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1RP - 1457

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Geoff Leking
New Mexico Energy, Minerals and Natural Resources Department
New Mexico Oil Conservation Division (District 1)
1625 French Drive
Hobbs, New Mexico 88240

approved to line, set conduit & drill 2 borings Backfill
Geoffrey Leking
Environmental Specialist
NMOCD-DIST 1
2/8/13

Re: Risk-Based Soil Closure Strategy
#4 North Plant Storage (NMOCD Reference # 1RP-1457)
Unit Letter I (NE/SE), Section 31, Township 23 South, Range 37 East
Lea County, New Mexico

Mr. Leking:

This email has been prepared in regard to Southern Union Gas Services' #4 North Plant Storage Historical Release Site (NMOCD Ref# 1RP-1457). The legal description of the release site is Unit Letter "I" (NE/SE), Section 31, Township 23 South, Range 37 East, in Lea County, New Mexico. The property affected by the release is owned by Southern Union Gas Services (Southern Union). The release site GPS coordinates are 32° 15.529' North and 103° 11.718' West. The initial Form C-141 indicated the depth to groundwater is greater than 100'.

On April 3, 2007, Southern Union discovered a release had occurred at the Jal #4 North Plant Storage Battery. Failure of a 410 bbl above ground tank resulted in a release of approximately 140 bbls of natural gas condensate and 140 bbls of produced water. During initial response activities, a vacuum truck was utilized to remove the remaining product from the tank along with 65 bbls of natural gas condensate and 65 bbls of produced water from within the earthen containment. The New Mexico Oil Conservation Division (NMOCD) was notified immediately upon discovering the release. The initial Form C-141 indicated the release affected an area measuring approximately 2,772 square feet within the earthen containment. All above and below-grade tanks have since been removed.

On November 15, 2012, Basin responded to the #4 North Plant Storage Historical Release Site. A delineation trench running east to west was advanced within the visibly stained area characterized by the footprint of the former above-ground tanks. During the advancement of the delineation trench, soil samples were collected at 4', 10', 14' and 18' bgs from the area field tests suggested was the most heavily impacted. Collected soil samples were submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory method detection limit (MDL) for the soil sample collected at 18' bgs to 2,960 mg/Kg for the soil sample collected at 4' bgs. Chloride concentrations ranged from 20.8 mg/Kg for the soil sample collected at 18' bgs to 2,410 mg/Kg for the soil sample collected at 4' bgs. Soil samples collected from 4', 14', and 18' bgs were also analyzed for

BTEX concentrations, which were determined to be 157 mg/Kg, 167 mg/Kg and 0.0497 mg/Kg, respectively.

On November 19, 2012, Basin began excavation activities at the release site. The floor of the excavation was advanced to approximately 15' bgs. Excavation sidewalls were advanced until field tests suggested concentrations of BTEX, TPH and chloride were less than NMOCD regulatory standards.

On December 18, 2012, Basin collected four (4) soil samples (East SW #1 @ 14' bgs, East SW #2 @ 14' bgs, North SW #1 @ 14' bgs and South SW #1 @ 14' bgs) were collected from the excavation sidewalls and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. Chloride concentrations ranged from 37.5 mg/Kg for soil sample South SW #1 @ 14' bgs to 340 mg/Kg for soil sample East SW #2 @ 14' bgs. Laboratory analytical results indicated TPH and chloride concentrations were less than NMOCD regulatory standards, but further delineation would be required in the area represented by soil sample East SW #2 @ 14' bgs. Excavation activities continued to the west.

On January 8, 2013, two (2) soil samples (North Wall #2 and East Wall #2a) were collected from the excavation sidewalls and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. Chloride concentrations ranged from 1.99 mg/Kg for soil sample North Wall #2 to 106 mg/Kg for soil sample East Wall #2a. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were less than NMOCD regulatory standards. Excavation activities continued to the west.

