

	PROJECT:		Northwest GeoScience P.C. Applied Earth Scientists P.O. BOX 6418 High Point, NC 27262	
	TITLE:			
LOCATION: Yadkinville, N.C.		APPROVED BY: ABN		
PROJECT #: 09-111		DRAWN BY: RLJ		
SCALE: 1" = 50'	DATE: 7/10	FIGURE: 1		

US HIGHWAY 601

< N 8d - 7' 45" W 679.48'

P2

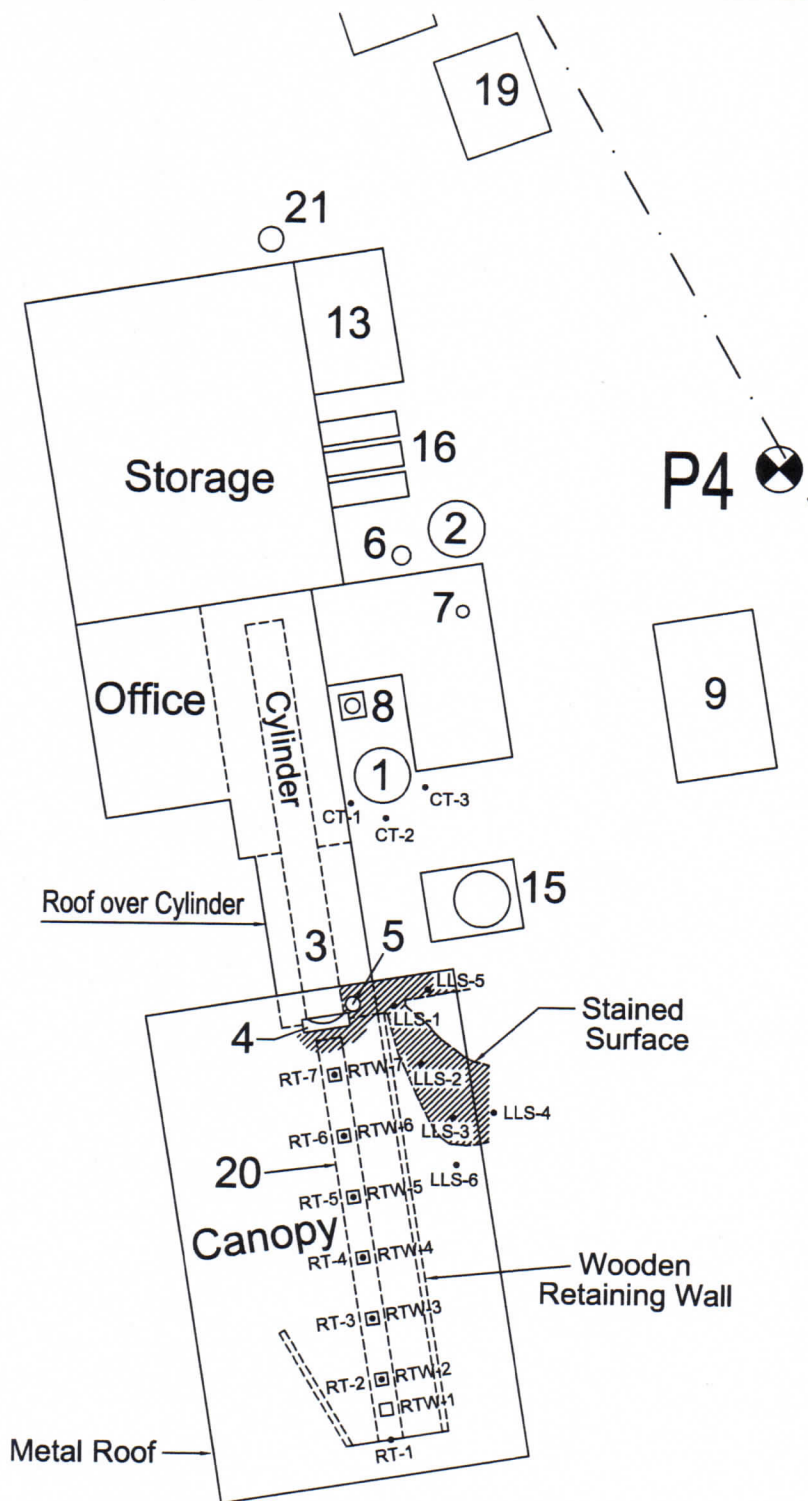


P4



FACILITY LEGEND

- 1 Creosote Work Tank, Vertical
 - 2 Creosote Storage Tank, Vertical
 - 3 Treatment Cylinder
 - 4 Drip Pan
 - 5 Drip Pan Sump
 - 6 Treatment Cylinder Sump
 - 7 Distillation Evaporator
 - 8 Condenser, Mounted on Scaffolding
 - 9 Concrete Holding Tank (Water)
 - 10 Steel Settling Tank (REMOVED)
 - 11 Lagoon/Surface Impoundment (CLOSED)
 - 13 Drum Storage Area
 - 16 Overflow Creosote Tanks, Horizontal (EMPTY)
 - 17 Wood Debarker (Old)
 - 18 Wood Debarker (New)
 - 19 Wood Chip Collector
 - 20 Railway
 - 21 Cotton Rope Draw Well (UNUSED)
- Holcomb Creosote Facility Boundary
- Type II Monitoring Well
- Piezometer



PROJECT:

HOLCOMB CREOSOTE

TITLE:

Site Map
of
Sampling Locations



Northwest GeoScience P.C.

