AP-111

C-141s

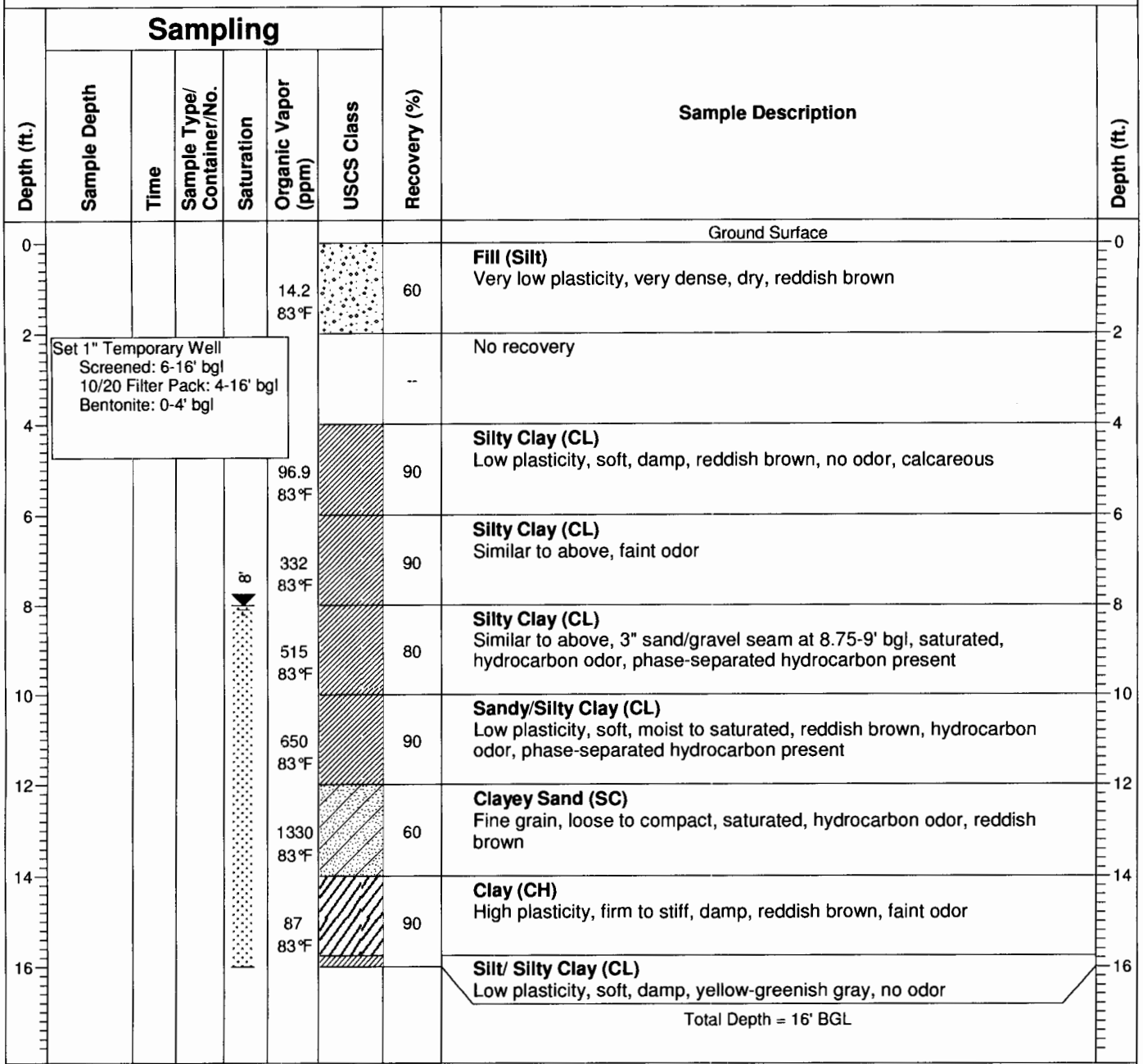
(2)

LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01759
Geologist: Tracy Payne
Driller: EDI
Drilling Rig: CME 75
Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.321' W 108°25.744'

Total Depth: 16' bgl
Ground Water: Saturated @ 8' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB02
Start Date: 7/15/2013 09:30
Finish Date: 7/15/2013 11:00



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LOG OF BORING

Boring No.: SB03
Start Date: 7/15/2013 11:00
Finish Date: 7/15/2013 16:00

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01759
Geologist: Tracy Payne
Driller: EDI
Drilling Rig: CME 75
Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.310' W 108°25.742'

Total Depth: 20' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					10.2 84°F		90	**Fill (Silt/Gravel)** Low plasticity, very dense, dry, light brown, no odor	0
2					11.7 84°F		80	**Fill (Silt/Gravel)** Similar to above, black, dense at base, no odor	2
4					16 84°F		90	**Silty Clay (CL)** Low plasticity, stiff, damp, reddish brown, no odor, calcareous	4
6					26 84°F		90	**Gravelly Sandy Clay (CL)** Low plasticity, loose to firm, damp, brown, no odor	6
8					708 84°F		70	**Silty Clay (CL)** Low plasticity, very soft, damp, reddish brown, hydrocarbon odor	8
10					369 84°F		80	**Clay (CH)** High plasticity, firm, damp, reddish brown, hydrocarbon odor	10
12				14'	660 84°F		90	**Sandy Clay/Clayey Sand (SC/CL)** Low plasticity, fine grain, soft, damp, reddish brown, hydrocarbon odor	12
14					85 84°F		90	**Sandy Clay (SC)** Similar to above, saturated sand seams, hydrocarbon odor, brown	14
16					64 84°F		70	**Sandy Clay (SC)** Similar to above, moist to saturated, hydrocarbon odor, brown	16

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01759
Geologist: Tracy Payne
Driller: EDI
Drilling Rig: CME 75
Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.310' W 108°25.742'

Total Depth: 20' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB03
Start Date: 7/15/2013 11:00
Finish Date: 7/15/2013 16:00

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
19					33 84°F		90	**Sandy Clay (SC)** Low plasticity, fine grain, soft, moist to saturated, light reddish brown, hydrocarbon odor, gravelly at base	19
								Silty Clay (CL) Low plasticity, stiff, damp, light reddish brown grading to yellowish/greenish gray, becomes more silty at base	
21								Total Depth = 20' BGL	21
23									23
25									25
27									27
29									29
31								Set 1" Temporary Well Screened: 10-20' bgl 10/20 Filter Pack: 8-20' bgl Bentonite: 0-8' bgl	31
33									33
35									35

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LOG OF BORING

Boring No.: SB04
Start Date: 7/16/2013 08:30
Finish Date: 7/16/2013 11:00

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01759
Geologist: Tracy Payne
Driller: EDI
Drilling Rig: CME 75
Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.303' W 108°25.742'

Total Depth: 24' bgl
Ground Water: Saturated @ 17' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					5.4 70°F		90	**Fill (Silty Clay (CL))** Low plasticity, very stiff, damp to dry, reddish brown, no odor, calcareous, gravelly	0
2					574 70°F		20	**Fill (Silty Sand (SM))** Fine grain, loose, damp, black, hydrocarbon odor	2
4					532 70°F		50	**Fill (Silty Clay (CL))** Low plasticity, soft, damp, reddish brown, hydrocarbon odor, gravel present	4
6					383 70°F		80	**Silty Clay (CL)** Similar to above, hydrocarbon odor, brown, gravel present	6
8					560 70°F		60	**Silty Clay (CL)** Similar to above, hydrocarbon odor	8
10					1050 70°F		60	**Silty Clay (CL)** Low plasticity, soft, damp to moist, brown, hydrocarbon odor	10
12					784 70°F		80	**Sandy Silty Clay (CL)** Similar to above, hydrocarbon odor, fine grain sand throughout in thin lenses, moist	12
14					851 70°F		90	**Sandy Clay (CL)** Low plasticity, firm to soft, moist, dark brown, hydrocarbon odor	14
16				▼ 17'	572 70°F		80	**Sandy Clay (CL)** Similar to above	16

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01759
Geologist: Tracy Payne
Driller: EDI
Drilling Rig: CME 75
Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.303' W 108°25.742'

Total Depth: 24' bgl
Ground Water: Saturated @ 17' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB04
Start Date: 7/16/2013 08:30
Finish Date: 7/16/2013 11:00

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
19					640 70°F		80	**Sandy Clay (CL)** Low plasticity, firm to soft, hydrocarbon odor, moist to slightly saturated	19
21					150 70°F		70	**Sandy Clay (CL)** Similar to above, hydrocarbon odor, moist to saturated, saturated sand/gravel lense 21.75-22' bgl	21
23					69 70°F		80	**Clay (CH)** High plasticity, stiff, damp, light yellowish brown, odor	23
25								Total Depth = 24' BGL	25
27									27
29									29
31								Set 1" Temporary Well Screened: 9-24' bgl 10/20 Filter Pack: 7-24' bgl Bentonite: 0-7' bgl	31
33									33
35									35

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01759
Geologist: Tracy Payne
Driller: EDI
Drilling Rig: CME 75
Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.294' W 108°25.742'

Total Depth: 24' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB05
Start Date: 7/16/2013 11:15
Finish Date: 7/16/2013 14:00

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					6.8 90°F		60	**Fill (Silt/Gravel)** Loose, damp to dry, brown, no odor	0
2					9.3 90°F		60	**Fill (Silt/Gravel)** Similar to above, no odor	2
4					21.3 90°F		70	**Fill (Silty Clay/Gravel)** Low plasticity, very stif, dry, no odor, brown	4
6					80.5 90°F		70	**Fill (Sitly Clay/Gravel)** Similar to above, faint hydrocarbon odor, damp	6
8					137 90°F		60	**Fill (Silty Clay)** Similar to above, hydrocarbon odor	8
10					1255 90°F		40	**Silty Clay (CL)** Low plasticity, firm, damp, dark brown, hydrocarbon odor	10
12				12'	784 90°F		70	**Sandy Silty Clay (CL)** Low plasticity, soft, damp to saturated in sand seams, brown to dark brown, hydrocarbon odor	12
14					1107 90°F		70	**Sandy Clay (CL)** Similar to above, moist to saturated, hydrocarbon odor	14
16					632 90°F		90	**Silty Clay (CL)** Low to moderate plasticity, firm, damp to moist, reddish brown, hydrocarbon odor	16

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01759
Geologist: Tracy Payne
Driller: EDI
Drilling Rig: CME 75
Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.294' W 108°25.742'

Total Depth: 24' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB05
Start Date: 7/16/2013 11:15
Finish Date: 7/16/2013 14:00

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
19					1415 90°F		80	**Sandy Clay (CL)** Low plasticity, soft, moist to saturated in sand seams, dark brown, hydrocarbon odor	19
								Sandy Clay (CL) Similar to above, saturated, dark brown to black, hydrocarbon odor, gravelly at base	
21					225 90°F		80	**Sandy Silty Clay (CL)** Similar to above, decrease in sand, hydrocarbon odor, saturated, sheen observed in split spoon	21
23					45 90°F		60	**Sandy Silty Clay (CL)** Similar to above, hydrocarbon odor, moist, dark brown grading to brown, faint odor at base	23
								Total Depth = 24' BGL	
25									25
27									27
29									29
31								Set 1" Temporary Well Screened: 9-24' bgl 10/20 Filter Pack: 7-24' bgl Bentonite: 0-7' bgl	31
33									33
35									35

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.282' W 108°25.739'

Total Depth: 14' bgl
Ground Water: Saturated @ 10' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB06
Start Date: 7/18/2013 10:00
Finish Date: 7/18/2013 10:45

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					52.6 75°F		60	**Fill (Silty Clay/Gravel)** Low plasticity, firm, damp, brown, faint odor	0
2					180 75°F		100	**Silty Clay (CL)** Low plasticity, firm, damp, reddish brown, odor, calcareous	2
4					224 75°F		90	**Sandy Clay/Clayey Sand (CL/SC)** Low plasticity, fine grain, damp, dark brown, hydrocarbon odor, sand seams present	4
6					1202 75°F		90	**Sandy Clay/Clayey Sand (CL)** Similar to above	6
8					1228 75°F		90	**Sandy Silty Clay (CL)** Low plasticity, soft, damp, dark brown, hydrocarbon odor	8
10				▼ 10'	1525 75°F		90	**Sandy Clay (CL)** Similar to above, with moist to saturated sand seams, hydrocarbon odor	10
12					377 75°F		90	**Clayey Sand (SC)** Fine grain, loose to compact, saturated, hydrocarbon odor, dark brown	12
14								**Sandy Clay (CL)** Low plasticity, soft to firm, moist, dark brown, hydrocarbon odor	14
								Total Depth = 14' BGL	
16								Set 1" Temporary Well Screened: 9-14' bgl 10/20 Filter Pack: 6-14' bgl Bentonite: 0-6' bgl	16

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LOG OF BORING

Boring No.: SB07
Start Date: 7/18/2013 10:55
Finish Date: 7/18/2013 12:45

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.287' W 108°25.728'

Total Depth: 16' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					163 83°F		90	**Fill (Silty Clay/Gravel)** Low plasticity, firm, dry to damp, brown, hydrocarbon odor	0
2					1811 83°F		90	**Fill (Silty Clay/Gravel)** Similar to above, hydrocarbon odor	2
4					2134 83°F		60	**Fill (Grave/Sand/Clay)** Low plasticity, moist to saturated at base, dark brown to black, hydrocarbon odor	4
6					299 83°F		90	**Silty Clay (CL)** Low plasticity, firm to stiff, light brown/brown, damp, faint hydrocarbon odor	6
8					413 83°F		90	**Silty Clay (CL)** Similar to above	8
10					336 83°F		50	**Sandy Clay (CL)** Low plasticity, firm, brown, damp, hydrocarbon odor, gravelly at base, fine to medium grain sand, tripped in auger to seal off fill (4-6') from sloughing into borehole	10
12				14'	2186 86°F		70	**Sandy Clay (CL)** Similar to above, moist, hydrocarbon odor, dark brown	12
14					1290 86°F		90	**Clayey Sand (SC)** Fine grain, compact, very moist to saturated, hydrocarbon odor, dark brown	14
16								Total Depth = 16' BGL	16

Set 1" Temporary Well
Screened: 11-16' bgl
10/20 Filter Pack: 9-16' bgl
Bentonite: 0-9' bgl

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LOG OF BORING

Boring No.: SB08
Start Date: 7/18/2013 13:40
Finish Date: 7/19/2013 09:40

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.295' W 108°25.732'

Total Depth: 20' bgl
Ground Water: Saturated @ 17.5' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					15.9 78°F		70	**Fill (Silt/Silty Clay)** Low plasticity, stiff, dry, light brown, no odor	0
2					228 78°F		60	**Fill (Silty Clay/Gravel)** Similar to above, dry, no odor	2
4					177 78°F		60	**Fill (Silty Clay)** (7/19/2013 08:45 - continued sampling) Similar to above, damp, no odor	4
6					264 78°F		40	**Fill (Silty Clay)** Low plasticity, soft, damp, brown, gravel and wood debris	6
8							--	No recovery	8
10					90 78°F		10	**Fill (Silty Clay/Gravel)** Similar to above	10
12					660 78°F		100	**Sandy Silty Clay (CL)** Low plasticity, soft, damp to moist at base, brown, hydrocarbon odor	12
14					1115 78°F		100	**Sandy Silty Clay (CL)** Similar to above, moist, oily, hydrocarbon odor	14
16				▼ 17.5'				**Gravelly Sandy Clay (CL)** Low plasticity, firm, moist, oily, 1" gravel, strong hydrocarbon odor	16

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LOG OF BORING

Boring No.: SB08

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.295' W 108°25.732'

Total Depth: 20' bgl
Ground Water: Saturated @ 17.5' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Start Date: 7/18/2013 13:40
Finish Date: 7/19/2013 09:40

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
19							100	**Clayey Gravel Sand (SC)** Fine to medium grain, loose, saturated, phase-separated hydrocarbon present, black, hydrocarbon odor	19
					225 78°F		100	**Sandy Clay (CL)** Low plasticity, firm, moist, black hydrocarbon odor	
21								Total Depth = 20' BGL	21
23									23
25									25
27									27
29									29
31								Set 1" Temporary Well Screened: 15-20' bgl 10/20 Filter Pack: 13-20' bgl Bentonite: 0-13' bgl	31
33									33
35									35

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LOG OF BORING

Boring No.: SB09
Start Date: 7/19/2013 09:50
Finish Date: 7/19/2013 10:50

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.302' W 108°25.723'

Total Depth: 18' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					763 86°F		100	**Fill (Silty Clay)** Low plasticity, firm, damp, dark brown, hydrocarbon odor	0
2					400 86°F		50	**Fill (Silty Clay)** Similar to above, hydrocarbon odor	2
4					515 86°F		50	**Silty Clay (CL)** Low plasticity, firm to soft, damp, reddish brown, hydrocarbon odor	4
6					734 86°F		90	**Silty Clay (CL)** Similar to above, soft, hydrocarbon odor	6
8					645 86°F		100	**Silty Clay (CL)** Low plasticity, firm, damp, reddish brown, hydrocarbon odor, gravel present, calcareous	8
10					1221 86°F		70	**Gravelly Clayey Sand (SC)** Fine grain, loose to compact, damp, brown, 1/2" gravel, hydrocarbon odor	10
12					602 86°F		60	**Clayey Gravelly Sand (SC)** Similar to above, moist, hydrocarbon odor	12
14				▼ 14'	621 86°F		70	**Gravelly Sand (SW)** Fine to medium grain, loose, saturated, phase-separated hydrocarbon, strong hydrocarbon odor	14
16					835 86°F		90	**Gravelly Sand (SW)** Similar to above, saturated, hydrocarbon odor	16
18								Total Depth = 18' BGL	18

Set 1" Temporary Well
Screened:13-18' bgl
10/20 Filter Pack: 11-18' bgl
Bentonite: 0-11' bgl

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.295' W 108°25.710'

Total Depth: 10' bgl
Ground Water: Saturated @ 5' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB10
Start Date: 7/19/2013 10:55
Finish Date: 7/19/2013 12:00

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					132 88°F		90	**Fill (Silty Clay)** Low plasticity, firm, dry to damp, brown, faint odor	0
2					235 88°F		90	**Fill (Clay/Sand/Gravel)** Damp, hydrocarbon odor	2
4				5'	1202 88°F		50	**Fill (Clay/Caliche Rock)** Odor	4
6					372 88°F		90	**Silty Sand (SM)** Fine grain, loose, saturated, phase-separated hydrocarbon, oily, brown to dark brown, hydrocarbon odor **Silty Sand (SM)** Similar to above, saturated	6
8							--	**Silty Clay (CL)** Low plasticity, firm, damp, brown, hydrocarbon odor No recovery	8
10								Total Depth = 10' BGL	10
12									12
14									14
16									16

Set 1" Temporary Well
Screened: 4-9' bgl
10/20 Filter Pack: 2-9' bgl
Bentonite: 0-2' bgl

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LOG OF BORING

Boring No.: SB11
Start Date: 7/19/2013 12:15
Finish Date: 7/19/2013 13:10

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.302' W 108°25.716'

Total Depth: 14' bgl
Ground Water: Saturated @ 10.5' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					85 95°F		90	**Fill (Silty Clay/Gravel)** Low plasticity, firm, dry to damp, odor	0
2					273 95°F		80	**Fill (Silty Clay/Gravel)** Similar to above	2
4					86 95°F		90	**Clay (CH)** High plasticity, stiff, damp, brown with light brown pockets of silt, odor	4
6					308 95°F		90	**Silty Clay (CL)** Low plasticity, soft/crumbly, dry to damp, brown, hydrocarbon odor	6
8					1126 95°F		80	**Silty Clay (CL)** Low plasticity, soft, damp, brown, hydrocarbon odor	8
10				▼ 10.5'	789 95°F		80	**Silty Clay (CL)** Similar to above, moist	10
12					558 95°F		90	**Silty Clay (CL)** Medium grain, loose, saturated, phase-separated hydrocarbon, hydrocarbon odor, brown **Sandy Silty Clay (CL)** Low plasticity, soft to firm, moist, hydrocarbon odor	12
14								**Sandy Clay (CL)** Low plasticity, soft to compact, saturated, phase-separated hydrocarbon, hydrocarbon odor	14
16								Total Depth = 14' BGL	16

Set 1" Temporary Well
Screened: 9-14' bgl
10/20 Filter Pack: 7-14' bgl
Bentonite: 0-7' bgl

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.311' W 108°25.718'

Total Depth: 16' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB12
Start Date: 7/19/2013 13:15
Finish Date: 7/19/2013 14:20

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					116 95°F		60	**Fill (Silty Clay)** Low plasticity, firm, dry to damp, trace gravel, no odor, brown	0
2					231 95°F		50	**Fill (Silty Clay)** Similar to above, wood debris, faint odor	2
4					235 95°F		60	**Silty Clay (CL)** Low plasticity, soft/crumbly, damp, brown, odor, calcareous, gravel present	4
6					237 95°F		90	**Sandy Silty Clay (CL)** Low plasticity, soft, damp to moist, hydrocarbon odor, brown	6
8					360 95°F		90	**Silty Clay (CL)** Similar to above, hydrocarbon odor	8
10				12'	1070 95°F		60	**Silty Clay (CL)** Similar to above with fine grain sand seams, phase-separated hydrocarbon in sand seams, hydrocarbon odor	10
12					373 95°F		80	**Sandy Clay/Clayey Sand (CL/SC)** Low plasticity, fine grain, compact, saturated, phase-separated hydrocarbon present, dark brown to black, hydrocarbon odor	12
14					275 95°F		90	**Silty Sand (SM)** Medium grain, compact, saturated, phase-separated hydrocarbon, odor, dark brown	14
16								Total Depth = 16' BGL	16

Set 1" Temporary Well
Screened: 11-16' bgl
10/20 Filter Pack: 9-16' bgl
Bentonite: 0-9' bgl

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.316' W 108°25.715'

Total Depth: 16' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB13
Start Date: 7/19/2013 14:30
Finish Date: 7/19/2013 16:00

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					21.9 95°F		90	**Fill (Silty Clay)** Low plasticity, stiff, dry to damp, no odor, brown	0
2					32.7 95°F		90	**Fill (Silty Clay)** Similar to above, gravel	2
4					36.1 95°F		90	**Silty Clay (CL)** Low plasticity, soft, damp, brown, faint odor	4
6					37 95°F		90	**Silty Clay (CL)** Similar to above	6
8					533 95°F		90	**Silty Clay (CL)** Similar to above	8
10				12'	314 95°F		90	**Sandy Clay (CL)** Similar to above, increase in sand and moisture **Sandy Clay (CL)** Similar to above, moist, hydrocarbon odor, dark brown	10
12					651 95°F		90	**Sandy Clay/Clayey Sand (CL/SC)** Fine to medium grain, compact, moist to saturated, hydrocarbon odor	12
14					587 95°F		90	**Sandy Clay/Clayey Sand (CL/SC)** Similar to above, saturated, sheen observed on split spoon, black, hydrocarbon odor	14
16								Total Depth = 16' BGL	16

Set 1" Temporary Well
Screened: 11-16' bgl
10/20 Filter Pack: 9-16' bgl
Bentonite: 0-9' bgl

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.327' W 108°25.716'

Total Depth: 18' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB14
Start Date: 7/23/2013 08:55
Finish Date: 7/23/2013 10:25

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					10.4 86°F		90	**Fill (Silty Clay/Gravel)** Low plasticity, stiff, damp to dry, brown, no odor	0
2					11.3 86°F		90	**Fill (Silty Clay/Gravel)** Similar to above, odor	2
4					34.6 86°F		90	**Fill (Silty Clay/Gravel)** Similar to above, odor	4
6					94 86°F		90	**Silty Clay (CL)** Low plasticity, firm, damp, brown	6
8					129 86°F		90	**Silty Clay/Clayey Silt (CL/ML)** Low plasticity, soft, crumbly, damp, brown, odor	8
10					143 86°F		90	**Sandy Silty Clay (CL)** Similar to above, with fine grain sand, increase in moisture, faint odor	10
12					1225 86°F		90	**Sandy Silty Clay (CL)** Similar to above, hydrocarbon odor	12
14				14'	1314 86°F		90	**Sandy Clay/Clayey Sand (CL/SC)** Low plasticity, soft, fine grain, moist to saturated, hydrocarbon odor, dark brown	14
16					745 86°F		90	**Clayey Sand (SC)** Similar to above, saturated, hydrocarbon odor	16
18								Total Depth = 18' BGL	18

Set 1" Temporary Well
Screened: 13-18' bgl
10/20 Filter Pack: 11-18' bgl
Bentonite: 0-11' bgl

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LOG OF BORING

Boring No.: SB15
Start Date: 7/23/2013 10:40
Finish Date: 7/23/2013 12:35

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.327' W 108°25.730'

Total Depth: 22' bgl
Ground Water: Saturated @ 18' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					6 81°F		50	**Silty Clay (CL)** Low plasticity, stiff, damp, brown	0
2					6.3 81°F		90	**Silty Clay (CL)** Similar to above	2
4					8 81°F		90	**Silty Clay (CL)** Low plasticity, soft/crumbly, damp, light brown	4
6							--	No recovery	6
8					14.9 81°F		90	**Silty Sandy Clay (CL)** Low plasticity, soft/crumbly, damp, brown	8
10					30.5 81°F		90	**Silty Sandy Clay (CL)** Similar to above	10
12					50.8 81°F		90	**Sandy Clay (CL)** Low plasticity, soft, damp to moist, brown	12
14					218 81°F		90	**Clay (CH)** High plasticity, soft, moist, brown, odor	14
16				▼ 17.5'	453 81°F		90	**Clay (CH)** Similar to above, odor	16

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.327' W 108°25.730'

Total Depth: 22' bgl
Ground Water: Saturated @ 18' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB15
Start Date: 7/23/2013 10:40
Finish Date: 7/23/2013 12:35

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
19					850 81°F		80	**Sandy Clay (CL)** Low plasticity, soft, moist to saturated, dark brown, hydrocarbon odor	19
21					1504 81°F		--	**Sandy Clay (CL)** Similar to above, saturated, hydrocarbon odor	21
								Total Depth = 22' BGL	
23									23
25									25
27									27
29									29
31									31
33									33
35									35

Set 1" Temporary Well
Screened: 17-22' bgl
10/20 Filter Pack: 15-22' bgl
Bentonite: 0-15' bgl

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LOG OF BORING

Boring No.: SB16
Start Date: 7/23/2013 13:25
Finish Date: 7/23/2013 17:00

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.336' W 108°25.724'

Total Depth: 14' bgl
Ground Water: Saturated @ 9' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					90 94°F		90	**Fill (Silt/Gravel)** Low plasticity, loose, dry, light brown	0
2					14 94°F		90	**Fill (Silty Clay/Gravel)** Similar to above	2
4					431 94°F		90	**Silty Clay (CL)** Low plasticity, stiff, dry, reddish brown, odor, calcareous	4
6					448 94°F		60	**Sand (SP)** Fine grain, loose, dry, reddish brown, odor	6
8				9'	654 94°F		60	**Sand (SP)** Similar to above, saturated at 9' bgl, phase-separated hydrocarbon, hydrocarbon odor	8
10					1559 94°F		90	**Clayey Sand (SC)** Fine grain, soft, saturated, phase-separated hydrocarbon, brown to black, hydrocarbon odor	10
12					713 94°F		90	**Clayey Sand/Sandy Clay (SC/CL)** Low plasticity, firm to stiff, moist to saturated, hydrocarbon odor, dark brown	12
14								Total Depth = 14' BGL	14
16								Set 1" Temporary Well Screened: 8-13' bgl 10/20 Filter Pack: 6-13' bgl Bentonite: 0-6' bgl	16

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.336' W 108°25.739'

Total Depth: 16' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB17
Start Date: 7/23/2013 17:11
Finish Date: 7/24/2013 09:30

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					14 90°F		60	**Fill (Silty Clay/Gravel)** Low plasticity, stiff, dry, light brown	0
2					36 90°F		70	**Fill (Silty Clay)** Similar to above	2
4					80 90°F		90	**Silty Clay (CL)** Low plasticity, firm, damp, brown, calcareous	4
6					125 90°F		80	**Silty Clay (CL)** Similar to above (rain, shut down @ 1730 continued on 7/24/2013)	6
8					1259 83°F		80	**Silty Clay (CL)** Low plasticity, firm, damp, oily, hydrocarbon odor, dark brown	8
10					860 83°F		70	**Silty Clay (CL)** Similar to above, moist, hydrocarbon odor, oily, phase-separated hydrocarbon	10
12				12'	1716 83°F		60	**Sandy Clay (CL)** Low plasticity, soft, moist to saturated, hydrocarbon odor, dark brown	12
14					1050 83°F		70	**Silty Sand (SM)** Medium grain, loose, saturated, hydrocarbon odor, dark brown to black	14
16								**Sandy/Silty Clay (CL)** Low plasticity, firm, saturated, dark brown to black, hydrocarbon odor	16
								Total Depth = 16' BGL	

Set 1" Temporary Well
Screened: 11-16' bgl
10/20 Filter Pack: 9-16' bgl
Bentonite: 0-9' bgl

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LOG OF BORING

Boring No.: SB18
Start Date: 7/24/2013 10:05
Finish Date: 7/24/2013 11:20

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.286' W 108°25.751'

Total Depth: 20' bgl
Ground Water: Saturated @ 18' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					70 87°F		90	**Silt/Gravel (ML)** Low plasticity, soft, damp to dry, no odor, brown	0
2					36 87°F		90	**Silt (ML)** Similar to above, gravel present, dry	2
4					15 87°F		80	**Silt (ML)** Similar to above, gravel, calcareous, dry, trace fine grain sand, brown	4
6					35 87°F		90	**Clayey Sandy Silt (ML)** Very fine grain, compact, dry, brown, no odor	6
8					9 87°F		90	**Sandy Clay (CL)** Low plasticity, firm, damp, brown, calcareous, no odor	8
10					90 87°F		90	**Sandy Clay (CL)** Similar to above, damp, no odor	10
12					2731 87°F		90	**Clayey Silty Sand (SC)** Fine to medium grain, compact to loose, damp, brown, hydrocarbon odor	12
14							--	No recovery - Gravel jammed inside split spoon, wet	14
16					418 87°F		40	**Sandy Clay (CL)** Low plasticity, soft, moist, dark brown, hydrocarbon odor	16

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.286' W 108°25.751'

Total Depth: 20' bgl
Ground Water: Saturated @ 18' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB18
Start Date: 7/24/2013 10:05
Finish Date: 7/24/2013 11:20

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
19					206 87°F	SM / CH	80	**Silty Sand (SM)** Medium grain, loose, saturated, brown, hydrocarbon odor **Clay (CH)** High plasticity, firm, damp, brown, odor Total Depth = 20' BGL	19
21									21
23									23
25									25
27									27
29									29
31								Set 1" Temporary Well Screened: 9-19' bgl 10/20 Filter Pack: 8-20' bgl Bentonite: 0-8' bgl	31
33									33
35									35

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.294' W 108°25.754'

Total Depth: 22' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB19
Start Date: 7/24/2013 11:51
Finish Date: 7/24/2013 13:10

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					8.7 86°F		90	**Silt/Gravel (ML)** Low plasticity, soft, dry/damp, no odor, brown	0
2					54 86°F		80	**Silt/Gravel (ML)** Similar to above	2
4					7 86°F		70	**Gravel/Silt (GW)** 1/2 to 1" gravel, loose, compact, dry, no odor	4
6					7.5 86°F		70	**Clayey Sandy Silt (ML)** Very fine grain, compact, dry to damp, brown, no odor	6
8					5.5 86°F		60	**Sandy Clay (CL)** Low plasticity, firm, damp, light brown, no odor	8
10					5.8 86°F		70	**Sandy Clay (CL)** Similar to above, brown, no odor	10
12					10 86°F		70	**Sandy Clay (CL)** Similar to above	12
				▼ 14'				**Silty Sand (SM)** Fine to medium grain, loose, damp, brown, no odor	14
14					225 86°F		50	**Sandy Clay (CL)** Low plasticity, firm, moist to saturated in sand seams, hydrocarbon odor, dark brown	
16					319 86°F		70	**Sandy Clay (CL)** Similar to above, moist, hydrocarbon odor	16

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LOG OF BORING

Boring No.: SB19
Start Date: 7/24/2013 11:51
Finish Date: 7/24/2013 13:10

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.294' W 108°25.754'

Total Depth: 22' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
19					400 86°F		--	**Sandy Clay (CL)** Similar to above, moist, hydrocarbon odor	19
21					532 86°F		--	**Sandy Clay/Clayey Sand (CL)** Very fine grain, compact, moist to saturated, sheen observed in split spoon, hydrocarbon odor	21
23								Total Depth = 22' BGL	23
25									25
27									27
29									29
31								Set 1" Temporary Well Screened: 12-22' bgl 10/20 Filter Pack: 10-22' bgl Bentonite: 0-10' bgl	31
33									33
35									35

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.307' W 108°25.755'

Total Depth: 14' bgl
Ground Water: Saturated @ 10' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB20
Start Date: 7/24/2013 14:10
Finish Date: 7/24/2013 15:45

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					8 80°F		90	**Silt (ML)** Low plasticity, soft, damp, brown, no odor	0
2					12.7 80°F		90	**Silt (ML)** Similar to above, trace gravel	2
4					13 80°F		80	**Sandy Clay (CL)** Low plasticity, stiff, dry, brown, calcareous	4
6					17 80°F		90	**Silty Sand/Sandy Silt (SM/ML)** Very fine grain, loose to compact, dry, calcareous, brown	6
8					59 80°F		90	**Sandy Silt (ML)** Similar to above, no odor	8
10				10'	1165 80°F		90	**Sandy Clay/Clayey Sand (SC/CL)** Medium grain, compact, moist to saturated, hydrocarbon odor, brown	10
12					1200 80°F		90	**Clayey Sand (SC)** Similar to above, saturated, hydrocarbon odor	12
14								Total Depth = 14' BGL	14
16								Set 1" Temporary Well Screened: 9-14' bgl 10/20 Filter Pack: 7-14' bgl Bentonite: 0-7' bgl	16

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.314' W 108°25.761'

Total Depth: 10' bgl
Ground Water: Saturated @ 6' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB21
Start Date: 7/24/2013 15:55
Finish Date: 7/24/2013 16:20

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					15.2 80°F		60	**Silty Clay (CL)** Low plasticity, stiff, dry to damp, brown	0
2					88 80°F		50	**Sandy Clay (CL)** Low plasticity, very stiff, dry to damp, brown	2
4					1170 80°F		80	**Sandy Clay (CL)** Similar to above, hydrocarbon odor, sand at base	4
6				▼ 6'	1200 80°F		90	**Silty Sand (SM)** Medium grain, loose, moist to saturated, phase-separated hydrocarbon, brown, hydrocarbon odor	6
8					1350 80°F		90	**Sandy Clayey Gravel (GW)** Compact, saturated, phase-separated hydrocarbon, hydrocarbon odor, gray	8
10								Total Depth = 10' BGL	10
12									12
14									14
16									16

Set 1" Temporary Well
Screened: 5-10' bgl
10/20 Filter Pack: 3-10' bgl
Bentonite: 0-3' bgl

RPS
1250 S. Capital of Texas Hwy., Bldg. 3, Suite 200
Austin, Texas 78746

512/347-7588
512/347-8243 fax

RPS

LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Precision Sampling
Drilling Rig: Geoprobe 6625 CPT
Drilling Method: Direct Push
Sampling Method: Split Spoon
Comments: N 35°29.323' W 108°25.769'

Total Depth: 10' bgl
Ground Water: Saturated @ 6' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SB22
Start Date: 7/24/2013 16:30
Finish Date: 7/24/2013 17:15

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description
								Ground Surface
0					18 80°F		20	**Silty Clay (CL)** Low plasticity, soft, damp, brown
2					308 80°F		90	**Silty Clay (CL)** Similar to above, odor
4					793 80°F		90	**Sandy Clay (CL)** Low plasticity, firm, moist, oily, brown, trace gravel
6				6	504 80°F		90	**Clayey Sand (SC)** Medium grain, loose to compact, saturated, phase-separated hydrocarbon, hydrocarbon odor, black
8					760 80°F		90	**Clayey Sand (SC)** Similar to above, silty clay at base
10								Total Depth = 10' BGL
12								
14								
16								

Set 1" Temporary Well
Screened: 5-10' bgl
10/20 Filter Pack: 3-10' bgl
Bentonite: 0-3' bgl

RPS
1250 S. Capital of Texas Hwy., Bldg. 3, Suite 200
Austin, Texas 78746

512/347-7588
512/347-8243 fax

Chavez, Carl J, EMNRD

From: Larsen, Thurman <Thurman.Larsen@wnr.com>
Sent: Tuesday, February 24, 2015 10:08 AM
To: Chavez, Carl J, EMNRD; VanHorn, Kristen, NMENV
Cc: Riege, Ed
Subject: C141 FINAL SEWER OVERFLOW FROM 08-05-15 (Part 1 of 2)
Attachments: C141 FINAL Sewer Water Release at WWTP.pdf; Analysis Comparison.pdf; Sample Point Map.pdf; Manifest D6868606 110314.pdf; GM 16342 110414.pdf

Dear Carl and Christen,

This following is the Final Report for the Sewer Overflow that occurred on august 5, 2014. (Part 1 of 2). The remainder of the analysis will be attached as a separate e-mail.

Regards,

Beck Larsen
Environmental Engineer
Western Refining Southwest (Gallup Refinery)
92 Giant Crossing Road - New Mailing Address
Gallup, NM 87301
Office: (505) 722-0258
cell: (505) 862-1749

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 08, 2014

Beck Larsen
Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: WWTP Baker Tank Overflow

OrderNo.: 1408F15

Dear Beck Larsen:

Hall Environmental Analysis Laboratory received 6 sample(s) on 8/28/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Chavez, Carl J, EMNRD

From: Larsen, Thurman <Thurman.Larsen@wnr.com>
Sent: Tuesday, February 24, 2015 11:00 AM
To: VanHorn, Kristen, NMENV; Chavez, Carl J, EMNRD
Cc: Riege, Ed
Subject: RE: C141 FINAL SEWER OVERFLOW FROM 08-05-15 (Part 1 of 2)

Kristen,
I sent 3 separate e-mails. I will have to see which on you did not receive. I am limited on how much data that I can send via e-mail so I may have to separate it also.

From: VanHorn, Kristen, NMENV [mailto:Kristen.VanHorn@state.nm.us]
Sent: Tuesday, February 24, 2015 10:50 AM
To: Larsen, Thurman; Chavez, Carl J, EMNRD
Cc: Riege, Ed
Subject: RE: C141 FINAL SEWER OVERFLOW FROM 08-05-15 (Part 1 of 2)

Thank you, Beck. Both emails came through.

Is it possible to provide a short description of how the samples were collected and approximate depth of sample collection and also approximate depth of soil removal for our records?

Thanks,
Kristen

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Tuesday, February 24, 2015 10:08 AM
To: Chavez, Carl J, EMNRD; VanHorn, Kristen, NMENV
Cc: Riege, Ed
Subject: C141 FINAL SEWER OVERFLOW FROM 08-05-15 (Part 1 of 2)

Dear Carl and Christen,

This following is the Final Report for the Sewer Overflow that occurred on august 5, 2014. (Part 1 of 2). The remainder of the analysis will be attached as a separate e-mail.

Regards,

Beck Larsen
Environmental Engineer
Western Refining Southwest (Gallup Refinery)
92 Giant Crossing Road - New Mailing Address
Gallup, NM 87301
Office: (505) 722-0258
cell: (505) 862-1749

Chavez, Carl J, EMNRD

From: Larsen, Thurman <Thurman.Larsen@wnr.com>
Sent: Tuesday, February 24, 2015 12:09 PM
To: VanHorn, Kristen, NMENV; Chavez, Carl J, EMNRD
Cc: Riege, Ed
Subject: RE: C141 FINAL SEWER OVERFLOW FROM 08-05-15 (Part 1 of 2)

Kristen,
I just sent you the analysis in four separate e-mail. Samples were collected using a stainless spade. The sample depth was about 3 to 6 inches. Samples were placed into glass jars, put into a refrigerator until shipped offsite to the laboratory for analysis. Approximately one to two inches of soil was excavated from the contaminated area using shovels and a backhoe.

From: VanHorn, Kristen, NMENV [mailto:Kristen.VanHorn@state.nm.us]
Sent: Tuesday, February 24, 2015 10:50 AM
To: Larsen, Thurman; Chavez, Carl J, EMNRD
Cc: Riege, Ed
Subject: RE: C141 FINAL SEWER OVERFLOW FROM 08-05-15 (Part 1 of 2)

Thank you, Beck. Both emails came through.

Is it possible to provide a short description of how the samples were collected and approximate depth of sample collection and also approximate depth of soil removal for our records?

Thanks,
Kristen

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Tuesday, February 24, 2015 10:08 AM
To: Chavez, Carl J, EMNRD; VanHorn, Kristen, NMENV
Cc: Riege, Ed
Subject: C141 FINAL SEWER OVERFLOW FROM 08-05-15 (Part 1 of 2)

Dear Carl and Christen,

This following is the Final Report for the Sewer Overflow that occurred on august 5, 2014. (Part 1 of 2). The remainder of the analysis will be attached as a separate e-mail.

Regards,

Beck Larsen
Environmental Engineer
Western Refining Southwest (Gallup Refinery)
92 Giant Crossing Road - New Mailing Address
Gallup, NM 87301
Office: (505) 722-0258
cell: (505) 862-1749

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1408F15**
Date Reported: **9/8/2014**

CLIENT: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow
Lab ID: 1408F15-001 **Matrix:** SOIL

Client Sample ID: B # 6 .WWTP Dirty Sewer Spill
Collection Date: 8/27/2014 4:00:00 PM
Received Date: 8/28/2014 4:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	820	9.8		mg/Kg	1	9/3/2014 8:58:52 AM	15031
Motor Oil Range Organics (MRO)	400	49		mg/Kg	1	9/3/2014 8:58:52 AM	15031
Surr: DNOP	101	57.9-140		%REC	1	9/3/2014 8:58:52 AM	15031
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	500		mg/Kg	100	9/2/2014 1:10:54 PM	15040
Surr: BFB	93.6	80-120		%REC	100	9/2/2014 1:10:54 PM	15040
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	9/2/2014 1:10:54 PM	15040
Toluene	ND	0.050		mg/Kg	1	9/2/2014 1:10:54 PM	15040
Ethylbenzene	ND	0.050		mg/Kg	1	9/2/2014 1:10:54 PM	15040
Xylenes, Total	ND	0.10		mg/Kg	1	9/2/2014 1:10:54 PM	15040
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	9/2/2014 1:10:54 PM	15040
EPA METHOD 300.0: ANIONS						Analyst: **LGP**	
Chloride	260	30		mg/Kg	20	9/3/2014 1:35:22 PM	15086
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	9/4/2014 4:16:56 PM	15110
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	9/4/2014 10:02:24 AM	15099
Barium	ND	100		mg/L	1	9/4/2014 10:02:24 AM	15099
Cadmium	ND	1.0		mg/L	1	9/4/2014 10:02:24 AM	15099
Chromium	ND	5.0		mg/L	1	9/4/2014 10:02:24 AM	15099
Lead	ND	5.0		mg/L	1	9/4/2014 10:02:24 AM	15099
Selenium	ND	1.0		mg/L	1	9/4/2014 10:02:24 AM	15099
Silver	ND	5.0		mg/L	1	9/4/2014 10:02:24 AM	15099
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	9/4/2014 11:21:26 AM	15077
3+4-Methylphenol	ND	200		mg/L	1	9/4/2014 11:21:26 AM	15077
Phenol	ND	200		mg/L	1	9/4/2014 11:21:26 AM	15077
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/4/2014 11:21:26 AM	15077
Hexachlorobenzene	ND	0.13		mg/L	1	9/4/2014 11:21:26 AM	15077
Hexachlorobutadiene	ND	0.50		mg/L	1	9/4/2014 11:21:26 AM	15077
Hexachloroethane	ND	3.0		mg/L	1	9/4/2014 11:21:26 AM	15077
Nitrobenzene	ND	2.0		mg/L	1	9/4/2014 11:21:26 AM	15077
Pentachlorophenol	ND	100		mg/L	1	9/4/2014 11:21:26 AM	15077
Pyridine	ND	5.0		mg/L	1	9/4/2014 11:21:26 AM	15077
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/4/2014 11:21:26 AM	15077

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow
Lab ID: 1408F15-001 **Matrix:** SOIL

Client Sample ID: B # 6 .WWTP Dirty Sewer Spill
Collection Date: 8/27/2014 4:00:00 PM
Received Date: 8/28/2014 4:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/4/2014 11:21:26 AM	15077
Cresols, Total	ND	200		mg/L	1	9/4/2014 11:21:26 AM	15077
Surr: 2-Fluorophenol	68.8	25-105		%REC	1	9/4/2014 11:21:26 AM	15077
Surr: Phenol-d5	46.4	22.3-70.3		%REC	1	9/4/2014 11:21:26 AM	15077
Surr: 2,4,6-Tribromophenol	36.1	30.4-134		%REC	1	9/4/2014 11:21:26 AM	15077
Surr: Nitrobenzene-d5	87.1	54.8-128		%REC	1	9/4/2014 11:21:26 AM	15077
Surr: 2-Fluorobiphenyl	95.2	53.3-122		%REC	1	9/4/2014 11:21:26 AM	15077
Surr: 4-Terphenyl-d14	81.8	51.8-133		%REC	1	9/4/2014 11:21:26 AM	15077
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **RAA**	
Benzene	ND	0.50		ppm	10	9/3/2014 10:58:49 PM	15040
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	9/3/2014 10:58:49 PM	15040
2-Butanone	ND	200		ppm	10	9/3/2014 10:58:49 PM	15040
Carbon tetrachloride	ND	0.50		ppm	10	9/3/2014 10:58:49 PM	15040
Chlorobenzene	ND	100		ppm	10	9/3/2014 10:58:49 PM	15040
Chloroform	ND	6.0		ppm	10	9/3/2014 10:58:49 PM	15040
1,4-Dichlorobenzene	ND	7.5		ppm	10	9/3/2014 10:58:49 PM	15040
1,1-Dichloroethene	ND	0.70		ppm	10	9/3/2014 10:58:49 PM	15040
Tetrachloroethene (PCE)	ND	0.70		ppm	10	9/3/2014 10:58:49 PM	15040
Trichloroethene (TCE)	ND	0.50		ppm	10	9/3/2014 10:58:49 PM	15040
Vinyl chloride	ND	0.20		ppm	10	9/3/2014 10:58:49 PM	15040
Surr: 1,2-Dichloroethane-d4	87.8	70-130		%REC	10	9/3/2014 10:58:49 PM	15040
Surr: 4-Bromofluorobenzene	82.1	70-130		%REC	10	9/3/2014 10:58:49 PM	15040
Surr: Dibromofluoromethane	84.8	70-130		%REC	10	9/3/2014 10:58:49 PM	15040
Surr: Toluene-d8	95.1	70-130		%REC	10	9/3/2014 10:58:49 PM	15040
EPA METHOD 418.1: TPH						Analyst: **JME**	
Petroleum Hydrocarbons, TR	350	20		mg/Kg	1	9/2/2014 12:00:00 PM	15036

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: B # 7 .WWTP Dirty Sewer Spill
Project: WWTP Baker Tank Overflow
Collection Date: 8/27/2014 4:05:00 PM
Lab ID: 1408F15-002 **Matrix:** SOIL
Received Date: 8/28/2014 4:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	6300	100		mg/Kg	10	9/2/2014 4:23:14 PM	15031
Motor Oil Range Organics (MRO)	2000	500		mg/Kg	10	9/2/2014 4:23:14 PM	15031
Surr: DNOP	0	57.9-140	S	%REC	10	9/2/2014 4:23:14 PM	15031
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/2/2014 1:39:38 PM	15040
Surr: BFB	120	80-120		%REC	1	9/2/2014 1:39:38 PM	15040
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	9/2/2014 1:39:38 PM	15040
Toluene	ND	0.050		mg/Kg	1	9/2/2014 1:39:38 PM	15040
Ethylbenzene	ND	0.050		mg/Kg	1	9/2/2014 1:39:38 PM	15040
Xylenes, Total	ND	0.10		mg/Kg	1	9/2/2014 1:39:38 PM	15040
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	9/2/2014 1:39:38 PM	15040
EPA METHOD 300.0: ANIONS						Analyst: **LGP**	
Chloride	84	30		mg/Kg	20	9/3/2014 1:47:46 PM	15086
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	9/4/2014 4:22:33 PM	15110
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	9/4/2014 10:03:40 AM	15099
Barium	ND	100		mg/L	1	9/4/2014 10:03:40 AM	15099
Cadmium	ND	1.0		mg/L	1	9/4/2014 10:03:40 AM	15099
Chromium	ND	5.0		mg/L	1	9/4/2014 10:03:40 AM	15099
Lead	ND	5.0		mg/L	1	9/4/2014 10:03:40 AM	15099
Selenium	ND	1.0		mg/L	1	9/4/2014 10:03:40 AM	15099
Silver	ND	5.0		mg/L	1	9/4/2014 10:03:40 AM	15099
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	9/4/2014 11:50:31 AM	15077
3+4-Methylphenol	ND	200		mg/L	1	9/4/2014 11:50:31 AM	15077
Phenol	ND	200		mg/L	1	9/4/2014 11:50:31 AM	15077
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/4/2014 11:50:31 AM	15077
Hexachlorobenzene	ND	0.13		mg/L	1	9/4/2014 11:50:31 AM	15077
Hexachlorobutadiene	ND	0.50		mg/L	1	9/4/2014 11:50:31 AM	15077
Hexachloroethane	ND	3.0		mg/L	1	9/4/2014 11:50:31 AM	15077
Nitrobenzene	ND	2.0		mg/L	1	9/4/2014 11:50:31 AM	15077
Pentachlorophenol	ND	100		mg/L	1	9/4/2014 11:50:31 AM	15077
Pyridine	ND	5.0		mg/L	1	9/4/2014 11:50:31 AM	15077
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/4/2014 11:50:31 AM	15077

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow
Lab ID: 1408F15-002 **Matrix:** SOIL

Client Sample ID: B # 7 .WWTP Dirty Sewer Spill
Collection Date: 8/27/2014 4:05:00 PM
Received Date: 8/28/2014 4:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/4/2014 11:50:31 AM	15077
Cresols, Total	ND	200		mg/L	1	9/4/2014 11:50:31 AM	15077
Surr: 2-Fluorophenol	25.0	25-105		%REC	1	9/4/2014 11:50:31 AM	15077
Surr: Phenol-d5	28.4	22.3-70.3		%REC	1	9/4/2014 11:50:31 AM	15077
Surr: 2,4,6-Tribromophenol	11.1	30.4-134	S	%REC	1	9/4/2014 11:50:31 AM	15077
Surr: Nitrobenzene-d5	68.4	54.8-128		%REC	1	9/4/2014 11:50:31 AM	15077
Surr: 2-Fluorobiphenyl	67.1	53.3-122		%REC	1	9/4/2014 11:50:31 AM	15077
Surr: 4-Terphenyl-d14	60.4	51.8-133		%REC	1	9/4/2014 11:50:31 AM	15077
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **RAA**	
Benzene	ND	0.50		ppm	10	9/4/2014 4:50:04 PM	15040
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	9/4/2014 4:50:04 PM	15040
2-Butanone	ND	200		ppm	10	9/4/2014 4:50:04 PM	15040
Carbon tetrachloride	ND	0.50		ppm	10	9/4/2014 4:50:04 PM	15040
Chlorobenzene	ND	100		ppm	10	9/4/2014 4:50:04 PM	15040
Chloroform	ND	6.0		ppm	10	9/4/2014 4:50:04 PM	15040
1,4-Dichlorobenzene	ND	7.5		ppm	10	9/4/2014 4:50:04 PM	15040
1,1-Dichloroethene	ND	0.70		ppm	10	9/4/2014 4:50:04 PM	15040
Tetrachloroethene (PCE)	ND	0.70		ppm	10	9/4/2014 4:50:04 PM	15040
Trichloroethene (TCE)	ND	0.50		ppm	10	9/4/2014 4:50:04 PM	15040
Vinyl chloride	ND	0.20		ppm	10	9/4/2014 4:50:04 PM	15040
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%REC	10	9/4/2014 4:50:04 PM	15040
Surr: 4-Bromofluorobenzene	90.2	70-130		%REC	10	9/4/2014 4:50:04 PM	15040
Surr: Dibromofluoromethane	95.2	70-130		%REC	10	9/4/2014 4:50:04 PM	15040
Surr: Toluene-d8	96.2	70-130		%REC	10	9/4/2014 4:50:04 PM	15040
EPA METHOD 418.1: TPH						Analyst: **JME**	
Petroleum Hydrocarbons, TR	9400	200		mg/Kg	10	9/2/2014 12:00:00 PM	15036

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
O	RSD is greater than RSDlimit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow
Lab ID: 1408F15-003 **Matrix:** SOIL

Client Sample ID: B # 8 .WWTP Dirty Sewer Spill
Collection Date: 8/27/2014 4:10:00 PM
Received Date: 8/28/2014 4:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	50	10		mg/Kg	1	9/4/2014 6:07:52 PM	15031
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/4/2014 6:07:52 PM	15031
Surr: DNOP	106	57.9-140		%REC	1	9/4/2014 6:07:52 PM	15031
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/2/2014 3:05:47 PM	15040
Surr: BFB	95.0	80-120		%REC	1	9/2/2014 3:05:47 PM	15040
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	9/2/2014 3:05:47 PM	15040
Toluene	ND	0.050		mg/Kg	1	9/2/2014 3:05:47 PM	15040
Ethylbenzene	ND	0.050		mg/Kg	1	9/2/2014 3:05:47 PM	15040
Xylenes, Total	ND	0.10		mg/Kg	1	9/2/2014 3:05:47 PM	15040
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	9/2/2014 3:05:47 PM	15040
EPA METHOD 300.0: ANIONS						Analyst: **LGP**	
Chloride	190	30		mg/Kg	20	9/3/2014 2:00:11 PM	15086
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	9/4/2014 4:24:27 PM	15110
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	9/4/2014 10:04:52 AM	15099
Barium	ND	100		mg/L	1	9/4/2014 10:04:52 AM	15099
Cadmium	ND	1.0		mg/L	1	9/4/2014 10:04:52 AM	15099
Chromium	ND	5.0		mg/L	1	9/4/2014 10:04:52 AM	15099
Lead	ND	5.0		mg/L	1	9/4/2014 10:04:52 AM	15099
Selenium	ND	1.0		mg/L	1	9/4/2014 10:04:52 AM	15099
Silver	ND	5.0		mg/L	1	9/4/2014 10:04:52 AM	15099
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	9/5/2014 11:12:23 AM	15124
3+4-Methylphenol	ND	200		mg/L	1	9/5/2014 11:12:23 AM	15124
Phenol	ND	200		mg/L	1	9/5/2014 11:12:23 AM	15124
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/4/2014 12:19:49 PM	15077
Hexachlorobenzene	ND	0.13		mg/L	1	9/4/2014 12:19:49 PM	15077
Hexachlorobutadiene	ND	0.50		mg/L	1	9/4/2014 12:19:49 PM	15077
Hexachloroethane	ND	3.0		mg/L	1	9/4/2014 12:19:49 PM	15077
Nitrobenzene	ND	2.0		mg/L	1	9/4/2014 12:19:49 PM	15077
Pentachlorophenol	ND	100		mg/L	1	9/5/2014 11:12:23 AM	15124
Pyridine	ND	5.0		mg/L	1	9/4/2014 12:19:49 PM	15077
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/5/2014 11:12:23 AM	15124

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: B # 8 .WWTP Dirty Sewer Spill
Project: WWTP Baker Tank Overflow
Collection Date: 8/27/2014 4:10:00 PM
Lab ID: 1408F15-003 **Matrix:** SOIL
Received Date: 8/28/2014 4:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/5/2014 11:12:23 AM	15124
Cresols, Total	ND	200		mg/L	1	9/5/2014 11:12:23 AM	15124
Surr: 2-Fluorophenol	52.4	25-105		%REC	1	9/5/2014 11:12:23 AM	15124
Surr: Phenol-d5	29.4	22.3-70.3		%REC	1	9/5/2014 11:12:23 AM	15124
Surr: 2,4,6-Tribromophenol	62.7	30.4-134		%REC	1	9/5/2014 11:12:23 AM	15124
Surr: Nitrobenzene-d5	94.2	54.8-128		%REC	1	9/4/2014 12:19:49 PM	15077
Surr: 2-Fluorobiphenyl	87.0	53.3-122		%REC	1	9/4/2014 12:19:49 PM	15077
Surr: 4-Terphenyl-d14	75.3	51.8-133		%REC	1	9/4/2014 12:19:49 PM	15077
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **RAA**	
Benzene	ND	0.50		ppm	10	9/4/2014 5:18:09 PM	R21010
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	9/4/2014 5:18:09 PM	R21010
2-Butanone	ND	200		ppm	10	9/4/2014 5:18:09 PM	R21010
Carbon tetrachloride	ND	0.50		ppm	10	9/4/2014 5:18:09 PM	R21010
Chlorobenzene	ND	100		ppm	10	9/4/2014 5:18:09 PM	R21010
Chloroform	ND	6.0		ppm	10	9/4/2014 5:18:09 PM	R21010
1,4-Dichlorobenzene	ND	7.5		ppm	10	9/4/2014 5:18:09 PM	R21010
1,1-Dichloroethene	ND	0.70		ppm	10	9/4/2014 5:18:09 PM	R21010
Tetrachloroethene (PCE)	ND	0.70		ppm	10	9/4/2014 5:18:09 PM	R21010
Trichloroethene (TCE)	ND	0.50		ppm	10	9/4/2014 5:18:09 PM	R21010
Vinyl chloride	ND	0.20		ppm	10	9/4/2014 5:18:09 PM	R21010
mp-Xylenes	ND	0.50		mg/Kg	10	9/4/2014 5:18:09 PM	R21010
o-Xylene	ND	0.50		mg/Kg	10	9/4/2014 5:18:09 PM	R21010
Surr: 1,2-Dichloroethane-d4	93.3	70-130		%REC	10	9/4/2014 5:18:09 PM	R21010
Surr: 4-Bromofluorobenzene	87.8	70-130		%REC	10	9/4/2014 5:18:09 PM	R21010
Surr: Dibromofluoromethane	95.8	70-130		%REC	10	9/4/2014 5:18:09 PM	R21010
Surr: Toluene-d8	94.9	70-130		%REC	10	9/4/2014 5:18:09 PM	R21010
EPA METHOD 418.1: TPH						Analyst: **JME**	
Petroleum Hydrocarbons, TR	73	20		mg/Kg	1	9/2/2014 12:00:00 PM	15036

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: B # 9 .WWTP Dirty Sewer Spill
Project: WWTP Baker Tank Overflow
Collection Date: 8/27/2014 4:15:00 PM
Lab ID: 1408F15-004 **Matrix:** SOIL
Received Date: 8/28/2014 4:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	14	9.9		mg/Kg	1	9/3/2014 9:58:46 AM	15031
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/3/2014 9:58:46 AM	15031
Surr: DNOP	85.9	57.9-140		%REC	1	9/3/2014 9:58:46 AM	15031
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/2/2014 4:31:43 PM	15040
Surr: BFB	95.7	80-120		%REC	1	9/2/2014 4:31:43 PM	15040
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	9/2/2014 4:31:43 PM	15040
Toluene	ND	0.050		mg/Kg	1	9/2/2014 4:31:43 PM	15040
Ethylbenzene	ND	0.050		mg/Kg	1	9/2/2014 4:31:43 PM	15040
Xylenes, Total	ND	0.10		mg/Kg	1	9/2/2014 4:31:43 PM	15040
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	9/2/2014 4:31:43 PM	15040
EPA METHOD 300.0: ANIONS						Analyst: **LGP**	
Chloride	110	30		mg/Kg	20	9/3/2014 2:12:35 PM	15086
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	9/4/2014 4:26:19 PM	15110
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	9/4/2014 10:06:06 AM	15099
Barium	ND	100		mg/L	1	9/4/2014 10:06:06 AM	15099
Cadmium	ND	1.0		mg/L	1	9/4/2014 10:06:06 AM	15099
Chromium	ND	5.0		mg/L	1	9/4/2014 10:06:06 AM	15099
Lead	ND	5.0		mg/L	1	9/4/2014 10:06:06 AM	15099
Selenium	ND	1.0		mg/L	1	9/4/2014 10:06:06 AM	15099
Silver	ND	5.0		mg/L	1	9/4/2014 10:06:06 AM	15099
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	9/4/2014 12:49:00 PM	15077
3+4-Methylphenol	ND	200		mg/L	1	9/4/2014 12:49:00 PM	15077
Phenol	ND	200		mg/L	1	9/4/2014 12:49:00 PM	15077
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/4/2014 12:49:00 PM	15077
Hexachlorobenzene	ND	0.13		mg/L	1	9/4/2014 12:49:00 PM	15077
Hexachlorobutadiene	ND	0.50		mg/L	1	9/4/2014 12:49:00 PM	15077
Hexachloroethane	ND	3.0		mg/L	1	9/4/2014 12:49:00 PM	15077
Nitrobenzene	ND	2.0		mg/L	1	9/4/2014 12:49:00 PM	15077
Pentachlorophenol	ND	100		mg/L	1	9/4/2014 12:49:00 PM	15077
Pyridine	ND	5.0		mg/L	1	9/4/2014 12:49:00 PM	15077
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/4/2014 12:49:00 PM	15077

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: B # 9 .WWTP Dirty Sewer Spill
Project: WWTP Baker Tank Overflow
Collection Date: 8/27/2014 4:15:00 PM
Lab ID: 1408F15-004 **Matrix:** SOIL
Received Date: 8/28/2014 4:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/4/2014 12:49:00 PM	15077
Cresols, Total	ND	200		mg/L	1	9/4/2014 12:49:00 PM	15077
Surr: 2-Fluorophenol	68.1	25-105		%REC	1	9/4/2014 12:49:00 PM	15077
Surr: Phenol-d5	49.4	22.3-70.3		%REC	1	9/4/2014 12:49:00 PM	15077
Surr: 2,4,6-Tribromophenol	37.8	30.4-134		%REC	1	9/4/2014 12:49:00 PM	15077
Surr: Nitrobenzene-d5	98.6	54.8-128		%REC	1	9/4/2014 12:49:00 PM	15077
Surr: 2-Fluorobiphenyl	96.4	53.3-122		%REC	1	9/4/2014 12:49:00 PM	15077
Surr: 4-Terphenyl-d14	87.4	51.8-133		%REC	1	9/4/2014 12:49:00 PM	15077
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **RAA**	
Benzene	ND	0.50		ppm	10	9/4/2014 5:46:12 PM	R21010
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	9/4/2014 5:46:12 PM	R21010
2-Butanone	ND	200		ppm	10	9/4/2014 5:46:12 PM	R21010
Carbon tetrachloride	ND	0.50		ppm	10	9/4/2014 5:46:12 PM	R21010
Chlorobenzene	ND	100		ppm	10	9/4/2014 5:46:12 PM	R21010
Chloroform	ND	6.0		ppm	10	9/4/2014 5:46:12 PM	R21010
1,4-Dichlorobenzene	ND	7.5		ppm	10	9/4/2014 5:46:12 PM	R21010
1,1-Dichloroethene	ND	0.70		ppm	10	9/4/2014 5:46:12 PM	R21010
Tetrachloroethene (PCE)	ND	0.70		ppm	10	9/4/2014 5:46:12 PM	R21010
Trichloroethene (TCE)	ND	0.50		ppm	10	9/4/2014 5:46:12 PM	R21010
Vinyl chloride	ND	0.20		ppm	10	9/4/2014 5:46:12 PM	R21010
mp-Xylenes	ND	0.50		mg/Kg	10	9/4/2014 5:46:12 PM	R21010
o-Xylene	ND	0.50		mg/Kg	10	9/4/2014 5:46:12 PM	R21010
Surr: 1,2-Dichloroethane-d4	94.3	70-130		%REC	10	9/4/2014 5:46:12 PM	R21010
Surr: 4-Bromofluorobenzene	84.9	70-130		%REC	10	9/4/2014 5:46:12 PM	R21010
Surr: Dibromofluoromethane	93.8	70-130		%REC	10	9/4/2014 5:46:12 PM	R21010
Surr: Toluene-d8	95.5	70-130		%REC	10	9/4/2014 5:46:12 PM	R21010
EPA METHOD 418.1: TPH						Analyst: **JME**	
Petroleum Hydrocarbons, TR	24	20		mg/Kg	1	9/2/2014 12:00:00 PM	15036

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
O	RSD is greater than RSDlimit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow
Lab ID: 1408F15-005 **Matrix:** SOIL

Client Sample ID: B # 10 .WWTP Dirty Sewer Spil
Collection Date: 8/27/2014 4:20:00 PM
Received Date: 8/28/2014 4:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/3/2014 10:28:33 AM	15031
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/3/2014 10:28:33 AM	15031
Surr: DNOP	86.4	57.9-140		%REC	1	9/3/2014 10:28:33 AM	15031
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/2/2014 5:00:28 PM	15040
Surr: BFB	97.9	80-120		%REC	1	9/2/2014 5:00:28 PM	15040
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	9/2/2014 5:00:28 PM	15040
Toluene	ND	0.050		mg/Kg	1	9/2/2014 5:00:28 PM	15040
Ethylbenzene	ND	0.050		mg/Kg	1	9/2/2014 5:00:28 PM	15040
Xylenes, Total	ND	0.10		mg/Kg	1	9/2/2014 5:00:28 PM	15040
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	9/2/2014 5:00:28 PM	15040
EPA METHOD 300.0: ANIONS						Analyst: **LGP**	
Chloride	ND	30		mg/Kg	20	9/3/2014 2:25:00 PM	15086
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	9/4/2014 4:28:11 PM	15110
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	9/4/2014 10:07:21 AM	15099
Barium	ND	100		mg/L	1	9/4/2014 10:07:21 AM	15099
Cadmium	ND	1.0		mg/L	1	9/4/2014 10:07:21 AM	15099
Chromium	ND	5.0		mg/L	1	9/4/2014 10:07:21 AM	15099
Lead	ND	5.0		mg/L	1	9/4/2014 10:07:21 AM	15099
Selenium	ND	1.0		mg/L	1	9/4/2014 10:07:21 AM	15099
Silver	ND	5.0		mg/L	1	9/4/2014 10:07:21 AM	15099
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	9/4/2014 1:18:18 PM	15077
3+4-Methylphenol	ND	200		mg/L	1	9/4/2014 1:18:18 PM	15077
Phenol	ND	200		mg/L	1	9/4/2014 1:18:18 PM	15077
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/4/2014 1:18:18 PM	15077
Hexachlorobenzene	ND	0.13		mg/L	1	9/4/2014 1:18:18 PM	15077
Hexachlorobutadiene	ND	0.50		mg/L	1	9/4/2014 1:18:18 PM	15077
Hexachloroethane	ND	3.0		mg/L	1	9/4/2014 1:18:18 PM	15077
Nitrobenzene	ND	2.0		mg/L	1	9/4/2014 1:18:18 PM	15077
Pentachlorophenol	ND	100		mg/L	1	9/4/2014 1:18:18 PM	15077
Pyridine	ND	5.0		mg/L	1	9/4/2014 1:18:18 PM	15077
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/4/2014 1:18:18 PM	15077

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow
Lab ID: 1408F15-005 **Matrix:** SOIL

Client Sample ID: B # 10 .WWTP Dirty Sewer Spil
Collection Date: 8/27/2014 4:20:00 PM
Received Date: 8/28/2014 4:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/4/2014 1:18:18 PM	15077
Cresols, Total	ND	200		mg/L	1	9/4/2014 1:18:18 PM	15077
Surr: 2-Fluorophenol	46.0	25-105		%REC	1	9/4/2014 1:18:18 PM	15077
Surr: Phenol-d5	31.1	22.3-70.3		%REC	1	9/4/2014 1:18:18 PM	15077
Surr: 2,4,6-Tribromophenol	27.5	30.4-134	S	%REC	1	9/4/2014 1:18:18 PM	15077
Surr: Nitrobenzene-d5	64.3	54.8-128		%REC	1	9/4/2014 1:18:18 PM	15077
Surr: 2-Fluorobiphenyl	62.6	53.3-122		%REC	1	9/4/2014 1:18:18 PM	15077
Surr: 4-Terphenyl-d14	62.3	51.8-133		%REC	1	9/4/2014 1:18:18 PM	15077
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **RAA**	
Benzene	ND	0.50		ppm	10	9/4/2014 6:14:13 PM	R21010
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	9/4/2014 6:14:13 PM	R21010
2-Butanone	ND	200		ppm	10	9/4/2014 6:14:13 PM	R21010
Carbon tetrachloride	ND	0.50		ppm	10	9/4/2014 6:14:13 PM	R21010
Chlorobenzene	ND	100		ppm	10	9/4/2014 6:14:13 PM	R21010
Chloroform	ND	6.0		ppm	10	9/4/2014 6:14:13 PM	R21010
1,4-Dichlorobenzene	ND	7.5		ppm	10	9/4/2014 6:14:13 PM	R21010
1,1-Dichloroethene	ND	0.70		ppm	10	9/4/2014 6:14:13 PM	R21010
Tetrachloroethene (PCE)	ND	0.70		ppm	10	9/4/2014 6:14:13 PM	R21010
Trichloroethene (TCE)	ND	0.50		ppm	10	9/4/2014 6:14:13 PM	R21010
Vinyl chloride	ND	0.20		ppm	10	9/4/2014 6:14:13 PM	R21010
mp-Xylenes	ND	0.50		mg/Kg	10	9/4/2014 6:14:13 PM	R21010
o-Xylene	ND	0.50		mg/Kg	10	9/4/2014 6:14:13 PM	R21010
Surr: 1,2-Dichloroethane-d4	97.4	70-130		%REC	10	9/4/2014 6:14:13 PM	R21010
Surr: 4-Bromofluorobenzene	85.4	70-130		%REC	10	9/4/2014 6:14:13 PM	R21010
Surr: Dibromofluoromethane	95.5	70-130		%REC	10	9/4/2014 6:14:13 PM	R21010
Surr: Toluene-d8	94.8	70-130		%REC	10	9/4/2014 6:14:13 PM	R21010
EPA METHOD 418.1: TPH						Analyst: **JME**	
Petroleum Hydrocarbons, TR	140	20		mg/Kg	1	9/2/2014 12:00:00 PM	15036

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow
Lab ID: 1408F15-006 **Matrix:** SOIL

Client Sample ID: B # 11 .WWTP Dirty Sewer Spil
Collection Date: 8/27/2014 4:25:00 PM
Received Date: 8/28/2014 4:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: **BCN**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/3/2014 10:58:41 AM	15031
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/3/2014 10:58:41 AM	15031
Surr: DNOP	80.9	57.9-140		%REC	1	9/3/2014 10:58:41 AM	15031
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/2/2014 5:29:09 PM	15040
Surr: BFB	95.9	80-120		%REC	1	9/2/2014 5:29:09 PM	15040
EPA METHOD 8021B: VOLATILES							Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	9/2/2014 5:29:09 PM	15040
Toluene	ND	0.050		mg/Kg	1	9/2/2014 5:29:09 PM	15040
Ethylbenzene	ND	0.050		mg/Kg	1	9/2/2014 5:29:09 PM	15040
Xylenes, Total	ND	0.10		mg/Kg	1	9/2/2014 5:29:09 PM	15040
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	9/2/2014 5:29:09 PM	15040
EPA METHOD 300.0: ANIONS							Analyst: **LGP**
Chloride	ND	30		mg/Kg	20	9/3/2014 2:37:25 PM	15086
MERCURY, TCLP							Analyst: **MMD**
Mercury	ND	0.020		mg/L	1	9/4/2014 4:30:07 PM	15110
EPA METHOD 6010B: TCLP METALS							Analyst: **ELS**
Arsenic	ND	5.0		mg/L	1	9/4/2014 10:11:06 AM	15099
Barium	ND	100		mg/L	1	9/4/2014 10:11:06 AM	15099
Cadmium	ND	1.0		mg/L	1	9/4/2014 10:11:06 AM	15099
Chromium	ND	5.0		mg/L	1	9/4/2014 10:11:06 AM	15099
Lead	ND	5.0		mg/L	1	9/4/2014 10:11:06 AM	15099
Selenium	ND	1.0		mg/L	1	9/4/2014 10:11:06 AM	15099
Silver	ND	5.0		mg/L	1	9/4/2014 10:11:06 AM	15099
EPA METHOD 8270C TCLP							Analyst: **DAM**
2-Methylphenol	ND	200		mg/L	1	9/5/2014 11:41:28 AM	15124
3+4-Methylphenol	ND	200		mg/L	1	9/5/2014 11:41:28 AM	15124
Phenol	ND	200		mg/L	1	9/5/2014 11:41:28 AM	15124
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/4/2014 1:47:35 PM	15077
Hexachlorobenzene	ND	0.13		mg/L	1	9/4/2014 1:47:35 PM	15077
Hexachlorobutadiene	ND	0.50		mg/L	1	9/4/2014 1:47:35 PM	15077
Hexachloroethane	ND	3.0		mg/L	1	9/4/2014 1:47:35 PM	15077
Nitrobenzene	ND	2.0		mg/L	1	9/4/2014 1:47:35 PM	15077
Pentachlorophenol	ND	100		mg/L	1	9/5/2014 11:41:28 AM	15124
Pyridine	ND	5.0		mg/L	1	9/4/2014 1:47:35 PM	15077
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/5/2014 11:41:28 AM	15124

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow
Lab ID: 1408F15-006 **Matrix:** SOIL

Client Sample ID: B # 11 .WWTP Dirty Sewer Spil
Collection Date: 8/27/2014 4:25:00 PM
Received Date: 8/28/2014 4:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/5/2014 11:41:28 AM	15124
Cresols, Total	ND	200		mg/L	1	9/5/2014 11:41:28 AM	15124
Surr: 2-Fluorophenol	55.8	25-105		%REC	1	9/5/2014 11:41:28 AM	15124
Surr: Phenol-d5	37.3	22.3-70.3		%REC	1	9/5/2014 11:41:28 AM	15124
Surr: 2,4,6-Tribromophenol	51.6	30.4-134		%REC	1	9/5/2014 11:41:28 AM	15124
Surr: Nitrobenzene-d5	77.1	54.8-128		%REC	1	9/4/2014 1:47:35 PM	15077
Surr: 2-Fluorobiphenyl	71.1	53.3-122		%REC	1	9/4/2014 1:47:35 PM	15077
Surr: 4-Terphenyl-d14	67.4	51.8-133		%REC	1	9/4/2014 1:47:35 PM	15077
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **RAA**	
Benzene	ND	0.50		ppm	10	9/4/2014 6:42:14 PM	R21010
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	9/4/2014 6:42:14 PM	R21010
2-Butanone	ND	200		ppm	10	9/4/2014 6:42:14 PM	R21010
Carbon tetrachloride	ND	0.50		ppm	10	9/4/2014 6:42:14 PM	R21010
Chlorobenzene	ND	100		ppm	10	9/4/2014 6:42:14 PM	R21010
Chloroform	ND	6.0		ppm	10	9/4/2014 6:42:14 PM	R21010
1,4-Dichlorobenzene	ND	7.5		ppm	10	9/4/2014 6:42:14 PM	R21010
1,1-Dichloroethene	ND	0.70		ppm	10	9/4/2014 6:42:14 PM	R21010
Tetrachloroethene (PCE)	ND	0.70		ppm	10	9/4/2014 6:42:14 PM	R21010
Trichloroethene (TCE)	ND	0.50		ppm	10	9/4/2014 6:42:14 PM	R21010
Vinyl chloride	ND	0.20		ppm	10	9/4/2014 6:42:14 PM	R21010
mp-Xylenes	ND	0.50		mg/Kg	10	9/4/2014 6:42:14 PM	R21010
o-Xylene	ND	0.50		mg/Kg	10	9/4/2014 6:42:14 PM	R21010
Surr: 1,2-Dichloroethane-d4	90.8	70-130		%REC	10	9/4/2014 6:42:14 PM	R21010
Surr: 4-Bromofluorobenzene	87.1	70-130		%REC	10	9/4/2014 6:42:14 PM	R21010
Surr: Dibromofluoromethane	93.7	70-130		%REC	10	9/4/2014 6:42:14 PM	R21010
Surr: Toluene-d8	98.9	70-130		%REC	10	9/4/2014 6:42:14 PM	R21010
EPA METHOD 418.1: TPH						Analyst: **JME**	
Petroleum Hydrocarbons, TR	27	20		mg/Kg	1	9/2/2014 12:00:00 PM	15036

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

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REPORT OF ANALYSIS

September 04, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L719123-01

Date Received : August 30, 2014
Description :

Site ID :

Sample ID : 1408F15-001B B6 WWTP DIRTY SEWER SPILL

Project # :

Collected By :
Collection Date : 08/27/14 16:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	09/03/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/03/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	09/04/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/03/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 09/04/14 09:57 Revised: 09/04/14 16:20
L719123-01 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

September 04, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L719123-02

Date Received : August 30, 2014
Description :

Site ID :

Sample ID : 1408F15-002B B7 WWTP DIRTY SEWER SPILL

Project # :

Collected By :
Collection Date : 08/27/14 16:05

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	09/03/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/03/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	09/04/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/03/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L719123-02 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

September 04, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L719123-03

Date Received : August 30, 2014
Description :

Site ID :

Sample ID : 1408F15-003B B8 WWTP DIRTY SEWER SPILL

Project # :

Collected By :
Collection Date : 08/27/14 16:10

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	09/03/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/03/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	09/04/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/03/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 09/04/14 09:57 Revised: 09/04/14 16:20
L719123-03 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

September 04, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L719123-04

Date Received : August 30, 2014
Description :

Site ID :

Sample ID : 1408F15-004B B9 WWTP DIRTY SEWER SPILL

Project # :

Collected By :
Collection Date : 08/27/14 16:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	09/03/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/03/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	09/04/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/03/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 09/04/14 09:57 Revised: 09/04/14 16:20
L719123-04 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

September 04, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L719123-05

Date Received : August 30, 2014
Description :

Site ID :

Sample ID : 1408F15-005B B10 WWTP DIRTY SEWER SPILL

Project # :

Collected By :
Collection Date : 08/27/14 16:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	09/03/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/03/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	09/04/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/03/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 09/04/14 09:57 Revised: 09/04/14 16:20
L719123-05 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

September 04, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : August 30, 2014
Description :

ESC Sample # : L719123-06

Sample ID : 1408F15-006B B11 WWTP DIRTY SEWER SPILL

Site ID :

Project # :

Collected By :
Collection Date : 08/27/14 16:25

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	09/03/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/03/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	09/04/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/03/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 09/04/14 09:57 Revised: 09/04/14 16:20
L719123-06 (IGNITABILITY) - Did Not Ignite @ 170 F

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Hall Environmental Analysis Laboratory

4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L719123

September 04, 2014

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Reactive Sulf.(SW846 7.3.4.1)	< 25	mg/kg			WG740721	09/03/14 15:56
Reactive CN (SW846 7.3.3.2)	< .125	mg/kg			WG740724	09/04/14 09:11

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Corrosivity		0.0	0.0	0.0	10	L718412-01	WG740448
Corrosivity		0.0	0.0	0.0	10	L719123-06	WG740448
Ignitability	Deg. F	0.00	0.00	0.00	10	L719123-02	WG740706
Ignitability	Deg. F	0.00	0.00	0.00	10	L719123-06	WG740706
Reactive Sulf.(SW846 7.3.4.1)	mg/kg	0.0	0.0	0.0	20	L719123-06	WG740721
Reactive CN (SW846 7.3.3.2)	mg/kg	0.0	0.0	0.0	20	L719123-06	WG740724

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Corrosivity		6.33	6.40	101.	98.3-101.7	WG740448
Ignitability	Deg. F	82	82.0	100.	93-107	WG740706
Reactive Sulf.(SW846 7.3.4.1)	mg/kg	100	89.0	89.0	70-130	WG740721
Reactive CN (SW846 7.3.3.2)	mg/kg	67.7	93.5	138.	50-150	WG740724

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
Corrosivity		6.30	6.40	100.	98.3-101.7	1.57	10	WG740448
Ignitability	Deg. F	83.0	82.0	101.	93-107	1.21	20	WG740706
Reactive Sulf.(SW846 7.3.4.1)	mg/kg	89.0	89.0	89.0	70-130	0.0	20	WG740721
Reactive CN (SW846 7.3.3.2)	mg/kg	85.5	93.5	126.	50-150	8.94	20	WG740724

Batch number /Run number / Sample number cross reference

WG740448: R2984567: L719123-01 02 03 04 05 06
WG740706: R2984568: L719123-01 02 03 04 05 06
WG740721: R2984651: L719123-01 02 03 04 05 06
WG740724: R2984980: L719123-01 02 03 04 05 06

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408F15**

08-Sep-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID	**MB-15086**	SampType:	**MBLK**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**15086**		RunNo:	**20981**				
Prep Date:	**9/3/2014**	Analysis Date:	**9/3/2014**		SeqNo:	**610807**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-15086**	SampType:	**LCS**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**15086**		RunNo:	**20981**				
Prep Date:	**9/3/2014**	Analysis Date:	**9/3/2014**		SeqNo:	**610808**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	98.3	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408F15**

08-Sep-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15036**	SampType: **MBLK**	TestCode: **EPA Method 418.1: TPH**
Client ID: **PBS**	Batch ID: **15036**	RunNo: **20914**
Prep Date: **8/29/2014**	Analysis Date: **9/2/2014**	SeqNo: **608439** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID **LCS-15036**	SampType: **LCS**	TestCode: **EPA Method 418.1: TPH**
Client ID: **LCSS**	Batch ID: **15036**	RunNo: **20914**
Prep Date: **8/29/2014**	Analysis Date: **9/2/2014**	SeqNo: **608440** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	98	20	100.0	0	98.1	80	120			

Sample ID **LCSD-15036**	SampType: **LCSD**	TestCode: **EPA Method 418.1: TPH**
Client ID: **LCSS02**	Batch ID: **15036**	RunNo: **20914**
Prep Date: **8/29/2014**	Analysis Date: **9/2/2014**	SeqNo: **608441** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	94	20	100.0	0	93.5	80	120	4.80	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408F15**

08-Sep-14

Client: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow

Sample ID **MB-15031**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **15031**	RunNo: **20880**
Prep Date: **8/29/2014**	Analysis Date: **8/29/2014**	SeqNo: **607914** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		92.7	57.9	140			

Sample ID **LCS-15031**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **15031**	RunNo: **20880**
Prep Date: **8/29/2014**	Analysis Date: **8/29/2014**	SeqNo: **607922** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.9	68.6	130			
Surr: DNOP	4.4		5.000		87.8	57.9	140			

Sample ID **MB-15081**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **15081**	RunNo: **20948**
Prep Date: **9/3/2014**	Analysis Date: **9/3/2014**	SeqNo: **610141** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.6		10.00		86.0	57.9	140			

Sample ID **LCS-15081**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **15081**	RunNo: **20948**
Prep Date: **9/3/2014**	Analysis Date: **9/3/2014**	SeqNo: **610142** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.8		5.000		76.2	57.9	140			

Sample ID **MB-15053**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **15053**	RunNo: **20950**
Prep Date: **9/2/2014**	Analysis Date: **9/3/2014**	SeqNo: **610293** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.2		10.00		71.9	57.9	140			

Sample ID **LCS-15053**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **15053**	RunNo: **20950**
Prep Date: **9/2/2014**	Analysis Date: **9/3/2014**	SeqNo: **610294** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.9		5.000		78.6	57.9	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408F15**

08-Sep-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15106**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **15106**	RunNo: **20982**
Prep Date: **9/4/2014**	Analysis Date: **9/4/2014**	SeqNo: **610877** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.4		10.00		83.8	57.9	140			

Sample ID **LCS-15106**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **15106**	RunNo: **20982**
Prep Date: **9/4/2014**	Analysis Date: **9/4/2014**	SeqNo: **610878** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		82.5	57.9	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408F15**

08-Sep-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15040**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **15040**	RunNo: **20945**
Prep Date: **8/29/2014**	Analysis Date: **9/2/2014**	SeqNo: **609445** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		94.0	80	120			

Sample ID **LCS-15040**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **15040**	RunNo: **20945**
Prep Date: **8/29/2014**	Analysis Date: **9/2/2014**	SeqNo: **609446** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	65.8	139			
Surr: BFB	1000		1000		101	80	120			

Sample ID **1408F15-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **B # 7 .WWTP Dirty S**	Batch ID: **15040**	RunNo: **20945**
Prep Date: **8/29/2014**	Analysis Date: **9/2/2014**	SeqNo: **609452** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	24.90	3.816	95.0	71.8	132			
Surr: BFB	1300		996.0		129	80	120			S

Sample ID **1408F15-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **B # 7 .WWTP Dirty S**	Batch ID: **15040**	RunNo: **20945**
Prep Date: **8/29/2014**	Analysis Date: **9/2/2014**	SeqNo: **609453** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	3.816	100	71.8	132	4.94	20	
Surr: BFB	1300		1000		131	80	120	0	0	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408F15**

08-Sep-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15040**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **15040**	RunNo: **20945**
Prep Date: **8/29/2014**	Analysis Date: **9/2/2014**	SeqNo: **609461** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID **LCS-15040**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **15040**	RunNo: **20945**
Prep Date: **8/29/2014**	Analysis Date: **9/2/2014**	SeqNo: **609463** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	106	80	120			
Toluene	1.0	0.050	1.000	0	105	80	120			
Ethylbenzene	1.1	0.050	1.000	0	109	80	120			
Xylenes, Total	3.3	0.10	3.000	0	110	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID **1408F15-003AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **B # 8 .WWTP Dirty S**	Batch ID: **15040**	RunNo: **20945**
Prep Date: **8/29/2014**	Analysis Date: **9/2/2014**	SeqNo: **609470** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.050	0.9980	0	97.4	77.4	142			
Toluene	0.99	0.050	0.9980	0.008482	98.0	77	132			
Ethylbenzene	1.0	0.050	0.9980	0.01317	103	77.6	134			
Xylenes, Total	3.2	0.10	2.994	0.07580	104	77.4	132			
Surr: 4-Bromofluorobenzene	1.2		0.9980		122	80	120			S

Sample ID **1408F15-003AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **B # 8 .WWTP Dirty S**	Batch ID: **15040**	RunNo: **20945**
Prep Date: **8/29/2014**	Analysis Date: **9/2/2014**	SeqNo: **609471** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.050	0.9980	0	96.9	77.4	142	0.500	20	
Toluene	1.0	0.050	0.9980	0.008482	99.3	77	132	1.33	20	
Ethylbenzene	1.0	0.050	0.9980	0.01317	103	77.6	134	0.272	20	
Xylenes, Total	3.2	0.10	2.994	0.07580	103	77.4	132	0.813	20	
Surr: 4-Bromofluorobenzene	1.1		0.9980		112	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408F15**

08-Sep-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **mb-15040**	SampType: **MBLK**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **PBS**	Batch ID: **15040**	RunNo: **20965**
Prep Date: **8/29/2014**	Analysis Date: **9/3/2014**	SeqNo: **611068** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
2-Butanone	ND	20								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	10								
Chloroform	ND	0.60								
1,4-Dichlorobenzene	ND	0.75								
1,1-Dichloroethene	ND	0.070								
Tetrachloroethene (PCE)	ND	0.070								
Trichloroethene (TCE)	ND	0.050								
Vinyl chloride	ND	0.020								
Surr: 1,2-Dichloroethane-d4	0.39		0.5000		78.4	70	130			
Surr: 4-Bromofluorobenzene	0.42		0.5000		84.3	70	130			
Surr: Dibromofluoromethane	0.39		0.5000		78.9	70	130			
Surr: Toluene-d8	0.46		0.5000		91.2	70	130			

Sample ID **lcs-15040**	SampType: **LCS**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **LCSS**	Batch ID: **15040**	RunNo: **20965**
Prep Date: **8/29/2014**	Analysis Date: **9/3/2014**	SeqNo: **611069** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.050	1.000	0	88.0	70	130			
Chlorobenzene	0.86	0.20	1.000	0	85.6	70	130			
1,1-Dichloroethene	0.82	0.070	1.000	0	81.8	60.5	160			
Trichloroethene (TCE)	0.88	0.050	1.000	0	88.2	58.8	139			
Surr: 1,2-Dichloroethane-d4	0.42		0.5000		84.3	70	130			
Surr: 4-Bromofluorobenzene	0.43		0.5000		86.1	70	130			
Surr: Dibromofluoromethane	0.42		0.5000		83.9	70	130			
Surr: Toluene-d8	0.47		0.5000		93.5	70	130			

Sample ID **1408f15-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **B # 6 .WWTP Dirty S**	Batch ID: **15040**	RunNo: **21010**
Prep Date: **8/29/2014**	Analysis Date: **9/4/2014**	SeqNo: **611726** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.50	0.9960	0	85.3	32.2	145			
Chlorobenzene	0.88	0.10	0.9960	0	88.4	32.4	142			
1,1-Dichloroethene	0.62	0.10	0.9960	0	62.3	32.6	155			
Trichloroethene (TCE)	0.86	0.50	0.9960	0.007335	85.4	29.2	150			
Surr: 1,2-Dichloroethane-d4	4.8		4.980		95.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408F15**

08-Sep-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **1408f15-001ams** SampType: **MS** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **B # 6 .WWTP Dirty S** Batch ID: **15040** RunNo: **21010**

Prep Date: **8/29/2014** Analysis Date: **9/4/2014** SeqNo: **611726** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	4.6		4.980		92.7	70	130			
Surr: Dibromofluoromethane	4.7		4.980		93.8	70	130			
Surr: Toluene-d8	4.8		4.980		95.9	70	130			

Sample ID **1408f15-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **B # 6 .WWTP Dirty S** Batch ID: **15040** RunNo: **21010**

Prep Date: **8/29/2014** Analysis Date: **9/4/2014** SeqNo: **611727** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.50	0.9990	0	90.9	32.2	145	6.62	20	
Chlorobenzene	0.85	0.10	0.9990	0	85.1	32.4	142	3.46	20	
1,1-Dichloroethene	0.71	0.70	0.9990	0	70.6	32.6	155	12.9	20	
Trichloroethene (TCE)	0.91	0.50	0.9990	0.007335	90.8	29.2	150	6.31	20	
Surr: 1,2-Dichloroethane-d4	4.8		4.995		95.2	70	130	0	0	
Surr: 4-Bromofluorobenzene	4.4		4.995		87.7	70	130	0	0	
Surr: Dibromofluoromethane	4.8		4.995		95.5	70	130	0	0	
Surr: Toluene-d8	4.8		4.995		96.4	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408F15**

08-Sep-14

Client: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow

Sample ID **mb-15077**	SampType: **MBLK**	TestCode: **EPA Method 8270C TCLP**
Client ID: **PBS**	Batch ID: **15077**	RunNo: **20972**
Prep Date: **9/3/2014**	Analysis Date: **9/3/2014**	SeqNo: **610620** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.14		0.2000		71.0	25	105			
Surr: Phenol-d5	0.097		0.2000		48.6	22.3	70.3			
Surr: 2,4,6-Tribromophenol	0.14		0.2000		72.1	30.4	134			
Surr: Nitrobenzene-d5	0.094		0.1000		93.9	54.8	128			
Surr: 2-Fluorobiphenyl	0.088		0.1000		88.3	53.3	122			
Surr: 4-Terphenyl-d14	0.094		0.1000		93.7	51.8	133			

Sample ID **lcs-15077**	SampType: **LCS**	TestCode: **EPA Method 8270C TCLP**
Client ID: **LCSS**	Batch ID: **15077**	RunNo: **20972**
Prep Date: **9/3/2014**	Analysis Date: **9/3/2014**	SeqNo: **610621** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.085	0.010	0.1000	0	84.9	52.2	95.7			
3+4-Methylphenol	0.17	0.010	0.2000	0	85.9	52.4	142			
2,4-Dinitrotoluene	0.084	0.010	0.1000	0	84.3	43.4	110			
Hexachlorobenzene	0.095	0.010	0.1000	0	95.2	43.6	88.4			S
Hexachlorobutadiene	0.063	0.010	0.1000	0	63.2	38.6	88.4			
Hexachloroethane	0.074	0.010	0.1000	0	73.6	45.7	83.6			
Nitrobenzene	0.094	0.010	0.1000	0	94.1	51.9	112			
Pentachlorophenol	0.054	0.010	0.1000	0	54.5	15.2	81.5			
Pyridine	0.038	0.010	0.1000	0	38.3	11.2	95.1			
2,4,5-Trichlorophenol	0.081	0.010	0.1000	0	80.5	46.9	110			
2,4,6-Trichlorophenol	0.078	0.010	0.1000	0	78.0	36.1	111			
Cresols, Total	0.26	0.010	0.3000	0	85.6	30	136			
Surr: 2-Fluorophenol	0.14		0.2000		71.8	25	105			
Surr: Phenol-d5	0.096		0.2000		48.1	22.3	70.3			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408F15**

08-Sep-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **lcs-15077**	SampType: **LCS**	TestCode: **EPA Method 8270C TCLP**
Client ID: **LCSS**	Batch ID: **15077**	RunNo: **20972**
Prep Date: **9/3/2014**	Analysis Date: **9/3/2014**	SeqNo: **610621** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.15		0.2000		75.0	30.4	134			
Surr: Nitrobenzene-d5	0.10		0.1000		100	54.8	128			
Surr: 2-Fluorobiphenyl	0.094		0.1000		93.7	53.3	122			
Surr: 4-Terphenyl-d14	0.10		0.1000		102	51.8	133			

Sample ID **mb-15124**	SampType: **MBLK**	TestCode: **EPA Method 8270C TCLP**
Client ID: **PBS**	Batch ID: **15124**	RunNo: **21017**
Prep Date: **9/4/2014**	Analysis Date: **9/5/2014**	SeqNo: **611904** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
Pentachlorophenol	ND	100								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.12		0.2000		58.8	25	105			
Surr: Phenol-d5	0.082		0.2000		41.0	22.3	70.3			
Surr: 2,4,6-Tribromophenol	0.12		0.2000		59.4	30.4	134			
Surr: Nitrobenzene-d5	0.071		0.1000		71.2	54.8	128			
Surr: 2-Fluorobiphenyl	0.065		0.1000		64.6	53.3	122			
Surr: 4-Terphenyl-d14	0.076		0.1000		75.6	51.8	133			

Sample ID **lcs-15124**	SampType: **LCS**	TestCode: **EPA Method 8270C TCLP**
Client ID: **LCSS**	Batch ID: **15124**	RunNo: **21017**
Prep Date: **9/4/2014**	Analysis Date: **9/5/2014**	SeqNo: **612042** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.052	0.010	0.1000	0	52.4	52.2	95.7			
3+4-Methylphenol	0.11	0.010	0.2000	0	53.7	52.4	142			
Pentachlorophenol	0.029	0.010	0.1000	0	28.6	15.2	81.5			
2,4,5-Trichlorophenol	0.054	0.010	0.1000	0	54.2	46.9	110			
2,4,6-Trichlorophenol	0.049	0.010	0.1000	0	49.3	36.1	111			
Cresols, Total	0.16	0.010	0.3000	0	53.3	30	136			
Surr: 2-Fluorophenol	0.087		0.2000		43.5	25	105			
Surr: Phenol-d5	0.059		0.2000		29.4	22.3	70.3			
Surr: 2,4,6-Tribromophenol	0.11		0.2000		54.2	30.4	134			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408F15**

08-Sep-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15110**	SampType: **MBLK**	TestCode: **MERCURY, TCLP**
Client ID: **PBW**	Batch ID: **15110**	RunNo: **20998**
Prep Date: **9/4/2014**	Analysis Date: **9/4/2014**	SeqNo: **611074** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID **LCS-15110**	SampType: **LCS**	TestCode: **MERCURY, TCLP**
Client ID: **LCSW**	Batch ID: **15110**	RunNo: **20998**
Prep Date: **9/4/2014**	Analysis Date: **9/4/2014**	SeqNo: **611075** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	108	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408F15**

08-Sep-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15099**	SampType: **MBLK**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **PBW**	Batch ID: **15099**	RunNo: **20977**
Prep Date: **9/3/2014**	Analysis Date: **9/4/2014**	SeqNo: **610674** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID **LCS-15099**	SampType: **LCS**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **LCSW**	Batch ID: **15099**	RunNo: **20977**
Prep Date: **9/3/2014**	Analysis Date: **9/4/2014**	SeqNo: **610675** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	107	80	120			
Barium	ND	100	0.5000	0	93.5	80	120			
Cadmium	ND	1.0	0.5000	0	99.9	80	120			
Chromium	ND	5.0	0.5000	0	96.2	80	120			
Lead	ND	5.0	0.5000	0	92.5	80	120			
Selenium	ND	1.0	0.5000	0	102	80	120			
Silver	ND	5.0	0.5000	0	103	80	120			

Sample ID **1408F15-005AMS**	SampType: **MS**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **B # 10 .WWTP Dirty**	Batch ID: **15099**	RunNo: **20977**
Prep Date: **9/3/2014**	Analysis Date: **9/4/2014**	SeqNo: **610691** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	103	75	125			
Barium	ND	100	0.5000	1.401	78.9	75	125			
Cadmium	ND	1.0	0.5000	0	97.4	75	125			
Chromium	ND	5.0	0.5000	0	90.5	75	125			
Lead	ND	5.0	0.5000	0	87.5	75	125			
Selenium	ND	1.0	0.5000	0	92.0	75	125			
Silver	ND	5.0	0.5000	0	103	75	125			

Sample ID **1408F15-005AMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **B # 10 .WWTP Dirty**	Batch ID: **15099**	RunNo: **20977**
Prep Date: **9/3/2014**	Analysis Date: **9/4/2014**	SeqNo: **610692** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	102	75	125	0	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408F15**

08-Sep-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **1408F15-005AMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **B # 10 .WWTP Dirty**	Batch ID: **15099**	RunNo: **20977**
Prep Date: **9/3/2014**	Analysis Date: **9/4/2014**	SeqNo: **610692** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	100	0.5000	1.401	83.4	75	125	0	20	
Cadmium	ND	1.0	0.5000	0	97.5	75	125	0	20	
Chromium	ND	5.0	0.5000	0	90.6	75	125	0	20	
Lead	ND	5.0	0.5000	0	87.3	75	125	0	20	
Selenium	ND	1.0	0.5000	0	90.3	75	125	0	20	
Silver	ND	5.0	0.5000	0	103	75	125	0	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1408F15 RcptNo: 1

Received by/date: CS 08/28/14

Logged By: Lindsay Mangin 8/28/2014 4:35:00 PM

Completed By: Lindsay Mangin 8/29/2014 7:35:44 AM

Reviewed By: MJ 08/29/14

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ✔	No	Not Present
2. Is Chain of Custody complete?	Yes ✔	No	Not Present
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ✔	No	NA
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
6. Sample(s) in proper container(s)?	Yes ✔	No	
7. Sufficient sample volume for indicated test(s)?	Yes ✔	No	
8. Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
9. Was preservative added to bottles?	Yes	No ✔	NA
10. VOA vials have zero headspace?	Yes	No	No VOA Vials ✔
11. Were any sample containers received broken?	Yes	No ✔	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ✔	No	Adjusted?
14. Is it clear what analyses were requested?	Yes ✔	No	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes No NA ✔

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western - Refining

Mailing Address: 92 GIANT CROSSING ROAD

Gallup NM 87301

Phone #: 505 722 3833

email or Fax#: 505 863 0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

☐ Other _____

☐ EDD (Type) _____

☐ Standard ☒ Rush

Project Name: WWTP Baker Tank Overflow

Project #:

Dirty Sewer Spill

Project Manager: Beck Larsen

Sampler: CTI

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0°

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1408EF15	BTEX (8021)B	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO/DRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) TCLP	8270 (Semi-VOA) TCLP	RCI	TCLP Metals	Oil & Grease	Chlorides	Air Bubbles (Y or N)
8/27/2014	16:00	Soil	B # 6 .WWTP Dirty Sewer Spill	9 oz - 2	N/A	-001	X		X	X						X	X	X	X		X	
8/27/2014	16:05	Soil	B # 7 .WWTP Dirty Sewer Spill	9 oz - 2	N/A	-002	X		X	X						X	X	X	X		X	
8/27/2014	16:10	Soil	B # 8 .WWTP Dirty Sewer Spill	9 oz - 2	N/A	-003	X		X	X						X	X	X	X		X	
8/27/2014	16:15	Soil	B # 9 .WWTP Dirty Sewer Spill	9 oz - 2	N/A	-004	X		X	X						X	X	X	X		X	
8/27/2014	16:20	Soil	B # 10 .WWTP Dirty Sewer Spill	9 oz - 2	N/A	-005	X		X	X						X	X	X	X		X	
8/27/2014	16:25	Soil	B # 11 .WWTP Dirty Sewer Spill	9 oz - 2	N/A	-006	X		X	X						X	X	X	X		X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
08-28-14	1400	Alvin Dorsey		8-28-	1400
8/28/14	1635		Celin Sun	08/28/14	1635

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: WESTERN REFINING	Contact: Beck Larsen
Address: I-40 / EXIT 39, JAMESTOWN,NM 87347	Telephone No.(505) 722-0258
Facility Name: WESTERN REFINING (GALLUP REFINERY)	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15 N	15 W					MCKINLEY

Latitude__35° 029' 024"__ **Longitude**__108° 024' 024"__

NATURE OF RELEASE

Type of Release: Dirty Sewer Water	Volume of Release- Oil-14 bbls	Volume Recovered: Oil- 14 bbls
Source of Release: Secondary Baker Frac Tanks at WWTP	Date and Hour of Occurrence 8/5/14 @ 1405 hrs	Date and Hour of Discovery 8/5/14 @ 1405 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD (C. Chavez) / NMED HWB (Kristen Van Horn)	
By Whom? Beck Larsen	Date and Hour: 8/6/14 C. Chavez @1335 hrs / K. Van Horn @ 1345 hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.* Oily Sewer Water from the Secondary Baker Frac Tank at the WWTP overflowed to the ground and along a conveyance ditch. Cleanup operations started promptly using a vacuum truck to remove standing liquids from the soil and conveyance ditch. Initial soil samples were collected and submitted to the laboratory for analysis in order to make a proper determination of the extent of penetration of the oil and to determine the amount of cleanup that is required. Analytical results indicated that this material was TPH soil and it was characteristically RCRA non-hazardous.