On January 17, 2013, two (2) soil samples (West Wall #1 and West Wall #2) were collected from the excavation sidewalls and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. Chloride concentrations ranged from 23.8 mg/Kg for soil sample West Wall #1 to 77.3 mg/Kg for soil samples West Wall #2. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were less than NMOCD regulatory standards. Excavation activities continued to the south.

On January 31, 2013, one (1) soil sample (South Wall #2 @ 14' bgs) was collected from the excavation sidewalls and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated the BTEX concentration was less than the laboratory MDL, the TPH concentration was 20.2 mg/Kg and the chloride concentration was 25.1 mg/Kg. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were less than NMOCD regulatory standards.

Two (2) additional soil samples (East Floor @ 15' and West Floor @ 15') were collected from the floor of the excavation in the center of two areas that still exhibited hydrocarbon staining at 15' bgs. Collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX concentrations ranged from 5.35 mg/Kg for soil sample West Floor @ 15' to 25.3 mg/Kg for soil sample East Floor @ 15'. TPH concentrations ranged from 1,070 mg/Kg for soil sample East Floor @ 15' to 4,300 mg/Kg for soil sample West Floor @ 15'. Chloride concentrations ranged from 88.1 mg/Kg for soil sample East Floor @ 15' to 780 mg/Kg for soil sample West Floor @ 15'.

Between November 26, 2012, and February 1, 2013, approximately 7,380 cubic yards of impacted material was transported to Sundance Services, Inc. (NMOCD Permit #NM-01-0003), for disposal. The final dimensions of the excavation were approximately 110' in length, 90' in width and 15' in depth.

Four (4) 5-point composite soil samples (Stockpile C1, Stockpile C2, Stockpile C3 and Stockpile D) were collected from the segregated overburden and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated benzene concentrations were less than the appropriate laboratory MDL for each of the submitted stockpile soil samples. BTEX concentrations ranged from 0.00854 mg/Kg for soil sample Stockpile D to 0.0335 mg/Kg for soil sample Stockpile C2. TPH concentrations ranged from 22.8 mg/Kg for soil sample Stockpile C1 to 88.2 mg/Kg for soil sample Stockpile C2. Chloride concentrations ranged from 33.7 mg/Kg for soil sample Stockpile C2 to 110 mg/Kg for soil sample Stockpile D.

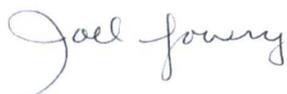
On February 2, 2013, one (1) additional soil sample (South Wall #3) was collected from the south sidewall of the excavation and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated the benzene and BTEX concentrations were less than the appropriate laboratory MDL. The TPH concentration was 53.8 mg/Kg and the chloride concentration was 27.3 mg/Kg.

With your permission, Southern Union would like to install a 20-mil polyurethane liner in the floor of the excavation at 15' bgs. A 1' layer of pad sand will be installed both above and below the liner to protect it from damage during installation and backfilling activities. The liner will be fitted with 8" PVC conduit in the two (2) locations exhibiting moderate hydrocarbon staining defined by soil samples East Floor @ 15' and West Floor @ 15'. Southern Union proposed to backfill the excavation with material stockpiled on-site defined by soil samples Stockpile C1, Stockpile C2, Stockpile C3 and Stockpile D. Non-impacted material will be purchased locally to meet the remaining backfill needs. Upon backfilling the excavation, an air-rotary drilling rig will be dispatched to the location to advance two (2) soil borings within the newly established PVC conduits. If during the advancement of the soil borings it is determined that groundwater may be compromised, the NMOCD will be notified, the affected soil boring will be converted into a 2" monitor well, and a groundwater investigation strategy will be prepared under a separate cover.

Upon completion of the remediation activities, Basin will prepare a "Remediation Summary and Risk-Based Site Closure Request" detailing remediation activities and the results of confirmation soil sampling.

If you have any questions or need any additional information, please feel free to contact me by phone or email.

