadeloye@blm.gov>; John Kendall <j01kenda@blm.gov>

Cc: Jennifer Deal <jdeal@hilcorp.com>; Matt Henderson <mhenderson@hilcorp.com>; Ryan Mersmann

<ryan@teamtimberwolf.com>; James McNutt <james@teamtimberwolf.com>; Clay Morris

<clay@teamtimberwolf.com>

Subject: [EXTERNAL] Hilcorp's Kaufman No. 1 - Weekly Update for week of 7/15/19

All,

Below is a summary of work conducted this week for the Kaufman No. 1.

Wetland Delineation

Timberwolf completed its Wetland Delineation report. The report was submitted to Hilcorp personnel on 7/18/19 for review. Upon their approval, copies will be submitted to the BLM and USACE.

Receptor Survey

Four sensitive features were identified within a one-quarter mile radius of the Site. These include: one wetland, the La Plata River, an unnamed tributary of the La Plata River, and an irrigation canal. Also, 19 water wells were identified within a one-mile radius of the Site; all wells are domestic supply wells. Figures depicting the location of sensitive features and water wells are attached. Also, within the attached document is a table that provides well location, well type, and depth (if available).

Thank you,

Jim Foster President



691 CR 233, Suite B-4 Durango, CO 81301 970-516-8419 (O) 979-324-2139 (C)

Teamtimberwolf.com

From: Jim Foster

Sent: Friday, July 12, 2019 2:28 PM

To: Thomas, Leigh < 11thomas@blm.gov >; 'Abiodun Adeloye' < adeloye@blm.gov >; John Kendall < j01kenda@blm.gov >

Cc: Jennifer Deal <ideal@hilcorp.com>; Matt Henderson <mhenderson@hilcorp.com>; Ryan Mersmann

<ryan@teamtimberwolf.com>; James McNutt <james@teamtimberwolf.com>; Clay Morris

<clay@teamtimberwolf.com>

Subject: Hilcorp's Kaufman No. 1 - Weekly Update for week of 7/8/19

All,

Below is a summary of work conducted this week on the Kaufman No. 1.

Public Notice

A public notice was submitted to the OCD for review and approval on 7/10/19. Upon approval, the notice will be published in newspapers with local and statewide circulation. Additionally, a list of property owners within a one-mile radius has been compiled. These landowners will receive written notice of the Stage 1 abatement plan as required under 19.15.30 NMAC.

Ecological Risk Assessment

On 7/11/19, 5 soil samples were collected to assess the ecological risk to the Southwestern willow flycatcher. Each soil sample was collected from the edge of the open excavation from the 0-2 ft depth interval. Samples were submitted to Hall Environmental for chemical analysis of: GRO, DRO, MRO, and BTEX.

Vadose Zone Assessment

On 7/11/19, 13 soil samples were collected from the excavation base and sidewalls to assess the vadose zone. Sidewall samples were collected from the 2.5 – 3.5 ft depth interval. Samples were submitted to Hall Environmental for chemical analysis of: GRO, DRO, MRO, and BTEX. Once laboratory analysis is complete, additional analysis will be conducted using EPA method SW-846 Test Method 1312 (*Synthetic Precipitation Leaching Procedure*) to evaluate the leachability of soil within the vadose zone.

Receptor Survey

Review of public records revealed 18 domestic water supply wells within a 1-mile radius of the Site. The closest water well is approximately 0.22 miles north-northwest of the Site.

A one-quarter mile ground reconnaissance was conducted on 7/11/19. Note: land ownership west of the La Plata River is predominately private; therefore, ground reconnaissance west of the river was restricted.

Wetland Delineation Map

On 7/2/19, Timberwolf conducted a wetland investigation. The attached map depicts the bounds of the investigation and identified features. One wetland was observed east of the Site and 3 areas of hydric vegetation (non-wetland) are located north and south of the Site.