Describe Area Affected and Cleanup Action Taken.* Approximately18 cubic yards of soil was excavated from the contaminated area. Five (5) initial soil samples (B-1, B-2, B-3, B-4, and B-5) (lab# 1408348) were collected along the conveyance ditch in the area of contamination and submitted to the laboratory for analysis which gave a preliminary findings. A secondary soil was collected also (B-6, B-7, B-8, B-9, B-10, and B-11) (lab # 1408F15) that was more comprehensive in scope. These findings indicated that only one area (B-7) reflected a higher level of TPH, DRO, and MRO. Additional soils was removed for sample point (B-7) and resubmitted under sample points (C-12 and C-13) (lab # 1409D84). A composite sample was collected for Bin # 2051 (lab # 1409350) for the material that is to be shipped offsite. A Waste Determination indicated that this material is RCRA Non-hazardous TPH soil (PCS, Petroleum Contaminated Soil) and was shipped to a RCRA Non-hazardous Subtitle D Landfill for proper disposal on November 3, 2014 (manifest # D68606) Refer to the attached analysis for further detail.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Beck Larsen:	Approved by Environmental Specialist:	
Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:	Attached ☐
Date: 2/25/2015 Phone: (505) 722-0258		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 06, 2014

Beck Larsen
Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: WWTP Baker Tank Overflow

OrderNo.: 1409D84

Dear Beck Larsen:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/26/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow
Lab ID: 1409D84-001 **Matrix:** SOIL

Client Sample ID: C # 12 .WWTP Dirty Sewer Spill
Collection Date: 9/25/2014 10:15:00 AM
Received Date: 9/26/2014 2:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	34	10		mg/Kg	1	9/30/2014 12:55:26 PM	15573
Surr: DNOP	82.5	57.9-140		%REC	1	9/30/2014 12:55:26 PM	15573
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/30/2014 1:31:44 PM	15572
Surr: BFB	88.5	80-120		%REC	1	9/30/2014 1:31:44 PM	15572
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	9/30/2014 1:31:44 PM	15572
Toluene	ND	0.050		mg/Kg	1	9/30/2014 1:31:44 PM	15572
Ethylbenzene	ND	0.050		mg/Kg	1	9/30/2014 1:31:44 PM	15572
Xylenes, Total	ND	0.10		mg/Kg	1	9/30/2014 1:31:44 PM	15572
Surr: 4-Bromofluorobenzene	92.1	80-120		%REC	1	9/30/2014 1:31:44 PM	15572
EPA METHOD 300.0: ANIONS						Analyst: **LGP**	
Chloride	1600	75		mg/Kg	50	10/3/2014 10:37:00 PM	15625
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	9/30/2014 3:33:01 PM	15626
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	10/1/2014 9:20:52 AM	15621
Barium	ND	100		mg/L	1	10/1/2014 9:20:52 AM	15621
Cadmium	ND	1.0		mg/L	1	10/1/2014 9:20:52 AM	15621
Chromium	ND	5.0		mg/L	1	10/1/2014 9:20:52 AM	15621
Lead	ND	5.0		mg/L	1	10/1/2014 9:20:52 AM	15621
Selenium	ND	1.0		mg/L	1	10/1/2014 9:20:52 AM	15621
Silver	ND	5.0		mg/L	1	10/1/2014 11:31:12 AM	15621
EPA METHOD 8270C TCLP						Analyst: **JDC**	
2-Methylphenol	ND	200		mg/L	1	9/30/2014 5:29:00 PM	15627
3+4-Methylphenol	ND	200		mg/L	1	9/30/2014 5:29:00 PM	15627
Phenol	ND	200		mg/L	1	9/30/2014 5:29:00 PM	15627
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/30/2014 5:29:00 PM	15627
Hexachlorobenzene	ND	0.13		mg/L	1	9/30/2014 5:29:00 PM	15627
Hexachlorobutadiene	ND	0.50		mg/L	1	9/30/2014 5:29:00 PM	15627
Hexachloroethane	ND	3.0		mg/L	1	9/30/2014 5:29:00 PM	15627
Nitrobenzene	ND	2.0		mg/L	1	9/30/2014 5:29:00 PM	15627
Pentachlorophenol	ND	100		mg/L	1	9/30/2014 5:29:00 PM	15627
Pyridine	ND	5.0		mg/L	1	9/30/2014 5:29:00 PM	15627
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/30/2014 5:29:00 PM	15627
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/30/2014 5:29:00 PM	15627

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow
Lab ID: 1409D84-001 **Matrix:** SOIL

Client Sample ID: C # 12 .WWTP Dirty Sewer Spill
Collection Date: 9/25/2014 10:15:00 AM
Received Date: 9/26/2014 2:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **JDC**	
Cresols, Total	ND	200		mg/L	1	9/30/2014 5:29:00 PM	15627
Surr: 2-Fluorophenol	56.2	25-105		%REC	1	9/30/2014 5:29:00 PM	15627
Surr: Phenol-d5	50.6	22.3-70.3		%REC	1	9/30/2014 5:29:00 PM	15627
Surr: 2,4,6-Tribromophenol	37.0	30.4-134		%REC	1	9/30/2014 5:29:00 PM	15627
Surr: Nitrobenzene-d5	67.1	54.8-128		%REC	1	9/30/2014 5:29:00 PM	15627
Surr: 2-Fluorobiphenyl	63.2	53.3-122		%REC	1	9/30/2014 5:29:00 PM	15627
Surr: 4-Terphenyl-d14	71.8	51.8-133		%REC	1	9/30/2014 5:29:00 PM	15627
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **RAA**	
Benzene	ND	0.50		ppm	10	10/1/2014 4:41:48 AM	15572
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	10/1/2014 4:41:48 AM	15572
2-Butanone	ND	200		ppm	10	10/1/2014 4:41:48 AM	15572
Carbon tetrachloride	ND	0.50		ppm	10	10/1/2014 4:41:48 AM	15572
Chlorobenzene	ND	100		ppm	10	10/1/2014 4:41:48 AM	15572
Chloroform	ND	6.0		ppm	10	10/1/2014 4:41:48 AM	15572
1,4-Dichlorobenzene	ND	7.5		ppm	10	10/1/2014 4:41:48 AM	15572
1,1-Dichloroethene	ND	0.70		ppm	10	10/1/2014 4:41:48 AM	15572
Tetrachloroethene (PCE)	ND	0.70		ppm	10	10/1/2014 4:41:48 AM	15572
Trichloroethene (TCE)	ND	0.50		ppm	10	10/1/2014 4:41:48 AM	15572
Vinyl chloride	ND	0.20		ppm	10	10/1/2014 4:41:48 AM	15572
Surr: 1,2-Dichloroethane-d4	84.5	70-130		%REC	10	10/1/2014 4:41:48 AM	15572
Surr: 4-Bromofluorobenzene	89.6	70-130		%REC	10	10/1/2014 4:41:48 AM	15572
Surr: Dibromofluoromethane	79.2	70-130		%REC	10	10/1/2014 4:41:48 AM	15572
Surr: Toluene-d8	90.0	70-130		%REC	10	10/1/2014 4:41:48 AM	15572
EPA METHOD 418.1: TPH						Analyst: **BCN**	
Petroleum Hydrocarbons, TR	160	20		mg/Kg	1	9/30/2014 5:00:00 PM	15549

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
O	RSD is greater than RSDlimit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow
Lab ID: 1409D84-002 **Matrix:** SOIL

Client Sample ID: C # 13 .WWTP Dirty Sewer Spill
Collection Date: 9/25/2014 10:20:00 AM
Received Date: 9/26/2014 2:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/30/2014 4:28:28 PM	15573
Surr: DNOP	123	57.9-140		%REC	1	9/30/2014 4:28:28 PM	15573
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/30/2014 2:57:39 PM	15572
Surr: BFB	88.7	80-120		%REC	1	9/30/2014 2:57:39 PM	15572
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	9/30/2014 2:57:39 PM	15572
Toluene	ND	0.050		mg/Kg	1	9/30/2014 2:57:39 PM	15572
Ethylbenzene	ND	0.050		mg/Kg	1	9/30/2014 2:57:39 PM	15572
Xylenes, Total	ND	0.10		mg/Kg	1	9/30/2014 2:57:39 PM	15572
Surr: 4-Bromofluorobenzene	93.8	80-120		%REC	1	9/30/2014 2:57:39 PM	15572
EPA METHOD 300.0: ANIONS						Analyst: **LGP**	
Chloride	230	30		mg/Kg	20	9/30/2014 1:40:07 PM	15625
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	9/30/2014 3:34:50 PM	15626
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	10/1/2014 9:22:08 AM	15621
Barium	ND	100		mg/L	1	10/1/2014 9:22:08 AM	15621
Cadmium	ND	1.0		mg/L	1	10/1/2014 9:22:08 AM	15621
Chromium	ND	5.0		mg/L	1	10/1/2014 9:22:08 AM	15621
Lead	ND	5.0		mg/L	1	10/1/2014 9:22:08 AM	15621
Selenium	ND	1.0		mg/L	1	10/1/2014 9:22:08 AM	15621
Silver	ND	5.0		mg/L	1	10/1/2014 11:33:09 AM	15621
EPA METHOD 8270C TCLP						Analyst: **JDC**	
2-Methylphenol	ND	200		mg/L	1	9/30/2014 5:57:03 PM	15627
3+4-Methylphenol	ND	200		mg/L	1	9/30/2014 5:57:03 PM	15627
Phenol	ND	200		mg/L	1	9/30/2014 5:57:03 PM	15627
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/30/2014 5:57:03 PM	15627
Hexachlorobenzene	ND	0.13		mg/L	1	9/30/2014 5:57:03 PM	15627
Hexachlorobutadiene	ND	0.50		mg/L	1	9/30/2014 5:57:03 PM	15627
Hexachloroethane	ND	3.0		mg/L	1	9/30/2014 5:57:03 PM	15627
Nitrobenzene	ND	2.0		mg/L	1	9/30/2014 5:57:03 PM	15627
Pentachlorophenol	ND	100		mg/L	1	9/30/2014 5:57:03 PM	15627
Pyridine	ND	5.0		mg/L	1	9/30/2014 5:57:03 PM	15627
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/30/2014 5:57:03 PM	15627
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/30/2014 5:57:03 PM	15627

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow
Lab ID: 1409D84-002 **Matrix:** SOIL

Client Sample ID: C # 13 .WWTP Dirty Sewer Spill
Collection Date: 9/25/2014 10:20:00 AM
Received Date: 9/26/2014 2:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **JDC**	
Cresols, Total	ND	200		mg/L	1	9/30/2014 5:57:03 PM	15627
Surr: 2-Fluorophenol	74.3	25-105		%REC	1	9/30/2014 5:57:03 PM	15627
Surr: Phenol-d5	67.2	22.3-70.3		%REC	1	9/30/2014 5:57:03 PM	15627
Surr: 2,4,6-Tribromophenol	44.2	30.4-134		%REC	1	9/30/2014 5:57:03 PM	15627
Surr: Nitrobenzene-d5	82.4	54.8-128		%REC	1	9/30/2014 5:57:03 PM	15627
Surr: 2-Fluorobiphenyl	76.7	53.3-122		%REC	1	9/30/2014 5:57:03 PM	15627
Surr: 4-Terphenyl-d14	80.6	51.8-133		%REC	1	9/30/2014 5:57:03 PM	15627
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **RAA**	
Benzene	ND	0.50		ppm	10	10/1/2014 5:09:51 AM	15572
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	10/1/2014 5:09:51 AM	15572
2-Butanone	ND	200		ppm	10	10/1/2014 5:09:51 AM	15572
Carbon tetrachloride	ND	0.50		ppm	10	10/1/2014 5:09:51 AM	15572
Chlorobenzene	ND	100		ppm	10	10/1/2014 5:09:51 AM	15572
Chloroform	ND	6.0		ppm	10	10/1/2014 5:09:51 AM	15572
1,4-Dichlorobenzene	ND	7.5		ppm	10	10/1/2014 5:09:51 AM	15572
1,1-Dichloroethene	ND	0.70		ppm	10	10/1/2014 5:09:51 AM	15572
Tetrachloroethene (PCE)	ND	0.70		ppm	10	10/1/2014 5:09:51 AM	15572
Trichloroethene (TCE)	ND	0.50		ppm	10	10/1/2014 5:09:51 AM	15572
Vinyl chloride	ND	0.20		ppm	10	10/1/2014 5:09:51 AM	15572
Surr: 1,2-Dichloroethane-d4	83.8	70-130		%REC	10	10/1/2014 5:09:51 AM	15572
Surr: 4-Bromofluorobenzene	87.5	70-130		%REC	10	10/1/2014 5:09:51 AM	15572
Surr: Dibromofluoromethane	82.2	70-130		%REC	10	10/1/2014 5:09:51 AM	15572
Surr: Toluene-d8	87.4	70-130		%REC	10	10/1/2014 5:09:51 AM	15572
EPA METHOD 418.1: TPH						Analyst: **BCN**	
Petroleum Hydrocarbons, TR	92	20		mg/Kg	1	9/30/2014 5:00:00 PM	15549

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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J	Analyte detected below quantitation limits
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B	Analyte detected in the associated Method Blank
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P	Sample pH greater than 2.
RL	Reporting Detection Limit

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140930020
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1409D84
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140930020-001	**Sampling Date**	9/25/2014	**Date/Time Received**	9/30/2014 12:05 PM
Client Sample ID	1409D84-001B / C # 12 .WWTP DIRTY SEWER SPILL	**Sampling Time**	10:15 AM	**Extraction Date**	
		Sample Location			
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	0.241	10/2/2014	CRW	SW846 CH7	
Ignitability	Negative			10/1/2014	JWC	EPA 1030	
pH	9.31	ph Units		10/2/2014	KJS	EPA 9045	
Reactive sulfide	ND	mg/kg	24.1	10/3/2014	HSW	SW846 CH7	

Sample Number	140930020-002	**Sampling Date**	9/25/2014	**Date/Time Received**	9/30/2014 12:05 PM
Client Sample ID	1409D84-002B / C # 13 .WWTP DIRTY SEWER SPILL	**Sampling Time**	10:20 AM	**Extraction Date**	
		Sample Location			
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	0.239	10/2/2014	CRW	SW846 CH7	
Ignitability	Negative			10/1/2014	JWC	EPA 1030	
pH	9.15	ph Units		10/2/2014	KJS	EPA 9045	
Reactive sulfide	ND	mg/kg	23.9	10/3/2014	HSW	SW846 CH7	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 140930020
Project Name: 1409D84

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Reactive sulfide	0.160	mg/kg	0.2	80.0	80-120	10/3/2014	10/3/2014
Cyanide (reactive)	0.525	mg/kg	0.5	105.0	70-130	10/2/2014	10/2/2014

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
140930020-002	Reactive sulfide	ND	33.5	mg/kg	47.8	70.1	70-130	10/3/2014	10/3/2014
140930020-001	Cyanide (reactive)	ND	12.0	mg/kg	12.05	99.6	70-130	10/2/2014	10/2/2014

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide (reactive)	11.9	mg/kg	12.05	98.8	0.8	0-25	10/2/2014	10/2/2014

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide (reactive)	ND	mg/Kg	1	10/2/2014	10/2/2014
Reactive sulfide	ND	mg/kg	10	10/3/2014	10/3/2014

AR Acceptable Range
ND Not Detected
PQL Practical Quantitation Limit
RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

Friday, October 03, 2014

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1409D84**

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15625**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **15625**	RunNo: **21569**
Prep Date: **9/30/2014**	Analysis Date: **9/30/2014**	SeqNo: **632031** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID **LCS-15625**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **15625**	RunNo: **21569**
Prep Date: **9/30/2014**	Analysis Date: **9/30/2014**	SeqNo: **632032** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.7	90	110			

Qualifiers:

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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1409D84**

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15549**	SampType: **MBLK**	TestCode: **EPA Method 418.1: TPH**
Client ID: **PBS**	Batch ID: **15549**	RunNo: **21532**
Prep Date: **9/26/2014**	Analysis Date: **9/30/2014**	SeqNo: **630106** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID **LCS-15549**	SampType: **LCS**	TestCode: **EPA Method 418.1: TPH**
Client ID: **LCSS**	Batch ID: **15549**	RunNo: **21532**
Prep Date: **9/26/2014**	Analysis Date: **9/30/2014**	SeqNo: **630107** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	120	20	100.0	0	119	80	120			

Sample ID **LCSD-15549**	SampType: **LCSD**	TestCode: **EPA Method 418.1: TPH**
Client ID: **LCSS02**	Batch ID: **15549**	RunNo: **21532**
Prep Date: **9/26/2014**	Analysis Date: **9/30/2014**	SeqNo: **630108** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	120	20	100.0	0	117	80	120	1.24	20	

Qualifiers:

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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1409D84**

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15573**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **15573**	RunNo: **21539**
Prep Date: **9/29/2014**	Analysis Date: **9/30/2014**	SeqNo: **630649** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		106	57.9	140			

Sample ID **LCS-15573**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **15573**	RunNo: **21539**
Prep Date: **9/29/2014**	Analysis Date: **9/30/2014**	SeqNo: **630650** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.9	68.6	130			
Surr: DNOP	4.8		5.000		96.0	57.9	140			

Sample ID **1409D84-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **C # 12 .WWTP Dirty**	Batch ID: **15573**	RunNo: **21539**
Prep Date: **9/29/2014**	Analysis Date: **9/30/2014**	SeqNo: **631364** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	98	9.9	49.55	34.06	128	40.1	152			
Surr: DNOP	4.8		4.955		96.7	57.9	140			

Sample ID **1409D84-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **C # 12 .WWTP Dirty**	Batch ID: **15573**	RunNo: **21539**
Prep Date: **9/29/2014**	Analysis Date: **9/30/2014**	SeqNo: **631365** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	94	10	50.51	34.06	119	40.1	152	3.44	32.1	
Surr: DNOP	4.8		5.051		94.1	57.9	140	0	0	

Qualifiers:

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- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1409D84**

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15572**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **15572**	RunNo: **21540**
Prep Date: **9/29/2014**	Analysis Date: **9/30/2014**	SeqNo: **631089** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		88.9	80	120			

Sample ID **LCS-15572**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **15572**	RunNo: **21540**
Prep Date: **9/29/2014**	Analysis Date: **9/30/2014**	SeqNo: **631090** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	65.8	139			
Surr: BFB	970		1000		97.0	80	120			

Sample ID **MB-15622**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **15622**	RunNo: **21587**
Prep Date: **9/30/2014**	Analysis Date: **10/1/2014**	SeqNo: **632616** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	900		1000		89.8	80	120			

Sample ID **LCS-15622**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **15622**	RunNo: **21587**
Prep Date: **9/30/2014**	Analysis Date: **10/1/2014**	SeqNo: **632617** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		97.2	80	120			

Qualifiers:

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- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1409D84**

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15572**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **15572**	RunNo: **21540**
Prep Date: **9/29/2014**	Analysis Date: **9/30/2014**	SeqNo: **631120** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		93.4	80	120			

Sample ID **LCS-15572**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **15572**	RunNo: **21540**
Prep Date: **9/29/2014**	Analysis Date: **9/30/2014**	SeqNo: **631121** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	99.8	80	120			
Toluene	0.99	0.050	1.000	0	98.9	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.2	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.4	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID **1409D84-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **C # 12 .WWTP Dirty**	Batch ID: **15572**	RunNo: **21540**
Prep Date: **9/29/2014**	Analysis Date: **9/30/2014**	SeqNo: **631123** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	77.4	142			
Toluene	1.0	0.050	1.000	0	103	77	132			
Ethylbenzene	1.0	0.050	1.000	0	105	77.6	134			
Xylenes, Total	3.1	0.10	3.000	0	104	77.4	132			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.0	80	120			

Sample ID **1409D84-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **C # 12 .WWTP Dirty**	Batch ID: **15572**	RunNo: **21540**
Prep Date: **9/29/2014**	Analysis Date: **9/30/2014**	SeqNo: **631124** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	0.9960	0	103	77.4	142	0.901	20	
Toluene	1.0	0.050	0.9960	0	105	77	132	1.68	20	
Ethylbenzene	1.1	0.050	0.9960	0	106	77.6	134	0.886	20	
Xylenes, Total	3.2	0.10	2.988	0	106	77.4	132	1.42	20	
Surr: 4-Bromofluorobenzene	0.98		0.9960		98.7	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1409D84**

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15622**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **15622**	RunNo: **21587**
Prep Date: **9/30/2014**	Analysis Date: **10/1/2014**	SeqNo: **632648** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.95		1.000		94.7	80	120			

Sample ID **LCS-15622**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **15622**	RunNo: **21587**
Prep Date: **9/30/2014**	Analysis Date: **10/1/2014**	SeqNo: **632649** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1409D84**

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **mb-15572**	SampType: **MBLK**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **PBS**	Batch ID: **15572**	RunNo: **21567**
Prep Date: **9/29/2014**	Analysis Date: **10/1/2014**	SeqNo: **632025** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
2-Butanone	ND	20								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	10								
Chloroform	ND	0.60								
1,4-Dichlorobenzene	ND	0.75								
1,1-Dichloroethene	ND	0.070								
Tetrachloroethene (PCE)	ND	0.070								
Trichloroethene (TCE)	ND	0.050								
Vinyl chloride	ND	0.020								
Surr: 1,2-Dichloroethane-d4	0.39		0.5000		78.3	70	130			
Surr: 4-Bromofluorobenzene	0.43		0.5000		85.4	70	130			
Surr: Dibromofluoromethane	0.39		0.5000		78.6	70	130			
Surr: Toluene-d8	0.45		0.5000		89.7	70	130			

Sample ID **lcs-15572**	SampType: **LCS**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **LCSS**	Batch ID: **15572**	RunNo: **21567**
Prep Date: **9/29/2014**	Analysis Date: **10/1/2014**	SeqNo: **632026** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	1.000	0	95.1	70	130			
Chlorobenzene	0.92	0.010	1.000	0	92.5	70	130			
1,1-Dichloroethene	1.0	0.070	1.000	0	101	60.5	160			
Trichloroethene (TCE)	0.94	0.050	1.000	0	93.5	58.8	139			
Surr: 1,2-Dichloroethane-d4	0.39		0.5000		77.7	70	130			
Surr: 4-Bromofluorobenzene	0.42		0.5000		85.0	70	130			
Surr: Dibromofluoromethane	0.40		0.5000		79.1	70	130			
Surr: Toluene-d8	0.44		0.5000		88.2	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1409D84**

Hall Environmental Analysis Laboratory, Inc.

06-Oct-14

Client: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow

Sample ID **mb-15627**	SampType: **MBLK**	TestCode: **EPA Method 8270C TCLP**
Client ID: **PBS**	Batch ID: **15627**	RunNo: **21556**
Prep Date: **9/30/2014**	Analysis Date: **9/30/2014**	SeqNo: **631149** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.12		0.2000		60.3	25	105			
Surr: Phenol-d5	0.11		0.2000		52.8	22.3	70.3			
Surr: 2,4,6-Tribromophenol	0.12		0.2000		61.9	30.4	134			
Surr: Nitrobenzene-d5	0.071		0.1000		71.4	54.8	128			
Surr: 2-Fluorobiphenyl	0.077		0.1000		76.6	53.3	122			
Surr: 4-Terphenyl-d14	0.084		0.1000		84.1	51.8	133			

Sample ID **lcs-15627**	SampType: **LCS**	TestCode: **EPA Method 8270C TCLP**
Client ID: **LCSS**	Batch ID: **15627**	RunNo: **21556**
Prep Date: **9/30/2014**	Analysis Date: **9/30/2014**	SeqNo: **631151** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.054	0.010	0.1000	0	54.4	52.2	95.7			
3+4-Methylphenol	0.12	0.010	0.2000	0	59.1	52.4	142			
2,4-Dinitrotoluene	0.051	0.010	0.1000	0	50.8	43.4	110			
Hexachlorobenzene	0.069	0.010	0.1000	0	69.4	43.6	88.4			
Hexachlorobutadiene	0.054	0.010	0.1000	0	54.0	38.6	88.4			
Hexachloroethane	0.056	0.010	0.1000	0	56.4	45.7	83.6			
Nitrobenzene	0.055	0.010	0.1000	0	55.3	51.9	112			
Pentachlorophenol	0.021	0.010	0.1000	0	21.2	15.2	81.5			
Pyridine	0.044	0.010	0.1000	0	43.8	11.2	95.1			
2,4,5-Trichlorophenol	0.062	0.010	0.1000	0	61.6	46.9	110			
2,4,6-Trichlorophenol	0.051	0.010	0.1000	0	50.9	36.1	111			
Cresols, Total	0.17	0.010	0.3000	0	57.5	30	136			
Surr: 2-Fluorophenol	0.10		0.2000		50.2	25	105			
Surr: Phenol-d5	0.093		0.2000		46.4	22.3	70.3			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1409D84**

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID	**lcs-15627**	SampType: **LCS**		TestCode: **EPA Method 8270C TCLP**					
Client ID:	**LCSS**	Batch ID: **15627**		RunNo: **21556**					
Prep Date:	**9/30/2014**	Analysis Date: **9/30/2014**		SeqNo: **631151**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.10		0.2000		50.4	30.4	134			
Surr: Nitrobenzene-d5	0.056		0.1000		55.9	54.8	128			
Surr: 2-Fluorobiphenyl	0.055		0.1000		54.8	53.3	122			
Surr: 4-Terphenyl-d14	0.074		0.1000		74.2	51.8	133			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1409D84**

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15626**	SampType: **MBLK**	TestCode: **MERCURY, TCLP**
Client ID: **PBW**	Batch ID: **15626**	RunNo: **21549**
Prep Date: **9/30/2014**	Analysis Date: **9/30/2014**	SeqNo: **630861** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID **LCS-15626**	SampType: **LCS**	TestCode: **MERCURY, TCLP**
Client ID: **LCSW**	Batch ID: **15626**	RunNo: **21549**
Prep Date: **9/30/2014**	Analysis Date: **9/30/2014**	SeqNo: **630862** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	106	80	120			

Sample ID **TCLP Fluid2 836**	SampType: **MBLK**	TestCode: **MERCURY, TCLP**
Client ID: **PBW**	Batch ID: **15626**	RunNo: **21549**
Prep Date: **9/30/2014**	Analysis Date: **9/30/2014**	SeqNo: **630863** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1409D84**

Hall Environmental Analysis Laboratory, Inc.

06-Oct-14

Client: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow

Sample ID **MB-15621**	SampType: **MBLK**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **PBW**	Batch ID: **15621**	RunNo: **21561**
Prep Date: **9/30/2014**	Analysis Date: **10/1/2014**	SeqNo: **631559** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID **LCS-15621**	SampType: **LCS**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **LCSW**	Batch ID: **15621**	RunNo: **21561**
Prep Date: **9/30/2014**	Analysis Date: **10/1/2014**	SeqNo: **631560** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	102	80	120			
Barium	ND	100	0.5000	0	93.2	80	120			
Cadmium	ND	1.0	0.5000	0	97.9	80	120			
Chromium	ND	5.0	0.5000	0	91.3	80	120			
Lead	ND	5.0	0.5000	0	91.6	80	120			
Selenium	ND	1.0	0.5000	0	105	80	120			
Silver	ND	5.0	0.1000	0	99.4	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1409D84 RcptNo: 1

Received by/date: CS 09/26/14

Logged By: Lindsay Mangin 9/26/2014 2:50:00 PM

Completed By: Lindsay Mangin 9/26/2014 2:56:20 PM

Reviewed By: 09/27/14

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Yes			

Chain-of-Custody Record

Client: Western - Refining

Mailing Address: 92 GIANT CROSSING ROAD

Gallup NM 87301

Phone #: 505 722 3833

email or Fax#: 505 863 0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

☐ Other _____

☐ EDD (Type) _____

☐ Standard ☒ Rush _____

Project Name:

WWTP Baker Tank Overflow

Project #:

Dirty Sewer Spill

Project Manager:

Beck Larsen

Sampler: CTI

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.3°

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1403x1	BTEX (8021) B	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO/DRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) TCLP	8270 (Semi-VOA) TCLP	RCI	TCLP Metals	Oil & Grease
9/25/2014	10:15	Soil	C # 12 .WWTP Dirty Sewer Spill	9 oz - 2	N/A	-001	X		X	X						X	X	X	X	
9/25/2014	10:20	Soil	C # 13 .WWTP Dirty Sewer Spill	9 oz - 2	N/A	-002	X		X	X						X	X	X	X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
09-26-14	1201	Beck Larsen			
Date:	Time:	Relinquished by:	Received by:	Date	Time
9-26-14	1450		Celina Simon	09/26/14	1450

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 14, 2014

Thurman B. Larsen
Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: WWTP Baker Tank Overflow OrderNo.: 1410350

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/8/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow
Lab ID: 1410350-001 **Matrix:** SOIL

Client Sample ID: WWTP Dirty Sewer Spill
Collection Date: 10/7/2014 10:45:00 AM
Received Date: 10/8/2014 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	440	99		mg/Kg	10	10/9/2014 9:34:11 PM	15769
Surr: DNOP	0	57.9-140	S	%REC	10	10/9/2014 9:34:11 PM	15769
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/9/2014 11:16:10 PM	15760
Surr: BFB	92.3	80-120		%REC	1	10/9/2014 11:16:10 PM	15760
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	10/9/2014 11:16:10 PM	15760
Toluene	ND	0.050		mg/Kg	1	10/9/2014 11:16:10 PM	15760
Ethylbenzene	ND	0.050		mg/Kg	1	10/9/2014 11:16:10 PM	15760
Xylenes, Total	ND	0.10		mg/Kg	1	10/9/2014 11:16:10 PM	15760
Surr: 4-Bromofluorobenzene	90.8	80-120		%REC	1	10/9/2014 11:16:10 PM	15760
EPA METHOD 300.0: ANIONS						Analyst: **LGP**	
Chloride	94	30		mg/Kg	20	10/9/2014 12:14:37 PM	15819
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	10/10/2014 3:34:50 PM	15839
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	10/10/2014 11:44:47 AM	15831
Barium	ND	100		mg/L	1	10/10/2014 11:38:19 AM	15831
Cadmium	ND	1.0		mg/L	1	10/10/2014 11:38:19 AM	15831
Chromium	ND	5.0		mg/L	1	10/10/2014 11:38:19 AM	15831
Lead	ND	5.0		mg/L	1	10/10/2014 11:38:19 AM	15831
Selenium	ND	1.0		mg/L	1	10/10/2014 11:38:19 AM	15831
Silver	ND	5.0		mg/L	1	10/10/2014 11:38:19 AM	15831
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	10/13/2014 3:33:17 PM	15850
3+4-Methylphenol	ND	200		mg/L	1	10/13/2014 3:33:17 PM	15850
Phenol	ND	200		mg/L	1	10/13/2014 3:33:17 PM	15850
2,4-Dinitrotoluene	ND	0.13		mg/L	1	10/13/2014 3:33:17 PM	15850
Hexachlorobenzene	ND	0.13		mg/L	1	10/13/2014 3:33:17 PM	15850
Hexachlorobutadiene	ND	0.50		mg/L	1	10/13/2014 3:33:17 PM	15850
Hexachloroethane	ND	3.0		mg/L	1	10/13/2014 3:33:17 PM	15850
Nitrobenzene	ND	2.0		mg/L	1	10/13/2014 3:33:17 PM	15850
Pentachlorophenol	ND	100		mg/L	1	10/13/2014 3:33:17 PM	15850
Pyridine	ND	5.0		mg/L	1	10/13/2014 3:33:17 PM	15850
2,4,5-Trichlorophenol	ND	400		mg/L	1	10/13/2014 3:33:17 PM	15850
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	10/13/2014 3:33:17 PM	15850

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow
Lab ID: 1410350-001 **Matrix:** SOIL

Client Sample ID: WWTP Dirty Sewer Spill
Collection Date: 10/7/2014 10:45:00 AM
Received Date: 10/8/2014 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Cresols, Total	ND	200		mg/L	1	10/13/2014 3:33:17 PM	15850
Surr: 2-Fluorophenol	57.2	25-105		%REC	1	10/13/2014 3:33:17 PM	15850
Surr: Phenol-d5	54.2	22.3-70.3		%REC	1	10/13/2014 3:33:17 PM	15850
Surr: 2,4,6-Tribromophenol	6.02	30.4-134	S	%REC	1	10/13/2014 3:33:17 PM	15850
Surr: Nitrobenzene-d5	69.3	54.8-128		%REC	1	10/13/2014 3:33:17 PM	15850
Surr: 2-Fluorobiphenyl	67.3	53.3-122		%REC	1	10/13/2014 3:33:17 PM	15850
Surr: 4-Terphenyl-d14	67.8	51.8-133		%REC	1	10/13/2014 3:33:17 PM	15850
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **RAA**	
Benzene	ND	0.50		ppm	10	10/9/2014 9:05:57 PM	15760
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	10/9/2014 9:05:57 PM	15760
2-Butanone	ND	200		ppm	10	10/9/2014 9:05:57 PM	15760
Carbon tetrachloride	ND	0.50		ppm	10	10/9/2014 9:05:57 PM	15760
Chlorobenzene	ND	100		ppm	10	10/9/2014 9:05:57 PM	15760
Chloroform	ND	6.0		ppm	10	10/9/2014 9:05:57 PM	15760
1,4-Dichlorobenzene	ND	7.5		ppm	10	10/9/2014 9:05:57 PM	15760
1,1-Dichloroethene	ND	0.70		ppm	10	10/9/2014 9:05:57 PM	15760
Tetrachloroethene (PCE)	ND	0.70		ppm	10	10/9/2014 9:05:57 PM	15760
Trichloroethene (TCE)	ND	0.50		ppm	10	10/9/2014 9:05:57 PM	15760
Vinyl chloride	ND	0.20		ppm	10	10/9/2014 9:05:57 PM	15760
Surr: 1,2-Dichloroethane-d4	84.5	70-130		%REC	10	10/9/2014 9:05:57 PM	15760
Surr: 4-Bromofluorobenzene	84.5	70-130		%REC	10	10/9/2014 9:05:57 PM	15760
Surr: Dibromofluoromethane	98.6	70-130		%REC	10	10/9/2014 9:05:57 PM	15760
Surr: Toluene-d8	89.7	70-130		%REC	10	10/9/2014 9:05:57 PM	15760
EPA METHOD 418.1: TPH						Analyst: **JME**	
Petroleum Hydrocarbons, TR	940	20		mg/Kg	1	10/10/2014 12:00:00 PM	15787

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
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Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	141009046
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1410350
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	141009046-001	**Sampling Date**	10/7/2014	**Date/Time Received**	10/9/2014	1:40 PM	
Client Sample ID	1410350-001E / WWTP DIRTY SEWER SPILL	**Sampling Time**	10:45 AM				
Matrix	Soil						
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	0.249	10/13/2014	CRW	SW846 CH7	
Ignitability	Negative			10/13/2014	JWC	EPA 1030	
pH	8.75	ph Units		10/13/2014	KJS	EPA 9045	
Reactive sulfide	ND	mg/kg	24.9	10/13/2014	ETL	SW846 CH7	

Authorized Signature

John Coddington, Lab Manager

MCL	EPA's Maximum Contaminant Level
ND	Not Detected
PQL	Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 141009046
Project Name: 1410350

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Reactive sulfide	0.160	mg/kg	0.2	80.0	80-120	10/13/2014	10/13/2014
Cyanide (reactive)	0.516	mg/kg	0.5	103.2	70-130	10/13/2014	10/13/2014

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
141009046-001	Reactive sulfide	ND	39.8	mg/kg	49.8	79.9	70-130	10/13/2014	10/13/2014
141009046-001	Cyanide (reactive)	ND	12.4	mg/kg	12.45	99.6	70-130	10/13/2014	10/13/2014

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide (reactive)	12.7	mg/kg	12.45	102.0	2.4	0-25	10/13/2014	10/13/2014

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide (reactive)	ND	mg/Kg	1	10/13/2014	10/13/2014
Reactive sulfide	ND	mg/kg	10	10/13/2014	10/13/2014

AR	Acceptable Range
ND	Not Detected
PQL	Practical Quantitation Limit
RPD	Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1410350**

14-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID	**MB-15819**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**15819**	RunNo:	**21796**					
Prep Date:	**10/9/2014**	Analysis Date:	**10/9/2014**	SeqNo:	**640524**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-15819**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**15819**	RunNo:	**21796**					
Prep Date:	**10/9/2014**	Analysis Date:	**10/9/2014**	SeqNo:	**640525**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.5	90	110			

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1410350**

14-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15787**	SampType: **MBLK**	TestCode: **EPA Method 418.1: TPH**
Client ID: **PBS**	Batch ID: **15787**	RunNo: **21766**
Prep Date: **10/8/2014**	Analysis Date: **10/9/2014**	SeqNo: **639405** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID **LCS-15787**	SampType: **LCS**	TestCode: **EPA Method 418.1: TPH**
Client ID: **LCSS**	Batch ID: **15787**	RunNo: **21766**
Prep Date: **10/8/2014**	Analysis Date: **10/9/2014**	SeqNo: **639406** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	120	20	100.0	0	119	80	120			

Sample ID **LCSD-15787**	SampType: **LCSD**	TestCode: **EPA Method 418.1: TPH**
Client ID: **LCSS02**	Batch ID: **15787**	RunNo: **21766**
Prep Date: **10/8/2014**	Analysis Date: **10/9/2014**	SeqNo: **639407** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	112	80	120	6.37	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1410350**

14-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15769**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **15769**	RunNo: **21735**
Prep Date: **10/7/2014**	Analysis Date: **10/8/2014**	SeqNo: **638274** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.0		10.00		80.2	57.9	140			

Sample ID **LCS-15769**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **15769**	RunNo: **21735**
Prep Date: **10/7/2014**	Analysis Date: **10/8/2014**	SeqNo: **638381** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	64	10	50.00	0	128	68.6	130			
Surr: DNOP	3.4		5.000		67.0	57.9	140			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1410350**

14-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15760**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **15760**	RunNo: **21782**
Prep Date: **10/8/2014**	Analysis Date: **10/9/2014**	SeqNo: **640380** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.7	80	120			

Sample ID **LCS-15760**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **15760**	RunNo: **21782**
Prep Date: **10/8/2014**	Analysis Date: **10/9/2014**	SeqNo: **640381** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	65.8	139			
Surr: BFB	970		1000		96.9	80	120			

Sample ID **MB-15821**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **15821**	RunNo: **21847**
Prep Date: **10/9/2014**	Analysis Date: **10/10/2014**	SeqNo: **641956** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		89.0	80	120			

Sample ID **LCS-15821**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **15821**	RunNo: **21847**
Prep Date: **10/9/2014**	Analysis Date: **10/10/2014**	SeqNo: **641957** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	960		1000		96.3	80	120			

Sample ID **MB-15821 MK**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R21847**	RunNo: **21847**
Prep Date:	Analysis Date: **10/10/2014**	SeqNo: **641973** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		89.0	80	120			

Sample ID **LCS-15821 MK**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R21847**	RunNo: **21847**
Prep Date:	Analysis Date: **10/10/2014**	SeqNo: **641974** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	960		1000		96.3	80	120			

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1410350**

14-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15760**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **15760**	RunNo: **21782**
Prep Date: **10/8/2014**	Analysis Date: **10/9/2014**	SeqNo: **640424** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.91		1.000		90.7	80	120			

Sample ID **LCS-15760**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **15760**	RunNo: **21782**
Prep Date: **10/8/2014**	Analysis Date: **10/9/2014**	SeqNo: **640425** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.050	1.000	0	97.0	80	120			
Toluene	0.96	0.050	1.000	0	96.5	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.6	80	120			
Surr: 4-Bromofluorobenzene	0.97		1.000		97.5	80	120			

Sample ID **MB-15821**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **15821**	RunNo: **21847**
Prep Date: **10/9/2014**	Analysis Date: **10/10/2014**	SeqNo: **641998** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.91		1.000		91.2	80	120			

Sample ID **LCS-15821**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **15821**	RunNo: **21847**
Prep Date: **10/9/2014**	Analysis Date: **10/10/2014**	SeqNo: **641999** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.98		1.000		98.1	80	120			

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
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- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1410350**

14-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **mb-15760**	SampType: **MBLK**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **PBS**	Batch ID: **15760**	RunNo: **21804**
Prep Date: **10/8/2014**	Analysis Date: **10/9/2014**	SeqNo: **640829** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
2-Butanone	ND	20								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	10								
Chloroform	ND	0.60								
1,4-Dichlorobenzene	ND	0.75								
1,1-Dichloroethene	ND	0.070								
Tetrachloroethene (PCE)	ND	0.070								
Trichloroethene (TCE)	ND	0.050								
Vinyl chloride	ND	0.020								
Surr: 1,2-Dichloroethane-d4	0.39		0.5000		79.0	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.0	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.8	70	130			
Surr: Toluene-d8	0.45		0.5000		90.3	70	130			

Sample ID **lcs-15760**	SampType: **LCS**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **LCSS**	Batch ID: **15760**	RunNo: **21804**
Prep Date: **10/8/2014**	Analysis Date: **10/9/2014**	SeqNo: **640830** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.0	70	130			
Chlorobenzene	1.0	0.010	1.000	0	102	70	130			
1,1-Dichloroethene	0.92	0.070	1.000	0	92.2	60.5	160			
Trichloroethene (TCE)	0.95	0.050	1.000	0	94.7	58.8	139			
Surr: 1,2-Dichloroethane-d4	0.39		0.5000		78.1	70	130			
Surr: 4-Bromofluorobenzene	0.43		0.5000		85.8	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.2	70	130			
Surr: Toluene-d8	0.45		0.5000		89.0	70	130			

Sample ID **1410350-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **WWTP Dirty Sewer**	Batch ID: **15760**	RunNo: **21804**
Prep Date: **10/8/2014**	Analysis Date: **10/9/2014**	SeqNo: **640832** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.50	1.000	0	90.0	32.2	145			
Chlorobenzene	0.94	0.90	1.000	0	94.2	32.4	142			
1,1-Dichloroethene	0.64	0.60	1.000	0	64.3	32.6	155			
Trichloroethene (TCE)	0.93	0.50	1.000	0	92.9	29.2	150			
Surr: 1,2-Dichloroethane-d4	4.2		5.000		84.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1410350**

14-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **1410350-001ams** SampType: **MS** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **WWTP Dirty Sewer** Batch ID: **15760** RunNo: **21804**

Prep Date: **10/8/2014** Analysis Date: **10/9/2014** SeqNo: **640832** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	4.3		5.000		86.8	70	130			
Surr: Dibromofluoromethane	4.9		5.000		98.3	70	130			
Surr: Toluene-d8	4.4		5.000		88.7	70	130			

Sample ID **1410350-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **WWTP Dirty Sewer** Batch ID: **15760** RunNo: **21804**

Prep Date: **10/8/2014** Analysis Date: **10/10/2014** SeqNo: **640833** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.50	0.9990	0	92.0	32.2	145	2.09	20	
Chlorobenzene	0.97	0.90	0.9990	0	97.0	32.4	142	2.90	20	
1,1-Dichloroethene	0.74	0.70	0.9990	0	74.4	32.6	155	14.6	20	
Trichloroethene (TCE)	0.93	0.50	0.9990	0	93.3	29.2	150	0.351	20	
Surr: 1,2-Dichloroethane-d4	4.3		4.995		85.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	4.4		4.995		88.6	70	130	0	0	
Surr: Dibromofluoromethane	4.8		4.995		97.1	70	130	0	0	
Surr: Toluene-d8	4.7		4.995		94.4	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1410350**

14-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **mb-15850**	SampType: **MBLK**	TestCode: **EPA Method 8270C TCLP**
Client ID: **PBS**	Batch ID: **15850**	RunNo: **21871**
Prep Date: **10/10/2014**	Analysis Date: **10/13/2014**	SeqNo: **642636** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.15		0.2000		74.5	25	105			
Surr: Phenol-d5	0.12		0.2000		61.0	22.3	70.3			
Surr: 2,4,6-Tribromophenol	0.12		0.2000		58.4	30.4	134			
Surr: Nitrobenzene-d5	0.080		0.1000		79.9	54.8	128			
Surr: 2-Fluorobiphenyl	0.081		0.1000		80.7	53.3	122			
Surr: 4-Terphenyl-d14	0.076		0.1000		75.8	51.8	133			

Sample ID **lcs-15850**	SampType: **LCS**	TestCode: **EPA Method 8270C TCLP**
Client ID: **LCSS**	Batch ID: **15850**	RunNo: **21871**
Prep Date: **10/10/2014**	Analysis Date: **10/13/2014**	SeqNo: **642637** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.069	0.010	0.1000	0	68.6	52.2	95.7			
3+4-Methylphenol	0.15	0.010	0.2000	0	77.1	52.4	142			
2,4-Dinitrotoluene	0.063	0.010	0.1000	0	62.7	43.4	110			
Hexachlorobenzene	0.080	0.010	0.1000	0	79.9	43.6	88.4			
Hexachlorobutadiene	0.064	0.010	0.1000	0	64.3	38.6	88.4			
Hexachloroethane	0.066	0.010	0.1000	0	66.1	45.7	83.6			
Nitrobenzene	0.079	0.010	0.1000	0	78.6	51.9	112			
Pentachlorophenol	0.046	0.010	0.1000	0	45.8	15.2	81.5			
Pyridine	0.052	0.010	0.1000	0	51.8	11.2	95.1			
2,4,5-Trichlorophenol	0.076	0.010	0.1000	0	76.1	46.9	110			
2,4,6-Trichlorophenol	0.065	0.010	0.1000	0	65.5	36.1	111			
Cresols, Total	0.22	0.010	0.3000	0	74.3	30	136			
Surr: 2-Fluorophenol	0.13		0.2000		65.4	25	105			
Surr: Phenol-d5	0.11		0.2000		55.4	22.3	70.3			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1410350**

14-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **lcs-15850**	SampType: **LCS**	TestCode: **EPA Method 8270C TCLP**	
Client ID: **LCSS**	Batch ID: **15850**	RunNo: **21871**	
Prep Date: **10/10/2014**	Analysis Date: **10/13/2014**	SeqNo: **642637**	Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.12		0.2000		60.9	30.4	134			
Surr: Nitrobenzene-d5	0.077		0.1000		76.8	54.8	128			
Surr: 2-Fluorobiphenyl	0.076		0.1000		76.3	53.3	122			
Surr: 4-Terphenyl-d14	0.075		0.1000		75.5	51.8	133			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1410350**

14-Oct-14

Client: Western Refining Southwest, Gallup
Project: WWTP Baker Tank Overflow

Sample ID	**MB-15839**	SampType: **MBLK**		TestCode: **MERCURY, TCLP**					
Client ID:	**PBW**	Batch ID: **15839**		RunNo: **21829**					
Prep Date:	**10/10/2014**	Analysis Date: **10/10/2014**		SeqNo: **641620**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID	**LCS-15839**	SampType: **LCS**		TestCode: **MERCURY, TCLP**					
Client ID:	**LCSW**	Batch ID: **15839**		RunNo: **21829**					
Prep Date:	**10/10/2014**	Analysis Date: **10/10/2014**		SeqNo: **641621**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	101	80	120			

Sample ID	**TCLP Fluid1 #1460**	SampType: **MBLK**		TestCode: **MERCURY, TCLP**					
Client ID:	**PBW**	Batch ID: **15839**		RunNo: **21829**					
Prep Date:	**10/10/2014**	Analysis Date: **10/10/2014**		SeqNo: **641622**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1410350**

14-Oct-14

Client: Western Refining Southwest, Gallup

Project: WWTP Baker Tank Overflow

Sample ID **MB-15831**	SampType: **MBLK**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **PBW**	Batch ID: **15831**	RunNo: **21817**
Prep Date: **10/9/2014**	Analysis Date: **10/10/2014**	SeqNo: **641319** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID **LCS-15831**	SampType: **LCS**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **LCSW**	Batch ID: **15831**	RunNo: **21817**
Prep Date: **10/9/2014**	Analysis Date: **10/10/2014**	SeqNo: **641320** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	110	80	120			
Barium	ND	100	0.5000	0	98.3	80	120			
Cadmium	ND	1.0	0.5000	0	103	80	120			
Chromium	ND	5.0	0.5000	0	96.8	80	120			
Lead	ND	5.0	0.5000	0	96.5	80	120			
Selenium	ND	1.0	0.5000	0	103	80	120			
Silver	ND	5.0	0.1000	0	109	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1410350 RcptNo: 1

Received by/date: LM 10/08/14

Logged By: Michelle Garcia 10/8/2014 8:00:00 AM Michelle Garcia

Completed By: Michelle Garcia 10/8/2014 8:30:00 AM Michelle Garcia

Reviewed By: CS 10/08/14

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (If applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.2	Good	Yes			

Chain-of-Custody Record

Client: Western - Refining

Mailing Address: 92 GIANT CROSSING ROAD

Gallup NM 87301

Phone #: 505 722 3833

email or Fax#: 505 863 0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☐ Standard ☒ Rush

Project Name:

WWTP Baker Tank Overflow

Project #:

Dirty Sewer Spill

Project Manager:

Beck Larsen

Sampler: A.Dorsey

On Ice: ☒ Yes ☐ No

Sample Temperature: 5.2

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

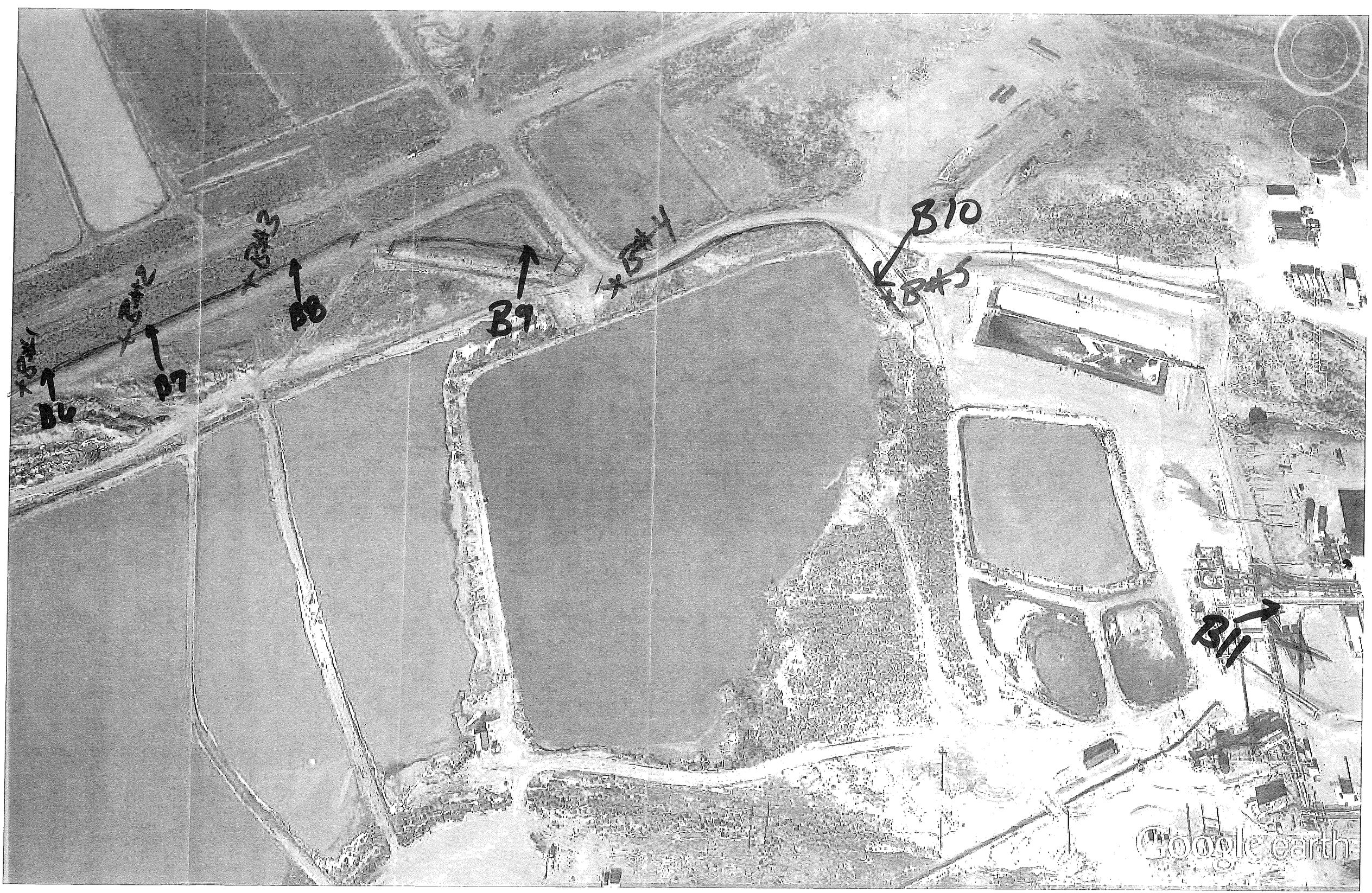
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1410350	Analysis Request: BTEX (8021)B	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO/DRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) TCLP	8270 (Semi-VOA) TCLP	RCI	TCLP Metals	Sulfides	Chlorides	Air Bubbles (Y or N)
10/7/2014	10:45	Soil	WWTP Dirty Sewer Spill	9 oz - 6	N/A	-001	X		X	X						X	X	X	X	X	X	

Relinquished by	Date	Time	Received by	Date	Time
A.Dorsey	10-07-14	14:00		10-7-14	1400
	10-8-14	8:00		10/08/14	0800

Remarks: ACT BIN 2051

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.


B1
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B10
B11
Google earth

SEWER WATER SPILL ANALYSIS COMPARISON
(BAKER TANK OVERFLOW @ WWTP)

Incident Date: 8/5/2014
Qty Released: 14 bbls

SAMPLING	Sampling Date:	DRO	MRO	GRO	TPH	Analyte				pH	Ign	CN	S	Cl
						Benzene	Toluene	Ethylbenzene	Xylene					
Initial Soil Sampling:														
Lab #: 1408348	8/5/2014													
B-1				ND						8.7	Neg	ND	ND	
B-2				ND						8.74	Neg	ND	37.4	
B-3				50				0.14	1.8	9.18	Neg	ND	36.2	
B-4				ND						8.64	Neg	ND	30.2	
B-5				ND					0.35	9.18	Neg	0.214	ND	
Conf Sampling	827/2014													
Lab #: 1408F15														
B-6		820	400	ND	350	ND	ND	ND	ND	2>pH<12.5	Neg	ND	ND	260
B-7		6300	2000	ND	9400	ND	ND	ND	ND	2>pH<12.5	Neg	ND	37.4	84
B-8		50	ND	ND	73	ND	ND	ND	ND	2>pH<12.5	Neg	ND	36.2	190
B-9		14	ND	ND	24	ND	ND	ND	ND	2>pH<12.5	Neg	ND	30.2	110
B-10		ND	ND	ND	140	ND	ND	ND	ND	2>pH<12.5	Neg	0.214	ND	ND
B-11		ND	ND	ND	27	ND	ND	ND	ND	2>pH<12.5	Neg	ND	ND	ND
Conf Sampling	9/25/2014													
Lab #: 1409D84														
C-12		34		ND	160	ND	ND	ND	ND	9.31	Neg	ND	ND	1600
C-13		ND		ND	92	ND	ND	ND	ND	9.15	Neg	ND	ND	230
Conf Sampling (Bin # 2051)	10/7/2014													
Lab #: 1409350		400	ND	ND	940	ND	ND	ND	ND	8.75	Neg	ND	ND	94

N.M.E.D. - DP-1041

Gandy Marley, Inc.
P.O. BOX 1658 · ROSWELL, NM 88202

LOAD INSPECTION FORM No. 16342

Date of Receipt: 11-04-19 Time of Receipt: 2:50 AM/PM Cell Placement: UST - LBD #3

Quantity: 18 T/CY: 14405 Description: T P H CONTAMINATED SOIL

Name/Address of Generator: WESTERN REFINING CORP

Origin of Material (if different): FARMINGTON, NM 87401 I-40 AT EXIT 39

Transporter Name: ANT - PN DBA GREEN TRK GEN #2 SCGID No:

Name of Laboratory Performing Sample Analysis:

TCLP (EPA Method 1311) BTEX MTBE TPH Non Hazardous ✓ Exempt ✓

Verification of No Free Liquids ✓ Paint Filter Liquids Test Performed

Verification of Properly Completed Manifest Generator Manifest Number 16-6506

As a condition to Gandy Marley Inc's acceptance of the material shipped as represented on this Load Inspection Form, Generator represents and warrants that the waste material shipped herewith is exempt from the Resource Conservation and Recovery Act of 1976, as amended from time to time, 42 U.S.C. Section 6901, et seq., The New Mexico Health and Safety Code, section 74-4-01, et seq., and regulations related thereto, OR has been characterized as non-hazardous material by virtue of appropriate laboratory analysis done in accordance with EPA approved testing methods.

Further, as a condition to Gandy Marley Inc's acceptance of the materials shipped as represented on this Load Inspection Form, Transporter represents and warrants that only the material delivered by Generator or Transporter to Gandy Marley, Inc.'s facility for disposal.

THIS WILL CERTIFY that the above Transporter loaded the material as represented on this Load Inspection Form at the above described location, and that it was tendered by the above described Generator. THIS WILL CERTIFY that no additional materials were added to this load, and that the material was delivered without incident.

Transporter: Print Name Signature

GMI Employee: Print Name Signature

$18\ yd^3 \times \frac{27\ ft^3}{yd^3} \times \frac{90\ lb}{ft^3} = 43740\ lb$

$1\ yd^3 = 2430\ lb$

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NMD000333211

Manifest Document No. 068606

2. Page 1 of 1

3. Generator's Name and Mailing Address
WESTERN REFINING SOUTHWEST GALLUP REFINING
I-40 exit 39 Route 3 Box 7
Jamestown, NM 87347

4. Generator's Phone (505 722 0258

5. Transporter 1 Company Name: Advanced Chemical Transport Inc. (SV)

6. US EPA ID Number: CAD000070540

A. State Transporter's ID

B. Transporter 1 Phone: 408-548-5050

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
Gandy Marley, Inc
Section 4,5,8 & 9 of T11S, R31E NMPM
Chaves County, NM 88202

10. US EPA ID Number: NON HAZ

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION	Containers No.	Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non-RCRA/Non-DOT Regulated Material Solid (TPH SOIL)	1	CM	18	T
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above
Project Number 98682 Bill # 420053
UERG#, GM TPH SOIL WEG: _____ TPH Soil
24 hour emergency contact: Baker Tank overflow

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

GENERATOR

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: ALVIN Dorsey
Signature: Alvin Dorsey
Date: Month 11 Day 14 Year 14

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Alfonso Camacho
Signature: Alfonso Camacho
Date: Month 11 Day 03 Year 14

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.
Printed/Typed Name
Signature
Date: Month Day Year

NON-HAZARDOUS WASTE

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Chavez, Carl J, EMNRD

From: Larsen, Thurman <Thurman.Larsen@wnr.com>
Sent: Thursday, October 08, 2015 4:41 PM
To: VanHorn, Kristen, NMENV; Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV
Subject: C141-Initial Report for T1001 Diesel Tank Overflow
Attachments: C141-Initial T1001 Diesel Tank Overflow.pdf

Kristen and Carl,

Here is the Initial C141 for T1001 Diesel Tank Overflow. Please let me know if I can be of further assistance.

Regards,

Beck Larsen
Environmental Engineer
Western Refining Southwest (Gallup Refinery)
92 Giant Crossing Road - New Mailing Address
Gallup, NM 87301
Office: (505) 722-0258
cell: (505) 862-1749

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: WESTERN REFINING	Contact: Beck Larsen
Address: I-40 / EXIT 39, JAMESTOWN,NM 87347	Telephone No.(505) 722-0258
Facility Name: WESTERN RENINING (GALLUP REFINERY)	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15 N	15 W					MCKINLEY

Latitude__35° 029' 024"__ **Longitude**__108° 024' 024"__

NATURE OF RELEASE

Type of Release: Dyed Diesel Tank Overflow	Volume of Release Pending	Volume Recovered: N/A
Source of Release: T1001 Marketing Tank Overflow (Dyed Diesel)	Date and Hour of Occurrence 09/23/15 @ 0815 hrs	Date and Hour of Discovery 09/23/15 @ 0815 hrs
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? OCD (B. Powel/ C. Chavez); NMED (K. Vanhorn)	
By Whom? Beck Larsen	Date and Hour: 09/25/15 (0929- msg/0925-msg); 0934	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.* No

Describe Cause of Problem and Remedial Action Taken.* Marketing Tank (T1001), a dyed diesel tank, overflowed at 0815 through a 2 inch over-fill line at the top of the tank. The fill valve to the tank was blocked in to prevent further diesel spilling onto the ground and Kurtz Fire Department was called to place about 3 gallons/20 gallon of foam/water mixture on the affected area. Maintenance and the Environmental departments were both notified in order to assess the situation and to commence cleanup operations. Work Order # 2614539 was issue for maintenance personnel to begin cleanup operations.

Describe Area Affected and Cleanup Action Taken.* T1001 is located on a concrete slab within a secondary earthen dike. An onsite vacuum truck was dispatched to begin removing all accumulated free liquid. Cleanup operations began on Thursday, October 1, to remove the potentially contaminated TPH soil from the affected area. Approximately 15 to 18 cubic yards (30,920 lbs) of contaminated soil have been removed from the affected area to date. Cleanup operations are currently in progress. The released quantity of diesel is currently undetermined pending further investigation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Beck Larsen	Approved by Environmental Specialist:	
Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: thurman.larsen@wnr.com	Conditions of Approval:	Attached ☐
Date: 10/07/2015 Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: VanHorn, Kristen, NMENV
Sent: Wednesday, August 12, 2015 4:44 PM
To: Johnson, Cheryl; Chavez, Carl J, EMNRD
Cc: Riege, Ed; Cobrain, Dave, NMENV; Dhawan, Neelam, NMENV
Subject: RE: Monitoring Well GWM-1

Thanks for letting us know.

Are you going to run a fuel fingerprint or anything else to figure out what the oily substance is?

Thanks,
Kristen

From: Johnson, Cheryl [mailto:Cheryl.Johnson@wnr.com]
Sent: Wednesday, August 12, 2015 4:20 PM
To: VanHorn, Kristen, NMENV; Chavez, Carl J, EMNRD
Cc: Riege, Ed
Subject: Monitoring Well GWM-1

Good Afternoon:

Yesterday while conducting 3rd quarter monitoring well inspections, GWM-1 at the aeration lagoon was found to have approximately 4.5 feet of an oily substance – no water. GWM-2 and GWM-3 are both dry and the lagoons and pond 1 are out of service. No samples were collected at GWM-1.

cj

Cheryl Johnson
Environmental Specialist

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, NM 87301
505 722 0231 Direct
505 863-0930 Fax
505 722 3833 Main
cheryl.johnson@wnr.com

Chavez, Carl J, EMNRD

From: Johnson, Cheryl <Cheryl.Johnson@wnr.com>
Sent: Wednesday, August 12, 2015 4:20 PM
To: VanHorn, Kristen, NMENV; Chavez, Carl J, EMNRD
Cc: Riege, Ed
Subject: Monitoring Well GWM-1

Good Afternoon:

Yesterday while conducting 3rd quarter monitoring well inspections, GWM-1 at the aeration lagoon was found to have approximately 4.5 feet of an oily substance – no water. GWM-2 and GWM-3 are both dry and the lagoons and pond 1 are out of service. No samples were collected at GWM-1.

cj

Cheryl Johnson
Environmental Specialist

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92 Giant Crossing Road
Gallup, NM 87301
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505 722 3833 Main
cheryl.johnson@wnr.com

NEW MEXICO
ENVIRONMENT DEPARTMENT

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone (505) 476-6000 Fax (505) 476-6030
www.nmenv.state.nm.us

SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

RYAN FLYNN
Cabinet Secretary
BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 12, 2015

Mr. Ed Riege
Environmental Manager
Western Refining, Southwest Inc., Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

RE: REQUIREMENT
SUBMITTAL OF WORK PLAN
HYDROCARBON DISCOVERY NORTH DRAINAGE DITCH
WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-WRG-MISC

Dear Mr. Riege:

Western Refining Southwest Inc., Gallup Refinery (Permittee) discovered hydrocarbons in a drainage ditch in the northern portion of the refinery property and notified the New Mexico Environment Department (NMED) in a letter dated April 22, 2015. In the letter, the Permittee stated that there are no documented waste management operations in this area.

Surface water samples collected from standing water in the drainage ditch were analyzed and concentrations of benzene, toluene, ethyl benzene and xylenes (BTEX) were detected as well as methyl tert-butyl ether (MTBE), gasoline-range organics (GRO) and diesel-range organics (DRO). The level of benzene in the sampling results (ranging from 5200 to 5400 ug/L) suggests that the source may be nearby; however, the refinery has not used MTBE since 2006.

The Permittee must provide a Work Plan for NMED's review. The Permittee must provide information regarding any tanks located upgradient from the hydrocarbon discovery that could be potential sources of the release. Additionally, please provide information regarding tank

contents and the tank inspection schedule for any potential upgradient tank sources. Finally, also provide additional information regarding the drainage ditch (e.g., depth of ditch, direction of flow, and drainage outlets).

In the letter, the Permittee proposed to install soil borings in the vicinity of the ditch "with the potential to collect groundwater samples." In the Work Plan, the Permittee must propose to collect soil samples as well as groundwater samples for laboratory analysis of GRO and DRO-extended, RCRA 8 metals (totals), volatile organic compounds (VOCs) including MTBE, and semi-volatile organic compound (SVOCs). The Permittee must provide a scaled figure depicting the location of the proposed soil borings and include nearby groundwater monitoring wells. The Work Plan must include a description of the methods and procedures proposed to advance the soil borings, collect the soil and groundwater samples, the depth of soil samples, and any other relevant field data collection.

Depending on the results of the initial investigation, the Permittee may be required to conduct additional investigations to determine the source of the hydrocarbons and also may be required to conduct cleanup as part of corrective action.

The Permittee must submit a Work Plan for NMED review no later than **September 3, 2015**. The submittal must include two paper copies and an electronic copy in accordance with Permit Section II.C.7 (Submissions to the Environment Department).

If you have questions regarding this letter, please contact Kristen Van Horn of my staff at 505-476-6046.

Sincerely,

John E. Kieling
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
N. Dhawan, NMED HWB
K. Van Horn, NMED HWB
A. Hains, WRG
C. Chavez, EMNRD OCD
L. King, EPA

File: Reading File and WRG 2015 File
WRG-MISC

Chavez, Carl J, EMNRD

From: Larsen, Thurman <Thurman.Larsen@wnr.com>
Sent: Thursday, July 09, 2015 9:34 AM
To: Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD; VanHorn, Kristen, NMENV
Cc: Riege, Ed; Morgan, Loretta; Larsen, Thurman
Subject: Gallup Refinery Power Outage of July 4, 2015- SO2 Release
Attachments: 201507090914.pdf

Dear Carl and Kristen,

,

The above attachment is the C-141 for the SO2 release that occurred on Saturday, July 4, 2015. Please contact Mr. Ed Riege via e-mail or via telephone at (505) 722-0217 if you should have any additional questions.

Regards,

Beck Larsen
Environmental Engineer
Western Refining Southwest (Gallup Refinery)
92 Giant Crossing Road - New Mailing Address
Gallup, NM 87301
Office: (505) 722-0258
cell: (505) 862-1749

District I
1625 N. French Dr., Hobbs, NM 88240
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State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company: WESTERN REFINING	Contact: Ed Riege
Address: I-40 / EXIT 39, JAMESTOWN,NM 87347	Telephone No.(505) 722-0258
Facility Name: WESTERN REFINING (GALLUP REFINERY)	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15 N	15 W					MCKINLEY

Latitude__35° 029' 024"__ **Longitude**__108° 024' 024"__

NATURE OF RELEASE

Type of Release: Sulfur Dioxide (SO2) (Air Release)	Volume of Release 1738 pounds	Volume Recovered: N/A
Source of Release: Refinery Wide Power Outage	Date and Hour of Occurrence 07/04/15 @ 1337 hrs	Date and Hour of Discovery 07/06/15 @ 0800 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NRC (Kevin Williams- Rpt # 1121945); LEPC (Courtney); SERC (Yvone Gaintz); OCD (B. Powel/ C. Chavez); NMED (K. Vanhorn)	
By Whom? Ed Riege/Loretta Morgan	Date and Hour: 4/6/15-(07:49); (09:05); (0906); (1000, 1005); (10:10)	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.* No

Describe Cause of Problem and Remedial Action Taken.*
Western Refining (Gallup Refinery) experienced a power outage on July 4, 2015 due to Tri-state Power Company equipment issues from a rainstorm resulting in a facility wide power failure. The power failure lasted for about 2 hours, but access to continuous emission monitoring data and reports of monitoring conditions was not until Monday morning.

Describe Area Affected and Cleanup Action Taken.*
Tri-state was immediately notified of the issue and to obtain the necessary instructions for resetting the equipment so as to get the refinery online.1738 pounds of Sulfur Dioxide (SO2) was released to the atmosphere over a two day period due to shutdown and startup of refinery.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Ed Riege	Approved by Environmental Specialist:	
Title: Environmental Manager	Approval Date:	Expiration Date:
E-mail Address: ed.riege@wnr.com	Conditions of Approval:	Attached ☐
Date: 07/9/2015 Phone: (505) 722-0217		

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Riege, Ed <Ed.Riege@wnr.com>
Sent: Monday, April 20, 2015 5:08 PM
To: Griswold, Jim, EMNRD
Cc: Kieling, John, NMENV; Chavez, Carl J, EMNRD; Vigil, Anthony; Allen, Ann; Hains, Allen
Subject: Gallup Pond 7 Response Letter
Attachments: WNR Pond7 Release Response (04-20-15).pdf

Jim,
Attached is the response to your letter of March 25, 2015 regarding the evaporation pond 7 release. The signed hard copy is in the USPS mail.

Thanks
Ed

Ed Riege MPH
Environmental Manager

Western Refining
Gallup Refinery
92 Giant Crossing Road
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

April 16, 2015

Via Email and Certified Mail #7014 1820 0001 7489 1591, Return Receipt Requested

Mr. Jim Griswold
Environmental Bureau Chief
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: MARCH 9, 2014 EVAPORATION POND 7 DIKE BREACH
RESPONSE TO NMOCD LETTER DATED MARCH 25, 2015

Dear Mr. Griswold:

On March 19, 2014,Western Refining Southwest, Inc., Gallup refinery ("Western") orally and by email notified the New Mexico Environment Department ("NMED") and the New Mexico Oil Conservation Division ("NMOCD") of a minor release of treated wastewater from Evaporation Pond 7 due to a breach in the dike. Without making any admissions, and reserving all applicable rights and defenses, Western provided a letter report dated March 10, 2015 in response to the inquiries of both NMED and NMOCD.

- NMOCD issued a response letter dated March 25, 2015 requesting submission of a plan for "complete delineation" of the affected areas within 30 days. NMOCD states its belief that: "The vertical and horizontal extents of chloride contamination in the soil has not been determined. No sampling laterally beyond the two areas of the apparent release has been determined." NMOCD explains that its conclusion is based on the groundwater separation distance. Specifically, the letter states:
- "You cite 19.15.17 NMAC (the "pit rule") as basis for allowing soil contaminated with chloride up to 10,000 mg/kg to be left in place when groundwater separation is greater than 50 feet. Based upon *Western's Facility Wide Ground Water Monitoring Work Plan – 2014 Updates for 2015* the water level in the well BW-1C is 12.97 feet beneath surface and in well BW-2C is 20.70 feet. Both monitoring wells are near the release area."

Respectfully, Western believes that "complete delineation" of the affected areas – as required by the pit rule - has taken place and believes NMOCD's position is based on a misunderstanding of the facts, particularly with respect to the groundwater separation distance. Western provides the following clarifications in support:

- The vertical and horizontal extents of chloride contamination has been determined.
    - The horizontal extent was determined by flagging the dry/wet edge of the spill with 89 points and surveying the points. The survey provided in the March 10, 2015 report is attached.
    - Vertical extent was determined the day after the release by sampling below the wet/dry soil horizon in the spill area. Three locations were sampled in each of the spill areas (north and south). A summary table and analytical reports are attached.
    - Due to clayey soils, vertical penetration of the released liquids was limited to 6 to 12 inches below surface. This information was used to pre-determine depths of the cleanup excavation.
    - When considering the relatively large surface area compared to volume of released water and the clayey soil, a shallow vertical impact would be expected.
- Conservatively, the depth to groundwater of 51 to 100 feet.
    - As stated in the 2013 RCRA Permit, the refinery is located on a layered geologic formation which is part of the high desert plain on the western slope of the continental divide. Surface soils generally consist of fluvial and alluvial deposits, primarily silt and clay with inter-bedded sand layers. The stratigraphy is complex and highly variable due to the presence of sand stringers, cobble beds, and dense clay layers. Below the surface layer is the Chinle Group, which consists of primarily low permeability claystones and siltstones that comprise the channel and floodplain deposits of this formation. The Chinle Group acts as an aquiclude; the clays and shales have a hydraulic conductivity of 10^{-9}cm/sec. Just above the Chinle Group is a zone of water bearing, weathered alluvium called the Chinle slope wash which is hydraulically interconnected with water located in shallow, localized sand lenses located between the Chinle slope wash and the ground surface. The Chinle slope wash is continuous and saturated throughout the region underneath the LTU. However, the Chine slope wash does not meet the regulatory definition of the uppermost aquifer; the rate of water movement is estimated to be less than 1 foot per year. Inter-bedded with the Chinle Group is the Sonsela Sandstone bed, which represents the uppermost potential aquifer in the region. The Sonsela lies within and parallels the dip of the Chinle Group, its highest point is located southeast of the facility and it slopes downward to the northwest as it passes under the facility. The Sonsela acts as a water bearing reservoir and is artesian at its lower extremis. Artesian conditions exist through much of the central and western portions of the refinery property.
    - The occurrence of water-bearing zones in the Chinle slope wash and Chinle Group above the Sonsela is sporadic across the Refinery property. In the BW-1C area, localized sand lenses in the Chinle slope wash are dry.

- Wells BW-1C and BW-2C are screened in the Sonsela Sandstone. The top of the Sonsela is 119 feet and 143 feet below surface, respectively. The screened intervals are 125 to 135 feet and 139.5 to 149.5 feet below surface, respectively. See the attached groundwater gauging table. The water bearing formation is more than 100 feet below the surface.
- The depths to water in the Wells BW-1C and BW-2C of 12.97 and 20.70 feet below surface, respectively, are indicative of a potentiometric surface above a confined aquifer. A well with this condition is also known as a non-flowing artesian well. The area lithology with impervious strata above (and below) the aquifer is conducive to artesian conditions.
- Conservatively, the chloride cleanup level of 10,000 mg/kg is appropriate.

In consideration of the information provided above, the confirmation sample results in the letter spill report dated March 10, 2015 demonstrate the spill of treated wastewater from Pond 7 has been successfully remediated under the pit rule and no further remedial action is required.

Upon approval of NMOCD, Western immediately will backfill the excavations using clean fill from the Refinery's borrow pit and seed the affected area. Please note that the Right-of-Entry Permit issued by the State of New Mexico is only valid through April 19, 2015. Western is taking steps to have that approval extended to allow time for NMOCD review and approval. We do not anticipate any issue in obtaining an extension but will advise NMOCD if an issue arises. If there are any questions, please contact Ed Riege at 505-722-0217.

Sincerely,

William Earl McClain

Mr. Billy McClain
Refinery Manager
Western Refining Southwest, Inc. – Gallup Refinery

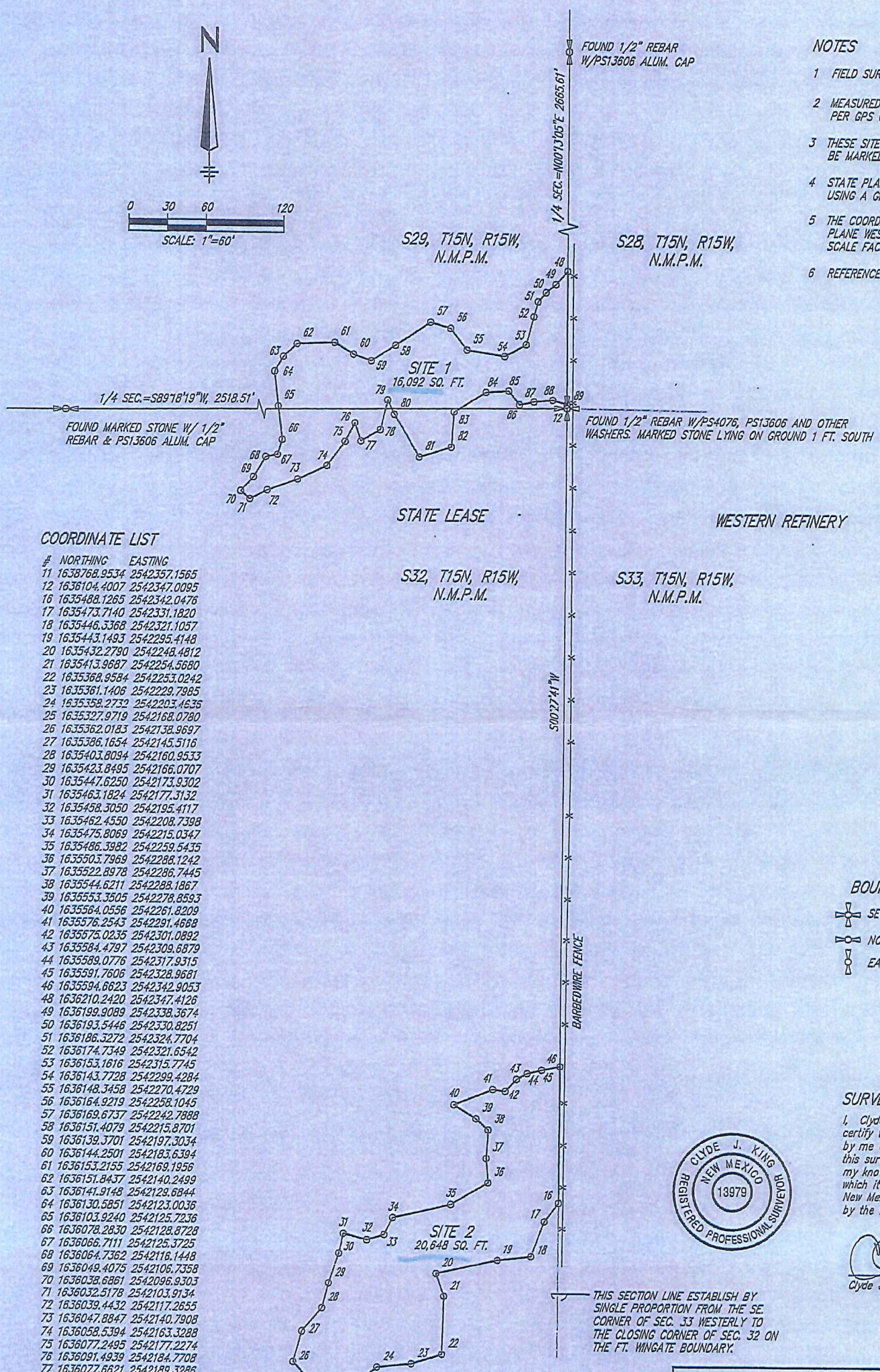
cc Anthony Vigil, State of New Mexico
A. Allen, Western El Paso
Ed Riege, Western Gallup
Allen Hains, Western El Paso

Mr. John E. Kieling, Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, New Mexico 87505-6303

Attachments

Horizontal Extent of Release

140915BS.DWG DRAWN BY: AH CHECKED BY: CK DATE: 9-20-14



NOTES

1 FIELD SURVEY PERFORMED SEPTEMBER 15, 2014.

2 MEASURED BEARINGS ARE REFERENCED TO N.M.S.P. WEST ZONE GRID PER GPS OBSERVATIONS PERFORMED ON SITE AT THE TIME OF SURVEY.

3 THESE SITES WERE IDENTIFIED BY REFINERY PERSONNEL AND FOUND TO BE MARKED ON THE GROUND WITH WIRE FLAGS AT THE TIME OF SURVEY.

4 STATE PLANE COORDINATES BASED ON THE BRASS CAP I-040-105 USING A GPS DERIVED COMBINED SCALE FACTOR OF 0.9996094928.

5 THE COORDINATE LIST SHOWING LOCATED POINTS ARE N.M. STATE PLANE WEST ZONE GRID COORDINATES AND MUST BE DIVIDED BY THE SCALE FACTOR SHOWN ABOVE TO REACH GROUND VALUES.

6 REFERENCE THE 1881 G.L.O. TOWNSHIP PLAT OF T15N, R15W, N.M.P.M.

COORDINATE LIST

#	NORTHING	EASTING
11	1638768.9534	2542357.1565
12	1636104.4007	2542347.0095
16	1635488.1265	2542342.0476
17	1635473.7140	2542331.1820
18	1635446.3368	2542321.1057
19	1635443.1493	2542295.4148
20	1635432.2790	2542248.4812
21	1635413.9687	2542254.5680
22	1635368.9584	2542253.0242
23	1635361.1406	2542229.7985
24	1635358.2732	2542203.4635
25	1635327.9719	2542168.0780
26	1635362.0183	2542138.9697
27	1635386.1654	2542145.5116
28	1635403.8094	2542160.9533
29	1635423.8495	2542166.0707
30	1635447.6250	2542173.9302
31	1635463.1824	2542177.3132
32	1635458.3050	2542195.4117
33	1635462.4550	2542208.7398
34	1635475.8069	2542215.0347
35	1635486.3982	2542259.5435
36	1635503.7969	2542288.1242
37	1635522.8978	2542286.7445
38	1635544.6211	2542288.1867
39	1635553.3505	2542278.8593
40	1635564.0556	2542261.8209
41	1635576.2543	2542291.4668
42	1635575.0235	2542301.0892
43	1635584.4797	2542309.6879
44	1635589.0776	2542317.9315
45	1635591.7606	2542328.9681
46	1635594.6623	2542342.9053
48	1636210.2420	2542347.4126
49	1636199.9089	2542338.3674
50	1636193.5446	2542330.8251
51	1636186.3272	2542324.7704
52	1636174.7349	2542321.6542
53	1636153.1616	2542315.7745
54	1636143.7728	2542299.4284
55	1636148.3458	2542270.4729
56	1636164.9219	2542258.1045
57	1636169.6737	2542242.7888
58	1636151.4079	2542215.8701
59	1636139.3701	2542197.3034
60	1636144.2501	2542183.6394
61	1636153.2155	2542169.1956
62	1636151.8437	2542140.2499
63	1636141.9148	2542129.6844
64	1636130.5851	2542123.0036
65	1636103.9240	2542125.7236
66	1636078.2830	2542128.8728
67	1636066.7111	2542125.3725
68	1636064.7362	2542116.1448
69	1636049.4075	2542106.7358
70	1636038.6861	2542096.9303
71	1636032.5178	2542103.9134
72	1636039.4432	2542117.2655
73	1636047.8847	2542140.7908
74	1636058.5394	2542163.3288
75	1636077.2495	2542177.2274
76	1636091.4939	2542184.7708
77	1636077.6621	2542188.3286
78	1636086.3300	2542204.2472
79	1636109.4134	2542209.9541
80	1636098.4322	2542214.8968
81	1636065.6728	2542234.1248
82	1636073.5650	2542258.6803
83	1636100.7028	2542260.6073
84	1636116.0408	2542285.2207
85	1636117.3491	2542302.5946
86	1636106.8577	2542310.7095
87	1636109.2469	2542321.8393
88	1636110.5733	2542336.1329
89	1636107.3472	2542347.0207

BOUNDARY LEGEND

SECTION CORNER

NORTH OR SOUTH 1/4 SECTION CORNER

EAST OR WEST 1/4 SECTION CORNER

SURVEYOR'S CERTIFICATE

I, Clyde J. King, a New Mexico Professional Surveyor do hereby certify that this plat was prepared from a field survey performed by me or under my direct supervision, that I am responsible for this survey, that this survey is true and correct to the best of my knowledge and belief, that this plat and the field survey upon which it is based meet the Minimum Standards for Surveying in New Mexico and that this survey is not a subdivision as defined by the New Mexico Subdivision Act.

