# Basin Environmental Service Technologies, LLC

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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

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**Backfill Request** Re: A-14 6" Line (NMOCD Reference # 1RP-1127) Unit Letter B, Section 7, Township 23 South, Range 34 East annoved up clarification verd on 1/25/13; may Backfill Lea County, New Mexico

Mr. Leking:

This email has been prepared in regard to Southern Union Gas Service's A-14 6" Historical Release Site (NMOCD Ref# 1RP-1127). The legal description of the release site is Unit Letter "B", Section 7, Township 23 South, Range 34 East, in Lea County, New Mexico. The property affected by the release is owned by the Bureau of Land Management. The release site GPS coordinates are 32° 19.563' North and 103° 30.334' West. The depth to groundwater at the release site is approximately 329' bgs.

Environmental Specialist NMOLD-DISTI -1125/13

On October 29, 2006, Southern Union discovered a release had occurred on the A-14 Pipeline. Failure of the six-inch (6") low pressure natural gas pipeline resulted in a release of crude oil and natural gas. The release was reported to the New Mexico Oil Conservation Division (NMOCD) on October 30, 2006. The Form C-141 indicated approximately 7 barrels of crude oil and 90 mcf of natural gas was released. The release affected approximately 1,000 square feet of pasture land. During initial response activities a temporary pipeline clamp was installed; the affected segment of pipeline has since been replaced.

Between December 22, 2006, and February 8, 2007, remediation activities were conducted at the release site by an environmental contractor that is no longer affiliated with the site. Analytical documentation suggests at least a portion of the excavation was advanced to 26.5' bgs. Soil samples collected from the floor and sidewalls of the excavation were not analyzed for concentrations of chloride. The previously excavated area was approximately 20' wide, 50' long and up to 26.5' deep.

On December 19, 2012, Basin responded to the A-14 6" Historical Release Site. A drilling rig was dispatched to collect discrete floor samples from two locations at 27' bgs. Soil boring SB-1 was advanced in the northern portion of the previously excavated area. During the advancement of the soil bore, soil samples were collected at 5, 15, 25 and 27 feet bgs for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 10.3 mg/Kg for the soil sample collected at 25' bgs to 67.4 mg/Kg for the soil sample collected at 15' bgs. Soil samples collected from 15' and 27' bgs were also analyzed for TPH concentrations which were determined to be less than the laboratory MDL. The soil

sample collected at 27' bgs was also analyzed for BTEX concentrations, which were determined to be less than the laboratory MDL for each constituent.

Soil boring SB-2 was advanced in the southern portion of the previously excavated area. During the advancement of the soil bore, soil samples were collected at 5, 15, 25 and 27 feet bgs for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 43.3 mg/Kg for the soil sample collected at 25' bgs to 185 mg/Kg for the soil sample collected at 15' bgs. Soil samples collected from 15' and 27' bgs were also analyzed for TPH concentrations which were determined to be less than the laboratory MDL. The soil sample collected at 27' bgs was also analyzed for BTEX concentrations, which were determined to be less than the laboratory MDL for each constituent.

On December 21, 2012, Basin excavated a series of test trenches in an effort to collect discrete sidewall soil samples for analysis of chloride and TPH concentrations. During the advancement of the test trenches, soil exhibiting chloride concentrations of 2,500 ppm was encountered. A series of delineation trenches were advanced to the north, south, east and west of the area field tests suggested contained the highest concentration of chloride. During the advancement of the delineation trenches, (13) soil samples (North Sidewall, West Sidewall, South Trench #1, South Trench #2, South Trench #2 @ 14', South Trench #3, South Trench #4, West Trench #1, West Trench #2, West Trench #3, East Trench #1, East Trench #2 and East Trench #3) were collected and submitted to the laboratory for chloride analysis. Laboratory analytical results indicated chloride concentrations ranged from 7.17 mg/Kg for soil sample North Sidewall to 2,580 mg/Kg for soil sample South Trench #3. Each of the soil samples exhibited chloride concentrations less than 1,000 ppm with the exception of South Trench #2, South Trench #3 and West Trench #1.

Beginning December 31, 2012, excavation activities commenced at the location. The area defined by soil samples South Trench #2, South Trench #3 and West Trench #1 was excavated to approximately 10' bgs. The excavation sidewalls were advanced until field tests suggested chloride concentrations were less than NMOCD regulatory standards. Approximately 520 cubic yards of impacted material was hauled to Sundance Services, Inc. for disposal. The final dimensions of the excavation were approximately 48' in length, 30' in width and 10' in depth.