Thank you,

Jim Foster President



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From: Jim Foster

Sent: Wednesday, July 3, 2019 5:39 PM

To: 'Thomas, Leigh' <11thomas@blm.gov>; 'Abiodun Adeloye' <aadeloye@blm.gov>

Cc: 'Jennifer Deal' <jdeal@hilcorp.com>; 'Matt Henderson' <mhenderson@hilcorp.com>; Ryan Mersmann

<ryan@teamtimberwolf.com>; James McNutt <james@teamtimberwolf.com>; Clay Morris

<clay@teamtimberwolf.com>

Subject: Hilcorp's Kaufman No. 1 - Weekly Update for week of 7/1/19

All,

Wetland Investigation

Per the Army Corp of Engineer's request, a wetland investigation was conducted at the Site on 7/2/19. The investigation area encompassed the same area of concern (AOC) as the archeological survey. The investigation revealed one wetland, located immediately east of the well pad. A map depicting the AOC and wetland boundary is being prepared and will be delivered as soon as available. The wetland investigation report is scheduled to be completed by 7/19/19.

Groundwater Analytical Results

Analytical results of a groundwater sample collected from the hydrologically upgradient monitor well MW3 revealed elevated salinity as previously identified from analysis of MW1 which is located immediately adjacent to the point of release. Total concentrations and relative percentages of TDS, chloride, and sulfate in MW1 and MW3 reveal a strong correlation in groundwater chemistry between the two samples. This suggests the elevated salinity observed is a native feature of the Site's groundwater. Analytical results for the two samples are presented in the table below. The full salinity chemistry will be presented in the Stage 2 Abatement Plan.

Constituent	MW1	MW3
TDS, mg/L	3130	2,750
Chloride, mg/L	130	120
Sulfate, mg/L	1,700	1,600

mg/L - milligrams per liter

Stage 1 Abatement Plan Status

The OCD appears to have deemed our Stage 1 Abatement Plan administratively complete. Therefore, a public notice will be issued within 15 days as required under 19.15.30.

Please let me know if you have any questions. Wishing everyone a good Independence Day!

Thank you,

Jim Foster President



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From: Jim Foster

Sent: Friday, June 28, 2019 3:01 PM

To: Thomas, Leigh <11thomas@blm.gov>; 'Abiodun Adeloye' <aadeloye@blm.gov>

Cc: Jennifer Deal <<u>ideal@hilcorp.com</u>>; Matt Henderson <<u>mhenderson@hilcorp.com</u>>; Ryan Mersmann

<ryan@teamtimberwolf.com>; James McNutt <james@teamtimberwolf.com>

Subject: Hilcorp's Kaufman No. 1 - Weekly Update

All,

Per the Stage 1 Abatement Plan, on June 20 and 21 Timberwolf conducted the following activities:

- Collected soil samples from the Site to horizontally delineate the historical hydrocarbon impacted soil observed at approximately 8-9' in samples collected from MW4, MW5, and MW6
- Collected soil samples from the perimeter of the excavation for the leachate study. Note: increased water level limited access to the excavation; therefore, no samples were collected from the excavation at this time
- Collected an upgradient groundwater sample to determine if salinity (i.e., TDS) observed in MW1 is a native feature of the Site's groundwater

All samples were submitted to Hall Environmental for laboratory analysis; Findings are presented below.

Horizontal Delineation of Historical Release

The attached figure shows locations of soil borings (i.e., SB1-SB5) installed to horizontally delineate the historical hydrocarbon impacted soil. No visible signs of hydrocarbon were observed, no appreciable PID readings were observed during field screening, and all samples collected were below regulatory limits. Soil boring locations and laboratory results are presented in the attached figure (leachatestudy).

Leachate Study Surrounding Excavation

Seven soil borings (i.e., SB6 – SB12) were installed surrounding the excavation to evaluate the vadose zone. Samples from 1 soil boring (i.e., SB11) exceeded the regulatory limit for TPH with a concentration of 280 mg/kg. Soil boring locations and laboratory results are presented in the attached figure (historical delineation). Additional investigation is scheduled along the excavation sidewalls and base.