CLYDE J. KING NEW MEXICO 13979 REGISTERED PROFESSIONAL SURVEYOR

Clyde J. King, PS13979 — Date: 9-20-14

SURVEY of the SITE 1 in Sections 29 & 32, and SITE 2 in Section 32, T15N, R15W, N.M.P.M., McKinley County, New Mexico, U.S.A.

H.E.I. HAMMON ENTERPRISES, INC. PROFESSIONAL LAND SURVEYING SERVICES
P.O. Box 770 Ramah, NM 87321 Tel:(505) 870-6901 HEISurveys@Yahoo.com

Vertical Extent of Release

Summary of Chloride Sampling Analyses
March 20, 2014

Sample ID	Sample Date/Time	Chloride (ppm)	Comments
P7-S-1A	3/20/14 10:00 AM	4,600	Sample of North Release Area
P7-S-1B	3/20/14 10:00 AM	1,000	Sample of North Release Area
P7-S-1C	3/20/14 10:00 AM	1,100	Sample of North Release Area
P7-S-1D	3/20/14 10:30 AM	53,000	Aqueous Sample - Released Material
P7-S-2A	3/20/14 11:10 AM	7,600	Sample of South Release Area
P7-S-2B	3/20/14 11:10 AM	1,800	Sample of South Release Area
P7-S-2C	3/20/14 11:10 AM	5,400	Sample of South Release Area

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 28, 2014

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: Pond 7 Breach (Soil, Water) OrderNo.: 1403941

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 3/21/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-001 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/25/2014 7:24:51 PM	12321
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/25/2014 7:24:51 PM	12321
Surr: DNOP	91.8	66-131		%REC	1	3/25/2014 7:24:51 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/26/2014 10:51:21 PM	12325
Surr: BFB	90.0	74.5-129		%REC	1	3/26/2014 10:51:21 PM	12325
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	2.6	0.30		mg/Kg	1	3/25/2014 12:49:22 PM	12346
Chloride	4600	150		mg/Kg	100	3/27/2014 7:00:03 AM	12346
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	3/25/2014 1:26:36 PM	12346
Bromide	2.0	0.30		mg/Kg	1	3/25/2014 12:49:22 PM	12346
Nitrogen, Nitrate (As N)	3.3	0.30		mg/Kg	1	3/25/2014 12:49:22 PM	12346
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	3/25/2014 12:49:22 PM	12346
Sulfate	1200	30		mg/Kg	20	3/25/2014 1:26:36 PM	12346
MERCURY, TCLP						Analyst: **JML**	
Mercury	ND	0.020		mg/L	1	3/25/2014 5:20:09 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	15000	130		mg/Kg	5	3/26/2014 12:02:26 PM	12337
Magnesium	8200	130		mg/Kg	5	3/26/2014 12:02:26 PM	12337
Potassium	4700	250		mg/Kg	5	3/26/2014 12:02:26 PM	12337
Sodium	4400	130		mg/Kg	5	3/26/2014 12:02:26 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst: **JLF**	
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:35:27 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:35:27 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:35:27 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:35:27 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:35:27 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:35:27 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:35:27 PM	12369
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	3/27/2014 3:47:18 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 3:47:18 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 3:47:18 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 3:47:18 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 3:47:18 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 3:47:18 PM	12365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-001 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 3:47:18 PM	12365
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 3:47:18 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 3:47:18 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 3:47:18 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 3:47:18 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 3:47:18 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 3:47:18 PM	12365
Surr: 2-Fluorophenol	21.5	18.6-88.6		%REC	1	3/27/2014 3:47:18 PM	12365
Surr: Phenol-d5	36.5	19.5-61.8		%REC	1	3/27/2014 3:47:18 PM	12365
Surr: 2,4,6-Tribromophenol	30.2	29.7-130		%REC	1	3/27/2014 3:47:18 PM	12365
Surr: Nitrobenzene-d5	95.9	45.1-101		%REC	1	3/27/2014 3:47:18 PM	12365
Surr: 2-Fluorobiphenyl	84.5	46.6-99.3		%REC	1	3/27/2014 3:47:18 PM	12365
Surr: 4-Terphenyl-d14	78.9	40.8-109		%REC	1	3/27/2014 3:47:18 PM	12365
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 2:01:29 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 2:01:29 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 2:01:29 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 2:01:29 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 2:01:29 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 2:01:29 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 2:01:29 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 2:01:29 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 2:01:29 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 2:01:29 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 2:01:29 PM	12325
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	10	3/25/2014 2:01:29 PM	12325
Surr: 4-Bromofluorobenzene	103	70-130		%REC	10	3/25/2014 2:01:29 PM	12325
Surr: Dibromofluoromethane	107	70-130		%REC	10	3/25/2014 2:01:29 PM	12325
Surr: Toluene-d8	99.0	70-130		%REC	10	3/25/2014 2:01:29 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-002 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/25/2014 7:46:44 PM	12321
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/25/2014 7:46:44 PM	12321
Surr: DNOP	93.1	66-131		%REC	1	3/25/2014 7:46:44 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/26/2014 11:19:58 PM	12325
Surr: BFB	88.3	74.5-129		%REC	1	3/26/2014 11:19:58 PM	12325
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	4.2	3.0		mg/Kg	10	3/25/2014 1:39:01 PM	12346
Chloride	1000	150		mg/Kg	100	3/25/2014 1:51:26 PM	12346
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	3/25/2014 1:39:01 PM	12346
Bromide	ND	3.0		mg/Kg	10	3/25/2014 1:39:01 PM	12346
Nitrogen, Nitrate (As N)	9.1	3.0		mg/Kg	10	3/25/2014 1:39:01 PM	12346
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	3/25/2014 1:39:01 PM	12346
Sulfate	170	15		mg/Kg	10	3/25/2014 1:39:01 PM	12346
MERCURY, TCLP						Analyst: **JML**	
Mercury	ND	0.020		mg/L	1	3/25/2014 5:21:55 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	16000	120		mg/Kg	5	3/26/2014 12:14:24 PM	12337
Magnesium	7900	120		mg/Kg	5	3/26/2014 12:14:24 PM	12337
Potassium	3900	240		mg/Kg	5	3/26/2014 12:14:24 PM	12337
Sodium	1300	120		mg/Kg	5	3/26/2014 12:14:24 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst: **JLF**	
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:37:56 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:37:56 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:37:56 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:37:56 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:37:56 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:37:56 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:37:56 PM	12369
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	3/27/2014 4:16:27 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 4:16:27 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 4:16:27 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 4:16:27 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 4:16:27 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 4:16:27 PM	12365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-002 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 4:16:27 PM	12365
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 4:16:27 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 4:16:27 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 4:16:27 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 4:16:27 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 4:16:27 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 4:16:27 PM	12365
Surr: 2-Fluorophenol	19.0	18.6-88.6		%REC	1	3/27/2014 4:16:27 PM	12365
Surr: Phenol-d5	31.2	19.5-61.8		%REC	1	3/27/2014 4:16:27 PM	12365
Surr: 2,4,6-Tribromophenol	28.8	29.7-130	S	%REC	1	3/27/2014 4:16:27 PM	12365
Surr: Nitrobenzene-d5	92.7	45.1-101		%REC	1	3/27/2014 4:16:27 PM	12365
Surr: 2-Fluorobiphenyl	87.5	46.6-99.3		%REC	1	3/27/2014 4:16:27 PM	12365
Surr: 4-Terphenyl-d14	82.2	40.8-109		%REC	1	3/27/2014 4:16:27 PM	12365
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 2:30:14 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 2:30:14 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 2:30:14 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 2:30:14 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 2:30:14 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 2:30:14 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 2:30:14 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 2:30:14 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 2:30:14 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 2:30:14 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 2:30:14 PM	12325
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	10	3/25/2014 2:30:14 PM	12325
Surr: 4-Bromofluorobenzene	98.7	70-130		%REC	10	3/25/2014 2:30:14 PM	12325
Surr: Dibromofluoromethane	103	70-130		%REC	10	3/25/2014 2:30:14 PM	12325
Surr: Toluene-d8	104	70-130		%REC	10	3/25/2014 2:30:14 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-003 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/25/2014 8:08:49 PM	12321
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/25/2014 8:08:49 PM	12321
Surr: DNOP	90.3	66-131		%REC	1	3/25/2014 8:08:49 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/26/2014 11:48:31 PM	12325
Surr: BFB	88.1	74.5-129		%REC	1	3/26/2014 11:48:31 PM	12325
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	5.8	3.0		mg/Kg	10	3/25/2014 2:28:40 PM	12346
Chloride	1100	150		mg/Kg	100	3/25/2014 2:41:05 PM	12346
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	3/25/2014 2:28:40 PM	12346
Bromide	ND	3.0		mg/Kg	10	3/25/2014 2:28:40 PM	12346
Nitrogen, Nitrate (As N)	3.4	3.0		mg/Kg	10	3/25/2014 2:28:40 PM	12346
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	3/25/2014 2:28:40 PM	12346
Sulfate	210	15		mg/Kg	10	3/25/2014 2:28:40 PM	12346
MERCURY, TCLP						Analyst: **JML**	
Mercury	ND	0.020		mg/L	1	3/25/2014 5:23:43 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	17000	130		mg/Kg	5	3/26/2014 12:17:20 PM	12337
Magnesium	7300	51		mg/Kg	2	3/26/2014 12:15:51 PM	12337
Potassium	3900	100		mg/Kg	2	3/26/2014 12:15:51 PM	12337
Sodium	1900	51		mg/Kg	2	3/26/2014 12:15:51 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst: **JLF**	
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:40:27 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:40:27 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:40:27 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:40:27 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:40:27 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:40:27 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:40:27 PM	12369
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	3/27/2014 4:45:38 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 4:45:38 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 4:45:38 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 4:45:38 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 4:45:38 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 4:45:38 PM	12365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-003 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 4:45:38 PM	12365
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 4:45:38 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 4:45:38 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 4:45:38 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 4:45:38 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 4:45:38 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 4:45:38 PM	12365
Surr: 2-Fluorophenol	23.6	18.6-88.6		%REC	1	3/27/2014 4:45:38 PM	12365
Surr: Phenol-d5	35.2	19.5-61.8		%REC	1	3/27/2014 4:45:38 PM	12365
Surr: 2,4,6-Tribromophenol	39.1	29.7-130		%REC	1	3/27/2014 4:45:38 PM	12365
Surr: Nitrobenzene-d5	111	45.1-101	S	%REC	1	3/27/2014 4:45:38 PM	12365
Surr: 2-Fluorobiphenyl	93.2	46.6-99.3		%REC	1	3/27/2014 4:45:38 PM	12365
Surr: 4-Terphenyl-d14	88.2	40.8-109		%REC	1	3/27/2014 4:45:38 PM	12365
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 2:59:07 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 2:59:07 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 2:59:07 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 2:59:07 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 2:59:07 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 2:59:07 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 2:59:07 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 2:59:07 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 2:59:07 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 2:59:07 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 2:59:07 PM	12325
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	10	3/25/2014 2:59:07 PM	12325
Surr: 4-Bromofluorobenzene	100	70-130		%REC	10	3/25/2014 2:59:07 PM	12325
Surr: Dibromofluoromethane	101	70-130		%REC	10	3/25/2014 2:59:07 PM	12325
Surr: Toluene-d8	101	70-130		%REC	10	3/25/2014 2:59:07 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-004 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/25/2014 8:30:42 PM	12321
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/25/2014 8:30:42 PM	12321
Surr: DNOP	90.7	66-131		%REC	1	3/25/2014 8:30:42 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/27/2014 12:17:07 AM	12325
Surr: BFB	88.8	74.5-129		%REC	1	3/27/2014 12:17:07 AM	12325
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	8.3	3.0		mg/Kg	10	3/25/2014 2:53:30 PM	12346
Chloride	7600	300		mg/Kg	200	3/27/2014 7:12:27 AM	12346
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	3/25/2014 2:53:30 PM	12346
Bromide	3.8	3.0		mg/Kg	10	3/25/2014 2:53:30 PM	12346
Nitrogen, Nitrate (As N)	16	3.0		mg/Kg	10	3/25/2014 2:53:30 PM	12346
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	3/25/2014 2:53:30 PM	12346
Sulfate	1300	150		mg/Kg	100	3/25/2014 3:05:55 PM	12346
MERCURY, TCLP						Analyst: **JML**	
Mercury	ND	0.020		mg/L	1	3/25/2014 5:25:31 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	15000	130		mg/Kg	5	3/26/2014 12:20:20 PM	12337
Magnesium	7200	51		mg/Kg	2	3/26/2014 12:18:49 PM	12337
Potassium	4400	100		mg/Kg	2	3/26/2014 12:18:49 PM	12337
Sodium	6400	51		mg/Kg	2	3/26/2014 12:18:49 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst: **JLF**	
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:43:00 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:43:00 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:43:00 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:43:00 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:43:00 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:43:00 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:43:00 PM	12369
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	3/27/2014 5:14:47 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 5:14:47 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 5:14:47 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 5:14:47 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 5:14:47 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 5:14:47 PM	12365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-004 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 5:14:47 PM	12365
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 5:14:47 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 5:14:47 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 5:14:47 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 5:14:47 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 5:14:47 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 5:14:47 PM	12365
Surr: 2-Fluorophenol	49.0	18.6-88.6		%REC	1	3/27/2014 5:14:47 PM	12365
Surr: Phenol-d5	45.6	19.5-61.8		%REC	1	3/27/2014 5:14:47 PM	12365
Surr: 2,4,6-Tribromophenol	68.1	29.7-130		%REC	1	3/27/2014 5:14:47 PM	12365
Surr: Nitrobenzene-d5	109	45.1-101	S	%REC	1	3/27/2014 5:14:47 PM	12365
Surr: 2-Fluorobiphenyl	97.0	46.6-99.3		%REC	1	3/27/2014 5:14:47 PM	12365
Surr: 4-Terphenyl-d14	90.0	40.8-109		%REC	1	3/27/2014 5:14:47 PM	12365
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 4:25:20 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 4:25:20 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 4:25:20 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 4:25:20 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 4:25:20 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 4:25:20 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 4:25:20 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 4:25:20 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 4:25:20 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 4:25:20 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 4:25:20 PM	12325
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	10	3/25/2014 4:25:20 PM	12325
Surr: 4-Bromofluorobenzene	97.2	70-130		%REC	10	3/25/2014 4:25:20 PM	12325
Surr: Dibromofluoromethane	103	70-130		%REC	10	3/25/2014 4:25:20 PM	12325
Surr: Toluene-d8	99.7	70-130		%REC	10	3/25/2014 4:25:20 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-005 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/25/2014 8:52:38 PM	12321
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/25/2014 8:52:38 PM	12321
Surr: DNOP	89.1	66-131		%REC	1	3/25/2014 8:52:38 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/27/2014 12:45:47 AM	12325
Surr: BFB	88.9	74.5-129		%REC	1	3/27/2014 12:45:47 AM	12325
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	8.1	3.0		mg/Kg	10	3/25/2014 3:18:20 PM	12346
Chloride	1800	150		mg/Kg	100	3/25/2014 3:30:45 PM	12346
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	3/25/2014 3:18:20 PM	12346
Bromide	ND	3.0		mg/Kg	10	3/25/2014 3:18:20 PM	12346
Nitrogen, Nitrate (As N)	4.2	3.0		mg/Kg	10	3/25/2014 3:18:20 PM	12346
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	3/25/2014 3:18:20 PM	12346
Sulfate	420	15		mg/Kg	10	3/25/2014 3:18:20 PM	12346
MERCURY, TCLP						Analyst: **JML**	
Mercury	ND	0.020		mg/L	1	3/25/2014 5:27:19 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	16000	120		mg/Kg	5	3/26/2014 12:23:19 PM	12337
Magnesium	7400	48		mg/Kg	2	3/26/2014 12:21:50 PM	12337
Potassium	4100	96		mg/Kg	2	3/26/2014 12:21:50 PM	12337
Sodium	2500	48		mg/Kg	2	3/26/2014 12:21:50 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst: **JLF**	
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:49:15 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:49:15 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:49:15 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:49:15 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:49:15 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:49:15 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:49:15 PM	12369
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	3/27/2014 5:43:48 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 5:43:48 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 5:43:48 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 5:43:48 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 5:43:48 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 5:43:48 PM	12365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-005 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 5:43:48 PM	12365
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 5:43:48 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 5:43:48 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 5:43:48 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 5:43:48 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 5:43:48 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 5:43:48 PM	12365
Surr: 2-Fluorophenol	13.7	18.6-88.6	S	%REC	1	3/27/2014 5:43:48 PM	12365
Surr: Phenol-d5	30.0	19.5-61.8		%REC	1	3/27/2014 5:43:48 PM	12365
Surr: 2,4,6-Tribromophenol	23.7	29.7-130	S	%REC	1	3/27/2014 5:43:48 PM	12365
Surr: Nitrobenzene-d5	87.8	45.1-101		%REC	1	3/27/2014 5:43:48 PM	12365
Surr: 2-Fluorobiphenyl	94.8	46.6-99.3		%REC	1	3/27/2014 5:43:48 PM	12365
Surr: 4-Terphenyl-d14	88.9	40.8-109		%REC	1	3/27/2014 5:43:48 PM	12365
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 4:54:01 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 4:54:01 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 4:54:01 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 4:54:01 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 4:54:01 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 4:54:01 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 4:54:01 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 4:54:01 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 4:54:01 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 4:54:01 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 4:54:01 PM	12325
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	10	3/25/2014 4:54:01 PM	12325
Surr: 4-Bromofluorobenzene	101	70-130		%REC	10	3/25/2014 4:54:01 PM	12325
Surr: Dibromofluoromethane	105	70-130		%REC	10	3/25/2014 4:54:01 PM	12325
Surr: Toluene-d8	103	70-130		%REC	10	3/25/2014 4:54:01 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-006 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/25/2014 9:14:36 PM	12321
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/25/2014 9:14:36 PM	12321
Surr: DNOP	94.9	66-131		%REC	1	3/25/2014 9:14:36 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/27/2014 1:14:26 AM	12325
Surr: BFB	89.4	74.5-129		%REC	1	3/27/2014 1:14:26 AM	12325
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	5.5	3.0		mg/Kg	10	3/25/2014 3:43:10 PM	12346
Chloride	5400	150		mg/Kg	100	3/25/2014 3:55:35 PM	12346
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	3/25/2014 3:43:10 PM	12346
Bromide	ND	3.0		mg/Kg	10	3/25/2014 3:43:10 PM	12346
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	3/25/2014 3:43:10 PM	12346
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	3/25/2014 3:43:10 PM	12346
Sulfate	980	15		mg/Kg	10	3/25/2014 3:43:10 PM	12346
MERCURY, TCLP						Analyst: **JML**	
Mercury	ND	0.020		mg/L	1	3/25/2014 5:32:49 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	15000	130		mg/Kg	5	3/26/2014 12:26:21 PM	12337
Magnesium	7100	52		mg/Kg	2	3/26/2014 12:24:49 PM	12337
Potassium	3900	100		mg/Kg	2	3/26/2014 12:24:49 PM	12337
Sodium	4100	52		mg/Kg	2	3/26/2014 12:24:49 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst: **JLF**	
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:51:45 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:51:45 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:51:45 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:51:45 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:51:45 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:51:45 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:51:45 PM	12369
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	3/27/2014 6:12:44 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 6:12:44 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 6:12:44 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 6:12:44 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 6:12:44 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 6:12:44 PM	12365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-006 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 6:12:44 PM	12365
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 6:12:44 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 6:12:44 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 6:12:44 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 6:12:44 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 6:12:44 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 6:12:44 PM	12365
Surr: 2-Fluorophenol	17.2	18.6-88.6	S	%REC	1	3/27/2014 6:12:44 PM	12365
Surr: Phenol-d5	27.4	19.5-61.8		%REC	1	3/27/2014 6:12:44 PM	12365
Surr: 2,4,6-Tribromophenol	25.0	29.7-130	S	%REC	1	3/27/2014 6:12:44 PM	12365
Surr: Nitrobenzene-d5	69.2	45.1-101		%REC	1	3/27/2014 6:12:44 PM	12365
Surr: 2-Fluorobiphenyl	68.6	46.6-99.3		%REC	1	3/27/2014 6:12:44 PM	12365
Surr: 4-Terphenyl-d14	72.9	40.8-109		%REC	1	3/27/2014 6:12:44 PM	12365
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 5:22:42 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 5:22:42 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 5:22:42 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 5:22:42 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 5:22:42 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 5:22:42 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 5:22:42 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 5:22:42 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 5:22:42 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 5:22:42 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 5:22:42 PM	12325
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	10	3/25/2014 5:22:42 PM	12325
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	10	3/25/2014 5:22:42 PM	12325
Surr: Dibromofluoromethane	102	70-130		%REC	10	3/25/2014 5:22:42 PM	12325
Surr: Toluene-d8	99.5	70-130		%REC	10	3/25/2014 5:22:42 PM	12325

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007 **Matrix:** AQUEOUS **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE						Analyst: **BCN**	
Diesel Range Organics (DRO)	4.6	1.0		mg/L	1	3/25/2014 5:00:12 PM	12335
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/25/2014 5:00:12 PM	12335
Surr: DNOP	107	62.7-145		%REC	1	3/25/2014 5:00:12 PM	12335
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/25/2014 3:57:11 PM	R17568
Surr: BFB	96.5	80.4-118		%REC	1	3/25/2014 3:57:11 PM	R17568
EPA METHOD 300.0: ANIONS						Analyst: **SRM**	
Fluoride	26	10	*	mg/L	100	3/21/2014 8:34:08 PM	R17497
Chloride	53000	2500		mg/L	5E	3/24/2014 2:59:24 PM	R17549
Nitrogen, Nitrite (As N)	ND	100	H	mg/L	1E	3/24/2014 2:47:00 PM	R17549
Bromide	22	10		mg/L	100	3/21/2014 8:34:08 PM	R17497
Nitrogen, Nitrate (As N)	2.4	1.0		mg/L	10	3/21/2014 8:21:43 PM	R17497
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	3/21/2014 8:21:43 PM	R17497
Sulfate	8400	500		mg/L	1E	3/24/2014 2:47:00 PM	R17549
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Barium	0.41	0.010		mg/L	5	3/24/2014 2:09:57 PM	R17521
Cadmium	ND	0.010		mg/L	5	3/24/2014 2:09:57 PM	R17521
Calcium	920	50		mg/L	50	3/24/2014 2:11:41 PM	R17521
Chromium	ND	0.030		mg/L	5	3/24/2014 2:09:57 PM	R17521
Copper	ND	0.030		mg/L	5	3/24/2014 2:09:57 PM	R17521
Iron	0.20	0.10		mg/L	5	3/24/2014 2:09:57 PM	R17521
Magnesium	990	50		mg/L	50	3/24/2014 2:11:41 PM	R17521
Manganese	1.8	0.010	*	mg/L	5	3/24/2014 2:09:57 PM	R17521
Potassium	1200	50		mg/L	50	3/24/2014 2:11:41 PM	R17521
Silver	ND	0.025		mg/L	5	3/24/2014 2:09:57 PM	R17521
Sodium	27000	500		mg/L	500	3/24/2014 3:30:11 PM	R17521
Zinc	0.079	0.050		mg/L	5	3/24/2014 2:09:57 PM	R17521
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**	
Barium	0.37	0.010		mg/L	5	3/25/2014 4:36:13 PM	12345
Cadmium	ND	0.010		mg/L	5	3/25/2014 4:36:13 PM	12345
Chromium	ND	0.030		mg/L	5	3/25/2014 4:36:13 PM	12345
Copper	ND	0.030		mg/L	5	3/25/2014 4:36:13 PM	12345
Iron	0.66	0.10	*	mg/L	5	3/25/2014 4:36:13 PM	12345
Manganese	1.7	0.010	*	mg/L	5	3/25/2014 4:36:13 PM	12345
Silver	ND	0.025		mg/L	5	3/25/2014 4:36:13 PM	12345
Zinc	ND	0.050		mg/L	5	3/25/2014 4:36:13 PM	12345
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007 **Matrix:** AQUEOUS **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**	
Arsenic	0.077	0.050	*	mg/L	50	3/26/2014 5:14:10 PM	R17589
Lead	ND	0.010		mg/L	10	3/26/2014 5:08:36 PM	R17589
Selenium	0.059	0.050	*	mg/L	50	3/26/2014 5:14:10 PM	R17589
Uranium	ND	0.010		mg/L	10	3/26/2014 5:08:36 PM	R17589
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**	
Arsenic	0.078	0.050	*	mg/L	50	3/27/2014 12:44:12 PM	12345
Lead	ND	0.010		mg/L	10	3/27/2014 12:54:35 PM	12345
Selenium	0.055	0.050	*	mg/L	50	3/27/2014 12:44:12 PM	12345
Uranium	ND	0.010		mg/L	10	3/27/2014 12:54:35 PM	12345
EPA METHOD 245.1: MERCURY						Analyst: **JML**	
Mercury	ND	0.00020		mg/L	1	3/24/2014 5:46:02 PM	12327
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Acenaphthylene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Aniline	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Anthracene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Azobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benz(a)anthracene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzo(a)pyrene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzo(b)fluoranthene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzo(g,h,i)perylene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzo(k)fluoranthene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzoic acid	ND	100		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzyl alcohol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Bis(2-chloroethyl)ether	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Bromophenyl phenyl ether	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Butyl benzyl phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Carbazole	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Chloro-3-methylphenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Chloroaniline	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Chloronaphthalene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Chlorophenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Chrysene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Di-n-butyl phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007 **Matrix:** AQUEOUS **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Di-n-octyl phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Dibenz(a,h)anthracene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Dibenzofuran	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
1,2-Dichlorobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
1,3-Dichlorobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
1,4-Dichlorobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
3,3´-Dichlorobenzidine	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Diethyl phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Dimethyl phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4-Dichlorophenol	ND	100		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4-Dimethylphenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4-Dinitrophenol	ND	100		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4-Dinitrotoluene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2,6-Dinitrotoluene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Fluoranthene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Fluorene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Hexachlorobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Hexachlorobutadiene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Hexachlorocyclopentadiene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Hexachloroethane	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Isophorone	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
1-Methylnaphthalene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Methylnaphthalene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Methylphenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
3+4-Methylphenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
N-Nitrosodimethylamine	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
N-Nitrosodiphenylamine	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Naphthalene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Nitroaniline	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
3-Nitroaniline	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Nitroaniline	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Nitrobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Nitrophenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Nitrophenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Pentachlorophenol	ND	100		µg/L	1	3/27/2014 12:52:58 PM	12366
Phenanthrene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007 **Matrix:** AQUEOUS **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Phenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Pyrene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Pyridine	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
1,2,4-Trichlorobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4,5-Trichlorophenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4,6-Trichlorophenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Surr: 2-Fluorophenol	1.81	22.7-98	S	%REC	1	3/27/2014 12:52:58 PM	12366
Surr: Phenol-d5	6.09	23.4-74.9	S	%REC	1	3/27/2014 12:52:58 PM	12366
Surr: 2,4,6-Tribromophenol	46.4	23.3-111		%REC	1	3/27/2014 12:52:58 PM	12366
Surr: Nitrobenzene-d5	112	36.8-111	S	%REC	1	3/27/2014 12:52:58 PM	12366
Surr: 2-Fluorobiphenyl	104	38.3-110		%REC	1	3/27/2014 12:52:58 PM	12366
Surr: 4-Terphenyl-d14	91.0	52.1-116		%REC	1	3/27/2014 12:52:58 PM	12366
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Toluene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Ethylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Naphthalene	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1-Methylnaphthalene	ND	4.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
2-Methylnaphthalene	ND	4.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Acetone	26	10		µg/L	1	3/24/2014 4:03:11 PM	R17536
Bromobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Bromodichloromethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Bromoform	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Bromomethane	ND	3.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
2-Butanone	ND	10		µg/L	1	3/24/2014 4:03:11 PM	R17536
Carbon disulfide	ND	10		µg/L	1	3/24/2014 4:03:11 PM	R17536
Carbon Tetrachloride	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Chlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Chloroethane	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Chloroform	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Chloromethane	21	3.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
2-Chlorotoluene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
4-Chlorotoluene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
cis-1,2-DCE	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007
Matrix: AQUEOUS
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Dibromochloromethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Dibromomethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1-Dichloroethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1-Dichloroethene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2-Dichloropropane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,3-Dichloropropane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
2,2-Dichloropropane	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1-Dichloropropene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Hexachlorobutadiene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
2-Hexanone	ND	10		µg/L	1	3/24/2014 4:03:11 PM	R17536
Isopropylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
4-Isopropyltoluene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
4-Methyl-2-pentanone	ND	10		µg/L	1	3/24/2014 4:03:11 PM	R17536
Methylene Chloride	ND	3.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
n-Butylbenzene	ND	3.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
n-Propylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
sec-Butylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Styrene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
tert-Butylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
trans-1,2-DCE	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Trichlorofluoromethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Vinyl chloride	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Xylenes, Total	ND	1.5		µg/L	1	3/24/2014 4:03:11 PM	R17536

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007 **Matrix:** AQUEOUS **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	3/24/2014 4:03:11 PM	R17536
Surr: 4-Bromofluorobenzene	108	70-130		%REC	1	3/24/2014 4:03:11 PM	R17536
Surr: Dibromofluoromethane	114	70-130		%REC	1	3/24/2014 4:03:11 PM	R17536
Surr: Toluene-d8	93.9	70-130		%REC	1	3/24/2014 4:03:11 PM	R17536

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140325030
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1403941
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140325030-001	**Sampling Date**	3/20/2014	**Date/Time Received**	3/25/2014 12:43 PM
Client Sample ID	1403941-001B / P7-S-1A	**Sampling Time**	10:00 AM		
Matrix	Soil	**Sample Location**			

Comments: sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	7.90	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140325030
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1403941
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140325030-002	**Sampling Date**	3/20/2014	**Date/Time Received**	3/25/2014	12:43 PM
Client Sample ID	1403941-002B / P7-S-1B	**Sampling Time**	10:00 AM			
Matrix	Soil	**Sample Location**				

Comments sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	7.88	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140325030
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1403941
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140325030-003	**Sampling Date**	3/20/2014	**Date/Time Received**	3/25/2014	12:43 PM
Client Sample ID	1403941-003B / P7-S-1C	**Sampling Time**	10:00 AM			
Matrix	Soil	**Sample Location**				

Comments sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	8.15	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140325030
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1403941
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140325030-004	**Sampling Date**	3/20/2014	**Date/Time Received**	3/25/2014	12:43 PM
Client Sample ID	1403941-004B / P7-S-2A	**Sampling Time**	11:10 AM			
Matrix	Soil	**Sample Location**				

Comments sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	7.94	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 140325030
Project Name: 1403941

Analytical Results Report

Sample Number 140325030-005 **Sampling Date** 3/20/2014 **Date/Time Received** 3/25/2014 12:43 PM
Client Sample ID 1403941-005B / P7-S-2B **Sampling Time** 11:10 AM
Matrix Soil **Sample Location**
Comments sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	7.99	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140325030
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1403941
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140325030-006	**Sampling Date**	3/20/2014	**Date/Time Received**	3/25/2014	12:43 PM
Client Sample ID	1403941-006B / P7-S-2C	**Sampling Time**	11:10 AM			
Matrix	Soil	**Sample Location**				

Comments sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	8.00	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R17521**	RunNo: **17521**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **504618** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R17521**	RunNo: **17521**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **504619** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.3	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.4	85	115			
Calcium	50	1.0	50.00	0	99.7	85	115			
Chromium	0.49	0.0060	0.5000	0	97.9	85	115			
Copper	0.49	0.0060	0.5000	0	98.6	85	115			
Iron	0.49	0.020	0.5000	0	98.0	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	95.6	85	115			
Potassium	48	1.0	50.00	0	97.0	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Sodium	50	1.0	50.00	0	99.7	85	115			
Zinc	0.49	0.010	0.5000	0	97.0	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12345**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **12345**	RunNo: **17565**
Prep Date: **3/25/2014**	Analysis Date: **3/25/2014**	SeqNo: **505960** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-12345**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **12345**	RunNo: **17565**
Prep Date: **3/25/2014**	Analysis Date: **3/25/2014**	SeqNo: **505961** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.0	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	99.3	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	97.5	85	115			
Manganese	0.49	0.0020	0.5000	0	97.4	85	115			
Silver	0.11	0.0050	0.1000	0	113	85	115			
Zinc	0.49	0.010	0.5000	0	97.6	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R17589**	RunNo: **17589**
Prep Date:	Analysis Date: **3/26/2014**	SeqNo: **506539** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.7	85	115			
Lead	0.025	0.0010	0.02500	0	98.5	85	115			
Selenium	0.024	0.0010	0.02500	0	96.0	85	115			
Uranium	0.025	0.0010	0.02500	0	99.5	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R17589**	RunNo: **17589**
Prep Date:	Analysis Date: **3/26/2014**	SeqNo: **506540** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.022	0.0010	0.02500	0	89.8	85	115			
Lead	0.024	0.0010	0.02500	0	96.7	85	115			
Selenium	0.023	0.0010	0.02500	0	93.3	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R17589**	RunNo: **17589**
Prep Date:	Analysis Date: **3/26/2014**	SeqNo: **506541** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R17589**	RunNo: **17589**
Prep Date:	Analysis Date: **3/26/2014**	SeqNo: **506542** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**
28-Mar-14

Client: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)

Sample ID **LLLCS-12345**	SampType: **LCSLL**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **BatchQC**	Batch ID: **12345**	RunNo: **17614**
Prep Date: **3/25/2014**	Analysis Date: **3/27/2014**	SeqNo: **507207** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.025	0.0010	0.02500	0	99.9	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID **MB-12345**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **12345**	RunNo: **17614**
Prep Date: **3/25/2014**	Analysis Date: **3/27/2014**	SeqNo: **507208** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID	**MB-12327**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**12327**	RunNo:	**17527**					
Prep Date:	**3/24/2014**	Analysis Date:	**3/24/2014**	SeqNo:	**505296**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-12327**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**12327**	RunNo:	**17527**					
Prep Date:	**3/24/2014**	Analysis Date:	**3/24/2014**	SeqNo:	**505297**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12346**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **12346**	RunNo: **17569**
Prep Date: **3/25/2014**	Analysis Date: **3/25/2014**	SeqNo: **506051** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrite (As N)	ND	0.30								
Bromide	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								
Phosphorus, Orthophosphate (As P	ND	1.5								
Sulfate	ND	1.5								

Sample ID **LCS-12346**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **12346**	RunNo: **17569**
Prep Date: **3/25/2014**	Analysis Date: **3/25/2014**	SeqNo: **506052** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.30	1.500	0	102	90	110			
Chloride	14	1.5	15.00	0	93.6	90	110			
Nitrogen, Nitrite (As N)	2.8	0.30	3.000	0	93.3	90	110			
Bromide	7.3	0.30	7.500	0	97.7	90	110			
Nitrogen, Nitrate (As N)	7.4	0.30	7.500	0	99.1	90	110			
Phosphorus, Orthophosphate (As P	14	1.5	15.00	0	90.6	90	110			
Sulfate	30	1.5	30.00	0	98.6	90	110			

Sample ID **1403941-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **P7-S-1A**	Batch ID: **12346**	RunNo: **17569**
Prep Date: **3/25/2014**	Analysis Date: **3/25/2014**	SeqNo: **506056** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.3	0.30	1.500	2.553	47.9	9.86	110			
Bromide	8.9	0.30	7.500	1.954	93.3	80.4	110			
Nitrogen, Nitrate (As N)	11	0.30	7.500	3.329	97.5	68.7	119			

Sample ID **1403941-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **P7-S-1A**	Batch ID: **12346**	RunNo: **17569**
Prep Date: **3/25/2014**	Analysis Date: **3/25/2014**	SeqNo: **506057** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.8	0.30	1.500	2.553	13.7	9.86	110	17.0	20	
Bromide	9.0	0.30	7.500	1.954	93.6	80.4	110	0.245	20	
Nitrogen, Nitrate (As N)	10	0.30	7.500	3.329	90.1	68.7	119	5.32	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R17497**	RunNo: **17497**
Prep Date:	Analysis Date: **3/21/2014**	SeqNo: **503991** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R17497**	RunNo: **17497**
Prep Date:	Analysis Date: **3/21/2014**	SeqNo: **503992** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Bromide	2.5	0.10	2.500	0	98.4	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.1	90	110			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	91.8	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R17549**	RunNo: **17549**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **505354** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R17549**	RunNo: **17549**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **505355** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.5	90	110			
Nitrogen, Nitrite (As N)	0.98	0.10	1.000	0	97.5	90	110			
Sulfate	9.9	0.50	10.00	0	98.9	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R17549**	RunNo: **17549**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **505400** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R17549**	RunNo: **17549**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **505400** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R17549**	RunNo: **17549**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **505401** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	98.0	90	110			
Nitrogen, Nitrite (As N)	0.99	0.10	1.000	0	98.8	90	110			
Sulfate	9.9	0.50	10.00	0	99.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**
28-Mar-14

Client: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12321**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **12321**	RunNo: **17506**
Prep Date: **3/24/2014**	Analysis Date: **3/24/2014**	SeqNo: **504481** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		85.9	66	131			

Sample ID **LCS-12321**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **12321**	RunNo: **17506**
Prep Date: **3/24/2014**	Analysis Date: **3/24/2014**	SeqNo: **504483** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.1	60.8	145			
Surr: DNOP	4.5		5.000		90.6	66	131			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12335**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range**
Client ID: **PBW**	Batch ID: **12335**	RunNo: **17551**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505699** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		106	62.7	145			

Sample ID **LCS-12335**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range**
Client ID: **LCSW**	Batch ID: **12335**	RunNo: **17551**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505965** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.3	1.0	5.000	0	126	78.6	146			
Surr: DNOP	0.56		0.5000		112	62.7	145			

Sample ID **LCSD-12335**	SampType: **LCSD**	TestCode: **EPA Method 8015D: Diesel Range**
Client ID: **LCSS02**	Batch ID: **12335**	RunNo: **17551**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505972** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.2	1.0	5.000	0	123	78.6	146	2.18	26.5	
Surr: DNOP	0.56		0.5000		111	62.7	145	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12325**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **12325**	RunNo: **17583**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506906** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		89.1	74.5	129			

Sample ID **LCS-12325**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **12325**	RunNo: **17583**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506907** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.6	71.7	134			
Surr: BFB	960		1000		96.3	74.5	129			

Sample ID **1403941-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **P7-S-1A**	Batch ID: **12325**	RunNo: **17583**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506910** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	24.95	0	111	69.5	145			
Surr: BFB	970		998.0		97.5	74.5	129			

Sample ID **1403941-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **P7-S-1A**	Batch ID: **12325**	RunNo: **17583**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506911** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	5.0	24.88	0	124	69.5	145	10.8	20	
Surr: BFB	1000		995.0		100	74.5	129	0	0	

Qualifiers:

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- E Value above quantitation range
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- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **R17568**	RunNo: **17568**
Prep Date:	Analysis Date: **3/25/2014**	SeqNo: **506000** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		90.7	80.4	118			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R17568**	RunNo: **17568**
Prep Date:	Analysis Date: **3/25/2014**	SeqNo: **506001** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	96.0	80	120			
Surr: BFB	19		20.00		93.5	80.4	118			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R17536**	RunNo: **17536**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **504981** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

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- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R17536**	RunNo: **17536**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **504981** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.3	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	9.2		10.00		91.5	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R17536**	RunNo: **17536**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **504983** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	18	1.0	20.00	0	89.5	80	120			
Chlorobenzene	18	1.0	20.00	0	89.4	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R17536**	RunNo: **17536**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **504983** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	24	1.0	20.00	0	121	90	143			
Trichloroethene (TCE)	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.9	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12325**	SampType: **MBLK**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **PBS**	Batch ID: **12325**	RunNo: **17560**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505781** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
2-Butanone	ND	20								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	10								
Chloroform	ND	0.60								
1,4-Dichlorobenzene	ND	0.75								
1,1-Dichloroethene	ND	0.070								
Tetrachloroethene (PCE)	ND	0.070								
Trichloroethene (TCE)	ND	0.050								
Vinyl chloride	ND	0.020								
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		106	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.5	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.47		0.5000		93.0	70	130			

Sample ID **lcs-12325**	SampType: **LCS**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **LCSS**	Batch ID: **12325**	RunNo: **17560**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505782** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.3	70	130			
Chlorobenzene	0.87	0.050	1.000	0	87.2	70	130			
1,1-Dichloroethene	1.0	0.070	1.000	0	102	78.2	162			
Trichloroethene (TCE)	0.88	0.050	1.000	0	87.7	70	130			
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		107	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.2	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr: Toluene-d8	0.47		0.5000		94.1	70	130			

Sample ID **1403941-003ams**	SampType: **MS**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **P7-S-1C**	Batch ID: **12325**	RunNo: **17560**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505786** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.50	0.9950	0	92.6	62.6	140			
Chlorobenzene	0.81	0.50	0.9950	0	81.2	68.2	131			
1,1-Dichloroethene	0.93	0.70	0.9950	0	93.1	63.3	165			
Trichloroethene (TCE)	0.88	0.50	0.9950	0	88.8	67.5	127			
Surr: 1,2-Dichloroethane-d4	5.3		4.975		106	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **1403941-003ams**	SampType: **MS**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **P7-S-1C**	Batch ID: **12325**	RunNo: **17560**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505786** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	4.9		4.975		98.4	70	130			
Surr: Dibromofluoromethane	5.3		4.975		107	70	130			
Surr: Toluene-d8	5.1		4.975		103	70	130			

Sample ID **1403941-003amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **P7-S-1C**	Batch ID: **12325**	RunNo: **17560**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505787** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.50	0.9950	0	97.7	62.6	140	5.31	20	
Chlorobenzene	0.88	0.50	0.9950	0	88.4	68.2	131	8.54	20	
1,1-Dichloroethene	0.90	0.70	0.9950	0	90.6	63.3	165	2.79	20	
Trichloroethene (TCE)	0.88	0.50	0.9950	0	88.5	67.5	127	0.338	20	
Surr: 1,2-Dichloroethane-d4	5.2		4.975		105	70	130	0	0	
Surr: 4-Bromofluorobenzene	5.0		4.975		101	70	130	0	0	
Surr: Dibromofluoromethane	5.2		4.975		105	70	130	0	0	
Surr: Toluene-d8	5.1		4.975		102	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12366**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **12366**	RunNo: **17632**	
Prep Date: **3/26/2014**	Analysis Date: **3/27/2014**	SeqNo: **507796**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**
28-Mar-14

Client: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12366**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **12366**	RunNo: **17632**
Prep Date: **3/26/2014**	Analysis Date: **3/27/2014**	SeqNo: **507796** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	110		200.0		52.8	22.7	98			
Surr: Phenol-d5	83		200.0		41.4	23.4	74.9			
Surr: 2,4,6-Tribromophenol	180		200.0		90.9	23.3	111			
Surr: Nitrobenzene-d5	89		100.0		89.4	36.8	111			
Surr: 2-Fluorobiphenyl	78		100.0		78.0	38.3	110			
Surr: 4-Terphenyl-d14	88		100.0		88.0	52.1	116			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **lcs-12366**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **12366**	RunNo: **17632**
Prep Date: **3/26/2014**	Analysis Date: **3/27/2014**	SeqNo: **507797** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	92	10	100.0	0	91.7	50.3	109			
4-Chloro-3-methylphenol	190	10	200.0	0	94.8	51.2	113			
2-Chlorophenol	150	10	200.0	0	75.6	48.5	104			
1,4-Dichlorobenzene	72	10	100.0	0	72.0	39.5	106			
2,4-Dinitrotoluene	94	10	100.0	0	94.2	45.4	107			
N-Nitrosodi-n-propylamine	96	10	100.0	0	95.8	50.4	119			
4-Nitrophenol	110	10	200.0	0	52.6	15.5	62.2			
Pentachlorophenol	140	20	200.0	0	70.1	23.5	93.5			
Phenol	91	10	200.0	0	45.4	26.8	65.6			
Pyrene	81	10	100.0	0	81.2	54.4	108			
1,2,4-Trichlorobenzene	82	10	100.0	0	82.0	39.9	106			
Surr: 2-Fluorophenol	100		200.0		52.2	22.7	98			
Surr: Phenol-d5	91		200.0		45.7	23.4	74.9			
Surr: 2,4,6-Tribromophenol	190		200.0		96.3	23.3	111			
Surr: Nitrobenzene-d5	97		100.0		96.6	36.8	111			
Surr: 2-Fluorobiphenyl	90		100.0		89.9	38.3	110			
Surr: 4-Terphenyl-d14	84		100.0		84.4	52.1	116			

Sample ID **lcsd-12366**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **12366**	RunNo: **17632**
Prep Date: **3/26/2014**	Analysis Date: **3/27/2014**	SeqNo: **507798** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	84	10	100.0	0	83.8	50.3	109	9.09	27.2	
4-Chloro-3-methylphenol	160	10	200.0	0	81.0	51.2	113	15.7	25.9	
2-Chlorophenol	140	10	200.0	0	69.6	48.5	104	8.30	22.5	
1,4-Dichlorobenzene	68	10	100.0	0	67.5	39.5	106	6.42	24.6	
2,4-Dinitrotoluene	83	10	100.0	0	82.9	45.4	107	12.8	25.3	
N-Nitrosodi-n-propylamine	89	10	100.0	0	89.5	50.4	119	6.80	23.6	
4-Nitrophenol	100	10	200.0	0	50.4	15.5	62.2	4.35	34.7	
Pentachlorophenol	140	20	200.0	0	69.2	23.5	93.5	1.18	32.8	
Phenol	83	10	200.0	0	41.7	26.8	65.6	8.54	25.5	
Pyrene	77	10	100.0	0	77.0	54.4	108	5.34	31.4	
1,2,4-Trichlorobenzene	80	10	100.0	0	79.9	39.9	106	2.59	25.9	
Surr: 2-Fluorophenol	100		200.0		51.9	22.7	98	0	0	
Surr: Phenol-d5	83		200.0		41.3	23.4	74.9	0	0	
Surr: 2,4,6-Tribromophenol	180		200.0		92.4	23.3	111	0	0	
Surr: Nitrobenzene-d5	89		100.0		89.3	36.8	111	0	0	
Surr: 2-Fluorobiphenyl	85		100.0		85.5	38.3	110	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID	**lcsd-12366**	SampType:	**LCSD**		TestCode:	**EPA Method 8270C: Semivolatiles**					
Client ID:	**LCSS02**	Batch ID:	**12366**		RunNo:	**17632**					
Prep Date:	**3/26/2014**	Analysis Date:	**3/27/2014**		SeqNo:	**507798**	Units:	**µg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14		79		100.0		78.6	52.1	116	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12365**	SampType: **MBLK**	TestCode: **EPA Method 8270C TCLP**
Client ID: **PBS**	Batch ID: **12365**	RunNo: **17632**
Prep Date: **3/26/2014**	Analysis Date: **3/27/2014**	SeqNo: **507802** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.087		0.2000		43.7	18.6	88.6			
Surr: Phenol-d5	0.081		0.2000		40.6	19.5	61.8			
Surr: 2,4,6-Tribromophenol	0.13		0.2000		65.7	29.7	130			
Surr: Nitrobenzene-d5	0.088		0.1000		88.4	45.1	101			
Surr: 2-Fluorobiphenyl	0.077		0.1000		77.1	46.6	99.3			
Surr: 4-Terphenyl-d14	0.085		0.1000		85.2	40.8	109			

Sample ID **lcs-12365**	SampType: **LCS**	TestCode: **EPA Method 8270C TCLP**
Client ID: **LCSS**	Batch ID: **12365**	RunNo: **17632**
Prep Date: **3/26/2014**	Analysis Date: **3/27/2014**	SeqNo: **507803** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.067	0.010	0.1000	0	66.8	31.5	114			
3+4-Methylphenol	0.19	0.010	0.2000	0	96.3	25.5	149			
2,4-Dinitrotoluene	0.086	0.010	0.1000	0	85.8	25.9	130			
Hexachlorobenzene	0.065	0.010	0.1000	0	65.4	40.7	93.9			
Hexachlorobutadiene	0.053	0.010	0.1000	0	52.5	25.2	96			
Hexachloroethane	0.053	0.010	0.1000	0	52.9	22.6	106			
Nitrobenzene	0.080	0.010	0.1000	0	79.7	37.8	125			
Pentachlorophenol	0.062	0.010	0.1000	0	61.6	10.8	91.7			
Pyridine	0.041	0.010	0.1000	0	40.6	9.61	88.8			
2,4,5-Trichlorophenol	0.088	0.010	0.1000	0	88.2	31.9	115			
2,4,6-Trichlorophenol	0.087	0.010	0.1000	0	87.3	29.7	113			
Cresols, Total	0.26	0.010	0.3000	0	86.5	30	136			
Surr: 2-Fluorophenol	0.093		0.2000		46.3	18.6	88.6			
Surr: Phenol-d5	0.070		0.2000		35.2	19.5	61.8			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID	**lcs-12365**	SampType:	**LCS**	TestCode:	**EPA Method 8270C TCLP**					
Client ID:	**LCSS**	Batch ID:	**12365**	RunNo:	**17632**					
Prep Date:	**3/26/2014**	Analysis Date:	**3/27/2014**	SeqNo:	**507803**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.20		0.2000		100	29.7	130			
Surr: Nitrobenzene-d5	0.072		0.1000		71.8	45.1	101			
Surr: 2-Fluorobiphenyl	0.072		0.1000		72.2	46.6	99.3			
Surr: 4-Terphenyl-d14	0.089		0.1000		89.4	40.8	109			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID	**MB-12358**	SampType:	**MBLK**	TestCode:	**MERCURY, TCLP**					
Client ID:	**PBW**	Batch ID:	**12358**	RunNo:	**17559**					
Prep Date:	**3/25/2014**	Analysis Date:	**3/25/2014**	SeqNo:	**505757**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID	**LCS-12358**	SampType:	**LCS**	TestCode:	**MERCURY, TCLP**					
Client ID:	**LCSW**	Batch ID:	**12358**	RunNo:	**17559**					
Prep Date:	**3/25/2014**	Analysis Date:	**3/25/2014**	SeqNo:	**505758**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	103	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12337**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **12337**	RunNo: **17580**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506325** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	25								
Magnesium	ND	25								
Potassium	ND	50								
Sodium	ND	25								

Sample ID **LCS-12337**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **12337**	RunNo: **17580**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506326** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2500	25	2500	0	100	80	120			
Magnesium	2500	25	2500	0	99.1	80	120			
Potassium	2400	50	2500	0	95.9	80	120			
Sodium	2500	25	2500	0	98.4	80	120			

Sample ID **1403941-001AMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **P7-S-1A**	Batch ID: **12337**	RunNo: **17580**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506383** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	17000	120	2403	14820	99.1	75	125			
Magnesium	12000	120	2403	8242	144	75	125			S
Potassium	9000	240	2403	4675	181	75	125			S
Sodium	6800	120	2403	4402	100	75	125			

Sample ID **1403941-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **P7-S-1A**	Batch ID: **12337**	RunNo: **17580**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506384** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	18000	130	2581	14820	111	75	125	2.77	20	
Magnesium	12000	130	2581	8242	157	75	125	4.87	20	S
Potassium	9700	260	2581	4675	193	75	125	6.84	20	S
Sodium	6500	130	2581	4402	81.3	75	125	4.73	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12369**	SampType: **MBLK**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **PBW**	Batch ID: **12369**	RunNo: **17585**
Prep Date: **3/26/2014**	Analysis Date: **3/26/2014**	SeqNo: **506444** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID **LCS-12369**	SampType: **LCS**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **LCSW**	Batch ID: **12369**	RunNo: **17585**
Prep Date: **3/26/2014**	Analysis Date: **3/26/2014**	SeqNo: **506445** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	90.6	80	120			
Barium	ND	100	0.5000	0	82.9	80	120			
Cadmium	ND	1.0	0.5000	0	87.0	80	120			
Chromium	ND	5.0	0.5000	0	83.3	80	120			
Lead	ND	5.0	0.5000	0	81.8	80	120			
Selenium	ND	1.0	0.5000	0	87.6	80	120			
Silver	ND	5.0	0.1000	0	93.0	80	120			

Sample ID **1403941-006AMS**	SampType: **MS**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **P7-S-2C**	Batch ID: **12369**	RunNo: **17585**
Prep Date: **3/26/2014**	Analysis Date: **3/26/2014**	SeqNo: **506459** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	96.1	75	125			
Barium	ND	100	0.5000	1.407	86.5	75	125			
Cadmium	ND	1.0	0.5000	0	91.9	75	125			
Chromium	ND	5.0	0.5000	0	85.7	75	125			
Lead	ND	5.0	0.5000	0	83.9	75	125			
Selenium	ND	1.0	0.5000	0	86.7	75	125			
Silver	ND	5.0	0.1000	0	97.4	75	125			

Sample ID **1403941-006AMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **P7-S-2C**	Batch ID: **12369**	RunNo: **17585**
Prep Date: **3/26/2014**	Analysis Date: **3/26/2014**	SeqNo: **506460** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	97.4	75	125	0	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID	**1403941-006AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 6010B: TCLP Metals**				
Client ID:	**P7-S-2C**	Batch ID:	**12369**		RunNo:	**17585**				
Prep Date:	**3/26/2014**	Analysis Date:	**3/26/2014**		SeqNo:	**506460**	Units:	**mg/L**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	100	0.5000	1.407	84.2	75	125	0	20	
Cadmium	ND	1.0	0.5000	0	92.2	75	125	0	20	
Chromium	ND	5.0	0.5000	0	86.0	75	125	0	20	
Lead	ND	5.0	0.5000	0	84.1	75	125	0	20	
Selenium	ND	1.0	0.5000	0	88.4	75	125	0	20	
Silver	ND	5.0	0.1000	0	98.9	75	125	0	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1403941** RcptNo: **1**

Received by/date: 03/21/2014

Logged By: **Ashley Gallegos** **3/21/2014 4:04:00 PM**

Completed By: **Ashley Gallegos** **3/24/2014 8:29:04 AM**

Reviewed By: 03/24/14

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 02 (<2 or >12 unless noted)

Adjusted?

Checked by: mg

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING ROAD

Gallup, NM 87301

Phone #: 505 - 722-3833

Email or Fax#: 505-863-0930

QA/QC Package:

X Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard X Rush ASAP

Project Name:

Pond 7 Breach (soil, water)

Project #:

W of Pond 7

Project Manager:

Cheryl Johnson

Cheryl.johnson@wnr.com

Sampler: C. Johnson

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.7

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1403941	8015B (DRO/GRO/MRO) Extended	CATIONS/ANIONS	8260B - TCLP	8270 - TCLP	RCRA 8 METALS - TCLP	RCI			8260B +MTBE	8270 + PHENOLS	CATIONS/ANIONS	8015B EXTENDED	WQCC METALS including RCRA 8 Metals (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
3/20/2014	1000	Soil	P7-S-1A	1-9 oz Jar	None	-001	X	X	X	X	X	X										
3/20/2014	1000	Soil	P7-S-1B	1-9 oz Jar	None	-002	X	X	X	X	X	X										
3/20/2014	1000	Soil	P7-S-1C	1-9 oz Jar	None	-003	X	X	X	X	X	X										
3/20/2014	1110	Soil	P7-S-2A	1-9 oz Jar	None	-004	X	X	X	X	X	X										
3/20/2014	1110	Soil	P7-S-2B	1-9 oz Jar	None	-005	X	X	X	X	X	X										
3/20/2014	1110	Soil	P7-S-2C	1-9 oz Jar	None	-006	X	X	X	X	X	X										
3/20/2014	1030	Aqueous	P7-S-1D	Various	HCL/HNO3	-007									X	X	X	X	X			

Date	Time	Relinquished by:	Received by:	Date	Time
3/20/14	1300			3-21-14	1300
3-21-14	1404			03/21/14	1604

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Artesian Groundwater

Appendix C-1

WELL DATA 2014 ANNUAL/QUARTERLY SAMPLING
DTB/DTW MEASUREMENTS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	2011 Survey [1] Ground Level Elevations (ft)	2011 Survey [1] Well Casing Rim Elevations (ft)	2011 Survey [1] Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	2011 Survey [1] Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH [2] Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation [3] (ft)	Corrected Water Table [4] Elevation (factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	2012 Stratigraphic unit in which screen exists	Purge Volume = 3 Well Vol (gal)
11/10/2003	BW-1A [5]	9/8/2014	2.00	6,883.17	6,885.12	6,884.93	1.95	6,847.50	46.06	N/A	N/A	DRY	DRY	N/A	30 - 35	Upper Sand	N/A
10/28/2003	BW-1B [5]	9/8/2014	2.00	6,883.17	6,885.78	6,885.72	2.61	6,818.33	76.29	N/A	N/A	DRY	DRY	N/A	54.6 - 64.6	Chinle/Alluvium Interface	N/A
11/10/2003	BW-1C [5]	9/10/2014	2.00	6,883.17	6,885.68	6,885.64	2.51	6,749.29	145.29	N/A	N/A	12.97	6,872.71	N/A	125 -135	Sonsela	63.37
11/10/2003	BW-2A	9/9/2014	2.00	6,871.88	6,874.69	6,870.45	2.81	6,807.12	67.57	N/A	N/A	32.25	6,842.44	N/A	55 - 65	Upper Sand	17.35
10/28/2003	BW-2B	9/9/2014	2.00	6,871.66	6,874.50	6,870.06	2.84	6,782.24	92.26	N/A	N/A	28.15	6,846.35	N/A	80 - 90	Chinle/Alluvium Interface	45.12
10/28/2003	BW-2C	9/10/2014	2.00	6,872.90	6,875.30	6,872.02	2.40	6,722.46	152.84	N/A	N/A	20.70	6,854.60	N/A	139.5 - 149.5	Sonsela	64.77
6/15/2004	BW-3A	9/8/2014	2.00	6,875.94	6,878.39	6,875.08	2.45	6,826.04	52.35	N/A	N/A	DRY	DRY	N/A	39.5 - 49.5	Upper Sand	N/A
10/15/2003	BW-3B	9/10/2014	2.00	6,876.16	6,878.59	6,875.41	2.43	6,809.19	69.40	N/A	N/A	33.25	6,845.34	N/A	63 - 73	Chinle/Alluvium Interface	17.79
7/20/2004	BW-3C	9/10/2014	2.00	6,875.72	6,877.95	6,875.27	2.23	6,723.40	154.55	N/A	N/A	7.83	6,870.12	N/A	144.5 - 154.5	Sonsela	71.59
9/25/1981	OW-11	9/12/2014	4.00	6,922.05	6,923.51	6,921.80	1.46	6,857.72	65.79	N/A	N/A	20.11	6,903.40	N/A	43 - 65	Sonsela	100.14
12/15/1980	OW-12	9/12/2014	4.00	6,939.57	6,940.69	6,939.04	1.12	6,811.84	128.85	N/A	N/A	47.78	6,892.91	N/A	117.8 - 137.8	Sonsela	179.93
10/14/1981	MW-1	9/16/2014	5.00	6,876.63	6,878.12	6,876.79	1.49	6,747.29	130.83	N/A	N/A	7.11	6,871.01	N/A	117.72 - 127.72	Sonsela	378.52
10/15/1981	MW-2	9/16/2014	5.00	6,878.39	6,880.30	6,878.41	1.91	6,742.82	137.48	N/A	N/A	9.20	6,871.10	N/A	112 - 122	Sonsela	391.8
10/16/1981	MW-4	9/17/2014	5.00	6,879.89	6,881.63	6,879.34	1.74	6,759.91	121.72	N/A	N/A	7.68	6,873.95	N/A	101 - 121	Sonsela	348.9
7/21/1986	MW-5	9/17/2014	4.00	6,880.20	6,882.83	6,881.77	2.63	6,752.00	130.83	N/A	N/A	11.38	6,871.45	N/A	115 - 125	Sonsela	365.18
9/26/1985	SMW-2	9/11/2014	2.00	6,881.63	6,883.97	6,879.07	2.34	6,831.17	52.80	N/A	N/A	25.10	6,858.87	N/A	34.31 - 54.31	Chinle/Alluvium and Upper Sand	13.43
9/25/1985	SMW-4	9/11/2014	2.00	6,877.63	6,879.52	6,875.72	1.89	6,809.84	69.68	N/A	N/A	29.10	6,850.42	N/A	51.7 - 71.7	Chinle/Alluvium Interface	19.78
10/5/2009	OW-50	9/15/2014	2.00	6,912.63	6,914.21	6,911.46	1.58	6,850.21	64.00	N/A	N/A	16.86	6,897.35	N/A	48 - 63	Chinle/Alluvium Interface	23.49
10/5/2009	OW-52	9/15/2014	2.00	6,906.53	6,907.68	6,905.31	1.15	6,829.94	77.74	N/A	N/A	15.80	6,891.88	N/A	64 - 79	Chinle/Alluvium Interface	29.69
1/5/1981	OW-1	3/7/2014	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	0.00	6,866.62	N/A	89.3 - 99.3	Sonsela	177.7
		6/3/2014	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	0.00	6,866.62	N/A	89.3 - 99.3	Sonsela	177.7
		9/11/2014	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	0.01	6,866.61	N/A	89.3 - 99.3	Sonsela	182.58
		11/10/2014	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	0.00	6,866.62	N/A	89.3 - 99.3	Sonsela	184.37
11/25/1980	OW-10	3/7/2014	4.00	6,873.67	6,874.91	6,872.59	1.24	6,814.58	60.33	N/A	N/A	0.00	6,874.91	N/A	40 - 60	Sonslea	125.5
		6/3/2014	4.00	6,873.67	6,874.91	6,872.59	1.24	6,814.58	60.33	N/A	N/A	1.45	6,873.46	N/A	40 - 60	Sonsela	116.7
		9/12/2014	4.00	6,873.67	6,874.91	6,872.59	1.24	6,814.58	60.33	N/A	N/A	2.33	6,872.58	N/A	40 - 60	Sonsela	131.89
		11/10/2014	4.00	6,873.67	6,874.91	6,872.59	1.24	6,814.58	60.33	N/A	N/A	2.80	6,872.11	N/A	40 - 60	Sonsela	133.93
12/10/1980	OW-13	3/7/2014	4.00	6,918.95	6,920.07	6,915.33	1.12	6,820.92	99.15	N/A	N/A	21.77	6,898.30	N/A	78.2 - 98.2	Sonsela	170.07
		6/3/2014	4.00	6,918.95	6,920.07	6,915.33	1.12	6,820.92	99.15	N/A	N/A	21.95	6,898.12	N/A	78.2 - 98.2	Sonsela	169.63
		9/15/2014	4.00	6,918.95	6,920.07	6,915.33	1.12	6,820.92	99.15	N/A	N/A	22.61	6,897.46	N/A	78.2 - 98.2	Sonsela	169.5
		11/10/2014	4.00	6,918.95	6,920.07	6,915.33	1.12	6,820.92	99.15	N/A	N/A	22.45	6,897.62	N/A	78.2 - 98.2	Sonsela	170.43
12/17/1980	OW-14	3/7/2014	4.00	6,924.55	6,926.65	6,924.40	2.10	6,880.13	46.52	N/A	N/A	24.12	6,902.53	N/A	35 - 45	Chinle/Alluvium Interface	48.24
		6/3/2014	4.00	6,924.55	6,926.65	6,924.40	2.10	6,880.13	46.52	N/A	N/A	24.15	6,902.50	N/A	35 - 45	Chinle/Alluvium Interface	48.02
		9/15/2014	4.00	6,924.55	6,926.65	6,924.40	2.10	6,880.13	46.52	N/A	N/A	24.40	6,902.25	N/A	35 - 45	Chinle/Alluvium Interface	47.95
		11/10/2014	4.00	6,924.55	6,926.65	6,924.40	2.10	6,880.13	46.52	N/A	N/A	24.25	6,902.40	N/A	35 - 45	Chinle/Alluvium Interface	48.68
8/23/1996	OW-29	3/7/2014	4.00	6,913.89	6,917.00	6,912.09	3.11	6,865.92	51.08	N/A	N/A	18.85	6,898.15	N/A	37.5 - 47.5	Chinle/Alluvium Interface	70.06
		6/2/2014	4.00	6,913.89	6,917.00	6,912.09	3.11	6,865.92	51.08	N/A	N/A	18.95	6,898.05	N/A	37.5 - 47.5	Chinle/Alluvium Interface	71.93

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, March 25, 2015 4:25 PM
To: Ed.Riege@wnr.com; Larsen, Thurman (Thurman.Larsen@wnr.com)
Cc: Griswold, Jim, EMNRD; VanHorn, Kristen, NMENV; Holcomb, Sarah, NMENV
Subject: Western Refining SW- Gallup Refinery (AP-111) Evap. Pond 7 Breach Final C-141 Form and OCD Response
Attachments: OCD EP7 Breach Letter 3-25-2015.pdf

Mr. Riege, et al.:

Please find attached the New Mexico Oil Conservation Division's (OCD) response to the recent letter dated March 10,

2015. Please contact me if you have questions or to arrange a telephone conference call on the release.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Drive, Santa Fe, New Mexico 87505
O: (505) 476-3490
E-mail: CarlJ.Chavez@State.NM.US
Web: http://www.emnrd.state.nm.us/ocd/
"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at
http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division

March 25, 2015

Mr. Billy McClain
Refinery Manager
Western Refining SW, Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

RE: Western Refining SW- Gallup Refinery (AP-111) Evaporation Pond 7 Release

Mr. McClain,

The Oil Conservation Division (OCD) has completed its review of Western Refining SW, Gallup Refinery's (Western's) correspondence dated March 10, 2015 regarding a release of wastewater from Evaporation Pond 7 due to a breach in the pond's berm. OCD has determined that the characterization and remediation to date are inadequate.

The vertical and horizontal extents of chloride contamination in the soil has not been determined. No sampling laterally beyond the two areas of apparent release has been provided. Western does provide data indicating chloride concentrations at very shallow depths ranging from 4,300 to 8,000 mg/kg. You cite 19.15.17 NMAC (the "pit rule") as a basis for allowing soil contaminated with chloride up to 10,000 mg/kg to be left in place when groundwater separation is greater than 50 feet. Based upon Western's *Facility Wide Ground Water Monitoring Work Plan – 2014 Updates for 2015* the water level in well BW-1C is 12.97 feet beneath surface and in well BW-2C is 20.70 feet. Both monitoring wells are near the release area.

Please provide OCD with a plan for complete delineation of the affected areas within the next 30 days. If you have any questions, please do not hesitate to contact Carl Chavez of my staff at (505) 476-3490, or email at *CarlJ.Chavez@state.nm.us*. Thank you.

Respectfully,

Jim Griswold
Environmental Bureau Chief

cc: NMED Haz Waste and Surface Water Bureaus

Chavez, Carl J, EMNRD

From: Riege, Ed <Ed.Riege@wnr.com>
Sent: Wednesday, March 11, 2015 11:08 AM
To: Chavez, Carl J, EMNRD; Kieling, John, NMENV; Cobrain, Dave, NMENV; VanHorn, Kristen, NMENV
Subject: Pond 7 Breach Letter and Final C-141 Email 1
Attachments: WestRef-dB31 Fig 1 Pond 7 Breach Location.pdf; WestRef-dB32 Fig 2 Pond 7 March 2014 Dike Breach Remediation.pdf; Survey Map.pdf; Pond 7 letter and Final C141.pdf

Dear Mr. Chavez and Kieling,
Attached is a letter, attachments, and final C-141 in response to the inquiries of both NMED and OCD on the Pond 7 pond breach. Due to NMED size restrictions 2 emails will be sent. Hard copy is in the mail.

Sincerely,

Ed Riege

Ed Riege MPH
Environmental Manager

Western Refining
Gallup Refinery
92 Giant Crossing Road
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

Western Refining

GALLUP

WNR LISTED NYSE

March 10, 2015

Via Email and Certified Mail 7011 2970 0003 9281 8718, Return Receipt Requested

Mr. Carl Chavez
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Mr. John E. Kieling, Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, New Mexico 87505-6303

RE: MARCH 9, 2014 EVAPORATION POND 7 DIKE BREACH REMEDIATION COMPLETED

Dear Mr. Chavez and Mr. Kieling:

On March 19, 2014,Western Refining Southwest, Inc., Gallup refinery ("Western") orally and by email notified the New Mexico Environment Department ("NMED") and the New Mexico Oil Conservation Division ("NMOCD") of a minor release of treated wastewater from Evaporation Pond 7 due to a breach in the dike (Figure 1). Without making any admissions, and reserving all applicable rights and defenses, including the right to dispute whether the release is subject to corrective action under the Permit, Western provides this letter in response to the inquiries of both NMED and NMOCD.

Western's earlier correspondence on April 16, 2014 and September 12, 2014, provided additional information on the spill and initial characterization efforts. It was estimated that 17.4 bbls of wastewater left the pond with possibly half crossing the fence line west of the dike. The small volume of water was absorbed by the dry soil and the release did not reach a watercourse or waters of the U.S. Western collected a sample of the water, which flowed through the breach, and six soil samples from the impacted area on March 20, 2014. These samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), Gasoline, Diesel, and Motor Oil Range Organics, New Mexico Water Quality Control Criteria metals, and major cation/anions. The soil samples collected from within the known area of the release did not contain detectable concentrations of petroleum hydrocarbons (Gasoline, Diesel, or Motor Oil range), VOCs, or SVOCs, nor did the soil samples indicate contamination from any other hazardous waste or hazardous constituents.

The results of these analyses determined that chloride was the primary constituent of concern.

In dealing with earlier minor seepage along a portion of the dike, Western had sought concurrence from NMOCD on chloride action levels. Western received an email from NMOCD on February 7, 2014 agreeing with the chloride action levels proposed by Western in a letter dated October 14, 2013, which proposed the use of the chloride standards in Table 1 of New Mexico Administrative Code Title 19, Chapter 15, Part 17, Section 13. Conservatively assuming a depth to groundwater of 51 to 100 feet, the required limit for chloride is 10,000 mg/kg. Subsequently, Western conducted additional sampling to better define the volume of soil to be excavated.

As the spill flowed a short distance onto the adjacent off-site property, it was necessary for Western to obtain access from the adjacent property owner (i.e., State of New Mexico) prior to conducting remediation. A Right-of-Entry Permit was granted to Western on October 29, 2014 by the New Mexico State Land Office, Commissioner of Public Lands. Subsequently, Western excavated the surface soils in both areas where water from the breach at Pond 7 had flowed off-site. The areas of interest were surveyed by a registered surveyor and the northern area is referred to a Site 1, while the southern area is referred to as Site 2 (see enclosed survey).

Excavation began during the week November 24, 2014, with the upper 12 to 14 inches of soils removed from Site 1 and Site 2. The soils were staged on plastic sheeting in a protected location on-site to the east of the Land Treatment Unit pending off-site disposal. An estimated volume of 350 cubic yards of soils was excavated from the off-site areas and the narrow strip of affected property along the western edge of Pond 7.

The areas where excavation was conducted are indicated on Figure 2 and the enclosed survey of the area. Upon completion of excavation, four confirmation soil samples were collected from each area and analyzed for anions (e.g., chloride), Gasoline, Diesel, and Motor Oil Range Organics, RCRA metals, VOCs, and SVOCs (Figure 2). The soil samples were collected as discrete grab samples from the upper one foot. A decontaminated hand auger was used to collect each soil sample, which was placed directly into 9 ounce jars and immediately placed on ice. The analytical report is enclosed.

All of the organic analyses (Gasoline, Diesel, and Motor Oil Range Organics, VOCs, and SVOCs) and RCRA metals were non-detect. All of the chloride results are less than the NMOCD limit of 10,000 mg/kg and are summarized below.

Sample ID	Chloride Concentration (mg/kg)
Pond 7-Site 1-A	6,200
Pond 7-Site 1-B	7,300
Pond 7-Site 1-C	7,500
Pond 7-Site 1-D	6,400

Pond 7-Site 2-A	4,300
Pond 7-Site 2-B	8,000
Pond 7-Site 2-C	8,000
Pond 7-Site 2-D	7,300

The confirmation sample results demonstrate the spill of treated wastewater from Pond 7 has been successfully remediated and no further remedial action is required. Western will backfill the excavations using clean fill from the on-site borrow pit and seed the affected area immediately upon approval of NMOCD. The Right-of-Entry Permit issued by the State of New Mexico is only valid through April 19, 2015. Therefore, Western requests NMOCD approval of the removal action as soon as possible. If there are any questions, then please contact Ed Riege at 505-722-0217.

Sincerely, for Billy McClain

Mr. Billy McClain
Refinery Manager
Western Refining Southwest, Inc. – Gallup Refinery

cc Anthony Vigil, State of New Mexico
A. Allen, Western El Paso
Ed Riege, Western Gallup
Allen Hains, Western El Paso

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining Southwest, Incorporated	Contact Ed Riege
Address 92 Giant Crossing Road Gallup NM 87301	Telephone No. 505-722-0217
Facility Name Western Refining Southwest Gallup Refinery	Facility Type Petroleum Refinery

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	29 and 32	15N	15W					

Latitude 35° 29' 22" **Longitude** 108° 25' 24"

NATURE OF RELEASE

Type of Release Pond Water	Volume of Release 17.4 bbls	Volume Recovered None
Source of Release Evaporation Pond #7	Date and Hour of Occurrence 03-19-2014 1500 hr	Date and Hour of Discovery 03-19-2014 1515 hr
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Message Brandon Powell phone / email Carl Chavez phone / email Kristen Van Horn phone / email	
By Whom? Ed Riege	Date and Hour 03-19-2014 1805 hr 03-19-2014 1810 hr 03-19-2014 1815 hr	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
A Western employee observed a breach in the pond 7 dike. Western was in the process of improving the pond dikes and earth moving equipment, which was operating nearby, immediately responded to make repairs and stopped the release at l 630Hr. As described in the initial C-141 submitted on April 1, 2014, Western has completed actions to improve the pond dikes.

Describe Area Affected and Cleanup Action Taken.*
The land where the release left Western's property is owned by State of New Mexico and Western obtained a temporary Right-of-Entry Permit to conducted remedial actions on the off-site property. The affected area covered approximately 0.84 acres. These response actions are described in the attached letter, which documents the affected property was successfully remediated. Western has completed all required response actions. To address the requirements of the land owner, Western will backfill the excavations and seed the area with native plants.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Ed Riege	Approved by Environmental Specialist:	
Title: Environmental Manager	Approval Date:	Expiration Date:
E-mail Address: ed.riege@wnr.com	Conditions of Approval:	Attached ☐
Date: 3-11-15 Phone:505-722-0217		

* Attach Additional Sheets If Necessary

Ray Powell, M.S., D.V.M.
COMMISSIONER

State of New Mexico
Commissioner of Public Lands
310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE
Phone (505) 827-5760
Fax (505) 827-5766
www.nmstatelands.org

October 29, 2014

Western Refining S.W., Inc.
92 Giant Crossing Road
Gallup, New Mexico 87301

Attn: Ed Riege

Re: Right-of-Entry Application No. ROE-2602

Dear, Mr. Riege

Enclosed is the completed captioned Right-of-Entry permit. If any corrections are necessary, please let us know and we will retype or amend this lease as necessary.

If you have any questions, please feel free to contact this office at the above address or for Ken Baca, Bureau Manager @ (505) 827-5789 or myself @ 827-5710.

Sincerely,

Anthony Vigil, Management Analyst
Right of Way Section
Surface Resource Management Division

NEW MEXICO
STATE LAND OFFICE

NEW MEXICO STATE LAND OFFICE
Commissioner of Public Lands
Ray Powell, M.S., D.V.M.
New Mexico State Land Office Building
P.O. Box 1148, Santa Fe, NM 87504-1148

RIGHT OF ENTRY PERMIT
CONTRACT NO. ROE-2602
Remediation

1. RIGHT OF ENTRY PERMIT
This permit is issued under the authority of NMSA 1978, Section 19-1-2. Therefore, and in consideration of and subject to the terms, covenants, conditions, agreements, obligations and reservations contained in the permit and all other existing rights, the Commissioner of Public Lands, New Mexico State Land Office, State Of New Mexico, hereinafter called "COMMISSIONER," grants to **Western Refining S.W., Inc.**. State of Incorporation (if applicable) , whose address is **92 Giant Crossing Road, Gallup, New Mexico 87301**, **hereinafter** called "PERMITTEE," authorized use of a specific tract(s) of State Trust Land only for the term, and only for the permitted use, described in this permit.

2. TERM AND LAND DESCRIPTION
Right of entry is granted for a term of **180 days**, commencing, **October 21, 2014,** and ending **April 19, 2015** to the following State Trust Lands.

Section 32, Township 15 North, Range 15 West. NE ¼ NE ¼ McKinley County

3. APPLICATION and PROCESSING FEE

$530.00

4. PERMITTED USE, PERSONNEL, EQUIPMENT AND MATERIALS
Permitted use is for the purpose of: **clean-up soil affected by evaporation pond water**

breach

Personnel present on State Trust Land: **Western Refining Employees**
Equipment & Materials present on State Trust Land: **Excavation equipment, roll-off and clean soil**

Prior to execution of project company must identify and contact the Grazing Lessee.

The granting of this permit does not allow access across private lands.

5. IMPROVEMENTS

No improvements shall be placed on the premises without the prior written consent of the Commissioner.

6. RESERVATIONS

Commissioner reserves the right to execute leases, rights of way, easements, permits, exchange agreements, sale agreements, permits and other lawful rights on or across the land covered by this permit, including but not limited to any such rights for mining purposes and for the extraction of oil, gas, salt, geothermal resources, and other mineral deposits there from and the right to go upon, explore for, mine, remove and sell same.

7. COMPLIANCE WITH LAWS

Permittee shall at its own expense comply fully with and be subject to all applicable regulations, rules, ordinances, and requirements of law or of the Commissioner, including but not limited to the regulations of the State Land Office; Chapter 19 NMSA governing State Trust Lands; federal and state environmental laws and regulations; and the New Mexico Cultural Properties Act, NMSA 1978 Sections 18-6-1 through 18-6-23. It is illegal for any person or his agent to appropriate, excavate, injure, or destroy any historic, or prehistoric ruin or monument, or any object of historical, archaeological, architectural, or scientific value situated on lands owned or controlled by the State Land Office without a valid permit issued by the Cultural Properties Review Committee and approved by the Commissioner of Public Lands.

8. HOLD HARMLESS AND IMDEMNIFICATION

Permittee shall save, hold harmless, indemnify and defend Commissioner, the State Land Office, the State of New Mexico, and any of their officers, employees or agents, in their official and individual capacities, of and from any and all liability, claims, losses, damages, costs, and fees arising out of or alleged to arise out of, or directly or indirectly connected with, the operations of Permittee under this permit on or off State Trust Lands or arising out of the presence on State Trust Lands of any equipment, material, agent, invitee, contractor or subcontractor of Permittee. This Hold Harmless and Indemnification clause covers any claim, including any brought in any court or before

any administrative agency, of any loss or alleged loss, and any damages or alleged damages asserted with respect to any violation or alleged violation of any state, federal or local law or regulation, including but not limited to any environmental law or regulation, any cultural properties law (including the New Mexico Cultural Properties Act, cited above) or regulation, and any alleged damage to the property, rights or interests of any State Land Office lessee, right-of-way holder, or other permittee.

9. AMENDMENT

This permit shall not be altered, changed, or amended except by an instrument in writing executed by Commissioner and Permittee.

10. WITHDRAWAL

Commissioner reserves the right to withdraw any or all of the land authorized for use under this permit. If applicable, Permittee shall vacate the acreage specified within 30 days after receipt of written notification of withdrawal from the Commissioner.

11. CANCELLATION

The violation by Permittee of any of the terms, conditions, or covenants of this permit or the nonpayment by Permittee of the fees due under this permit shall at the option of the Commissioner be considered a default and shall cause the cancellation of this permit 30 days after Permittee has been sent written notice of such.

12. PRESERVE AND PROTECT

The Permittee agrees to preserve and protect the natural environmental conditions of the land encompassed in this permit, and to take those reclamation or corrective actions that are accepted soil and water conservation practices and that are deemed necessary by the Commissioner to protect the land from pollution, erosion, or other environmental degradation. The Permittee further agrees not to injure the property of, or interfere with the operations or rights of, any State Land Office lessee, right-of-way holder, easement holder or other permittee who has rights to use the State Trust Land subject to this permit.

13. RECLAMATION, REMOVAL OF EQUIPMENT, MATERIALS, AND WASTE

The Permittee agrees to reclaim those areas that may be damaged by activities conducted thereon.

The Permittee agrees to remove from the State Trust Lands, no later than the end of the term of this permit, all equipment, and materials it has placed or brought upon the land and to clean up and remove from the land any trash, waste, effluent, or other products used or brought upon the land in connection with this permit.

14. SPECIAL INSTRUCTIONS AND/OR RESTRICTIONS

1. No off road traffic allowed.

2. No wood collection or tree cutting allowed.

3. Disturbing, dislodging, damaging, defacing, destroying or removing historical archaeological, paleontological or cultural sites or artifacts is prohibited.

4. Disturbing, dislodging, damaging, defacing, destroying any improvement, fixture, item, object or thing placed or located in, under or upon the land is prohibited.

5. This permit does not grant a right to enter State Trust Lands to which there is no public access.

6. Any uses or activities not within the scope of this permit are not allowed unless prior written approval from the Commissioner of Public Lands is granted.

7. OTHER

WITNESS the hands and seals of PERMITTEE and COMMISSIONER on the day(s) and year entered below.

_____ Telephone: 505-722-0217
PERMITTEE

ACKNOWLEDGMENT

STATE OF NEW MEXICO)

COUNTY OF CIBOLA)

The foregoing instrument was acknowledged before me this 23rd day of OCTOBER, 20 14.

My Commission Expires: AUGUST 30, 2016

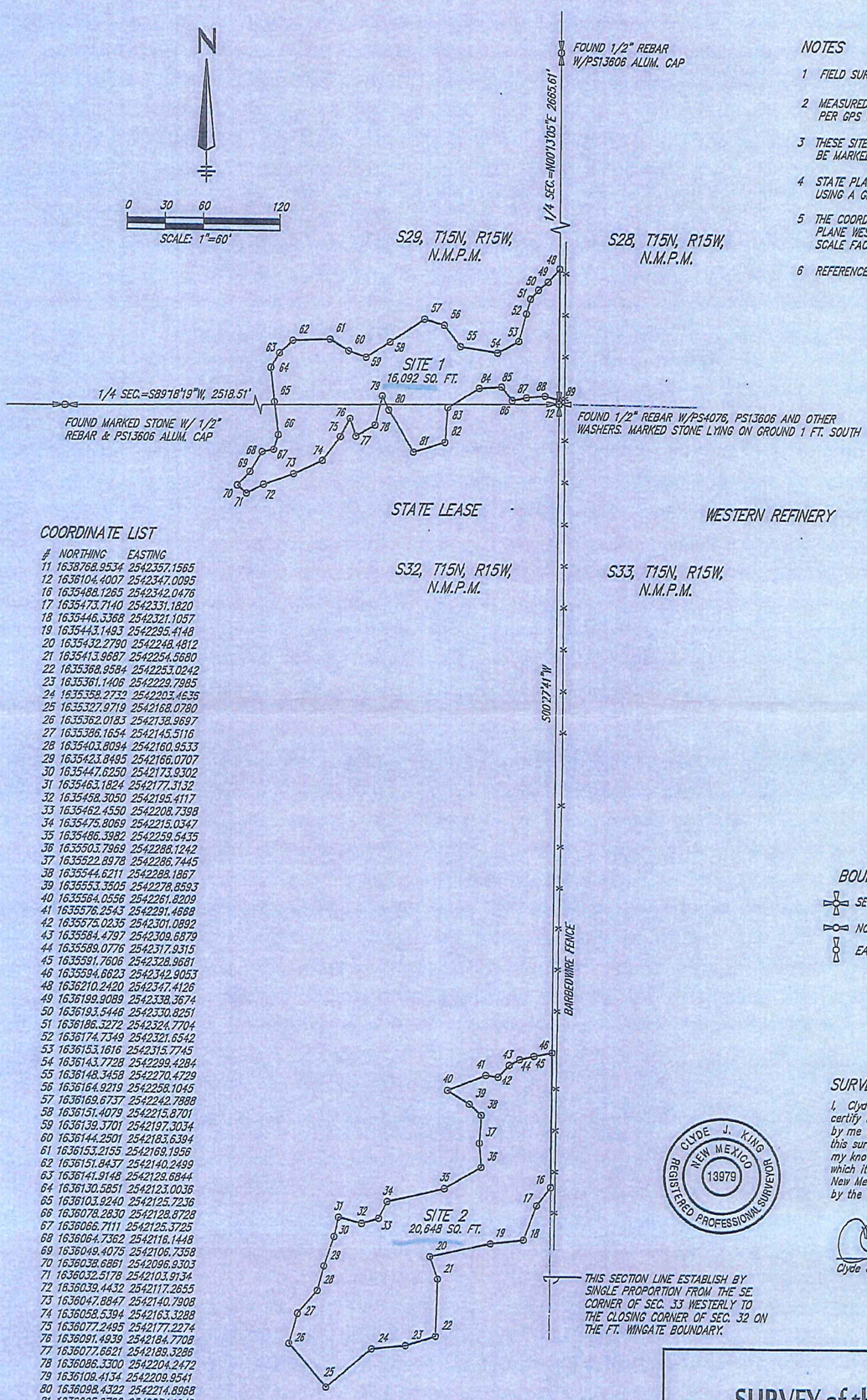
ALVIN DORSEY
NOTARY PUBLIC

OFFICIAL SEAL
ALVIN DORSEY
NOTARY PUBLIC-STATE OF NEW MEXICO
My commission expires: 08-30-2016

_____ DATE: _____
COMMISSIONER OF PUBLIC LANDS

ROE- 2602

140915BS.DWG DRAWN BY: AH CHECKED BY: CK DATE: 9-20-14



NOTES

1 FIELD SURVEY PERFORMED SEPTEMBER 15, 2014.

2 MEASURED BEARINGS ARE REFERENCED TO N.M.S.P. WEST ZONE GRID PER GPS OBSERVATIONS PERFORMED ON SITE AT THE TIME OF SURVEY.

3 THESE SITES WERE IDENTIFIED BY REFINERY PERSONNEL AND FOUND TO BE MARKED ON THE GROUND WITH WIRE FLAGS AT THE TIME OF SURVEY.

4 STATE PLANE COORDINATES BASED ON THE BRASS CAP I-040-105 USING A GPS DERIVED COMBINED SCALE FACTOR OF 0.9996094928.

5 THE COORDINATE LIST SHOWING LOCATED POINTS ARE N.M. STATE PLANE WEST ZONE GRID COORDINATES AND MUST BE DIVIDED BY THE SCALE FACTOR SHOWN ABOVE TO REACH GROUND VALUES.

6 REFERENCE THE 1881 G.L.O. TOWNSHIP PLAT OF T15N, R15W, N.M.P.M.

COORDINATE LIST

#	NORTHING	EASTING
11	1638768.9534	2542357.1565
12	1638104.4007	2542347.0095
16	1635488.1265	2542342.0476
17	1635473.7140	2542331.1820
18	1635446.3368	2542321.1057
19	1635443.1493	2542295.4148
20	1635432.2780	2542248.4812
21	1635413.9687	2542254.5680
22	1635368.9584	2542253.0242
23	1635361.1408	2542229.7985
24	1635358.2739	2542203.4635
25	1635327.9719	2542168.0780
26	1635362.0183	2542138.9697
27	1635386.1654	2542145.5116
28	1635403.8094	2542160.9533
29	1635423.8495	2542166.0707
30	1635447.6250	2542173.9302
31	1635463.1824	2542177.3132
32	1635458.3050	2542195.4117
33	1635462.4550	2542208.7398
34	1635475.8069	2542215.0347
35	1635486.3982	2542259.5435
36	1635550.7969	2542288.1242
37	1635522.8978	2542286.7445
38	1635544.6211	2542288.1867
39	1635553.3505	2542278.8593
40	1635584.0556	2542261.8209
41	1635576.2543	2542291.4688
42	1635575.0235	2542301.0892
43	1635584.4797	2542309.8879
44	1635589.0776	2542317.9315
45	1635591.7606	2542328.9681
46	1635594.6623	2542342.9053
48	1636210.2420	2542347.4126
49	1636199.9089	2542338.3674
50	1636193.5446	2542330.8251
51	1636186.3272	2542324.7704
52	1636174.7349	2542321.6542
53	1636153.1616	2542315.7745
54	1636143.7728	2542299.4284
55	1636148.3458	2542270.4729
56	1636164.9219	2542258.1045
57	1636169.6737	2542242.7888
58	1636151.4079	2542215.8701
59	1636139.3701	2542197.3034
60	1636144.2501	2542183.6394
61	1636153.2155	2542168.1956
62	1636151.8437	2542140.2499
63	1636141.9148	2542129.6844
64	1636130.5851	2542123.0036
65	1636103.9240	2542125.7236
66	1636078.2830	2542128.8728
67	1636066.7111	2542125.3725
68	1636064.7362	2542116.1448
69	1636049.4075	2542106.7358
70	1636038.6861	2542096.9303
71	1636032.5178	2542103.9134
72	1636039.4432	2542117.2655
73	1636047.8847	2542140.7908
74	1636058.5394	2542163.3288
75	1636077.2495	2542177.2274
76	1636091.4939	2542184.7708
77	1636077.6621	2542189.3286
78	1636086.3300	2542204.2472
79	1636109.4134	2542209.9541
80	1636098.4322	2542216.8968
81	1636065.6728	2542234.1248
82	1636073.5650	2542258.6803
83	1636100.7028	2542260.6073
84	1636116.0408	2542285.2207
85	1636117.3491	2542302.5946
86	1636106.8577	2542310.7095
87	1636109.2469	2542321.8393
88	1636110.5733	2542336.1329
89	1636107.3472	2542347.0207

BOUNDARY LEGEND

- SECTION CORNER
- NORTH OR SOUTH 1/4 SECTION CORNER
- EAST OR WEST 1/4 SECTION CORNER

CLYDE J. KING NEW MEXICO 13979 REGISTERED PROFESSIONAL SURVEYOR

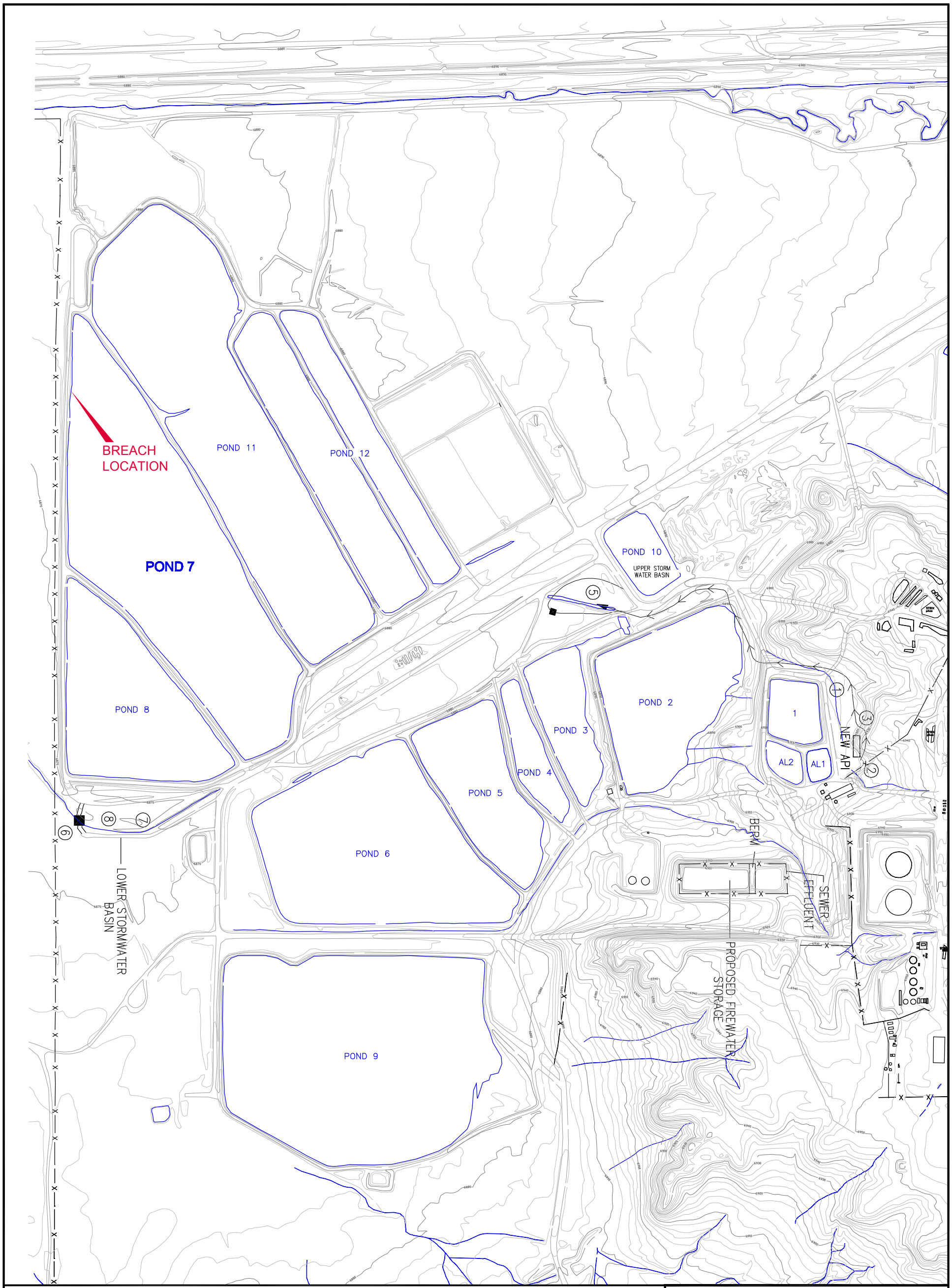
SURVEYOR'S CERTIFICATE

I, Clyde J. King, a New Mexico Professional Surveyor do hereby certify that this plat was prepared from a field survey performed by me or under my direct supervision, that I am responsible for this survey, that this survey is true and correct to the best of my knowledge and belief, that this plat and the field survey upon which it is based meet the Minimum Standards for Surveying in New Mexico and that this survey is not a subdivision as defined by the New Mexico Subdivision Act.