Respectfully,



Joel W. Lowry
Basin Environmental Service Technologies, LLC

Attachments:

Attachment #1: Site Location Map
Attachment #2: Site and Sample Map
Attachment #3: Soil Chemistry Table

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES
 #4 NORTH PLANT STORAGE
 HISTORICAL RELEASE SITE
 LEA COUNTY, NEW MEXICO
 NMOCD REF# 1RP-1457

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030				METHOD: 8015M				TOTAL TPH C ₆ -C ₂₈ (mg/Kg)	EPA: 300 CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
East/West Trench SP#6 @ 4'	4'	11/15/2012	Excavated	<1.14	44.4	28.6	83.8	157	2,510	446	<17.0	2,960	2,410
East/West Trench SP#6 @ 10'	10'	11/15/2012	Excavated	-	-	-	-	-	1,480	311	<19.8	1,790	230
East/West Trench SP#6 @ 14'	14'	11/15/2012	Excavated	4.01	65.4	28.2	68.9	167	1,880	418	<19.6	2,300	21.8
East/West Trench SP#6 @ 18'	18'	11/15/2012	Excavated	0.00359	0.0202	0.00294	0.0230	0.0497	<19.1	<19.1	<19.1	<19.1	20.18
East SW #1 @ 14' bgs	14'	12/18/2012	In-Situ	-	-	-	-	-	<15.7	<15.7	<15.7	<15.7	225
East SW #2 @ 14' bgs	14'	12/18/2012	Excavated	-	-	-	-	-	<15.9	<15.9	<15.9	<15.9	340
North SW #1 @ 14' bgs	14'	12/18/2012	In-Situ	-	-	-	-	-	<16.4	<16.4	<16.4	<16.4	149
South SW #1 @ 14' bgs	14'	12/18/2012	In-Situ	-	-	-	-	-	<16.0	<16.0	<16.0	<16.0	37.5
North Wall #2	14'	1/8/2013	In-Situ	<0.00127	<0.00254	<0.00127	<0.00254	<0.00254	<19.2	<19.2	<19.2	<19.2	1.99
East Wall #2a	14'	1/8/2013	In-Situ	<0.00134	<0.00267	<0.00134	<0.00267	<0.00267	<20.2	<20.2	<20.2	<20.2	106
West Wall #1	14'	1/17/2013	In-Situ	<0.00131	<0.00263	<0.00131	<0.00263	<0.00263	<19.9	<19.9	<19.9	<19.9	23.8
West Wall #2	14'	1/17/2013	In-Situ	<0.00133	<0.00266	<0.00133	<0.00266	<0.00266	<19.9	<19.9	<19.9	<19.9	77.3
South Wall #2 @ 14'	14'	1/31/2013	In-Situ	<0.00108	<0.00216	<0.00108	<0.00216	<0.00216	<16.2	20.2	<16.2	20.2	25.1
East Floor @ 15'	15'	1/31/2013	In-Situ	0.653	5.57	5.85	13.2	25.3	703	341	27.0	1,070	88.1
West Floor @ 15'	15'	1/31/2013	In-Situ	0.313	0.843	0.245	3.94	5.35	523	3,310	465	4,300	780
Stockpile C1	N/A	1/31/2013	Stockpiled	<0.00120	0.00403	0.00102	0.00468	0.0101	<15.5	22.8	<15.5	22.8	45.7
Stockpile C2	N/A	1/31/2013	Stockpiled	<0.00104	0.0150	0.00645	0.0121	0.0335	<15.6	68.2	20.0	88.2	33.7
Stockpile C3	N/A	1/31/2013	Stockpiled	<0.00106	0.0106	0.00205	0.00610	0.0188	<15.8	25.6	<15.8	25.6	99.3
Stockpile D	N/A	1/31/2013	Stockpiled	<0.00104	0.00427	0.00133	0.00294	0.00854	<15.7	61.1	<15.7	61.1	110
South Sidewall #3	14'	2/4/2013	In-Situ	<0.00103	<0.00206	<0.00103	<0.00206	<0.00206	<15.5	53.8	<15.5	53.8	27.3
NMOCD Standard				10				50				1,000	500

- = Not analyzed.