Groundwater Sampling

Timberwolf collected a groundwater sample from MW3 to determine if TDS levels observed in MW1 were related to the release or are a native feature of the Site's groundwater. The sample was submitted to Hall Environmental; analysis is underway.

Please let me know if you have any questions.

Jim Foster President

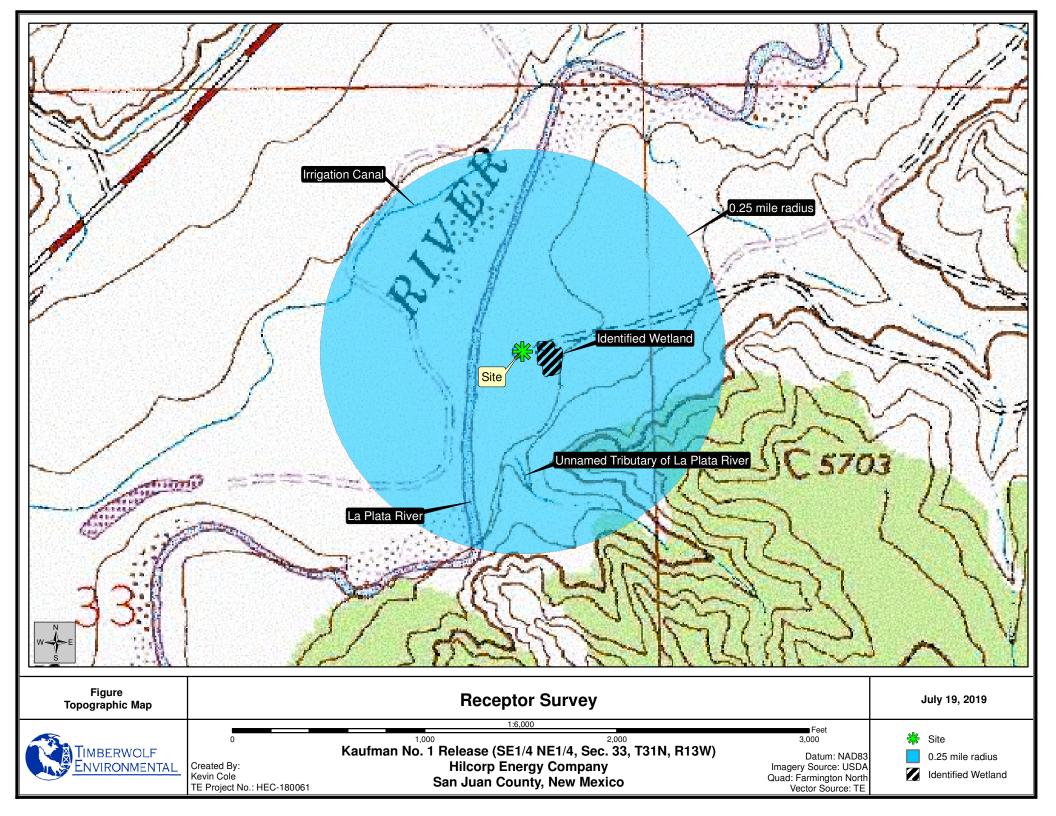
TIMBERWOLF ENVIRONMENTAL

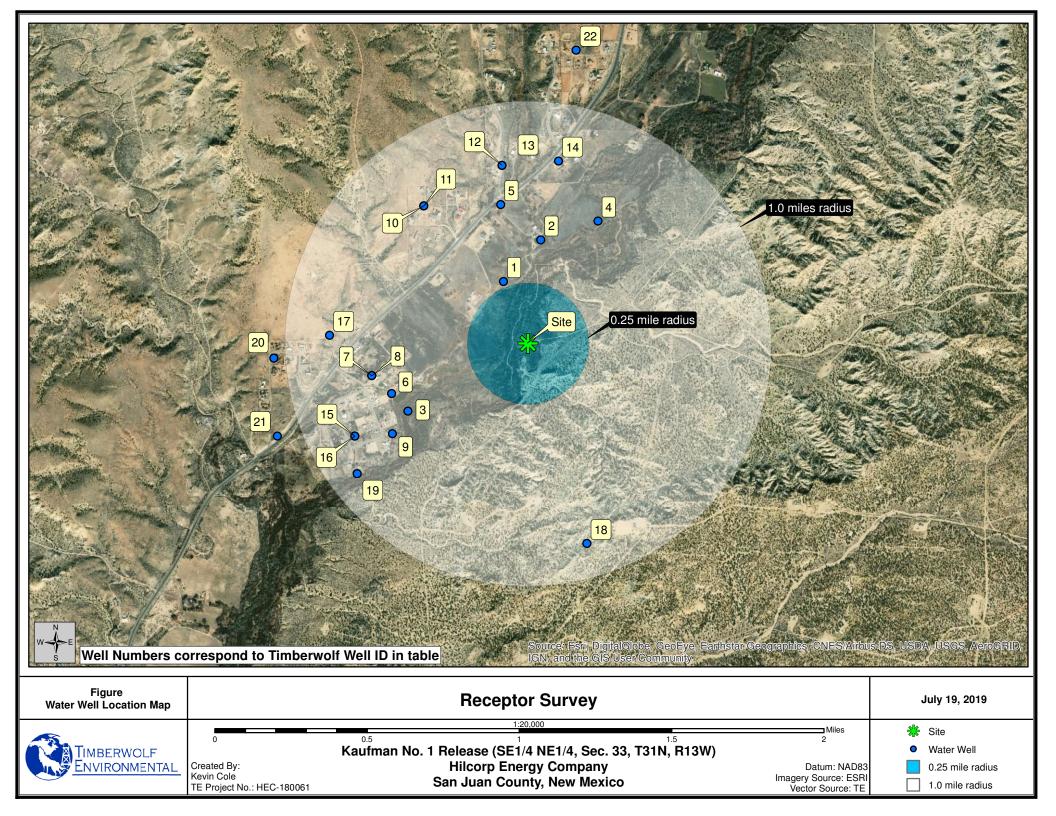
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Receptor Survey Kaufman No. 1 Release (SE1/4 NE1/4, Sec. 33, T31N, R13W) Hilcorp Energy Company San Juan County, New Mexico

Timberwolf ID	Well Name	Banks Well ID	Lat	Long	Well Type	Depth (ft)
1	Unnamed	1	36.862876	-108.204621	Domestic/Household	
2	Unnamed	2	36.864803	-108.202336	Domestic/Household	50
3	Unnamed	3	36.856833	-108.210502	Domestic/Household	
4	Unnamed	4	36.865625	-108.198916	Domestic/Household	80
5	Unnamed	5	36.866542	-108.204651	Domestic/Household	50