Clyde J. King, PS13979 — Date: 9-20-14

SURVEY of the SITE 1 in Sections 29 & 32, and SITE 2 in Section 32, T15N, R15W, N.M.P.M., McKinley County, New Mexico, U.S.A.

H.E.I. HAMMON ENTERPRISES, INC. PROFESSIONAL LAND SURVEYING SERVICES
P. O. Box 770 Ramah, NM 87321 Tel:(505) 870-6901 HEISurveys@Yahoo.com



Western Refining
GALLUP REFINERY

PROJ. NO.: Western Refining	DATE: 03/01/15	FILE: WestRef-dB31

FIGURE 1
POND 7 BREACH LOCATION

DiSorbo
Environmental Consulting Firm
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759

S29, T15N, R15W, N.M.P.M

S28, T15N, R15W, N.M.P.M

AREA OF SOIL EXCAVATION

1-A

1-C

SITE 1
(16,092 SqFt)

1-B

1-D

S32, T15N, R15W, N.M.P.M

S33, T15N, R15W, N.M.P.M

POND 7

STATE LEASE

WESTERN REFINERY PROPERTY

2-A

AREA OF SOIL EXCAVATION

2-B

2-C

SITE 2
(20,648 SqFt)

2-D

N

0 60
SCALE IN FEET

LEGEND

1-A SOIL CONFIRMATION SAMPLE LOCATION

BARBED WIRE FENCE

SECTION LINE / PROPERTY BOUNDARY

SECTION CORNER

Western Refining
GALLUP REFINERY

PROJ. NO.: Western Refining	DATE: 03/01/15	FILE: WestRef-dB32

FIGURE 2
POND 7
MARCH 9, 2014
DIKE BREACH REMEDIATION

DiSorbo
Environmental Consulting Firm
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759

NEW MEXICO
ENVIRONMENT DEPARTMENT

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone (505) 476-6000 Fax (505) 476-6030
www.nmenv.state.nm.us

SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

RYAN FLYNN
Cabinet Secretary
BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

March 5, 2015

Mr. Ed Riege
Environmental Manager
Western Refining, Southwest Inc., Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

RE: DISAPPROVAL
RESPONSE TO EVAPORATION POND 7 DIKE BREACH
WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-WRG-14-003

Dear Mr. Riege:

The New Mexico Environment Department (NMED) has received Western Refining Southwest Inc., Gallup Refinery's (Permittee) letter, *Response to Disapproval Evaporation Pond 7 Dike Breach* (Response), dated September 12, 2014.

In "Western Response to Comment 1" the Permittee states, "...we believe that Western and NMED share the same interest in assuring that the evaporation pond system at the Gallup refinery is well-functioning and protective of human health and the environment. As a responsible owner and operator of a wastewater treatment system that includes evaporation ponds, Western maintains, and repairs as necessary, the evaporation ponds." The Permittee has not addressed issues regarding dike repair and freeboard in a timely manner, resulting in previous overflows at the evaporations ponds and concerns about the structural integrity of the berms in the past. In 2011, the Permittee was interested in using soil from the Oil Conservation Division (OCD's) NE landfarm for evaporation pond repair and also interested in using soil from the STP-1 excavation; the Permittee has been aware that the evaporation pond berms were in need of repair since at least 2011.

NMED acknowledges the Permittee's recent investments to ensure that freeboard levels are controlled and that improvements have been made to the dike system. These issues have been problems for several years. During an U.S. Environmental Protection Agency (EPA) corrective action inspection in August 2014, the EPA noted observations of discoloration at the bottom of some berms at the Evaporation Ponds, indicating that the seepage continues to occur. The Permittee must address seepage from the berms.

The Permittee also states, "[f]inally, we note that Western is unaware of any discharges of hazardous waste to Pond 7." NMED did not imply that hazardous waste has been discharged to Pond 7; however, hazardous waste has been discharged into the wastewater treatment system which include the evaporation ponds, and Pond 7. Additionally, even if hazardous waste has not been discharged to evaporation ponds, hazardous constituents are still a concern.

The Permittee claims force majeure because off-site access has not been granted. This does not constitute a force majeure event (see RCRA Permit Section I.J.13. The accepted definition of force majeure that, "essentially frees both parties from liability or obligation when an extraordinary event or circumstance beyond the control of the parties, such as a war, strike, riot, crime, or an event described by the legal term act of God (such as hurricane, flooding, earthquake, volcanic eruption, etc.), prevents one or both parties from fulfilling their obligations under the contract" does not apply.). 20.4.1.500 NMAC incorporating 40 CFR § 264.101(c) requires that the Permittee must conduct corrective action off-site unless the Permittee can demonstrate that, despite the Permittee's best efforts, the Permittee was unable to obtain the permission necessary to do so. Not being allowed to access off-site property does not relieve the Permittee of all responsibility to address an off-site release, the Permittee will have to address the release at some future time. The Permittee must demonstrate to NMED that best efforts were made to gain off-site access; provide this information to NMED within 30 days of receipt of this letter. Such demonstration does not relieve the Permittee of responsibility for cleanup of the release (40 CFR § 264.104(c)).

The Permittee must provide NMED proof that best efforts were made to gain off-site access by **May 8, 2015**.

If you have questions regarding this Disapproval, please contact Kristen Van Horn of my staff at 505-476-6046.

Sincerely,

John E. Kieling
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
N. Dhawan, NMED HWB
K. Van Horn, NMED HWB
A. Hains, WRG
C. Chavez, EMNRD OCD
S. Holcomb, NMED SWQB
L. King, EPA

File: Reading File and WRG 2015 File
WRG-14-003

Western Refining

GALLUP

WNR LISTED NYSE

March 10, 2015

Via Email and Certified Mail 7011 2970 0003 9281 8718, Return Receipt Requested

Mr. Carl Chavez
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Mr. John E. Kieling, Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, New Mexico 87505-6303

RE: MARCH 9, 2014 EVAPORATION POND 7 DIKE BREACH REMEDIATION COMPLETED

Dear Mr. Chavez and Mr. Kieling:

On March 19, 2014,Western Refining Southwest, Inc., Gallup refinery ("Western") orally and by email notified the New Mexico Environment Department ("NMED") and the New Mexico Oil Conservation Division ("NMOCD") of a minor release of treated wastewater from Evaporation Pond 7 due to a breach in the dike (Figure 1). Without making any admissions, and reserving all applicable rights and defenses, including the right to dispute whether the release is subject to corrective action under the Permit, Western provides this letter in response to the inquiries of both NMED and NMOCD.

Western's earlier correspondence on April 16, 2014 and September 12, 2014, provided additional information on the spill and initial characterization efforts. It was estimated that 17.4 bbls of wastewater left the pond with possibly half crossing the fence line west of the dike. The small volume of water was absorbed by the dry soil and the release did not reach a watercourse or waters of the U.S. Western collected a sample of the water, which flowed through the breach, and six soil samples from the impacted area on March 20, 2014. These samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), Gasoline, Diesel, and Motor Oil Range Organics, New Mexico Water Quality Control Criteria metals, and major cation/anions. The soil samples collected from within the known area of the release did not contain detectable concentrations of petroleum hydrocarbons (Gasoline, Diesel, or Motor Oil range), VOCs, or SVOCs, nor did the soil samples indicate contamination from any other hazardous waste or hazardous constituents.

The results of these analyses determined that chloride was the primary constituent of concern.

In dealing with earlier minor seepage along a portion of the dike, Western had sought concurrence from NMOCD on chloride action levels. Western received an email from NMOCD on February 7, 2014 agreeing with the chloride action levels proposed by Western in a letter dated October 14, 2013, which proposed the use of the chloride standards in Table 1 of New Mexico Administrative Code Title 19, Chapter 15, Part 17, Section 13. Conservatively assuming a depth to groundwater of 51 to 100 feet, the required limit for chloride is 10,000 mg/kg. Subsequently, Western conducted additional sampling to better define the volume of soil to be excavated.

As the spill flowed a short distance onto the adjacent off-site property, it was necessary for Western to obtain access from the adjacent property owner (i.e., State of New Mexico) prior to conducting remediation. A Right-of-Entry Permit was granted to Western on October 29, 2014 by the New Mexico State Land Office, Commissioner of Public Lands. Subsequently, Western excavated the surface soils in both areas where water from the breach at Pond 7 had flowed off-site. The areas of interest were surveyed by a registered surveyor and the northern area is referred to a Site 1, while the southern area is referred to as Site 2 (see enclosed survey).

Excavation began during the week November 24, 2014, with the upper 12 to 14 inches of soils removed from Site 1 and Site 2. The soils were staged on plastic sheeting in a protected location on-site to the east of the Land Treatment Unit pending off-site disposal. An estimated volume of 350 cubic yards of soils was excavated from the off-site areas and the narrow strip of affected property along the western edge of Pond 7.

The areas where excavation was conducted are indicated on Figure 2 and the enclosed survey of the area. Upon completion of excavation, four confirmation soil samples were collected from each area and analyzed for anions (e.g., chloride), Gasoline, Diesel, and Motor Oil Range Organics, RCRA metals, VOCs, and SVOCs (Figure 2). The soil samples were collected as discrete grab samples from the upper one foot. A decontaminated hand auger was used to collect each soil sample, which was placed directly into 9 ounce jars and immediately placed on ice. The analytical report is enclosed.

All of the organic analyses (Gasoline, Diesel, and Motor Oil Range Organics, VOCs, and SVOCs) and RCRA metals were non-detect. All of the chloride results are less than the NMOCD limit of 10,000 mg/kg and are summarized below.

Sample ID	Chloride Concentration (mg/kg)
Pond 7-Site 1-A	6,200
Pond 7-Site 1-B	7,300
Pond 7-Site 1-C	7,500
Pond 7-Site 1-D	6,400

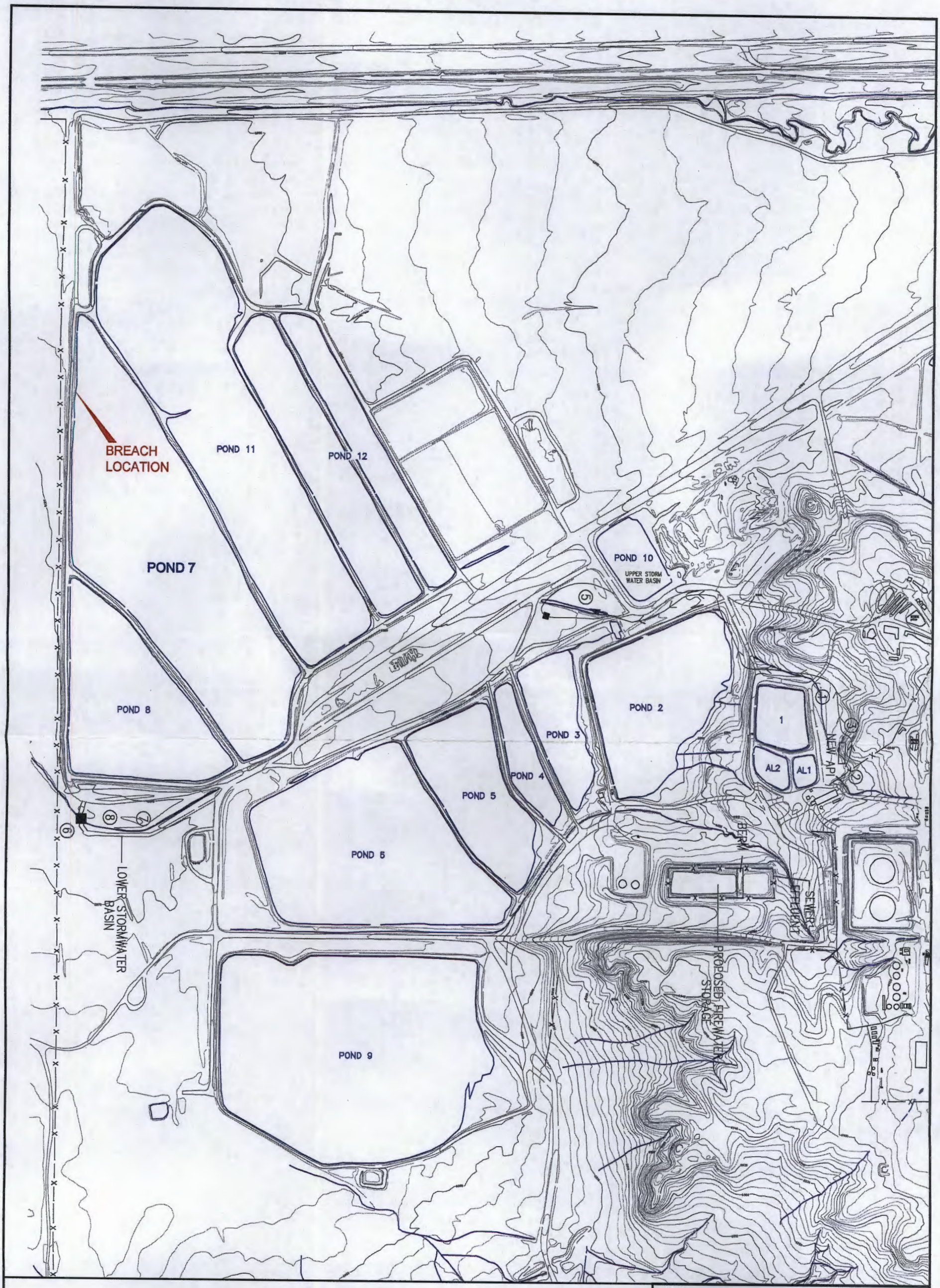
Pond 7-Site 2-A	4,300
Pond 7-Site 2-B	8,000
Pond 7-Site 2-C	8,000
Pond 7-Site 2-D	7,300

The confirmation sample results demonstrate the spill of treated wastewater from Pond 7 has been successfully remediated and no further remedial action is required. Western will backfill the excavations using clean fill from the on-site borrow pit and seed the affected area immediately upon approval of NMOCD. The Right-of-Entry Permit issued by the State of New Mexico is only valid through April 19, 2015. Therefore, Western requests NMOCD approval of the removal action as soon as possible. If there are any questions, then please contact Ed Riege at 505-722-0217.

Sincerely, for Billy McClain

Mr. Billy McClain
Refinery Manager
Western Refining Southwest, Inc. – Gallup Refinery

cc Anthony Vigil, State of New Mexico
A. Allen, Western El Paso
Ed Riege, Western Gallup
Allen Hains, Western El Paso



Western Refining
GALLUP REFINERY

PROJ. NO.: Western Refining | DATE: 03/01/15 | FILE: WestRef-dB31

FIGURE 1
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WESTERN REFINERY PROPERTY

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BARBED WIRE FENCE

SECTION LINE / PROPERTY BOUNDARY

SECTION CORNER

Western Refining
GALLUP REFINERY

PROJ. NO.: Western Refining	DATE: 03/01/15	FILE: WestRef-dB32

FIGURE 2
POND 7
MARCH 9, 2014
DIKE BREACH REMEDIATION

DiSorbo
Environmental Consulting Firm
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759

Ray Powell, M.S., D.V.M.
COMMISSIONER

State of New Mexico
Commissioner of Public Lands
310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE
Phone (505) 827-5760
Fax (505) 827-5766
www.nmstatelands.org

October 29, 2014

Western Refining S.W., Inc.
92 Giant Crossing Road
Gallup, New Mexico 87301

Attn: Ed Riege

Re: Right-of-Entry Application No. ROE-2602

Dear, Mr. Riege

Enclosed is the completed captioned Right-of-Entry permit. If any corrections are necessary, please let us know and we will retype or amend this lease as necessary.

If you have any questions, please feel free to contact this office at the above address or for Ken Baca, Bureau Manager @ (505) 827-5789 or myself @ 827-5710.

Sincerely,

Anthony Vigil, Management Analyst
Right of Way Section
Surface Resource Management Division

NEW MEXICO
STATE LAND OFFICE

NEW MEXICO STATE LAND OFFICE
Commissioner of Public Lands
Ray Powell, M.S., D.V.M.
New Mexico State Land Office Building
P.O. Box 1148, Santa Fe, NM 87504-1148

RIGHT OF ENTRY PERMIT
CONTRACT NO. ROE-2602
Remediation

1. RIGHT OF ENTRY PERMIT

This permit is issued under the authority of NMSA 1978, Section 19-1-2. Therefore, and in consideration of and subject to the terms, covenants, conditions, agreements, obligations and reservations contained in the permit and all other existing rights, the Commissioner of Public Lands, New Mexico State Land Office, State Of New Mexico, hereinafter called "COMMISSIONER," grants to **Western Refining S.W., Inc.**. State of Incorporation (if applicable) , whose address is **92 Giant Crossing Road, Gallup, New Mexico 87301**, **hereinafter** called "PERMITTEE," authorized use of a specific tract(s) of State Trust Land only for the term, and only for the permitted use, described in this permit.

2. TERM AND LAND DESCRIPTION

Right of entry is granted for a term of **180 days**, commencing, **October 21, 2014,** and ending **April 19, 2015** to the following State Trust Lands.

Section 32, Township 15 North, Range 15 West. NE ¼ NE ¼ McKinley County

3. APPLICATION and PROCESSING FEE

$530.00

4. PERMITTED USE, PERSONNEL, EQUIPMENT AND MATERIALS

Permitted use is for the purpose of: **clean-up soil affected by evaporation pond water**

breach

Personnel present on State Trust Land: **Western Refining Employees**
Equipment & Materials present on State Trust Land: **Excavation equipment, roll-off and clean soil**

Prior to execution of project company must identify and contact the Grazing Lessee.

The granting of this permit does not allow access across private lands.

5. IMPROVEMENTS

No improvements shall be placed on the premises without the prior written consent of the Commissioner.

6. RESERVATIONS

Commissioner reserves the right to execute leases, rights of way, easements, permits, exchange agreements, sale agreements, permits and other lawful rights on or across the land covered by this permit, including but not limited to any such rights for mining purposes and for the extraction of oil, gas, salt, geothermal resources, and other mineral deposits there from and the right to go upon, explore for, mine, remove and sell same.

7. COMPLIANCE WITH LAWS

Permittee shall at its own expense comply fully with and be subject to all applicable regulations, rules, ordinances, and requirements of law or of the Commissioner, including but not limited to the regulations of the State Land Office; Chapter 19 NMSA governing State Trust Lands; federal and state environmental laws and regulations; and the New Mexico Cultural Properties Act, NMSA 1978 Sections 18-6-1 through 18-6-23. It is illegal for any person or his agent to appropriate, excavate, injure, or destroy any historic, or prehistoric ruin or monument, or any object of historical, archaeological, architectural, or scientific value situated on lands owned or controlled by the State Land Office without a valid permit issued by the Cultural Properties Review Committee and approved by the Commissioner of Public Lands.

8. HOLD HARMLESS AND IMDEMNIFICATION

Permittee shall save, hold harmless, indemnify and defend Commissioner, the State Land Office, the State of New Mexico, and any of their officers, employees or agents, in their official and individual capacities, of and from any and all liability, claims, losses, damages, costs, and fees arising out of or alleged to arise out of, or directly or indirectly connected with, the operations of Permittee under this permit on or off State Trust Lands or arising out of the presence on State Trust Lands of any equipment, material, agent, invitee, contractor or subcontractor of Permittee. This Hold Harmless and Indemnification clause covers any claim, including any brought in any court or before

any administrative agency, of any loss or alleged loss, and any damages or alleged damages asserted with respect to any violation or alleged violation of any state, federal or local law or regulation, including but not limited to any environmental law or regulation, any cultural properties law (including the New Mexico Cultural Properties Act, cited above) or regulation, and any alleged damage to the property, rights or interests of any State Land Office lessee, right-of-way holder, or other permittee.

9. AMENDMENT

This permit shall not be altered, changed, or amended except by an instrument in writing executed by Commissioner and Permittee.

10. WITHDRAWAL

Commissioner reserves the right to withdraw any or all of the land authorized for use under this permit. If applicable, Permittee shall vacate the acreage specified within 30 days after receipt of written notification of withdrawal from the Commissioner.

11. CANCELLATION

The violation by Permittee of any of the terms, conditions, or covenants of this permit or the nonpayment by Permittee of the fees due under this permit shall at the option of the Commissioner be considered a default and shall cause the cancellation of this permit 30 days after Permittee has been sent written notice of such.

12. PRESERVE AND PROTECT

The Permittee agrees to preserve and protect the natural environmental conditions of the land encompassed in this permit, and to take those reclamation or corrective actions that are accepted soil and water conservation practices and that are deemed necessary by the Commissioner to protect the land from pollution, erosion, or other environmental degradation. The Permittee further agrees not to injure the property of, or interfere with the operations or rights of, any State Land Office lessee, right-of-way holder, easement holder or other permittee who has rights to use the State Trust Land subject to this permit.

13. RECLAMATION, REMOVAL OF EQUIPMENT, MATERIALS, AND WASTE

The Permittee agrees to reclaim those areas that may be damaged by activities conducted thereon.

The Permittee agrees to remove from the State Trust Lands, no later than the end of the term of this permit, all equipment, and materials it has placed or brought upon the land and to clean up and remove from the land any trash, waste, effluent, or other products used or brought upon the land in connection with this permit.

14. SPECIAL INSTRUCTIONS AND/OR RESTRICTIONS

1. No off road traffic allowed.

2. No wood collection or tree cutting allowed.

3. Disturbing, dislodging, damaging, defacing, destroying or removing historical archaeological, paleontological or cultural sites or artifacts is prohibited.

4. Disturbing, dislodging, damaging, defacing, destroying any improvement, fixture, item, object or thing placed or located in, under or upon the land is prohibited.

5. This permit does not grant a right to enter State Trust Lands to which there is no public access.

6. Any uses or activities not within the scope of this permit are not allowed unless prior written approval from the Commissioner of Public Lands is granted.

7. OTHER

WITNESS the hands and seals of PERMITTEE and COMMISSIONER on the day(s) and year entered below.

_____ Telephone: 505-722-0217
PERMITTEE

ACKNOWLEDGMENT

STATE OF NEW MEXICO)

COUNTY OF CIBOLA)

The foregoing instrument was acknowledged before me this 23rd day of OCTOBER, 20 14.

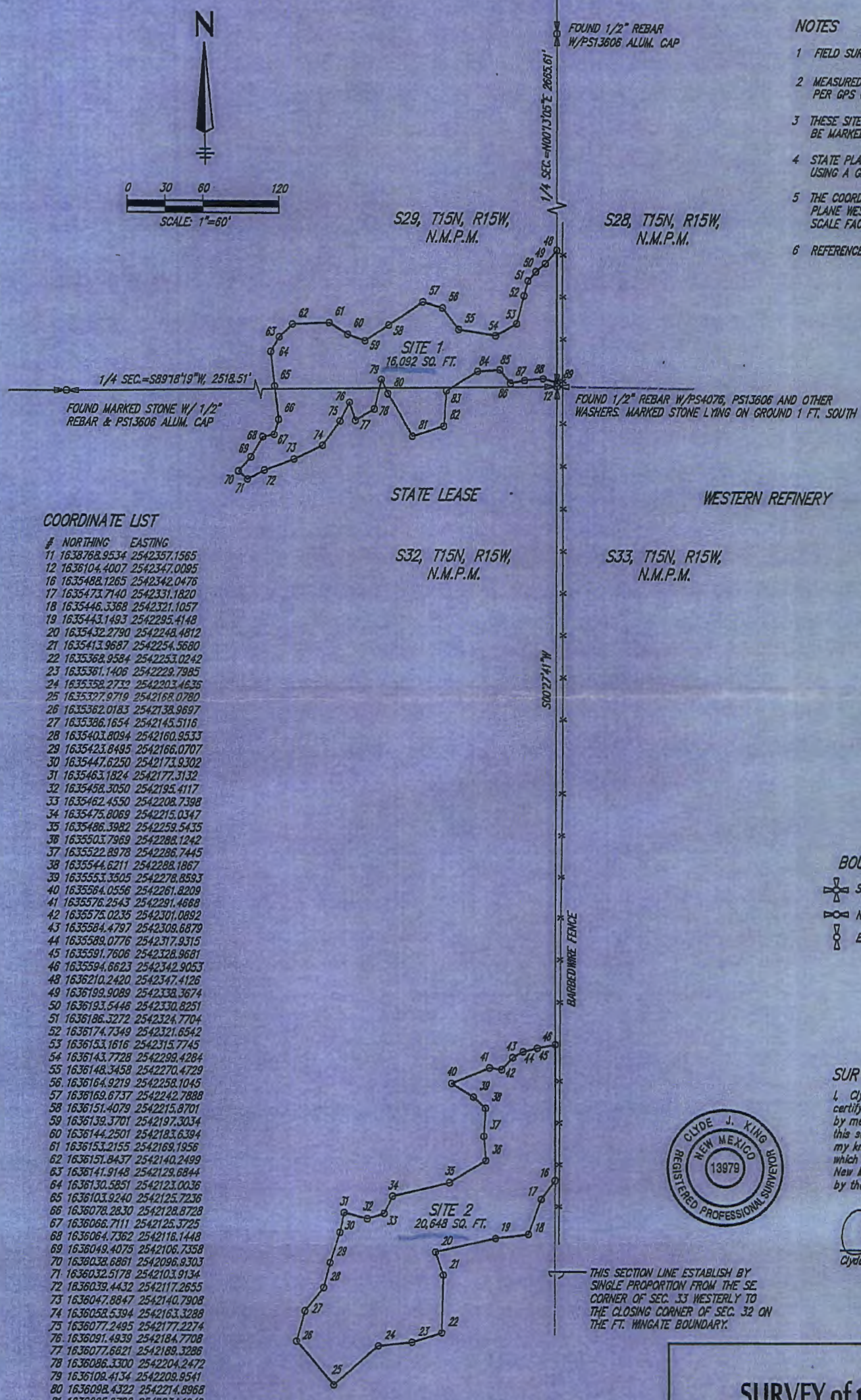
My Commission Expires: AUGUST 30, 2016 _____
ALVIN DORSEY
NOTARY PUBLIC

OFFICIAL SEAL
ALVIN DORSEY
NOTARY PUBLIC-STATE OF NEW MEXICO
My commission expires: 08-30-2016

_____ DATE: _____
COMMISSIONER OF PUBLIC LANDS

ROE- 2602

140915BS.DWG DRAWN BY: AH CHECKED BY: CK DATE: 9-20-14



NOTES

1 FIELD SURVEY PERFORMED SEPTEMBER 15, 2014.

2 MEASURED BEARINGS ARE REFERENCED TO N.M.S.P. WEST ZONE GRID PER GPS OBSERVATIONS PERFORMED ON SITE AT THE TIME OF SURVEY.

3 THESE SITES WERE IDENTIFIED BY REFINERY PERSONNEL AND FOUND TO BE MARKED ON THE GROUND WITH WIRE FLAGS AT THE TIME OF SURVEY.

4 STATE PLANE COORDINATES BASED ON THE BRASS CAP I-040-105 USING A GPS DERIVED COMBINED SCALE FACTOR OF 0.9996094928.

5 THE COORDINATE LIST SHOWING LOCATED POINTS ARE N.M. STATE PLANE WEST ZONE GRID COORDINATES AND MUST BE DIVIDED BY THE SCALE FACTOR SHOWN ABOVE TO REACH GROUND VALUES.

6 REFERENCE THE 1881 G.L.O. TOWNSHIP PLAT OF T15N, R15W, N.M.P.M.

COORDINATE LIST

#	NORTHING	EASTING
11	1638768.9534	2542357.1565
12	1636104.4007	2542347.0095
16	1635488.1265	2542342.0476
17	1635473.7140	2542331.1820
18	1635446.3368	2542321.1057
19	1635443.1493	2542295.4148
20	1635432.2790	2542248.4812
21	1635413.9687	2542254.5680
22	1635368.9584	2542253.0242
23	1635361.1406	2542229.7985
24	1635358.2732	2542203.4635
25	1635327.9719	2542168.0780
26	1635362.0183	2542138.9697
27	1635386.1654	2542145.5116
28	1635403.8094	2542160.9533
29	1635423.8495	2542166.0707
30	1635447.6250	2542173.9302
31	1635463.1824	2542177.3132
32	1635458.3050	2542195.4117
33	1635462.4550	2542208.7398
34	1635475.8069	2542215.0347
35	1635486.3982	2542259.5435
36	1635503.7969	2542288.1242
37	1635522.8978	2542286.7445
38	1635544.6211	2542288.1867
39	1635553.3505	2542278.8593
40	1635584.0556	2542261.8209
41	1635576.2543	2542291.4668
42	1635575.0235	2542301.0892
43	1635584.4797	2542309.6879
44	1635589.0776	2542317.9315
45	1635591.7606	2542328.9681
46	1635594.6623	2542342.9053
48	1636210.2420	2542347.4126
49	1636199.9089	2542338.3674
50	1636193.5446	2542330.8251
51	1636186.3272	2542324.7704
52	1636174.7349	2542321.6542
53	1636153.1616	2542315.7745
54	1636143.7728	2542299.4284
55	1636148.3458	2542270.4729
56	1636164.9219	2542258.1045
57	1636169.6737	2542242.7888
58	1636151.4079	2542215.8701
59	1636139.3701	2542197.3034
60	1636144.2501	2542183.6394
61	1636153.2155	2542169.1956
62	1636151.8437	2542140.2499
63	1636141.9148	2542129.6844
64	1636130.5851	2542123.0036
65	1636103.9240	2542125.7236
66	1636078.2830	2542128.8728
67	1636066.7111	2542125.3725
68	1636064.7362	2542116.1448
69	1636049.4075	2542106.7358
70	1636038.6861	2542096.9303
71	1636032.5178	2542103.9134
72	1636039.4432	2542117.2655
73	1636047.8847	2542140.7908
74	1636058.5394	2542163.3288
75	1636077.2495	2542177.2274
76	1636091.4939	2542184.7708
77	1636077.6821	2542189.3286
78	1636086.3300	2542204.2472
79	1636109.4134	2542209.9541
80	1636098.4322	2542214.8968
81	1636065.8728	2542234.1248
82	1636073.5650	2542258.6803
83	1636100.7028	2542260.6073
84	1636116.0408	2542285.2207
85	1636117.3491	2542302.5946
86	1636106.8577	2542310.7095
87	1636109.2469	2542321.8393
88	1636110.5733	2542336.1329
89	1636107.3472	2542347.0207

BOUNDARY LEGEND

SECTION CORNER

NORTH OR SOUTH 1/4 SECTION CORNER

EAST OR WEST 1/4 SECTION CORNER

SURVEYOR'S CERTIFICATE

I, Clyde J. King, a New Mexico Professional Surveyor do hereby certify that this plat was prepared from a field survey performed by me or under my direct supervision, that I am responsible for this survey, that this survey is true and correct to the best of my knowledge and belief, that this plat and the field survey upon which it is based meet the Minimum Standards for Surveying in New Mexico and that this survey is not a subdivision as defined by the New Mexico Subdivision Act.

CLYDE J. KING NEW MEXICO 13979 REGISTERED PROFESSIONAL SURVEYOR

Clyde J. King, PS13979 — Date 9-20-14

SURVEY of the SITE 1 in Sections 29 & 32, and SITE 2 in Section 32, T15N, R15W, N.M.P.M., McKinley County, New Mexico, U.S.A.

H.E.I. HAMMON ENTERPRISES, INC
PROFESSIONAL LAND SURVEYING SERVICES
P.O. Box 770 Ramah, NM 87321 Tel:(505) 870-6901 HEISurveys@Yahoo.com

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining Southwest, Incorporated	Contact Ed Riege
Address 92 Giant Crossing Road Gallup NM 87301	Telephone No. 505-722-0217
Facility Name Western Refining Southwest Gallup Refinery	Facility Type Petroleum Refinery

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	29 and 32	15N	15W					

Latitude 35° 29' 22" **Longitude** 108° 25' 24"

NATURE OF RELEASE

Type of Release Pond Water	Volume of Release 17.4 bbls	Volume Recovered None
Source of Release Evaporation Pond #7	Date and Hour of Occurrence 03-19-2014 1500 hr	Date and Hour of Discovery 03-19-2014 1515 hr
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Message Brandon Powell phone / email Carl Chavez phone / email Kristen Van Horn phone / email	
By Whom? Ed Riege	Date and Hour 03-19-2014 1805 hr 03-19-2014 1810 hr 03-19-2014 1815 hr	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
A Western employee observed a breach in the pond 7 dike. Western was in the process of improving the pond dikes and earth moving equipment, which was operating nearby, immediately responded to make repairs and stopped the release at 1 630Hr. As described in the initial C-141 submitted on April 1, 2014, Western has completed actions to improve the pond dikes.

Describe Area Affected and Cleanup Action Taken.*
The land where the release left Western's property is owned by State of New Mexico and Western obtained a temporary Right-of-Entry Permit to conducted remedial actions on the off-site property. The affected area covered approximately 0.84 acres. These response actions are described in the attached letter, which documents the affected property was successfully remediated. Western has completed all required response actions. To address the requirements of the land owner, Western will backfill the excavations and seed the area with native plants.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Ed Riege	Approved by Environmental Specialist:	
Title: Environmental Manager	Approval Date:	Expiration Date:
E-mail Address: ed.riege@wnr.com	Conditions of Approval:	Attached ☐
Date: 3-11-15 Phone:505-722-0217		

* Attach Additional Sheets If Necessary

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 19, 2014

Cheryl Johnson
Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: Pond 7 Breach clean up (soil) OrderNo.: 1412646

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 12/12/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1412646**
Date Reported: **12/19/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7-Site 1-A
Project: Pond 7 Breach clean up (soil)
Collection Date: 12/3/2014 1:00:00 PM
Lab ID: 1412646-001 **Matrix:** SOIL **Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/16/2014 10:09:47 AM	16830
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/16/2014 10:09:47 AM	16830
Surr: DNOP	79.6	63.5-128		%REC	1	12/16/2014 10:09:47 AM	16830
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 2:52:58 PM	16827
Surr: BFB	92.1	80-120		%REC	1	12/16/2014 2:52:58 PM	16827
EPA METHOD 300.0: ANIONS						Analyst: **lgp**	
Fluoride	3.1	0.30		mg/Kg	1	12/16/2014 11:19:46 AM	16851
Chloride	6200	750		mg/Kg	500	12/18/2014 1:23:34 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 11:56:59 AM	16851
Bromide	2.6	0.30		mg/Kg	1	12/16/2014 11:19:46 AM	16851
Nitrogen, Nitrate (As N)	11	0.30		mg/Kg	1	12/16/2014 11:19:46 AM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 11:19:46 AM	16851
Sulfate	1000	30		mg/Kg	20	12/16/2014 11:56:59 AM	16851
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	12/17/2014 10:07:39 AM	16858
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	18000	130		mg/Kg	5	12/17/2014 11:16:12 AM	16861
Manganese	350	0.20		mg/Kg	2	12/17/2014 11:14:42 AM	16861
Potassium	3900	100		mg/Kg	2	12/17/2014 11:14:42 AM	16861
Sodium	5300	51		mg/Kg	2	12/17/2014 11:14:42 AM	16861
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:12:12 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:12:12 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:12:12 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:12:12 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:12:12 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:12:12 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:12:12 AM	16859
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	12/16/2014 1:31:52 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 1:31:52 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 1:31:52 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 1:31:52 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 1:31:52 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 1:31:52 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7-Site 1-A
Project: Pond 7 Breach clean up (soil)
Collection Date: 12/3/2014 1:00:00 PM
Lab ID: 1412646-001 **Matrix:** SOIL **Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 1:31:52 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 1:31:52 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 1:31:52 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 1:31:52 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 1:31:52 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 1:31:52 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 1:31:52 PM	16852
Surr: 2-Fluorophenol	50.2	25-105		%REC	1	12/16/2014 1:31:52 PM	16852
Surr: Phenol-d5	50.0	22.3-70.3		%REC	1	12/16/2014 1:31:52 PM	16852
Surr: 2,4,6-Tribromophenol	57.4	30.4-134		%REC	1	12/16/2014 1:31:52 PM	16852
Surr: Nitrobenzene-d5	81.0	54.8-128		%REC	1	12/16/2014 1:31:52 PM	16852
Surr: 2-Fluorobiphenyl	76.3	53.3-122		%REC	1	12/16/2014 1:31:52 PM	16852
Surr: 4-Terphenyl-d14	66.6	51.8-133		%REC	1	12/16/2014 1:31:52 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **DJF**	
Benzene	ND	0.50		ppm	10	12/17/2014 12:41:35 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 12:41:35 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 12:41:35 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 12:41:35 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 12:41:35 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 12:41:35 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 12:41:35 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 12:41:35 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 12:41:35 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 12:41:35 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 12:41:35 PM	16827
Surr: 1,2-Dichloroethane-d4	85.3	70-130		%REC	10	12/17/2014 12:41:35 PM	16827
Surr: 4-Bromofluorobenzene	94.8	70-130		%REC	10	12/17/2014 12:41:35 PM	16827
Surr: Dibromofluoromethane	104	70-130		%REC	10	12/17/2014 12:41:35 PM	16827
Surr: Toluene-d8	94.4	70-130		%REC	10	12/17/2014 12:41:35 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7-Site 1-B
Project: Pond 7 Breach clean up (soil)
Collection Date: 12/3/2014 1:15:00 PM
Lab ID: 1412646-002 **Matrix:** SOIL **Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/16/2014 10:39:49 AM	16830
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/16/2014 10:39:49 AM	16830
Surr: DNOP	82.6	63.5-128		%REC	1	12/16/2014 10:39:49 AM	16830
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 4:18:50 PM	16827
Surr: BFB	92.7	80-120		%REC	1	12/16/2014 4:18:50 PM	16827
EPA METHOD 300.0: ANIONS						Analyst: **lgp**	
Fluoride	2.7	0.30		mg/Kg	1	12/16/2014 12:09:24 PM	16851
Chloride	7300	1500		mg/Kg	1E	12/18/2014 1:35:58 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 12:21:48 PM	16851
Bromide	3.4	0.30		mg/Kg	1	12/16/2014 12:09:24 PM	16851
Nitrogen, Nitrate (As N)	17	0.30		mg/Kg	1	12/16/2014 12:09:24 PM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 12:09:24 PM	16851
Sulfate	1000	30		mg/Kg	20	12/16/2014 12:21:48 PM	16851
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	12/17/2014 10:09:27 AM	16858
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	16000	130		mg/Kg	5	12/17/2014 11:24:31 AM	16861
Manganese	330	0.21		mg/Kg	2	12/17/2014 11:22:58 AM	16861
Potassium	3600	100		mg/Kg	2	12/17/2014 11:22:58 AM	16861
Sodium	5500	52		mg/Kg	2	12/17/2014 11:22:58 AM	16861
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:13:41 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:13:41 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:13:41 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:13:41 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:13:41 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:13:41 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:13:41 AM	16859
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	12/16/2014 2:53:46 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 2:53:46 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 2:53:46 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 2:53:46 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 2:53:46 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 2:53:46 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7-Site 1-B
Project: Pond 7 Breach clean up (soil)
Collection Date: 12/3/2014 1:15:00 PM
Lab ID: 1412646-002 **Matrix:** SOIL **Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 2:53:46 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 2:53:46 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 2:53:46 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 2:53:46 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 2:53:46 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 2:53:46 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 2:53:46 PM	16852
Surr: 2-Fluorophenol	52.3	25-105		%REC	1	12/16/2014 2:53:46 PM	16852
Surr: Phenol-d5	48.3	22.3-70.3		%REC	1	12/16/2014 2:53:46 PM	16852
Surr: 2,4,6-Tribromophenol	58.7	30.4-134		%REC	1	12/16/2014 2:53:46 PM	16852
Surr: Nitrobenzene-d5	90.3	54.8-128		%REC	1	12/16/2014 2:53:46 PM	16852
Surr: 2-Fluorobiphenyl	85.3	53.3-122		%REC	1	12/16/2014 2:53:46 PM	16852
Surr: 4-Terphenyl-d14	73.5	51.8-133		%REC	1	12/16/2014 2:53:46 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **DJF**	
Benzene	ND	0.50		ppm	10	12/17/2014 1:08:58 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 1:08:58 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 1:08:58 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 1:08:58 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 1:08:58 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 1:08:58 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 1:08:58 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 1:08:58 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 1:08:58 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 1:08:58 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 1:08:58 PM	16827
Surr: 1,2-Dichloroethane-d4	88.6	70-130		%REC	10	12/17/2014 1:08:58 PM	16827
Surr: 4-Bromofluorobenzene	88.0	70-130		%REC	10	12/17/2014 1:08:58 PM	16827
Surr: Dibromofluoromethane	102	70-130		%REC	10	12/17/2014 1:08:58 PM	16827
Surr: Toluene-d8	90.8	70-130		%REC	10	12/17/2014 1:08:58 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7-Site 1-C
Project: Pond 7 Breach clean up (soil)
Collection Date: 12/3/2014 1:30:00 PM
Lab ID: 1412646-003 **Matrix:** SOIL
Received Date: 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/16/2014 11:09:48 AM	16830
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/16/2014 11:09:48 AM	16830
Surr: DNOP	84.6	63.5-128		%REC	1	12/16/2014 11:09:48 AM	16830
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 4:47:34 PM	16827
Surr: BFB	94.1	80-120		%REC	1	12/16/2014 4:47:34 PM	16827
EPA METHOD 300.0: ANIONS						Analyst: **lgp**	
Fluoride	7.7	6.0		mg/Kg	20	12/16/2014 12:46:37 PM	16851
Chloride	7500	1500		mg/Kg	1E	12/18/2014 1:48:23 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 12:46:37 PM	16851
Bromide	6.9	6.0		mg/Kg	20	12/16/2014 12:46:37 PM	16851
Nitrogen, Nitrate (As N)	23	6.0		mg/Kg	20	12/16/2014 12:46:37 PM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 12:34:13 PM	16851
Sulfate	1900	30		mg/Kg	20	12/16/2014 12:46:37 PM	16851
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	12/17/2014 10:11:15 AM	16858
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	16000	130		mg/Kg	5	12/17/2014 11:27:22 AM	16861
Manganese	330	0.20		mg/Kg	2	12/17/2014 11:25:52 AM	16861
Potassium	3700	100		mg/Kg	2	12/17/2014 11:25:52 AM	16861
Sodium	6200	51		mg/Kg	2	12/17/2014 11:25:52 AM	16861
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:15:09 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:15:09 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:15:09 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:15:09 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:15:09 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:15:09 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:15:09 AM	16859
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	12/16/2014 3:21:07 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 3:21:07 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 3:21:07 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 3:21:07 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 3:21:07 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 3:21:07 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7-Site 1-C
Project: Pond 7 Breach clean up (soil)
Collection Date: 12/3/2014 1:30:00 PM
Lab ID: 1412646-003 **Matrix:** SOIL **Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 3:21:07 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 3:21:07 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 3:21:07 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 3:21:07 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 3:21:07 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 3:21:07 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 3:21:07 PM	16852
Surr: 2-Fluorophenol	63.2	25-105		%REC	1	12/16/2014 3:21:07 PM	16852
Surr: Phenol-d5	62.7	22.3-70.3		%REC	1	12/16/2014 3:21:07 PM	16852
Surr: 2,4,6-Tribromophenol	67.5	30.4-134		%REC	1	12/16/2014 3:21:07 PM	16852
Surr: Nitrobenzene-d5	90.6	54.8-128		%REC	1	12/16/2014 3:21:07 PM	16852
Surr: 2-Fluorobiphenyl	86.8	53.3-122		%REC	1	12/16/2014 3:21:07 PM	16852
Surr: 4-Terphenyl-d14	80.4	51.8-133		%REC	1	12/16/2014 3:21:07 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **DJF**	
Benzene	ND	0.50		ppm	10	12/17/2014 2:31:25 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 2:31:25 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 2:31:25 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 2:31:25 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 2:31:25 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 2:31:25 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 2:31:25 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 2:31:25 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 2:31:25 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 2:31:25 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 2:31:25 PM	16827
Surr: 1,2-Dichloroethane-d4	87.7	70-130		%REC	10	12/17/2014 2:31:25 PM	16827
Surr: 4-Bromofluorobenzene	88.0	70-130		%REC	10	12/17/2014 2:31:25 PM	16827
Surr: Dibromofluoromethane	104	70-130		%REC	10	12/17/2014 2:31:25 PM	16827
Surr: Toluene-d8	89.0	70-130		%REC	10	12/17/2014 2:31:25 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7-Site 1-D
Project: Pond 7 Breach clean up (soil)
Collection Date: 12/3/2014 1:45:00 PM
Lab ID: 1412646-004 **Matrix:** SOIL **Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/16/2014 11:39:54 AM	16830
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/16/2014 11:39:54 AM	16830
Surr: DNOP	77.0	63.5-128		%REC	1	12/16/2014 11:39:54 AM	16830
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 5:16:15 PM	16827
Surr: BFB	93.5	80-120		%REC	1	12/16/2014 5:16:15 PM	16827
EPA METHOD 300.0: ANIONS						Analyst: **lgp**	
Fluoride	7.3	6.0		mg/Kg	20	12/16/2014 1:36:15 PM	16851
Chloride	6400	750		mg/Kg	500	12/18/2014 2:00:47 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 1:36:15 PM	16851
Bromide	7.4	6.0		mg/Kg	20	12/16/2014 1:36:15 PM	16851
Nitrogen, Nitrate (As N)	15	6.0		mg/Kg	20	12/16/2014 1:36:15 PM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 1:23:51 PM	16851
Sulfate	2400	30		mg/Kg	20	12/16/2014 1:36:15 PM	16851
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	12/17/2014 10:13:03 AM	16858
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	15000	120		mg/Kg	5	12/17/2014 11:30:23 AM	16861
Manganese	330	0.20		mg/Kg	2	12/17/2014 11:28:53 AM	16861
Potassium	4200	98		mg/Kg	2	12/17/2014 11:28:53 AM	16861
Sodium	5700	49		mg/Kg	2	12/17/2014 11:28:53 AM	16861
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:16:39 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:16:39 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:16:39 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:16:39 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:16:39 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:16:39 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:16:39 AM	16859
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	12/16/2014 3:48:29 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 3:48:29 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 3:48:29 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 3:48:29 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 3:48:29 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 3:48:29 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7-Site 1-D
Project: Pond 7 Breach clean up (soil)
Collection Date: 12/3/2014 1:45:00 PM
Lab ID: 1412646-004 **Matrix:** SOIL **Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 3:48:29 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 3:48:29 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 3:48:29 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 3:48:29 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 3:48:29 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 3:48:29 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 3:48:29 PM	16852
Surr: 2-Fluorophenol	62.2	25-105		%REC	1	12/16/2014 3:48:29 PM	16852
Surr: Phenol-d5	62.0	22.3-70.3		%REC	1	12/16/2014 3:48:29 PM	16852
Surr: 2,4,6-Tribromophenol	68.1	30.4-134		%REC	1	12/16/2014 3:48:29 PM	16852
Surr: Nitrobenzene-d5	98.8	54.8-128		%REC	1	12/16/2014 3:48:29 PM	16852
Surr: 2-Fluorobiphenyl	86.8	53.3-122		%REC	1	12/16/2014 3:48:29 PM	16852
Surr: 4-Terphenyl-d14	84.7	51.8-133		%REC	1	12/16/2014 3:48:29 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **DJF**	
Benzene	ND	0.50		ppm	10	12/17/2014 2:58:54 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 2:58:54 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 2:58:54 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 2:58:54 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 2:58:54 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 2:58:54 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 2:58:54 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 2:58:54 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 2:58:54 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 2:58:54 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 2:58:54 PM	16827
Surr: 1,2-Dichloroethane-d4	87.8	70-130		%REC	10	12/17/2014 2:58:54 PM	16827
Surr: 4-Bromofluorobenzene	89.7	70-130		%REC	10	12/17/2014 2:58:54 PM	16827
Surr: Dibromofluoromethane	104	70-130		%REC	10	12/17/2014 2:58:54 PM	16827
Surr: Toluene-d8	91.8	70-130		%REC	10	12/17/2014 2:58:54 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Pond 7 Breach clean up (soil)
Lab ID: 1412646-005 **Matrix:** SOIL

Client Sample ID: Pond 7-Site 2-A
Collection Date: 12/12/2014 11:00:00 AM
Received Date: 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/16/2014 12:09:57 PM	16830
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/16/2014 12:09:57 PM	16830
Surr: DNOP	81.1	63.5-128		%REC	1	12/16/2014 12:09:57 PM	16830
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 5:44:57 PM	16827
Surr: BFB	93.7	80-120		%REC	1	12/16/2014 5:44:57 PM	16827
EPA METHOD 300.0: ANIONS						Analyst: **lgp**	
Fluoride	3.5	0.30		mg/Kg	1	12/16/2014 1:48:40 PM	16851
Chloride	4300	750		mg/Kg	500	12/18/2014 2:13:11 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 2:01:04 PM	16851
Bromide	2.0	0.30		mg/Kg	1	12/16/2014 1:48:40 PM	16851
Nitrogen, Nitrate (As N)	22	6.0		mg/Kg	20	12/16/2014 2:01:04 PM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 1:48:40 PM	16851
Sulfate	960	30		mg/Kg	20	12/16/2014 2:01:04 PM	16851
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	12/17/2014 10:14:52 AM	16858
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	16000	120		mg/Kg	5	12/17/2014 11:33:23 AM	16861
Manganese	330	0.19		mg/Kg	2	12/17/2014 11:31:51 AM	16861
Potassium	4000	96		mg/Kg	2	12/17/2014 11:31:51 AM	16861
Sodium	5000	48		mg/Kg	2	12/17/2014 11:31:51 AM	16861
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:23:09 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:23:09 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:23:09 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:23:09 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:23:09 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:23:09 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:23:09 AM	16859
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	12/16/2014 4:15:51 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 4:15:51 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 4:15:51 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 4:15:51 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 4:15:51 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 4:15:51 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7-Site 2-A
Project: Pond 7 Breach clean up (soil)
Collection Date: 12/12/2014 11:00:00 AM
Lab ID: 1412646-005 **Matrix:** SOIL **Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 4:15:51 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 4:15:51 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 4:15:51 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 4:15:51 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 4:15:51 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 4:15:51 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 4:15:51 PM	16852
Surr: 2-Fluorophenol	59.8	25-105		%REC	1	12/16/2014 4:15:51 PM	16852
Surr: Phenol-d5	63.3	22.3-70.3		%REC	1	12/16/2014 4:15:51 PM	16852
Surr: 2,4,6-Tribromophenol	71.3	30.4-134		%REC	1	12/16/2014 4:15:51 PM	16852
Surr: Nitrobenzene-d5	99.4	54.8-128		%REC	1	12/16/2014 4:15:51 PM	16852
Surr: 2-Fluorobiphenyl	92.9	53.3-122		%REC	1	12/16/2014 4:15:51 PM	16852
Surr: 4-Terphenyl-d14	85.0	51.8-133		%REC	1	12/16/2014 4:15:51 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **DJF**	
Benzene	ND	0.50		ppm	10	12/17/2014 3:26:12 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 3:26:12 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 3:26:12 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 3:26:12 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 3:26:12 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 3:26:12 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 3:26:12 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 3:26:12 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 3:26:12 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 3:26:12 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 3:26:12 PM	16827
Surr: 1,2-Dichloroethane-d4	86.6	70-130		%REC	10	12/17/2014 3:26:12 PM	16827
Surr: 4-Bromofluorobenzene	88.9	70-130		%REC	10	12/17/2014 3:26:12 PM	16827
Surr: Dibromofluoromethane	99.3	70-130		%REC	10	12/17/2014 3:26:12 PM	16827
Surr: Toluene-d8	90.3	70-130		%REC	10	12/17/2014 3:26:12 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7-Site 2-B
Project: Pond 7 Breach clean up (soil)
Collection Date: 12/12/2014 11:15:00 AM
Lab ID: 1412646-006 **Matrix:** SOIL **Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/16/2014 12:39:59 PM	16830
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/16/2014 12:39:59 PM	16830
Surr: DNOP	85.0	63.5-128		%REC	1	12/16/2014 12:39:59 PM	16830
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 6:13:36 PM	16827
Surr: BFB	93.5	80-120		%REC	1	12/16/2014 6:13:36 PM	16827
EPA METHOD 300.0: ANIONS						Analyst: **lgp**	
Fluoride	ND	6.0		mg/Kg	20	12/16/2014 2:25:54 PM	16851
Chloride	8000	1500		mg/Kg	1E	12/18/2014 2:25:35 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 2:25:54 PM	16851
Bromide	10	6.0		mg/Kg	20	12/16/2014 2:25:54 PM	16851
Nitrogen, Nitrate (As N)	100	6.0		mg/Kg	20	12/16/2014 2:25:54 PM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 2:13:29 PM	16851
Sulfate	1300	30		mg/Kg	20	12/16/2014 2:25:54 PM	16851
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	12/17/2014 10:20:28 AM	16858
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	23000	120		mg/Kg	5	12/17/2014 11:36:25 AM	16861
Manganese	390	0.19		mg/Kg	2	12/17/2014 11:34:58 AM	16861
Potassium	3200	96		mg/Kg	2	12/17/2014 11:34:58 AM	16861
Sodium	4900	48		mg/Kg	2	12/17/2014 11:34:58 AM	16861
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:24:43 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:24:43 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:24:43 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:24:43 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:24:43 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:24:43 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:24:43 AM	16859
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	12/16/2014 4:43:10 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 4:43:10 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 4:43:10 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 4:43:10 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 4:43:10 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 4:43:10 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Pond 7 Breach clean up (soil)
Lab ID: 1412646-006 **Matrix:** SOIL

Client Sample ID: Pond 7-Site 2-B
Collection Date: 12/12/2014 11:15:00 AM
Received Date: 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 4:43:10 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 4:43:10 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 4:43:10 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 4:43:10 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 4:43:10 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 4:43:10 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 4:43:10 PM	16852
Surr: 2-Fluorophenol	88.8	25-105		%REC	1	12/16/2014 4:43:10 PM	16852
Surr: Phenol-d5	75.4	22.3-70.3	S	%REC	1	12/16/2014 4:43:10 PM	16852
Surr: 2,4,6-Tribromophenol	91.8	30.4-134		%REC	1	12/16/2014 4:43:10 PM	16852
Surr: Nitrobenzene-d5	98.9	54.8-128		%REC	1	12/16/2014 4:43:10 PM	16852
Surr: 2-Fluorobiphenyl	96.3	53.3-122		%REC	1	12/16/2014 4:43:10 PM	16852
Surr: 4-Terphenyl-d14	78.9	51.8-133		%REC	1	12/16/2014 4:43:10 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **DJF**	
Benzene	ND	0.50		ppm	10	12/17/2014 3:53:44 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 3:53:44 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 3:53:44 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 3:53:44 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 3:53:44 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 3:53:44 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 3:53:44 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 3:53:44 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 3:53:44 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 3:53:44 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 3:53:44 PM	16827
Surr: 1,2-Dichloroethane-d4	86.0	70-130		%REC	10	12/17/2014 3:53:44 PM	16827
Surr: 4-Bromofluorobenzene	88.1	70-130		%REC	10	12/17/2014 3:53:44 PM	16827
Surr: Dibromofluoromethane	100	70-130		%REC	10	12/17/2014 3:53:44 PM	16827
Surr: Toluene-d8	89.7	70-130		%REC	10	12/17/2014 3:53:44 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7-Site 2-C
Project: Pond 7 Breach clean up (soil)
Collection Date: 12/12/2014 12:35:00 PM
Lab ID: 1412646-007 **Matrix:** SOIL **Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/16/2014 1:10:06 PM	16830
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/16/2014 1:10:06 PM	16830
Surr: DNOP	80.3	63.5-128		%REC	1	12/16/2014 1:10:06 PM	16830
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 6:42:16 PM	16827
Surr: BFB	93.3	80-120		%REC	1	12/16/2014 6:42:16 PM	16827
EPA METHOD 300.0: ANIONS						Analyst: **lgp**	
Fluoride	7.7	6.0		mg/Kg	20	12/16/2014 2:50:44 PM	16851
Chloride	8000	1500		mg/Kg	1E	12/18/2014 2:38:00 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 2:50:44 PM	16851
Bromide	9.4	6.0		mg/Kg	20	12/16/2014 2:50:44 PM	16851
Nitrogen, Nitrate (As N)	15	6.0		mg/Kg	20	12/16/2014 2:50:44 PM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 2:38:19 PM	16851
Sulfate	1600	30		mg/Kg	20	12/16/2014 2:50:44 PM	16851
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	12/17/2014 10:22:18 AM	16858
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	15000	120		mg/Kg	5	12/17/2014 11:44:47 AM	16861
Manganese	320	0.20		mg/Kg	2	12/17/2014 11:43:16 AM	16861
Potassium	4200	98		mg/Kg	2	12/17/2014 11:43:16 AM	16861
Sodium	6900	49		mg/Kg	2	12/17/2014 11:43:16 AM	16861
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:26:11 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:26:11 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:26:11 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:26:11 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:26:11 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:26:11 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:26:11 AM	16859
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	12/16/2014 5:10:31 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 5:10:31 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 5:10:31 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 5:10:31 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 5:10:31 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 5:10:31 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7-Site 2-C
Project: Pond 7 Breach clean up (soil)
Collection Date: 12/12/2014 12:35:00 PM
Lab ID: 1412646-007 **Matrix:** SOIL **Received Date:** 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 5:10:31 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 5:10:31 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 5:10:31 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 5:10:31 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 5:10:31 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 5:10:31 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 5:10:31 PM	16852
Surr: 2-Fluorophenol	76.3	25-105		%REC	1	12/16/2014 5:10:31 PM	16852
Surr: Phenol-d5	68.5	22.3-70.3		%REC	1	12/16/2014 5:10:31 PM	16852
Surr: 2,4,6-Tribromophenol	80.2	30.4-134		%REC	1	12/16/2014 5:10:31 PM	16852
Surr: Nitrobenzene-d5	97.2	54.8-128		%REC	1	12/16/2014 5:10:31 PM	16852
Surr: 2-Fluorobiphenyl	91.3	53.3-122		%REC	1	12/16/2014 5:10:31 PM	16852
Surr: 4-Terphenyl-d14	78.0	51.8-133		%REC	1	12/16/2014 5:10:31 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **DJF**	
Benzene	ND	0.50		ppm	10	12/17/2014 4:21:11 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 4:21:11 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 4:21:11 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 4:21:11 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 4:21:11 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 4:21:11 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 4:21:11 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 4:21:11 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 4:21:11 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 4:21:11 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 4:21:11 PM	16827
Surr: 1,2-Dichloroethane-d4	86.1	70-130		%REC	10	12/17/2014 4:21:11 PM	16827
Surr: 4-Bromofluorobenzene	90.7	70-130		%REC	10	12/17/2014 4:21:11 PM	16827
Surr: Dibromofluoromethane	102	70-130		%REC	10	12/17/2014 4:21:11 PM	16827
Surr: Toluene-d8	87.2	70-130		%REC	10	12/17/2014 4:21:11 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7-Site 2-D
Project: Pond 7 Breach clean up (soil)
Collection Date: 12/12/2014 1:00:00 PM
Lab ID: 1412646-008 **Matrix:** SOIL
Received Date: 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/16/2014 1:40:25 PM	16830
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/16/2014 1:40:25 PM	16830
Surr: DNOP	84.1	63.5-128		%REC	1	12/16/2014 1:40:25 PM	16830
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/16/2014 7:10:53 PM	16827
Surr: BFB	92.8	80-120		%REC	1	12/16/2014 7:10:53 PM	16827
EPA METHOD 300.0: ANIONS						Analyst: **lgp**	
Fluoride	1.6	0.30		mg/Kg	1	12/16/2014 4:17:36 PM	16851
Chloride	7300	1500		mg/Kg	1E	12/18/2014 2:50:25 AM	16851
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	12/16/2014 4:30:00 PM	16851
Bromide	6.7	6.0		mg/Kg	20	12/16/2014 4:30:00 PM	16851
Nitrogen, Nitrate (As N)	20	0.30		mg/Kg	1	12/16/2014 4:17:36 PM	16851
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/16/2014 4:17:36 PM	16851
Sulfate	1700	30		mg/Kg	20	12/16/2014 4:30:00 PM	16851
MERCURY, TCLP						Analyst: **MMD**	
Mercury	ND	0.020		mg/L	1	12/17/2014 10:24:08 AM	16858
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	13000	120		mg/Kg	5	12/17/2014 11:47:50 AM	16861
Manganese	320	0.19		mg/Kg	2	12/17/2014 11:46:23 AM	16861
Potassium	3800	97		mg/Kg	2	12/17/2014 11:46:23 AM	16861
Sodium	5700	49		mg/Kg	2	12/17/2014 11:46:23 AM	16861
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	12/17/2014 10:27:48 AM	16859
Barium	ND	100		mg/L	1	12/17/2014 10:27:48 AM	16859
Cadmium	ND	1.0		mg/L	1	12/17/2014 10:27:48 AM	16859
Chromium	ND	5.0		mg/L	1	12/17/2014 10:27:48 AM	16859
Lead	ND	5.0		mg/L	1	12/17/2014 10:27:48 AM	16859
Selenium	ND	1.0		mg/L	1	12/17/2014 10:27:48 AM	16859
Silver	ND	5.0		mg/L	1	12/17/2014 10:27:48 AM	16859
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	12/16/2014 5:37:49 PM	16852
3+4-Methylphenol	ND	200		mg/L	1	12/16/2014 5:37:49 PM	16852
Phenol	ND	200		mg/L	1	12/16/2014 5:37:49 PM	16852
2,4-Dinitrotoluene	ND	0.13		mg/L	1	12/16/2014 5:37:49 PM	16852
Hexachlorobenzene	ND	0.13		mg/L	1	12/16/2014 5:37:49 PM	16852
Hexachlorobutadiene	ND	0.50		mg/L	1	12/16/2014 5:37:49 PM	16852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7-Site 2-D
Project: Pond 7 Breach clean up (soil)
Collection Date: 12/12/2014 1:00:00 PM
Lab ID: 1412646-008 **Matrix:** SOIL
Received Date: 12/12/2014 4:09:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	12/16/2014 5:37:49 PM	16852
Nitrobenzene	ND	2.0		mg/L	1	12/16/2014 5:37:49 PM	16852
Pentachlorophenol	ND	100		mg/L	1	12/16/2014 5:37:49 PM	16852
Pyridine	ND	5.0		mg/L	1	12/16/2014 5:37:49 PM	16852
2,4,5-Trichlorophenol	ND	400		mg/L	1	12/16/2014 5:37:49 PM	16852
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	12/16/2014 5:37:49 PM	16852
Cresols, Total	ND	200		mg/L	1	12/16/2014 5:37:49 PM	16852
Surr: 2-Fluorophenol	58.3	25-105		%REC	1	12/16/2014 5:37:49 PM	16852
Surr: Phenol-d5	61.9	22.3-70.3		%REC	1	12/16/2014 5:37:49 PM	16852
Surr: 2,4,6-Tribromophenol	59.9	30.4-134		%REC	1	12/16/2014 5:37:49 PM	16852
Surr: Nitrobenzene-d5	90.0	54.8-128		%REC	1	12/16/2014 5:37:49 PM	16852
Surr: 2-Fluorobiphenyl	76.6	53.3-122		%REC	1	12/16/2014 5:37:49 PM	16852
Surr: 4-Terphenyl-d14	71.8	51.8-133		%REC	1	12/16/2014 5:37:49 PM	16852
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **DJF**	
Benzene	ND	0.50		ppm	10	12/17/2014 4:48:41 PM	16827
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	12/17/2014 4:48:41 PM	16827
2-Butanone	ND	200		ppm	10	12/17/2014 4:48:41 PM	16827
Carbon tetrachloride	ND	0.50		ppm	10	12/17/2014 4:48:41 PM	16827
Chlorobenzene	ND	100		ppm	10	12/17/2014 4:48:41 PM	16827
Chloroform	ND	6.0		ppm	10	12/17/2014 4:48:41 PM	16827
1,4-Dichlorobenzene	ND	7.5		ppm	10	12/17/2014 4:48:41 PM	16827
1,1-Dichloroethene	ND	0.70		ppm	10	12/17/2014 4:48:41 PM	16827
Tetrachloroethene (PCE)	ND	0.70		ppm	10	12/17/2014 4:48:41 PM	16827
Trichloroethene (TCE)	ND	0.50		ppm	10	12/17/2014 4:48:41 PM	16827
Vinyl chloride	ND	0.20		ppm	10	12/17/2014 4:48:41 PM	16827
Surr: 1,2-Dichloroethane-d4	87.1	70-130		%REC	10	12/17/2014 4:48:41 PM	16827
Surr: 4-Bromofluorobenzene	90.7	70-130		%REC	10	12/17/2014 4:48:41 PM	16827
Surr: Dibromofluoromethane	103	70-130		%REC	10	12/17/2014 4:48:41 PM	16827
Surr: Toluene-d8	90.4	70-130		%REC	10	12/17/2014 4:48:41 PM	16827

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

ESC
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REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L739297-01

Date Received : December 17, 2014
Description :

Site ID :

Sample ID : 1412646-001B POND 7-SITE 1-A

Project # :

Collected By :
Collection Date : 12/03/14 13:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	12/18/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/17/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/17/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/18/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 12/18/14 14:00 Printed: 12/18/14 14:00
L739297-01 (IGNITABILITY) - Did Not Ignite @ 170 F

ESC
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REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L739297-02

Date Received : December 17, 2014
Description :

Site ID :

Sample ID : 1412646-002B 7-SITE 1-B

Project # :

Collected By :
Collection Date : 12/03/14 13:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	12/18/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/17/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/17/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/18/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 12/18/14 14:00 Printed: 12/18/14 14:00
L739297-02 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L739297-03

Date Received : December 17, 2014
Description :

Site ID :

Sample ID : 1412646-003B 7-SITE 1-C

Project # :

Collected By :
Collection Date : 12/03/14 13:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	12/18/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/17/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/17/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/18/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 12/18/14 14:00 Printed: 12/18/14 14:00
L739297-03 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L739297-04

Date Received : December 17, 2014
Description :

Site ID :

Sample ID : 1412646-004B 7-SITE 1-D

Project # :

Collected By :
Collection Date : 12/03/14 13:45

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	12/18/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/17/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/17/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/18/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 12/18/14 14:00 Printed: 12/18/14 14:01
L739297-04 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L739297-05

Date Received : December 17, 2014
Description :

Site ID :

Sample ID : 1412646-005B 7-SITE 2-A

Project # :

Collected By :
Collection Date : 12/12/14 11:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	12/18/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/17/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/17/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/18/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 12/18/14 14:00 Printed: 12/18/14 14:01
L739297-05 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L739297-06

Date Received : December 17, 2014
Description :

Site ID :

Sample ID : 1412646-006B 7-SITE 2-B

Project # :

Collected By :
Collection Date : 12/12/14 11:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	12/18/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/17/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/17/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/18/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 12/18/14 14:00 Printed: 12/18/14 14:01
L739297-06 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
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ESC Sample # : L739297-07

Date Received : December 17, 2014
Description :

Site ID :

Sample ID : 1412646-007B 7-SITE 2-C

Project # :

Collected By :
Collection Date : 12/12/14 12:35

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	12/18/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/17/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/17/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/18/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 12/18/14 14:00 Printed: 12/18/14 14:01
L739297-07 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

December 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L739297-08

Date Received : December 17, 2014
Description :

Site ID :

Sample ID : 1412646-008B 7-SITE 2-D

Project # :

Collected By :
Collection Date : 12/12/14 13:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	12/18/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/17/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/17/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/18/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.
.
Reported: 12/18/14 14:00 Printed: 12/18/14 14:01
L739297-08 (IGNITABILITY) - Did Not Ignite @ 170 F

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Hall Environmental Analysis Laboratory

4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L739297

December 18, 2014

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Reactive CN (SW846 7.3.3.2)	< .125	mg/kg			WG760461	12/17/14 16:38
Reactive Sulf.(SW846 7.3.4.1)	< 25	mg/kg			WG760460	12/18/14 07:35

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Ignitability	Deg. F	0.00	0.00	0.00	10	L739297-01	WG760466
Reactive CN (SW846 7.3.3.2)	mg/kg	0.0	0.0	0.0	20	L739297-01	WG760461
Corrosivity		0.0	0.0	0.0	10	L739297-01	WG760514
Reactive Sulf.(SW846 7.3.4.1)	mg/kg	0.0	0.0	0.0	20	L739297-01	WG760460

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Ignitability	Deg. F	82	83.0	101.	93-107	WG760466
Reactive CN (SW846 7.3.3.2)	mg/kg	.1	0.109	109.	50-150	WG760461
Corrosivity		5.9	5.90	100.	98.3-101.7	WG760514
Reactive Sulf.(SW846 7.3.4.1)	mg/kg	100	94.0	94.0	70-130	WG760460

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
Ignitability	Deg. F	83.0	83.0	101.	93-107	0.00	20	WG760466
Reactive CN (SW846 7.3.3.2)	mg/kg	0.106	0.109	106.	50-150	2.79	20	WG760461
Corrosivity		5.90	5.90	100.	98.3-101.7	0.0	10	WG760514
Reactive Sulf.(SW846 7.3.4.1)	mg/kg	89.0	94.0	89.0	70-130	5.46	20	WG760460

Batch number /Run number / Sample number cross reference

WG760466: R3010471: L739297-01 02 03 04 05 06 07 08
WG760461: R3010523: L739297-01 02 03 04 05 06 07 08
WG760514: R3010606: L739297-01 02 03 04 05 06 07 08
WG760460: R3010692: L739297-01 02 03 04 05 06 07 08

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412646**

19-Dec-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach clean up (soil)

Sample ID **MB-16851** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **16851** RunNo: **23185**

Prep Date: **12/16/2014** Analysis Date: **12/16/2014** SeqNo: **684796** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrite (As N)	ND	0.30								
Bromide	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								
Phosphorus, Orthophosphate (As P	ND	1.5								
Sulfate	ND	1.5								

Sample ID **LCS-16851** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **16851** RunNo: **23185**

Prep Date: **12/16/2014** Analysis Date: **12/16/2014** SeqNo: **684797** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.4	0.30	1.500	0	95.6	90	110			
Chloride	14	1.5	15.00	0	91.5	90	110			
Nitrogen, Nitrite (As N)	2.9	0.30	3.000	0	95.1	90	110			
Bromide	7.1	0.30	7.500	0	94.9	90	110			
Nitrogen, Nitrate (As N)	7.2	0.30	7.500	0	95.4	90	110			
Phosphorus, Orthophosphate (As P	14	1.5	15.00	0	92.2	90	110			
Sulfate	28	1.5	30.00	0	93.4	90	110			

Sample ID **1412646-001AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **Pond 7-Site 1-A** Batch ID: **16851** RunNo: **23185**

Prep Date: **12/16/2014** Analysis Date: **12/16/2014** SeqNo: **684799** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.3	0.30	1.500	3.117	10.7	13.6	100			S
Bromide	9.7	0.30	7.500	2.633	93.7	87	105			
Nitrogen, Nitrate (As N)	20	0.30	7.500	11.17	112	85.3	110			S

Sample ID **1412646-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **Pond 7-Site 1-A** Batch ID: **16851** RunNo: **23185**

Prep Date: **12/16/2014** Analysis Date: **12/16/2014** SeqNo: **684800** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.6	0.30	1.500	3.117	29.0	13.6	100	8.02	20	
Bromide	9.7	0.30	7.500	2.633	94.8	87	105	0.885	20	
Nitrogen, Nitrate (As N)	20	0.30	7.500	11.17	114	85.3	110	0.965	20	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412646**

19-Dec-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach clean up (soil)

Sample ID **MB-16830**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **16830**	RunNo: **23158**
Prep Date: **12/15/2014**	Analysis Date: **12/16/2014**	SeqNo: **684058** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.4		10.00		83.7	63.5	128			

Sample ID **LCS-16830**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **16830**	RunNo: **23158**
Prep Date: **12/15/2014**	Analysis Date: **12/16/2014**	SeqNo: **684059** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	108	68.6	130			
Surr: DNOP	4.9		5.000		97.4	63.5	128			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412646**

19-Dec-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach clean up (soil)

Sample ID **MB-16827**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **16827**	RunNo: **23167**
Prep Date: **12/15/2014**	Analysis Date: **12/16/2014**	SeqNo: **684613** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.6	80	120			

Sample ID **LCS-16827**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **16827**	RunNo: **23167**
Prep Date: **12/15/2014**	Analysis Date: **12/16/2014**	SeqNo: **684614** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	82.8	65.8	139			
Surr: BFB	990		1000		99.3	80	120			

Sample ID **1412646-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Pond 7-Site 1-A**	Batch ID: **16827**	RunNo: **23167**
Prep Date: **12/15/2014**	Analysis Date: **12/16/2014**	SeqNo: **684621** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	24.90	0	91.9	47.9	144			
Surr: BFB	1000		996.0		104	80	120			

Sample ID **1412646-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Pond 7-Site 1-A**	Batch ID: **16827**	RunNo: **23167**
Prep Date: **12/15/2014**	Analysis Date: **12/16/2014**	SeqNo: **684622** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	24.93	0	103	47.9	144	11.0	29.9	
Surr: BFB	1000		997.0		103	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412646**

19-Dec-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach clean up (soil)

Sample ID **1412646-002ams** SampType: **MS** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **Pond 7-Site 1-B** Batch ID: **16827** RunNo: **23207**

Prep Date: **12/15/2014** Analysis Date: **12/17/2014** SeqNo: **685607** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.50	0.9960	0	99.9	32.2	145			
Chlorobenzene	ND	100	0.9960	0	115	32.4	142			
1,1-Dichloroethene	0.96	0.70	0.9960	0	96.7	32.6	155			
Trichloroethene (TCE)	0.98	0.50	0.9960	0	98.0	29.2	150			
Surr: 1,2-Dichloroethane-d4	4.3		4.980		85.4	70	130			
Surr: 4-Bromofluorobenzene	4.6		4.980		91.9	70	130			
Surr: Dibromofluoromethane	4.9		4.980		99.3	70	130			
Surr: Toluene-d8	4.6		4.980		91.4	70	130			

Sample ID **1412646-002amsd** SampType: **MSD** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **Pond 7-Site 1-B** Batch ID: **16827** RunNo: **23207**

Prep Date: **12/15/2014** Analysis Date: **12/17/2014** SeqNo: **685608** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.50	0.9960	0	90.4	32.2	145	9.91	20	
Chlorobenzene	ND	100	0.9960	0	100	32.4	142	0	20	
1,1-Dichloroethene	0.92	0.70	0.9960	0	92.1	32.6	155	4.97	20	
Trichloroethene (TCE)	0.91	0.50	0.9960	0	91.3	29.2	150	7.09	20	
Surr: 1,2-Dichloroethane-d4	4.3		4.980		86.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	4.6		4.980		92.0	70	130	0	0	
Surr: Dibromofluoromethane	5.0		4.980		100	70	130	0	0	
Surr: Toluene-d8	4.5		4.980		90.2	70	130	0	0	

Sample ID **mb-16827** SampType: **MBLK** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **PBS** Batch ID: **16827** RunNo: **23207**

Prep Date: **12/15/2014** Analysis Date: **12/17/2014** SeqNo: **685615** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
2-Butanone	ND	20								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	10								
Chloroform	ND	0.60								
1,4-Dichlorobenzene	ND	0.75								
1,1-Dichloroethene	ND	0.070								
Tetrachloroethene (PCE)	ND	0.070								
Trichloroethene (TCE)	ND	0.050								
Vinyl chloride	ND	0.020								
Surr: 1,2-Dichloroethane-d4	0.40		0.5000		80.8	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412646**

19-Dec-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach clean up (soil)

Sample ID **mb-16827**	SampType: **MBLK**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **PBS**	Batch ID: **16827**	RunNo: **23207**
Prep Date: **12/15/2014**	Analysis Date: **12/17/2014**	SeqNo: **685615** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.45		0.5000		89.2	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		98.6	70	130			
Surr: Toluene-d8	0.47		0.5000		93.7	70	130			

Sample ID **lcs-16827**	SampType: **LCS**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **LCSS**	Batch ID: **16827**	RunNo: **23207**
Prep Date: **12/15/2014**	Analysis Date: **12/17/2014**	SeqNo: **685616** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.050	1.000	0	85.1	70	130			
Chlorobenzene	ND	10	1.000	0	96.1	70	130			
1,1-Dichloroethene	0.95	0.070	1.000	0	95.2	60.5	160			
Trichloroethene (TCE)	0.82	0.050	1.000	0	81.8	58.8	139			
Surr: 1,2-Dichloroethane-d4	0.41		0.5000		82.8	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		87.3	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		100	70	130			
Surr: Toluene-d8	0.45		0.5000		90.2	70	130			

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412646**

19-Dec-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach clean up (soil)

Sample ID **mb-16852**	SampType: **MBLK**	TestCode: **EPA Method 8270C TCLP**
Client ID: **PBS**	Batch ID: **16852**	RunNo: **23166**
Prep Date: **12/16/2014**	Analysis Date: **12/16/2014**	SeqNo: **684892** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.13		0.2000		64.4	25	105			
Surr: Phenol-d5	0.11		0.2000		54.0	22.3	70.3			
Surr: 2,4,6-Tribromophenol	0.18		0.2000		89.8	30.4	134			
Surr: Nitrobenzene-d5	0.084		0.1000		83.6	54.8	128			
Surr: 2-Fluorobiphenyl	0.069		0.1000		68.9	53.3	122			
Surr: 4-Terphenyl-d14	0.072		0.1000		71.9	51.8	133			

Sample ID **lcs-16852**	SampType: **LCS**	TestCode: **EPA Method 8270C TCLP**
Client ID: **LCSS**	Batch ID: **16852**	RunNo: **23166**
Prep Date: **12/16/2014**	Analysis Date: **12/16/2014**	SeqNo: **684893** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.062	0.010	0.1000	0	61.9	52.2	95.7			
3+4-Methylphenol	0.18	0.010	0.2000	0	87.6	52.4	142			
2,4-Dinitrotoluene	0.058	0.010	0.1000	0	58.3	43.4	110			
Hexachlorobenzene	0.072	0.010	0.1000	0	71.9	43.6	88.4			
Hexachlorobutadiene	0.057	0.010	0.1000	0	57.2	38.6	88.4			
Hexachloroethane	0.058	0.010	0.1000	0	57.7	45.7	83.6			
Nitrobenzene	0.065	0.010	0.1000	0	64.6	51.9	112			
Pentachlorophenol	0.050	0.010	0.1000	0	50.5	15.2	81.5			
Pyridine	0.058	0.010	0.1000	0	57.8	11.2	95.1			
2,4,5-Trichlorophenol	0.069	0.010	0.1000	0	69.2	46.9	110			
2,4,6-Trichlorophenol	0.066	0.010	0.1000	0	65.8	36.1	111			
Cresols, Total	0.24	0.010	0.3000	0	79.0	30	136			
Surr: 2-Fluorophenol	0.12		0.2000		59.2	25	105			
Surr: Phenol-d5	0.12		0.2000		61.6	22.3	70.3			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412646**

19-Dec-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach clean up (soil)

Sample ID **lcs-16852**	SampType: **LCS**	TestCode: **EPA Method 8270C TCLP**
Client ID: **LCSS**	Batch ID: **16852**	RunNo: **23166**
Prep Date: **12/16/2014**	Analysis Date: **12/16/2014**	SeqNo: **684893** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.13		0.2000		66.5	30.4	134			
Surr: Nitrobenzene-d5	0.068		0.1000		67.9	54.8	128			
Surr: 2-Fluorobiphenyl	0.066		0.1000		65.9	53.3	122			
Surr: 4-Terphenyl-d14	0.058		0.1000		58.0	51.8	133			

Sample ID **1412646-001ams**	SampType: **MS**	TestCode: **EPA Method 8270C TCLP**
Client ID: **Pond 7-Site 1-A**	Batch ID: **16852**	RunNo: **23166**
Prep Date: **12/16/2014**	Analysis Date: **12/16/2014**	SeqNo: **684902** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.082	0.010	0.1000	0	82.5	43.1	114			
3+4-Methylphenol	0.24	0.010	0.2000	0	120	37.8	128			
2,4-Dinitrotoluene	0.080	0.010	0.1000	0	80.3	36.5	125			
Hexachlorobenzene	0.096	0.010	0.1000	0	96.4	41.4	108			
Hexachlorobutadiene	0.069	0.010	0.1000	0	69.2	30.4	101			
Hexachloroethane	0.073	0.010	0.1000	0	73.4	37.3	115			
Nitrobenzene	0.091	0.010	0.1000	0	90.8	40.2	132			
Pentachlorophenol	0.056	0.010	0.1000	0	56.5	8.72	103			
Pyridine	0.073	0.010	0.1000	0	73.1	9.36	106			
2,4,5-Trichlorophenol	0.075	0.010	0.1000	0	74.8	16.5	123			
2,4,6-Trichlorophenol	0.070	0.010	0.1000	0	69.6	11.3	117			
Cresols, Total	0.32	0.010	0.3000	0	107	23.2	151			
Surr: 2-Fluorophenol	0.12		0.2000		62.0	25	105			
Surr: Phenol-d5	0.12		0.2000		58.5	22.3	70.3			
Surr: 2,4,6-Tribromophenol	0.16		0.2000		78.5	30.4	134			
Surr: Nitrobenzene-d5	0.098		0.1000		97.7	54.8	128			
Surr: 2-Fluorobiphenyl	0.090		0.1000		90.3	53.3	122			
Surr: 4-Terphenyl-d14	0.083		0.1000		82.6	51.8	133			

Sample ID **1412646-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8270C TCLP**
Client ID: **Pond 7-Site 1-A**	Batch ID: **16852**	RunNo: **23166**
Prep Date: **12/16/2014**	Analysis Date: **12/16/2014**	SeqNo: **684903** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.085	0.010	0.1000	0	85.4	43.1	114	3.43	28.4	
3+4-Methylphenol	0.28	0.010	0.2000	0	140	37.8	128	15.3	29.4	S
2,4-Dinitrotoluene	0.075	0.010	0.1000	0	74.9	36.5	125	6.94	24.7	
Hexachlorobenzene	0.094	0.010	0.1000	0	94.4	41.4	108	2.01	20	
Hexachlorobutadiene	0.068	0.010	0.1000	0	68.4	30.4	101	1.22	29	
Hexachloroethane	0.072	0.010	0.1000	0	72.3	37.3	115	1.51	25.2	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412646**

19-Dec-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach clean up (soil)

Sample ID **1412646-001amsd** SampType: **MSD** TestCode: **EPA Method 8270C TCLP**

Client ID: **Pond 7-Site 1-A** Batch ID: **16852** RunNo: **23166**

Prep Date: **12/16/2014** Analysis Date: **12/16/2014** SeqNo: **684903** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	0.089	0.010	0.1000	0	88.7	40.2	132	2.32	26.9	
Pentachlorophenol	0.050	0.010	0.1000	0	50.3	8.72	103	11.6	59.2	
Pyridine	0.073	0.010	0.1000	0	73.4	9.36	106	0.519	48	
2,4,5-Trichlorophenol	0.070	0.010	0.1000	0	70.3	16.5	123	6.31	70.8	
2,4,6-Trichlorophenol	0.067	0.010	0.1000	0	67.2	11.3	117	3.54	78	
Cresols, Total	0.37	0.010	0.3000	0	122	23.2	151	12.4	30.8	
Surr: 2-Fluorophenol	0.12		0.2000		62.4	25	105	0	0	
Surr: Phenol-d5	0.12		0.2000		61.4	22.3	70.3	0	0	
Surr: 2,4,6-Tribromophenol	0.16		0.2000		78.1	30.4	134	0	0	
Surr: Nitrobenzene-d5	0.095		0.1000		94.7	54.8	128	0	0	
Surr: 2-Fluorobiphenyl	0.088		0.1000		88.4	53.3	122	0	0	
Surr: 4-Terphenyl-d14	0.081		0.1000		80.6	51.8	133	0	0	

Qualifiers:

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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412646**

19-Dec-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach clean up (soil)

Sample ID **MB-16858**	SampType: **MBLK**	TestCode: **MERCURY, TCLP**
Client ID: **PBW**	Batch ID: **16858**	RunNo: **23189**
Prep Date: **12/16/2014**	Analysis Date: **12/17/2014**	SeqNo: **684937** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID **LCS-16858**	SampType: **LCS**	TestCode: **MERCURY, TCLP**
Client ID: **LCSW**	Batch ID: **16858**	RunNo: **23189**
Prep Date: **12/16/2014**	Analysis Date: **12/17/2014**	SeqNo: **684938** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	106	80	120			

Qualifiers:

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- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412646**

19-Dec-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach clean up (soil)

Sample ID **MB-16861**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **16861**	RunNo: **23194**
Prep Date: **12/16/2014**	Analysis Date: **12/17/2014**	SeqNo: **685011** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	25								
Manganese	ND	0.10								
Potassium	ND	50								
Sodium	ND	25								

Sample ID **LCS-16861**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **16861**	RunNo: **23194**
Prep Date: **12/16/2014**	Analysis Date: **12/17/2014**	SeqNo: **685012** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2500	25	2500	0	100	80	120			
Manganese	24	0.10	25.00	0	94.6	80	120			
Potassium	2400	50	2500	0	95.4	80	120			
Sodium	2400	25	2500	0	96.9	80	120			

Qualifiers:

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- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412646**

19-Dec-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach clean up (soil)

Sample ID **MB-16859**	SampType: **MBLK**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **PBW**	Batch ID: **16859**	RunNo: **23194**
Prep Date: **12/16/2014**	Analysis Date: **12/17/2014**	SeqNo: **685037** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID **LCS-16859**	SampType: **LCS**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **LCSW**	Batch ID: **16859**	RunNo: **23194**
Prep Date: **12/16/2014**	Analysis Date: **12/17/2014**	SeqNo: **685038** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	107	80	120			
Barium	ND	100	0.5000	0	97.2	80	120			
Cadmium	ND	1.0	0.5000	0	101	80	120			
Chromium	ND	5.0	0.5000	0	95.5	80	120			
Lead	ND	5.0	0.5000	0	97.6	80	120			
Selenium	ND	1.0	0.5000	0	99.8	80	120			
Silver	ND	5.0	0.1000	0	111	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1412646** RcptNo: **1**

Received by/date: CS 12/12/14

Logged By: **Lindsay Mangin** **12/12/2014 4:09:00 PM**

Completed By: **Lindsay Mangin** **12/15/2014 9:22:46 AM**

Reviewed By: IO 12/15/2014

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.5	Good	Not Present			

Chain-of-Custody Record

Client: WESTERN REFINING

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING ROAD

Gallup, NM 87301

Phone #: 505 - 722-3833

Email or Fax#: 505-863-0930

QA/QC Package:

X Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

☐ Standard X Rush ASAP

Project Name:

Pond 7 Breach clean up (soil)

Project #:

Clean up - Sites 1 and 2

Project Manager:

Cheryl Johnson

Cheryl.johnson@wnr.com

Sampler: C. Johnson

On Ice: ☒ Yes ☐ No

Sample Temperature: 5.5°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

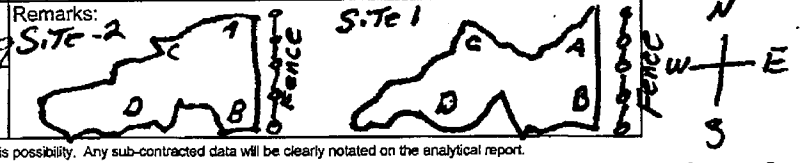
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1412444	8015B (DRO/GRO/MRO) Extended	CATIONS/ANIONS	8260B - TCLP	8270 - TCLP	RCRA 8 METALS - TCLP	RCI			8260B +MTBE	8270 + PHENOLS	CATIONS/ANIONS	8015B EXTENDED	WQCC METALS including RCRA 8 Metals (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
12-3-14	1:00	Soil	Pond 7-Site1- A	2-9 oz Jar	None	-001	X	X	X	X	X	X										
12-3-14	1:15	Soil	Pond 7-Site1- B	2-9 oz Jar	None	-002	X	X	X	X	X	X										
12-3-14	1:30	Soil	Pond 7-Site1- C	2-9 oz Jar	None	-003	X	X	X	X	X	X										
12-3-14	1:45	Soil	Pond 7-Site1- D	2-9 oz Jar	None	-004	X	X	X	X	X	X										
12-12-14	11:00	Soil	Pond 7-Site2- A	2-9 oz Jar	None	-005	X	X	X	X	X	X										
12-12-14	11:15	Soil	Pond 7-Site2- B	2-9 oz Jar	None	-006	X	X	X	X	X	X										
12-12-14	11:35	Soil	Pond 7-Site2- C	2-9 oz Jar	None	-007	X	X	X	X	X	X										
12-12-14	1:00	Soil	Pond 7-Site2- D	2-9 oz Jar	None	-008	X	X	X		X	X										
													AT 12/15/14									

Date:	Time:	Relinquished by:	Received by:	Date	Time
12-12-14	1609			12/12/14	1609
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:



If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Survy of The Site 1 in Sections 29+32 and Site 2 in Section 32 T15N R15W N.M.P.M. McKinley County N.M U.S.A

per BL analyze all samples / AT 12/15/14

Chavez, Carl J, EMNRD

From: Larsen, Thurman <Thurman.Larsen@wnr.com>
Sent: Friday, February 13, 2015 9:03 AM
To: VanHorn, Kristen, NMENV; Chavez, Carl J, EMNRD
Cc: Powell, Brandon, EMNRD
Subject: FCC FEED INCIDENT INITIAL C-141 020715
Attachments: FCC SPILL C-141 Initial 020715.pdf

Dear Kristen and Carl,

The following is the Initial C-141 Report for the FCC Feed spill that occurred on February 7, 2015. Please contact me if you require any additional information.