On January 3, 2013, five (5) soil samples (Floor, West Wall, North Wall, South Wall, East Wall, East Floor) were collected from the excavation floor and 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 samples with the exception of soil sample North Wall, which had a concentration of 98.0 mg/Kg. Chloride concentrations ranged from 19.6 mg/Kg for soil sample East Floor to 655 mg/Kg for soil sample North Wall. BTEX, TPH and chloride concentrations were below NMOCD regulatory standards in each of the submitted soil samples, but further delineation would be required in the areas represented by soil sample North Wall, South Trench #2 and South Trench #4.

On January 17, 2012, upon receiving laboratory analytical results from the latest soil sampling event, Basin revisited the remediation site in an effort to fully delineate the areas exhibiting chloride concentrations above 250 ppm. A delineation trench was advanced off of the northern sidewall in the area represented by soil sample North Wall. During the advancement of the delineation trench, two (2) soil samples (North Wall #2 @ 8') were collected and submitted to the laboratory for chloride analysis. Laboratory results indicated the chloride concentration was 4.38 mg/Kg for North Wall #2 @ 4' and 2.42 mg/Kg for North Wall #2 @ 8'

A delineation trench was advanced approximately 10' to the southeast of soil sample South Trench #4. During the advancement of the delineation trench, two (2) soil samples (South Trench #5 @ 4' and

South Trench #5 @ 8') were collected and submitted to the laboratory for chloride analysis. Laboratory results indicated the chloride concentration was 14.5 mg/Kg for South Trench #5 @ 4' and 5.26 mg/Kg for South Trench #5 @ 8'.

An additional delineation trench (West Floor Trench) was advanced in the in the floor of the excavation in the area represented by soil samples South Trench #2, South Trench #3 and Floor. The delineation trench was advanced to approximately 18' bgs. During the advancement of the delineation trench, two (2) soil samples (West Floor Trench @ 16' and West Floor Trench @ 18') were collected and submitted to laboratory for chloride analysis. Laboratory results indicated the chloride concentration was 701 mg/Kg for West Floor Trench @ 16' and 255 mg/Kg for West Floor Trench @ 18'. Soil sample West Floor Trench @ 18' was also analyzed for concentration of TPH, which was determined to be less than the laboratory MDL. Based on laboratory analytical results it was determined that vertical delineation had been achieved.

With your permission Southern Union would like to begin backfilling the excavation with locally purchased, non-impacted soil. Upon backfilling the excavation, Basin will prepare a "Remediation Summary and 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,

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Joel W. Lowry Basin Environmental Service Technologies, LLC

Attachments:

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



#### TABLE 1

#### CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES A-14 6" LINE HISTORICAL RELEASE SITE LEA COUNTY, NEW MEXICO NMOCD REF# 1RP-1127

