

K.P. KAUFFMAN COMPANY, INC.

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May 12, 2015

Mr. Chris Canfield
Colorado Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801
Denver, CO 80203

Re: Remediation Summary and Request for No Further Action Status
Project Number: 4451
Facility #8 - John Henry Stoltz JR B #1 Historical Remediation Project

Dear Mr. Canfield:

K.P. Kauffman Inc. (KPK) is respectfully submitting a summary of the cleanup work performed due to a historical remediation project reported on February 27, 2009. Attached is a full report including soil sample analysis performed.

Due to attainment of soil cleanup standards at the Facility, KPK respectfully requests a No Further Action status for this Facility. All additional reclamation activities at the Facility will be compliant with COGCC rules.

Please do not hesitate contacting me if you require any further information at (303) 825-4822 or at slaramesa@kpk.com

Respectfully,

A handwritten signature in dark ink, appearing to read 'Susana', followed by a stylized flourish.

Susana Lara-Mesa
VP of Engineering

1. INTRODUCTION

While conducting line locate operations for an Aurora Water project, a load line was compromised while excavating a pot-hole. This line failure caused the release of 10 bbl of oil and 15 bbl of produced water into the pothole. A vacuum truck was called on location and the wells were shut-in immediately upon discovery since a KPK crew was on location as the line broke. 8 of the 10 barrels of oil and 12 of the 15 barrels of produced water released were recovered with the vacuum truck and the contaminated soil was excavated and disposed of at Waste Management's (WM) facility in Bennett, Colorado. The pit was left open until Aurora Water finished its work. An approximate area of 10 feet by 20 feet was excavated to a depth of 5 feet and a total of 240 cubic yards hauled off location and disposed of at WM. Although there are no copies available of the disposal manifests at KPK or WM given that it has been more than 5 years since the cleanup operations, KPK does have records of the number of hauls and the ticket numbers at WM. See Table 1.

One composite sample was collected once the contaminated soil was hauled off location and line was repaired on April 30, 2009. The pit was backfilled once Aurora Water built the slurry wall near the spill site. An additional confirmation sample was collected on July 24, 2014 to verify that there was no remaining contamination at the site east of Weld County Road (CR) 23 and south of CR 8, near Wattenberg, Colorado. This composite sample was made up of soil from a few feet outside of the historical excavation shown on the drawing attached to Appendix A. The sample locations are not illustrated to scale given the size of the location. The approximate location was identified with a historical map created in 2009 (COGCC Document Number 1943523) and exact location to resample a few feet outside the historical spill site was determined with the help of current qualified personnel who was involved in the cleanup activities related to this spill in 2009.

Date	WM Ticket	Volume
4/10/2009	69386	10 cy
4/10/2009	69378	10 cy
4/10/2009	69375	10 cy
4/10/2009	69371	10 cy
4/21/2009	69521	10 cy
4/21/2009	69524	10 cy
4/22/2009	69528	10 cy
4/22/2009	69534	10 cy
4/22/2009	69536	10 cy
4/22/2009	69539	10 cy
4/23/2009	69550	10 cy
4/23/2009	69556	10 cy
4/23/2009	69558	10 cy
4/23/2009	16561	10 cy
4/24/2009	95484	10 cy
4/24/2009	69582	10 cy
4/24/2009	69591	10 cy
4/27/2009	69615	10 cy
4/27/2009	69616	10 cy
4/29/2009	95540	10 cy
4/29/2009	95553	10 cy
4/29/2009	95557	10 cy
4/29/2009	95552	10 cy
4/29/2009	95556	10 cy
TOTAL		240 cy

Table 1: Soil Disposal Volumes

2. FIELD ACTIVITIES

a. Soil Sampling

One composite soil sample was collected on April 30, 2009 from the excavation and were analyzed for TPH (DRO/GRO) and pH. Additionally, on July 24, 2014, one composite soil sample (D60112) was collected a few feet outside the historical excavation. This composite sample was analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), and Total Petroleum Hydrocarbons (TPH) – Diesel (DRO) and Gasoline Range Organics (GRO), Electrical Conductivity (EC), Specific Gravity (SG), Sodium Adsorption Ratio (SAR), and (pH). The samples were collected at depths of approximately five feet below ground surface (BGS). The soil sampling locations are illustrated in **Appendix A**. The soil samples were field screened for staining and/or discoloration. The sample did not exhibit any staining or discoloration.

Top soil was present in the excavation from the surface to a depth of 4.5 feet BGS. The top soil was underlain by sand and gravel. Groundwater was not encountered during the excavation or resampling process.

b. Analytical Results

The soil samples were handled with clean, new, nitrile gloves and placed in a laboratory supplied sample container and labeled. The samples were placed in a cooler and was delivered to the laboratory under chain-of-custody documentation attached to the analytical report (see **Appendix B**).

The laboratory results for the 2009 samples indicate the TPH was above allowable concentrations with 1,900 mg/kg and pH was under allowable results with 7.01. The 2014 sample was tested for TPH, pH, BTEX, EC, SG, and SAR and results were not above the COGCC concentration limits based on parameters established in Table 910-1. The laboratory analytical reports and chain-of-custody forms are also included in **Appendix B**.