Regards,

Beck Larsen
Environmental Engineer
Western Refining Southwest (Gallup Refinery)
92 Giant Crossing Road - New Mailing Address
Gallup, NM 87301
Office: (505) 722-0258
cell: (505) 862-1749

District I
1625 N. French Dr., Hobbs, NM 88240
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: WESTERN REFINING	Contact: Beck Larsen
Address: I-40 / EXIT 39, JAMESTOWN,NM 87347	Telephone No.(505) 722-0258
Facility Name: WESTERN RENINING (GALLUP REFINERY)	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15 N	15 W					MCKINLEY

Latitude 35° 029' 024" **Longitude** 108° 024' 024"

NATURE OF RELEASE

Type of Release: FCC Feed	Volume of Release 50 bbls	Volume Recovered: Pending
Source of Release: Open Bleeder Valve at T-703 Suction Pump	Date and Hour of Occurrence 02/07/15 @ 1100 hrs	Date and Hour of Discovery 02/07/15 @ 1100 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD (B. Powel/ C. Chavez); NMED (R Horowitz/K. Vanhorn); NM St Police	
By Whom? Beck Larsen	Date and Hour: 2/7/15- (1418, 1418); (1408, 1411); 1405	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.* No

Describe Cause of Problem and Remedial Action Taken.* At about 1100 hrs, offsite operators opened the T-703 suction valve and the FCC/RRR loading pump valve. The bleeder to T-703 suction side was left open. The pump was turned on allowing FCC Feed to flow out of the Sample valve onto the ground. The FCC Feed was contained earthen dike in the tank farm. The onsite vacuum truck was dispatched. The Environment depart (On-call) was notified. Environmental personnel arrived at 1230 hrs. A remediation plan was discussed. Agency personnel were notified as indicated above. Contractor cleanup personnel were notified. Contractor personnel and equipment arrived on scene on Sunday, February 8, and began to remove the material via shovels and a super-sucker vacuum truck. Cleanup is in progress. Spill Coordinates: are approximately Lat: 35 deg 29'13.2" N, Long: 108 deg 25'28.4" W. There were no injuries or fires that occurred during the incident.

Describe Area Affected and Cleanup Action Taken.* The affected area was about 140 feet long by 20-30 feet wide (estimated) underneath the center pipe rack in the Hot Oil Tank Farm near Tank T-703. Lat: 35 deg 29'13.2" N, Long: 108 deg 25'28.4" W. The FCC material congeals and will have to be removed via super- sucker and via manual labor. The material will have to be dug using shovel and put into drums or a roll-off box, Once the FCC material is properly removed, initial soil samples will be collected so as to determine the extent of contamination; however, due to the age of the refinery and from past practices, a proper clean up standard will be difficult to ascertain.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Beck Larsen	Approved by Environmental Specialist:	
Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: thurman.larsen@wnr.com	Conditions of Approval:	Attached ☐
Date: 02/13/20145 Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Larsen, Thurman <Thurman.Larsen@wnr.com>
Sent: Monday, December 08, 2014 9:44 AM
To: VanHorn, Kristen, NMENV; Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV
Subject: NHT LEAK INITIAL and FINAL C-141 REPORT for 11-30-14
Attachments: NHT Leak 113014 Init-Final.pdf

Kristen and Carl,
The above attachment is the Initial and Final C-141 Reports for the NHT Leak that occurred on 11-30-14. Material was confined to the slab and no soil was impacted. Material was cleaned up expeditiously as required.
Thanks,

Beck Larsen
Environmental Engineer
Western Refining Southwest (Gallup Refinery)
92 Giant Crossing Road - New Mailing Address
Gallup, NM 87301
Office: (505) 722-0258
cell: (505) 862-1749

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State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: WESTERN REFINING	Contact: Beck Larsen
Address: I-40 / EXIT 39, JAMESTOWN,NM 87347	Telephone No.(505) 722-0258
Facility Name: WESTERN RENINING (GALLUP REFINERY)	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15 N	15 W					MCKINLEY

Latitude__35° 029' 024"__ **Longitude**__108° 024' 024"__

NATURE OF RELEASE

Type of Release: NHT Feed stream containing Naphtha and Hydrogen	Volume of Release ~ 10 bbls	Volume Recovered: N/A
Source of Release: pinhole in the NHT Piping inlet going to the Fin Fan	Date and Hour of Occurrence 11/30/14 @ 1715 hrs	Date and Hour of Discovery 11/30/14 @ 1715 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD (B. Powel/ C. Chavez); NMED (R Horowitz/K. Vanhorn)	
By Whom? Beck Larsen	Date and Hour: 12/01/14 1712 / 1715; 1719/ 1722 hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.* No

Describe Cause of Problem and Remedial Action Taken.*
A 1/8 inch pinhole was found in the inlet piping to the NHT Fin Fan. Valve was closed and isolating the fin fan at 1740 hrs. Release was from 1715 hrs to 1820 hrs with the last 45 minutes with foam applied. Operations applied steam to release until ERT team responded within the first 20 minutes and began applying foam to the affected area.

Describe Area Affected and Cleanup Action Taken.*
Concrete containment pad in the NHT Unit. Area was cleaned up. No contamination to soil was impacted.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Beck Larsen	Approved by Environmental Specialist:	
Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: thurman.larsen@wnr.com	Conditions of Approval:	Attached ☐
Date: 12/8/2014 Phone: (505) 722-0258		

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Release Notification and Corrective Action

OPERATOR

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Name of Company: WESTERN REFINING	Contact: Beck Larsen
Address: I-40 / EXIT 39, JAMESTOWN,NM 87347	Telephone No.(505) 722-0258
Facility Name: WESTERN RENINING (GALLUP REFINERY)	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15 N	15 W					MCKINLEY

Latitude 35° 029' 024" **Longitude** 108° 024' 024"

NATURE OF RELEASE

Type of Release: NHT Feed stream containing Naphtha and Hydrogen	Volume of Release > 5 bbls	Volume Recovered: N/A
Source of Release: pinhole in the NHT Piping inlet going to the Fin Fan	Date and Hour of Occurrence 11/30/14 @ 1715 hrs	Date and Hour of Discovery 11/30/14 @ 1715 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD (B. Powel/ C. Chavez); NMED (R Horowitz/K. Vanhorn)	
By Whom? Beck Larsen	Date and Hour: 12/01/14 1712 / 1715; 1719/ 1722 hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.* No

Describe Cause of Problem and Remedial Action Taken.*
A 1/8 inch pinhole was found in the inlet piping to the NHT Fin Fan. Valve was closed and isolating the fin fan at 1740 hrs. Release was from 1715 hrs to 1820 hrs with the last 45 minutes with foam applied. Operations applied steam to release until ERT team responded within the first 20 minutes and began applying foam to the affected area.

Describe Area Affected and Cleanup Action Taken.*
Concrete containment pad in the NHT Unit

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Beck Larsen	Approved by Environmental Specialist:	
Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: thurman.larsen@wnr.com	Conditions of Approval:	Attached ☐
Date: 12/8/2014 Phone: (505) 722-0258		

September 12, 2014

FED EX# 8010 5359 9376

Mr. John E. Kieling, Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg. 1
Santa Fe, New Mexico 87505-6303

RE: RESPONSE TO DISAPPROVAL
EVAPORATION POND 7 DIKE BREACH
WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-WRG-14-003

Dear Mr. Kieling:

This letter provides the response of Western Refining Southwest, Inc.'s Gallup refinery ("Western") to the New Mexico Environment Department ("NMED") letter and comments of August 4, 2014 relating to a minor release of treated wastewater from Evaporation Pond 7 and unrelated seepage near the evaporation ponds that was observed during a stormwater inspection. Without making any admissions, and reserving all applicable rights and defenses, including without limitation the right to dispute whether the release is subject to corrective action under the RCRA Post Closure Care Permit (the "Permit") and to assert that 40 CFR Part 264 Subpart K is inapplicable to the evaporation ponds because such ponds are not RCRA-regulated units, Western provides below responses to each of NMED's comments following a background discussion of communications between Western and the NMED on these issues.

I.
Background

To recap the relevant background briefly, on March 19, 2014, Western orally and by email notified the NMED of a release of treated wastewater from Evaporation Pond 7 due to a breach in the dike.[1] On March 20, 2014 Western received an email from Kristin Van Horn of NMED advising that submittal of a New Mexico Oil Conservation Division C-141 form would satisfy reporting requirements of the release under the Permit, and seeking submittal of a letter report on the release. Under a reservation of rights, Western submitted an April 16, 2014 letter report to NMED in response to its March 20, 2014 request. NMED issued an August 4, 2014 "disapproval" with comments to which this letter responds.

II.
Specific Responses

For reading ease, we have repeated the portions of the "Comments" from NMED's letter

[1] Western also notified the New Mexico Oil Conservation Division orally and by email on March 19, 2014 of the release.

that require clarification or a response. We have not included the portions of the "Comments" that repeated statements in Western's April 16th letter or are background discussions.

A. NMED Comment 1

The evaporation ponds are not waters of the state as defined in NMAC; however, evaporation ponds are hazardous waste surface impoundments, because hazardous waste has been discharged to the ponds in the past, and wastewater stored in the evaporation ponds remains subject to RCRA Subtitle C from its point of generation through and including its storage and treatment in the evaporation ponds. Once the wastewater left evaporation pond 7 through the breach, it became a release from a solid waste management unit (SWMU), SWMU No. 2, which the Permittee is required under 40 CFR § 264.101 and Permit Sections IV.H (Corrective Action Procedures) and IV.B.1 (Corrective Action beyond the Facility Boundary) to properly investigate and, if necessary, remediate any release. Such a release is also subject to the reporting requirements of Permit Section II.C. Additionally, screening levels indicate the potential for contamination; therefore, the screening levels used in the Facility-Wide Groundwater Monitoring Report (the Permittee compares the surface water samples collected at the evaporation ponds to: WQCC 20.6.2.3103 NMAC; 40 CFR § 141.62 MCL (Apr 2013); and EPA RSL Tap Water (Nov 2012)) are used as a screening tool to determine whether or not the wastewater held in the evaporation ponds may contaminate soil or groundwater.

Western Response to Comment 1

Setting aside for this response our respective positions on the applicability of certain legal authority to the evaporation ponds, we believe that Western and NMED share the same interest in assuring that the evaporation pond system at the Gallup refinery is well-functioning and protective of human health and the environment. As a responsible owner and operator of a wastewater treatment system that includes evaporation ponds, Western maintains, and repairs as necessary, the evaporation ponds. Additionally, Western is proactively installing a more aggressive evaporation system, has made extensive improvements to the pond dikes to ensure integrity and is implementing water conservation measures to help control freeboard levels. These measures are being successful in maintaining appropriate freeboard levels.

For example, and as Western noted in its April 16, 2014 letter to John Kieling of NMED and Carl Chavez of OCD in a section entitled "Pond Dike Improvements and Pond Management," Western voluntarily commenced significant pond dike improvement activities in January 2014. In fact, earth moving equipment was on-site at the refinery on March 19, 2014 in connection with those activities and, as a result, dike improvements at Pond 7 were undertaken immediately following the minor breach.

To summarize the evaporation pond improvement activities described in the April 16th letter, Western's activities included:

- Improving approximately 80% of the pond dikes by an outside contractor, Franklin Earthmoving, Inc.;
- Widening pond dikes and improving the outside slope of berms;

- Repairing water and wind erosion to the dikes caps (photos of this work were included with Western's April 16, 2014 letter); and
- Rebuilding the area impacted by the Pond 7 breach.

This work was completed in May 2014 at a cost of $425,000. With respect to the dike improvements, and Pond 7 dike repair work, included in these activities, ninety five percent of the material used for the pond repairs was virgin soil dug from two locations on refinery property. The other five percent was primarily rip-rap material consisting of construction demolition material such as concrete. The soil was taken to the ponds with dump trucks. The unloaded soil was then moved with a front loader or in tight areas an excavator and a dozer was used to compact and contour the soil. The pond berms were widened and where room allowed the side walls were contoured to improve the outside slope of berms. Attached for your information is a figure depicting the location of Outfall 1 and the monitoring wells in the vicinity of the now-repaired Pond 7 dike breach.

Western's April 16th letter also discussed Western's intention to purchase and install additional evaporation equipment to continue maintaining adequate freeboard in the ponds. That equipment, consisting of two (2) new evaporators similar in size to the two (2) existing evaporators, has been purchased. Installation of that new equipment should be complete by mid-October 2014. The cost of purchase and installation of this new equipment is approximately $350,000.

In addition, as noted in the April 16th letter, Western is implementing additional water conservation measures to continue maintaining adequate freeboard in the ponds. Measures already implemented which reduce the amount of process water entering the sewer system include:

- Water from the sour water stripper that has been stripped of H2S and benzene that previously went to the sewer system is now being reused at the desalter hot well in place of fresh water. This reduces uses of fresh water and reduces the amount of process water that would enter the wastewater treatment system.
- Directed maintenance activities resulting in reduction of excess water to the sewer system.

Western continues to evaluate the ponds as well as its water management practices for opportunities to enhance the operation of the evaporation ponds, including, without limitation, exploring best management practices for contingencies and berm inspection and maintenance.

Finally, we note that Western is unaware of any discharges of hazardous waste to Pond 7.

B. <u>NMED Comment 2</u>

The laboratory analytical reports included with the Report indicates that the soils that were affected by the pond breach were not affected by hazardous constituents; however, the Permittee did not include any information regarding the methods and procedures used to collect the soil and water samples. Therefore, NMED is not able to fully assess the spill or cleanup information. In a letter response, include descriptions of the methods used to collect soil and water samples, and the collection depths of the soil samples. Furthermore, the soil samples

were analyzed for TCLP Metals only, for proper characterization the samples should have been analyzed for total metals. TCLP is used for waste characterization purposes, not site characterization and cleanup.

Western Response to Comment 2

The surface water samples were collected following the procedures specified in the Facility-Wide Groundwater Monitoring Work Plan (2012 Updates – submittal date February 21, 2013). The soil samples were collected as discrete grab samples from the upper six inches. A decontaminated stainless steel spoon was used to collect each soil sample, which was placed directly into 9 ounce jars and immediately placed on ice.

C. NMED Comment 3

In addition NMED does not consider the "background samples" to be appropriate background samples. If the Permittee wishes to use background samples, then the Permittee must submit a soil background study work plan for NMED review and approval following the requirements outlined in Permit Section IV.J.6 (Determination of Background) and established in EPA and NMED guidance. The chloride levels reported in the October 2013 letter report exceeded the chloride standards set by the OCD.

Western Response to Comment 3

The three background soil samples were only collected for initial comparison purposes and Western is not proposing to use these results for any further purpose or to establish site-specific background concentrations for chloride at this time.

D. NMED Comment 4

The Permittee is responsible for maintenance of the evaporation ponds. 40 CFR § 264.221(g) states that "[a] surface impoundment must be designed, constructed, maintained, and operated to prevent overtopping resulting from normal or abnormal operations; overfilling; wind and wave action; rainfall; run-on; malfunctions of level controllers, alarms, and other equipment; human error." In addition, 40 CFR § 264.22l(h) states, "[a] surface impoundment must have dikes that are designed, constructed, and maintained with sufficient structural integrity to prevent massive failure of the dikes." SWMU 2 is not a permitted unit; however, the standards for surface impoundments described in 40 CFR 264 Subpart K establish the design criteria applicable to this SWMU. The Permittee failed to properly maintain the facility's structures and are subject to an enforcement action in the event of additional releases from the evaporation ponds. The Permittee must demonstrate that the dikes have been repaired and are currently maintained and must ensure that the head or freeboard maintained in the ponds is sufficient enough to maintain the structural integrity of the berms. Include information regarding the methods and materials used to repair the berms. The Permittee must note that 40 CFR § 264.227(a) requires that "[a] surface impoundment must be removed from service in accordance with paragraph (b) of this section if: (1) The level of liquids in the impoundment suddenly drops and the drop is not known to be caused by changes in the flows into or out of the impoundment; or (2) The dike leaks." In the future, if additional berm failures occur, the Permittee will be subject to the requirements outlined in 40 CFR § 264.227(a) through (e). Provide a contingency plan and an inspection plan for berm

maintenance. Provide a figure depicting the location of Outfall 1 and the groundwater monitoring wells in the vicinity of the breach.

Western Response to Comment 4

As noted by NMED, the evaporation ponds (Solid Waste Management Unit No. 2) are not RCRA regulated units. Nevertheless, and as discussed in the Western Response to Comment 1 above, Western takes its responsibility to maintain its evaporation ponds seriously. We refer NMED to the Western Response to Comment 1 above which contains information requested in Comment 4.

E. NMED Comment 5

At the time of the Report, the Permittee was waiting for off-site access. In the letter response, discuss whether off-site access was granted and whether or not chloride contaminated soils have been removed. Provide confirmation sample collection methods, analytical data and a figure depicting the locations of the confirmation samples. In addition discuss whether or not the methods proposed to maintain adequate freeboard in the evaporation ponds have been successful or not.

Western Response to Comment 5

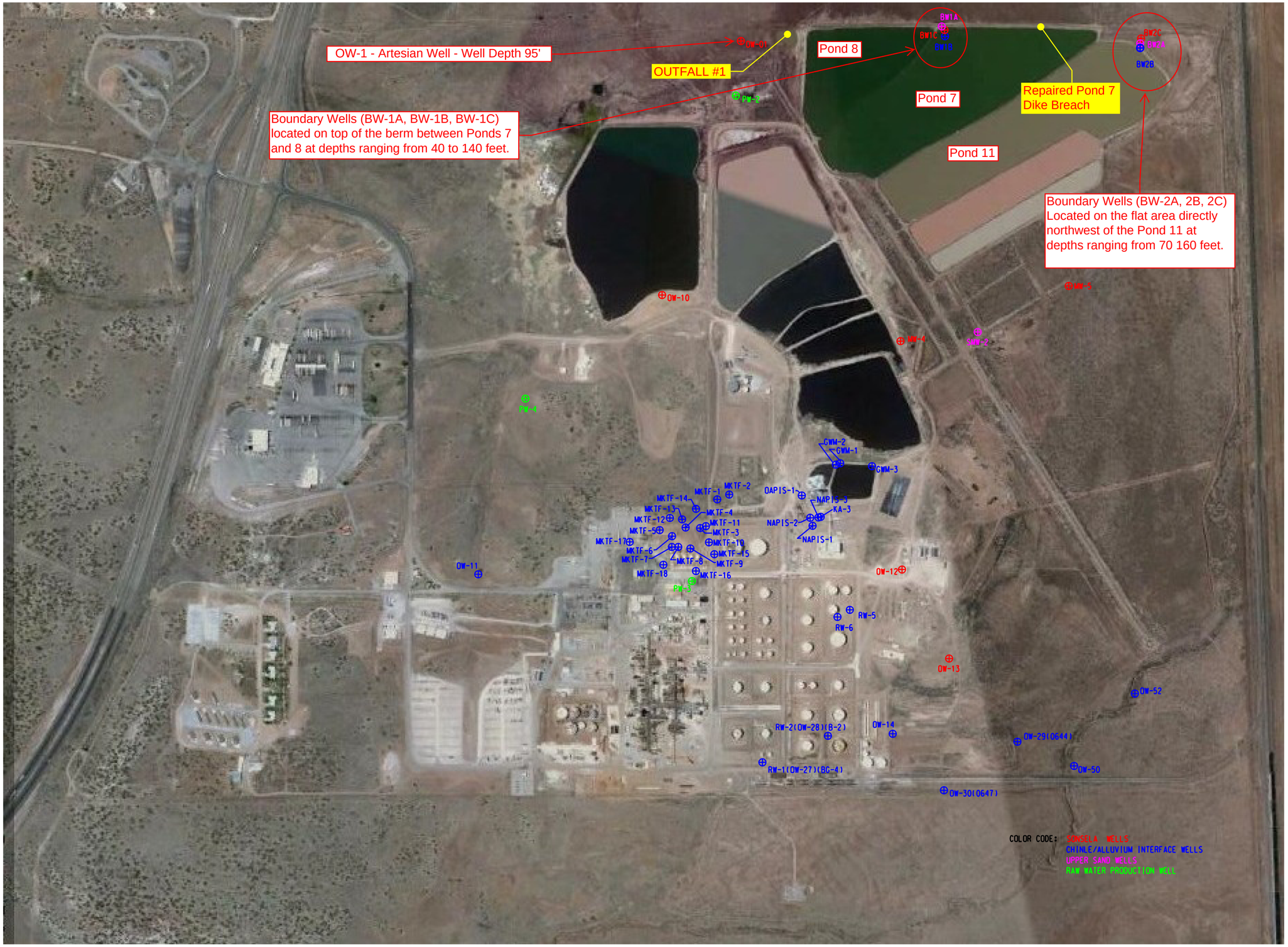
Off-site access has not been granted. Western will continue to pursue access but notes that, if reasonable access is not granted, Western will consider that to constitute a force majeure event.

If there are any questions or concerns with the preceding, then please contact me. It is our understanding that NMED has taken the position that if a dispute arises in connection with the application of the Permit, NMED will engage in informal dispute resolution despite the absence of a formal procedure for same in the Permit. Such measures may be needed in connection with this matter.

Sincerely,

Ed Riege
Environmental Manager
Western Refining Southwest, Inc. – Gallup Refinery

cc A. Allen, Western El Paso
Billy McClain, Jr., Western Gallup
D. Cobrain, NMED HWB (email)
N. Dhawan, NMED HWB (email)
K. Van Horn, NMED HWB (email)
C. Chavez, EMNRD OCD (email)
S. Holcomb, NMED SWQB (email)
L. King, EPA (email)



4601 Ripley
El Paso, Texas
79922
915-584-1317

1"=500'

Project #: 0625725

Figure 6

FACILITIES AND WELLS

WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
Interstate 40, Exit 39
Jamestown, New Mexico 87347

Date: August 14, 2014

AP-111

SWMU No. 10 Sludge Pits

Investigation Work Plan

September 2014

INVESTIGATION WORK PLAN
SWMU No. 10 Sludge Pits

Gallup Refinery
Western Refining Southwest, Inc.
Gallup, New Mexico
EPA ID# NMD000333211

September 2014

Mr. Billy McClain
Refinery Manager
Western Refining Southwest, Inc.
Gallup Refinery

DiSorbo
Environmental Consulting Firm

(512) 693-4190

8501 N. MoPac, Suite 300

Austin, TX 78759

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Appendix B SWMU No. 10 Summary Report

Appendix C 1990 and 1994 Boring Logs

Appendix D Investigation Derived Waste Management Plan

List of Acronyms

areas of concern (AOCs)

below ground surface (bgs)

Code of Federal Regulations (CFR)

Contract Laboratory Program (CLP)

Data quality objective (DQO)

Environmental Protection Agency (EPA)

Hazardous and Solid Waste Act (HSWA)

Investigation derived waste (IDW)

mean sea level (msl)

New Mexico Administrative Code (NMAC)

New Mexico Environment Department (NMED)

photoionization detector (PID)

quality assurance/quality control (QA/QC)

Resource Conservation and Recovery Act (RCRA)

RCRA Facility Investigation (RFI)

semi-volatile organic compound (SVOC)

Solid Waste Management Units (SWMUs)

volatile organic constituent (VOC)

Executive Summary

The Gallup Refinery, which is located 17 miles east of Gallup, New Mexico, has been in operation since the 1950s. Past inspections by State [New Mexico Environment Department (NMED)] and federal environmental inspectors have identified locations where releases to the environment may have occurred. These locations are generally referred to as Solid Waste Management Units (SWMUs). Pursuant to the terms and conditions of the facility Resource Conservation and Recovery Act (RCRA) Post-Closure Care Permit and 20.4.1.500 New Mexico Administrative Code, this Investigation Work Plan has been prepared for the former Sludge Pits. Attachment G of the facility's Post-Closure Care Permit provides a list of designated SWMUs and Areas of Concern (AOCs), and the Sludge Pits are listed as SWMU No. 10.

The two former API Separator sludge pits were located approximately 200 feet southwest of the Old API Separator. The two pits covered an area of approximately 130 feet by 80 feet and 70 feet by 50 feet with a depth of 2 feet. The pits were used to contain oily waste removed from the API Separator. In 1980 the sludge was removed from the pits, which were then backfilled and covered with clean soil. A RCRA Facility Assessment was conducted at the site in 1987 and the location of the former pits was identified as SWMU No. 10. Subsequently, soil sampling was conducted in 1990 and 1994. The results of these sampling events detected the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and metals. Giant Refining Company proposed in-place bioremediation of soils in 1993, which was approved by the United States Environmental Protection Agency (EPA) in January 1994, with modifications.

This Investigation Work Plan proposes to collect samples of soil and groundwater, if encountered, to determine the current concentrations of constituents in the area of the former sludge pits. Ten soil borings/temporary wells will be completed throughout the area of the former sludge pits and the samples will be analyzed for Skinner List metals, VOCs, and SVOCs, and total petroleum hydrocarbons.

Section 1
Introduction

The Gallup Refinery is located approximately 17 miles east of Gallup, New Mexico along the north side of Interstate Highway I-40 in McKinley County. The physical address is I-40, Exit #39 Jamestown, New Mexico 87347. The Gallup Refinery property covers approximately 810 acres. Figure 1 presents the refinery location and the regional vicinity, which is characterized as high desert plain comprised primarily of public lands used for grazing by cattle and sheep.

The Gallup Refinery is a crude oil refinery currently owned and operated by Western Refining Southwest, Inc. ("Western"), formerly known as Giant Industries Arizona, Inc. and formerly doing business as Giant Refining Company Ciniza Refinery, an Arizona corporation. The Gallup Refinery generally processes crude oil from the Four Corners area transported to the facility by pipeline or tanker truck.

Various process units are operated at the facility, including crude distillation, reforming, fluidized catalytic cracking, alkylation, isomerization, sulfur recovery, merox treater, and hydrotreating. Current and past operations have produced gasoline, diesel fuels, jet fuels, kerosene, propane, butane, and residual fuel.

On October 31, 2013, the NMED issued a RCRA Post-Closure Care Permit ("Permit") to Western. The Permit authorizes post-closure care at a hazardous waste land treatment unit and also includes corrective action provisions. Section IV.H.5.a.i requires the Permittee to prepare and submit RCRA Facility Investigation Work Plans to the NMED in accordance with the schedule set forth in Permit Attachment E. The investigation work plan for SWMU No. 10 (Sludge Pits) is due September 20, 2014.

The location of SWMU No. 10 is shown on Figure 2. Photographs of the SWMU and the surrounding area are included in Appendix A.

The purpose of the site investigation is to determine and evaluate the presence, nature, and extent of releases of contaminants in accordance with 20.4.1.500 New Mexico Administrative Code (NMAC) incorporating 40 Code of Federal Regulations (CFR) Section 264.101.

Section 2
Background

This section presents background information for SWMU No. 10 including a review of historical waste management activities to identify the following:

- Type and characteristics of all waste and all contaminants handled in the SWMU;
- Known and possible sources of contamination;
- History of releases; and
- Known extent of contamination.

2.1 Sludge Pits (SWMU No. 10)

The Sludge Pits were originally included as a SWMU in the 1988 Hazardous and Solid Waste Act (HSWA) permit and subsequently included for investigation in the 1990 RCRA Facility Investigation (RFI) Work Plan. The Sludge Pits were put into service in 1958 and was removed from service in 1980, when the sludge was removed and the pit area was covered with a layer of soil. There were two pits that covered an area of approximately 130 feet by 80 feet and 70 feet by 50 feet with a depth of 2 feet (Figure 2). The pits were used to contain oily waste removed from the API Separator.

In 1990, during the Phase I RFI eight soil borings (RFI1001V through RFI1008V) were completed to depths of 13 feet below ground surface (bgs) (Figure 3) (Giant Refining Company, 1991). Soil samples were collected from depths of 0.0 feet bgs, 3.0 feet bgs, 6.0 feet bgs, 9.0 feet bgs, and 12.5 feet bgs. The soil samples were analyzed for metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, mercury, potassium, selenium, vanadium, and zinc), VOCs, and SVOCs and the results are presented in Table 1. For comparison the NMED soil screening levels (*Risk Assessment Guidance for Site Investigation and Remediation*, dated February 2012) and EPA Regional Screening Levels are also included in Tables 1 and 2. Based on the detection of constituents in the samples collected in 1990, EPA directed that deeper samples be collected from the same area. As shown on Figure 4, eight additional soil borings (RFI1014V through RFI1021V) were drilled to depths of 25 feet bgs using hollow-stem augers with soil samples collected at depths of 19.0 feet bgs and 25.0 feet bgs (Giant Refining Company, 1994). The soil samples were analyzed for VOCs, SVOCs, and metals and the results are summarized in Table 2.

The analytical results for the soil samples collected in 1990 indicated the presence of arsenic, barium, cadmium, chromium (compared to chromium VI screening levels), cobalt, copper, mercury, benzene, ethylbenzene, toluene, xylenes, 2,4-dimethylphenol, 2-methylnaphthalene, o-cresol, m&p-cresol, fluorene, naphthalene, and phenol at concentrations above screening levels. The metals were initially compared to background concentrations in the 1991 RFI report; however, NMED has not approved background concentrations for metals and thus it is not currently known how the reported metals concentrations compare to naturally occurring concentrations. The metals were found at concentrations above screening levels in all samples, in particular for chromium when compared to chromium VI screening levels and cobalt. The soil samples collected in 1990 were not analyzed to determine the valence state of the chromium, but rather it was reported as total chromium. The organic constituents with concentrations above the screening levels were detected in samples collected at boring locations RFI1002 at a depth of 3 feet bgs, RFI1004 from depths of 3 feet bgs to 9 feet bgs, and RFI1005 from depths of 6 feet bgs to 12.5 feet bgs.

The analytical results for the soil samples collected in 1994 indicated the presence of barium and di-n-butyl phthalate at concentrations above their respective screening levels. Barium was detected in all but one soil sample (RFI1015V25.0) above the screening level of 300 mg/kg. Di-n-butyl phthalate was detected at concentrations above the screening level (7.0 mg/kg) in four soil samples (RIF1018V19.0, RFI1019V25.0, RIF1021V19.0, and RFI1021V25.0). Di-n-butyl phthalate is a phthalate ester (plasticizer) and is considered by EPA to be a common laboratory contaminant (EPA, 1989).

Giant proposed to implement the corrective action plan (in-place bioremediation) that had previously been submitted to EPA in February 1993 and approved, with modifications, by EPA on January 7, 1994. During the week of March 23, 1998, an on-site inspection was conducted by Practical Environmental Services, Inc. in support of preparation of a RCRA Post-Closure Care Permit for the Gallup Refinery Land Treatment Unit. The Summary Report is included as Appendix B and the observations were as follows:

- The sludge pits area was observed vacant and inactive. No sign of soil staining or residual waste was evident at or in the vicinity of the site;
- Native shrubs and grasses were observed growing throughout the general vicinity. No signs of distress were evident; and
- Local soil in the vicinity of the sludge pits is bentonitic clays and silts. Similar soil strata from a neighboring SWMU exhibited a hydraulic conductivity of less than 10^{-7} cm/sec.

Section 3
Site Conditions

The conditions at the site, including surface and subsurface conditions that could affect the fate and transport of any contaminants, are discussed below. This information is based on recent visual observations and historical subsurface investigations.

3.1 Surface Conditions

Local site topographic features include high ground in the southeast gradually decreasing to lowland fluvial plain in the northwest. Elevations on the refinery property range from 7,040 feet to 6,860 feet. The area of the site near SWMU No. 10 is at an approximate elevation of 6,910 feet above mean sea level (msl). The pictures in Appendix A show the land surface in the immediate area.

The McKinley County soil survey identifies the soil in the area of SWMU No. 10 as the Simitarq-Celavar sandy loams (USDA, 2005). The Simitarq-Celavar soils are well drained with a conservative permeability of 0.20 in/hr and minimal salinity. Simitarq soils have nearly neutral pH values ranging from 7.2 to 7.4 standard units.

Regional surface water features include the refinery evaporation ponds and aeration lagoons and a number of small ponds. The site is located in the Rio Puerco valley, north of the Zuni Uplift with overland flows directed northward to the tributaries of the Rio Puerco. The Rio Puerco continues to the east to the confluence with the Rio Grande. The South Fork of the Puerco River is intermittent and retains flow only during and immediately following precipitation events.

3.2 Subsurface Conditions

The shallow subsurface soils consist of fluvial and alluvial deposits comprised of clay and silt with minor inter-bedded sand layers. Very low permeability bedrock (e.g., claystones and siltstones) underlie the surface soils and effectively form an aquitard. The Chinle Formation, which is Upper Triassic, crops out over a large area on the southern margin of the San Juan Basin. The uppermost recognized local member is the Petrified Forest and the Sonsela Sandstone Bed is the uppermost recognized regional aquifer. Aquifer test of the Sonsela Bed northeast of Prewitt indicated a transmissivity of greater than 100 ft^2/day (Stone and others, 1983). The Sonsela Sandstone's highest point occurs southeast of the site and slopes downward to the northwest as it passes under the refinery. The Sonsela Sandstone forms a water-bearing reservoir with artesian conditions

throughout the central and western portions of the refinery property. Groundwater within the Sonsela Sandstone flows downdip to the northwest.

The diverse properties and complex, irregular stratigraphy of the surface soils across the site cause a wide range of hydraulic conductivity ranging from less than 10^{-2} cm/sec for gravely sands immediately overlying the Chinle Formation to 10^{-8} cm/sec in the clay soils located near the surface (Western Refining, 2009). Generally, shallow groundwater at the refinery follows the upper contact of the Chinle Formation with prevailing flow from the southeast to the northwest, with some flow to the northeast on the northeastern portion of the refinery property. Figure 5 presents a cross section location map showing cross section (A-A'), which is included as Figure 6.

Section 4
Scope of Activities

The site investigation of soils and groundwater will be conducted to define the nature and extent of impacts to the environment and facilitate remedy selection, as necessary. The investigation will commence upon approval of this investigation work plan by NMED.

4.1 Investigation

A focused investigation of soils throughout the location of the former sludge pits will be conducted to characterize current concentrations of constituents associated with refinery operations (e.g., former storage of API Separator sludge) and define the extent of any such impacts. Ten soil borings will be located in the area of the former sludge pits. These locations have been selected to help ensure samples are collected from within the former sludge pits and also near the perimeter of the pit area.

All soil borings will be drilled to a minimum depth of 20 feet or to the top of bedrock, whichever occurs first. If there is field evidence of impacts at greater depths, then soil borings will be drilled deeper to achieve full vertical delineation. A review of previous borings in the area drilled to 25 feet bgs (Appendix C) indicates the presence of a continuous hard shaley clay throughout the area that occurs at approximately 17 feet bgs. There were no observed impacts in this continuous clay unit.

The proposed locations for soil borings/temporary wells are shown on Figure 7. As necessary, additional investigation of soils and groundwater will be conducted to define the lateral extent of any identified releases. If there are indications of lateral migration of constituents away from the former location of the sludge pits within subsurface soils and/or groundwater, then additional borings/ temporary monitoring wells will be completed within approximately 50 feet of the original boring location. Additional borings/temporary wells will continue to be added in a similar manner, as necessary, to define the lateral and vertical extent of impacts to soil and/or groundwater. Selection of additional sample locations will be coordinated with NMED.

4.1.1 Soil Sample Field Screening and Logging

All soil borings will be continuously logged and samples field screened. Samples obtained from the soil borings will be screened in the field on 2.0 foot intervals for evidence of contaminants. Field screening results will be recorded on the exploratory boring logs. Field screening results will be used to aid in the selection of soil samples for laboratory analysis. The primary screening methods

include: (1) visual examination, (2) olfactory examination, and (3) headspace vapor screening for volatile organic compounds. Additional screening for site- or release-specific characteristics such as pH or for specific compounds using field test kits may be conducted where appropriate.

Visual screening includes examination of soil samples for evidence of staining caused by petroleum-related compounds or other substances that may cause staining of natural soils such as elemental sulfur or cyanide compounds. Headspace vapor screening targets volatile organic compounds and involves placing a soil sample in a plastic sample bag or a foil sealed container allowing space for ambient air. The container will be sealed and then shaken gently to expose the soil to the air trapped in the container. The sealed container will be allowed to rest for a minimum of 5 minutes while vapors equilibrate. Vapors present within the sample bag's headspace will then be measured by inserting the probe of the instrument in a small opening in the bag or through the foil. The maximum value and the ambient air temperature will be recorded on the field boring or test pit log for each sample.

The monitoring instruments will be calibrated each day to the manufacturer's standard for instrument operation. A photo-ionization detector (PID) equipped with a 10.6 or higher electron volt (eV) lamp or a combustible gas indicator will be used for VOC field screening. Field screening results may be site- and boring-specific and the results may vary with instrument type, the media screened, weather conditions, moisture content, soil type, and type of contaminant, therefore, all conditions capable of influencing the results of field screening will be recorded on the field logs.

Discrete soil samples will be retained for laboratory analyses from within the following intervals:

- 0.0-0.5 feet (at soil borings with evidence of impacts near the land surface);
- 2.0-2.5 feet or the top of native soil if identifiable (at all soil borings);
- > 2.0 feet (from the interval in each soil boring with the greatest apparent degree of contamination, based on field observations and field screening);
- From the bottom of each borehole (all soil borings);
- From the 0.5 foot interval at the top of saturation (applicable only to borings that reach saturation); and
- Any additional intervals as determined based on field screening results.

The physical characteristics of the samples (such as mineralogy, ASTM soil classification, moisture content, texture, color, presence of stains or odors, and/or field screening results), depth where each

sample was obtained, method of sample collection, and other observations will be recorded in the field log by a qualified geologist or engineer. Detailed logs of each boring will be completed in the field by a qualified geologist. Additional information, such as the presence of water-bearing zones and any unusual or noticeable conditions encountered during drilling, will be recorded on the logs.

Quality Assurance/Quality Control (QA/QC) samples will be collected to monitor the validity of the soil sample collection procedures as follows:

- Field duplicates will be collected at a rate of 10 percent; and
- Equipment blanks will be collected from all sampling apparatus at a frequency of one per day.

4.1.2 Drilling Activities

Soil borings will be drilled using hollow-stem augers. The drilling equipment will be properly decontaminated before drilling each boring. The NMED will be notified as early as practicable if conditions arise or are encountered that do not allow the advancement of borings to the specified depths or at planned sampling locations. Appropriate actions (e.g., installation of protective surface casing or relocation of borings to a less threatening location) will be taken to minimize any negative impacts from investigative borings. If contamination is detected at the water table, then the boring will be drilled five feet below the water table or to refusal, whichever occurs first.

Known site features and/or site survey grid markers will be used as references to locate each boring. The boring locations will be measured to the nearest foot and locations will be recorded on a scaled site map upon completion of each boring.

4.1.3 Groundwater Sample Collection

If groundwater is encountered in any of the soil borings, then groundwater will be sampled and analyzed. Groundwater samples will be collected within 24 hours of the completion of well purging using disposable bailers. Alternatively, well sampling may also be conducted in accordance with the NMED's Position Paper *Use of Low-Flow and other Non-Traditional Sampling Techniques for RCRA Compliant Groundwater Monitoring* (October 30, 2001, as updated). Sample collection methods will be documented in the field monitoring reports. The samples will be transferred to the appropriate, clean, laboratory-prepared containers provided by the analytical laboratory. Sample handling and chain-of-custody procedures will be in accordance with the procedures presented below in Section 4.1.4.

Groundwater samples intended for metals analysis will be submitted to the laboratory as both total and dissolved metals samples. QA/QC samples will be collected to monitor the validity of the groundwater sample collection procedures as follows:

- Field duplicate water samples will be obtained at a frequency of ten percent, with a minimum, of one duplicate sample per sampling event;

- Equipment rinsate blanks will be obtained for chemical analysis at the rate of ten percent or a minimum of one rinsate blank per sampling day. Equipment rinsate blanks will be collected at a rate of one per sampling day if disposable sampling equipment is used. Rinsate samples will be generated by rinsing deionized water through unused or decontaminated sampling equipment. The rinsate sample will be placed in the appropriate sample container and submitted with the groundwater samples to the analytical laboratory for the appropriate analyses; and

- Trip blanks will accompany laboratory sample bottles and shipping and storage containers intended for VOC analyses. Trip blanks will consist of a sample of analyte- free deionized water prepared by the laboratory and placed in an appropriate sample container. The trip blank will be prepared by the analytical laboratory prior to the sampling event and will be kept with the shipping containers and placed with other water samples obtained from the site each day. Trip blanks will be analyzed at a frequency of one for each shipping container of groundwater samples to be analyzed for VOCs.

4.1.4 Sample Handling

At a minimum, the following procedures will be used at all times when collecting samples during investigation, corrective action, and monitoring activities:

1. Neoprene, nitrile, or other protective gloves will be worn when collecting samples. New disposable gloves will be used to collect each sample;

2. All samples collected of each medium for chemical analysis will be transferred into clean sample containers supplied by the project analytical laboratory with the exception of soil, rock, and sediment samples obtained in Encore® samplers. Sample container volumes and preservation methods will be in accordance with the most recent standard EPA and industry accepted practices for use by accredited analytical laboratories. Sufficient sample volume will be obtained for the laboratory to complete the method-specific QC analyses on a laboratory-batch basis; and

3. Sample labels and documentation will be completed for each sample following procedures discussed below. Immediately after the samples are collected, they will be stored in a cooler with ice or other appropriate storage method until they are delivered to the analytical laboratory. Standard chain-of-custody procedures, as described below, will be followed for all samples collected. All samples will be submitted to the laboratory soon enough to allow the laboratory to conduct the analyses within the method holding times.

Chain-of-custody and shipment procedures will include the following:

1. Chain-of-custody forms will be completed at the end of each sampling day, prior to the transfer of samples off site.

2. Individual sample containers will be packed to prevent breakage and transported in a sealed cooler with ice or other suitable coolant or other EPA or industry-wide accepted method. The drainage hole at the bottom of the cooler will be sealed and secured in case of sample container leakage. Temperature blanks will be included with each shipping container.

3. Each cooler or other container will be delivered directly to the analytical laboratory.

4. Glass bottles will be separated in the shipping container by cushioning material to prevent breakage.

5. Plastic containers will be protected from possible puncture during shipping using cushioning material.

6. The chain-of-custody form and sample request form will be shipped inside the sealed storage container to be delivered to the laboratory.

7. Chain-of-custody seals will be used to seal the sample-shipping container in conformance with EPA protocol.

8. Signed and dated chain-of-custody seals will be applied to each cooler prior to transport of samples from the site.

9. Upon receipt of the samples at the laboratory, the custody seals will be broken, the chain-of-custody form will be signed as received by the laboratory, and the conditions of the samples will be recorded on the form. The original chain-of-custody form will remain with the laboratory and copies will be returned to the relinquishing party.

10. Copies of all chain-of-custody forms generated as part of sampling activities will be maintained on-site.

4.1.5 Collection and Management of Investigation Derived Waste

Drill cuttings, excess sample material and decontamination fluids, and all other investigation derived waste (IDW) associated with soil borings will be contained and characterized using methods based on the boring location, boring depth, drilling method, and type of contaminants suspected or encountered. All purged groundwater and decontamination water will be characterized prior to disposal unless it is disposed in the refinery wastewater treatment system upstream of the API Separator. An IDW management plan is included as Appendix D.

4.1.6 Field Equipment Calibration

Field equipment requiring calibration will be calibrated to known standards, in accordance with the manufacturers' recommended schedules and procedures. At a minimum, calibration checks will be conducted daily, or at other intervals approved by the Department, and the instruments will be recalibrated, if necessary. Calibration measurements will be recorded in the daily field logs. If field equipment becomes inoperable, its use will be discontinued until the necessary repairs are made. In the interim, a properly calibrated replacement instrument will be used.

4.1.7 Documentation of Field Activities

Daily field activities, including observations and field procedures, will be recorded in a field log book. Copies of the completed forms will be maintained in a bound and sequentially numbered field file for reference during field activities. Indelible ink will be used to record all field activities. Photographic documentation of field activities will be performed, as appropriate. The daily record of field activities will include the following:

1. Site or unit designation;
2. Date;
3. Time of arrival and departure;
4. Field investigation team members including subcontractors and visitors;
5. Weather conditions;
6. Daily activities and times conducted;
7. Observations;
8. Record of samples collected with sample designations and locations specified;
9. Photographic log, as appropriate;
10. Field monitoring data, including health and safety monitoring;
11. Equipment used and calibration records, if appropriate;
12. List of additional data sheets and maps completed;
13. An inventory of the waste generated and the method of storage or disposal; and
14. Signature of personnel completing the field record.

4.1.8 Chemical Analyses

All samples collected for laboratory analysis will be submitted to an accredited laboratory. The laboratory will use the most recent standard EPA and industry-accepted analytical methods for target analytes as the testing methods for each medium sampled. Chemical analyses will be performed in accordance with the most recent EPA standard analytical methodologies and extraction methods.

Groundwater and soil samples will be analyzed by the following methods:

- SW-846 Method 8260 for Skinner List volatile organic compounds;
- SW-846 Method 8270 for Skinner List semi-volatile organic compounds; and
- SW-846 Method 8015B gasoline range (C5-C10), diesel range (>C10-C28), and motor oil range (>C28-C36) organics.

Groundwater and soil samples will also be analyzed for the following Skinner List metals and iron and manganese using the indicated analytical methods shown below. Groundwater samples for metals analyses will be collected and analyzed for total and dissolved analyses. Groundwater samples will also be analyzed for chloride, fluoride, and sulfate.

Inorganic Analytical Methods

Analyte	Analytical Method
Antimony	SW-846 method 6010/6020
Arsenic	SW-846 method 6010/6020
Barium	SW-846 method 6010/6020
Beryllium	SW-846 method 6010/6020
Cadmium	SW-846 method 6010/6020
Chromium	SW-846 method 6010/6020
Chromium VI	SW-846 method 3060A
Cobalt	SW-846 method 6010/6020
Cyanide	SW-846 method 335.4/335.2 mod
Lead	SW-846 method 6010/6020
Mercury	SW-846 method 7470/7471
Nickel	SW-846 method 6010/6020
Selenium	SW-846 method 6010/6020
Silver	SW-846 method 6010/6020

Vanadium	SW-846 method 6010/6020
Zinc	SW-846 method 6010/6020
Iron	SW-846 method 6010/6020
Manganese	SW-846 method 6010/6020

As discussed previously, if collected, groundwater field measurements will be obtained for pH, specific conductance, dissolved oxygen concentrations, oxidation-reduction potential, and temperature.

4.1.9 Data Quality Objectives

The Data Quality Objectives (DQOs) were developed to ensure that newly collected data are of sufficient quality and quantity to address the projects goals, including Quality Assurance/Quality Control (QA/QC) issues (EPA, 2006). The project goals are established to determine and evaluate the presence, nature, and extent of releases of contaminants at specified SWMUs. The type of data required to meet the project goals includes chemical analyses of soil and groundwater to determine if there has been a release of contaminants at the SWMU.

The quantity of data is SWMU specific and is based on the historical operations at individual locations. Method detection limits should be 20% or less of the applicable background levels, cleanup standards and screening levels.

Additional DQOs include precision, accuracy, representativeness, completeness, and comparability. Precision is a measurement of the reproducibility of measurements under a given set of circumstances and is commonly stated in terms of standard deviation or coefficient of variation (EPA, 1987). Precision is also specific to sampling activities and analytical performance. Sampling precision will be evaluated through the analyses of duplicate field samples and laboratory replicates will be utilized to assess laboratory precision.

Accuracy is a measurement in the bias of a measurement system and may include many sources of potential error, including the sampling process, field contamination, preservation, handling, sample matrix, sample preparation, and analysis techniques (EPA, 1987). An evaluation of the accuracy will be performed by reviewing the results of field/trip blanks, matrix spikes, and laboratory QC samples.

Representativeness is an expression of the degree to which the data accurately and precisely represent the true environmental conditions. Sample locations and the number of samples have

been selected to ensure the data is representative of actual environmental conditions. Based on SWMU specific conditions, this may include either biased (i.e., judgmental) locations/depths or unbiased (systematic grid samples) locations. In addition, sample collection techniques (e.g., field monitoring and decontamination of sampling equipment) will be utilized to help ensure representative results.

Completeness is defined as the percentage of measurements taken that are actually valid measurements, considering field QA and laboratory QC problems. EPA Contract Laboratory Program (CLP) data has been found to be 80-85% complete on a nationwide basis and this has been extrapolated to indicate that Level III, IV, and V analytical techniques will generate data that are approximately 80% complete (EPA, 1987). As an overall project goal, the completeness goal is 85%; however, some samples may be critical based on location or field screening results and thus a sample–by-sample evaluation will be performed to determine if the completeness goals have been obtained.

Comparability is a qualitative parameter, which expresses the confidence with which one data set can be compared to another. Industry standard sample collection techniques and routine EPA analytical methods will be utilized to help ensure data are comparable to historical and future data. Analytical results will be reported in appropriate units for comparison to historical data and cleanup levels.

Section 5
References

EPA, 1987, Data Quality Objectives for Remedial Response Activities; United States Environmental Protection Agency, Office of Emergency and Remedial Response and Office of Waste Programs Enforcement, OSWER Directive 9355.0-7B, 85p

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EPA, 2006, Guidance on Systematic Planning Using the Data Quality Objectives Process, United States Environmental Protection Agency, Office of Environmental Information; EPA/240/B-06/001, p. 111.

Giant Refining Company, 1991, RCRA Facility Investigation, Phase I – Final Report, Ciniza Refinery, Gallup New Mexico, p. 1216.

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Giant Refining Company, 2001, Ciniza Refinery No Further Action Report, August 2001.

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Stone, W.J., Lyford, F.P., Frenzel, P.F., Mizel, N.H., and Padgett, E.T., 1983, *Hydrogeology and Water Resources of San Juan Basin, New Mexico*; Hydrogeologic Report 6, New Mexico Bureau of Mines and Mineral Resources, p. 70.

USDA, 2005, Soil Survey of McKinley County Area, New Mexico, McKinley County and Parts of Cibola and San Juan Counties, p. 683.

Western Refining, 2009, Annual Ground Water Monitoring Report Gallup Refinery – 2009.

Tables

TABLE 1
1990 RCRA Facility Investigation Soil Analytical Data
Western Refining Southwest, Inc. - Gallup Refinery

Analyte	Sample ID	RFI1001 V0.0	RFI1001 V3.0	RFI1001 D3.0	RFI1003 V12.5	RFI1003 V9.0	RFI1003 V6.0	RFI1003 V3.0	RFI1003 V0.0	RFI1004 V0.0	RFI1004 V3.0	RFI1004 V6.0	RFI1004 V9.0	RFI1004 V12.5	RFI1005 V0.0	RFI1005 V3.0	RFI1005 V6.0	RFI1005 V9.0	RFI1005 V12.5	RFI1005 D3.0	RFI1002 V0.0	RFI1002 V3.0	RFI1002 V6.0	RFI1002 V9.0	RFI1002 V12.5	RFI1005 D12.5	NMED Soil Screening Levels				EPA Regional Soil Screening Levels			
	Sample Depth (ft)	0	3	3	12.5	9	6	3	0	0	3	6	9	12.5	0	3	6	9	12.5	3	0	3	6	9	12.5	12.5	Residential Soil (mg/kg)	Industrial/ Occupational Soil (mg/kg)	Construction Worker Soil (mg/kg)	Risk-based SSL for a DAF of 1 (mg/kg)	Resident Soil (mg/kg)	Industrial Soil (mg/kg)	Groundwater Protection Risk-based (mg/kg)	Groundwater Protection MCL-based (mg/kg)
	Sample Date	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990								
Metals																																		
Antimony	mg/kg	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	NA	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	3.13E+01	4.54E+02	1.24E+02	6.61E-01	3.10E+01	4.10E+02	6.60E-01	2.70E-01
Arsenic	mg/kg	**0.97**	<1.0	<0.50	<1.0	**0.52**	**0.58**	**0.90**	**0.65**	**0.60**	**0.64**	**2.4**	**0.6**	<1.0	<1.0	**0.52**	**27.9**	**0.58**	<1.0	NA	**0.52**	**0.79**	**0.58**	<1.0	<0.50	<0.50	3.90E+00	1.77E+01	5.30E+01	1.31E-02	3.90E-01	1.60E+00	1.30E-03	2.90E-01
Barium	mg/kg	**372**	107	105	**392**	152	178	292	**317**	280	195	**422**	213	164	**315**	**321**	**700**	48.7	187	NA	188	231	**332**	201	171	124	1.56E+04	2.23E+05	4.35E+03	3.01E+02	1.50E+04	1.90E+05	3.00E+02	8.20E+01
Beryllium	mg/kg	0.7	1.0	1.1	1.1	1.0	1.0	0.65	0.96	0.93	0.79	0.80	1.00	1.1	0.88	0.85	0.76	1.4	1.2	NA	1.0	0.90	0.90	1.4	0.87	1.1	1.56E+02	2.26E+03	1.44E+02	5.77E+01	1.60E+02	2.00E+03	5.80E+01	3.20E+00
Cadmium	mg/kg	<0.50	0.70	<0.50	0.73	<0.50	<0.50	<0.50	<0.50	<0.50	0.56	<0.50	<0.50	<0.50	<0.50	**1.5**	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	7.03E+01	8.97E+02	2.77E+02	1.37E+00	7.00E+01	8.00E+02	1.40E+00	3.80E-01
Chromium total results - CR III SL	mg/kg	60.1	6.1	7.8	7.5	5.9	6.5	6.1	9.5	5.6	11.6	398	21.7	7.2	6.8	6.3	4020	11.6	8.9	NA	7.0	117	6.7	8.0	6.4	6.1	1.17E+05	1.70E+06	4.65E+05	9.86E+07	1.20E+05	1.50E+06	9.90E+07	NA
Chromium total resutls - CR VI SL	mg/kg	**60.1**	**6.1**	**7.8**	**7.5**	**5.9**	**6.5**	**6.1**	**9.5**	**5.6**	**11.6**	**398**	**21.7**	**7.2**	**6.8**	**6.3**	**4020**	**11.6**	**8.9**	NA	**7.0**	**117**	**6.7**	**8.0**	**6.4**	**6.1**	2.97E+00	6.31E+01	6.56E+01	8.31E-03	2.30E+02	1.40E+03	2.10E+00	NA
Cobalt	mg/kg	**2.0**	**3.6**	**4.6**	**3.2**	**3.4**	**2.8**	**2.0**	**2.6**	**2.8**	**2.2**	**4.8**	**3.8**	**4.4**	**4.0**	**4.4**	**8.4**	**5.7**	**5.1**	NA	**4.3**	**4.4**	**3.9**	**6.0**	**5.4**	**3.9**	NA	NA	NA	NA	2.30E+01	3.00E+02	4.90E-01	NA
Copper	mg/kg	10.3	5.9	7.4	7.0	5.6	6.1	4.3	7.4	5.7	4.1	**29.0**	6.2	6.9	9.2	4.6	**215**	11.8	7.2	NA	6.4	16.5	5.2	7.7	7.7	7.8	3.10E+03	4.54E+04	1.24E+04	2.14E+01	NA	NA	NA	NA
Lead	mg/kg	11.1	5.5	6.3	7.8	8.1	6.5	5.5	8.4	8.2	7.0	50.0	12.5	13.3	13.2	11.8	337	16.1	14.2	NA	13.8	19.3	13.5	14.9	11.9	16.0	4.00E+02	8.00E+02	8.00E+02	NA	4.00E+02	8.00E+02	NA	NA
Mercury	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	**1.3**	<0.10	<0.10	<0.10	<0.10	**2.9**	<0.10	<0.10	NA	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	1.56E+01	7.36E+01	1.36E+01	3.27E-02	4.30E+00	2.40E+01	3.00E-02	1.00E-01
Nickel	mg/kg	7.0	6.7	9.1	8.5	6.8	6.5	5.4	6.5	6.1	5.3	9.0	7.9	8.0	5.8	6.8	19.2	11.3	9.3	NA	6.4	9.2	6.5	9.5	8.5	6.9	1.56E+03	2.25E+04	6.19E+03	4.77E+01	1.40E+04	6.90E+04	4.80E+01	NA
Potassium	mg/kg	972	1310	1660	1410	1340	1070	856	1020	853	783	2320	1200	1210	850	834	3920	1450	1250	NA	806	1310	841	1380	1410	1010	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.91E+02	5.68E+03	1.55E+03	9.65E-01	3.90E+02	5.10E+03	9.50E-01	2.60E-01
Vanadium	mg/kg	16.3	14.0	16.3	17.5	14.3	12.9	15.2	15.7	15.5	14.4	18.6	13.9	13.7	14.5	14.1	24.2	18.7	16.2	NA	15.4	18.2	18.8	16.5	18.0	14.0	3.91E+02	5.68E+03	1.55E+03	1.83E+02	5.50E+02	7.20E+03	2.60E+02	NA
Zinc	mg/kg	81.3	14.7	17.7	16.1	13.9	13.0	12.9	16.4	14.0	15.2	81.2	12.5	12.5	11.8	13.1	538	17.9	14.3	NA	13.4	228	11.2	15.2	15.0	12.4	2.35E+04	3.41E+05	9.29E+04	6.82E+02	2.30E+04	3.10E+05	6.80E+02	NA
Method 8240																																		
1,1,1- Trichloroethane	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.56E+04	7.89E+04	1.48E+04	2.91E+00	9.00E+03	3.90E+04	3.30E+00	7.20E-02
1,1,2,2-Tetrachloroethane	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	8.02E+00	4.35E+01	2.21E+02	2.13E-04	5.90E-01	2.90E+00	2.80E-05	NA
1,1,2- Trichloroethane	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.81E+00	1.33E+01	4.72E+02	1.12E-04	1.10E+00	5.50E+00	8.20E-05	1.70E-03
1,1- Dichloroethane	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	6.45E+01	3.59E+02	1.70E+03	5.98E-03	3.40E+00	1.70E+01	7.00E-04	NA
1,1-Dichloroethene	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	4.49E+02	2.29E+03	4.32E+02	1.16E-01	2.50E+02	1.10E+03	1.20E-01	2.60E-03
1,2,3-Trichloropropane	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	4.97E-02	3.76E+01	7.23E+00	2.50E-06	9.10E-02	4.10E-01	4.40E-06	NA
1,2-Dichloroethane	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	7.89E+00	4.35E+01	5.87E+01	3.56E-04	4.50E-01	2.20E+00	4.40E-05	1.50E-03
1,2-Dichloropropane	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.52E+01	8.44E+01	2.50E+01	1.07E-03	9.30E-01	4.70E+00	1.30E-04	1.70E-03
2-Butanone (MEK)	ug/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<120	<20	<5	<5	<340	<10	<5	<5	<5	<5	<5	<5	<5	<5	3.71E+04	3.75E+05	8.43E+04	1.27E+00	2.80E+04	1.90E+05	1.50E+00	NA
2-Hexanone	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<100	<25	<4	<1	<1	<67	<2	<1	<1	<1	<1	<1	<1	<1	<1	NA	NA	NA	NA	2.0E+02	1.3E+03	8.8E-03	NA
4-Methyl-2-pentanone (MIBK)	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<100	<25	<4	<1	<1	<67	<2	<1	<1	<1	<1	<1	<1	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<120	<20	<5	<5	<340	<10	<5	<5	<5	<5	<5	<5	<5	<5	6.66E+04	8.68E+05	2.21E+05	3.86E+00	6.10E+04	6.10E+05	4.40E+00	NA
Benzene	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.7**	<50.0	<12.0	<2.0	<0.5	<0.5	**37**	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.54E+01	8.47E+01	1.38E+02	1.73E-03	1.10E+00	5.60E+00	2.30E-04	2.80E-03
Bromodichloromethane	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.41E+00	3.01E+01	1.43E+02	2.71E-04	2.80E-01	1.40E+00	3.30E-05	NA
Bromoform	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	6.16E+02	2.42E+03	4.76E+03	6.04E-01	6.10E+01	2.20E+02	2.30E-03	NA
Bromomethane	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<100	<25	<4	<1	<1	<67	<2	<1	<1	<1	<1	<1	<1	<1	<1	1.65E+01	8.65E+01	1.64E+01	1.92E-03	7.90E+00	3.50E+01	2.20E-03	NA
Carbon disulfide	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.53E+03	8.33E+03	1.58E+03	2.83E-01	6.70E+02	3.00E+03	2.70E-01	NA
Carbon tetrachloride	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.08E+01	5.98E+01	2.26E+02	1.60E-03	2.50E-01	1.30E+00	7.90E-05	2.00E-03
Chlorobenzene	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.76E+02	2.12E+03	4.06E+02	4.92E-02	3.10E+02	1.50E+03	6.80E-02	7.50E-02
Chloroethane	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<100	<25	<4	<1	<1	<67	<2	<1	<1	<1	<1	<1	<1	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.86E+00	3.27E+01	1.54E+02	4.59E-04	3.00E-01	1.50E+00	5.50E-05	NA
Chloromethane	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<100	<25	<4	<1	<1	<67	<2	<1	<1	<1	<1	<1	<1	<1	<1	2.75E+02	1.29E+03	2.41E+02	4.40E-02	1.20E+02	5.10E+02	4.90E-02	NA
1,2- Dichloroethene (cis/trans)	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.56E+02	2.27E+03	6.19E+02	1.84E-02	7.80E+02	1.00E+04	1.10E-01	2.10E-02
cis-1,3-Dichloropropene	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.37E+01	1.77E+02	2.09E+02	1.24E-03	1.70E+00	8.40E+00	1.60E-04	NA
Di bromochloromethane	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.21E+01	6.24E+01	3.32E+02	3.31E-04	7.00E-01	3.40E+00	4.00E-05	NA
Dibromomethane	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	7.80E+02	1.00E+04	9.10E-02	NA
Dichlorodifluoromethane	ug/kg	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<200	<50	<8	<2.0	<2.0	<130	<4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	1.68E+02	7.98E+02	1.49E+02	3.72E-01	1.90E+02	7.80E+02	6.10E-01	NA
Ethylbenzene	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**5.6**	**81**	**43**	<2.0	<0.5	<0.5	**76**	**1.2**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	6.84E+01	3.78E+02	1.83E+03	1.30E-02	5.70E+00	2.90E+01	1.90E-03	8.90E-01
Methylene chloride	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	4.09E+02	4.70E+03	1.12E+03	4.12E-02	1.10E+01	5.40E+01	1.20E-03	1.30E-03
Styrene	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	7.28E+03	5.00E+04	9.99E+03	1.39E+00	6.50E+03	3.80E+04	2.00E+00	1.20E-01
Tetrachloroethene	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	7.02E+00	3.66E+01	2.12E+02	4.30E-04	5.70E-01	2.70E+00	5.20E-05	2.40E-03
Toluene	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**14**	**220**	**120**	<2.0	<0.5	<0.5	**290**	**2.6**	0.98	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.68	5.27E+03	5.77E+04	1.34E+04	1.27E+00	5.00E+03	4.60E+04	1.70E+00	7.60E-01
trans-1,2-Dichloroethene	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.70E+02	1.44E+03	2.73E+02	2.69E-02	1.10E+02	5.00E+02	3.40E-02	3.20E-02
trans-1,3-Dichl oropropene	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.37E+01	1.77E+02	2.09E+02	1.24E-03	1.70E+00	8.40E+00	1.60E-04	NA
Trichloroethene	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	8.77E+00	4.13E+01	7.68E+00	1.05E-03	2.80E+00	1.40E+01	6.10E-04	1.90E-03
Trichlorofluoromethane	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.41E+03	6.94E+03	1.30E+03	8.89E-01	8.00E+02	3.40E+03	8.40E-01	NA
Vinyl chloride	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<100	<2.5	<4	<1	<1	<67	<2	<1	<1	<1	<1	<1	<1	<1	<1	7.28E-01	2.61E+01	1.49E+02	5.42E-05	6.00E-02	1.70E+00	5.60E-06	7.00E-04
Xylenes (total)	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**54**	**470**	**310**	<2.0	<0.5	<0.5	**540**	**9.7**	**1.7**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.98**	8.14E+02	3.98E+03	7.43E+02	1.56E-01	6.00E+02	2.60E+03	2.30E-01	1.10E+01
Vinyl acetate	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<100	<25	<4	<1	<1	<67	<2	<1	<1	<1	<1	<1	<1	<1	<1	2.56E+03	1.23E+04	2.30E+03	7.59E-02	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<100	<25	<4	<1	<1	<67	<2	<1	<1	<1	<1	<1	<1	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/kg	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<250	<40	<10	<10	<670	<20	<10	<10	<10	<10	<10	<10	<10	<10	4.04E-01	1.92E+00	3.56E-01	7.28E-06	NA	NA	NA	NA
Acrylonitrile	ug/kg	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<250	<40	<10	<10	<670	<20	<10	<10	<10	<10	<10	<10	<10	<10	4.55E+00	2.43E+01	3.76E+01	8.46E-05	NA	NA	NA	NA
Ethanol	ug/kg	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<250	<40	<10	<10	<670	<20	<10	<10	<10	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methacrylate	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<100	<25	<4	<1	<1	<67	<2	<1	<1	<1	<1	<1	<1	<1	<1	4.55E+03	3.80E+04	2.79E+04	1.14E-01	NA	NA	NA	NA
Iodomethane	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50.0	<12.0	<2.0	<0.5	<0.5	<34.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	7.4E-03	3.2E-02	6.2E-07	NA
Method 8270																																		
1,2,4,5-Tetrachlorobenzene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	7.30E+01	3.67E+02	6.87E+01	9.13E-03	8.70E+01	4.00E+02	1.30E-02	1.10E-01
1,2- Dichlorobenzene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	2.31E+03	1.40E+04	2.71E+03	2.80E-01	2.00E+03	1.00E+04	4.00E-01	6.60E-01
1,3- Dichlorobenzene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
1,4- Dichlorobenzene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	3.17E+01	1.77E+02	8.31E+02	3.19E-03	2.60E+00	1.30E+01	4.60E-04	8.10E-02
2,4,5-Trichlorophenol	ug/kg	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<50	<25	<25	<25	<25	<500	<25	<25	<25	<25	<50	<25	<25	<25	<25	6.11E+03	6.84E+04	2.38E+04	1.04E+01	6.10E+03	6.20E+04	9.40E+00	NA
2,4,6-Trichlorophenol	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	6.11E+01	6.84E+02	2.38E+02	1.04E-01	4.40E+01	1.60E+02

TABLE 1
1990 RCRA Facility Investigation Soil Analytical Data
Western Refining Southwest, Inc. - Gallup Refinery

Analyte	Sample ID	RFI1001 V0.0	RFI1001 V3.0	RFI1001 D3.0	RFI1003 V12.5	RFI1003 V9.0	RFI1003 V6.0	RFI1003 V3.0	RFI1003 V0.0	RFI1004 V0.0	RFI1004 V3.0	RFI1004 V6.0	RFI1004 V9.0	RFI1004 V12.5	RFI1005 V0.0	RFI1005 V3.0	RFI1005 V6.0	RFI1005 V9.0	RFI1005 V12.5	RFI1005 D3.0	RFI1002 V0.0	RFI1002 V3.0	RFI1002 V6.0	RFI1002 V9.0	RFI1002 V12.5	RFI1005 D12.5	NMED Soil Screening Levels				EPA Regional Soil Screening Levels			
	Sample Depth (ft)	0	3	3	12.5	9	6	3	0	0	3	6	9	12.5	0	3	6	9	12.5	3	0	3	6	9	12.5	12.5	Residential Soil (mg/kg)	Industrial/ Occupational Soil (mg/kg)	Construction Worker Soil (mg/kg)	Risk-based SSL for a DAF of 1 (mg/kg)	Resident Soil (mg/kg)	Industrial Soil (mg/kg)	Groundwater Protection Risk-based (mg/kg)	Groundwater Protection MCL-based (mg/kg)
	Sample Date	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990								
2-Chloronaphthalene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	6.26E+03	9.08E+04	2.48E+04	1.14E+01	6.30E+03	8.20E+04	1.80E+01	NA
2-Chlorophenol	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	3.91E+02	5.68E+03	1.55E+03	1.16E-01	3.90E+02	5.10E+03	2.00E-01	NA
2-Methylnaphthalene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**290**	<5.0	**5**	<5.0	<5.0	**1400**	<5.0	<5.0	<5.0	<5.0	**56**	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	3.10E+02	4.10E+03	9.00E-01	NA
o-Cresol	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**16**	<5.0	<5.0	<5.0	<5.0	<100	**34**	**19**	<5.0	<5.0	<10	<5.0	<5.0	<5.0	**16**	NA	NA	NA	NA	3.10E+03	3.10E+04	2.00E+00	NA
2- Nitroaniline	ug/kg	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<50	<25	<25	<25	<25	<500	<25	<25	<25	<25	<50	<25	<25	<25	<25	NA	NA	NA	NA	1.80E+02	1.80E+03	3.30E-02	NA
2-Nitrophenol	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
3,3' -Dichlorobenzidine	ug/kg	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<200	<10	<10	<10	<10	<20	<10	<10	<10	<10	1.08E+01	4.26E+01	3.64E+02	7.40E-03	1.10E+00	3.80E+00	2.30E-03	NA
m & p-Cresol(s)	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**26**	<5.0	<5.0	<5.0	<5.0	**120**	**68**	**34**	<5.0	<5.0	<10	<5.0	<5.0	<5.0	**28**	NA	NA	NA	NA	3.10E+02	3.10E+03	1.90E-01	NA
3- Nitroaniline	ug/kg	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<50	<25	<25	<25	<25	<500	<25	<25	<25	<25	<50	<25	<25	<25	<25	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-o-cresol	ug/kg	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<50	<25	<25	<25	<25	<500	<25	<25	<25	<25	<50	<25	<25	<25	<25	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl ether	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methvlphenol	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	2.40E+00	8.60E+00	1.20E-04	NA
4-Chlorophenyl	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
4- Nitroaniline	ug/kg	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<50	<25	<25	<25	<25	<500	<25	<25	<25	<25	<50	<25	<25	<25	<25	NA	NA	NA	NA	2.40E+01	8.60E+01	1.00E-03	NA
4-Nitrophenol	ug/kg	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<50	<25	<25	<25	<25	<500	<25	<25	<25	<25	<50	<25	<25	<25	<25	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	3.44E+03	3.67E+04	1.86E+04	1.69E+01	3.40E+03	3.30E+04	2.70E+01	NA
Acenaphthylene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	8.50E+01	3.00E+02	3.40E-03	NA
Anthracene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	1.72E+04	1.83E+05	6.68E+04	2.71E+02	1.70E+04	1.70E+05	4.50E+02	NA
Benzo(a)anthracene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	1.48E+00	2.34E+01	2.13E+02	7.83E-02	1.50E-01	2.10E+00	1.40E-02	NA
Benzo(a)pyrene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	1.48E-01	2.34E+00	2.13E+01	2.60E-02	1.50E-02	2.10E-01	4.60E-03	3.10E-01
Benzo(b)fluoranthene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	1.48E+00	2.34E+01	2.13E+02	2.65E-01	1.50E-01	2.10E+00	4.70E-02	NA
Benzo(g,h,i)perylene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	1.48E+01	2.34E+02	2.06E+03	2.60E+00	1.50E+00	2.10E+01	4.60E-01	NA
Benzoic acid	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	2.40E+05	2.50E+06	3.30E+01	NA
Benzyl alcohol	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	3.10E+04	3.10E+05	4.20E+00	NA
bis(2-Chloroethoxy)-methane	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	1.80E+02	1.80E+03	2.30E-02	NA
bis(2-Chloroethy1) ether	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	2.68E+00	1.42E+01	7.78E+01	2.63E-05	1.90E-01	9.00E-01	2.70E-06	NA
bis(2-Chloroisopropyl)-ether	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	9.15E+01	4.54E+02	3.10E+03	2.33E-03	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	3.47E+02	1.37E+03	4.76E+03	8.62E+00	3.50E+01	1.20E+02	1.60E+00	2.00E+00
Butyl benzyl phthalate	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	2.60E+02	9.10E+02	6.70E-01	NA
Chrysene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	1.48E+02	2.34E+03	2.06E+04	7.99E+00	1.50E+01	2.10E+02	1.40E+00	NA
Dibenz(a,h)anthracene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	1.48E-01	2.34E+00	2.13E+01	8.46E-02	1.50E-02	2.10E+02	1.50E-02	NA
Diethyl phthalate	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	4.89E+04	5.47E+05	1.91E+05	9.66E+00	4.90E+04	4.90E+05	1.30E+01	NA
Dimethyl phthalate	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	6.11E+05	6.84E+06	2.38E+06	8.06E+01	NA	NA	NA	NA
Di-n-butyl phthalate	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	6.11E+03	6.84E+04	2.38E+04	6.97E+00	NA	NA	NA	NA
Di-n-octyl phthalate	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	2.29E+03	2.44E+04	8.91E+03	1.22E+02	2.30E+03	2.20E+04	2.10E+02	NA
Fluorene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	13	<5.0	<5.0	<5.0	<5.0	**100**	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	2.29E+03	2.44E+04	8.91E+03	2.03E+01	2.30E+03	2.20E+04	3.30E+01	NA
Hexachlorobenzene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	3.04E+00	1.20E+01	1.03E+02	3.98E-03	3.00E-01	1.10E+00	2.90E-04	7.00E-03
Hexachlorobutadiene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	6.20E+00	2.20E+01	1.90E-03	NA
Hexachlorocyclopentadiene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	3.67E+02	4.10E+03	8.11E+02	5.27E-01	3.70E+02	3.70E+03	8.00E-01	1.80E-01
Hexachloroethane	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	4.28E+01	4.79E+02	1.67E+02	8.18E-03	3.50E+01	1.20E+02	3.20E-03	NA
Indeno(l,2,3-cd)pyrene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	1.48E+00	2.34E+01	2.13E+02	8.63E-01	1.50E-01	2.10E+00	1.60E-01	NA
Isophorone	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	5.12E+03	1.37E+05	4.75E+04	1.92E-01	5.10E+02	1.80E+03	2.20E-02	NA
Naphthalene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**54**	<5.0	<5.0	<5.0	<5.0	**340**	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	4.30E+01	2.41E+02	1.58E+02	3.57E-03	3.90E+00	2.00E+01	5.50E-04	NA
Nitrobenzene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	5.35E+01	3.00E+02	3.32E+02	6.24E-04	4.40E+00	2.20E+01	7.10E-05	NA
N-Nitroso-di-n-propylamine	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	6.90E-02	2.50E-01	1.10E-05	NA
N-Nitrosodimethylamine	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	9.93E+02	3.91E+03	3.36E+04	5.65E-01	9.90E+01	3.50E+02	1.70E-01	NA
Pentachlorophenol	ug/kg	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<50	<25	<25	<25	<25	<500	<25	<25	<25	<25	<50	<25	<25	<25	<25	8.94E+00	3.00E+01	3.10E+02	1.28E-02	3.00E+00	9.00E+00	3.90E-03	7.00E-03
Phenanthrene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	28	<5.0	<5.0	<5.0	<5.0	1.83E+03	2.05E+04	7.15E+03	2.86E+01	NA	NA	NA	NA
Phenol	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	**71**	**32**	<5.0	<5.0	<10	<5.0	<5.0	<5.0	**28**	1.83E+04	2.05E+05	6.88E+04	4.97E+00	1.80E+04	1.80E+05	8.10E+00	NA
Pyrene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	1.72E+03	1.83E+04	6.68E+03	8.94E+01	1.70E+03	1.70E+04	1.50E+02	NA
1- Naphthylamine	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	7.30E+01	3.67E+02	6.87E+01	9.13E-03	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	6.7E-01	2.9E+00	2.5E-04	NA
1,3- Dinitrobenzene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	6.2E+00	8.2E+01	1.8E-03	NA
1-Chloronaphthalene	ug/kg	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.26E+03	9.08E+04	2.48E+04	1.14E+01	NA	NA	NA	NA
2- Naphthylamine	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	3.0E-01	1.3E+00	2.0E-04	NA
2,3,4,6-Tetrachlorophenol	ug/kg	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<50	<25	<25	<25	<25	<500	<25	<25	<25	<25	<50	<25	<25	<25	<25	NA	NA	NA	NA	1.8E+03	2.5E+04	1.5E+00	NA
2,6-Dinitrotoluene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	6.11E+01	6.84E+02	2.38E+02	3.85E-02	NA	NA	NA	NA
2-Picoline	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	5.4E-03	1.0E-01	2.2E-03	NA
7,12-Dimethylbenz(a)-anthracene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	4.5E-04	8.5E-03	9.9E-05	NA
a, a-Dimethylphenethylamine	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	7.82E+03	1.14E+05	3.10E+04	9.17E-01	NA	NA	NA	NA
Diphenylamine	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	1.5E+03	2.1E+04	5.8E-01	NA
Ethyl methanesulfonate	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
Methyl methanesulfonate	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	5.4E+00	2.3E+01	1.6E-04	NA
N-Nitroso-di-n-butylamine	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	6.89E-01	2.92E+00	2.19E+01	3.78E-05	NA	NA	NA	NA
N-Nitrosodiphenyl amine	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	9.93E+02	3.91E+03	3.36E+04	5.65E-01	NA	NA	NA	NA
N-Nitrosopiperidine	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	2.5E-01	1.1E+00	1.4E-05	NA
p-Dimethylaminoazobenzene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	1.2E-01	5.0E-01	2.1E-05	NA
Pentachlorobenzene	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	4.89E+01	5.47E+02	1.91E+02	1.68E-01	NA	NA

TABLE 1
1990 RCRA Facility Investigation Soil Analytical Data
Western Refining Southwest, Inc. - Gallup Refinery

Analyte	Sample ID	RFI1001 V0.0	RFI1001 V3.0	RFI1001 D3.0	RFI1003 V12.5	RFI1003 V9.0	RFI1003 V6.0	RFI1003 V3.0	RFI1003 V0.0	RFI1004 V0.0	RFI1004 V3.0	RFI1004 V6.0	RFI1004 V9.0	RFI1004 V12.5	RFI1005 V0.0	RFI1005 V3.0	RFI1005 V6.0	RFI1005 V9.0	RFI1005 V12.5	RFI1005 D3.0	RFI1002 V0.0	RFI1002 V3.0	RFI1002 V6.0	RFI1002 V9.0	RFI1002 V12.5	RFI1005 D12.5	NMED Soil Screening Levels				EPA Regional Soil Screening Levels			
	Sample Depth (ft)	0	3	3	12.5	9	6	3	0	0	3	6	9	12.5	0	3	6	9	12.5	3	0	3	6	9	12.5	12.5	Residential Soil (mg/kg)	Industrial/ Occupational Soil (mg/kg)	Construction Worker Soil (mg/kg)	Risk-based SSL for a DAF of 1 (mg/kg)	Resident Soil (mg/kg)	Industrial Soil (mg/kg)	Groundwater Protection Risk-based (mg/kg)	Groundwater Protection MCL-based (mg/kg)
	Sample Date	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990	6/28/1990								
Phenacetin	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<50	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	2.4E+02	1.0E+03	9.7E-03	NA
phenyl ether	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<50	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide (kerb)	ug/kg	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<100	<50	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	4.6E+03	6.2E+04	1.2E+00	NA

Bolded Value - concentration exceeds screening level
NA - Screening level not available or not analyzed
DAF - Dilution attentuation factor
NMED Screening levels (June 2012)
EPA Regional Screening Levels (Nov. 2012)

TABLE 2
1994 RCRA Facility Investigation Soil Analytical Data
Western Refining Southwest, Inc. - Gallup Refinery

Analyte	Sample ID	RFI1014 V19.0	RFI1014 V25.0	RFI1015 V19.0	RFI1015 V25.0	RFI1016 V19.0	RFI1016 V25.0	RFI1017 V19.0	RFI1017 V25.0	RFI1018 V19.0	RFI1018 V25.0	RFI1019 V19.0	RFI1019 V19.0D	RFI1019 V25.0	RFI1020 V19.0	RFI1020 V25.0	RFI1021 V19.0	RFI1021 V25.0	NMED Soil Screening Levels				EPA Regional Soil Screening Levels			
	Sample Depth (ft)	19	25	19	25	19	25	19	25	19	25	19	29	25	19	25	19	25	Residential Soil (mg/kg)	Industrial/ Occupational Soil (mg/kg)	Construction Worker Soil (mg/kg)	Risk-based SSL for a DAF of 1 (mg/kg)	Resident Soil (mg/kg)	Industrial Soil (mg/kg)	Groundwater Protection Risk-based (mg/kg)	Groundwater Protection MCL-based (mg/kg)
	Sample Date	7/26/1994	7/26/1994	7/26/1994	7/26/1994	7/26/1994	7/26/1994	7/26/1994	7/26/1994	7/27/1994	7/27/1994	7/27/1994	7/27/1994	7/27/1994	7/27/1994	7/27/1994	7/27/1994	7/27/1994	7/27/1994								
Metals																										
Arsenic	mg/kg	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	3.9E+00	1.8E+01	5.3E+01	1.3E-02	6.1E-01	2.4E+00	1.3E-03	2.90E-01
Barium	mg/kg	**370**	**1100**	**360**	190	**310**	**340**	**420**	**610**	**410**	**690**	**400**	**370**	**630**	**400**	**360**	**520**	**680**	1.6E+04	2.2E+05	4.4E+03	3.0E+02	1.5E+04	1.9E+05	1.2E+02	8.20E+01
Beryllium	mg/kg	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	1.6E+02	2.3E+03	1.4E+02	5.8E+01	1.6E+02	2.0E+03	1.3E+01	3.20E+00
Cadmium	mg/kg	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	7.0E+01	9.0E+02	2.8E+02	1.4E+00	NA	NA	5.2E-01	3.80E-01
Chromium	mg/kg	8.2	9.1	14	8	10	14	8.2	12	7.6	8.4	12	8.5	8.9	11	14	13	9.4	1.2E+05	1.7E+06	4.6E+05	9.9E+07	1.2E+05	1.5E+06	2.8E+07	NA
Lead	mg/kg	15	11	17	14	19	16	17	15	14	17	19	17	20	16	20	19	20	4.0E+02	8.0E+02	8.0E+02	NA	4.0E+02	8.0E+02		1.40E+01
Mercury	mg/kg	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	1.6E+01	7.4E+01	1.4E+01	3.3E-02	1.0E+01	4.3E+01	3.3E-02	1.00E-01
Nickel	mg/kg	17	18	18	18	19	20	19	18	17	15	16	13	17	16	19	16	17	1.6E+03	2.3E+04	6.2E+03	4.8E+01	1.5E+03	2.0E+04	2.0E+01	NA
Vanadium	mg/kg	4.1	5.3	5.2	4.8	<2.5	4.6	3.4	9.5	4.4	4.0	5.5	<2.5	3.3	4.3	5.0	6.8	4.7	3.9E+02	5.7E+03	1.5E+03	1.8E+02	3.9E+02	5.1E+03	6.3E+01	NA
8240/8260 Skinner List																										
1,2-Dibromoethane	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.9E-01	3.2E+00	1.6E+01	1.5E-05	3.4E-02	1.7E-01	1.8E-06	1.40E-05
1,4-Dichloroethane	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7.9E+00	4.4E+01	5.9E+01	3.6E-04	4.3E-01	2.2E+00	4.2E-05	1.40E-03
1,4-Dioxane	mg/kg	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	4.9E+01	1.9E+02	1.7E+03	1.2E-03	4.9E+00	1.7E+01	1.4E-04	NA
2-butanone (MEK)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.7E+04	3.7E+05	8.4E+04	1.3E+00	2.8E+04	2.0E+05	1.0E+00	NA
2-Chloroethylvinyl ether	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.5E+01	8.5E+01	1.4E+02	1.7E-03	1.1E+00	5.4E+00	2.0E-04	2.60E-03
Carbon Disulfide	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.5E+03	8.3E+03	1.6E+03	2.8E-01	8.2E+02	3.7E+03	2.1E-01	
Chlorobenzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.8E+02	2.1E+03	4.1E+02	4.9E-02	2.9E+02	1.4E+03	4.9E-02	6.80E-02
Ethylbenzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	6.8E+01	3.8E+02	1.8E+03	1.3E-02	5.4E+00	2.7E+01	1.5E-03	7.80E-01
Styrene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	7.3E+03	5.0E+04	1.0E+04	1.4E+00	6.3E+03	3.6E+04	1.2E+00	1.10E-01
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.3E+03	5.8E+04	1.3E+04	1.3E+00	5.0E+03	4.5E+04	5.9E-01	6.90E-01
Xylenes	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	8.1E+02	4.0E+03	7.4E+02	1.6E-01	6.3E+02	2.7E+03	1.9E-01	9.80E+00
8270 Skinner List																										
1,2-Dichlorobenzene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	2.3E+03	1.4E+04	2.7E+03	2.8E-01	1.9E+03	9.8E+03	2.7E-01	5.80E-01
1,3-Dichlorobenzene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	3.2E+01	1.8E+02	8.3E+02	3.2E-03	2.4E+00	1.2E+01	4.0E-04	7.20E-02
2,4-Dimethylphenol	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1.2E+03	1.4E+04	4.8E+03	6.7E-01	1.2E+03	1.2E+04	3.2E-01	NA
2,4-Dinitrophenol	mg/kg	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1.2E+02	1.4E+03	4.8E+02	6.3E-02	1.2E+02	1.2E+03	3.4E-02	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	4.3E-04	6.2E-03	8.5E-05	NA
1 -Methylnaphthalene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	1.6E+01	5.3E+01	5.1E-03	NA
3-Methylphenol	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	6.1E+03	6.2E+04	1.1E+00	NA
4-Methylphenol	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	6.1E+03	6.2E+04	NA	1.1E+00
4-Nitrophenol	mg/kg	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1.7E+04	1.8E+05	6.7E+04	2.7E+02	1.7E+04	1.7E+05	4.2E+01	NA
Benzo(a)anthracene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1.5E+00	2.3E+01	2.1E+02	7.8E-02	1.5E-01	2.1E+00	1.0E-02	NA
Benzo(a)pyrene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1.5E-01	2.3E+00	2.1E+01	2.6E-02	1.5E-02	2.1E-01	3.5E-03	2.40E-01
Benzo(b)flouranthene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1.5E+00	2.3E+01	2.1E+02	2.7E-01	1.5E-01	2.1E+00	3.5E-02	NA
Benzo(k)flouranthene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1.5E+01	2.3E+02	2.1E+03	2.6E+00	1.5E+00	2.1E+01	3.5E-01	NA
Bis(2-ethylhexyl)phthalate	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	3.5E+02	1.4E+03	4.8E+03	8.6E+00	3.5E+01	1.2E+02	1.1E+00	1.40E+00
Butyl benzyl phthalate	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	2.6E+02	9.1E+02	2.0E-01	NA
Chrysene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1.5E+02	2.3E+03	2.1E+04	8.0E+00	1.5E+01	2.1E+02	1.1E+00	NA
Dibenz(a,j)acridine	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1.5E-01	2.3E+00	2.1E+01	8.5E-02	1.5E-02	2.1E-01	1.1E-02	NA
Diethyl phthalate	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	4.9E+04	5.5E+05	1.9E+05	9.7E+00	4.9E+04	4.9E+05	4.7E+00	NA
Dimethyl phthalate	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	6.1E+05	6.8E+06	2.4E+06	8.1E+01	NA	NA	NA	NA
Di-n-butyl phthalate	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**13**	<5.0	<5.0	<5.0	**11**	<5.0	<5.0	**11**	**11**	6.1E+03	6.8E+04	2.4E+04	7.0E+00	6.1E+03	6.2E+04	1.7E+00	NA
Di-n-octyl phalate	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	6.1E+02	6.2E+03	4.4E+01	NA
Flouranthene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	2.3E+03	2.4E+04	8.9E+03	1.2E+02	2.3E+03	2.2E+04	7.0E+01	NA
Indene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
Methylchrysene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	4.3E+01	2.4E+02	1.6E+02	3.6E-03	3.6E+00	1.8E+01	4.7E-04	NA
Phenanthrene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1.8E+03	2.1E+04	7.1E+03	2.9E+01	NA	NA	NA	NA
Phenol	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1.8E+04	2.1E+05	6.9E+04	5.0E+00	1.8E+04	1.8E+05	2.6	NA
Pyrene	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1.7E+03	1.8E+04	6.7E+03	8.9E+01	1.7E+03	1.7E+04	9.5E+00	NA
Pyridine	mg/kg	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	NA	NA	NA	NA	7.8E+01	1.0E+03	5.3E-03	NA
Quinoline	mg/kg	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	NA	N	NA	NA	1.6E-01	5.7E-01	6.8E-05	NA
Benzenethiol	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	N	NA	NA	7.8E+01	1.0E+03	8.6E-03	NA

Bolded Value - concentration exceeds screening level
NA - Screening level not available or not analyzed
DAF - Dilution attentuation factor
NMED Screening levels (June 2012)
EPA Regional Screening Levels (Nov. 2012)

Figures

Map Source: DeLorme Street Atlas USA 2007 Plus.

N

0 5
SCALE IN MILES

WESTERN REFINING
GALLUP REFINERY

Mexican Springs
Coyote Canyon
Defiance
Window Rock
Window Rock
Michaels
Gamerco
Gallup
Rehoboth
Church Rock Village
Mentmore
Gallup Municipal
Fort Wingate
Crownpoint
Crownpoint
Smith Lake
Continental Divide
Thoreau
Prewitt
Lupton
Vanderwagen
Bluewater Lake
Bluewater
Mt Sedgwick
Grants-Milan
Ramah

491
371
57
66
40
118
602
564
53
412

Western Refining
GALLUP REFINERY

PROJ. NO.: Western Refining | DATE:07/13/14 | FILE:WestRef-B198

FIGURE 1
SITE LOCATION MAP
GALLUP REFINERY

DiSorbo
Environmental Consulting Firm
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759

Aerial Map Source: Google Map, 02/19/2014.