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENË (mg/Kg)	ETHYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TOTAL TPH C <sub>6</sub> -C <sub>28</sub> (mg/Kg)	CHLORIDE (mg/Kg)
SB-1 @ 5'	5'	12/19/2012	In-Situ	-		-	-	-	-	-	-	-	17.0
SB-1 @ 15'	15'	12/19/2012	In-Situ	-	-	-	-	-	<15.5	<15.5	<15.5	<15.5	67.4
SB-1 @ 25'	25'	12/19/2012	In-Situ	-	-	-	-	-	-	-		-	10.3
SB-1 @ 27'	27'	12/19/2012	In-Situ	<0.00102	<0.00205	<0.00102	<0.00205	<0.00205	<15.4	<15.4	<15.4	<15.4	11.2
SB-2 @ 5'	5'	12/19/2012	In-Situ	-	-	-	-	-	-	-	-	-	145
SB-2 @ 15'	15'	12/19/2012	In-Situ	-	-	-	-	-	<17.6	<17.6	<17.6	<17.6	185
SB-2 @ 25'	25'	12/19/2012	In-Situ	-	-	-	-	-	-	-	-	-	43.3
SB-2 @ 27'	27'	12/19/2012	In-Situ	<0.00101	<0.00203	<0.00101	< 0.00203	< 0.00203	<15.1	<15.1	<15.1	<15.1	54.4
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North Sidewall	8'	12/21/2012	In-Situ	-	-	-	-	-	<19.2	<19.2	<19.2	<19.2	7.17
West Sidewall	8'	12/21/2012	In-Situ	-	-	-	-	-	<19.6	<19.6	<19.6	<19.6	7.48
South Trench #1	8'	12/21/2012	Excavated	-	-	-	-	•	<18.0	80.3	<18.0	80.3	191
South Trench #2	8'	12/21/2012	Excavated	-	-	-	-	-	-	-	-	-	1,930
South Trench #2 @ 14'	14'	12/21/2012	In-Situ	-	-	-	-	-	-	-	-	-	414
South Trench #3	8'	12/21/2012	Excavated	-	-	-	-	-	-		-	-	2,580
South Trench #4	8'	12/21/2012	In-Situ	-	-	-	-	-	-	-	-	-	392
West Trench #1	8'	12/21/2012	Excavated	-	-	-	-	-	-	-	-	-	1,400
West Trench #2	8'	12/21/2012	In-Situ	-	-	-	-	-	-	-	-	-	358
West Trench #3	8'	12/21/2012	In-Situ	-	-	-	-	-	-	-	-	-	226
East Trench #1	8'	12/21/2012	Excavated	-	•	-	-	-	-	-	· ·	-	644
East Trench #2	8'	12/21/2012	Excavated	-	-	-	-	-	-	-		-	588
East Trench #3	8'	12/21/2012	In-Situ	-	-		-	-	-	-	-	-	128
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Floor	10'	1/3/2013	In-Situ	<0.00120	<0.00241	<0.00120	<0.00241	<0.00241	<17.9	<17.9	<17.9	<17.9	263
West Wall	8'	1/3/2013	In-Situ	<0.00107	<0.00215	<0.00107	<0.00215	<0.00215	<16.1	<16.1	<16.1	<16.1	167
North Wall	8'	1/3/2013	In-Situ	<0.00111	<0.00223	<0.00111	<0.00223	<0.00223	<16.7	98.0	<16.7	98.0	655
South Wall	8'	1/3/2013	In-Situ	<0.00125	<0.00250	<0.00125	<0.00250	<0.00250	<18.7	<18.7	<18.7	<18.7	233
East Wall	8'	1/3/2013	In-Situ	< 0.00106	<0.00211	<0.00106	<0.00211	<0.00211	<15.8	<15.8	<15.8	<15.8	72.5
East Floor	8'	1/3/2013	In-Situ	< 0.00104	<0.00209	<0.00104	<0.00209	<0.00209	<15.7	<15.7	<15.7	<15.7	19.6
Stockpile	N/A	1/3/2013	Disposed	-		-	-	-	-	-	-	-	710
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West Floor Tench @ 16'	16'	1/17/2013	In-Situ	-	-			-	-	-		-	701
West Floor Trench @ 18'	18'	1/17/2013	in-Situ	-	-		-	-	<17.9	<17.9	<17.9	<17.9	255
North Wall #2 @ 4'	4'	1/17/2013	In-Situ				•	-	-	-	-	-	4.38
North Wall #2 @ 8'	8'	1/17/2013	In-Situ	-1		-	-	-	-	-	-	-	2.42
South Trench #5 @ 4'	4'	1/17/2013	In-Situ	-	-	-	-	-	-	-	-	-	14.5
South Trench #5 @ 8'	8'	1/17/2013	In-Situ	-	-	· -	-	-	-	-	-	-	5.26
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## Leking, Geoffrey R, EMNRD

From: Sent: To: Cc: Subject: Attachments: Joel Lowry <jwlowry@basinenv.com> Tuesday, January 22, 2013 4:33 PM Leking, Geoffrey R, EMNRD 'Slade, Rose' SUGs A-14 6" Line (RP-1127) - Permission to Backfill A-14\_(1127)\_Permission\_to\_Backfill\_Information.pdf

### Geoff,

Please find attached an information packet that has been prepared requesting permission to backfill the A-14 6" Line (RP-1127) Historical release site. Approximately 520 cubic yards of impacted material was excavated from the release site and hauled to an NMOCD-approved disposal. The final dimensions of the excavation were approximately 48' in length, 30' in width and 10' in depth. Soil samples collected from the floor and sidewalls of the excavation were all below 1000 ppm chloride. After having excavated in the heavily impacted soil, we advanced a delineation to approximately 18' bgs in the area the that exhibited the highest chloride concentration during delineation activities. The bottom hole sample collected at 18' bgs exhibited a chloride concentration of 255 ppm. We are hoping that we can use this as our vertical delineation and close the site without dispatching the drilling rig back to the location. Please review the attached PDF at your convenience. If you have any questions or need any additional information, please feel free to contact Rose or myself by phone or email. Thanks

Respectfully,

Joel Lowry

Attachments:

Remediation Summary Site Location Map Site & Sample Location Map Soil Chemistry Table