6	Unnamed	6	36.857691	-108.211435	Domestic/Household	
7	Unnamed	7	36.85857	-108.212582	Domestic/Household	42
8	Unnamed	7	36.85857	-108.212582	Domestic/Household	
9	Unnamed	8	36.855771	-108.211456	Domestic/Household	25
10	Unnamed	9	36.866591	-108.209206	Domestic/Household	
11	Unnamed	9	36.866591	-108.209206	Domestic/Household	190
12	Unnamed	10	36.868412	-108.204505	Domestic/Household	40
13	Unnamed	10	36.868412	-108.204505	Domestic/Household	42
14	Unnamed	11	36.868536	-108.201145	Domestic/Household	
15	Unnamed	12	36.85571	-108.213696	Domestic/Household	500
16	Unnamed	12	36.85571	-108.213696	Domestic/Household	
17	Unnamed	13	36.86055	-108.215009	Domestic/Household	
18	Unnamed	14	36.850269	-108.200136	Domestic/Household	205
19	Unnamed	15	36.85391	-108.21362	Domestic/Household	18
20	Unnamed	16	36.85954	-108.21853	Domestic/Household	160
21	Unnamed	17	36.855812	-108.218275	Domestic/Household	70
22	Unnamed	18	36.862876	-108.204621	Domestic/Household	100