N

0 100
SCALE IN FEET

LEGEND

SWMU No. 10 LOCATION

GALLUP SITE LOCATION

Western Refining
GALLUP REFINERY

PROJ. NO.: Western Refining | DATE:09/09/14 | FILE:WestRef-dB05

FIGURE 2
SWMU No. 10 LOCATION MAP

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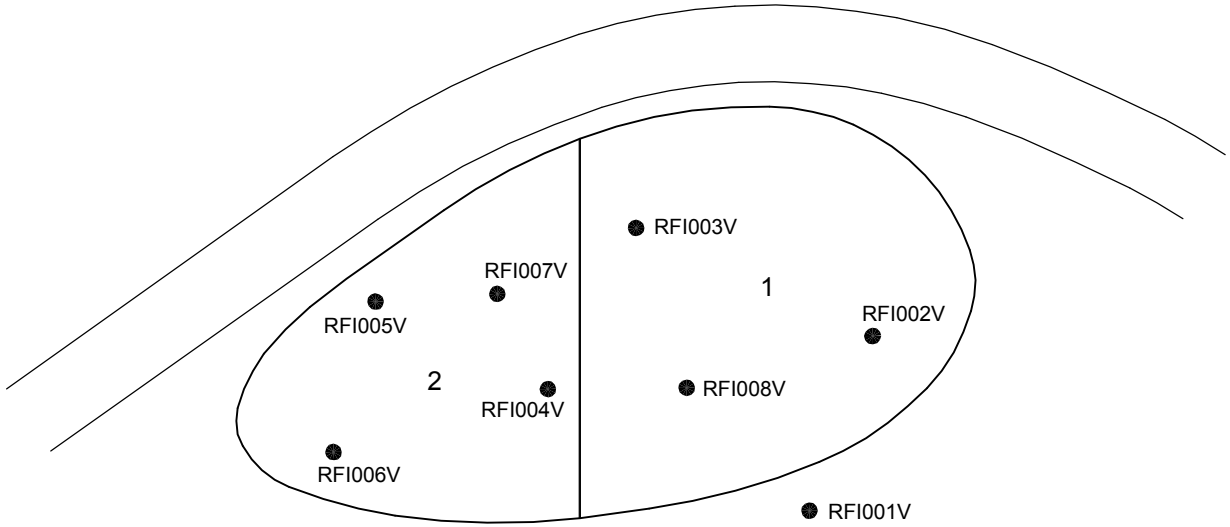
Environmental Consulting Firm
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759



Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:09/07/14 | FILE:WestRef-dA02

FIGURE 3
SWMU No. 10
1990 RFI SAMPLE LOCATIONS
GALLUP REFINERY

N

0 50
SCALE IN FEET

LEGEND

RFI002V ● 1990 RFI SOIL BORING LOCATION AND IDENTIFICATION NUMBER

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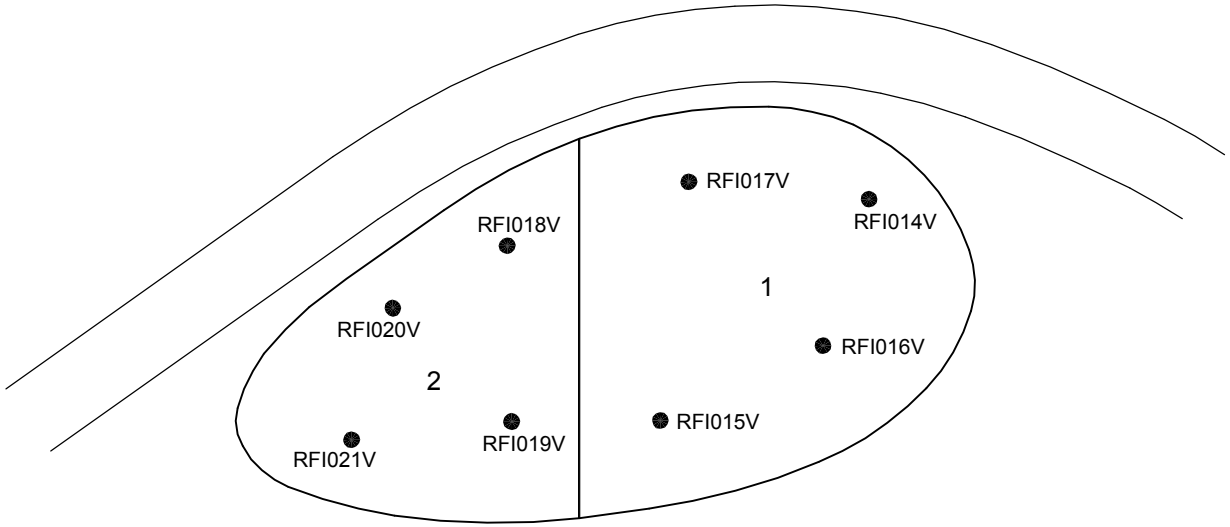
Suite 300
Austin, Texas 78759



N

0 50
SCALE IN FEET

LEGEND

RFI014V ● 1994 RFI SOIL BORING LOCATION AND IDENTIFICATION NUMBER

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:09/07/14 | FILE:WestRef-dA03

FIGURE 4
SWMU No. 10
1994 RFI SAMPLE LOCATIONS
GALLUP REFINERY

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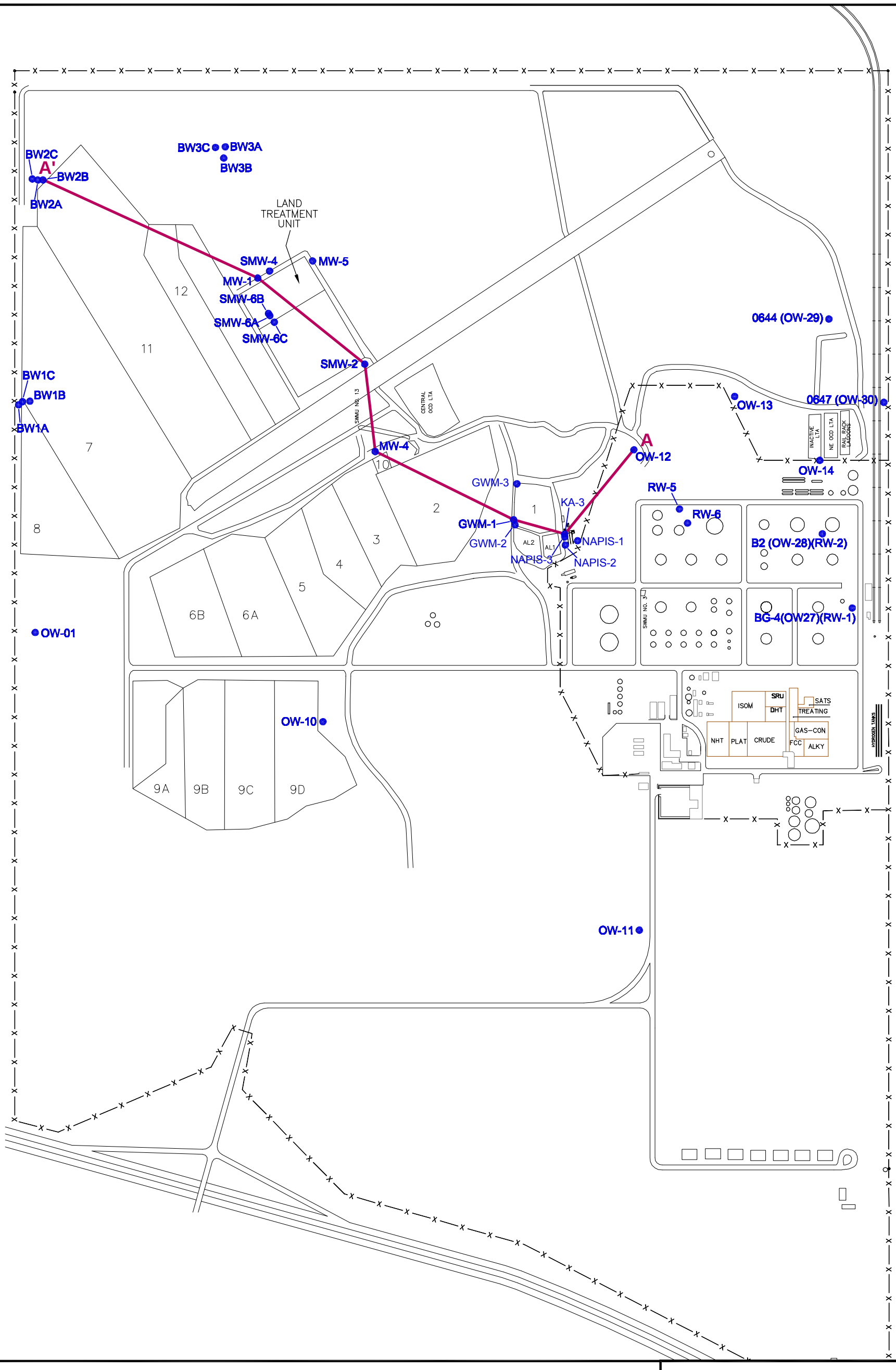
Suite 300
Austin, Texas 78759



N

0 600

SCALE IN FEET

LEGEND

GWM-1 ● MONITORING WELL LOCATION

A — A' LINE OF CROSS SECTION

Western Refining

GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:09/09/14 | FILE:WestRef-dB03

FIGURE 5

CROSS SECTION LOCATION MAP
GALLUP REFINERY

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8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759

SOUTHEAST
A

NORTHWEST
A'

ELEVATION (FT MSL)

6950
6925
6900
6875
6850
6825
6800
6775
6750

OW-12
KA-3
GMW-1
MW-4
SMW-2
MW-1
BW2C

SANDSTONE, LT. BROWN, FINE GRAIN

SHALE, RED–BROWN, SILTY, SANDY

SANDSTONE, SILTY, FINE–MEDIUM GRAIN

SHALE, GRAY, SILTY, SANDY

SANDSTONE, GRAY–BLUISH GRAY, FINE GRAIN, THIN BEDDED

SHALE, GRAY, SILTY, SANDY

CLAY, SANDY
SAND
CLAY
MUDSTONE

CLAY
SAND
MUDSTONE

PETRIFIED FOREST FORMATION

SONSELA MEMBER

CLAY, RED–BROWN

GRADES SILTY AND SANDY
SAND

SHALE, RED–BROWN

SHALE/LIMESTONE INTERBEDDED

SHALE, SLIGHT SANDY

SANDSTONE, CLAYEY

SHALE, SANDY

SANDSTONE, WHITE–LT. GRAY

SHALE, PURPLE

QUATERNARY ALLUVIUM

CLAY, SILTY, INTERBEDDED MEDIUM–COARSE SAND

?
SAND

SHALE, SILTY, RED–BROWN

CLAY, SILTY, RED–BROWN

SHALE/LIMESTONE INTERBEDDED

SANDSTONE, WEAKLY CEMENTED

SHALE, PURPLE–RED

CLAY, RED–BROWN, FIRM
SAND
CLAY

SAND–SILT
SAND, SILT, CLAY, INTERBEDDED

CLAY W/ INTERBEDDED SAND LAYERS UP TO 1" THICK

?
SAND, SILT CLAYEY
?
CLAY
?
SAND

MUDSTONE, WEATHERED

MUDSTONE/ SILTSTONE INTERBEDDED

SANDSTONE

MUDSTONE/ SILTSTONE INTERBEDDED

EXPLANATION

MW-1 — WELL IDENTIFICATION

WELL

SCREEN INTERVAL

LITHOLOGIC CONTACTS

POTENTIOMETRIC SURFACE MEASURED AUGUST 2012

25
0
250
SCALE IN FEET
VERTICAL EXAGGERATION = 10X

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:09/09/14 | FILE:WestRef–dB04

FIGURE 6
CROSS SECTION A-A'
SOUTHEAST TO NORTHWEST
GALLUP REFINERY

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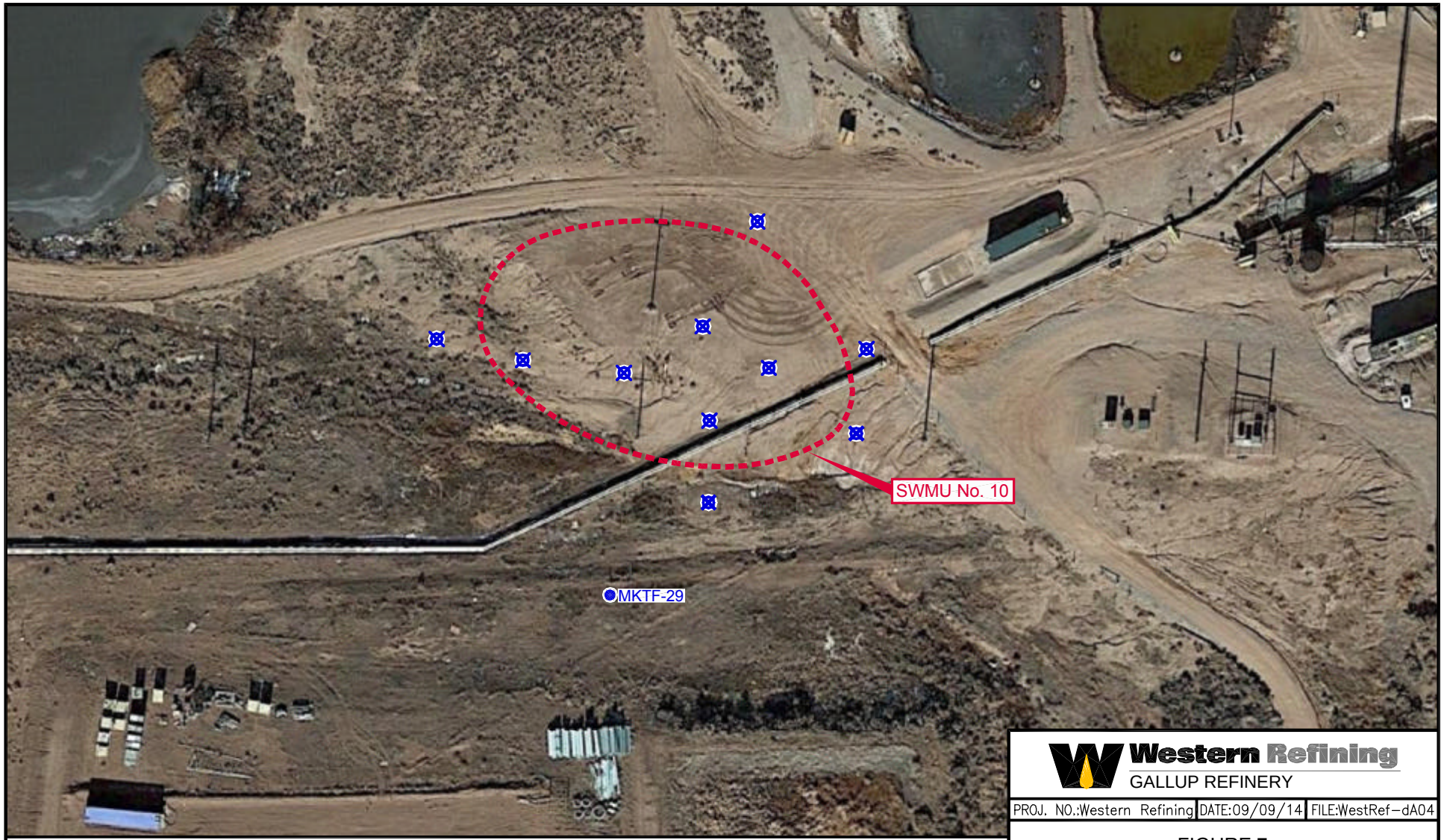
Austin, Texas 78759



Aerial Map Source: Google Map, 02/19/2014.

N

0 80
SCALE IN FEET

LEGEND

- PROPOSED SOIL BORING LOCATION
- MKTF-29 EXISTING MONITORING WELL LOCATION
- SWMU No. 10 LOCATION

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining	DATE:09/09/14	FILE:WestRef-dA04

FIGURE 7
SWMU No. 10
PROPOSED SAMPLE LOCATIONS
GALLUP REFINERY

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Austin, Texas 78759

Appendix A
Photographs

Aerial Map Source: Google Map, 02/19/2014.

N

0 80
SCALE IN FEET

LEGEND

1 PHOTO IDENTIFICATION AND DIRECTION TAKEN

SWMU No. 10 LOCATION

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining	DATE:09/09/14	FILE:WestRef-dA05

SWMU No. 10
PHOTO LOCATIONS MAP
GALLUP REFINERY

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Suite 300
Austin, Texas 78759

Photo 1. Looking south from the north side of SWMU 10.

Photo 2. Looking southeast from north side of SWMU 10.

Appendix B

SWMU No. 10 Summary Report

SWMU #10 Summary Report

Sludge Pits
Ciniza Refinery
McKinley County, New Mexico

Prepared for:

Ciniza Refinery
Giant Refining Company
Route 3, Box 7
Gallup, New Mexico 87301

Prepared by:

Practical Environmental Services, Inc.
1444 Wazee Street, Suite 225
Denver, Colorado 80202

Job No. 98-205-03

April 23, 1998

1.0 EXECUTIVE SUMMARY

Practical Environmental Services, Inc. (PES) has been retained by Giant-Ciniza Refinery (Ciniza) to perform a visual inspection, data evaluation, and status assessment for the sludge pits located at the Ciniza Refinery, in McKinley County, New Mexico.

The sludge pits area was identified as a Solid Waste Management Unit (SWMU), and designated as SWMU #10, during a RCRA Facility Investigation (RFI) conducted at the refinery in the early 1990's. This investigation included soil sampling and analysis, detected organic contaminants, and recommended corrective action.

In 1994, the Environmental Protection Agency Region VI Office (EPA) requested additional sampling at greater depth. Results confirmed previous findings. A corrective plan was prepared by Ciniza and approved by the EPA.

This summary report for SWMU #10 has been prepared in conjunction with submittal of a Resource Conservation and Recovery Act (RCRA) Part B permit application covering post closure care of the Ciniza Refinery Land Treatment Unit. All investigative activities for SWMU #10 have been completed. This assessment is summarized as follows.

- ⇒ Sludge was removed from the pits in 1980 and replaced with clean soil. The site was then covered with a layer of clean soil.
- ⇒ Soil sampling and analysis was conducted during an initial site investigation and subsequent re-investigation at greater depth. Organic contaminants were detected above corrective action levels.
- ⇒ SWMU #10 has been characterized in accordance with current applicable state and federal regulations.
- ⇒ Installation of an engineered earthen cap is recommended as corrective action for this site.

2.0 BACKGROUND

During 1987, a RCRA Facility Assessment was conducted at the Ciniza Refinery. This assessment identified various "solid waste management units" and recommended further evaluation. A RCRA Facility Investigation was subsequently conducted and the sludge pits area was identified as SWMU #10.

Applied Earth Sciences (AES) investigated the sludge pits area during the early 1990s. Soil samples were collected and analyzed. Organic contaminants were detected above State of New Mexico corrective action levels. Trace metals were also detected; of which, a few samples indicated levels slightly above ambient background concentration.

As a result of the investigation, AES recommended tilling the site to promote natural attenuation of organics, followed by capping to contain residual metals. Results and recommendations were reported to the EPA in 1990. In 1994, the EPA requested additional sampling at greater depth. Follow-up sampling and analysis confirmed the original findings.

3.0 SITE LOCATION AND DESCRIPTION

SWMU #10 is located within the Ciniza Refinery's property boundary. This refinery is located on the north side of Interstate 40, approximately 17 miles east of Gallup, New Mexico. Within the refinery, SWMU #10 is located approximately 200 feet southwest of the API separator. See Figure No. 1 for location details.

The sludge pits area is an oblong flat site measuring approximately 120 feet wide by 200 feet long. Within this area, two pits were previously excavated and filled with oily waste from the API separator.

In 1980, the sludge was removed from the pits and replaced with clean fill soil. The site was then covered with a layer of clean soil.

4.0 SITE INSPECTION

During the week of March 23, 1998, an on-site inspection was performed. Observations are noted as follows:

- The sludge pits area was observed vacant and inactive. No sign of soil staining or residual waste was evident at or in the vicinity of the site.
- Native shrubs and grasses were observed growing throughout the general vicinity. No signs of distress were evident.
- Local soil in the vicinity of the sludge pits presents as bentonitic clays and silts. Similar soil strata from a neighboring SWMU exhibited a hydraulic conductivity of less than 10^{-7} cm/sec.

5.0 DATA REVIEW

Soil samples from within the sludge pits area were collected and analyzed during the initial site investigation and subsequent re-sampling at greater depth.

In 1990, the initial site investigation collected samples at eight locations and multiple depths; including surface, 3, 6, 9, and 12.5 feet below ground surface. VOCs were detected in 7 of 27 samples; of which, xylenes at 540 mg/kg represented the highest detection. SVOCs were detected in 10 of 27 samples; of which, methylnaphthalene at 1,400 mg/kg represented the highest detection.

In 1995, a second round of sampling and analysis was conducted at eight locations and depths of 19 and 25 feet below ground surface. No VOCs were detected in any sample. Trace SVOCs were detected in four samples; of which, di-n-butyl phthalate at 13 mg/kg represents the highest detection.

State of New Mexico corrective action levels for BTEX in soil is 50 mg/kg total and 10 mg/kg of benzene. Seven of 43 samples indicated BTEX constituents, the highest of which was over 900 mg/kg total; which is above the 50 mg/kg action level.

All samples detected trace metals; of which, chromium and lead were detected at levels above ambient background concentration.

6.0 ASSESSMENT

Based on the site inspection and data review, the sludge pits area is assessed as follows.

- Oily waste originally placed in the sludge pits has been substantially removed and the pits now contain a mixture of residual waste and backfilled clean soil.

- Residual organic contaminants, consisting of both VOCs and SVOCs, are present in moderate concentrations and substantially confined to a 20 foot soil layer beneath the surface cover.

- Residual metal contaminants, consisting primarily of chromium and lead, are present in the same soil layer at elevated levels.

- The currently approved CAP recommends excavation and tilling to enhance biodegradation of organics. This technique will expose soil metals to oxidation and precipitation; thereby mobilizing these contaminants and promoting migration.

- Local soil underlying this site has a very low hydraulic conductivity which effectively inhibits outward migration of contaminants.

- An alternative corrective action is recommended. Installation of an engineered soil cap represents a preferred and appropriate remedy for this site.

7.0 PROFESSIONAL ENGINEER'S CERTIFICATION

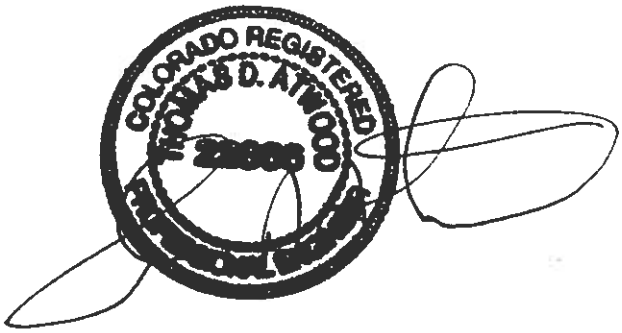
This summary report for SWMU #10 has been prepared under the direct supervision and control of a Registered Professional Engineer.

Client: Ciniza Refinery
Giant Refining Company
Route 3, Box 7
Gallup, New Mexico 87301

Job No.: 98-205-03

Date: April 23, 1998

Prepared and Certified by:



Thomas D. Atwood, P.E.
Colorado Registration No. 22866

Appendix C

1990 and 1994 Boring Logs

RFI 1001

Personnel: Mark, Chris, Corrie, Danny, Mike, Claud*, (Jeff, Jay) PRC

Weather: Clear
No Wind
Temp 73°

Terrain: A few scattered weeds less than a foot high. The sample was collected on level ground near an overflow pipe outlet from a 4-5' high bank.

Sampling: 06-28-90
Background PID 4.0

7:16 took first sample 0-½' and split it with EPA as a duplicate. PID 4.0. The soil was brown, dry and granular.

7:21 Started augering down to 3-3½'

7:30 took sample at 3-3½' PID 5.0 we took our sample, the soil was brown and very moist.

7:39 filled the hole.

Sampling Method:
The first sample was taken with the closed split spoon auger. The open end split spoon auger was used to auger down to the 3-3½' interval. The second sample was then taken with the closed split spoon auger.

RFI 1002

Personnel: Mark, Chris, Danny, Mike*, Jeff, Jay

Weather: Clear
Wind 0-5 mph
Temperature 87

Terrain: A few scattered bushes about a foot in height on level ground

Sampling: 6-28-90
Background 1.0
11:50 took top sample at 0-½', the soil was dry and brown. PID 1.0
11:58 took second sample 3-3½', the soil was brown with traces of black lines. PID 5.0
12:03 took third sample 6-6½', the soil is dark brown and a little moist. PID 3.0
12:13 took fourth sample 9-9½', the soil is dark brown and moist. PID 1.0
12:35 took last sample at 12½-13', the soil is brown damp clay. PID 0.5

Sampling Method:
The first sample was collected in an open end auger, then the backhoe dug down to 3' where the next sample was collected with the open end auger. The backhoe proceeded down to 6' level where the third sample was collected with a closed end auger. The backhoe again dug down to the next interval 9-9½' and the sample was collected with the closed end auger. The backhoe dug down to 12' and the open end auger was used to go down 6 more inches, here the closed auger was used to collect the 12½-13' sample.

Unusual Incidents:
At about 4½' there was a 4-6" wide darker brown, almost black layer.

RFI 1003

Personnel: Mark, Chris, Corrie, Danny, Claud*, Mike, (Jeff, Jay) with PRC

Weather: Clear
No Wind
Temperature 73

Terrain: A few scattered weeds about a foot in height on level ground.

Sampling: 06-28-90
Background PID 1.5

8:00 took first sample at 12½-13' interval and split it with PRC for a duplicate, and took another sample for a replicate for PRC. The soil was dark brown and a little moist. PID 1.5

8:21 took the second sample at 9-9½' interval, the soil was moist and dark brown. PID 10

8:35 took sample at 6-6½' interval, another background PID was taken at 8:30, it read 1.0 and the sample read 4.0. The soil was moist and dark brown.

8:43 took sample at 3-3½ interval, the soil was dark brown. PID 2.0

8:46 took sample at 0-½' interval, the soil was brown and dry. PID 1.0

Sampling Method:
The backhoe first dug down to 10', then we set a 4' diameter culvert, with precut holes for sampling, in the hole. The open end auger was used to auger from 10' to 12½' then the closed end auger was used to take the sample. Next we used the closed end auger to take the 9-9½' sample through one of the precut port holes. The third sample was done the same way at the 6-6½' interval, and again at 3-3½'. At 0-½' the open end auger was used to collect the sample.

RFI 1004

Personnel: Mark, Chris, Corrie, Danny, Philbert, Claud*, Mike, (Jeff, Jay) with PRC.

Weather: Clear
No Wind
Temperature 75°

Terrain: A few scattered small bushes about a foot high on level ground.

Sampling: 06-28-90
Background 1.0

8:53 took sample at 0-½', the soil was brown and a little moist. PID 1.0

9:01 took second sample at 3-3½', the soil looked dark like oily sludge and moist. PID 38

9:07 took sample at 6-6½', the soil looked like dark sticky sludge, the sample was split with PRC as a duplicate. PID 50

9:32 took sample at 9-9½', the soil looked like sludge but last few inches of the sample was clearing up. PID 150

9:45 took sample at 12½-13', the soil looked dark brown but clean. PID 20

Sampling Method:
The first sample was taken with an open end auger, then the backhoe dug down to 3-3½' and the closed end auger was used to sample. The backhoe dug down to the next depth of 6-6½' where the third sample was taken with the closed end auger. Then the backhoe dug down as far as it could to about 12', where we augered down 6" with open end auger and then took our sample with the closed end auger.

RFI 1005

Personnel: Corrie, Claud*, Philbert, Jeff, Jay

Weather: Clear
Wind 0-5 mph
Temperature 83

Terrain: A few scattered bushes about a foot in height on level ground.

Sampling: 06-28-90
Background PID 3.0

10:29 took 0-½' sample, the soil was dry and brown PID 3.0

10:48 took sample at 3-3½', the soil was dark brown and little moist, another background PID was taken with a reading of 1.5 and the sample also read 1.5.

11:01 took sample at 6-6½', the soil was like black sludge PID 42

11:15 took sample at 9-9½', the soil was clean and brown PID 2.5

11:30 took last sample at 12½-13', the soil was clean sticky brown clay. PID 3.5

Sampling Method:

The top sample was taken with the open end auger, then the backhoe dug down 3' where another sample was taken. At the 3' level, the closed end auger was used, and we split the sample with PRC as a duplicate. The backhoe then dug down to the 6' level, black sludge was very apparent from about 5'9" tp 7'10", where the sample was taken. Then the backhoe dug down to the 9' level and another sample was taken with closed end auger. On the final sample there was clean brown clay, but from about 10' to 11' was more black sludge.

SHEET 1 OF 9 | PRECISION ENGINEERING, INC. | File No. 94-114

Boring Location _____ | LOG OF TEST BORINGS | Location CINIZA REFINERY

Elevation EXISTING

Boring Number: RFI 1013 | Water Level NOT ENCOUNT. | Date: 07/26/94

LAB #	DEPTH	BLOWS/N	PLOT	SCALE	SAMPLE	MATERIAL CHARACTERISTICS (MOISTURE,CONDITION,COLOR,GRAINSIZE,ETC.)	%M	LL	PI	CLASS.
			/*/0*/		C	CLAY, SANDY, SLIGHTLY GRAVELLY, DAMP, SOFT,				
			/*/0*/		C	RED BROWN				
			/*/0*/		C					
	2.0		/*/0*/		C					
			/-//-/	2.5	C	CLAY, SILTY, WET, SOFT, MOTTLED BLACK				
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
			/-//-/	5	C					
	5.5		/-//-/		C					
			/*//*/		C	CLAY, SANDY(MEDIUM), WET, BROWN				
	6.4		/*//*/		C					
	6.8		*-**-*		C	SAND, FINE, SILTY, WET, SHARP CONTACTS				
			/-//-/	7.5	C	CLAY, SILTY, WET, SOFT, RED BROWN, SOME DARK				
			/-//-/		C	STAINING IN THIN VARIED SILTY LENSES				
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
			/-//-/	10	C					
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
	12.3		/-//-/		C					
			/*-/*-		C	CLAY, SANDY(FINE), SILTY, MOIST TO WET, FIRM,				
			/*-/*-		C	RED BROWN, THIN BEDDING PLANES(< 1 CM)				
			/*-/*-		C					
			/*-/*-		C					
			/*-/*-	15	C	GRADES LESS SANDY				
			/*-/*-		C					
	15.8		/*-/*-		C					
	16.6		/-//-/		C	CLAY, SILTY, WET, FIRM, RED BROWN				
			/S//S/		C	CLAY, SHALEY, MOIST TO WET, FISSLE, DARK RED				
			/S//S/		C	BROWN, GREY SANDY STREAKS, MORE MASSIVE AND				
			/S//S/		C	SANDY BELOW 18.3'				
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
	20.0		/S//S/	20	C					
	TOTAL DEPTH									

Size & Type of Boring: 4-1/4" ID Hollow Stemmed Auger | Logged By: WHK

SHEET 2 OF 9 | PRECISION ENGINEERING, INC. | File No. 94-114

Boring Location | LOG OF TEST BORINGS | Location CINIZA REFINERY

Elevation EXISTING

Boring Number: RFI 1014 | Water Level NOT ENCOUNT. | Date: 07/26/94

LAB #	DEPTH	BLOWS/N	PLOT	SAMPLE	SAMPLE TYPE	MATERIAL CHARACTERISTICS (MOISTURE,CONDITION,COLOR,GRAINSIZE,ETC.)	%M	LL	PI	CLASS.
			/-*/-*		C	CLAY, SILTY, SANDY(FINE),MOIST, SOFT,RED BROWN				
			/-*/-*		C					
			/-*/-*		C					
			/-*/-*		C					
			/-*/-*	2.5	C					
			/-*/-*		C					
			/-*/-*		C					
			/-*/-*		C					
			/-*/-*		C					
			/-*/-*	5.0	C					
			/-*/-*		C					
			/-*/-*		C					
	6.5		/-*/-*		C					
	7.0		/-//-/		C	CLAY, SILTY, WET, SOFT, RED BROWN				
			/-*/-*	7.5	C	CLAY, SILTY, SANDY, WET, SOFT, 7 TO 8.5' BLACK				
			/-*/-*		C	8.5 TO 10' RED BROWN				
			/-*/-*		C					
			/-*/-*		C					
			/-*/-*		C					
	10.0		/-*/-*	10	C					
			/-//-/		C	CLAY, SILTY, WET, SOFT, RED BROWN				
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
	13.1		/-//-/		C					
			-*--*-		C	SILT, SANDY, WET, SOFT, RED TO DARK BROWN				
	13.8		-*--*-		C					
			/-//-/		C	CLAY, SILTY, WET, SOFT, RED BROWN, 1" SAND				
	15.1		/-//-/	15	C	SEAM AT 14.6'				
	15.7		*/**/*		C	SAND, CLAYEY, WET, LOOSE, BROWN				
			/-//-/		C	CLAY, SILTY, WET, FIRM, RED BROWN				
			/-//-/		C	GRADES SHALEY				
	17.0		/-//-/		C					
			/S//S/		C	CLAY, SHALEY, DAMP TO MOIST, HARD, RED BROWN,				
			/S//S/		C	THIN GREY SILTY STREAKS(FEW BELOW 18.5')				
			/S//S/		C					
			/S*/S/		C	GRADES SANDY AND BLOCKY				
			/S*/S/		C					
			/S*/S/	20	C					
			/S*/S/		C					
			/S*/S/		C					
			/S*/S/		C					
			/S*/S/		C					
			/S*/S/		C					
			/S*/S/		C					
			/S*/S/		C					
			/S*/S/		C					
			/S*/S/		C					
			/S*/S/		C	SLICKEN SIDED JOINT AT 24.1				
	25.0		/S*/S/	25	C					
	TOTAL DEPTH									

Size & Type of Boring: 4-1/4" ID Hollow Stemmed Auger | Logged By: WHK

SHEET 3 OF 9 | PRECISION ENGINEERING, INC. | File No. 94-114

Boring Location _____ | LOG OF TEST BORINGS | Location CINIZA REFINERY

Elevation EXISTING

Boring Number: RFI 1015 | Water Level NOT ENCOUNT. | Date: 07/26/94

LAB #	DEPTH	BLOWS/N	PLOT	SCALE	SAMPLE	MATERIAL CHARACTERISTICS (MOISTURE,CONDITION,COLOR,GRAINSIZE,ETC.)	%M	LL	PI	CLASS.
			/-*/-*		C	CLAY, SILTY, SANDY(FINE), OCCASIONAL GRAVEL,				
			/-*/-*		C	MOIST TO WET, SOFT, BROWN				
			/-*/-*		C					
			/-*/-*		C					
			/-*/-*	2.5	C					
			/-*/-*		C					
			/-*/-*		C					
			/-*/-*		C					
	4.5		/-*/-*		C					
			/-/0-/	5.0	C	CLAY, SILTY, SCATTERED FINE GRAVEL, WET, VERY				
			/-/0-/		C	SOFT, BLACK				
			/-/0-/		C					
	6.5		/-/0-/		C					
			/*//*/		C	CLAY, SANDY, WET, VERY SOFT, WHERE SANDY FREE				
			/*//*/	7.5	C	FLUID AND BLACK				
			/*//*/		C	3.6" CLAY ZONES AT 7.5', BLACK BROWN				
			/*//*/		C					
			/*//*/		C					
			/*//*/		C					
			/*//*/	10	C					
	10.4		/*//*/		C					
			/-//-/		C	CLAY, SILTY, SOFT, RED BROWN				
			/-//-/		C					
			/-//-/		C					
	12.4		/-//-/		C					
			/-//-/		C	CLAY, SILTY, WET, SOFT, RED BROWN, INTERBEDDED				
			/-//-/		C	SILTS & FINE SAND(BLACK STAIN)				
			/-//-/		C					
			/-//-/		C					
	15.0		/-//-/	15	C					
			/*/*/*		C	CLAY, VERY SANDY, RED BROWN, GRADES SANDIER				
			/*/*/*		C					
			/*/*/*		C					
	17.0		/*/*/*		C					
			/S//S/		C	CLAY, SHALEY, MOIST, HARD, RED BROWN, WEAK				
			/S//S/		C	LAMINATIONS AT ~ 1 CM INTERVALS, GREY IS CLAY,				
			/S//S/		C	FISSILE TO BLOCKY, OCCASIONAL THIN SANDIER				
			/S//S/		C	SEAMS(<4")				
			/S//S/		C					
			/S//S/	20	C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
	25.0		/S//S/	25	C					
	TOTAL DEPTH									

Size & Type of Boring: 4-1/4" ID Hollow Stemmed Auger | Logged By: WHK

SHEET 4 OF 9 | PRECISION ENGINEERING, INC. | File No. 94-114

Boring Location _____ | LOG OF TEST BORINGS | Location CINIZA REFINERY

Elevation EXISTING

Boring Number: RFI 1016 | Water Level NOT ENCOUNT. | Date: 07/26/94

LAB #	DEPTH	BLOWS/N	PLOT	SCALE	SAMPLE	MATERIAL CHARACTERISTICS (MOISTURE,CONDITION,COLOR,GRAINSIZE,ETC.)	%M	LL	PI	CLASS.
			/-//-/		C	CLAY, SILTY, OCCASIONAL FINE GRAVEL, MOIST,				
			/-//-/		C	SOFT TO FIRM, BROWN				
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
			/-//-/	2.5	C					
			/-//-/		C					
	3.3		/-//-/		C					
			-/-/-/		C	SILT/CLAY, WET, VERY SOFT, BLACK				
			/-/-/-		C					
			-/-/-/	5.0	C					
			/-/-/-		C					
	5.8		-/-/-/		C					
			/-//-/		C	CLAY, SILTY, WET, VERY SOFT, BLACK MOTTLING				
			/-//-/		C					
			/-//-/	7.5	C					
			/-//-/		C					
			/-//-/		C					
	9.1		/-//-/		C					
			*/**/*		C	SAND, CLAYEY, WET, VERY LOOSE, BROWN				
	9.8		*/**/*	10	C					
			//////		C	CLAY, WET, SOFT, SOME SAND LENSES(<1 CM)				
			//////		C					
			//////		C					
			//////		C					
			//////		C					
			//////		C					
			//////		C					
			//////		C					
			//////		C					
			//////	15	C					
			//////		C					
			//////		C					
			//////		C					
	16.9		//////		C					
			/S//S/		C	CLAY, SHALEY, MOIST, HARD, RED, SOME GREY CLAY				
			/S//S/		C	MOTTLING, FISSILE TO BLOCKY(<1 CM)				
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/	20	C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
	25.0		/S//S/	25	C					
	TOTAL DEPTH									

Size & Type of Boring: 4-1/4" ID Hollow Stemmed Auger | Logged By: WHK

HEET 5 OF 9 | PRECISION ENGINEERING, INC. | File No. 94-114

Boring Location _____ | LOG OF TEST BORINGS | Location CINIZA REFINERY

Elevation EXISTING

Boring Number: RFI 1017 | Water Level NOT ENCOUNT. | Date: 07/26/94

LAB #	DEPTH	BLOWS/N	PLOT	SAMPLE	SAMPLE TYPE	MATERIAL CHARACTERISTICS (MOISTURE,CONDITION,COLOR,GRAINSIZE,ETC.)	%M	LL	PI	CLASS.
			/-*/-*		C	CLAY, SILTY, SANDY, DAMP TO MOIST, FIRM, BROWN				
			/-*/-*		C					
			/-*/-*		C					
			/-*/-*		C					
	2.5		/-*/-*	2.5	C					
			/-*/-*		C	CLAY, SILTY, SANDY, WET, VERY SOFT, BLACK				
			/-*/-*		C	BROWN MOTTLED, BLACK FROM 4 TO 6'				
			/-*/-*		C					
			/-*/-*		C					
			/-*/-*	5.0	C					
			/-*/-*		C					
			/-*/-*		C					
			/-*/-*		C	SOME FINE GRAVEL AT 6' AND SCATTERED BLACK				
			/-*/-*		C	BROWN MOTTLING				
			/-*/-*	7.5	C					
			/-*/-*		C					
			/-*/-*		C					
			/-*/-*		C					
			/-*/-*		C					
	10.0		/-*/-*	10	C					
			/0//0/		C	CLAY, GRAVELLY, WET, LOOSE, RED BROWN, SOME				
	11.1		/0//0/		C	FREE FLUID				
			//////		C	CLAY, WET, FIRM, RED BROWN				
			//////		C					
			//////		C					
	12.8		//////		C					
	13.4		******		C	SAND, FINE, WET, LOOSE, BROWN TO GREY				
			/-//-/		C	CLAY, SILTY, WET, SOFT, RED BROWN, WEAK				
			/-//-/		C	MOTTLING(BLACK SPECKS), GRADES LESS SILTY				
			/-//-/	15	C					
			/-//-/		C					
	15.8		/-//-/		C					
			//////		C	CLAY, WET, FIRM, RED				
	16.8		//////		C					
			/S//S/		C	CLAY, SHALEY, RED, SOME GREY CLAY MOTTLING,				
			/S//S/		C	FISSILE TO FINE BLOCKY(<1 CM), SOME RED/GREY				
			/S//S/		C	LAMINATIONS				
			/S//S/		C					
			/S//S/		C					
			/S//S/	20	C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C	SOME SAND PARTINGS AT 24'				
	25.0		/S//S/	25	C					
	TOTAL DEPTH									

Size & Type of Boring: 4-1/4" ID Hollow Stemmed Auger | Logged By: WHK

HEET 6 OF 9 | PRECISION ENGINEERING, INC. | File No. 94-114

Boring Location _____ | LOG OF TEST BORINGS | Location CINIZA REFINERY

Elevation EXISTING

Boring Number: RFI 1018 | Water Level NOT ENCOUNT. | Date: 07/27/94

LAB #	DEPTH	BLOWS/N	PLOT	SCALE	SAMPLE	MATERIAL CHARACTERISTICS (MOISTURE,CONDITION,COLOR,GRAINSIZE,ETC.)	%M	LL	PI	CLASS.
			/-//-/		C	CLAY, SILTY, DAMP TO MOIST, FIRM, BROWN				
			/-//-/		C					
			/-//-/		C					
	1.8		/-//-/		C					
			/-/0-/	2.5	C	CLAY, SILTY, SCATTERED GRAVEL, WET, VERY SOFT,				
			/-/0-/		C	BROWN, MOTTLED BLACK				
			/-/0-/		C					
			/-/0-/		C					
			/-/0-/		C					
			/-/0-/	5.0	C					
			/-/0-/		C					
	6.2		/-/0-/		C					
			/-//-/		C	CLAY, SILTY, WET, VERY SOFT, RED BROWN				
	7.1		/-//-/		C					
	7.6		/-*/-*	7.5	C	CLAY, SANDY, SILTY, VERY SOFT, BROWN, SOME DRK				
			//////		C	STREAKING ON BEDDING, FREE FLUID IN BEDDING				
			//////		C	CLAY, WET, SOFT, RED BROWN,SOME BLACK MOTTLING				
	9.1		//////		C					
	9.7		*/**/*		C	SAND, CLAYEY, MOIST TO WET, LOOSE,YELLOW BROWN				
			//////	10	C	CLAY, WET, FIRM, RED BROWN				
			//////		C					
			//////		C					
			//////		C					
			//////		C					
			//////		C					
			//////		C					
			//////		C					
			//////		C					
			//////		C					
			//////		C					
	15.2		//////	15	C					
			/*//*/		C	CLAY, SANDY, WATER BEARING, VERY SOFT, BROWN,				
	15.9		/*//*/		C	SAND LAMINATIONS(<0.5 CM)				
			/S//S/		C	CLAY, SHALEY, MOIST, HARD, RED TO PURPLE BROWN				
			/S//S/		C	SOME GREY CLAY MOTTLING,PISSLE AND FINE BLOCKY				
			/S//S/		C	(<1 CM)				
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/	20	C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C	GRADES SANDIER BELOW 22.1'				
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
	25.0		/S//S/	25	C					
	TOTAL DEPTH									

Size & Type of Boring: 4-1/4" ID Hollow Stemmed Auger | Logged By: WHK

SHEET 7 OF 9 | PRECISION ENGINEERING, INC. | File No. 94-114

Boring Location _____ | LOG OF TEST BORINGS | Location CINIZA REFINERY

Elevation EXISTING

Boring Number: RFI 1019 | Water Level NOT ENCOUNT. | Date: 07/27/94

LAB #	DEPTH	BLOWS/N	PLOT	SCALE	SAMPLE	MATERIAL CHARACTERISTICS (MOISTURE,CONDITION,COLOR,GRAINSIZE,ETC.)	%M	LL	PI	CLASS.
			/-//-/		C	CLAY, SILTY, MOIST, FIRM TO STIFF, BROWN				
			/-//-/		C					
	1.5		/-//-/		C					
			/-//-/		C	CLAY, SILTY, WET, SOFT, BROWN				
			/-//-/	2.5	C					
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
			/-//-/	5.0	C					
			/-//-/		C					
	6.0		/-//-/		C					
			/-//-/		C	CLAY, SILTY, WET, VERY SOFT, BROWN, SAND SEAMS				
	6.8		/-//-/		C	(~1 CM), WATER BEARING				
	7.2		/*/*/*	7.5	C	CLAY, VERY SANDY, WET, VERY SOFT, GREY				
			/-//-/		C	CLAY, SILTY, WET, SOFT TO FIRM, RED BROWN,				
			/-//-/		C	WEAK BLACK MOTTLING				
			/-//-/		C					
			/-//-/		C					
			/-//-/	10	C					
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
	12.0		/-//-/		C					
	12.5		*/*/*/		C	SAND, CLAYEY, WET, LOOSE, BROWN				
			/-//-/		C	CLAY, SILTY, WET, FIRM TO STIFF, BROWN				
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
			/-//-/	15	C					
			/-//-/		C					
	16.0		/-//-/		C					
			/S//S/		C	CLAY, SHALEY, MOIST, HARD TO VERY HARD, RED				
			/S//S/		C	BROWN, FISSLE AND FINE BLOCKY(<1 CM), SOME				
			/S//S/		C	GREY CLAY MOTTLING				
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/	20	C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
	25.0		/S//S/	25	C					
	TOTAL DEPTH									

Size & Type of Boring: 4-1/4" ID Hollow Stemmed Auger | Logged By: WHK

SHEET 8 OF 9 | PRECISION ENGINEERING, INC. | File No. 94-114

Boring Location _____ | LOG OF TEST BORINGS | Location CINIZA REFINERY

Elevation EXISTING

Boring Number: RFI 1020 | Water Level NOT ENCOUNT. | Date: 07/27/94

LAB #	DEPTH	BLOWS/N	PLOT	SAMPLE	SAMPLE	MATERIAL CHARACTERISTICS (MOISTURE,CONDITION,COLOR,GRAINSIZE,ETC.)	%M	LL	PI	CLASS.
			/-//-/		C	CLAY, SILTY, MOIST TO WET, SOFT, BROWN				
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
			/-//-/	2.5	C					
	3.0		/-//-/		C					
			/-//-/		C	CLAY, SILTY, WET, SOFT, BROWN				
			/-//-/		C	DARK SPOT AT 3.3'				
			/-//-/		C					
			/-//-/	5.0	C					
			/-//-/		C					
	6.0		/-//-/		C					
			//*/		C	SAND, CLAYEY, WET, LOOSE, BROWN				
	6.7		*/*/*/		C					
			//////	7.5	C	CLAY, WET, FIRM TO STIFF, BROWN				
			//////		C					
			//////		C					
			//////		C					
			//////		C					
			//////	10	C					
			//////		C					
			//////		C					
	11.8		//////		C					
			/*//*/		C	CLAY, SANDY, WET, SOFT, BROWN				
	12.4		/*//*/		C					
			//////		C	CLAY, WET, FIRM TO STIFF, BROWN				
	13.5		//////		C					
	13.9		/*//*/		C	CLAY, SANDY(FINE TO MEDIUM), WET, HARD, BROWN				
			/S//S/		C	CLAY, SHALEY, HARD, BROWN TO RED BROWN, THIN				
			/S//S/	15	C	LAMINATIONS, FISSLE AND FINE BLOCKY(<1 CM),				
			/S//S/		C	SOME GREY CLAY MOTTLING				
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S*/S/		C	GRADES SANDIER				
			/S*/S/		C					
			/S*/S/		C					
			/S*/S/	20	C					
			/S*/S/		C					
			/S*/S/		C					
			/S*/S/		C					
			/S*/S/		C					
			/S*/S/		C					
			/S*/S/		C					
			/S*/S/		C					
			/S*/S/		C					
	25.0		/S*/S/	25	C					
	TOTAL DEPTH									

Size & Type of Boring: 4-1/4" ID Hollow Stemmed Auger | Logged By: WHK

SHEET 9 OF 9 | PRECISION ENGINEERING, INC. | File No. 94-114

Boring Location _____ | LOG OF TEST BORINGS | Location CINIZA REFINERY

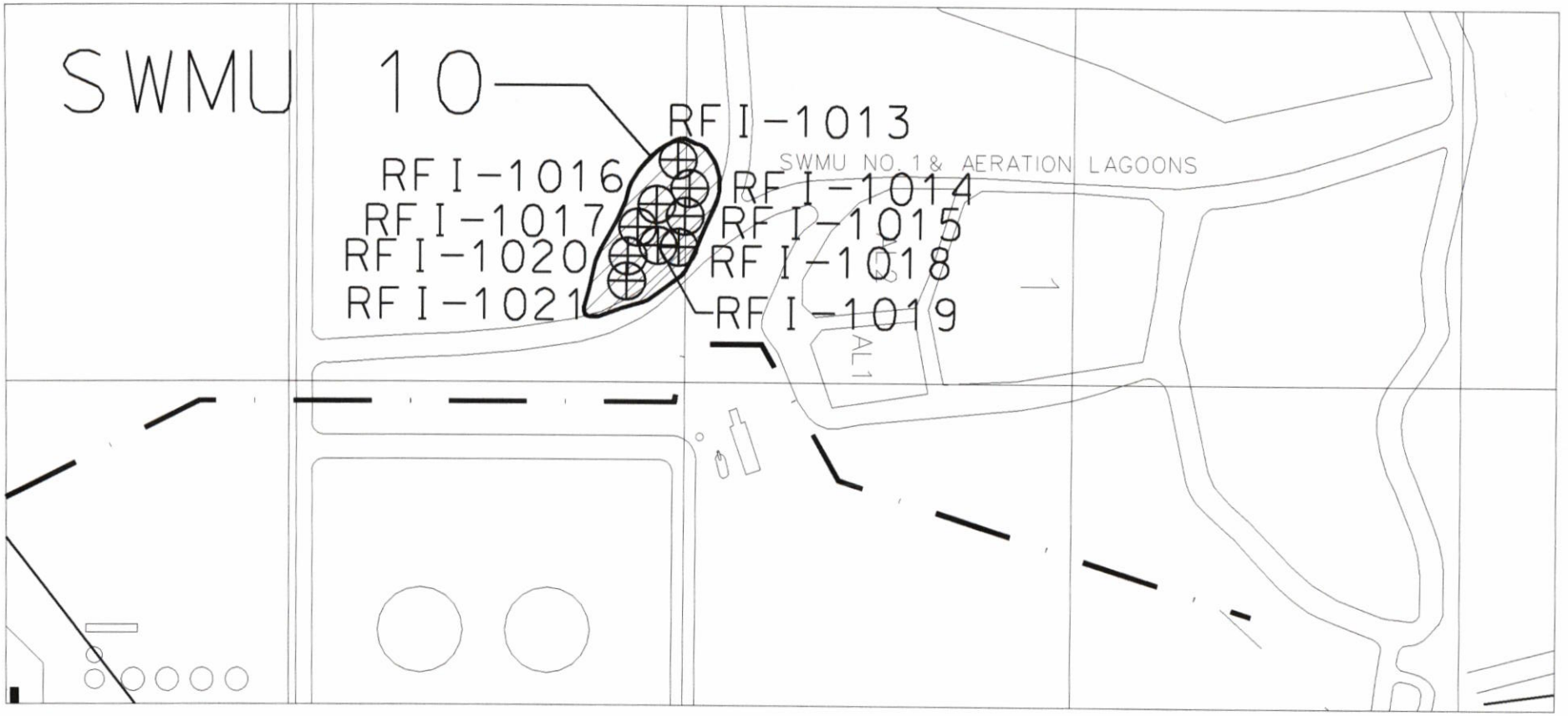
Elevation EXISTING

Boring Number: RFI 1021 | Water Level NOT ENCOUNT. Date: 07/27/94

LAB #	DEPTH	BLOWS/N	PLOT	SCALE	SAMPLE	MATERIAL CHARACTERISTICS (MOISTURE,CONDITION,COLOR,GRAINSIZE,ETC.)	%M	LL	PI	CLASS.
			/-*/-/		C	CLAY, SILTY, SLIGHTLY SANDY, WET, FIRM, BROWN				
			/-*/-/		C					
	1.7		/-*/-/		C					
			/-//-/		C	CLAY, SILTY, WET, SOFT, BROWN, BLACK AT 1.8 TO				
	2.4		/-//-/	2.5	C	1.9'				
			/*//*/		C	CLAY, SANDY(APPEARS TO BE IN <0.5 CM STINGS),				
			/*//*/		C	SOFT TO VERY SOFT, BROWN				
			/*//*/		C					
			/*//*/		C					
	5.0		/*//*/	5.0	C					
			//////		C	CLAY, WET, SOFT, BROWN				
	6.1		//////		C					
			*/**/*		C	SAND, CLAYEY, WET(POSSIBLY WATER BEARING),				
	6.8		*/**/*		C	LOOSE, SHARP CONTACT				
			/-//-/	7.5	C	CLAY, SILTY, RARE SAND STRINGER(<0.5 CM), WET,				
			/-//-/		C	FIRM TO STIFF, RED BROWN				
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
			/-//-/	10	C					
			/-//-/		C					
			/-//-/		C					
			/-//-/		C	SAND STRINGER ~ 1" AT 11' & 13'				
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
			/-//-/		C					
	13.9		/-//-/		C					
			/S//S/		C	CLAY, SHALEY, HARD, RED TO RED BROWN, FISSLE				
			/S//S/	15	C	AND BLOCKY(<1 CM), SOME GREY MOTTLING, GRADES				
			/S//S/		C	SANDIER				
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/	20	C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
			/S//S/		C					
	25.0		/S//S/	25	C					
	TOTAL DEPTH									

Size & Type of Boring: 4-1/4" ID Hollow Stemmed Auger | Logged By: WHK

GIANT REFINING
CINIZA REFINERY
SWMU 10
SLUDGE PITS



Appendix D

Investigation Derived Waste Management Plan

Investigation Derived Waste (IDW) Management Plan

All IDW will be properly characterized and disposed of in accordance with all federal, State, and local rules and regulations for storage, labeling, handling, transport, and disposal of waste. The IDW may be characterized for disposal based on the known or suspected contaminants potentially present in the waste.

A dedicated decontamination area will be setup prior to any sample collection activities. The decontamination pad will be constructed so as to capture and contain all decontamination fluids (e.g., wash water and rinse water) and foreign materials washed off the sampling equipment. The fluids will be pumped directly into suitable storage containers (e.g., labeled 55-gallon drums), which will be located at satellite accumulation areas until the fluids are disposed in the refinery wastewater treatment system upstream of the API separator. The solids captured in the decontamination pad will be shoveled into 55-gallon drums and stored at the designated satellite accumulation area pending proper waste characterization for off-site disposal.

Drill cuttings generated during installation of soil borings will be placed directly into 55-gallon drums and staged in the satellite accumulation area pending results of the waste characterization sampling. The portion of soil cores, which are not retained for analytical testing, will be placed into the same 55-gallon drums used to store the associated drill cuttings.

The solids (e.g., drill cuttings and used soil cores) will be characterized by testing to determine if there are any hazardous characteristics in accordance with 40 Code of Federal Regulations (CFR) Part 261. This includes tests for ignitability, corrosivity, reactivity, and toxicity. If the materials are not characteristically hazardous, then further testing will be performed pursuant to the requirements of the facility to which the materials will be transported. Depending upon the results of analyses for individual investigation soil samples, additional analyses may include TPH and polynuclear aromatic hydrocarbons (PAHs).

Chavez, Carl J, EMNRD

From: Larsen, Thurman <Thurman.Larsen@wnr.com>
Sent: Friday, August 15, 2014 11:31 AM
To: VanHorn, Kristen, NMENV; Chavez, Carl J, EMNRD
Cc: Riege, Ed; james.paul@epa.gov
Subject: C-141 Initial Report for the Sewer Water Release at the WWTP for August 5, 2014.
Attachments: C141 INIT- Sewer Water Release at WWTP.pdf

Dear Kristen,
The above attachment is the C-141 Initial Report for the Sewer Water Release at the WWTP that occurred on August 5, 2014. Please let me know if you have any questions.
Sincerely,

Beck Larsen
Environmental Engineer
Western Refining Southwest (Gallup Refinery)
92 Giant Crossing Road - New Mailing Address
Gallup, NM 87301
Office: (505) 722-0258
cell: (505) 862-1749

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: WESTERN REFINING	Contact: Beck Larsen
Address: I-40 / EXIT 39, JAMESTOWN,NM 87347	Telephone No.(505) 722-0258
Facility Name: WESTERN REFINING (GALLUP REFINERY)	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15 N	15 W					MCKINLEY

Latitude__35° 029' 024"__ **Longitude**__108° 024' 024"__

NATURE OF RELEASE

Type of Release: Dirty Sewer Water	Volume of Release- Oil-14 bbls	Volume Recovered: Oil- 14 bbls
Source of Release: Secondary Baker Frac Tanks at WWTP	Date and Hour of Occurrence 8/5/14 @ 1405 hrs	Date and Hour of Discovery 8/5/14 @ 1405 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD (C. Chavez) / NMED HWB (Kristen Van Horn)	
By Whom? Beck Larsen	Date and Hour: 8/6/14 C. Chavez @1335 hrs / K. Van Horn @ 1345 hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.* At approximately 1405 hours, Oily Sewer Water from the DFG Filter press overflowed the secondary Baker Frac Tank at the WWTP. The overflow lasted for about 5 minutes. The filter press was shut down and a valve to the DGF Feed tank was open wider to allow more flow to the tank. The oily water overflowed the secondary containment of the secondary Baker frac tank, went to a storm drain, flowed down the drain to a metal culvert until it reached a stormwater conveyance (ditch), and continued to flow. Once the environmental Department was notified an onsite contractor began to berm the stormwater ditch in several locations in order to reduce the contamination area. A vacuum truck began cleanup operations.

Describe Area Affected and Cleanup Action Taken.* A vacuum truck began cleanup operations. The extent of the contamination along the stormwater conveyance was estimated to be < ½ mile on western property. The liquid recovered consisted of partially standing rainwater from a previous rainfall in the ditches and the oily sewer water from the Baker tank overflow. The impacted soil around the Baker Tank and storm drain was excavated and removed for shipment offsite. The metal culvert was flushed with water to remove any residual oil. Floating oil was also removed from conveyance ditch. Samples were collected in order to determine the extent of penetration of the oil and to determine the amount of cleanup that is required. The initial cleanup has been completed pending analytical results.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Beck Larsen:	Approved by Environmental Specialist:	
Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:	Attached ☐
Date: 8/15/2014 Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

Certified Mail #7013 0600 0001 0294 8436

August 8, 2014

Mr. John E. Kieling, Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, New Mexico 87505-6303

RE: DISAPPROVAL, 2011 FACILITY WIDE GROUNDWATER MONITORING REPORT
AND 2012 FACILITY WIDE GROUNDWATER MONITORING REPORT
WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-WRG-12-003 and HWB-WRG-13-003

Dear Mr. Kieling:

This letter was prepared pursuant to your letter dated May 12, 2014, specifically regarding comment 14 below.

NMED Comment 14
Section 6.3.4 (Leak Detection Units (LDU): East LDU, West LDU, Oil Sump LDU). In Section 7.2 (West Side Ground Water Monitoring) the permittee states, "[a]lso located at the NAPIS are three leak detection units which are inspected and if fluids are detected, samples are collected on a quarterly basis. All three leak detection units continue to have a fluid level." The paragraph goes on, "[q]uarterly analysis of fluid collected from these units and the continued presence of fluid indicate the potential that the fluid may be coming from the NAPIS." The permittee addressed this issue in a letter to NMED dated August 5, 2013 and are using a vacuum truck to remove water which is still present in the LDUs. The permittee must repair the leaks in the NAPIS unit within 90 days of receipt of this letter.

Response

The west bay was repaired with a plate installation in June. The bay was hydro-tested with florescent dye and no leaks were observed. The west LDU and Oil sump LDU were checked and showed no signs of leakage. The west bay was placed back into service on July 8, 2014. The west LDU and oil sump LDU were again checked on August 6, 2014 and continue to show no signs of leakage.

The east bay was taken out of service on July 22, 2014. Cleaning and repair of this unit are underway which could take another couple weeks. After repairs are made, the east bay will be hydro-tested and the east LDU checked to assure there are no leaks before placing this bay back into service.

If there are any questions regarding this response, please contact Mr. Ed Riege at (505) 722-0217.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel property gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely, VR McDonald for Billy McClain

Mr. Billy McClain
Refinery Manager
Western Refining Southwest, Inc. – Gallup Refinery

cc D. Cobrain NMED HWB email
N. Dhawan, NMED email
K. Van Horn, NMED email
C. Chavez, OCD email

April 16, 2014

Via Email and Certified Mail (7010 1670 0001 3141 1399), Return Receipt Requested

Mr. John E. Kieling, Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, New Mexico 87505-6303

Mr. Carl Chavez
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: EVAPORATION POND 7 DIKE BREACH

Dear Mr. Kieling and Mr. Chavez:

On March 19, 2014,Western Refining Southwest, Inc., Gallup refinery ("Western") orally and by email notified the New Mexico Environment Department ("NMED") and the New Mexico Oil Conservation Division ("NMOCD") of a minor release of treated wastewater from Evaporation Pond 7 due to a breach in the dike. On March 20, 2014 Western received an email from Mr. Chavez requesting an update on the environmental investigation that followed a July 2013 stormwater investigation. Also on March 20, 2014 Western received an email from Kristen Van Horn of NMED advising that submittal of a C-141 would satisfy reporting requirements of the RCRA Post Closure Care Permit (the "Permit"), and seeking submittal of a letter report on the Pond 7 release. Without making any admissions, and reserving all applicable rights and defenses, including the right to dispute whether the release is subject to corrective action under the Permit, Western provides this letter in response to the inquiries of both NMED and NMOCD. This letter first addresses the seepage along a portion of the pond perimeter dikes that was observed in April 2014 and secondly, explains current and planned activities to address soils impacted by the breach in the dike at Pond 7, which occurred March 19, 2014.

<u>April 2014 Pond Dike Seepage</u>

Western submitted form C-141 on July 18, 2014 to inform NMOCD and NMED of actions being taken to prevent future seepage and planned activities to investigate soils along the evaporation pond dikes where seepage had been previously observed. The soil samples were

analyzed for semi-volatile organic compounds ("SVOCs") and chloride, as reported to NMOCD and NMED on October 14, 2013. While no SVOCs were detected, chloride was found at concentrations exceeding values obtained from three background samples. Western sought concurrence from NMOCD on chloride action levels and received an email on February 7, 2014 agreeing with the chloride action levels proposed in the October 14, 2013 letter. Subsequently, Western conducted additional sampling to better define the volume of soil to be excavated. The subject area is currently scheduled to be remediated while the contractor (Franklin Earthmoving Inc.) is on-site conducting additional activities related to the pond dikes, as discussed further below.

March 19, 2014 Pond 7 Breach

At 3:15 pm on March 19th, a Western employee observed a breach in the Pond 7 dike. It was a small breach and we estimate it occurred around 3:00 pm. Western was in the process of improving the pond dikes and earth moving equipment, which was operating nearby, immediately responded to make repairs and stopped the release at 4:30 pm. Western provided verbal and written (email) notification to NMOCD and NMED within a few hours of discovery of the breach. It is estimated that 17.4 bbls of wastewater left the pond with possibly half crossing the fence line west of the dike. The small volume of water was absorbed by the dry soil and the release did not reach a watercourse or waters of the U.S. (see Figure 1). As requested by NMED, attached are photos of the release area and emergency actions taken to repair the breach.

On March 20, 2014, Western collected a sample of the water, which flowed through the breach, and six soil samples from the impacted area. These samples were analyzed for volatile organic compounds (VOCs), SVOCs, Gasoline, Diesel, and Motor Oil Range Organics, New Mexico Water Quality Control Criteria metals, and major cation/anions. The results of these analyses (see enclosure) will help to direct any subsequent corrective action steps. It is noted that the soil samples collected from within the known area of the release do not contain detectable concentrations of petroleum hydrocarbons (Gasoline, Diesel, or Motor Oil range), VOCs, or SVOCs, nor do the soil samples indicate contamination from any other hazardous waste or hazardous constituents. Western is in the process of contacting the owner of the off-site property located to the west of Pond 7 to obtain access.

NMED noted in its March 20th email that previous water samples from Pond 7 had contained concentrations of several constituents above "screening levels." Western would like to clarify that the screening levels included in the previous submittals of the *Gallup Refinery Annual Ground Water Monitoring Reports* are specific to groundwater and were included in all data tables for initial comparison purposes only. However, these groundwater screening levels are not applicable to water in the refinery's evaporation ponds. We also note that the evaporation ponds at the Gallup Refinery are not "surface water(s) of the State," as defined in New Mexico Administrative Code 20.6.4.7.CCC. Also simply for clarification, Western notes the

evaporation ponds are identified as Solid Waste Management Unit No. 2 – Evaporation Ponds in Western's RCRA Post-Closure Care Permit ("Permit").

Pond Dike Improvements and Pond Management

To address any concerns about seepage through the dikes or failure of the perimeter dikes, Western contracted Franklin Earthmoving Inc. to improve approximately 80% of the existing pond dikes. This work began in late January 2014 and is expected to continue through April. This work consists of widening the dikes and improving the outside slope of the berms, and repairing water and wind erosion to the top of the dikes (see enclosed pictures). The area of the breach at pond 7 was the original dike that had not yet been improved by Franklin as they were working approximately 150 yards northeast of the breach. The area impacted by the breach will be rebuilt to prevent any future breaches/seeps.

In addition to the physical improvement of the pond perimeter dikes, Western is pursuing the installation of more evaporation equipment and water conservation measures. These measures should control free board levels. Western believes that these measures will be sufficient to help prevent future seepage through the dikes and breaching of the dikes. At this time, Western has no information that would suggest there is any endangerment to human health or the environment related to pond seepage or breaching of the dikes. Also, we note that shallow groundwater is routinely monitored in the area and there is no indication of impacts to groundwater from the evaporation ponds.

If there are any questions, then please contact me at 505-722-0217.

Sincerely,

William Carl McClain

Mr. William C. McClain Jr.
Refinery Manager
Western Refining Southwest, Inc. – Gallup Refinery

cc A. Allen, Western El Paso
Ed Riege, Western Gallup
Allen Hains, Western El Paso

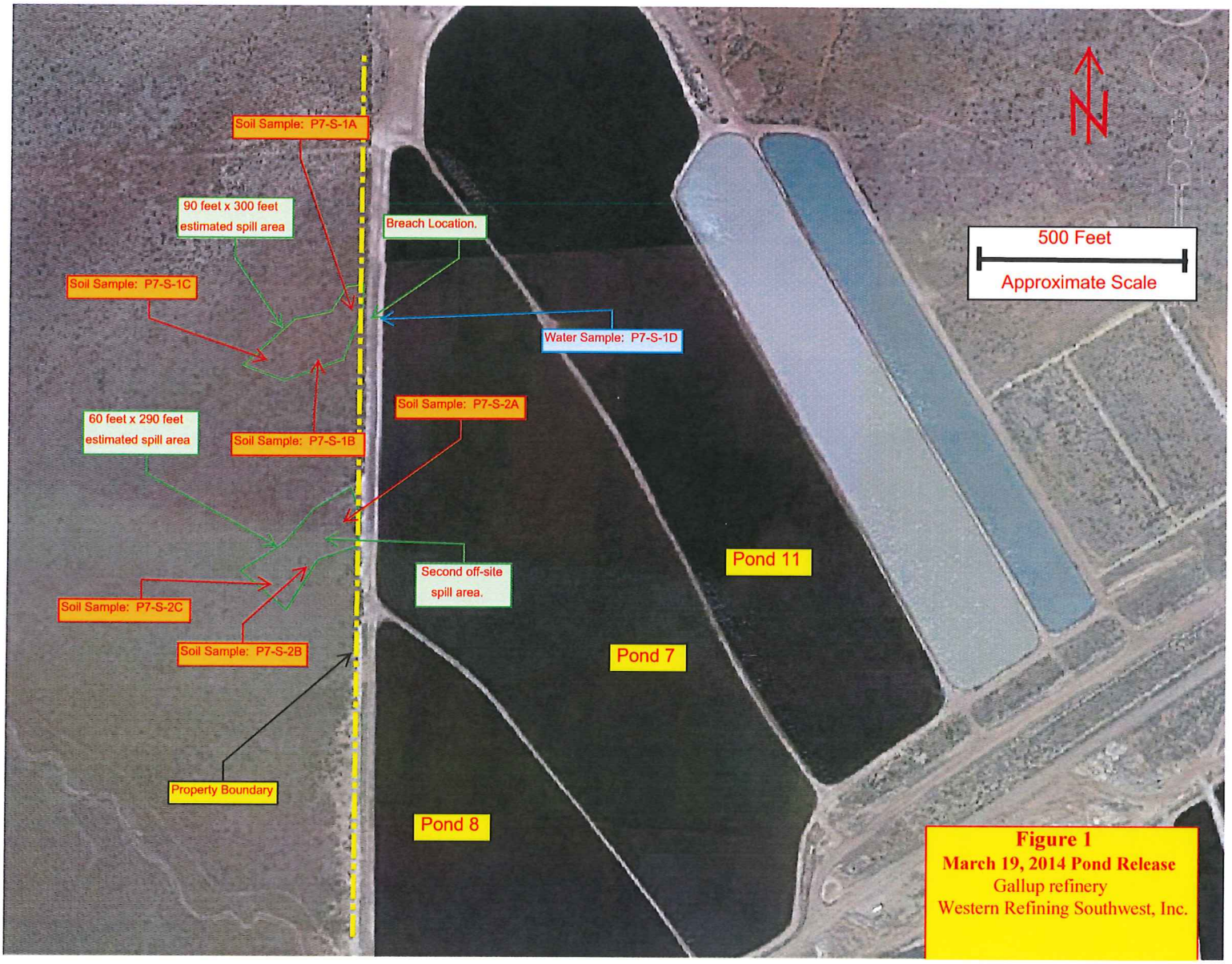


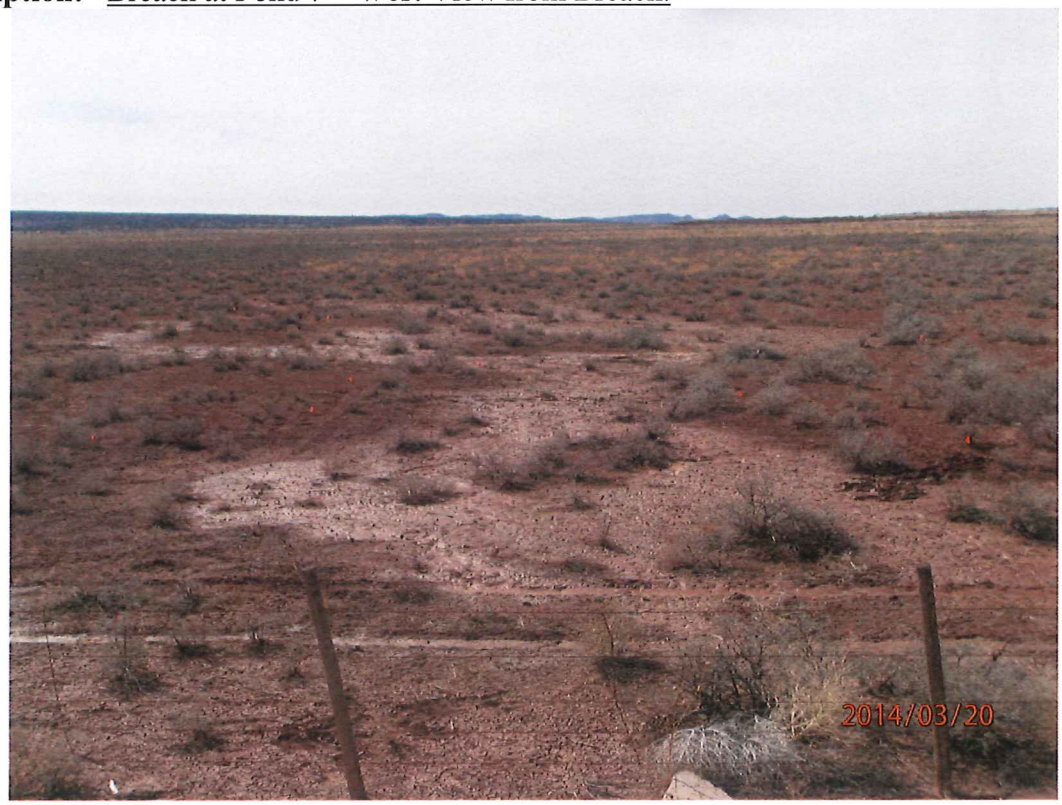
Figure 1
March 19, 2014 Pond Release
Gallup refinery
Western Refining Southwest, Inc.

PHOTOGRAPHS

Location: Evaporation Pond
Facility: Gallup refinery
Subject: Pond 7 Breach and Pond Improvements

Photograph: 1
Description: Breach at Pond 7 – North View of Dike Repair.

Photograph: 2
Description: Breach at Pond 7 – West View from Breach.



PHOTOGRAPHS

Location: Evaporation Pond
Facility: Gallup refinery
Subject: Pond 7 Breach and Pond Improvements

Photograph: 3
Description: Breach at Pond 7 – South View from Breach Repair.

Photograph: 4
Description: Breach at Pond 7 – Southwest View of Southern Spill Area.

PHOTOGRAPHS

Location: Evaporation Pond
Facility: Gallup refinery
Subject: Pond 7 Breach and Pond Improvements

Photograph: 5
Description: Pond 8 – Southside Dike Improvements.

Photograph: 6
Description: Pond 6 – Westside Dike Improvements.

PHOTOGRAPHS

Location: Evaporation Pond
Facility: Gallup refinery
Subject: Pond 7 Breach and Pond Improvements

Photograph: 7
Description: Ponds 3,4,5 and 6 – Northside Dike Improvements.

Photograph: 8
Description: Ponds 8, 11, 12A and 12B – Southside Dike Improvements in Progress

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 09, 2014

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: Pond 7 Breach (Soil, Water) OrderNo.: 1403941

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 3/21/2014 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued March 28, 2014.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-001 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/25/2014 7:24:51 PM	12321
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/25/2014 7:24:51 PM	12321
Surr: DNOP	91.8	66-131		%REC	1	3/25/2014 7:24:51 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/26/2014 10:51:21 PM	12325
Surr: BFB	90.0	74.5-129		%REC	1	3/26/2014 10:51:21 PM	12325
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	2.6	0.30		mg/Kg	1	3/25/2014 12:49:22 PM	12346
Chloride	4600	150		mg/Kg	100	3/27/2014 7:00:03 AM	12346
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	3/25/2014 1:26:36 PM	12346
Bromide	2.0	0.30		mg/Kg	1	3/25/2014 12:49:22 PM	12346
Nitrogen, Nitrate (As N)	3.3	0.30		mg/Kg	1	3/25/2014 12:49:22 PM	12346
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	3/25/2014 12:49:22 PM	12346
Sulfate	1200	30		mg/Kg	20	3/25/2014 1:26:36 PM	12346
MERCURY, TCLP						Analyst: **JML**	
Mercury	ND	0.020		mg/L	1	3/25/2014 5:20:09 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	15000	130		mg/Kg	5	3/26/2014 12:02:26 PM	12337
Magnesium	8200	130		mg/Kg	5	3/26/2014 12:02:26 PM	12337
Potassium	4700	250		mg/Kg	5	3/26/2014 12:02:26 PM	12337
Sodium	4400	130		mg/Kg	5	3/26/2014 12:02:26 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst: **JLF**	
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:35:27 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:35:27 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:35:27 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:35:27 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:35:27 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:35:27 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:35:27 PM	12369
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Acenaphthylene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Aniline	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Anthracene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Azobenzene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Benz(a)anthracene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-001 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Benzo(a)pyrene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Benzoic acid	ND	0.49		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Benzyl alcohol	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	4/2/2014 2:13:45 PM	12485
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Carbazole	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	4/2/2014 2:13:45 PM	12485
4-Chloroaniline	ND	0.49		mg/Kg	1	4/2/2014 2:13:45 PM	12485
2-Chloronaphthalene	ND	0.25		mg/Kg	1	4/2/2014 2:13:45 PM	12485
2-Chlorophenol	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Chrysene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Di-n-butyl phthalate	ND	0.49		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Dibenzofuran	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Diethyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Dimethyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	4/2/2014 2:13:45 PM	12485
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	4/2/2014 2:13:45 PM	12485
4,6-Dinitro-2-methylphenol	ND	0.49		mg/Kg	1	4/2/2014 2:13:45 PM	12485
2,4-Dinitrophenol	ND	0.49		mg/Kg	1	4/2/2014 2:13:45 PM	12485
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	4/2/2014 2:13:45 PM	12485
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Fluorene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Hexachlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Hexachlorobutadiene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-001 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Hexachloroethane	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Isophorone	ND	0.49		mg/Kg	1	4/2/2014 2:13:45 PM	12485
1-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
2-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
2-Methylphenol	ND	0.49		mg/Kg	1	4/2/2014 2:13:45 PM	12485
3+4-Methylphenol	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Naphthalene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
2-Nitroaniline	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
3-Nitroaniline	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
4-Nitroaniline	ND	0.40		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Nitrobenzene	ND	0.49		mg/Kg	1	4/2/2014 2:13:45 PM	12485
2-Nitrophenol	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
4-Nitrophenol	ND	0.25		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Pentachlorophenol	ND	0.40		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Phenanthrene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Phenol	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Pyrene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Pyridine	ND	0.49		mg/Kg	1	4/2/2014 2:13:45 PM	12485
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	4/2/2014 2:13:45 PM	12485
Surr: 2-Fluorophenol	57.5	27.9-127		%REC	1	4/2/2014 2:13:45 PM	12485
Surr: Phenol-d5	59.8	24.5-126		%REC	1	4/2/2014 2:13:45 PM	12485
Surr: 2,4,6-Tribromophenol	60.8	27.6-136		%REC	1	4/2/2014 2:13:45 PM	12485
Surr: Nitrobenzene-d5	61.9	23.5-128		%REC	1	4/2/2014 2:13:45 PM	12485
Surr: 2-Fluorobiphenyl	62.9	22.6-132		%REC	1	4/2/2014 2:13:45 PM	12485
Surr: 4-Terphenyl-d14	67.1	28.1-128		%REC	1	4/2/2014 2:13:45 PM	12485
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	3/27/2014 3:47:18 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 3:47:18 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 3:47:18 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 3:47:18 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 3:47:18 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 3:47:18 PM	12365
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 3:47:18 PM	12365

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Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-001 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 3:47:18 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 3:47:18 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 3:47:18 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 3:47:18 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 3:47:18 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 3:47:18 PM	12365
Surr: 2-Fluorophenol	21.5	18.6-88.6		%REC	1	3/27/2014 3:47:18 PM	12365
Surr: Phenol-d5	36.5	19.5-61.8		%REC	1	3/27/2014 3:47:18 PM	12365
Surr: 2,4,6-Tribromophenol	30.2	29.7-130		%REC	1	3/27/2014 3:47:18 PM	12365
Surr: Nitrobenzene-d5	95.9	45.1-101		%REC	1	3/27/2014 3:47:18 PM	12365
Surr: 2-Fluorobiphenyl	84.5	46.6-99.3		%REC	1	3/27/2014 3:47:18 PM	12365
Surr: 4-Terphenyl-d14	78.9	40.8-109		%REC	1	3/27/2014 3:47:18 PM	12365
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Benzene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Toluene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Ethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Naphthalene	ND	0.10		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 2:49:30 PM	12325
2-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Acetone	ND	0.75		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Bromobenzene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Bromodichloromethane	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Bromoform	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Bromomethane	ND	0.15		mg/Kg	1	4/2/2014 2:49:30 PM	12325
2-Butanone	ND	0.50		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Carbon disulfide	ND	0.50		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Carbon tetrachloride	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Chlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Chloroethane	ND	0.10		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Chloroform	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Chloromethane	ND	0.15		mg/Kg	1	4/2/2014 2:49:30 PM	12325
2-Chlorotoluene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
4-Chlorotoluene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
cis-1,2-DCE	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325

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Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-001 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Dibromochloromethane	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Dibromomethane	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,1-Dichloroethane	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,1-Dichloroethene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,2-Dichloropropane	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,3-Dichloropropane	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
2,2-Dichloropropane	ND	0.10		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,1-Dichloropropene	ND	0.10		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Hexachlorobutadiene	ND	0.10		mg/Kg	1	4/2/2014 2:49:30 PM	12325
2-Hexanone	ND	0.50		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Isopropylbenzene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
4-Isopropyltoluene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Methylene chloride	ND	0.15		mg/Kg	1	4/2/2014 2:49:30 PM	12325
n-Butylbenzene	ND	0.15		mg/Kg	1	4/2/2014 2:49:30 PM	12325
n-Propylbenzene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
sec-Butylbenzene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Styrene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
tert-Butylbenzene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
trans-1,2-DCE	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Trichlorofluoromethane	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Vinyl chloride	ND	0.050		mg/Kg	1	4/2/2014 2:49:30 PM	12325
Xylenes, Total	ND	0.10		mg/Kg	1	4/2/2014 2:49:30 PM	12325

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Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-001 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Surr: Dibromofluoromethane	106	70-130		%REC	1	4/2/2014 2:49:30 PM	12325
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	4/2/2014 2:49:30 PM	12325
Surr: Toluene-d8	84.7	70-130		%REC	1	4/2/2014 2:49:30 PM	12325
Surr: 4-Bromofluorobenzene	95.1	70-130		%REC	1	4/2/2014 2:49:30 PM	12325
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 2:01:29 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 2:01:29 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 2:01:29 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 2:01:29 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 2:01:29 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 2:01:29 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 2:01:29 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 2:01:29 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 2:01:29 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 2:01:29 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 2:01:29 PM	12325
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	10	3/25/2014 2:01:29 PM	12325
Surr: 4-Bromofluorobenzene	103	70-130		%REC	10	3/25/2014 2:01:29 PM	12325
Surr: Dibromofluoromethane	107	70-130		%REC	10	3/25/2014 2:01:29 PM	12325
Surr: Toluene-d8	99.0	70-130		%REC	10	3/25/2014 2:01:29 PM	12325

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-002 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/25/2014 7:46:44 PM	12321
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/25/2014 7:46:44 PM	12321
Surr: DNOP	93.1	66-131		%REC	1	3/25/2014 7:46:44 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/26/2014 11:19:58 PM	12325
Surr: BFB	88.3	74.5-129		%REC	1	3/26/2014 11:19:58 PM	12325
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	4.2	3.0		mg/Kg	10	3/25/2014 1:39:01 PM	12346
Chloride	1000	150		mg/Kg	100	3/25/2014 1:51:26 PM	12346
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	3/25/2014 1:39:01 PM	12346
Bromide	ND	3.0		mg/Kg	10	3/25/2014 1:39:01 PM	12346
Nitrogen, Nitrate (As N)	9.1	3.0		mg/Kg	10	3/25/2014 1:39:01 PM	12346
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	3/25/2014 1:39:01 PM	12346
Sulfate	170	15		mg/Kg	10	3/25/2014 1:39:01 PM	12346
MERCURY, TCLP						Analyst: **JML**	
Mercury	ND	0.020		mg/L	1	3/25/2014 5:21:55 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	16000	120		mg/Kg	5	3/26/2014 12:14:24 PM	12337
Magnesium	7900	120		mg/Kg	5	3/26/2014 12:14:24 PM	12337
Potassium	3900	240		mg/Kg	5	3/26/2014 12:14:24 PM	12337
Sodium	1300	120		mg/Kg	5	3/26/2014 12:14:24 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst: **JLF**	
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:37:56 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:37:56 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:37:56 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:37:56 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:37:56 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:37:56 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:37:56 PM	12369
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Acenaphthylene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Aniline	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Anthracene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Azobenzene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Benz(a)anthracene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-002 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Benzo(a)pyrene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Benzoic acid	ND	0.51		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Benzyl alcohol	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Bis(2-ethylhexyl)phthalate	ND	0.51		mg/Kg	1	4/2/2014 5:11:08 PM	12485
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Carbazole	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
4-Chloro-3-methylphenol	ND	0.51		mg/Kg	1	4/2/2014 5:11:08 PM	12485
4-Chloroaniline	ND	0.51		mg/Kg	1	4/2/2014 5:11:08 PM	12485
2-Chloronaphthalene	ND	0.25		mg/Kg	1	4/2/2014 5:11:08 PM	12485
2-Chlorophenol	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Chrysene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Di-n-butyl phthalate	ND	0.51		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Di-n-octyl phthalate	ND	0.41		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Dibenzofuran	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Diethyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Dimethyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
2,4-Dichlorophenol	ND	0.41		mg/Kg	1	4/2/2014 5:11:08 PM	12485
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	4/2/2014 5:11:08 PM	12485
4,6-Dinitro-2-methylphenol	ND	0.51		mg/Kg	1	4/2/2014 5:11:08 PM	12485
2,4-Dinitrophenol	ND	0.51		mg/Kg	1	4/2/2014 5:11:08 PM	12485
2,4-Dinitrotoluene	ND	0.51		mg/Kg	1	4/2/2014 5:11:08 PM	12485
2,6-Dinitrotoluene	ND	0.51		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Fluorene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Hexachlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Hexachlorobutadiene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-002 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Hexachloroethane	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Isophorone	ND	0.51		mg/Kg	1	4/2/2014 5:11:08 PM	12485
1-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
2-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
2-Methylphenol	ND	0.51		mg/Kg	1	4/2/2014 5:11:08 PM	12485
3+4-Methylphenol	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Naphthalene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
2-Nitroaniline	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
3-Nitroaniline	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
4-Nitroaniline	ND	0.41		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Nitrobenzene	ND	0.51		mg/Kg	1	4/2/2014 5:11:08 PM	12485
2-Nitrophenol	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
4-Nitrophenol	ND	0.25		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Pentachlorophenol	ND	0.41		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Phenanthrene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Phenol	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Pyrene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Pyridine	ND	0.51		mg/Kg	1	4/2/2014 5:11:08 PM	12485
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	4/2/2014 5:11:08 PM	12485
Surr: 2-Fluorophenol	63.8	27.9-127		%REC	1	4/2/2014 5:11:08 PM	12485
Surr: Phenol-d5	67.1	24.5-126		%REC	1	4/2/2014 5:11:08 PM	12485
Surr: 2,4,6-Tribromophenol	64.8	27.6-136		%REC	1	4/2/2014 5:11:08 PM	12485
Surr: Nitrobenzene-d5	66.5	23.5-128		%REC	1	4/2/2014 5:11:08 PM	12485
Surr: 2-Fluorobiphenyl	66.9	22.6-132		%REC	1	4/2/2014 5:11:08 PM	12485
Surr: 4-Terphenyl-d14	69.0	28.1-128		%REC	1	4/2/2014 5:11:08 PM	12485
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	3/27/2014 4:16:27 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 4:16:27 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 4:16:27 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 4:16:27 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 4:16:27 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 4:16:27 PM	12365
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 4:16:27 PM	12365

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-002 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 4:16:27 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 4:16:27 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 4:16:27 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 4:16:27 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 4:16:27 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 4:16:27 PM	12365
Surr: 2-Fluorophenol	19.0	18.6-88.6		%REC	1	3/27/2014 4:16:27 PM	12365
Surr: Phenol-d5	31.2	19.5-61.8		%REC	1	3/27/2014 4:16:27 PM	12365
Surr: 2,4,6-Tribromophenol	28.8	29.7-130	S	%REC	1	3/27/2014 4:16:27 PM	12365
Surr: Nitrobenzene-d5	92.7	45.1-101		%REC	1	3/27/2014 4:16:27 PM	12365
Surr: 2-Fluorobiphenyl	87.5	46.6-99.3		%REC	1	3/27/2014 4:16:27 PM	12365
Surr: 4-Terphenyl-d14	82.2	40.8-109		%REC	1	3/27/2014 4:16:27 PM	12365
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Benzene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Toluene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Ethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Naphthalene	ND	0.10		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 3:18:21 PM	12325
2-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Acetone	ND	0.75		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Bromobenzene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Bromodichloromethane	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Bromoform	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Bromomethane	ND	0.15		mg/Kg	1	4/2/2014 3:18:21 PM	12325
2-Butanone	ND	0.50		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Carbon disulfide	ND	0.50		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Carbon tetrachloride	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Chlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Chloroethane	ND	0.10		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Chloroform	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Chloromethane	ND	0.15		mg/Kg	1	4/2/2014 3:18:21 PM	12325
2-Chlorotoluene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
4-Chlorotoluene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
cis-1,2-DCE	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-002 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Dibromochloromethane	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Dibromomethane	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,1-Dichloroethane	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,1-Dichloroethene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,2-Dichloropropane	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,3-Dichloropropane	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
2,2-Dichloropropane	ND	0.10		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,1-Dichloropropene	ND	0.10		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Hexachlorobutadiene	ND	0.10		mg/Kg	1	4/2/2014 3:18:21 PM	12325
2-Hexanone	ND	0.50		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Isopropylbenzene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
4-Isopropyltoluene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Methylene chloride	ND	0.15		mg/Kg	1	4/2/2014 3:18:21 PM	12325
n-Butylbenzene	ND	0.15		mg/Kg	1	4/2/2014 3:18:21 PM	12325
n-Propylbenzene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
sec-Butylbenzene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Styrene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
tert-Butylbenzene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
trans-1,2-DCE	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Trichlorofluoromethane	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Vinyl chloride	ND	0.050		mg/Kg	1	4/2/2014 3:18:21 PM	12325
Xylenes, Total	ND	0.10		mg/Kg	1	4/2/2014 3:18:21 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-002 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Surr: Dibromofluoromethane	105	70-130		%REC	1	4/2/2014 3:18:21 PM	12325
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	4/2/2014 3:18:21 PM	12325
Surr: Toluene-d8	80.3	70-130		%REC	1	4/2/2014 3:18:21 PM	12325
Surr: 4-Bromofluorobenzene	94.1	70-130		%REC	1	4/2/2014 3:18:21 PM	12325
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 2:30:14 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 2:30:14 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 2:30:14 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 2:30:14 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 2:30:14 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 2:30:14 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 2:30:14 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 2:30:14 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 2:30:14 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 2:30:14 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 2:30:14 PM	12325
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	10	3/25/2014 2:30:14 PM	12325
Surr: 4-Bromofluorobenzene	98.7	70-130		%REC	10	3/25/2014 2:30:14 PM	12325
Surr: Dibromofluoromethane	103	70-130		%REC	10	3/25/2014 2:30:14 PM	12325
Surr: Toluene-d8	104	70-130		%REC	10	3/25/2014 2:30:14 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-003 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/25/2014 8:08:49 PM	12321
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/25/2014 8:08:49 PM	12321
Surr: DNOP	90.3	66-131		%REC	1	3/25/2014 8:08:49 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/26/2014 11:48:31 PM	12325
Surr: BFB	88.1	74.5-129		%REC	1	3/26/2014 11:48:31 PM	12325
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	5.8	3.0		mg/Kg	10	3/25/2014 2:28:40 PM	12346
Chloride	1100	150		mg/Kg	100	3/25/2014 2:41:05 PM	12346
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	3/25/2014 2:28:40 PM	12346
Bromide	ND	3.0		mg/Kg	10	3/25/2014 2:28:40 PM	12346
Nitrogen, Nitrate (As N)	3.4	3.0		mg/Kg	10	3/25/2014 2:28:40 PM	12346
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	3/25/2014 2:28:40 PM	12346
Sulfate	210	15		mg/Kg	10	3/25/2014 2:28:40 PM	12346
MERCURY, TCLP						Analyst: **JML**	
Mercury	ND	0.020		mg/L	1	3/25/2014 5:23:43 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	17000	130		mg/Kg	5	3/26/2014 12:17:20 PM	12337
Magnesium	7300	51		mg/Kg	2	3/26/2014 12:15:51 PM	12337
Potassium	3900	100		mg/Kg	2	3/26/2014 12:15:51 PM	12337
Sodium	1900	51		mg/Kg	2	3/26/2014 12:15:51 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst: **JLF**	
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:40:27 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:40:27 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:40:27 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:40:27 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:40:27 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:40:27 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:40:27 PM	12369
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Acenaphthylene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Aniline	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Anthracene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Azobenzene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Benz(a)anthracene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-003 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Benzo(a)pyrene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Benzoic acid	ND	0.50		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Benzyl alcohol	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	4/2/2014 5:40:44 PM	12485
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Carbazole	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	4/2/2014 5:40:44 PM	12485
4-Chloroaniline	ND	0.50		mg/Kg	1	4/2/2014 5:40:44 PM	12485
2-Chloronaphthalene	ND	0.25		mg/Kg	1	4/2/2014 5:40:44 PM	12485
2-Chlorophenol	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Chrysene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Dibenzofuran	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Diethyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Dimethyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	4/2/2014 5:40:44 PM	12485
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	4/2/2014 5:40:44 PM	12485
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	4/2/2014 5:40:44 PM	12485
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	4/2/2014 5:40:44 PM	12485
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	4/2/2014 5:40:44 PM	12485
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Fluorene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Hexachlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Hexachlorobutadiene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-003 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Hexachloroethane	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Isophorone	ND	0.50		mg/Kg	1	4/2/2014 5:40:44 PM	12485
1-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
2-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
2-Methylphenol	ND	0.50		mg/Kg	1	4/2/2014 5:40:44 PM	12485
3+4-Methylphenol	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Naphthalene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
2-Nitroaniline	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
3-Nitroaniline	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
4-Nitroaniline	ND	0.40		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Nitrobenzene	ND	0.50		mg/Kg	1	4/2/2014 5:40:44 PM	12485
2-Nitrophenol	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
4-Nitrophenol	ND	0.25		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Pentachlorophenol	ND	0.40		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Phenanthrene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Phenol	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Pyrene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Pyridine	ND	0.50		mg/Kg	1	4/2/2014 5:40:44 PM	12485
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	4/2/2014 5:40:44 PM	12485
Surr: 2-Fluorophenol	78.2	27.9-127		%REC	1	4/2/2014 5:40:44 PM	12485
Surr: Phenol-d5	79.9	24.5-126		%REC	1	4/2/2014 5:40:44 PM	12485
Surr: 2,4,6-Tribromophenol	69.8	27.6-136		%REC	1	4/2/2014 5:40:44 PM	12485
Surr: Nitrobenzene-d5	84.8	23.5-128		%REC	1	4/2/2014 5:40:44 PM	12485
Surr: 2-Fluorobiphenyl	86.1	22.6-132		%REC	1	4/2/2014 5:40:44 PM	12485
Surr: 4-Terphenyl-d14	77.7	28.1-128		%REC	1	4/2/2014 5:40:44 PM	12485
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	3/27/2014 4:45:38 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 4:45:38 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 4:45:38 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 4:45:38 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 4:45:38 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 4:45:38 PM	12365
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 4:45:38 PM	12365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-003 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 4:45:38 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 4:45:38 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 4:45:38 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 4:45:38 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 4:45:38 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 4:45:38 PM	12365
Surr: 2-Fluorophenol	23.6	18.6-88.6		%REC	1	3/27/2014 4:45:38 PM	12365
Surr: Phenol-d5	35.2	19.5-61.8		%REC	1	3/27/2014 4:45:38 PM	12365
Surr: 2,4,6-Tribromophenol	39.1	29.7-130		%REC	1	3/27/2014 4:45:38 PM	12365
Surr: Nitrobenzene-d5	111	45.1-101	S	%REC	1	3/27/2014 4:45:38 PM	12365
Surr: 2-Fluorobiphenyl	93.2	46.6-99.3		%REC	1	3/27/2014 4:45:38 PM	12365
Surr: 4-Terphenyl-d14	88.2	40.8-109		%REC	1	3/27/2014 4:45:38 PM	12365
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Benzene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Toluene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Ethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Naphthalene	ND	0.10		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 3:47:03 PM	12325
2-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Acetone	ND	0.75		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Bromobenzene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Bromodichloromethane	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Bromoform	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Bromomethane	ND	0.15		mg/Kg	1	4/2/2014 3:47:03 PM	12325
2-Butanone	ND	0.50		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Carbon disulfide	ND	0.50		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Carbon tetrachloride	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Chlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Chloroethane	ND	0.10		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Chloroform	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Chloromethane	ND	0.15		mg/Kg	1	4/2/2014 3:47:03 PM	12325
2-Chlorotoluene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
4-Chlorotoluene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
cis-1,2-DCE	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-003 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Dibromochloromethane	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Dibromomethane	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,1-Dichloroethane	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,1-Dichloroethene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,2-Dichloropropane	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,3-Dichloropropane	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
2,2-Dichloropropane	ND	0.10		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,1-Dichloropropene	ND	0.10		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Hexachlorobutadiene	ND	0.10		mg/Kg	1	4/2/2014 3:47:03 PM	12325
2-Hexanone	ND	0.50		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Isopropylbenzene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
4-Isopropyltoluene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Methylene chloride	ND	0.15		mg/Kg	1	4/2/2014 3:47:03 PM	12325
n-Butylbenzene	ND	0.15		mg/Kg	1	4/2/2014 3:47:03 PM	12325
n-Propylbenzene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
sec-Butylbenzene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Styrene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
tert-Butylbenzene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
trans-1,2-DCE	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Trichlorofluoromethane	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Vinyl chloride	ND	0.050		mg/Kg	1	4/2/2014 3:47:03 PM	12325
Xylenes, Total	ND	0.10		mg/Kg	1	4/2/2014 3:47:03 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:00:00 AM
Lab ID: 1403941-003 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Surr: Dibromofluoromethane	103	70-130		%REC	1	4/2/2014 3:47:03 PM	12325
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	4/2/2014 3:47:03 PM	12325
Surr: Toluene-d8	83.7	70-130		%REC	1	4/2/2014 3:47:03 PM	12325
Surr: 4-Bromofluorobenzene	94.9	70-130		%REC	1	4/2/2014 3:47:03 PM	12325
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 2:59:07 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 2:59:07 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 2:59:07 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 2:59:07 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 2:59:07 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 2:59:07 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 2:59:07 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 2:59:07 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 2:59:07 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 2:59:07 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 2:59:07 PM	12325
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	10	3/25/2014 2:59:07 PM	12325
Surr: 4-Bromofluorobenzene	100	70-130		%REC	10	3/25/2014 2:59:07 PM	12325
Surr: Dibromofluoromethane	101	70-130		%REC	10	3/25/2014 2:59:07 PM	12325
Surr: Toluene-d8	101	70-130		%REC	10	3/25/2014 2:59:07 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-004 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/25/2014 8:30:42 PM	12321
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/25/2014 8:30:42 PM	12321
Surr: DNOP	90.7	66-131		%REC	1	3/25/2014 8:30:42 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/27/2014 12:17:07 AM	12325
Surr: BFB	88.8	74.5-129		%REC	1	3/27/2014 12:17:07 AM	12325
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	8.3	3.0		mg/Kg	10	3/25/2014 2:53:30 PM	12346
Chloride	7600	300		mg/Kg	200	3/27/2014 7:12:27 AM	12346
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	3/25/2014 2:53:30 PM	12346
Bromide	3.8	3.0		mg/Kg	10	3/25/2014 2:53:30 PM	12346
Nitrogen, Nitrate (As N)	16	3.0		mg/Kg	10	3/25/2014 2:53:30 PM	12346
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	3/25/2014 2:53:30 PM	12346
Sulfate	1300	150		mg/Kg	100	3/25/2014 3:05:55 PM	12346
MERCURY, TCLP						Analyst: **JML**	
Mercury	ND	0.020		mg/L	1	3/25/2014 5:25:31 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	15000	130		mg/Kg	5	3/26/2014 12:20:20 PM	12337
Magnesium	7200	51		mg/Kg	2	3/26/2014 12:18:49 PM	12337
Potassium	4400	100		mg/Kg	2	3/26/2014 12:18:49 PM	12337
Sodium	6400	51		mg/Kg	2	3/26/2014 12:18:49 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst: **JLF**	
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:43:00 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:43:00 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:43:00 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:43:00 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:43:00 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:43:00 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:43:00 PM	12369
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Acenaphthylene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Aniline	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Anthracene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Azobenzene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Benz(a)anthracene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-004 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Benzo(a)pyrene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Benzoic acid	ND	0.50		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Benzyl alcohol	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	4/2/2014 3:12:58 PM	12485
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Carbazole	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	4/2/2014 3:12:58 PM	12485
4-Chloroaniline	ND	0.50		mg/Kg	1	4/2/2014 3:12:58 PM	12485
2-Chloronaphthalene	ND	0.25		mg/Kg	1	4/2/2014 3:12:58 PM	12485
2-Chlorophenol	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Chrysene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Dibenzofuran	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Diethyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Dimethyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	4/2/2014 3:12:58 PM	12485
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	4/2/2014 3:12:58 PM	12485
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	4/2/2014 3:12:58 PM	12485
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	4/2/2014 3:12:58 PM	12485
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	4/2/2014 3:12:58 PM	12485
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Fluorene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Hexachlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Hexachlorobutadiene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485