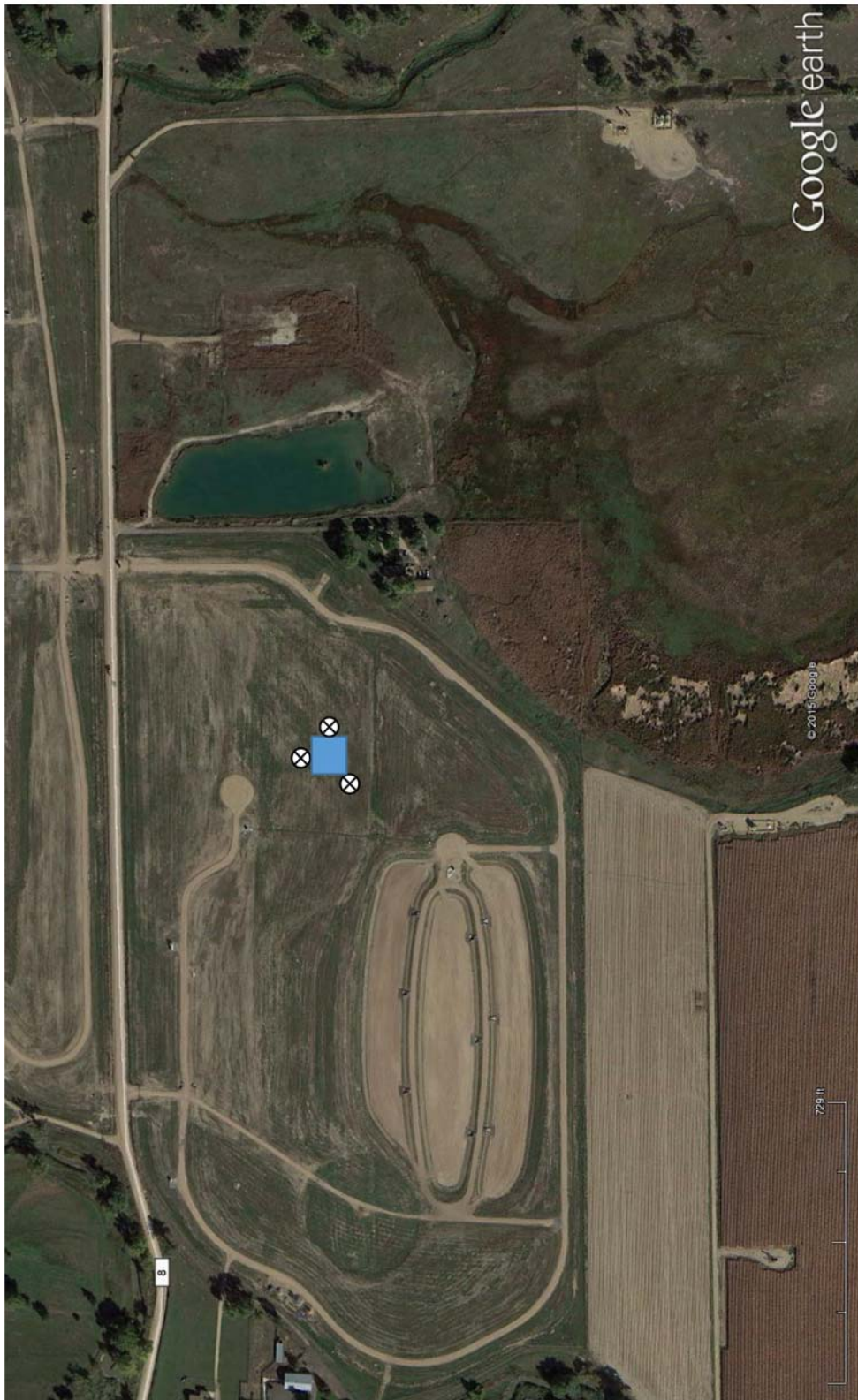
Comparison of COGCC Table 910-1			
JOHN HENRY STOLTZ JR B #1 - 4451			
Concentration Levels			
NFA AND COMPLETION REPORT		Sampling Results	
Contaminant of Concern	Concentrations	4/30/2009	7/24/2014
	COGCC Table 910-1 Parameters	09-2990-01A	D60112
Organic Compounds in Soil			
TPH (total volatile and extractable petroleum hydrocarbons) - GRO (Gasoline Range Organics)	500 mg/kg	ND	17.4
TPH (total volatile and extractable petroleum hydrocarbons) - DRO (Diesel Range Organics)	500 mg/kg	1900	36.4
Benzene	0.17 mg/kg ²		ND
Toluene	85 mg/kg ²		ND
Ethylbenzene	100 mg/kg ²		ND
Xylenes (total)	175 mg/kg ²		ND
Inorganics in Soils			
Electrical Conductivity (EC)	< 4 mmhos/cm or 2x background		411
Sodium Adsorption Ration (SAR)	< 12 ⁵		2.75
pH	6-9	7.01	7.88
*ND = NON DETECT			

3. CONCLUSIONS AND RECOMMENDATIONS

Two composite soil samples were collected from the historical excavation, one of them was collected upon completion of the remediation in 2009, and one was collected in 2014 to verify the work performed. The composite soil sample collected in 2009 was analyzed for TPH and pH by evergreen Analytical and results indicate that concentration levels were above acceptable concentrations for TPH and under parameters established in Table 910-1 for pH. The 2014 confirmation sample was analyzed for BTEX, TPH (GRO and DRO), EC, SG, SAR, and pH. No staining or discoloration was observed in any of the soil or in the sample collected from the excavation. The confirmation laboratory results indicate that BTEX compounds were not detected in the soil sample collected in 2014. TPH (DRO and GRO) compounds were detected at lower concentrations than those established in COGCC cleanup standards specified in Table 910-1.

Based on the analytical results, additional work at the property is not warranted at this time.

Appendix A: Spill and Sampling Locations



JOHN HENRY STOLTZ JR B #1 – Location Drawing

K.P. Kauffman Company, Inc.

Location Drawing

Lat: 40.038882° Long: -104.846113°

SWNW Sec 24 T1N R67WW

Weld County, Colorado

⊗ Sample Location

■ Spill Location

Appendix B: Soil Analysis