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Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-004 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Hexachloroethane	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Isophorone	ND	0.50		mg/Kg	1	4/2/2014 3:12:58 PM	12485
1-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
2-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
2-Methylphenol	ND	0.50		mg/Kg	1	4/2/2014 3:12:58 PM	12485
3+4-Methylphenol	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Naphthalene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
2-Nitroaniline	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
3-Nitroaniline	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
4-Nitroaniline	ND	0.40		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Nitrobenzene	ND	0.50		mg/Kg	1	4/2/2014 3:12:58 PM	12485
2-Nitrophenol	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
4-Nitrophenol	ND	0.25		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Pentachlorophenol	ND	0.40		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Phenanthrene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Phenol	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Pyrene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Pyridine	ND	0.50		mg/Kg	1	4/2/2014 3:12:58 PM	12485
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	4/2/2014 3:12:58 PM	12485
Surr: 2-Fluorophenol	78.7	27.9-127		%REC	1	4/2/2014 3:12:58 PM	12485
Surr: Phenol-d5	79.5	24.5-126		%REC	1	4/2/2014 3:12:58 PM	12485
Surr: 2,4,6-Tribromophenol	67.1	27.6-136		%REC	1	4/2/2014 3:12:58 PM	12485
Surr: Nitrobenzene-d5	83.6	23.5-128		%REC	1	4/2/2014 3:12:58 PM	12485
Surr: 2-Fluorobiphenyl	76.9	22.6-132		%REC	1	4/2/2014 3:12:58 PM	12485
Surr: 4-Terphenyl-d14	73.6	28.1-128		%REC	1	4/2/2014 3:12:58 PM	12485
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	3/27/2014 5:14:47 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 5:14:47 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 5:14:47 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 5:14:47 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 5:14:47 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 5:14:47 PM	12365
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 5:14:47 PM	12365

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Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-004 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 5:14:47 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 5:14:47 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 5:14:47 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 5:14:47 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 5:14:47 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 5:14:47 PM	12365
Surr: 2-Fluorophenol	49.0	18.6-88.6		%REC	1	3/27/2014 5:14:47 PM	12365
Surr: Phenol-d5	45.6	19.5-61.8		%REC	1	3/27/2014 5:14:47 PM	12365
Surr: 2,4,6-Tribromophenol	68.1	29.7-130		%REC	1	3/27/2014 5:14:47 PM	12365
Surr: Nitrobenzene-d5	109	45.1-101	S	%REC	1	3/27/2014 5:14:47 PM	12365
Surr: 2-Fluorobiphenyl	97.0	46.6-99.3		%REC	1	3/27/2014 5:14:47 PM	12365
Surr: 4-Terphenyl-d14	90.0	40.8-109		%REC	1	3/27/2014 5:14:47 PM	12365
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Benzene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Toluene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Ethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Naphthalene	ND	0.10		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 5:13:22 PM	12325
2-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Acetone	ND	0.75		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Bromobenzene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Bromodichloromethane	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Bromoform	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Bromomethane	ND	0.15		mg/Kg	1	4/2/2014 5:13:22 PM	12325
2-Butanone	ND	0.50		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Carbon disulfide	ND	0.50		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Carbon tetrachloride	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Chlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Chloroethane	ND	0.10		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Chloroform	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Chloromethane	ND	0.15		mg/Kg	1	4/2/2014 5:13:22 PM	12325
2-Chlorotoluene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
4-Chlorotoluene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
cis-1,2-DCE	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-004 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Dibromochloromethane	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Dibromomethane	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,1-Dichloroethane	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,1-Dichloroethene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,2-Dichloropropane	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,3-Dichloropropane	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
2,2-Dichloropropane	ND	0.10		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,1-Dichloropropene	ND	0.10		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Hexachlorobutadiene	ND	0.10		mg/Kg	1	4/2/2014 5:13:22 PM	12325
2-Hexanone	ND	0.50		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Isopropylbenzene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
4-Isopropyltoluene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Methylene chloride	ND	0.15		mg/Kg	1	4/2/2014 5:13:22 PM	12325
n-Butylbenzene	ND	0.15		mg/Kg	1	4/2/2014 5:13:22 PM	12325
n-Propylbenzene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
sec-Butylbenzene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Styrene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
tert-Butylbenzene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
trans-1,2-DCE	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Trichlorofluoromethane	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Vinyl chloride	ND	0.050		mg/Kg	1	4/2/2014 5:13:22 PM	12325
Xylenes, Total	ND	0.10		mg/Kg	1	4/2/2014 5:13:22 PM	12325

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2A
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-004 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Surr: Dibromofluoromethane	106	70-130		%REC	1	4/2/2014 5:13:22 PM	12325
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	4/2/2014 5:13:22 PM	12325
Surr: Toluene-d8	87.6	70-130		%REC	1	4/2/2014 5:13:22 PM	12325
Surr: 4-Bromofluorobenzene	94.8	70-130		%REC	1	4/2/2014 5:13:22 PM	12325
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 4:25:20 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 4:25:20 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 4:25:20 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 4:25:20 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 4:25:20 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 4:25:20 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 4:25:20 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 4:25:20 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 4:25:20 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 4:25:20 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 4:25:20 PM	12325
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	10	3/25/2014 4:25:20 PM	12325
Surr: 4-Bromofluorobenzene	97.2	70-130		%REC	10	3/25/2014 4:25:20 PM	12325
Surr: Dibromofluoromethane	103	70-130		%REC	10	3/25/2014 4:25:20 PM	12325
Surr: Toluene-d8	99.7	70-130		%REC	10	3/25/2014 4:25:20 PM	12325

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Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-005 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/25/2014 8:52:38 PM	12321
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/25/2014 8:52:38 PM	12321
Surr: DNOP	89.1	66-131		%REC	1	3/25/2014 8:52:38 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/27/2014 12:45:47 AM	12325
Surr: BFB	88.9	74.5-129		%REC	1	3/27/2014 12:45:47 AM	12325
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	8.1	3.0		mg/Kg	10	3/25/2014 3:18:20 PM	12346
Chloride	1800	150		mg/Kg	100	3/25/2014 3:30:45 PM	12346
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	3/25/2014 3:18:20 PM	12346
Bromide	ND	3.0		mg/Kg	10	3/25/2014 3:18:20 PM	12346
Nitrogen, Nitrate (As N)	4.2	3.0		mg/Kg	10	3/25/2014 3:18:20 PM	12346
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	3/25/2014 3:18:20 PM	12346
Sulfate	420	15		mg/Kg	10	3/25/2014 3:18:20 PM	12346
MERCURY, TCLP						Analyst: **JML**	
Mercury	ND	0.020		mg/L	1	3/25/2014 5:27:19 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	16000	120		mg/Kg	5	3/26/2014 12:23:19 PM	12337
Magnesium	7400	48		mg/Kg	2	3/26/2014 12:21:50 PM	12337
Potassium	4100	96		mg/Kg	2	3/26/2014 12:21:50 PM	12337
Sodium	2500	48		mg/Kg	2	3/26/2014 12:21:50 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst: **JLF**	
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:49:15 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:49:15 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:49:15 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:49:15 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:49:15 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:49:15 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:49:15 PM	12369
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Acenaphthylene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Aniline	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Anthracene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Azobenzene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Benz(a)anthracene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485

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Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-005 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Benzo(a)pyrene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Benzoic acid	ND	0.50		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Benzyl alcohol	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	4/2/2014 3:42:32 PM	12485
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Carbazole	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	4/2/2014 3:42:32 PM	12485
4-Chloroaniline	ND	0.50		mg/Kg	1	4/2/2014 3:42:32 PM	12485
2-Chloronaphthalene	ND	0.25		mg/Kg	1	4/2/2014 3:42:32 PM	12485
2-Chlorophenol	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Chrysene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Dibenzofuran	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Diethyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Dimethyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	4/2/2014 3:42:32 PM	12485
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	4/2/2014 3:42:32 PM	12485
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	4/2/2014 3:42:32 PM	12485
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	4/2/2014 3:42:32 PM	12485
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	4/2/2014 3:42:32 PM	12485
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Fluorene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Hexachlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Hexachlorobutadiene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-005 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Hexachloroethane	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Isophorone	ND	0.50		mg/Kg	1	4/2/2014 3:42:32 PM	12485
1-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
2-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
2-Methylphenol	ND	0.50		mg/Kg	1	4/2/2014 3:42:32 PM	12485
3+4-Methylphenol	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Naphthalene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
2-Nitroaniline	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
3-Nitroaniline	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
4-Nitroaniline	ND	0.40		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Nitrobenzene	ND	0.50		mg/Kg	1	4/2/2014 3:42:32 PM	12485
2-Nitrophenol	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
4-Nitrophenol	ND	0.25		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Pentachlorophenol	ND	0.40		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Phenanthrene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Phenol	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Pyrene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Pyridine	ND	0.50		mg/Kg	1	4/2/2014 3:42:32 PM	12485
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	4/2/2014 3:42:32 PM	12485
Surr: 2-Fluorophenol	72.9	27.9-127		%REC	1	4/2/2014 3:42:32 PM	12485
Surr: Phenol-d5	75.1	24.5-126		%REC	1	4/2/2014 3:42:32 PM	12485
Surr: 2,4,6-Tribromophenol	65.9	27.6-136		%REC	1	4/2/2014 3:42:32 PM	12485
Surr: Nitrobenzene-d5	78.5	23.5-128		%REC	1	4/2/2014 3:42:32 PM	12485
Surr: 2-Fluorobiphenyl	78.8	22.6-132		%REC	1	4/2/2014 3:42:32 PM	12485
Surr: 4-Terphenyl-d14	71.4	28.1-128		%REC	1	4/2/2014 3:42:32 PM	12485
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	3/27/2014 5:43:48 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 5:43:48 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 5:43:48 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 5:43:48 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 5:43:48 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 5:43:48 PM	12365
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 5:43:48 PM	12365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-005 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 5:43:48 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 5:43:48 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 5:43:48 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 5:43:48 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 5:43:48 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 5:43:48 PM	12365
Surr: 2-Fluorophenol	13.7	18.6-88.6	S	%REC	1	3/27/2014 5:43:48 PM	12365
Surr: Phenol-d5	30.0	19.5-61.8		%REC	1	3/27/2014 5:43:48 PM	12365
Surr: 2,4,6-Tribromophenol	23.7	29.7-130	S	%REC	1	3/27/2014 5:43:48 PM	12365
Surr: Nitrobenzene-d5	87.8	45.1-101		%REC	1	3/27/2014 5:43:48 PM	12365
Surr: 2-Fluorobiphenyl	94.8	46.6-99.3		%REC	1	3/27/2014 5:43:48 PM	12365
Surr: 4-Terphenyl-d14	88.9	40.8-109		%REC	1	3/27/2014 5:43:48 PM	12365
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Benzene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Toluene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Ethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Naphthalene	ND	0.10		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 5:42:12 PM	12325
2-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Acetone	ND	0.75		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Bromobenzene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Bromodichloromethane	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Bromoform	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Bromomethane	ND	0.15		mg/Kg	1	4/2/2014 5:42:12 PM	12325
2-Butanone	ND	0.50		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Carbon disulfide	ND	0.50		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Carbon tetrachloride	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Chlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Chloroethane	ND	0.10		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Chloroform	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Chloromethane	ND	0.15		mg/Kg	1	4/2/2014 5:42:12 PM	12325
2-Chlorotoluene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
4-Chlorotoluene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
cis-1,2-DCE	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-005 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Dibromochloromethane	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Dibromomethane	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,1-Dichloroethane	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,1-Dichloroethene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,2-Dichloropropane	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,3-Dichloropropane	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
2,2-Dichloropropane	ND	0.10		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,1-Dichloropropene	ND	0.10		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Hexachlorobutadiene	ND	0.10		mg/Kg	1	4/2/2014 5:42:12 PM	12325
2-Hexanone	ND	0.50		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Isopropylbenzene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
4-Isopropyltoluene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Methylene chloride	ND	0.15		mg/Kg	1	4/2/2014 5:42:12 PM	12325
n-Butylbenzene	ND	0.15		mg/Kg	1	4/2/2014 5:42:12 PM	12325
n-Propylbenzene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
sec-Butylbenzene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Styrene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
tert-Butylbenzene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
trans-1,2-DCE	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Trichlorofluoromethane	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Vinyl chloride	ND	0.050		mg/Kg	1	4/2/2014 5:42:12 PM	12325
Xylenes, Total	ND	0.10		mg/Kg	1	4/2/2014 5:42:12 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-005 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Surr: Dibromofluoromethane	103	70-130		%REC	1	4/2/2014 5:42:12 PM	12325
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	4/2/2014 5:42:12 PM	12325
Surr: Toluene-d8	91.2	70-130		%REC	1	4/2/2014 5:42:12 PM	12325
Surr: 4-Bromofluorobenzene	94.7	70-130		%REC	1	4/2/2014 5:42:12 PM	12325
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 4:54:01 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 4:54:01 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 4:54:01 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 4:54:01 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 4:54:01 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 4:54:01 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 4:54:01 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 4:54:01 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 4:54:01 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 4:54:01 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 4:54:01 PM	12325
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	10	3/25/2014 4:54:01 PM	12325
Surr: 4-Bromofluorobenzene	101	70-130		%REC	10	3/25/2014 4:54:01 PM	12325
Surr: Dibromofluoromethane	105	70-130		%REC	10	3/25/2014 4:54:01 PM	12325
Surr: Toluene-d8	103	70-130		%REC	10	3/25/2014 4:54:01 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-006 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/25/2014 9:14:36 PM	12321
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/25/2014 9:14:36 PM	12321
Surr: DNOP	94.9	66-131		%REC	1	3/25/2014 9:14:36 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/27/2014 1:14:26 AM	12325
Surr: BFB	89.4	74.5-129		%REC	1	3/27/2014 1:14:26 AM	12325
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	5.5	3.0		mg/Kg	10	3/25/2014 3:43:10 PM	12346
Chloride	5400	150		mg/Kg	100	3/25/2014 3:55:35 PM	12346
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	3/25/2014 3:43:10 PM	12346
Bromide	ND	3.0		mg/Kg	10	3/25/2014 3:43:10 PM	12346
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	3/25/2014 3:43:10 PM	12346
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	3/25/2014 3:43:10 PM	12346
Sulfate	980	15		mg/Kg	10	3/25/2014 3:43:10 PM	12346
MERCURY, TCLP						Analyst: **JML**	
Mercury	ND	0.020		mg/L	1	3/25/2014 5:32:49 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Calcium	15000	130		mg/Kg	5	3/26/2014 12:26:21 PM	12337
Magnesium	7100	52		mg/Kg	2	3/26/2014 12:24:49 PM	12337
Potassium	3900	100		mg/Kg	2	3/26/2014 12:24:49 PM	12337
Sodium	4100	52		mg/Kg	2	3/26/2014 12:24:49 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst: **JLF**	
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:51:45 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:51:45 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:51:45 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:51:45 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:51:45 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:51:45 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:51:45 PM	12369
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Acenaphthylene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Aniline	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Anthracene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Azobenzene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Benz(a)anthracene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-006 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Benzo(a)pyrene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Benzoic acid	ND	0.50		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Benzyl alcohol	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	4/2/2014 4:12:05 PM	12485
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Carbazole	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	4/2/2014 4:12:05 PM	12485
4-Chloroaniline	ND	0.50		mg/Kg	1	4/2/2014 4:12:05 PM	12485
2-Chloronaphthalene	ND	0.25		mg/Kg	1	4/2/2014 4:12:05 PM	12485
2-Chlorophenol	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Chrysene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Dibenzofuran	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Diethyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Dimethyl phthalate	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	4/2/2014 4:12:05 PM	12485
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	4/2/2014 4:12:05 PM	12485
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	4/2/2014 4:12:05 PM	12485
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	4/2/2014 4:12:05 PM	12485
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	4/2/2014 4:12:05 PM	12485
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Fluoranthene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Fluorene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Hexachlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Hexachlorobutadiene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-006 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Hexachloroethane	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Isophorone	ND	0.50		mg/Kg	1	4/2/2014 4:12:05 PM	12485
1-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
2-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
2-Methylphenol	ND	0.50		mg/Kg	1	4/2/2014 4:12:05 PM	12485
3+4-Methylphenol	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Naphthalene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
2-Nitroaniline	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
3-Nitroaniline	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
4-Nitroaniline	ND	0.40		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Nitrobenzene	ND	0.50		mg/Kg	1	4/2/2014 4:12:05 PM	12485
2-Nitrophenol	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
4-Nitrophenol	ND	0.25		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Pentachlorophenol	ND	0.40		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Phenanthrene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Phenol	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Pyrene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Pyridine	ND	0.50		mg/Kg	1	4/2/2014 4:12:05 PM	12485
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	4/2/2014 4:12:05 PM	12485
Surr: 2-Fluorophenol	67.5	27.9-127		%REC	1	4/2/2014 4:12:05 PM	12485
Surr: Phenol-d5	67.6	24.5-126		%REC	1	4/2/2014 4:12:05 PM	12485
Surr: 2,4,6-Tribromophenol	58.5	27.6-136		%REC	1	4/2/2014 4:12:05 PM	12485
Surr: Nitrobenzene-d5	72.8	23.5-128		%REC	1	4/2/2014 4:12:05 PM	12485
Surr: 2-Fluorobiphenyl	70.3	22.6-132		%REC	1	4/2/2014 4:12:05 PM	12485
Surr: 4-Terphenyl-d14	68.6	28.1-128		%REC	1	4/2/2014 4:12:05 PM	12485
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	3/27/2014 6:12:44 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 6:12:44 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 6:12:44 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 6:12:44 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 6:12:44 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 6:12:44 PM	12365
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 6:12:44 PM	12365

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Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-006 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 6:12:44 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 6:12:44 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 6:12:44 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 6:12:44 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 6:12:44 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 6:12:44 PM	12365
Surr: 2-Fluorophenol	17.2	18.6-88.6	S	%REC	1	3/27/2014 6:12:44 PM	12365
Surr: Phenol-d5	27.4	19.5-61.8		%REC	1	3/27/2014 6:12:44 PM	12365
Surr: 2,4,6-Tribromophenol	25.0	29.7-130	S	%REC	1	3/27/2014 6:12:44 PM	12365
Surr: Nitrobenzene-d5	69.2	45.1-101		%REC	1	3/27/2014 6:12:44 PM	12365
Surr: 2-Fluorobiphenyl	68.6	46.6-99.3		%REC	1	3/27/2014 6:12:44 PM	12365
Surr: 4-Terphenyl-d14	72.9	40.8-109		%REC	1	3/27/2014 6:12:44 PM	12365
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Benzene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Toluene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Ethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Naphthalene	ND	0.10		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 6:10:59 PM	12325
2-Methylnaphthalene	ND	0.20		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Acetone	ND	0.75		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Bromobenzene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Bromodichloromethane	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Bromoform	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Bromomethane	ND	0.15		mg/Kg	1	4/2/2014 6:10:59 PM	12325
2-Butanone	ND	0.50		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Carbon disulfide	ND	0.50		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Carbon tetrachloride	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Chlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Chloroethane	ND	0.10		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Chloroform	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Chloromethane	ND	0.15		mg/Kg	1	4/2/2014 6:10:59 PM	12325
2-Chlorotoluene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
4-Chlorotoluene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
cis-1,2-DCE	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-006 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Dibromochloromethane	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Dibromomethane	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,1-Dichloroethane	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,1-Dichloroethene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,2-Dichloropropane	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,3-Dichloropropane	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
2,2-Dichloropropane	ND	0.10		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,1-Dichloropropene	ND	0.10		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Hexachlorobutadiene	ND	0.10		mg/Kg	1	4/2/2014 6:10:59 PM	12325
2-Hexanone	ND	0.50		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Isopropylbenzene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
4-Isopropyltoluene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Methylene chloride	ND	0.15		mg/Kg	1	4/2/2014 6:10:59 PM	12325
n-Butylbenzene	ND	0.15		mg/Kg	1	4/2/2014 6:10:59 PM	12325
n-Propylbenzene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
sec-Butylbenzene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Styrene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
tert-Butylbenzene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
trans-1,2-DCE	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Trichlorofluoromethane	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Vinyl chloride	ND	0.050		mg/Kg	1	4/2/2014 6:10:59 PM	12325
Xylenes, Total	ND	0.10		mg/Kg	1	4/2/2014 6:10:59 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-006 **Matrix:** SOIL **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Surr: Dibromofluoromethane	104	70-130		%REC	1	4/2/2014 6:10:59 PM	12325
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%REC	1	4/2/2014 6:10:59 PM	12325
Surr: Toluene-d8	90.8	70-130		%REC	1	4/2/2014 6:10:59 PM	12325
Surr: 4-Bromofluorobenzene	90.2	70-130		%REC	1	4/2/2014 6:10:59 PM	12325
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 5:22:42 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 5:22:42 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 5:22:42 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 5:22:42 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 5:22:42 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 5:22:42 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 5:22:42 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 5:22:42 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 5:22:42 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 5:22:42 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 5:22:42 PM	12325
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	10	3/25/2014 5:22:42 PM	12325
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	10	3/25/2014 5:22:42 PM	12325
Surr: Dibromofluoromethane	102	70-130		%REC	10	3/25/2014 5:22:42 PM	12325
Surr: Toluene-d8	99.5	70-130		%REC	10	3/25/2014 5:22:42 PM	12325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007 **Matrix:** AQUEOUS **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE						Analyst: **BCN**	
Diesel Range Organics (DRO)	4.6	1.0		mg/L	1	3/25/2014 5:00:12 PM	12335
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/25/2014 5:00:12 PM	12335
Surr: DNOP	107	62.7-145		%REC	1	3/25/2014 5:00:12 PM	12335
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/25/2014 3:57:11 PM	R17568
Surr: BFB	96.5	80.4-118		%REC	1	3/25/2014 3:57:11 PM	R17568
EPA METHOD 300.0: ANIONS						Analyst: **SRM**	
Fluoride	26	10	*	mg/L	100	3/21/2014 8:34:08 PM	R17497
Chloride	53000	2500		mg/L	5E	3/24/2014 2:59:24 PM	R17549
Nitrogen, Nitrite (As N)	ND	100	H	mg/L	1E	3/24/2014 2:47:00 PM	R17549
Bromide	22	10		mg/L	100	3/21/2014 8:34:08 PM	R17497
Nitrogen, Nitrate (As N)	2.4	1.0		mg/L	10	3/21/2014 8:21:43 PM	R17497
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	3/21/2014 8:21:43 PM	R17497
Sulfate	8400	500		mg/L	1E	3/24/2014 2:47:00 PM	R17549
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Barium	0.41	0.010		mg/L	5	3/24/2014 2:09:57 PM	R17521
Cadmium	ND	0.010		mg/L	5	3/24/2014 2:09:57 PM	R17521
Calcium	920	50		mg/L	50	3/24/2014 2:11:41 PM	R17521
Chromium	ND	0.030		mg/L	5	3/24/2014 2:09:57 PM	R17521
Copper	ND	0.030		mg/L	5	3/24/2014 2:09:57 PM	R17521
Iron	0.20	0.10		mg/L	5	3/24/2014 2:09:57 PM	R17521
Magnesium	990	50		mg/L	50	3/24/2014 2:11:41 PM	R17521
Manganese	1.8	0.010	*	mg/L	5	3/24/2014 2:09:57 PM	R17521
Potassium	1200	50		mg/L	50	3/24/2014 2:11:41 PM	R17521
Silver	ND	0.025		mg/L	5	3/24/2014 2:09:57 PM	R17521
Sodium	27000	500		mg/L	500	3/24/2014 3:30:11 PM	R17521
Zinc	0.079	0.050		mg/L	5	3/24/2014 2:09:57 PM	R17521
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**	
Barium	0.37	0.010		mg/L	5	3/25/2014 4:36:13 PM	12345
Cadmium	ND	0.010		mg/L	5	3/25/2014 4:36:13 PM	12345
Chromium	ND	0.030		mg/L	5	3/25/2014 4:36:13 PM	12345
Copper	ND	0.030		mg/L	5	3/25/2014 4:36:13 PM	12345
Iron	0.66	0.10	*	mg/L	5	3/25/2014 4:36:13 PM	12345
Manganese	1.7	0.010	*	mg/L	5	3/25/2014 4:36:13 PM	12345
Silver	ND	0.025		mg/L	5	3/25/2014 4:36:13 PM	12345
Zinc	ND	0.050		mg/L	5	3/25/2014 4:36:13 PM	12345
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007 **Matrix:** AQUEOUS **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**	
Arsenic	0.077	0.050	*	mg/L	50	3/26/2014 5:14:10 PM	R17589
Lead	ND	0.010		mg/L	10	3/26/2014 5:08:36 PM	R17589
Selenium	0.059	0.050	*	mg/L	50	3/26/2014 5:14:10 PM	R17589
Uranium	ND	0.010		mg/L	10	3/26/2014 5:08:36 PM	R17589
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**	
Arsenic	0.078	0.050	*	mg/L	50	3/27/2014 12:44:12 PM	12345
Lead	ND	0.010		mg/L	10	3/27/2014 12:54:35 PM	12345
Selenium	0.055	0.050	*	mg/L	50	3/27/2014 12:44:12 PM	12345
Uranium	ND	0.010		mg/L	10	3/27/2014 12:54:35 PM	12345
EPA METHOD 245.1: MERCURY						Analyst: **JML**	
Mercury	ND	0.00020		mg/L	1	3/24/2014 5:46:02 PM	12327
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Acenaphthylene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Aniline	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Anthracene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Azobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benz(a)anthracene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzo(a)pyrene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzo(b)fluoranthene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzo(g,h,i)perylene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzo(k)fluoranthene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzoic acid	ND	100		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzyl alcohol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Bis(2-chloroethyl)ether	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Bromophenyl phenyl ether	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Butyl benzyl phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Carbazole	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Chloro-3-methylphenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Chloroaniline	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Chloronaphthalene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Chlorophenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Chrysene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Di-n-butyl phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366

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S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007 **Matrix:** AQUEOUS **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Di-n-octyl phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Dibenz(a,h)anthracene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Dibenzofuran	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
1,2-Dichlorobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
1,3-Dichlorobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
1,4-Dichlorobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
3,3´-Dichlorobenzidine	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Diethyl phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Dimethyl phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4-Dichlorophenol	ND	100		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4-Dimethylphenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4-Dinitrophenol	ND	100		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4-Dinitrotoluene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2,6-Dinitrotoluene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Fluoranthene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Fluorene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Hexachlorobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Hexachlorobutadiene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Hexachlorocyclopentadiene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Hexachloroethane	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Isophorone	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
1-Methylnaphthalene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Methylnaphthalene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Methylphenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
3+4-Methylphenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
N-Nitrosodimethylamine	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
N-Nitrosodiphenylamine	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Naphthalene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Nitroaniline	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
3-Nitroaniline	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Nitroaniline	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Nitrobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Nitrophenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Nitrophenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Pentachlorophenol	ND	100		µg/L	1	3/27/2014 12:52:58 PM	12366
Phenanthrene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007 **Matrix:** AQUEOUS **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Phenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Pyrene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Pyridine	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
1,2,4-Trichlorobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4,5-Trichlorophenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4,6-Trichlorophenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Surr: 2-Fluorophenol	1.81	22.7-98	S	%REC	1	3/27/2014 12:52:58 PM	12366
Surr: Phenol-d5	6.09	23.4-74.9	S	%REC	1	3/27/2014 12:52:58 PM	12366
Surr: 2,4,6-Tribromophenol	46.4	23.3-111		%REC	1	3/27/2014 12:52:58 PM	12366
Surr: Nitrobenzene-d5	112	36.8-111	S	%REC	1	3/27/2014 12:52:58 PM	12366
Surr: 2-Fluorobiphenyl	104	38.3-110		%REC	1	3/27/2014 12:52:58 PM	12366
Surr: 4-Terphenyl-d14	91.0	52.1-116		%REC	1	3/27/2014 12:52:58 PM	12366
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Toluene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Ethylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Naphthalene	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1-Methylnaphthalene	ND	4.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
2-Methylnaphthalene	ND	4.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Acetone	26	10		µg/L	1	3/24/2014 4:03:11 PM	R17536
Bromobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Bromodichloromethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Bromoform	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Bromomethane	ND	3.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
2-Butanone	ND	10		µg/L	1	3/24/2014 4:03:11 PM	R17536
Carbon disulfide	ND	10		µg/L	1	3/24/2014 4:03:11 PM	R17536
Carbon Tetrachloride	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Chlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Chloroethane	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Chloroform	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Chloromethane	21	3.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
2-Chlorotoluene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
4-Chlorotoluene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
cis-1,2-DCE	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007 **Matrix:** AQUEOUS **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Dibromochloromethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Dibromomethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1-Dichloroethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1-Dichloroethene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2-Dichloropropane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,3-Dichloropropane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
2,2-Dichloropropane	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1-Dichloropropene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Hexachlorobutadiene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
2-Hexanone	ND	10		µg/L	1	3/24/2014 4:03:11 PM	R17536
Isopropylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
4-Isopropyltoluene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
4-Methyl-2-pentanone	ND	10		µg/L	1	3/24/2014 4:03:11 PM	R17536
Methylene Chloride	ND	3.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
n-Butylbenzene	ND	3.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
n-Propylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
sec-Butylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Styrene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
tert-Butylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
trans-1,2-DCE	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Trichlorofluoromethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Vinyl chloride	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Xylenes, Total	ND	1.5		µg/L	1	3/24/2014 4:03:11 PM	R17536

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007 **Matrix:** AQUEOUS **Received Date:** 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	3/24/2014 4:03:11 PM	R17536
Surr: 4-Bromofluorobenzene	108	70-130		%REC	1	3/24/2014 4:03:11 PM	R17536
Surr: Dibromofluoromethane	114	70-130		%REC	1	3/24/2014 4:03:11 PM	R17536
Surr: Toluene-d8	93.9	70-130		%REC	1	3/24/2014 4:03:11 PM	R17536

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Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140325030
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1403941
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140325030-001	**Sampling Date**	3/20/2014	**Date/Time Received**	3/25/2014 12:43 PM
Client Sample ID	1403941-001B / P7-S-1A	**Sampling Time**	10:00 AM		
Matrix	Soil	**Sample Location**			

Comments: sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	7.90	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140325030
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1403941
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140325030-002	**Sampling Date**	3/20/2014	**Date/Time Received**	3/25/2014	12:43 PM
Client Sample ID	1403941-002B / P7-S-1B	**Sampling Time**	10:00 AM			
Matrix	Soil	**Sample Location**				

Comments sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	7.88	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140325030
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1403941
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140325030-003	**Sampling Date**	3/20/2014	**Date/Time Received**	3/25/2014	12:43 PM
Client Sample ID	1403941-003B / P7-S-1C	**Sampling Time**	10:00 AM			
Matrix	Soil	**Sample Location**				

Comments sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	8.15	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140325030
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1403941
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140325030-004	**Sampling Date**	3/20/2014	**Date/Time Received**	3/25/2014	12:43 PM
Client Sample ID	1403941-004B / P7-S-2A	**Sampling Time**	11:10 AM			
Matrix	Soil	**Sample Location**				

Comments sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	7.94	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 140325030
Project Name: 1403941

Analytical Results Report

Sample Number 140325030-005 **Sampling Date** 3/20/2014 **Date/Time Received** 3/25/2014 12:43 PM
Client Sample ID 1403941-005B / P7-S-2B **Sampling Time** 11:10 AM
Matrix Soil **Sample Location**
Comments sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	7.99	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140325030
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1403941
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140325030-006	**Sampling Date**	3/20/2014	**Date/Time Received**	3/25/2014	12:43 PM
Client Sample ID	1403941-006B / P7-S-2C	**Sampling Time**	11:10 AM			
Matrix	Soil	**Sample Location**				

Comments sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	8.00	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R17521**	RunNo: **17521**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **504618** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R17521**	RunNo: **17521**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **504619** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.3	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.4	85	115			
Calcium	50	1.0	50.00	0	99.7	85	115			
Chromium	0.49	0.0060	0.5000	0	97.9	85	115			
Copper	0.49	0.0060	0.5000	0	98.6	85	115			
Iron	0.49	0.020	0.5000	0	98.0	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	95.6	85	115			
Potassium	48	1.0	50.00	0	97.0	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Sodium	50	1.0	50.00	0	99.7	85	115			
Zinc	0.49	0.010	0.5000	0	97.0	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12345**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **12345**	RunNo: **17565**
Prep Date: **3/25/2014**	Analysis Date: **3/25/2014**	SeqNo: **505960** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-12345**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **12345**	RunNo: **17565**
Prep Date: **3/25/2014**	Analysis Date: **3/25/2014**	SeqNo: **505961** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.0	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	99.3	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	97.5	85	115			
Manganese	0.49	0.0020	0.5000	0	97.4	85	115			
Silver	0.11	0.0050	0.1000	0	113	85	115			
Zinc	0.49	0.010	0.5000	0	97.6	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R17589**	RunNo: **17589**
Prep Date:	Analysis Date: **3/26/2014**	SeqNo: **506539** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.7	85	115			
Lead	0.025	0.0010	0.02500	0	98.5	85	115			
Selenium	0.024	0.0010	0.02500	0	96.0	85	115			
Uranium	0.025	0.0010	0.02500	0	99.5	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R17589**	RunNo: **17589**
Prep Date:	Analysis Date: **3/26/2014**	SeqNo: **506540** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.022	0.0010	0.02500	0	89.8	85	115			
Lead	0.024	0.0010	0.02500	0	96.7	85	115			
Selenium	0.023	0.0010	0.02500	0	93.3	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R17589**	RunNo: **17589**
Prep Date:	Analysis Date: **3/26/2014**	SeqNo: **506541** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R17589**	RunNo: **17589**
Prep Date:	Analysis Date: **3/26/2014**	SeqNo: **506542** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID	**LLLCS-12345**	SampType:	**LCSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**BatchQC**	Batch ID:	**12345**		RunNo:	**17614**				
Prep Date:	**3/25/2014**	Analysis Date:	**3/27/2014**		SeqNo:	**507207**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.025	0.0010	0.02500	0	99.9	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID	**MB-12345**	SampType:	**MBLK**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**PBW**	Batch ID:	**12345**		RunNo:	**17614**				
Prep Date:	**3/25/2014**	Analysis Date:	**3/27/2014**		SeqNo:	**507208**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	**LLLCS-12345**	SampType:	**LCSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**BatchQC**	Batch ID:	**12345**		RunNo:	**17692**				
Prep Date:	**3/25/2014**	Analysis Date:	**3/31/2014**		SeqNo:	**509614**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.9	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	94.9	85	115			
Uranium	0.025	0.0010	0.02500	0	98.1	85	115			

Sample ID	**MB-12345**	SampType:	**MBLK**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**PBW**	Batch ID:	**12345**		RunNo:	**17692**				
Prep Date:	**3/25/2014**	Analysis Date:	**3/31/2014**		SeqNo:	**509631**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID	**MB-12327**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**12327**	RunNo:	**17527**					
Prep Date:	**3/24/2014**	Analysis Date:	**3/24/2014**	SeqNo:	**505296**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-12327**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**12327**	RunNo:	**17527**					
Prep Date:	**3/24/2014**	Analysis Date:	**3/24/2014**	SeqNo:	**505297**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12346**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **12346**	RunNo: **17569**
Prep Date: **3/25/2014**	Analysis Date: **3/25/2014**	SeqNo: **506051** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrite (As N)	ND	0.30								
Bromide	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								
Phosphorus, Orthophosphate (As P	ND	1.5								
Sulfate	ND	1.5								

Sample ID **LCS-12346**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **12346**	RunNo: **17569**
Prep Date: **3/25/2014**	Analysis Date: **3/25/2014**	SeqNo: **506052** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.30	1.500	0	102	90	110			
Chloride	14	1.5	15.00	0	93.6	90	110			
Nitrogen, Nitrite (As N)	2.8	0.30	3.000	0	93.3	90	110			
Bromide	7.3	0.30	7.500	0	97.7	90	110			
Nitrogen, Nitrate (As N)	7.4	0.30	7.500	0	99.1	90	110			
Phosphorus, Orthophosphate (As P	14	1.5	15.00	0	90.6	90	110			
Sulfate	30	1.5	30.00	0	98.6	90	110			

Sample ID **1403941-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **P7-S-1A**	Batch ID: **12346**	RunNo: **17569**
Prep Date: **3/25/2014**	Analysis Date: **3/25/2014**	SeqNo: **506056** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.3	0.30	1.500	2.553	47.9	9.86	110			
Bromide	8.9	0.30	7.500	1.954	93.3	80.4	110			
Nitrogen, Nitrate (As N)	11	0.30	7.500	3.329	97.5	68.7	119			

Sample ID **1403941-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **P7-S-1A**	Batch ID: **12346**	RunNo: **17569**
Prep Date: **3/25/2014**	Analysis Date: **3/25/2014**	SeqNo: **506057** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.8	0.30	1.500	2.553	13.7	9.86	110	17.0	20	
Bromide	9.0	0.30	7.500	1.954	93.6	80.4	110	0.245	20	
Nitrogen, Nitrate (As N)	10	0.30	7.500	3.329	90.1	68.7	119	5.32	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R17497**	RunNo: **17497**
Prep Date:	Analysis Date: **3/21/2014**	SeqNo: **503991** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R17497**	RunNo: **17497**
Prep Date:	Analysis Date: **3/21/2014**	SeqNo: **503992** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Bromide	2.5	0.10	2.500	0	98.4	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.1	90	110			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	91.8	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R17549**	RunNo: **17549**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **505354** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R17549**	RunNo: **17549**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **505355** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.5	90	110			
Nitrogen, Nitrite (As N)	0.98	0.10	1.000	0	97.5	90	110			
Sulfate	9.9	0.50	10.00	0	98.9	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R17549**	RunNo: **17549**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **505400** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R17549**	RunNo: **17549**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **505400** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R17549**	RunNo: **17549**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **505401** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	98.0	90	110			
Nitrogen, Nitrite (As N)	0.99	0.10	1.000	0	98.8	90	110			
Sulfate	9.9	0.50	10.00	0	99.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12321**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **12321**	RunNo: **17506**
Prep Date: **3/24/2014**	Analysis Date: **3/24/2014**	SeqNo: **504481** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		85.9	66	131			

Sample ID **LCS-12321**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **12321**	RunNo: **17506**
Prep Date: **3/24/2014**	Analysis Date: **3/24/2014**	SeqNo: **504483** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.1	60.8	145			
Surr: DNOP	4.5		5.000		90.6	66	131			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12335**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range**
Client ID: **PBW**	Batch ID: **12335**	RunNo: **17551**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505699** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		106	62.7	145			

Sample ID **LCS-12335**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range**
Client ID: **LCSW**	Batch ID: **12335**	RunNo: **17551**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505965** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.3	1.0	5.000	0	126	78.6	146			
Surr: DNOP	0.56		0.5000		112	62.7	145			

Sample ID **LCSD-12335**	SampType: **LCSD**	TestCode: **EPA Method 8015D: Diesel Range**
Client ID: **LCSS02**	Batch ID: **12335**	RunNo: **17551**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505972** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.2	1.0	5.000	0	123	78.6	146	2.18	26.5	
Surr: DNOP	0.56		0.5000		111	62.7	145	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12325**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **12325**	RunNo: **17583**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506906** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		89.1	74.5	129			

Sample ID **LCS-12325**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **12325**	RunNo: **17583**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506907** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.6	71.7	134			
Surr: BFB	960		1000		96.3	74.5	129			

Sample ID **1403941-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **P7-S-1A**	Batch ID: **12325**	RunNo: **17583**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506910** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	24.95	0	111	69.5	145			
Surr: BFB	970		998.0		97.5	74.5	129			

Sample ID **1403941-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **P7-S-1A**	Batch ID: **12325**	RunNo: **17583**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506911** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	5.0	24.88	0	124	69.5	145	10.8	20	
Surr: BFB	1000		995.0		100	74.5	129	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **R17568**	RunNo: **17568**
Prep Date:	Analysis Date: **3/25/2014**	SeqNo: **506000** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		90.7	80.4	118			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R17568**	RunNo: **17568**
Prep Date:	Analysis Date: **3/25/2014**	SeqNo: **506001** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	96.0	80	120			
Surr: BFB	19		20.00		93.5	80.4	118			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12325**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS**	Batch ID: **12325**	RunNo: **17560**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **510177** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12325**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS**	Batch ID: **12325**	RunNo: **17560**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **510177** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		106	70	130			
Surr: Toluene-d8	0.47		0.5000		93.0	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.5	70	130			

Sample ID **lcs-12325**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS**	Batch ID: **12325**	RunNo: **17560**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **510178** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.3	70	130			
Toluene	0.83	0.050	1.000	0	82.6	60.1	120			
Chlorobenzene	0.87	0.050	1.000	0	87.2	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **lcs-12325**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS**	Batch ID: **12325**	RunNo: **17560**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **510178** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	1.0	0.050	1.000	0	102	78.2	162			
Trichloroethene (TCE)	0.88	0.050	1.000	0	87.7	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.47		0.5000		94.1	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.2	70	130			

Sample ID **1403941-003ams**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **P7-S-1C**	Batch ID: **12325**	RunNo: **17757**
Prep Date: **3/24/2014**	Analysis Date: **4/2/2014**	SeqNo: **511508** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.050	0.9950	0	85.0	62.6	140			
Toluene	0.71	0.050	0.9950	0	71.9	66.3	136			
Chlorobenzene	0.77	0.050	0.9950	0	77.8	68.2	131			
1,1-Dichloroethene	0.94	0.050	0.9950	0	94.2	63.3	165			
Trichloroethene (TCE)	0.80	0.050	0.9950	0	80.0	67.5	127			
Surr: Dibromofluoromethane	0.52		0.4975		105	70	130			
Surr: 1,2-Dichloroethane-d4	0.52		0.4975		105	70	130			
Surr: Toluene-d8	0.44		0.4975		88.0	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.4975		89.8	70	130			

Sample ID **1403941-003amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **P7-S-1C**	Batch ID: **12325**	RunNo: **17757**
Prep Date: **3/24/2014**	Analysis Date: **4/2/2014**	SeqNo: **511509** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.050	0.9950	0	89.0	62.6	140	4.61	20	
Toluene	0.70	0.050	0.9950	0	70.0	66.3	136	2.68	20	
Chlorobenzene	0.76	0.050	0.9950	0	76.0	68.2	131	2.32	20	
1,1-Dichloroethene	0.98	0.050	0.9950	0	98.1	63.3	165	4.07	20	
Trichloroethene (TCE)	0.85	0.050	0.9950	0	85.9	67.5	127	7.12	20	
Surr: Dibromofluoromethane	0.55		0.4975		110	70	130	0	0	
Surr: 1,2-Dichloroethane-d4	0.54		0.4975		108	70	130	0	0	
Surr: Toluene-d8	0.44		0.4975		87.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.46		0.4975		92.9	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R17536**	RunNo: **17536**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **504981** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R17536**	RunNo: **17536**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **504981** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.3	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	9.2		10.00		91.5	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R17536**	RunNo: **17536**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **504983** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	18	1.0	20.00	0	89.5	80	120			
Chlorobenzene	18	1.0	20.00	0	89.4	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R17536**	RunNo: **17536**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **504983** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	24	1.0	20.00	0	121	90	143			
Trichloroethene (TCE)	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.9	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12325**	SampType: **MBLK**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **PBS**	Batch ID: **12325**	RunNo: **17560**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505781** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
2-Butanone	ND	20								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	10								
Chloroform	ND	0.60								
1,4-Dichlorobenzene	ND	0.75								
1,1-Dichloroethene	ND	0.070								
Tetrachloroethene (PCE)	ND	0.070								
Trichloroethene (TCE)	ND	0.050								
Vinyl chloride	ND	0.020								
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		106	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.5	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.47		0.5000		93.0	70	130			

Sample ID **lcs-12325**	SampType: **LCS**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **LCSS**	Batch ID: **12325**	RunNo: **17560**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505782** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.3	70	130			
Chlorobenzene	0.87	0.050	1.000	0	87.2	70	130			
1,1-Dichloroethene	1.0	0.070	1.000	0	102	78.2	162			
Trichloroethene (TCE)	0.88	0.050	1.000	0	87.7	70	130			
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		107	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.2	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr: Toluene-d8	0.47		0.5000		94.1	70	130			

Sample ID **1403941-003ams**	SampType: **MS**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **P7-S-1C**	Batch ID: **12325**	RunNo: **17560**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505786** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.50	0.9950	0	92.6	62.6	140			
Chlorobenzene	0.81	0.50	0.9950	0	81.2	68.2	131			
1,1-Dichloroethene	0.93	0.70	0.9950	0	93.1	63.3	165			
Trichloroethene (TCE)	0.88	0.50	0.9950	0	88.8	67.5	127			
Surr: 1,2-Dichloroethane-d4	5.3		4.975		106	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **1403941-003ams**	SampType: **MS**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **P7-S-1C**	Batch ID: **12325**	RunNo: **17560**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505786** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	4.9		4.975		98.4	70	130			
Surr: Dibromofluoromethane	5.3		4.975		107	70	130			
Surr: Toluene-d8	5.1		4.975		103	70	130			

Sample ID **1403941-003amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: TCLP Compounds**
Client ID: **P7-S-1C**	Batch ID: **12325**	RunNo: **17560**
Prep Date: **3/24/2014**	Analysis Date: **3/25/2014**	SeqNo: **505787** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.50	0.9950	0	97.7	62.6	140	5.31	20	
Chlorobenzene	0.88	0.50	0.9950	0	88.4	68.2	131	8.54	20	
1,1-Dichloroethene	0.90	0.70	0.9950	0	90.6	63.3	165	2.79	20	
Trichloroethene (TCE)	0.88	0.50	0.9950	0	88.5	67.5	127	0.338	20	
Surr: 1,2-Dichloroethane-d4	5.2		4.975		105	70	130	0	0	
Surr: 4-Bromofluorobenzene	5.0		4.975		101	70	130	0	0	
Surr: Dibromofluoromethane	5.2		4.975		105	70	130	0	0	
Surr: Toluene-d8	5.1		4.975		102	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12485**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **12485**	RunNo: **17759**
Prep Date: **4/1/2014**	Analysis Date: **4/2/2014**	SeqNo: **511663** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3´-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.50								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12485**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **12485**	RunNo: **17759**
Prep Date: **4/1/2014**	Analysis Date: **4/2/2014**	SeqNo: **511663** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2-Fluorophenol	2.0		3.330		60.8	27.9	127			
Surr: Phenol-d5	2.0		3.330		61.4	24.5	126			
Surr: 2,4,6-Tribromophenol	1.8		3.330		53.4	27.6	136			
Surr: Nitrobenzene-d5	1.0		1.670		61.6	23.5	128			
Surr: 2-Fluorobiphenyl	1.0		1.670		60.6	22.6	132			
Surr: 4-Terphenyl-d14	0.98		1.670		58.8	28.1	128			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **LCS-12485**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **12485**	RunNo: **17759**
Prep Date: **4/1/2014**	Analysis Date: **4/2/2014**	SeqNo: **511664** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	70.4	50.7	110			
4-Chloro-3-methylphenol	2.2	0.50	3.330	0	66.6	47.8	107			
2-Chlorophenol	2.2	0.20	3.330	0	66.5	45.7	108			
1,4-Dichlorobenzene	1.1	0.20	1.670	0	66.3	46.1	112			
2,4-Dinitrotoluene	0.98	0.50	1.670	0	58.7	44.9	114			
N-Nitrosodi-n-propylamine	1.1	0.20	1.670	0	65.4	38.7	128			
4-Nitrophenol	1.9	0.25	3.330	0	57.6	40.2	103			
Pentachlorophenol	1.8	0.40	3.330	0	52.8	32.9	94			
Phenol	2.3	0.20	3.330	0	69.5	44.1	109			
Pyrene	1.2	0.20	1.670	0	69.4	51.9	109			
1,2,4-Trichlorobenzene	1.1	0.20	1.670	0	67.3	49.5	115			
Surr: 2-Fluorophenol	2.2		3.330		65.5	27.9	127			
Surr: Phenol-d5	2.4		3.330		72.8	24.5	126			
Surr: 2,4,6-Tribromophenol	2.3		3.330		68.3	27.6	136			
Surr: Nitrobenzene-d5	1.2		1.670		69.3	23.5	128			
Surr: 2-Fluorobiphenyl	1.2		1.670		73.2	22.6	132			
Surr: 4-Terphenyl-d14	1.3		1.670		76.7	28.1	128			

Sample ID **1403941-001ams**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **P7-S-1A**	Batch ID: **12485**	RunNo: **17759**
Prep Date: **4/1/2014**	Analysis Date: **4/2/2014**	SeqNo: **511666** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.663	0	71.5	53.8	92.8			
4-Chloro-3-methylphenol	2.3	0.50	3.317	0	69.5	34.9	104			
2-Chlorophenol	2.2	0.20	3.317	0	65.3	18.2	105			
1,4-Dichlorobenzene	1.1	0.20	1.663	0	65.8	18.1	112			
2,4-Dinitrotoluene	0.99	0.50	1.663	0	59.3	22	144			
N-Nitrosodi-n-propylamine	1.1	0.20	1.663	0	64.8	58.6	101			
4-Nitrophenol	2.0	0.25	3.317	0	61.2	13.7	127			
Pentachlorophenol	1.9	0.40	3.317	0	56.2	16.5	107			
Phenol	2.2	0.20	3.317	0	66.3	12.5	114			
Pyrene	1.2	0.20	1.663	0	70.7	14.2	116			
1,2,4-Trichlorobenzene	1.1	0.20	1.663	0	66.4	16	125			
Surr: 2-Fluorophenol	2.2		3.317		66.2	27.9	127			
Surr: Phenol-d5	2.3		3.317		68.7	24.5	126			
Surr: 2,4,6-Tribromophenol	2.1		3.317		64.3	27.6	136			
Surr: Nitrobenzene-d5	1.1		1.663		64.3	23.5	128			
Surr: 2-Fluorobiphenyl	1.1		1.663		67.8	22.6	132			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **1403941-001ams**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **P7-S-1A**	Batch ID: **12485**	RunNo: **17759**
Prep Date: **4/1/2014**	Analysis Date: **4/2/2014**	SeqNo: **511666** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	1.2		1.663		69.5	28.1	128			

Sample ID **1403941-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **P7-S-1A**	Batch ID: **12485**	RunNo: **17759**
Prep Date: **4/1/2014**	Analysis Date: **4/2/2014**	SeqNo: **511667** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.686	0	73.2	53.8	92.8	3.68	22	
4-Chloro-3-methylphenol	2.3	0.50	3.361	0	69.1	34.9	104	0.658	27.3	
2-Chlorophenol	2.3	0.20	3.361	0	67.7	18.2	105	5.02	26.3	
1,4-Dichlorobenzene	1.1	0.20	1.686	0	67.6	18.1	112	4.09	27.4	
2,4-Dinitrotoluene	1.0	0.50	1.686	0	60.5	22	144	3.40	27.4	
N-Nitrosodi-n-propylamine	1.2	0.20	1.686	0	70.0	58.6	101	9.18	22.6	
4-Nitrophenol	2.2	0.25	3.361	0	64.9	13.7	127	7.18	20	
Pentachlorophenol	2.0	0.40	3.361	0	60.0	16.5	107	7.83	27.1	
Phenol	2.4	0.20	3.361	0	70.6	12.5	114	7.68	32.2	
Pyrene	1.3	0.20	1.686	0	76.8	14.2	116	9.59	29.5	
1,2,4-Trichlorobenzene	1.2	0.20	1.686	0	74.1	16	125	12.3	27.8	
Surr: 2-Fluorophenol	2.2		3.361		66.4	27.9	127	0	0	
Surr: Phenol-d5	2.4		3.361		71.7	24.5	126	0	0	
Surr: 2,4,6-Tribromophenol	2.3		3.361		69.8	27.6	136	0	0	
Surr: Nitrobenzene-d5	1.2		1.686		71.0	23.5	128	0	0	
Surr: 2-Fluorobiphenyl	1.3		1.686		77.6	22.6	132	0	0	
Surr: 4-Terphenyl-d14	1.2		1.686		71.7	28.1	128	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12366**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **12366**	RunNo: **17632**
Prep Date: **3/26/2014**	Analysis Date: **3/27/2014**	SeqNo: **507796** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**
09-Apr-14

Client: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12366**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **12366**	RunNo: **17632**	
Prep Date: **3/26/2014**	Analysis Date: **3/27/2014**	SeqNo: **507796**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	110		200.0		52.8	22.7	98			
Surr: Phenol-d5	83		200.0		41.4	23.4	74.9			
Surr: 2,4,6-Tribromophenol	180		200.0		90.9	23.3	111			
Surr: Nitrobenzene-d5	89		100.0		89.4	36.8	111			
Surr: 2-Fluorobiphenyl	78		100.0		78.0	38.3	110			
Surr: 4-Terphenyl-d14	88		100.0		88.0	52.1	116			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **lcs-12366**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **12366**	RunNo: **17632**
Prep Date: **3/26/2014**	Analysis Date: **3/27/2014**	SeqNo: **507797** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	92	10	100.0	0	91.7	50.3	109			
4-Chloro-3-methylphenol	190	10	200.0	0	94.8	51.2	113			
2-Chlorophenol	150	10	200.0	0	75.6	48.5	104			
1,4-Dichlorobenzene	72	10	100.0	0	72.0	39.5	106			
2,4-Dinitrotoluene	94	10	100.0	0	94.2	45.4	107			
N-Nitrosodi-n-propylamine	96	10	100.0	0	95.8	50.4	119			
4-Nitrophenol	110	10	200.0	0	52.6	15.5	62.2			
Pentachlorophenol	140	20	200.0	0	70.1	23.5	93.5			
Phenol	91	10	200.0	0	45.4	26.8	65.6			
Pyrene	81	10	100.0	0	81.2	54.4	108			
1,2,4-Trichlorobenzene	82	10	100.0	0	82.0	39.9	106			
Surr: 2-Fluorophenol	100		200.0		52.2	22.7	98			
Surr: Phenol-d5	91		200.0		45.7	23.4	74.9			
Surr: 2,4,6-Tribromophenol	190		200.0		96.3	23.3	111			
Surr: Nitrobenzene-d5	97		100.0		96.6	36.8	111			
Surr: 2-Fluorobiphenyl	90		100.0		89.9	38.3	110			
Surr: 4-Terphenyl-d14	84		100.0		84.4	52.1	116			

Sample ID **lcsd-12366**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **12366**	RunNo: **17632**
Prep Date: **3/26/2014**	Analysis Date: **3/27/2014**	SeqNo: **507798** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	84	10	100.0	0	83.8	50.3	109	9.09	27.2	
4-Chloro-3-methylphenol	160	10	200.0	0	81.0	51.2	113	15.7	25.9	
2-Chlorophenol	140	10	200.0	0	69.6	48.5	104	8.30	22.5	
1,4-Dichlorobenzene	68	10	100.0	0	67.5	39.5	106	6.42	24.6	
2,4-Dinitrotoluene	83	10	100.0	0	82.9	45.4	107	12.8	25.3	
N-Nitrosodi-n-propylamine	89	10	100.0	0	89.5	50.4	119	6.80	23.6	
4-Nitrophenol	100	10	200.0	0	50.4	15.5	62.2	4.35	34.7	
Pentachlorophenol	140	20	200.0	0	69.2	23.5	93.5	1.18	32.8	
Phenol	83	10	200.0	0	41.7	26.8	65.6	8.54	25.5	
Pyrene	77	10	100.0	0	77.0	54.4	108	5.34	31.4	
1,2,4-Trichlorobenzene	80	10	100.0	0	79.9	39.9	106	2.59	25.9	
Surr: 2-Fluorophenol	100		200.0		51.9	22.7	98	0	0	
Surr: Phenol-d5	83		200.0		41.3	23.4	74.9	0	0	
Surr: 2,4,6-Tribromophenol	180		200.0		92.4	23.3	111	0	0	
Surr: Nitrobenzene-d5	89		100.0		89.3	36.8	111	0	0	
Surr: 2-Fluorobiphenyl	85		100.0		85.5	38.3	110	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID	**lcsd-12366**	SampType:	**LCSD**	TestCode:	**EPA Method 8270C: Semivolatiles**					
Client ID:	**LCSS02**	Batch ID:	**12366**	RunNo:	**17632**					
Prep Date:	**3/26/2014**	Analysis Date:	**3/27/2014**	SeqNo:	**507798**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	79		100.0		78.6	52.1	116	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12365**	SampType: **MBLK**	TestCode: **EPA Method 8270C TCLP**
Client ID: **PBS**	Batch ID: **12365**	RunNo: **17632**
Prep Date: **3/26/2014**	Analysis Date: **3/27/2014**	SeqNo: **507802** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.087		0.2000		43.7	18.6	88.6			
Surr: Phenol-d5	0.081		0.2000		40.6	19.5	61.8			
Surr: 2,4,6-Tribromophenol	0.13		0.2000		65.7	29.7	130			
Surr: Nitrobenzene-d5	0.088		0.1000		88.4	45.1	101			
Surr: 2-Fluorobiphenyl	0.077		0.1000		77.1	46.6	99.3			
Surr: 4-Terphenyl-d14	0.085		0.1000		85.2	40.8	109			

Sample ID **lcs-12365**	SampType: **LCS**	TestCode: **EPA Method 8270C TCLP**
Client ID: **LCSS**	Batch ID: **12365**	RunNo: **17632**
Prep Date: **3/26/2014**	Analysis Date: **3/27/2014**	SeqNo: **507803** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.067	0.010	0.1000	0	66.8	31.5	114			
3+4-Methylphenol	0.19	0.010	0.2000	0	96.3	25.5	149			
2,4-Dinitrotoluene	0.086	0.010	0.1000	0	85.8	25.9	130			
Hexachlorobenzene	0.065	0.010	0.1000	0	65.4	40.7	93.9			
Hexachlorobutadiene	0.053	0.010	0.1000	0	52.5	25.2	96			
Hexachloroethane	0.053	0.010	0.1000	0	52.9	22.6	106			
Nitrobenzene	0.080	0.010	0.1000	0	79.7	37.8	125			
Pentachlorophenol	0.062	0.010	0.1000	0	61.6	10.8	91.7			
Pyridine	0.041	0.010	0.1000	0	40.6	9.61	88.8			
2,4,5-Trichlorophenol	0.088	0.010	0.1000	0	88.2	31.9	115			
2,4,6-Trichlorophenol	0.087	0.010	0.1000	0	87.3	29.7	113			
Cresols, Total	0.26	0.010	0.3000	0	86.5	30	136			
Surr: 2-Fluorophenol	0.093		0.2000		46.3	18.6	88.6			
Surr: Phenol-d5	0.070		0.2000		35.2	19.5	61.8			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID	**lcs-12365**	SampType:	**LCS**	TestCode:	**EPA Method 8270C TCLP**					
Client ID:	**LCSS**	Batch ID:	**12365**	RunNo:	**17632**					
Prep Date:	**3/26/2014**	Analysis Date:	**3/27/2014**	SeqNo:	**507803**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.20		0.2000		100	29.7	130			
Surr: Nitrobenzene-d5	0.072		0.1000		71.8	45.1	101			
Surr: 2-Fluorobiphenyl	0.072		0.1000		72.2	46.6	99.3			
Surr: 4-Terphenyl-d14	0.089		0.1000		89.4	40.8	109			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID	**MB-12358**	SampType:	**MBLK**	TestCode:	**MERCURY, TCLP**					
Client ID:	**PBW**	Batch ID:	**12358**	RunNo:	**17559**					
Prep Date:	**3/25/2014**	Analysis Date:	**3/25/2014**	SeqNo:	**505757**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID	**LCS-12358**	SampType:	**LCS**	TestCode:	**MERCURY, TCLP**					
Client ID:	**LCSW**	Batch ID:	**12358**	RunNo:	**17559**					
Prep Date:	**3/25/2014**	Analysis Date:	**3/25/2014**	SeqNo:	**505758**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	103	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12337**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **12337**	RunNo: **17580**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506325** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	25								
Magnesium	ND	25								
Potassium	ND	50								
Sodium	ND	25								

Sample ID **LCS-12337**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **12337**	RunNo: **17580**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506326** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2500	25	2500	0	100	80	120			
Magnesium	2500	25	2500	0	99.1	80	120			
Potassium	2400	50	2500	0	95.9	80	120			
Sodium	2500	25	2500	0	98.4	80	120			

Sample ID **1403941-001AMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **P7-S-1A**	Batch ID: **12337**	RunNo: **17580**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506383** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	17000	120	2403	14820	99.1	75	125			
Magnesium	12000	120	2403	8242	144	75	125			S
Potassium	9000	240	2403	4675	181	75	125			S
Sodium	6800	120	2403	4402	100	75	125			

Sample ID **1403941-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **P7-S-1A**	Batch ID: **12337**	RunNo: **17580**
Prep Date: **3/24/2014**	Analysis Date: **3/26/2014**	SeqNo: **506384** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	18000	130	2581	14820	111	75	125	2.77	20	
Magnesium	12000	130	2581	8242	157	75	125	4.87	20	S
Potassium	9700	260	2581	4675	193	75	125	6.84	20	S
Sodium	6500	130	2581	4402	81.3	75	125	4.73	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12369**	SampType: **MBLK**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **PBW**	Batch ID: **12369**	RunNo: **17585**
Prep Date: **3/26/2014**	Analysis Date: **3/26/2014**	SeqNo: **506444** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID **LCS-12369**	SampType: **LCS**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **LCSW**	Batch ID: **12369**	RunNo: **17585**
Prep Date: **3/26/2014**	Analysis Date: **3/26/2014**	SeqNo: **506445** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	90.6	80	120			
Barium	ND	100	0.5000	0	82.9	80	120			
Cadmium	ND	1.0	0.5000	0	87.0	80	120			
Chromium	ND	5.0	0.5000	0	83.3	80	120			
Lead	ND	5.0	0.5000	0	81.8	80	120			
Selenium	ND	1.0	0.5000	0	87.6	80	120			
Silver	ND	5.0	0.1000	0	93.0	80	120			

Sample ID **1403941-006AMS**	SampType: **MS**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **P7-S-2C**	Batch ID: **12369**	RunNo: **17585**
Prep Date: **3/26/2014**	Analysis Date: **3/26/2014**	SeqNo: **506459** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	96.1	75	125			
Barium	ND	100	0.5000	1.407	86.5	75	125			
Cadmium	ND	1.0	0.5000	0	91.9	75	125			
Chromium	ND	5.0	0.5000	0	85.7	75	125			
Lead	ND	5.0	0.5000	0	83.9	75	125			
Selenium	ND	1.0	0.5000	0	86.7	75	125			
Silver	ND	5.0	0.1000	0	97.4	75	125			

Sample ID **1403941-006AMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **P7-S-2C**	Batch ID: **12369**	RunNo: **17585**
Prep Date: **3/26/2014**	Analysis Date: **3/26/2014**	SeqNo: **506460** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	97.4	75	125	0	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

09-Apr-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID	**1403941-006AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 6010B: TCLP Metals**
Client ID:	**P7-S-2C**	Batch ID:	**12369**	RunNo:	**17585**
Prep Date:	**3/26/2014**	Analysis Date:	**3/26/2014**	SeqNo:	**506460** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	100	0.5000	1.407	84.2	75	125	0	20	
Cadmium	ND	1.0	0.5000	0	92.2	75	125	0	20	
Chromium	ND	5.0	0.5000	0	86.0	75	125	0	20	
Lead	ND	5.0	0.5000	0	84.1	75	125	0	20	
Selenium	ND	1.0	0.5000	0	88.4	75	125	0	20	
Silver	ND	5.0	0.1000	0	98.9	75	125	0	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1403941** RcptNo: 1

Received by/date: 03/21/2014

Logged By: **Ashley Gallegos** **3/21/2014 4:04:00 PM**

Completed By: **Ashley Gallegos** **3/24/2014 8:29:04 AM**

Reviewed By: 03/24/14

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 02 (<2 or >12 unless noted)

Adjusted?

Checked by: mg

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
Gallup, NM 87301
Phone #: 505 - 722-3833
Email or Fax#: 505-863-0930
QA/QC Package:
X Standard ☐ Level 4 (Full Validation)
Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard X Rush ASAP
Project Name:
Pond 7 Breach (soil, water)
Project #:
W of Pond 7
Project Manager:
Cheryl Johnson
Cheryl.johnson@wnr.com
Sampler: C. Johnson
On Ice: ☑ Yes ☐ No
Sample Temperature: 1.7

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1403941	8015B (DRO/GRO/MRO) Extended	CATIONS/ANIONS	8260B - TCLP	8270 - TCLP	RCRA 8 METALS - TCLP	RCI			8260B +MTBE	8270 + PHENOLS	CATIONS/ANIONS	8015B EXTENDED	WQCC METALS including RCRA 8 Metals (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
3/20/2014	1000	Soil	P7-S-1A	1-9 oz Jar	None	-001	X	X	X	X	X	X										
3/20/2014	1000	Soil	P7-S-1B	1-9 oz Jar	None	-002	X	X	X	X	X	X										
3/20/2014	1000	Soil	P7-S-1C	1-9 oz Jar	None	-003	X	X	X	X	X	X										
3/20/2014	1110	Soil	P7-S-2A	1-9 oz Jar	None	-004	X	X	X	X	X	X										
3/20/2014	1110	Soil	P7-S-2B	1-9 oz Jar	None	-005	X	X	X	X	X	X										
3/20/2014	1110	Soil	P7-S-2C	1-9 oz Jar	None	-006	X	X	X	X	X	X										
3/20/2014	1030	Aqueous	P7-S-1D	Various	HCL/HNO3	-007									X	X	X	X	X			

Analysis Request

Date: 3/20/14 Time: 1300 Relinquished by: Received by: Date Time 3-21-14 1300
Date: 3-21-14 Time: 1404 Relinquished by: Received by: Date Time 03/21/14 1604

Remarks: 8260 + 8270 added per Scott. 4

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chavez, Carl J, EMNRD

From: Riege, Ed <Ed.Riege@wnr.com>
Sent: Tuesday, April 01, 2014 11:39 AM
To: Powell, Brandon, EMNRD; Chavez, Carl J, EMNRD; VanHorn, Kristen, NMENV
Cc: Larsen, Thurman; Johnson, Cheryl
Subject: C-141
Attachments: 201404011116.pdf

To all,
Attached is the initial C-141 for the release reported to you on March 19, 2014. I am also answering Kristen's and Carl's questions from your March 20 emails in a separate letter to be sent this week.

Thanks
Ed

Ed Riege MPH
Environmental Manager

Western Refining
Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining Southwest, Incorporated	Contact Ed Riege
Address 92 Giant Crossing Road Gallup NM 87301	Telephone No. 505-722-0217
Facility Name Western Refining Southwest Gallup Refinery	Facility Type Petroleum Refinery

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	23 and 33	15N	15W					Mckinley

Latitude 35° 29′ 22″ **Longitude** 108° 25′ 24″

NATURE OF RELEASE

Type of Release Pond Water	Volume of Release 17.4 bbls	Volume Recovered None
Source of Release Evaporation Pond #7	Date and Hour of Occurrence 03-19-2014 1500 hr	Date and Hour of Discovery 03-19-2014 1515 hr
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Message Brandon Powell phone / email Carl Chavez phone / email Kristen Van Horn phone / email	
By Whom? Ed Riege	Date and Hour 03-19-2014 1805 hr 03-19-2014 1810 hr 03-19-2014 1815 hr	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A Western employee observed a breach in the pond 7 dike. Western was in the process of improving the pond dikes and earth moving equipment, which was operating nearby, immediately responded to make repairs and stopped the release at 1630Hr.

Western has collected a sample of the water, which flowed through the breach, and soil samples from the impacted area. These samples are being analyzed for volatile organic compounds (VOCs), SVOCs, Diesel Range Organics (extended), New Mexico Water Quality Control Criteria metals, and major cation/anions. The results of the above listed analyses will help to direct any subsequent corrective action steps. The NM State land map indicates the owner of the property west of Pond 7 belongs to the state of New Mexico.

To address any concerns about seepage through the dikes or failure of the perimeter dikes, Western contracted Franklin Earthmoving Inc. to improve approximately 80% of the existing pond dikes. This work began in late January 2014 and is expected to continue through mid to late April. This work consists of widening the dikes and improving the outside slope of the berms, and repairing water and wind erosion to the top of the dikes (see enclosed pictures). The area of the breach at pond 7 was the original dike that had not yet been improved by Franklin as they were working approximately 150 yards northeast of the breach. The area impacted by the breach will be rebuilt to prevent any future breaches/seeps.

In addition to the physical improvement of the pond perimeter dikes, Western is pursuing the installation of a more aggressive evaporation system and water conservation measures. These measures should control free board levels and help prevent future seepage through the dikes and breaching of the dikes. Shallow groundwater is routinely monitored in the area and there is no indication of impacts to groundwater from the evaporation ponds.

Describe Area Affected and Cleanup Action Taken.*

It is estimated that 17.4 bbls of wastewater left the pond with possibly half crossing the fence line west of the dike. The small volume of water was absorbed by the dry soil and the release did not reach a watercourse or waters of the U.S. The results of the above listed analyses will help to direct any subsequent corrective action steps

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Ed Riege	Approved by Environmental Specialist:
Title: Environmental Manager	Approval Date: / Expiration Date:
E-mail Address: ed.riege@wnr.com	Conditions of Approval: / Attached ☐
Date: 4-1-14 Phone: 505-722-0217	

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: VanHorn, Kristen, NMENV
Sent: Thursday, March 20, 2014 12:01 PM
To: Riege, Ed; Larsen, Thurman; Johnson, Cheryl (Cheryl.Johnson@wnr.com)
Cc: Cobrain, Dave, NMENV; Dhawan, Neelam, NMENV; Chavez, Carl J, EMNRD
Subject: Breach at EP-7

Ed,

I received your voicemail and email regarding the breach at Pond 7.

To summarize, at around 3pm on March 19, 2014 an employee observed a breach at Pond 7. Western had some earth moving equipment in the area and immediately responded and were able to stop the release by 430pm. An estimated that 17.4 bbls of wastewater left the pond with half crossing the fence line west of the dike which was absorbed by dry soil. The release did not reach a watercourse or a water of the US. Western will monitor the repaired area and collect soil samples for laboratory analysis from both on- and off-site locations within the affected area. Western will also prepare an initial C-141 form.

Pond 7 is part of the Solid Waste Management Unit (SWMU) 1, the Aeration Basin. This release is a release of solid waste from SWMU 1. Because the release left the property boundary, Western must follow Permit Section IV.B.1 (Corrective Action Beyond the Facility Boundary), which reads in part "The Permittee shall notify the NMED, orally and in writing in accordance with Permit Section II.C.2.c, upon discovery that a release of hazardous waste or hazardous constituents has migrated beyond the facility boundary…" The phone call and C-141 cover the requirement in Permit Section II.C.2.c. Pond 7 has arsenic above screening levels as well as manganese, selenium, phenol, and bis(2-ethyl hexyl)phthalate based on the 2012 evaporation pond sampling results. Western must follow corrective action procedures as outlined in the permit.

In May of 2013 the Surface Water Quality Bureau noted that there was some seepage from Pond 7 (and Pond 8) and noted that the way the seepage was occurring was a concern because the water is not captured prior to Outfall 001 and could essentially become an uncontrolled point of discharge of process water. In your report, clarify whether or not anything was done since May to address the seepage issue.

Western submitted a C-141 Report at the Oil Conservation Division's request in July 2013 and noted that "in response to the potential release of chemical constituents from some of the evaporation ponds during a time period when high pond levels caused seepage along the pond perimeter dikes. As noted in the C-141 Form, soil samples collected from around the perimeter of the ponds were to be analyzed for semi-volatile organics and chloride. As shown in the attached laboratory report, all analyses for semi-volatile organics were non-detect. The analyses for chloride indicate chloride concentrations in excess of the concentrations detected in the three background soil samples. The attached draft map shows the chloride concentrations around the ponds and in the three background samples." Samples were not collected for metals analysis, ensure that metals analysis are included in the breach soil samples. Western must also test for DRO-extended. Also discuss what is being done to ensure that pond levels are maintained at manageable levels.

In your letter report, please include photos of the area, repair of the dike, and cleanup activities.

If you have any questions, please contact me.

Kristen Van Horn
NMED Hazardous Waste Bureau

2905 Rodeo Park Drive East
Building 1
Santa Fe, NM 87505
Phone: 505-476-6046
Email: *Kristen.VanHorn@state.nm.us*

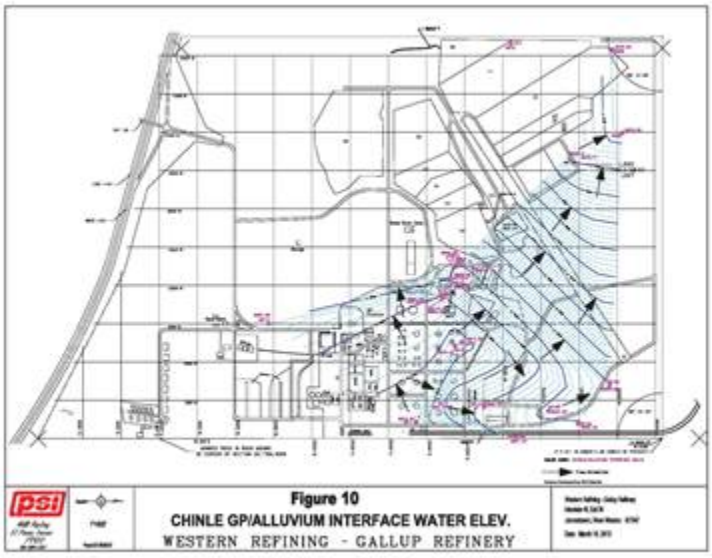
Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, March 20, 2014 7:40 AM
To: 'Riege, Ed'; Powell, Brandon, EMNRD
Cc: VanHorn, Kristen, NMENV; Larsen, Thurman; Johnson, Cheryl; Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD
Subject: RE: Minor Release
Attachments: Gallup Refinery Ponds Area.pdf

Ed:

The New Mexico Oil Conservation Division (OCD) recently approved further investigation of pond breaching that was first observed in the same general vicinity by the NMED in July of 2013 during a stormwater inspection.

Could you please update OCD on the environmental investigation (see figure below) and is Western considering lining the ponds to prevent continued breaches of the pond network?



OCD provides an attachment with more background on the area of the release and potential for impacts to the Upper Puerco Watershed.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Drive, Santa Fe, New Mexico 87505
O: (505) 476-3490
E-mail: CarlJ.Chavez@State.NM.US
Web: http://www.emnrd.state.nm.us/ocd/

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

---

From: Riege, Ed [mailto:Ed.Riege@wnr.com]
Sent: Wednesday, March 19, 2014 6:38 PM
To: Powell, Brandon, EMNRD
Cc: Chavez, Carl J, EMNRD; VanHorn, Kristen, NMENV; Larsen, Thurman; Johnson, Cheryl
Subject: Minor Release

Brandon,
As per our phone conversation this evening here is a short summary of the minor release. At 1515 hr on March 19, one of our employees making his rounds at the ponds observed a breach in pond 7 dike. We estimate the leak started around 1500 hr. Western had some earth moving equipment (Franklin Earthmoving) in the pond area and they immediately responded with their heavy equipment and were able to make repairs and stopped the release at 1630 hr. It is estimated that 17.4 bbls of wastewater left the pond with half crossing the fence line west of the dike which was absorbed by the dry soil. The release did not reach a watercourse or a water of the US. Western will monitor the repaired area and take soil samples from the spill site. Western will also prepare an initial C-141 form and send to you.

Thanks,

Ed Riege
Environmental Manager

Western Refining
Gallup Refinery
92 Giant Crossing Road
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

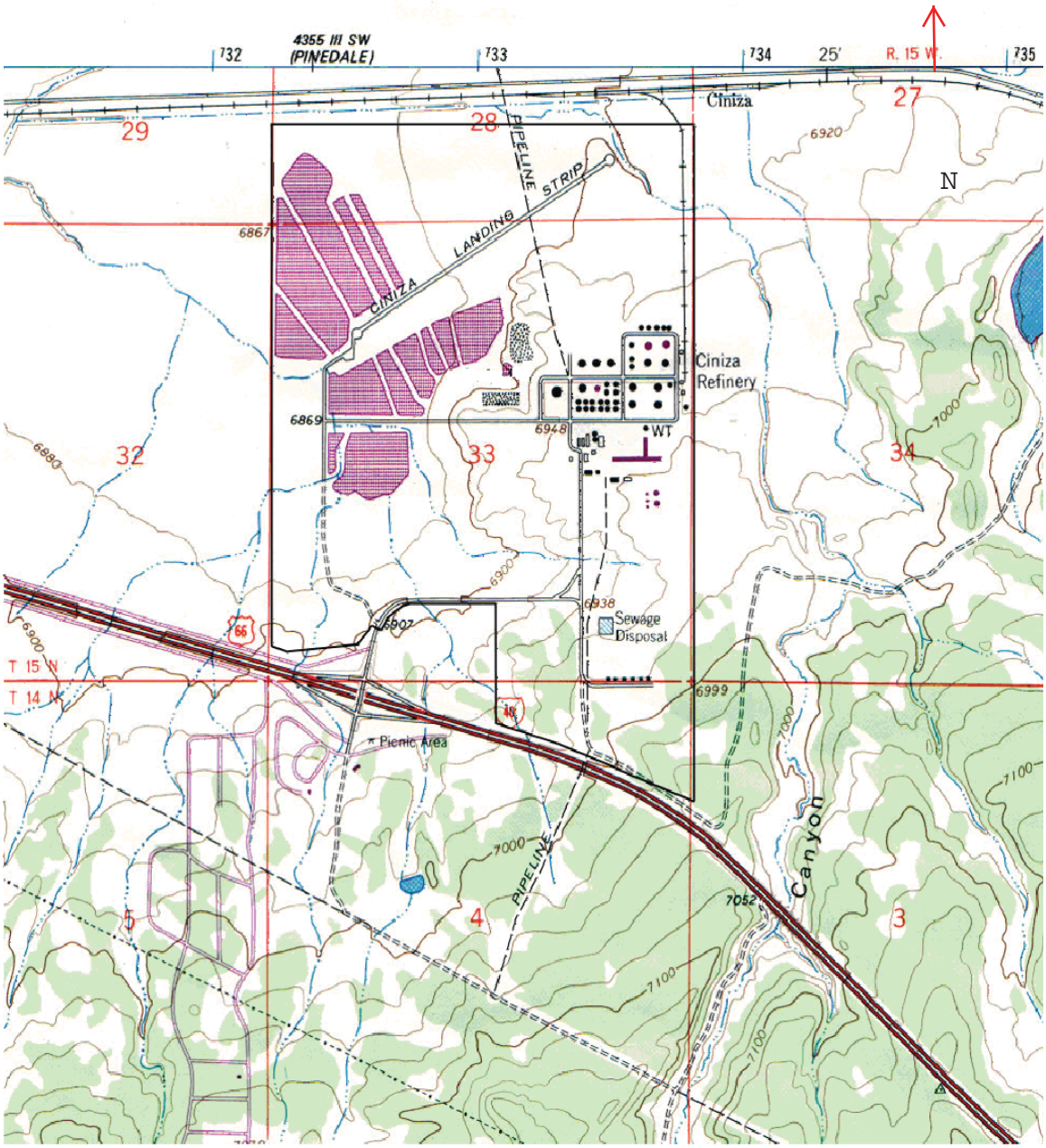


Figure 2: Topographic Map of the Gallup Refinery Site - USGS Topographical Map - Gallup Quadrangle (Revised 1980)

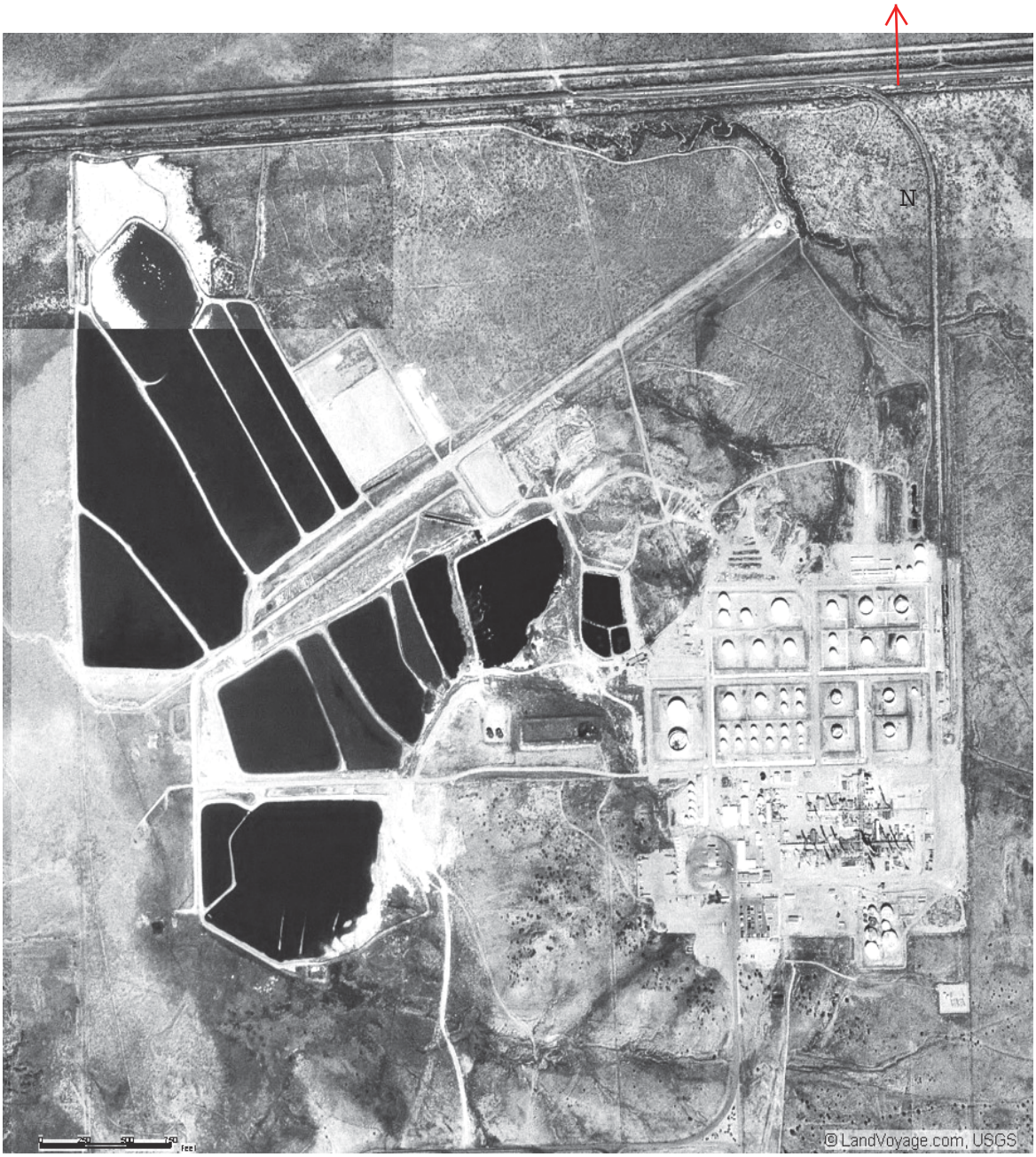
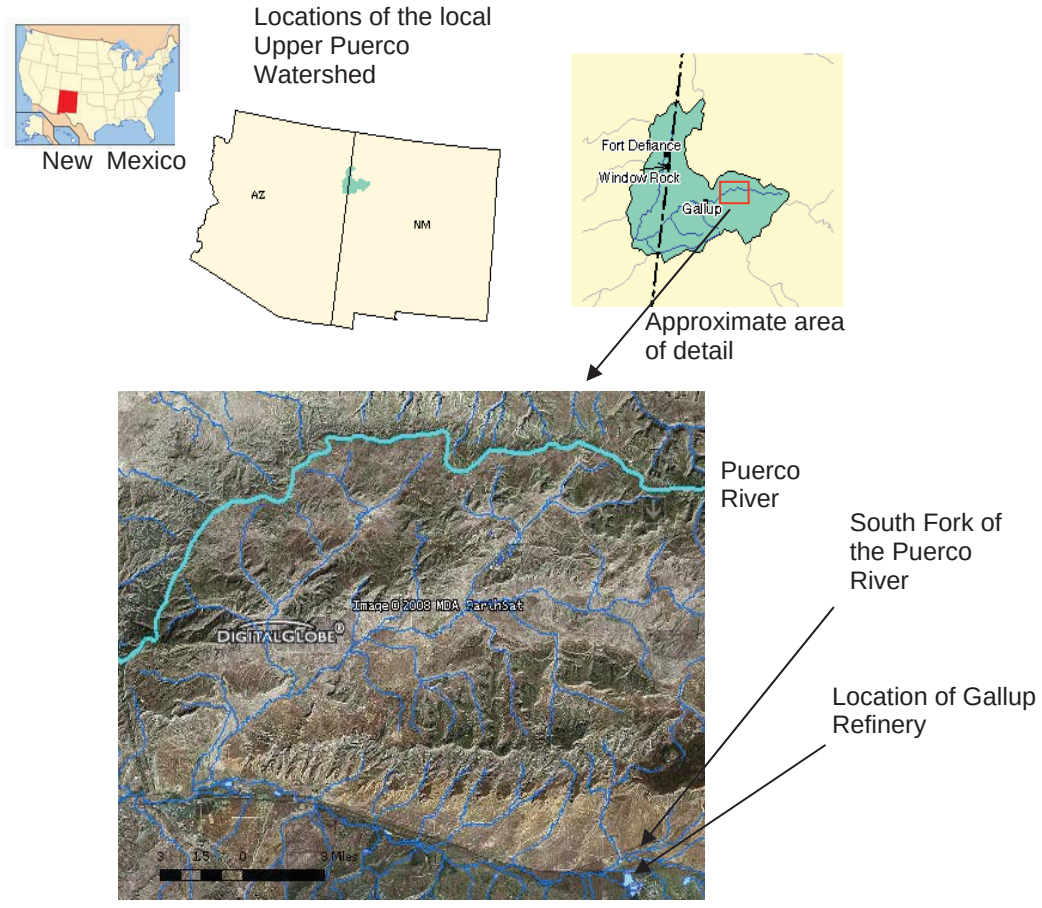


Figure 3: Aerial photograph of the Gallup Refinery

Figure 4: **Regional scale**: Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page.



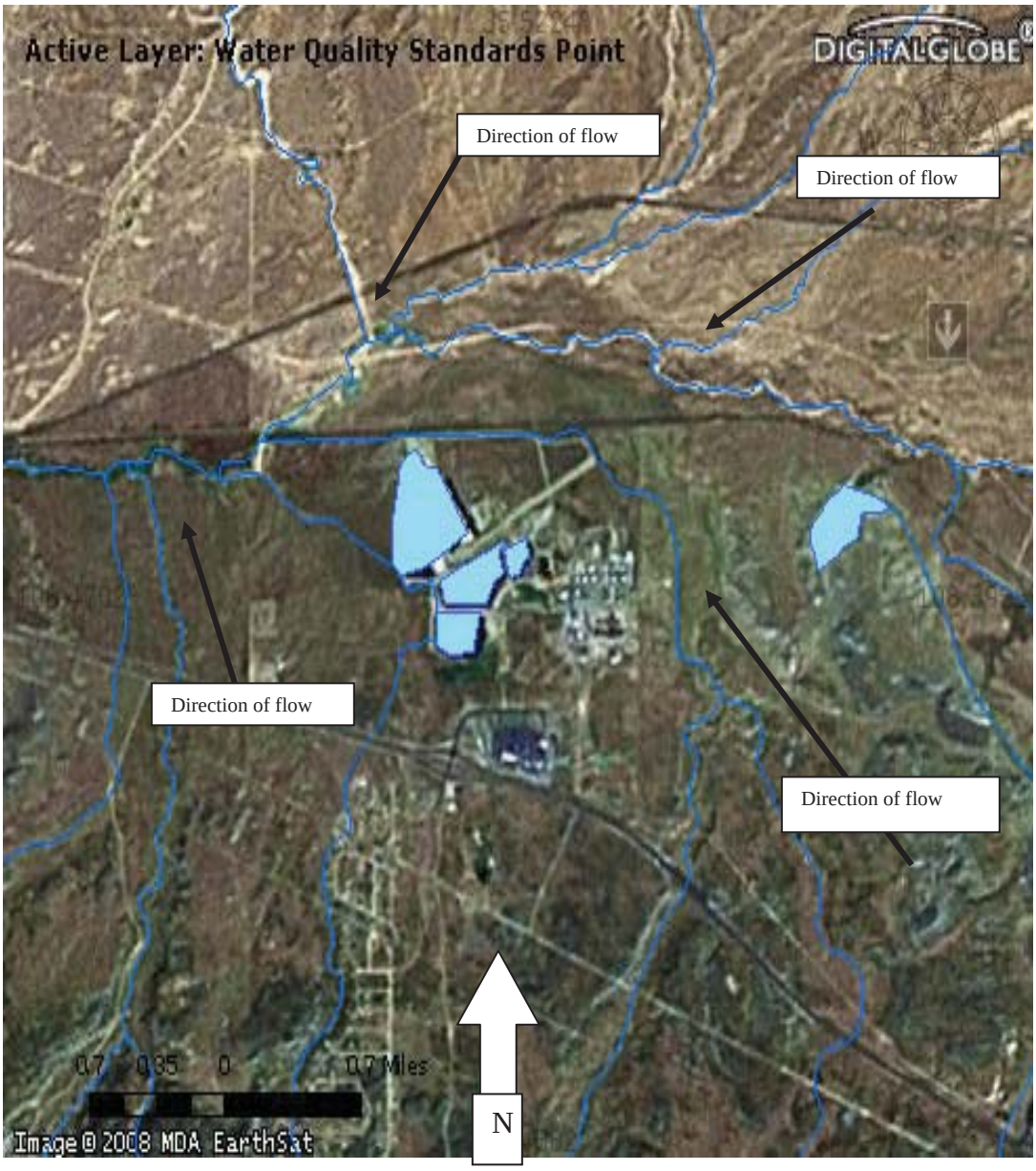


Figure 5: Localized scale: Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page. The pond to the east is Jon Myers' Livestock Pond.

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, February 07, 2014 4:25 PM
To: 'Riege, Ed'; VanHorn, Kristen, NMENV; VonGonten, Glenn, EMNRD
Cc: Johnson, Cheryl; Hains, Allen; Scott T. Crouch
Subject: RE: Evaporation Pond Chlorides
Attachments: C-141 EP Seeps 2-7-2014.pdf

Ed:

The answer to your question in Western's October 14, 2013 letter (see attachment) is "Yes".

Please proceed. Sorry for the late response.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Department Oil Conservation Division, Environmental Bureau
1220 South St. Francis Drive, Santa Fe, New Mexico 87505
O: (505) 476-3490
E-mail: CarlJ.Chavez@State.NM.US
Web: http://www.emnrd.state.nm.us/ocd/
"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

-----Original Message-----
From: Riege, Ed [mailto:Ed.Riege@wnr.com]
Sent: Monday, October 14, 2013 8:18 AM
To: Chavez, Carl J, EMNRD; VanHorn, Kristen, NMENV; VonGonten, Glenn, EMNRD
Cc: Johnson, Cheryl; Hains, Allen; Scott T. Crouch
Subject: Evaporation Pond Chlorides

Carl,
Please see attached letter regarding chlorides from evaporation pond seepage. Signed hard copy is in the mail.
Thanks,
Ed

Ed Riege MPH
Environmental Manager

Western Refining
Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
(505) 722-0217

Chavez, Carl J, EMNRD

From: Riege, Ed <Ed.Riege@wnr.com>
Sent: Monday, October 14, 2013 8:18 AM
To: Chavez, Carl J, EMNRD; VanHorn, Kristen, NMENV; VonGonten, Glenn, EMNRD
Cc: Johnson, Cheryl; Hains, Allen; Scott T. Crouch
Subject: Evaporation Pond Chlorides
Attachments: perimeter soil samples - Rpt_1307A80_Final_v1.pdf; DRAFT - Chloride Concentration Map.pdf; 201310140811.pdf

Carl,
Please see attached letter regarding chlorides from evaporation pond seepage. Signed hard copy is in the mail.
Thanks,
Ed

Ed Riege MPH
Environmental Manager

Western Refining
Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

Certified Mail #7011 2970 0003 9281 8404

October 14, 2013

Mr. Carl Chavez
Oil Conservation Division
Environmental Bureau
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Re: Remediation Standards for Chlorides From Pond Dike Seepage

Dear Mr. Chavez:

Western submitted a C-141 Form on July 18, 2013 in response to the potential release of chemical constituents from some of the evaporation ponds during a time period when high pond levels caused seepage along the pond perimeter dikes. A noted in the C-141 Form, soil samples collected from around the perimeter of the ponds were to be analyzed for semi-volatile organics and chloride. As shown in the attached laboratory report, all analyses for semi-volatile organics were non-detect. The analyses for chloride indicate chloride concentrations in excess of the concentrations detected in the three background soil samples. The attached draft map shows the chloride concentrations around the ponds and in the three background samples.

We reviewed the OCD rules (Parts 1 through 39 of Title 19, Chapter 15) to identify appropriate remediation standards for chlorides in soils and noted that the new "pit" rules in 19.15.17.13 do provide specific remediation standards for chloride. The values in Table 1, which apply to situations where the pit contents are removed, appear to be appropriate remediation standards for the chloride we have identified in soils near some of the evaporation ponds. Before proceeding further with any additional sampling and/or remediation, I would like to get confirmation that the remediation standards for chloride in Table 1 of 19.15.17.13 are acceptable standards to guide our actions.

Please contact me at (505) 722-0217 if you have any or questions regarding this submittal.

Sincerely,

Ed Riege
Environmental Manager

C: Glen VonGonten - email
Kristen Van Horn- email

Bkgd-3
980
Bkgd-2
4,500
Bkgd-1
4,100
14,000
Pond 8-5
Pond 11-1
4,300
16,000
Pond 8-4
Pond 7-1
14,000
4,300
Pond 6-2
Pond 8-3
Pond 7-2
26,000
Pond 8-2
3,300
Pond 8-1
4,300
12,000
Chloride
Mg/kg
13,000
14,000
Pond 6-1
4,300
Pond 9-3
8,800
Pond 9-1
Pond 9-2
© 2013 Google
HA5
HA4
HA3
SB17
SB16
SB22
SB14
SB13
SB12
SB10
SB19
SB11
SB09
SB06
SB07
Google ear
35° 29 589' N 108° 26.010' W elev 6890 ft
Eye alt 11725
1997

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 06, 2013

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: MSGP INSPECTION REPORT OrderNo.: 1307A80

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 16 sample(s) on 7/24/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 6-1
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 9:02:00 AM
Lab ID: 1307A80-001 **Matrix:** SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	4300	300		mg/Kg	200	7/30/2013 8:03:56 PM	8576
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Acenaphthylene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Aniline	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Anthracene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Azobenzene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Benzoic acid	ND	5.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Benzyl alcohol	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2013 9:37:41 AM	8568
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Carbazole	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2013 9:37:41 AM	8568
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2013 9:37:41 AM	8568
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/30/2013 9:37:41 AM	8568
2-Chlorophenol	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Chrysene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Di-n-octyl phthalate	ND	2.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Dibenzofuran	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
3,3´-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Diethyl phthalate	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2013 9:37:41 AM	8568
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2013 9:37:41 AM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 6-1
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 9:02:00 AM
Lab ID: 1307A80-001 **Matrix:** SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2013 9:37:41 AM	8568
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Fluoranthene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Fluorene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Hexachloroethane	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Isophorone	ND	2.5		mg/Kg	1	7/30/2013 9:37:41 AM	8568
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2013 9:37:41 AM	8568
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Naphthalene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
2-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
3-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2013 9:37:41 AM	8568
2-Nitrophenol	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
4-Nitrophenol	ND	1.3		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Phenanthrene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Phenol	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Pyrene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Pyridine	ND	2.5		mg/Kg	1	7/30/2013 9:37:41 AM	8568
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2013 9:37:41 AM	8568
Surr: 2,4,6-Tribromophenol	41.0	36.5-113		%REC	1	7/30/2013 9:37:41 AM	8568
Surr: 2-Fluorobiphenyl	94.2	43.3-111		%REC	1	7/30/2013 9:37:41 AM	8568
Surr: 2-Fluorophenol	88.2	32.2-118		%REC	1	7/30/2013 9:37:41 AM	8568
Surr: 4-Terphenyl-d14	78.0	29.7-111		%REC	1	7/30/2013 9:37:41 AM	8568
Surr: Nitrobenzene-d5	91.6	36.6-132		%REC	1	7/30/2013 9:37:41 AM	8568
Surr: Phenol-d5	91.4	28.5-128		%REC	1	7/30/2013 9:37:41 AM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 9-1
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 9:17:00 AM
Lab ID: 1307A80-002 **Matrix:** SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	14000	750		mg/Kg	500	7/30/2013 8:16:20 PM	8576
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Acenaphthylene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Aniline	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Anthracene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Azobenzene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Benzoic acid	ND	0.99		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Benzyl alcohol	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	7/30/2013 12:46:46 AM	8568
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Carbazole	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	7/30/2013 12:46:46 AM	8568
4-Chloroaniline	ND	0.49		mg/Kg	1	7/30/2013 12:46:46 AM	8568
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/30/2013 12:46:46 AM	8568
2-Chlorophenol	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Chrysene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Di-n-butyl phthalate	ND	0.49		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Di-n-octyl phthalate	ND	0.39		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Dibenzofuran	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Diethyl phthalate	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
2,4-Dichlorophenol	ND	0.39		mg/Kg	1	7/30/2013 12:46:46 AM	8568
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/30/2013 12:46:46 AM	8568
4,6-Dinitro-2-methylphenol	ND	0.49		mg/Kg	1	7/30/2013 12:46:46 AM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 9-1
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 9:17:00 AM
Lab ID: 1307A80-002
Matrix: SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	0.39		mg/Kg	1	7/30/2013 12:46:46 AM	8568
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	7/30/2013 12:46:46 AM	8568
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Fluoranthene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Fluorene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Hexachloroethane	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Isophorone	ND	0.49		mg/Kg	1	7/30/2013 12:46:46 AM	8568
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
2-Methylphenol	ND	0.49		mg/Kg	1	7/30/2013 12:46:46 AM	8568
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Naphthalene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
2-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
3-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
4-Nitroaniline	ND	0.39		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Nitrobenzene	ND	0.49		mg/Kg	1	7/30/2013 12:46:46 AM	8568
2-Nitrophenol	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
4-Nitrophenol	ND	0.25		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Pentachlorophenol	ND	0.39		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Phenanthrene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Phenol	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Pyrene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Pyridine	ND	0.49		mg/Kg	1	7/30/2013 12:46:46 AM	8568
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2013 12:46:46 AM	8568
Surr: 2,4,6-Tribromophenol	43.9	36.5-113		%REC	1	7/30/2013 12:46:46 AM	8568
Surr: 2-Fluorobiphenyl	78.1	43.3-111		%REC	1	7/30/2013 12:46:46 AM	8568
Surr: 2-Fluorophenol	71.8	32.2-118		%REC	1	7/30/2013 12:46:46 AM	8568
Surr: 4-Terphenyl-d14	71.3	29.7-111		%REC	1	7/30/2013 12:46:46 AM	8568
Surr: Nitrobenzene-d5	69.0	36.6-132		%REC	1	7/30/2013 12:46:46 AM	8568
Surr: Phenol-d5	69.0	28.5-128		%REC	1	7/30/2013 12:46:46 AM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 9-2
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 9:30:00 AM
Lab ID: 1307A80-003 **Matrix:** SOIL **Received Date:** 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	8800	750		mg/Kg	500	7/30/2013 8:28:45 PM	8576
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Acenaphthylene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Aniline	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Anthracene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Azobenzene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Benzoic acid	ND	0.99		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Benzyl alcohol	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	7/29/2013 8:27:52 PM	8568
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Carbazole	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	7/29/2013 8:27:52 PM	8568
4-Chloroaniline	ND	0.49		mg/Kg	1	7/29/2013 8:27:52 PM	8568
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/29/2013 8:27:52 PM	8568
2-Chlorophenol	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Chrysene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Di-n-butyl phthalate	ND	0.49		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Di-n-octyl phthalate	ND	0.39		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Dibenzofuran	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Diethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
2,4-Dichlorophenol	ND	0.39		mg/Kg	1	7/29/2013 8:27:52 PM	8568
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/29/2013 8:27:52 PM	8568
4,6-Dinitro-2-methylphenol	ND	0.49		mg/Kg	1	7/29/2013 8:27:52 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 9-2
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 9:30:00 AM
Lab ID: 1307A80-003 **Matrix:** SOIL **Received Date:** 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	0.39		mg/Kg	1	7/29/2013 8:27:52 PM	8568
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	7/29/2013 8:27:52 PM	8568
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Fluorene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Hexachloroethane	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Isophorone	ND	0.49		mg/Kg	1	7/29/2013 8:27:52 PM	8568
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
2-Methylphenol	ND	0.49		mg/Kg	1	7/29/2013 8:27:52 PM	8568
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Naphthalene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
2-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
3-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
4-Nitroaniline	ND	0.39		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Nitrobenzene	ND	0.49		mg/Kg	1	7/29/2013 8:27:52 PM	8568
2-Nitrophenol	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
4-Nitrophenol	ND	0.25		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Pentachlorophenol	ND	0.39		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Phenanthrene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Phenol	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Pyrene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Pyridine	ND	0.49		mg/Kg	1	7/29/2013 8:27:52 PM	8568
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 8:27:52 PM	8568
Surr: 2,4,6-Tribromophenol	42.3	36.5-113		%REC	1	7/29/2013 8:27:52 PM	8568
Surr: 2-Fluorobiphenyl	59.2	43.3-111		%REC	1	7/29/2013 8:27:52 PM	8568
Surr: 2-Fluorophenol	61.5	32.2-118		%REC	1	7/29/2013 8:27:52 PM	8568
Surr: 4-Terphenyl-d14	71.1	29.7-111		%REC	1	7/29/2013 8:27:52 PM	8568
Surr: Nitrobenzene-d5	72.6	36.6-132		%REC	1	7/29/2013 8:27:52 PM	8568
Surr: Phenol-d5	58.5	28.5-128		%REC	1	7/29/2013 8:27:52 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 9-3
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 9:45:00 AM
Lab ID: 1307A80-004
Matrix: SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	13000	750		mg/Kg	500	7/30/2013 8:41:09 PM	8576
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Acenaphthylene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Aniline	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Anthracene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Azobenzene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Benz(a)anthracene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Benzo(a)pyrene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Benzo(b)fluoranthene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Benzo(g,h,i)perylene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Benzo(k)fluoranthene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Benzoic acid	ND	0.97		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Benzyl alcohol	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Bis(2-chloroethoxy)methane	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Bis(2-chloroethyl)ether	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Bis(2-chloroisopropyl)ether	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	7/30/2013 1:15:38 AM	8568
4-Bromophenyl phenyl ether	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Butyl benzyl phthalate	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Carbazole	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	7/30/2013 1:15:38 AM	8568
4-Chloroaniline	ND	0.49		mg/Kg	1	7/30/2013 1:15:38 AM	8568
2-Chloronaphthalene	ND	0.24		mg/Kg	1	7/30/2013 1:15:38 AM	8568
2-Chlorophenol	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
4-Chlorophenyl phenyl ether	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Chrysene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Di-n-butyl phthalate	ND	0.49		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Di-n-octyl phthalate	ND	0.39		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Dibenz(a,h)anthracene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Dibenzofuran	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
1,2-Dichlorobenzene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
1,3-Dichlorobenzene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
1,4-Dichlorobenzene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
3,3´-Dichlorobenzidine	ND	0.24		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Diethyl phthalate	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Dimethyl phthalate	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
2,4-Dichlorophenol	ND	0.39		mg/Kg	1	7/30/2013 1:15:38 AM	8568
2,4-Dimethylphenol	ND	0.29		mg/Kg	1	7/30/2013 1:15:38 AM	8568
4,6-Dinitro-2-methylphenol	ND	0.49		mg/Kg	1	7/30/2013 1:15:38 AM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 9-3
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 9:45:00 AM
Lab ID: 1307A80-004
Matrix: SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	0.39		mg/Kg	1	7/30/2013 1:15:38 AM	8568
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	7/30/2013 1:15:38 AM	8568
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Fluoranthene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Fluorene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Hexachlorobenzene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Hexachlorobutadiene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Hexachlorocyclopentadiene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Hexachloroethane	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Indeno(1,2,3-cd)pyrene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Isophorone	ND	0.49		mg/Kg	1	7/30/2013 1:15:38 AM	8568
1-Methylnaphthalene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
2-Methylnaphthalene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
2-Methylphenol	ND	0.49		mg/Kg	1	7/30/2013 1:15:38 AM	8568
3+4-Methylphenol	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
N-Nitrosodi-n-propylamine	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
N-Nitrosodiphenylamine	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Naphthalene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
2-Nitroaniline	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
3-Nitroaniline	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
4-Nitroaniline	ND	0.39		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Nitrobenzene	ND	0.49		mg/Kg	1	7/30/2013 1:15:38 AM	8568
2-Nitrophenol	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
4-Nitrophenol	ND	0.24		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Pentachlorophenol	ND	0.39		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Phenanthrene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Phenol	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Pyrene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Pyridine	ND	0.49		mg/Kg	1	7/30/2013 1:15:38 AM	8568
1,2,4-Trichlorobenzene	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
2,4,5-Trichlorophenol	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
2,4,6-Trichlorophenol	ND	0.19		mg/Kg	1	7/30/2013 1:15:38 AM	8568
Surr: 2,4,6-Tribromophenol	43.8	36.5-113		%REC	1	7/30/2013 1:15:38 AM	8568
Surr: 2-Fluorobiphenyl	64.1	43.3-111		%REC	1	7/30/2013 1:15:38 AM	8568
Surr: 2-Fluorophenol	67.2	32.2-118		%REC	1	7/30/2013 1:15:38 AM	8568
Surr: 4-Terphenyl-d14	66.9	29.7-111		%REC	1	7/30/2013 1:15:38 AM	8568
Surr: Nitrobenzene-d5	68.8	36.6-132		%REC	1	7/30/2013 1:15:38 AM	8568
Surr: Phenol-d5	75.9	28.5-128		%REC	1	7/30/2013 1:15:38 AM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 8-1
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 10:00:00 AM
Lab ID: 1307A80-005 **Matrix:** SOIL **Received Date:** 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	9300	750		mg/Kg	500	7/30/2013 8:53:33 PM	8576
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Acenaphthylene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Aniline	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Anthracene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Azobenzene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Benzoic acid	ND	0.99		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Benzyl alcohol	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/29/2013 8:56:40 PM	8568
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Carbazole	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/29/2013 8:56:40 PM	8568
4-Chloroaniline	ND	0.50		mg/Kg	1	7/29/2013 8:56:40 PM	8568
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/29/2013 8:56:40 PM	8568
2-Chlorophenol	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Chrysene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Dibenzofuran	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Diethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/29/2013 8:56:40 PM	8568
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/29/2013 8:56:40 PM	8568
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/29/2013 8:56:40 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 8-1
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 10:00:00 AM
Lab ID: 1307A80-005 **Matrix:** SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/29/2013 8:56:40 PM	8568
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/29/2013 8:56:40 PM	8568
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Fluorene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Hexachloroethane	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Isophorone	ND	0.50		mg/Kg	1	7/29/2013 8:56:40 PM	8568
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
2-Methylphenol	ND	0.50		mg/Kg	1	7/29/2013 8:56:40 PM	8568
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Naphthalene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
2-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
3-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
4-Nitroaniline	ND	0.40		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Nitrobenzene	ND	0.50		mg/Kg	1	7/29/2013 8:56:40 PM	8568
2-Nitrophenol	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
4-Nitrophenol	ND	0.25		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Pentachlorophenol	ND	0.40		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Phenanthrene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Phenol	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Pyrene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Pyridine	ND	0.50		mg/Kg	1	7/29/2013 8:56:40 PM	8568
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 8:56:40 PM	8568
Surr: 2,4,6-Tribromophenol	38.9	36.5-113		%REC	1	7/29/2013 8:56:40 PM	8568
Surr: 2-Fluorobiphenyl	68.5	43.3-111		%REC	1	7/29/2013 8:56:40 PM	8568
Surr: 2-Fluorophenol	73.9	32.2-118		%REC	1	7/29/2013 8:56:40 PM	8568
Surr: 4-Terphenyl-d14	59.4	29.7-111		%REC	1	7/29/2013 8:56:40 PM	8568
Surr: Nitrobenzene-d5	67.2	36.6-132		%REC	1	7/29/2013 8:56:40 PM	8568
Surr: Phenol-d5	62.9	28.5-128		%REC	1	7/29/2013 8:56:40 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 8-2
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 10:15:00 AM
Lab ID: 1307A80-006 **Matrix:** SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	12000	300		mg/Kg	200	7/30/2013 9:05:58 PM	8576
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Acenaphthylene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Aniline	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Anthracene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Azobenzene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Benz(a)anthracene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Benzo(a)pyrene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Benzoic acid	ND	2.0		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Benzyl alcohol	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	7/30/2013 12:18:12 AM	8568
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Carbazole	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	7/30/2013 12:18:12 AM	8568
4-Chloroaniline	ND	1.0		mg/Kg	1	7/30/2013 12:18:12 AM	8568
2-Chloronaphthalene	ND	0.50		mg/Kg	1	7/30/2013 12:18:12 AM	8568
2-Chlorophenol	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Chrysene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Di-n-octyl phthalate	ND	0.81		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Dibenzofuran	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
3,3´-Dichlorobenzidine	ND	0.50		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Diethyl phthalate	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Dimethyl phthalate	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
2,4-Dichlorophenol	ND	0.81		mg/Kg	1	7/30/2013 12:18:12 AM	8568
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	7/30/2013 12:18:12 AM	8568
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	7/30/2013 12:18:12 AM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 8-2
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 10:15:00 AM
Lab ID: 1307A80-006 **Matrix:** SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	0.81		mg/Kg	1	7/30/2013 12:18:12 AM	8568
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	7/30/2013 12:18:12 AM	8568
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Fluoranthene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Fluorene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Hexachlorobenzene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Hexachlorobutadiene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Hexachloroethane	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Isophorone	ND	1.0		mg/Kg	1	7/30/2013 12:18:12 AM	8568
1-Methylnaphthalene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
2-Methylnaphthalene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
2-Methylphenol	ND	1.0		mg/Kg	1	7/30/2013 12:18:12 AM	8568
3+4-Methylphenol	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Naphthalene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
2-Nitroaniline	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
3-Nitroaniline	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
4-Nitroaniline	ND	0.81		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Nitrobenzene	ND	1.0		mg/Kg	1	7/30/2013 12:18:12 AM	8568
2-Nitrophenol	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
4-Nitrophenol	ND	0.50		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Pentachlorophenol	ND	0.81		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Phenanthrene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Phenol	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Pyrene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Pyridine	ND	1.0		mg/Kg	1	7/30/2013 12:18:12 AM	8568
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	7/30/2013 12:18:12 AM	8568
Surr: 2,4,6-Tribromophenol	23.7	36.5-113	S	%REC	1	7/30/2013 12:18:12 AM	8568
Surr: 2-Fluorobiphenyl	53.8	43.3-111		%REC	1	7/30/2013 12:18:12 AM	8568
Surr: 2-Fluorophenol	44.7	32.2-118		%REC	1	7/30/2013 12:18:12 AM	8568
Surr: 4-Terphenyl-d14	48.0	29.7-111		%REC	1	7/30/2013 12:18:12 AM	8568
Surr: Nitrobenzene-d5	45.9	36.6-132		%REC	1	7/30/2013 12:18:12 AM	8568
Surr: Phenol-d5	47.9	28.5-128		%REC	1	7/30/2013 12:18:12 AM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 8-3
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 10:30:00 AM
Lab ID: 1307A80-007
Matrix: SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	21000	750		mg/Kg	500	7/30/2013 2:53:42 PM	8634
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Acenaphthylene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Aniline	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Anthracene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Azobenzene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Benzoic acid	ND	1.0		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Benzyl alcohol	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/29/2013 9:25:29 PM	8568
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Carbazole	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/29/2013 9:25:29 PM	8568
4-Chloroaniline	ND	0.50		mg/Kg	1	7/29/2013 9:25:29 PM	8568
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/29/2013 9:25:29 PM	8568
2-Chlorophenol	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Chrysene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Dibenzofuran	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Diethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/29/2013 9:25:29 PM	8568
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/29/2013 9:25:29 PM	8568
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/29/2013 9:25:29 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 8-3
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 10:30:00 AM
Lab ID: 1307A80-007 **Matrix:** SOIL **Received Date:** 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/29/2013 9:25:29 PM	8568
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/29/2013 9:25:29 PM	8568
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Fluorene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Hexachloroethane	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Isophorone	ND	0.50		mg/Kg	1	7/29/2013 9:25:29 PM	8568
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
2-Methylphenol	ND	0.50		mg/Kg	1	7/29/2013 9:25:29 PM	8568
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Naphthalene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
2-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
3-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
4-Nitroaniline	ND	0.40		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Nitrobenzene	ND	0.50		mg/Kg	1	7/29/2013 9:25:29 PM	8568
2-Nitrophenol	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
4-Nitrophenol	ND	0.25		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Pentachlorophenol	ND	0.40		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Phenanthrene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Phenol	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Pyrene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Pyridine	ND	0.50		mg/Kg	1	7/29/2013 9:25:29 PM	8568
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 9:25:29 PM	8568
Surr: 2,4,6-Tribromophenol	48.6	36.5-113		%REC	1	7/29/2013 9:25:29 PM	8568
Surr: 2-Fluorobiphenyl	77.4	43.3-111		%REC	1	7/29/2013 9:25:29 PM	8568
Surr: 2-Fluorophenol	83.7	32.2-118		%REC	1	7/29/2013 9:25:29 PM	8568
Surr: 4-Terphenyl-d14	67.2	29.7-111		%REC	1	7/29/2013 9:25:29 PM	8568
Surr: Nitrobenzene-d5	82.7	36.6-132		%REC	1	7/29/2013 9:25:29 PM	8568
Surr: Phenol-d5	82.1	28.5-128		%REC	1	7/29/2013 9:25:29 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 8-4
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 10:45:00 AM
Lab ID: 1307A80-008 **Matrix:** SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	16000	750		mg/Kg	500	7/30/2013 3:18:31 PM	8634
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Acenaphthylene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Aniline	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Anthracene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Azobenzene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Benzoic acid	ND	5.1		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Benzyl alcohol	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2013 12:35:14 PM	8568
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Carbazole	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2013 12:35:14 PM	8568
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2013 12:35:14 PM	8568
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/30/2013 12:35:14 PM	8568
2-Chlorophenol	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Chrysene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Di-n-octyl phthalate	ND	2.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Dibenzofuran	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
3,3´-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Diethyl phthalate	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2013 12:35:14 PM	8568
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2013 12:35:14 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 8-4
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 10:45:00 AM
Lab ID: 1307A80-008
Matrix: SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2013 12:35:14 PM	8568
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Fluoranthene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Fluorene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Hexachloroethane	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Isophorone	ND	2.5		mg/Kg	1	7/30/2013 12:35:14 PM	8568
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2013 12:35:14 PM	8568
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Naphthalene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
2-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
3-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2013 12:35:14 PM	8568
2-Nitrophenol	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
4-Nitrophenol	ND	1.3		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Phenanthrene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Phenol	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Pyrene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Pyridine	ND	2.5		mg/Kg	1	7/30/2013 12:35:14 PM	8568
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2013 12:35:14 PM	8568
Surr: 2,4,6-Tribromophenol	44.3	36.5-113		%REC	1	7/30/2013 12:35:14 PM	8568
Surr: 2-Fluorobiphenyl	87.4	43.3-111		%REC	1	7/30/2013 12:35:14 PM	8568
Surr: 2-Fluorophenol	101	32.2-118		%REC	1	7/30/2013 12:35:14 PM	8568
Surr: 4-Terphenyl-d14	83.4	29.7-111		%REC	1	7/30/2013 12:35:14 PM	8568
Surr: Nitrobenzene-d5	93.7	36.6-132		%REC	1	7/30/2013 12:35:14 PM	8568
Surr: Phenol-d5	97.6	28.5-128		%REC	1	7/30/2013 12:35:14 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 8-5
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 11:00:00 AM
Lab ID: 1307A80-009 **Matrix:** SOIL **Received Date:** 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	14000	750		mg/Kg	500	7/30/2013 3:43:20 PM	8634
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Acenaphthylene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Aniline	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Anthracene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Azobenzene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Benzoic acid	ND	1.0		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Benzyl alcohol	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/29/2013 9:54:16 PM	8568
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Carbazole	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/29/2013 9:54:16 PM	8568
4-Chloroaniline	ND	0.50		mg/Kg	1	7/29/2013 9:54:16 PM	8568
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/29/2013 9:54:16 PM	8568
2-Chlorophenol	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Chrysene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Dibenzofuran	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Diethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/29/2013 9:54:16 PM	8568
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/29/2013 9:54:16 PM	8568
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/29/2013 9:54:16 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 8-5
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 11:00:00 AM
Lab ID: 1307A80-009 **Matrix:** SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/29/2013 9:54:16 PM	8568
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/29/2013 9:54:16 PM	8568
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Fluorene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Hexachloroethane	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Isophorone	ND	0.50		mg/Kg	1	7/29/2013 9:54:16 PM	8568
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
2-Methylphenol	ND	0.50		mg/Kg	1	7/29/2013 9:54:16 PM	8568
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Naphthalene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
2-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
3-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
4-Nitroaniline	ND	0.40		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Nitrobenzene	ND	0.50		mg/Kg	1	7/29/2013 9:54:16 PM	8568
2-Nitrophenol	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
4-Nitrophenol	ND	0.25		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Pentachlorophenol	ND	0.40		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Phenanthrene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Phenol	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Pyrene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Pyridine	ND	0.50		mg/Kg	1	7/29/2013 9:54:16 PM	8568
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 9:54:16 PM	8568
Surr: 2,4,6-Tribromophenol	41.4	36.5-113		%REC	1	7/29/2013 9:54:16 PM	8568
Surr: 2-Fluorobiphenyl	77.3	43.3-111		%REC	1	7/29/2013 9:54:16 PM	8568
Surr: 2-Fluorophenol	77.4	32.2-118		%REC	1	7/29/2013 9:54:16 PM	8568
Surr: 4-Terphenyl-d14	69.1	29.7-111		%REC	1	7/29/2013 9:54:16 PM	8568
Surr: Nitrobenzene-d5	73.9	36.6-132		%REC	1	7/29/2013 9:54:16 PM	8568
Surr: Phenol-d5	78.8	28.5-128		%REC	1	7/29/2013 9:54:16 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 7-2
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 11:15:00 AM
Lab ID: 1307A80-010 **Matrix:** SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	3300	750		mg/Kg	500	7/30/2013 4:08:10 PM	8634
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Acenaphthylene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Aniline	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Anthracene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Azobenzene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Benzoic acid	ND	5.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Benzyl alcohol	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2013 1:04:21 PM	8568
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Carbazole	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2013 1:04:21 PM	8568
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2013 1:04:21 PM	8568
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/30/2013 1:04:21 PM	8568
2-Chlorophenol	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Chrysene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Di-n-octyl phthalate	ND	2.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Dibenzofuran	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
3,3´-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Diethyl phthalate	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2013 1:04:21 PM	8568
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2013 1:04:21 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 7-2
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 11:15:00 AM
Lab ID: 1307A80-010
Matrix: SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2013 1:04:21 PM	8568
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Fluoranthene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Fluorene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Hexachloroethane	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Isophorone	ND	2.5		mg/Kg	1	7/30/2013 1:04:21 PM	8568
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2013 1:04:21 PM	8568
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Naphthalene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
2-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
3-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2013 1:04:21 PM	8568
2-Nitrophenol	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
4-Nitrophenol	ND	1.2		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Phenanthrene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Phenol	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Pyrene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Pyridine	ND	2.5		mg/Kg	1	7/30/2013 1:04:21 PM	8568
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2013 1:04:21 PM	8568
Surr: 2,4,6-Tribromophenol	39.0	36.5-113		%REC	1	7/30/2013 1:04:21 PM	8568
Surr: 2-Fluorobiphenyl	82.9	43.3-111		%REC	1	7/30/2013 1:04:21 PM	8568
Surr: 2-Fluorophenol	87.2	32.2-118		%REC	1	7/30/2013 1:04:21 PM	8568
Surr: 4-Terphenyl-d14	72.4	29.7-111		%REC	1	7/30/2013 1:04:21 PM	8568
Surr: Nitrobenzene-d5	67.0	36.6-132		%REC	1	7/30/2013 1:04:21 PM	8568
Surr: Phenol-d5	83.2	28.5-128		%REC	1	7/30/2013 1:04:21 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 7-1
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 11:30:00 AM
Lab ID: 1307A80-011 **Matrix:** SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	14000	750		mg/Kg	500	7/30/2013 4:33:00 PM	8634
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Acenaphthylene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Aniline	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Anthracene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Azobenzene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Benzoic acid	ND	0.99		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Benzyl alcohol	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	7/29/2013 10:23:04 PM	8568
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Carbazole	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	7/29/2013 10:23:04 PM	8568
4-Chloroaniline	ND	0.49		mg/Kg	1	7/29/2013 10:23:04 PM	8568
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/29/2013 10:23:04 PM	8568
2-Chlorophenol	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Chrysene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Di-n-butyl phthalate	ND	0.49		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Dibenzofuran	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Diethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/29/2013 10:23:04 PM	8568
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/29/2013 10:23:04 PM	8568
4,6-Dinitro-2-methylphenol	ND	0.49		mg/Kg	1	7/29/2013 10:23:04 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 7-1
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 11:30:00 AM
Lab ID: 1307A80-011 **Matrix:** SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/29/2013 10:23:04 PM	8568
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	7/29/2013 10:23:04 PM	8568
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Fluorene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Hexachloroethane	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Isophorone	ND	0.49		mg/Kg	1	7/29/2013 10:23:04 PM	8568
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
2-Methylphenol	ND	0.49		mg/Kg	1	7/29/2013 10:23:04 PM	8568
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Naphthalene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
2-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
3-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
4-Nitroaniline	ND	0.40		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Nitrobenzene	ND	0.49		mg/Kg	1	7/29/2013 10:23:04 PM	8568
2-Nitrophenol	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
4-Nitrophenol	ND	0.25		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Pentachlorophenol	ND	0.40		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Phenanthrene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Phenol	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Pyrene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Pyridine	ND	0.49		mg/Kg	1	7/29/2013 10:23:04 PM	8568
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 10:23:04 PM	8568
Surr: 2,4,6-Tribromophenol	20.9	36.5-113	S	%REC	1	7/29/2013 10:23:04 PM	8568
Surr: 2-Fluorobiphenyl	43.1	43.3-111	S	%REC	1	7/29/2013 10:23:04 PM	8568
Surr: 2-Fluorophenol	44.1	32.2-118		%REC	1	7/29/2013 10:23:04 PM	8568
Surr: 4-Terphenyl-d14	44.1	29.7-111		%REC	1	7/29/2013 10:23:04 PM	8568
Surr: Nitrobenzene-d5	41.8	36.6-132		%REC	1	7/29/2013 10:23:04 PM	8568
Surr: Phenol-d5	41.3	28.5-128		%REC	1	7/29/2013 10:23:04 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 11-1
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 11:45:00 AM
Lab ID: 1307A80-012
Matrix: SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	9300	750		mg/Kg	500	7/31/2013 4:14:09 PM	8634
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Acenaphthylene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Aniline	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Anthracene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Azobenzene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Benzoic acid	ND	1.0		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Benzyl alcohol	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/29/2013 10:51:50 PM	8568
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Carbazole	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/29/2013 10:51:50 PM	8568
4-Chloroaniline	ND	0.50		mg/Kg	1	7/29/2013 10:51:50 PM	8568
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/29/2013 10:51:50 PM	8568
2-Chlorophenol	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Chrysene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Dibenzofuran	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Diethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/29/2013 10:51:50 PM	8568
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/29/2013 10:51:50 PM	8568
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/29/2013 10:51:50 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 11-1
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 11:45:00 AM
Lab ID: 1307A80-012
Matrix: SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/29/2013 10:51:50 PM	8568
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/29/2013 10:51:50 PM	8568
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Fluorene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Hexachloroethane	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Isophorone	ND	0.50		mg/Kg	1	7/29/2013 10:51:50 PM	8568
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
2-Methylphenol	ND	0.50		mg/Kg	1	7/29/2013 10:51:50 PM	8568
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Naphthalene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
2-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
3-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
4-Nitroaniline	ND	0.40		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Nitrobenzene	ND	0.50		mg/Kg	1	7/29/2013 10:51:50 PM	8568
2-Nitrophenol	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
4-Nitrophenol	ND	0.25		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Pentachlorophenol	ND	0.40		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Phenanthrene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Phenol	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Pyrene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Pyridine	ND	0.50		mg/Kg	1	7/29/2013 10:51:50 PM	8568
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 10:51:50 PM	8568
Surr: 2,4,6-Tribromophenol	48.2	36.5-113		%REC	1	7/29/2013 10:51:50 PM	8568
Surr: 2-Fluorobiphenyl	79.0	43.3-111		%REC	1	7/29/2013 10:51:50 PM	8568
Surr: 2-Fluorophenol	76.4	32.2-118		%REC	1	7/29/2013 10:51:50 PM	8568
Surr: 4-Terphenyl-d14	66.7	29.7-111		%REC	1	7/29/2013 10:51:50 PM	8568
Surr: Nitrobenzene-d5	70.5	36.6-132		%REC	1	7/29/2013 10:51:50 PM	8568
Surr: Phenol-d5	69.8	28.5-128		%REC	1	7/29/2013 10:51:50 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 6-2
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 12:00:00 PM
Lab ID: 1307A80-013 **Matrix:** SOIL **Received Date:** 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	9300	750		mg/Kg	500	7/30/2013 5:47:25 PM	8634
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Acenaphthylene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Aniline	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Anthracene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Azobenzene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Benz(a)anthracene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Benzo(a)pyrene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Benzoic acid	ND	10		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Benzyl alcohol	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Bis(2-ethylhexyl)phthalate	ND	5.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Carbazole	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
4-Chloro-3-methylphenol	ND	5.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
4-Chloroaniline	ND	5.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
2-Chloronaphthalene	ND	2.5		mg/Kg	1	7/30/2013 1:33:21 PM	8568
2-Chlorophenol	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Chrysene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Di-n-butyl phthalate	ND	5.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Di-n-octyl phthalate	ND	4.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Dibenzofuran	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
3,3´-Dichlorobenzidine	ND	2.5		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Diethyl phthalate	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Dimethyl phthalate	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: POND 6-2
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 12:00:00 PM
Lab ID: 1307A80-013
Matrix: SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
2,4-Dinitrotoluene	ND	5.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
2,6-Dinitrotoluene	ND	5.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Fluoranthene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Fluorene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Hexachlorobenzene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Hexachlorobutadiene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Hexachloroethane	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Isophorone	ND	5.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
1-Methylnaphthalene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
2-Methylnaphthalene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
2-Methylphenol	ND	5.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
3+4-Methylphenol	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Naphthalene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
2-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
3-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
4-Nitroaniline	ND	4.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Nitrobenzene	ND	5.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
2-Nitrophenol	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
4-Nitrophenol	ND	2.5		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Pentachlorophenol	ND	4.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Phenanthrene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Phenol	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Pyrene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Pyridine	ND	5.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	7/30/2013 1:33:21 PM	8568
Surr: 2,4,6-Tribromophenol	33.7	36.5-113	S	%REC	1	7/30/2013 1:33:21 PM	8568
Surr: 2-Fluorobiphenyl	77.8	43.3-111		%REC	1	7/30/2013 1:33:21 PM	8568
Surr: 2-Fluorophenol	65.2	32.2-118		%REC	1	7/30/2013 1:33:21 PM	8568
Surr: 4-Terphenyl-d14	67.1	29.7-111		%REC	1	7/30/2013 1:33:21 PM	8568
Surr: Nitrobenzene-d5	71.1	36.6-132		%REC	1	7/30/2013 1:33:21 PM	8568
Surr: Phenol-d5	76.0	28.5-128		%REC	1	7/30/2013 1:33:21 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BKGD-1
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 12:40:00 PM
Lab ID: 1307A80-014
Matrix: SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	1100	30		mg/Kg	20	7/30/2013 5:59:49 PM	8634
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Acenaphthylene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Aniline	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Anthracene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Azobenzene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Benzoic acid	ND	1.0		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Benzyl alcohol	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/30/2013 2:02:27 PM	8568
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Carbazole	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/30/2013 2:02:27 PM	8568
4-Chloroaniline	ND	0.50		mg/Kg	1	7/30/2013 2:02:27 PM	8568
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/30/2013 2:02:27 PM	8568
2-Chlorophenol	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Chrysene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Dibenzofuran	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Diethyl phthalate	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/30/2013 2:02:27 PM	8568
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/30/2013 2:02:27 PM	8568
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/30/2013 2:02:27 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BKGD-1
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 12:40:00 PM
Lab ID: 1307A80-014 **Matrix:** SOIL **Received Date:** 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/30/2013 2:02:27 PM	8568
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/30/2013 2:02:27 PM	8568
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Fluoranthene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Fluorene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Hexachloroethane	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Isophorone	ND	0.50		mg/Kg	1	7/30/2013 2:02:27 PM	8568
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
2-Methylphenol	ND	0.50		mg/Kg	1	7/30/2013 2:02:27 PM	8568
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Naphthalene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
2-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
3-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
4-Nitroaniline	ND	0.40		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Nitrobenzene	ND	0.50		mg/Kg	1	7/30/2013 2:02:27 PM	8568
2-Nitrophenol	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
4-Nitrophenol	ND	0.25		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Pentachlorophenol	ND	0.40		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Phenanthrene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Phenol	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Pyrene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Pyridine	ND	0.50		mg/Kg	1	7/30/2013 2:02:27 PM	8568
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2013 2:02:27 PM	8568
Surr: 2,4,6-Tribromophenol	45.5	36.5-113		%REC	1	7/30/2013 2:02:27 PM	8568
Surr: 2-Fluorobiphenyl	87.1	43.3-111		%REC	1	7/30/2013 2:02:27 PM	8568
Surr: 2-Fluorophenol	65.6	32.2-118		%REC	1	7/30/2013 2:02:27 PM	8568
Surr: 4-Terphenyl-d14	91.9	29.7-111		%REC	1	7/30/2013 2:02:27 PM	8568
Surr: Nitrobenzene-d5	74.0	36.6-132		%REC	1	7/30/2013 2:02:27 PM	8568
Surr: Phenol-d5	73.3	28.5-128		%REC	1	7/30/2013 2:02:27 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BKGD-2
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 12:50:00 PM
Lab ID: 1307A80-015 **Matrix:** SOIL **Received Date:** 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	1500	750		mg/Kg	500	7/30/2013 6:37:03 PM	8634
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Acenaphthylene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Aniline	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Anthracene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Azobenzene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Benzoic acid	ND	1.0		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Benzyl alcohol	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/29/2013 11:20:36 PM	8568
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Carbazole	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/29/2013 11:20:36 PM	8568
4-Chloroaniline	ND	0.50		mg/Kg	1	7/29/2013 11:20:36 PM	8568
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/29/2013 11:20:36 PM	8568
2-Chlorophenol	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Chrysene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Dibenzofuran	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Diethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/29/2013 11:20:36 PM	8568
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/29/2013 11:20:36 PM	8568
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/29/2013 11:20:36 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BKGD-2
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 12:50:00 PM
Lab ID: 1307A80-015
Matrix: SOIL
Received Date: 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/29/2013 11:20:36 PM	8568
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/29/2013 11:20:36 PM	8568
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Fluorene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Hexachloroethane	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Isophorone	ND	0.50		mg/Kg	1	7/29/2013 11:20:36 PM	8568
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
2-Methylphenol	ND	0.50		mg/Kg	1	7/29/2013 11:20:36 PM	8568
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Naphthalene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
2-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
3-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
4-Nitroaniline	ND	0.40		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Nitrobenzene	ND	0.50		mg/Kg	1	7/29/2013 11:20:36 PM	8568
2-Nitrophenol	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
4-Nitrophenol	ND	0.25		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Pentachlorophenol	ND	0.40		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Phenanthrene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Phenol	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Pyrene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Pyridine	ND	0.50		mg/Kg	1	7/29/2013 11:20:36 PM	8568
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 11:20:36 PM	8568
Surr: 2,4,6-Tribromophenol	52.4	36.5-113		%REC	1	7/29/2013 11:20:36 PM	8568
Surr: 2-Fluorobiphenyl	93.3	43.3-111		%REC	1	7/29/2013 11:20:36 PM	8568
Surr: 2-Fluorophenol	72.3	32.2-118		%REC	1	7/29/2013 11:20:36 PM	8568
Surr: 4-Terphenyl-d14	85.0	29.7-111		%REC	1	7/29/2013 11:20:36 PM	8568
Surr: Nitrobenzene-d5	80.3	36.6-132		%REC	1	7/29/2013 11:20:36 PM	8568
Surr: Phenol-d5	71.5	28.5-128		%REC	1	7/29/2013 11:20:36 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BKGD-3
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 1:00:00 PM
Lab ID: 1307A80-016 **Matrix:** SOIL **Received Date:** 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	980	30		mg/Kg	20	7/30/2013 6:49:28 PM	8634
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Acenaphthylene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Aniline	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Anthracene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Azobenzene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Benzoic acid	ND	1.0		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Benzyl alcohol	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/29/2013 11:49:25 PM	8568
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Carbazole	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/29/2013 11:49:25 PM	8568
4-Chloroaniline	ND	0.50		mg/Kg	1	7/29/2013 11:49:25 PM	8568
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/29/2013 11:49:25 PM	8568
2-Chlorophenol	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Chrysene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Dibenzofuran	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Diethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/29/2013 11:49:25 PM	8568
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/29/2013 11:49:25 PM	8568
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/29/2013 11:49:25 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BKGD-3
Project: MSGP INSPECTION REPORT
Collection Date: 7/22/2013 1:00:00 PM
Lab ID: 1307A80-016 **Matrix:** SOIL **Received Date:** 7/24/2013 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/29/2013 11:49:25 PM	8568
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/29/2013 11:49:25 PM	8568
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Fluoranthene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Fluorene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Hexachloroethane	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Isophorone	ND	0.50		mg/Kg	1	7/29/2013 11:49:25 PM	8568
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
2-Methylphenol	ND	0.50		mg/Kg	1	7/29/2013 11:49:25 PM	8568
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Naphthalene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
2-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
3-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
4-Nitroaniline	ND	0.40		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Nitrobenzene	ND	0.50		mg/Kg	1	7/29/2013 11:49:25 PM	8568
2-Nitrophenol	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
4-Nitrophenol	ND	0.25		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Pentachlorophenol	ND	0.40		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Phenanthrene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Phenol	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Pyrene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Pyridine	ND	0.50		mg/Kg	1	7/29/2013 11:49:25 PM	8568
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2013 11:49:25 PM	8568
Surr: 2,4,6-Tribromophenol	46.4	36.5-113		%REC	1	7/29/2013 11:49:25 PM	8568
Surr: 2-Fluorobiphenyl	81.7	43.3-111		%REC	1	7/29/2013 11:49:25 PM	8568
Surr: 2-Fluorophenol	69.3	32.2-118		%REC	1	7/29/2013 11:49:25 PM	8568
Surr: 4-Terphenyl-d14	76.8	29.7-111		%REC	1	7/29/2013 11:49:25 PM	8568
Surr: Nitrobenzene-d5	88.5	36.6-132		%REC	1	7/29/2013 11:49:25 PM	8568
Surr: Phenol-d5	74.9	28.5-128		%REC	1	7/29/2013 11:49:25 PM	8568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1307A80**

06-Aug-13

Client: Western Refining Southwest, Gallup

Project: MSGP INSPECTION REPORT

Sample ID	**MB-8576**	SampType:	**MBLK**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**8576**		RunNo:	**12237**				
Prep Date:	**7/26/2013**	Analysis Date:	**7/26/2013**		SeqNo:	**348052**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-8576**	SampType:	**LCS**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**8576**		RunNo:	**12237**				
Prep Date:	**7/26/2013**	Analysis Date:	**7/26/2013**		SeqNo:	**348053**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.6	90	110			

Sample ID	**MB-8634**	SampType:	**MBLK**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**8634**		RunNo:	**12307**				
Prep Date:	**7/30/2013**	Analysis Date:	**7/30/2013**		SeqNo:	**350015**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-8634**	SampType:	**LCS**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**8634**		RunNo:	**12307**				
Prep Date:	**7/30/2013**	Analysis Date:	**7/30/2013**		SeqNo:	**350016**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.0	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1307A80**
06-Aug-13

Client: Western Refining Southwest, Gallup
Project: MSGP INSPECTION REPORT

Sample ID **mb-8568**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **8568**	RunNo: **12261**
Prep Date: **7/25/2013**	Analysis Date: **7/29/2013**	SeqNo: **348582** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	1.0								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3´-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1307A80**
06-Aug-13

Client: Western Refining Southwest, Gallup
Project: MSGP INSPECTION REPORT

Sample ID **mb-8568**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **8568**	RunNo: **12261**
Prep Date: **7/25/2013**	Analysis Date: **7/29/2013**	SeqNo: **348582** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	0.96		3.330		28.9	36.5	113			S
Surr: 2-Fluorobiphenyl	1.2		1.670		74.7	43.3	111			
Surr: 2-Fluorophenol	2.0		3.330		60.0	32.2	118			
Surr: 4-Terphenyl-d14	1.1		1.670		64.7	29.7	111			
Surr: Nitrobenzene-d5	1.3		1.670		80.6	36.6	132			
Surr: Phenol-d5	2.4		3.330		71.4	28.5	128			

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1307A80**
06-Aug-13

Client: Western Refining Southwest, Gallup
Project: MSGP INSPECTION REPORT

Sample ID **1307a80-001ams**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **POND 6-1**	Batch ID: **8568**	RunNo: **12294**
Prep Date: **7/25/2013**	Analysis Date: **7/30/2013**	SeqNo: **349614** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	1.0	1.686	0	70.9	25.6	142			
4-Chloro-3-methylphenol	ND	2.5	3.363	0	51.8	63.7	100			S
2-Chlorophenol	1.7	1.0	3.363	0	51.2	22.2	126			
1,4-Dichlorobenzene	1.1	1.0	1.686	0	63.4	12.4	115			
2,4-Dinitrotoluene	ND	2.5	1.686	0	33.6	14.9	142			
N-Nitrosodi-n-propylamine	1.1	1.0	1.686	0	63.9	13.9	136			
4-Nitrophenol	ND	1.3	3.363	0	30.5	36.7	130			S
Pentachlorophenol	ND	2.0	3.363	0	39.9	15.8	113			
Phenol	1.8	1.0	3.363	0	52.5	25.1	124			
Pyrene	ND	1.0	1.686	0	42.4	35.8	124			
1,2,4-Trichlorobenzene	ND	1.0	1.686	0	58.2	30	113			
Surr: 2,4,6-Tribromophenol	1.1		3.363		32.2	36.5	113			S
Surr: 2-Fluorobiphenyl	1.1		1.686		68.0	43.3	111			
Surr: 2-Fluorophenol	1.8		3.363		53.1	32.2	118			
Surr: 4-Terphenyl-d14	0.94		1.686		55.5	29.7	111			
Surr: Nitrobenzene-d5	1.1		1.686		64.9	36.6	132			
Surr: Phenol-d5	1.9		3.363		57.9	28.5	128			

Sample ID **1307a80-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **POND 6-1**	Batch ID: **8568**	RunNo: **12294**
Prep Date: **7/25/2013**	Analysis Date: **7/30/2013**	SeqNo: **349615** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.1	0.99	1.658	0	63.4	25.6	142	12.8	22	
4-Chloro-3-methylphenol	ND	2.5	3.307	0	52.5	63.7	100	0	27.3	S
2-Chlorophenol	1.7	0.99	3.307	0	50.7	22.2	126	2.75	26.3	
1,4-Dichlorobenzene	ND	0.99	1.658	0	57.7	12.4	115	200	27.4	
2,4-Dinitrotoluene	ND	2.5	1.658	0	34.6	14.9	142	0	27.4	
N-Nitrosodi-n-propylamine	1.2	0.99	1.658	0	71.8	13.9	136	9.96	22.6	
4-Nitrophenol	ND	1.2	3.307	0	30.4	36.7	130	0	20	S
Pentachlorophenol	ND	2.0	3.307	0	38.9	15.8	113	0	27.1	
Phenol	1.9	0.99	3.307	0	56.9	25.1	124	6.48	32.2	
Pyrene	ND	0.99	1.658	0	36.6	35.8	124	0	29.5	
1,2,4-Trichlorobenzene	ND	0.99	1.658	0	55.6	30	113	0	27.8	
Surr: 2,4,6-Tribromophenol	1.1		3.307		32.2	36.5	113	0	0	S
Surr: 2-Fluorobiphenyl	0.90		1.658		54.5	43.3	111	0	0	
Surr: 2-Fluorophenol	2.0		3.307		61.8	32.2	118	0	0	
Surr: 4-Terphenyl-d14	0.86		1.658		52.0	29.7	111	0	0	
Surr: Nitrobenzene-d5	0.98		1.658		59.4	36.6	132	0	0	
Surr: Phenol-d5	2.1		3.307		63.1	28.5	128	0	0	

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1307A80**
06-Aug-13

Client: Western Refining Southwest, Gallup
Project: MSGP INSPECTION REPORT

Sample ID **lcs-8568**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **8568**	RunNo: **12301**
Prep Date: **7/25/2013**	Analysis Date: **7/31/2013**	SeqNo: **349866** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.7	0.20	1.670	0	99.0	45.8	95.8			S
4-Chloro-3-methylphenol	3.0	0.50	3.330	0	91.3	49.9	103			
2-Chlorophenol	2.9	0.20	3.330	0	88.3	43.4	94			
1,4-Dichlorobenzene	1.3	0.20	1.670	0	78.2	37.3	95.4			
2,4-Dinitrotoluene	1.6	0.50	1.670	0	94.7	51.6	113			
N-Nitrosodi-n-propylamine	1.7	0.20	1.670	0	103	43.4	105			
4-Nitrophenol	2.0	0.25	3.330	0	59.0	45.4	113			
Pentachlorophenol	2.3	0.40	3.330	0	70.2	40	90.2			
Phenol	1.8	0.20	3.330	0	54.2	44.4	99.8			
Pyrene	1.9	0.20	1.670	0	115	48.1	93.1			S
1,2,4-Trichlorobenzene	1.4	0.20	1.670	0	84.1	41.6	103			
Surr: 2,4,6-Tribromophenol	3.4		3.330		102	36.5	113			
Surr: 2-Fluorobiphenyl	1.6		1.670		94.2	43.3	111			
Surr: 2-Fluorophenol	2.7		3.330		81.6	32.2	118			
Surr: 4-Terphenyl-d14	1.9		1.670		115	29.7	111			S
Surr: Nitrobenzene-d5	1.5		1.670		90.1	36.6	132			
Surr: Phenol-d5	1.9		3.330		57.4	28.5	128			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1307A80** RcptNo: **1**

Received by/date: AG 07/24/13

Logged By: **Anne Thorne** 7/24/2013 8:00:00 AM Anne Thorne

Completed By: **Anne Thorne** 7/24/2013 Anne Thorne

Reviewed By: IO 07/24/13

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	FedEx		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.5	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP NM 87301
Phone #: 505-722-3833
email or Fax#: 505-863-0930
QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☑ Standard ☐ Rush _____
Project Name: MSGP INSPECTION REPORT
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☑ Yes ☐ No
Sample Temperature: 2.5

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1307A80	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDES				Air Bubbles (Y or N)
7/22/13	0902	SOIL	POND 6-1	ONE 4oz JAR	—	-001											✓	✓				
	0917		9-1		—	-002											✓	✓				
	0930		9-2		—	-003											✓	✓				
	0945		9-3		—	-004											✓	✓				
	1000		8-1		—	-005											✓	✓				
	1015		8-2		—	-006											✓	✓				
	1030		8-3		—	-007											✓	✓				
	1045		8-4		—	-008											✓	✓				
	1100		8-5		—	-009											✓	✓				
	1115		7-2		—	-010											✓	✓				
	1130		7-1		—	-011											✓	✓				
↓	1145	↓	11-1		—	-012											✓	✓				

Date	Time	Relinquished by:	Received by:	Date	Time
7/23/13	0735	[signature] FED EX	[signature]	07/24/13	0800

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP NM 87301
Phone #: 505-722-3833
email or Fax#: 505-863-0930
QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☑ Standard ☐ Rush _____
Project Name: MSGP INSPECTION REPORT
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☑ Yes ☐ No
Sample Temperature: 2.5

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1307480	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDES				Air Bubbles (Y or N)
7/22/13	1200	SOIL	POND 6-2	1 4oz JAR	—	-013											✓	✓				
	1240		BKGD-1		—	-014												✓				
	1250		BKGD-2		—	-015												✓				
	1300		BKGD-3		—	-016												✓				

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/23/13	0735	TRACY PAYNE FED EX		07/24/13	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chavez, Carl J, EMNRD

From: Riege, Ed <Ed.Riege@wnr.com>
Sent: Tuesday, April 01, 2014 11:39 AM
To: Powell, Brandon, EMNRD; Chavez, Carl J, EMNRD; VanHorn, Kristen, NMENV
Cc: Larsen, Thurman; Johnson, Cheryl
Subject: C-141
Attachments: 201404011116.pdf

To all,
Attached is the initial C-141 for the release reported to you on March 19, 2014. I am also answering Kristen's and Carl's questions from your March 20 emails in a separate letter to be sent this week.

Thanks
Ed

Ed Riege MPH
Environmental Manager

Western Refining
Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

District I
1625 N. French Dr., Hobbs, NM 88240
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State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining Southwest, Incorporated	Contact Ed Riege
Address 92 Giant Crossing Road Gallup NM 87301	Telephone No. 505-722-0217
Facility Name Western Refining Southwest Gallup Refinery	Facility Type Petroleum Refinery

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	23 and 33	15N	15W					Mckinley

Latitude 35° 29′ 22″ **Longitude** 108° 25′ 24″

NATURE OF RELEASE

Type of Release Pond Water	Volume of Release 17.4 bbls	Volume Recovered None
Source of Release Evaporation Pond #7	Date and Hour of Occurrence 03-19-2014 1500 hr	Date and Hour of Discovery 03-19-2014 1515 hr
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Message Brandon Powell phone / email Carl Chavez phone / email Kristen Van Horn phone / email	
By Whom? Ed Riege	Date and Hour 03-19-2014 1805 hr 03-19-2014 1810 hr 03-19-2014 1815 hr	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A Western employee observed a breach in the pond 7 dike. Western was in the process of improving the pond dikes and earth moving equipment, which was operating nearby, immediately responded to make repairs and stopped the release at 1630Hr.

Western has collected a sample of the water, which flowed through the breach, and soil samples from the impacted area. These samples are being analyzed for volatile organic compounds (VOCs), SVOCs, Diesel Range Organics (extended), New Mexico Water Quality Control Criteria metals, and major cation/anions. The results of the above listed analyses will help to direct any subsequent corrective action steps. The NM State land map indicates the owner of the property west of Pond 7 belongs to the state of New Mexico.

To address any concerns about seepage through the dikes or failure of the perimeter dikes, Western contracted Franklin Earthmoving Inc. to improve approximately 80% of the existing pond dikes. This work began in late January 2014 and is expected to continue through mid to late April. This work consists of widening the dikes and improving the outside slope of the berms, and repairing water and wind erosion to the top of the dikes (see enclosed pictures). The area of the breach at pond 7 was the original dike that had not yet been improved by Franklin as they were working approximately 150 yards northeast of the breach. The area impacted by the breach will be rebuilt to prevent any future breaches/seeps.

In addition to the physical improvement of the pond perimeter dikes, Western is pursuing the installation of a more aggressive evaporation system and water conservation measures. These measures should control free board levels and help prevent future seepage through the dikes and breaching of the dikes. Shallow groundwater is routinely monitored in the area and there is no indication of impacts to groundwater from the evaporation ponds.

Describe Area Affected and Cleanup Action Taken.*

It is estimated that 17.4 bbls of wastewater left the pond with possibly half crossing the fence line west of the dike. The small volume of water was absorbed by the dry soil and the release did not reach a watercourse or waters of the U.S. The results of the above listed analyses will help to direct any subsequent corrective action steps

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Ed Riege	Approved by Environmental Specialist:
Title: Environmental Manager	Approval Date: / Expiration Date:
E-mail Address: ed.riege@wnr.com	Conditions of Approval: / Attached ☐
Date: 4-1-14 Phone: 505-722-0217	

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: VanHorn, Kristen, NMENV
Sent: Thursday, March 20, 2014 12:01 PM
To: Riege, Ed; Larsen, Thurman; Johnson, Cheryl (Cheryl.Johnson@wnr.com)
Cc: Cobrain, Dave, NMENV; Dhawan, Neelam, NMENV; Chavez, Carl J, EMNRD
Subject: Breach at EP-7

Ed,

I received your voicemail and email regarding the breach at Pond 7.

To summarize, at around 3pm on March 19, 2014 an employee observed a breach at Pond 7. Western had some earth moving equipment in the area and immediately responded and were able to stop the release by 430pm. An estimated that 17.4 bbls of wastewater left the pond with half crossing the fence line west of the dike which was absorbed by dry soil. The release did not reach a watercourse or a water of the US. Western will monitor the repaired area and collect soil samples for laboratory analysis from both on- and off-site locations within the affected area. Western will also prepare an initial C-141 form.

Pond 7 is part of the Solid Waste Management Unit (SWMU) 1, the Aeration Basin. This release is a release of solid waste from SWMU 1. Because the release left the property boundary, Western must follow Permit Section IV.B.1 (Corrective Action Beyond the Facility Boundary), which reads in part "The Permittee shall notify the NMED, orally and in writing in accordance with Permit Section II.C.2.c, upon discovery that a release of hazardous waste or hazardous constituents has migrated beyond the facility boundary…" The phone call and C-141 cover the requirement in Permit Section II.C.2.c. Pond 7 has arsenic above screening levels as well as manganese, selenium, phenol, and bis(2-ethyl hexyl)phthalate based on the 2012 evaporation pond sampling results. Western must follow corrective action procedures as outlined in the permit.

In May of 2013 the Surface Water Quality Bureau noted that there was some seepage from Pond 7 (and Pond 8) and noted that the way the seepage was occurring was a concern because the water is not captured prior to Outfall 001 and could essentially become an uncontrolled point of discharge of process water. In your report, clarify whether or not anything was done since May to address the seepage issue.

Western submitted a C-141 Report at the Oil Conservation Division's request in July 2013 and noted that "in response to the potential release of chemical constituents from some of the evaporation ponds during a time period when high pond levels caused seepage along the pond perimeter dikes. As noted in the C-141 Form, soil samples collected from around the perimeter of the ponds were to be analyzed for semi-volatile organics and chloride. As shown in the attached laboratory report, all analyses for semi-volatile organics were non-detect. The analyses for chloride indicate chloride concentrations in excess of the concentrations detected in the three background soil samples. The attached draft map shows the chloride concentrations around the ponds and in the three background samples." Samples were not collected for metals analysis, ensure that metals analysis are included in the breach soil samples. Western must also test for DRO-extended. Also discuss what is being done to ensure that pond levels are maintained at manageable levels.

In your letter report, please include photos of the area, repair of the dike, and cleanup activities.

If you have any questions, please contact me.

Kristen Van Horn
NMED Hazardous Waste Bureau

2905 Rodeo Park Drive East
Building 1
Santa Fe, NM 87505
Phone: 505-476-6046
Email: *Kristen.VanHorn@state.nm.us*

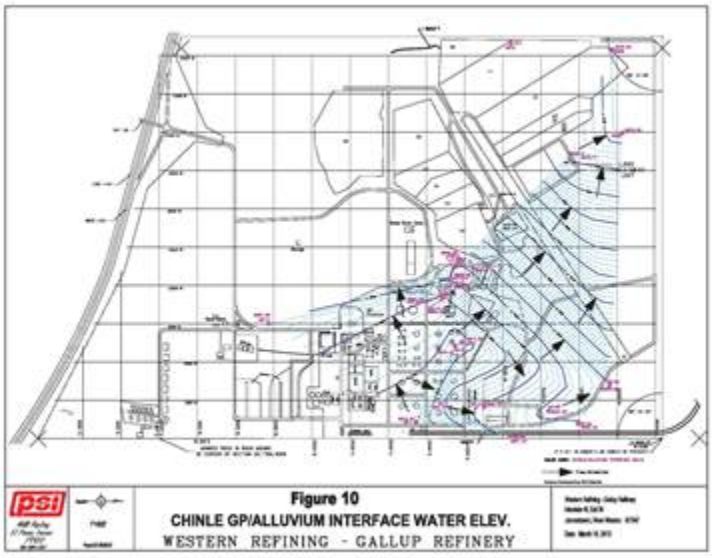
Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, March 20, 2014 7:40 AM
To: 'Riege, Ed'; Powell, Brandon, EMNRD
Cc: VanHorn, Kristen, NMENV; Larsen, Thurman; Johnson, Cheryl; Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD
Subject: RE: Minor Release
Attachments: Gallup Refinery Ponds Area.pdf

Ed:

The New Mexico Oil Conservation Division (OCD) recently approved further investigation of pond breaching that was first observed in the same general vicinity by the NMED in July of 2013 during a stormwater inspection.

Could you please update OCD on the environmental investigation (see figure below) and is Western considering lining the ponds to prevent continued breaches of the pond network?



OCD provides an attachment with more background on the area of the release and potential for impacts to the Upper Puerco Watershed.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Drive, Santa Fe, New Mexico 87505
O: (505) 476-3490
E-mail: CarlJ.Chavez@State.NM.US
Web: http://www.emnrd.state.nm.us/ocd/

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

---

From: Riege, Ed [mailto:Ed.Riege@wnr.com]
Sent: Wednesday, March 19, 2014 6:38 PM
To: Powell, Brandon, EMNRD
Cc: Chavez, Carl J, EMNRD; VanHorn, Kristen, NMENV; Larsen, Thurman; Johnson, Cheryl
Subject: Minor Release

Brandon,
As per our phone conversation this evening here is a short summary of the minor release. At 1515 hr on March 19, one of our employees making his rounds at the ponds observed a breach in pond 7 dike. We estimate the leak started around 1500 hr. Western had some earth moving equipment (Franklin Earthmoving) in the pond area and they immediately responded with their heavy equipment and were able to make repairs and stopped the release at 1630 hr. It is estimated that 17.4 bbls of wastewater left the pond with half crossing the fence line west of the dike which was absorbed by the dry soil. The release did not reach a watercourse or a water of the US. Western will monitor the repaired area and take soil samples from the spill site. Western will also prepare an initial C-141 form and send to you.

Thanks,

Ed Riege
Environmental Manager

Western Refining
Gallup Refinery
92 Giant Crossing Road
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

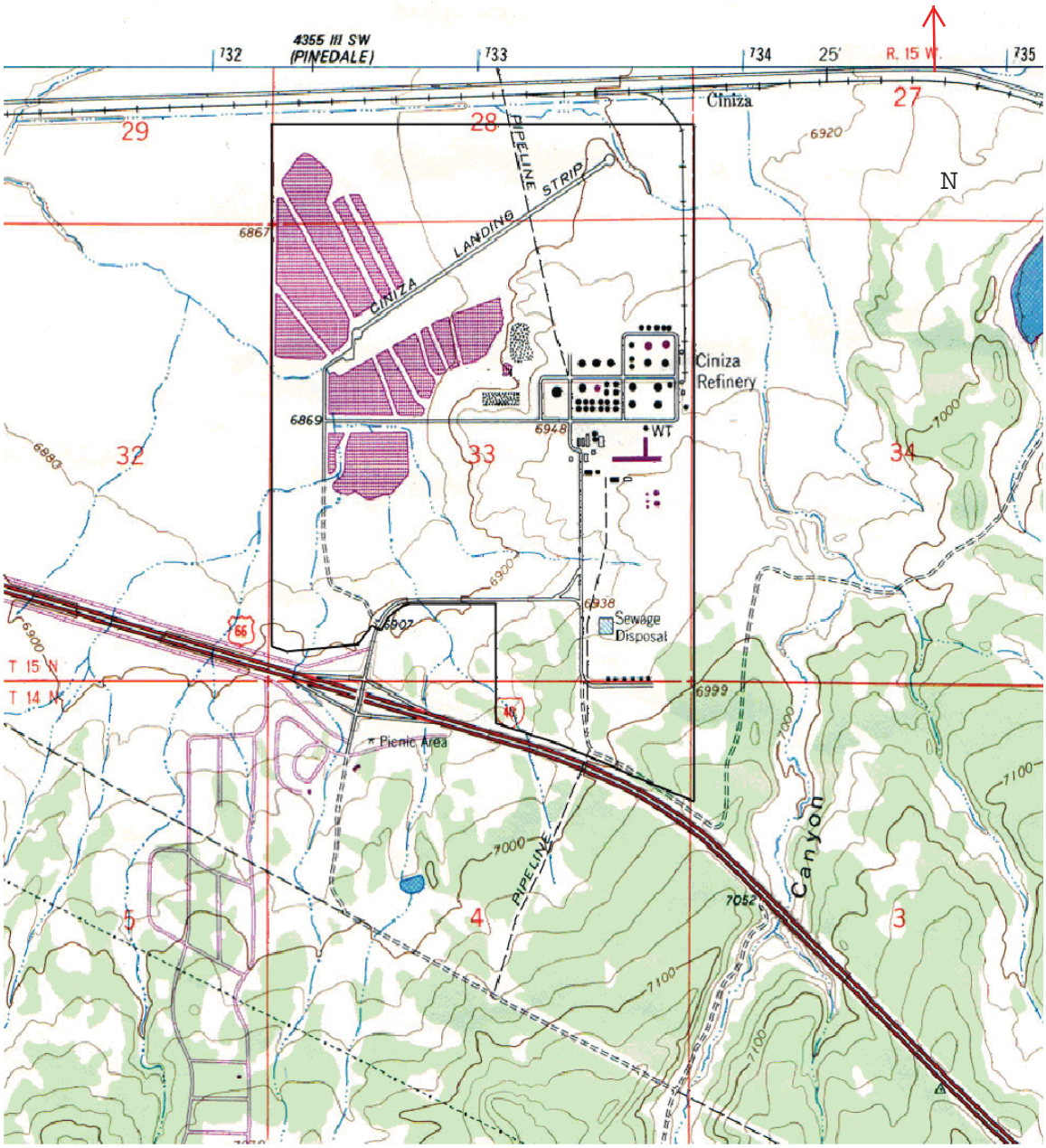


Figure 2: Topographic Map of the Gallup Refinery Site - USGS Topographical Map - Gallup Quadrangle (Revised 1980)

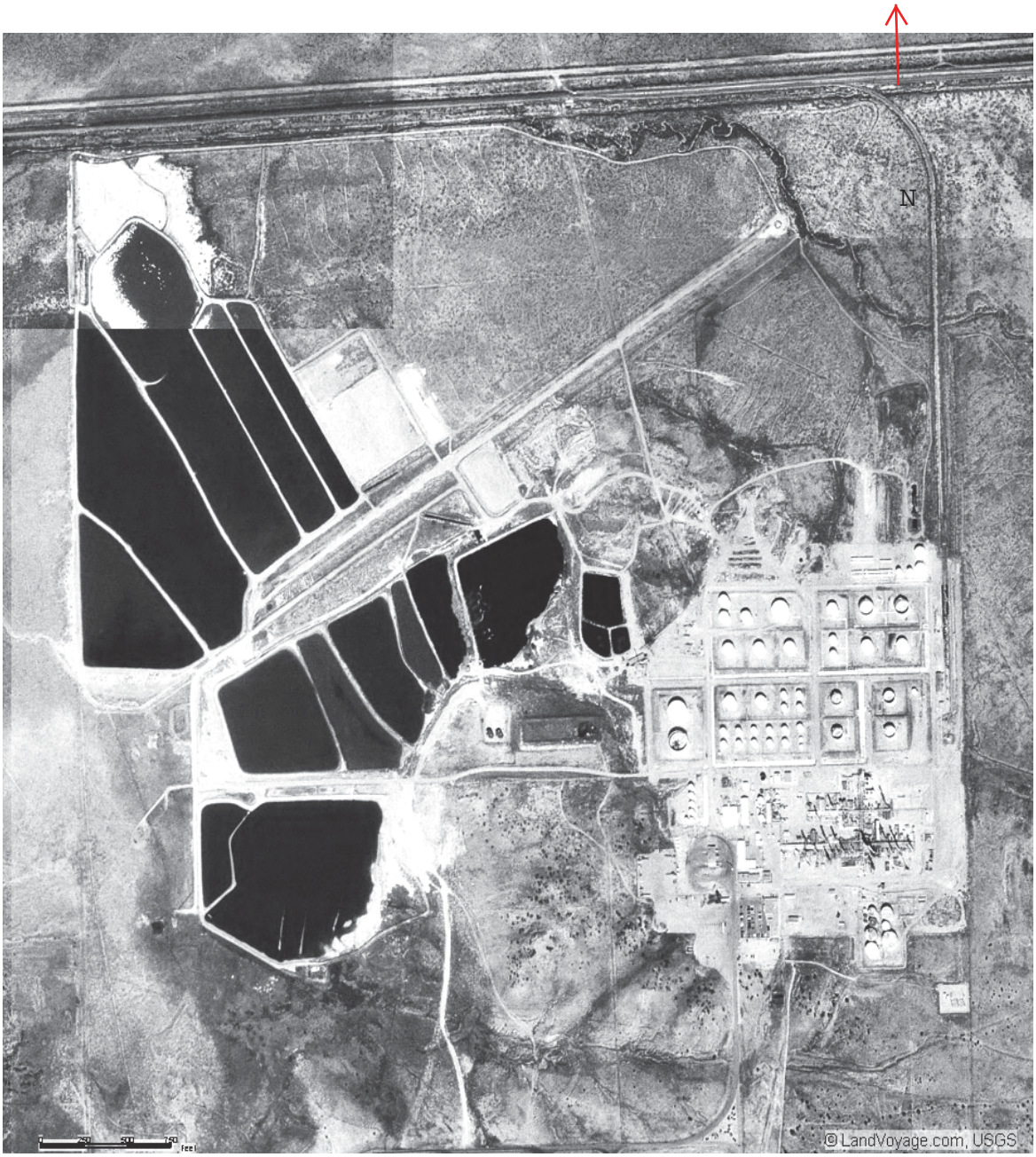
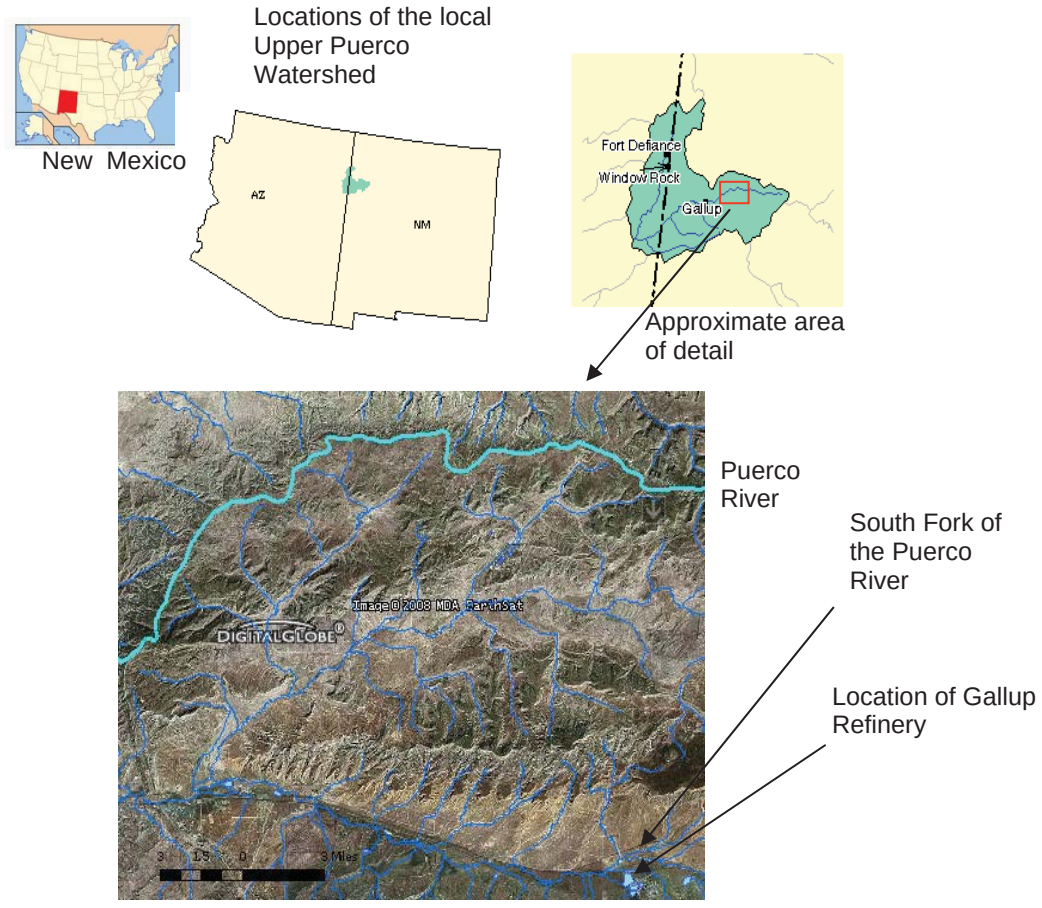


Figure 3: Aerial photograph of the Gallup Refinery

Figure 4: **Regional scale**: Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page.



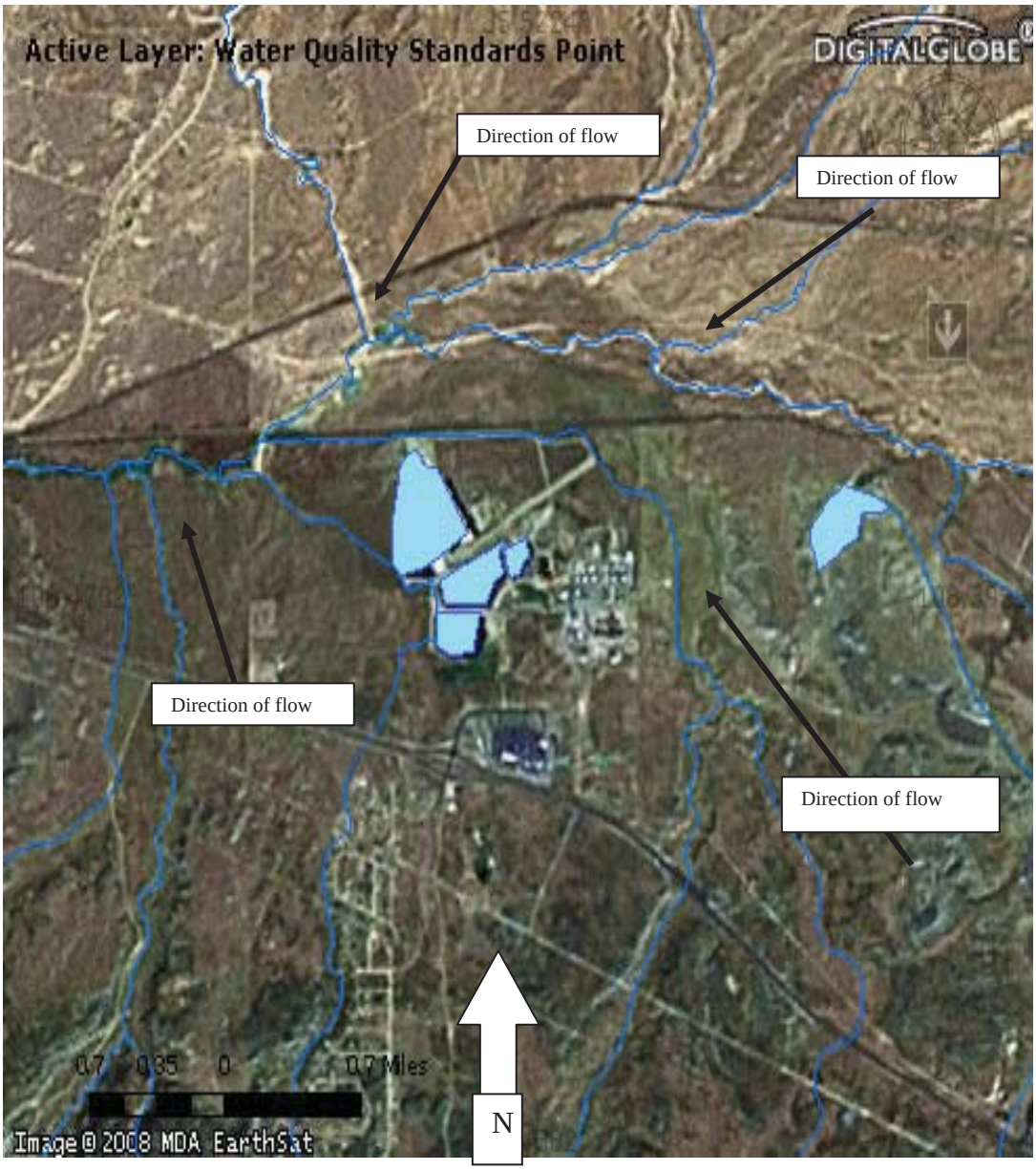


Figure 5: Localized scale: Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page. The pond to the east is Jon Myers' Livestock Pond.

District I
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Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining Southwest, Incorporated	Contact Beck Larsen
Address 92 Giant Crossing Road Gallup NM 87301	Telephone No. 505-722-0217
Facility Name Western Refining Southwest Gallup Refinery	Facility Type Petroleum Refinery

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release Fire and hydrocarbon	Volume of Release 5 to 10 bbls	Volume Recovered 6-8 bbls
Source of Release Flare	Date and Hour of Occurrence 12-10-2013 0625 hr	Date and Hour of Discovery 12-10-2013 0630 hr
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? SERC (State Police) ; LEPC (Msg); NMED (AQB- Peggy Evans,); OCD (Brandon Powell); OCD (Carl Chavez); NMED (Kristen Van Horn, Msg)	
By Whom? Ed Riege	Date and Hour 12-10-13 SERC (State Police @ 0702); LEPC (Msg @ 0705); NMED (AQB, Peggy Evans @ 0715); OCD (Brandon Powell @ 0720); OCD (Carl Chavez@ 0725); NMED (Kristen Van Horn Msg @ 0729)	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Freezing in units caused flare knockout drum to fill up, liquid hydrocarbon to ignited causing a flare fire and hydrocarbon (Diesel) to flow out top of flare. Onsite fire department put out fire.

Describe Area Affected and Cleanup Action Taken.* The area impacted was around the base of the flare and diesel/hydrocarbon traveled with firewater to the west for approximately 150 yards (refer to attached map). Absorbent was applied to hydrocarbon, ditch (culvert) was plugged off and a vacuum truck removed visible hydrocarbon. Initial confirmation samples were collected (lab report attached) prior to cleanup efforts and sent to Hall Labs for analysis. Chemical Transportation Inc (CTI) initiated soil removal cleanup operations starting on 12/13/14. CTI scraped the top soil layers from one to six inches based on visual considerations using a soil excavator. Soil was taken to a centralized stockpiled location and placed on plastic sheeting with an earthen dike placed around soil. Soil which could not be safely removed with an excavator, was either removed via hand equipment or hydro -excavating equipment. The material removed was 657 cubic yards of diesel and hydrocarbon contaminated soil which was taken to Waste Managements Painted Desert Landfill near Joseph City AZ. After all excavation work was completed, confirmation samples were collected for the area of excavation and the soil pile using Hall Labs (lab report attached). Pictures of the cleanup area are attached.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Beck Larsen	Approved by Environmental Specialist:	
Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:	Attached ☐
Date: 03-14-2014 Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

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Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining Southwest, Incorporated	Contact Beck Larsen
Address 92 Giant Crossing Road Gallup NM 87301	Telephone No. 505-722-0217
Facility Name Western Refining Southwest Gallup Refinery	Facility Type Petroleum Refinery

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release Fire and hydrocarbon	Volume of Release 5 to 10 bbls	Volume Recovered 6-8 bbls
Source of Release Flare	Date and Hour of Occurrence 12-10-2013 0625 hr	Date and Hour of Discovery 12-10-2013 0630 hr
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Carl Chavez Message Brandon Powell	
By Whom? Ed Riege	Date and Hour 12-10-13 0725 hr	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Freezing in units caused flare knockout drum to fill up, liquid hydrocarbon to ignited causing a flare fire and hydrocarbon (Diesel) to flow out top of flare. Onsite fire department put out fire.

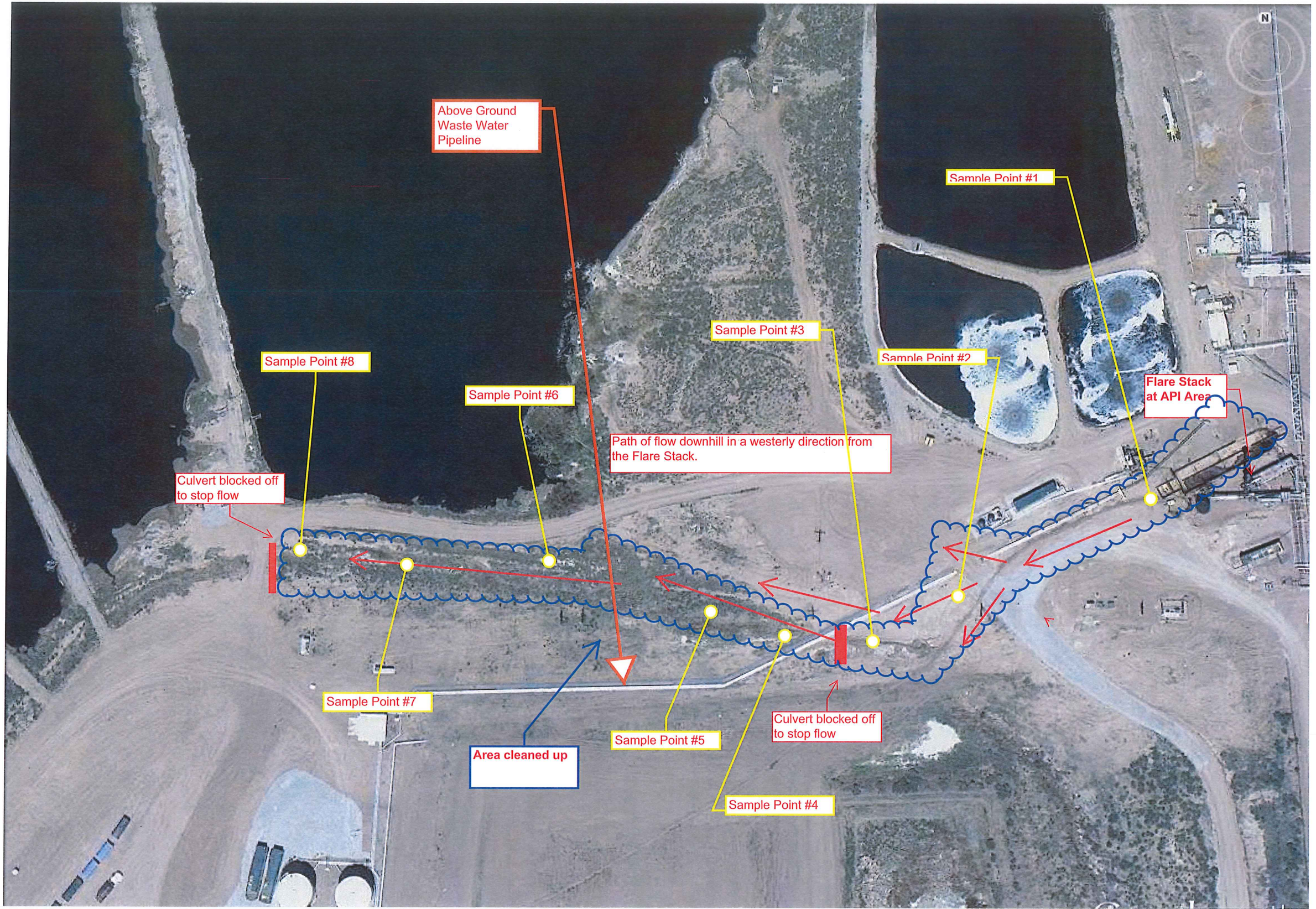
Describe Area Affected and Cleanup Action Taken.*

Area impacted around base of flare and diesel travelled with firewater to west for approximately 150 yards (refer to map). Absorbent was applied to hydrocarbon, ditch was plugged off and a vacuum truck removed visible hydrocarbon. Initial confirmations will be collected prior to any cleanup efforts and sent to an Outside Laboratory for analysis. Chemical Transportation Inc (CTI) will initiate cleanup operations. CTI will begin scraping the top soil layers from one to six inches based on visual considerations using a soil excavator. Soil will be brought to a centralized stockpiled location and placed on plastic sheeting. Soil which can not be safely removed with an excavator, will either be removed via hand equipment or a hydro -excavating equipment. Waste Characterization analysis. It is initially estimated that the material to be removed will be approximately 400 to 500 cubic yards. After all excavation work has been completed, confirmation samples will be collected for the area of excavation and the soil piles for disposal using an Outside Laboratory.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Beck Larsen	Approved by Environmental Specialist:
Title: Environmental Engineer	Approval Date: / Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval: / Attached ☐
Date: 12-23-2013 Phone: (505) 722-0258	

* Attach Additional Sheets If Necessary


N
Above Ground Waste Water Pipeline
Sample Point #1
Sample Point #3
Sample Point #2
Sample Point #8
Sample Point #6
Flare Stack at API Area
Path of flow downhill in a westerly direction from the Flare Stack.
Culvert blocked off to stop flow
Sample Point #7
Area cleaned up
Sample Point #5
Culvert blocked off to stop flow
Sample Point #4

1. **Close up of spill on ground underneath pipeway near support beam. December 10, 2013.**

2. Close up of clean up under pipeway looking north. January 13, 2014.

3. Close of adsorbent used on spill.

4. Looking West from roadway – Cleanup in progress. January 14, 2014