Applied Earth Scientists

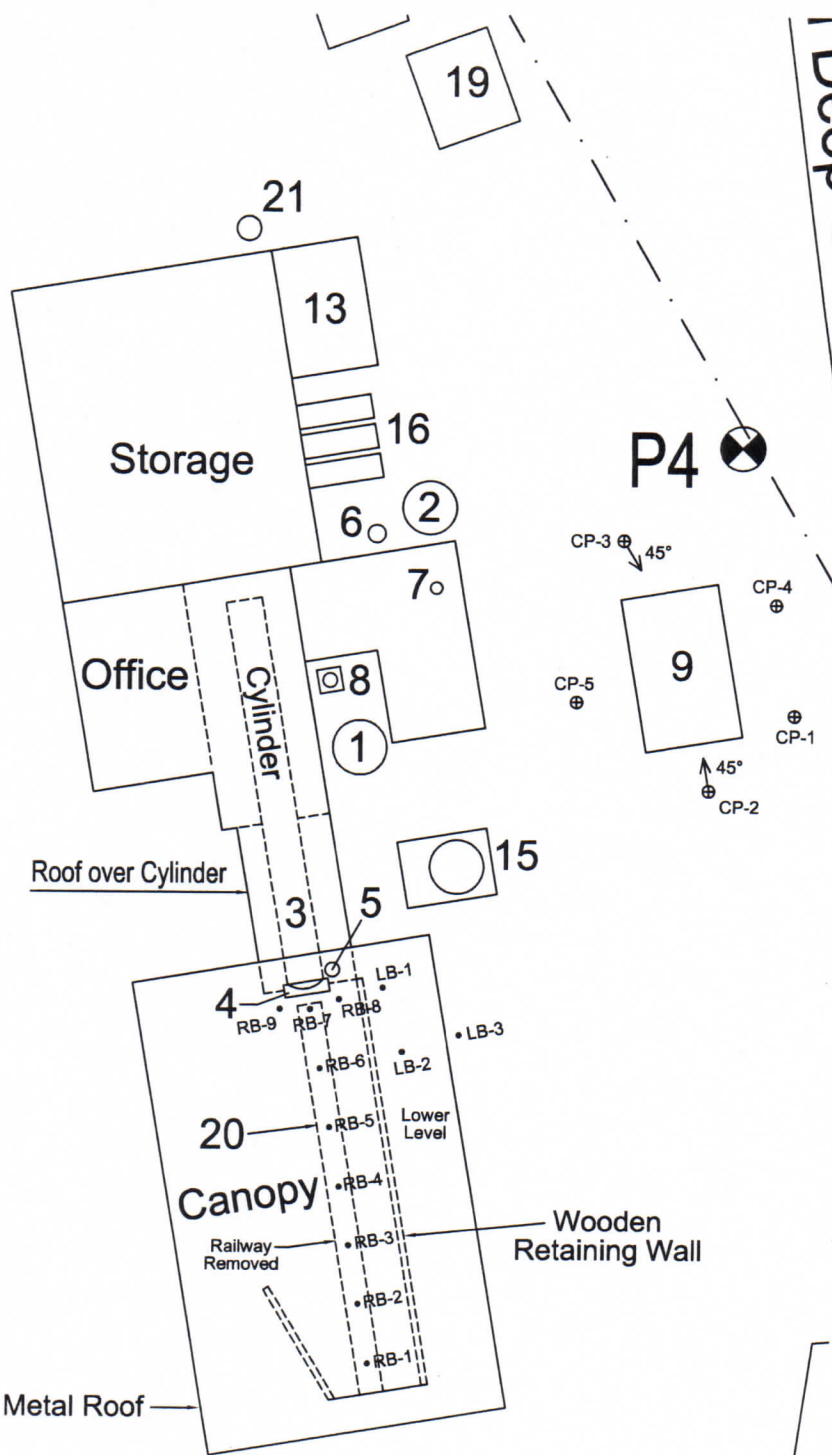
P.O. BOX 6418
High Point, NC 27262

LOCATION:	Yadkinville, N.C.	APPROVED BY:	ABN
PROJECT #:	09-111	DRAWN BY:	RLJ
SCALE: 1" = 30'	DATE: 7/10	FIGURE:	2

HIGHWAY 601

< N 8d - 7' 45" W 679.48'

P2



FACILITY LEGEND

- 1 Creosote Work Tank, Vertical
 - 2 Creosote Storage Tank, Vertical
 - 3 Treatment Cylinder
 - 4 Drip Pan
 - 5 Drip Pan Sump
 - 6 Treatment Cylinder Sump
 - 7 Distillation Evaporator
 - 8 Condenser, Mounted on Scaffolding
 - 9 Concrete Holding Tank (Water)
 - 10 Steel Settling Tank (REMOVED)
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 - 13 Drum Storage Area
 - 16 Overflow Creosote Tanks, Horizontal (EMPTY)
 - 17 Wood Debarker (Old)
 - 18 Wood Debarker (New)
 - 19 Wood Chip Collector
 - 20 Railway
 - 21 Cotton Rope Draw Well (UNUSED)
- Holcomb Creosote Facility Boundary
- ⊕ Type II Monitoring Well
- ⊗ Piezometer

PROJECT:

HOLCOMB CREOSOTE

TITLE:

Site Map
of
Boring Locations



Northwest GeoScience P.C.

Applied Earth Scientists

P.O. BOX 6418

High Point, NC 27262

LOCATION: Yadkinville, N.C. APPROVED BY: ABN

PROJECT #: 09-111 DRAWN BY: RLJ

SCALE: 1" = 30' DATE: 7/10 FIGURE: 3

TABLE 1
HOLCOMB CREOSOTE
Closure Sample Collection - Round 1
Cylinder Door Soil Sampling

EPA Method 8270 BNA
Samples collected July 9, 2010

Sample Point	Method Quantitation Limit (ppm)	Dilution Adjusted Quantitation Limit [^] (ppm)	CL1	CL2	CL3	CL4	NCDENR Soil Cleanup Level (ppm)
EPA 8270 (ppm)							
Acenaphthylene	0.33	16.5	BQL	BQL	5.18J	6.61J	10
Anthracene	0.33	16.5	66.9	62.1	109	78.7	2.4
Benzo(a)anthracene	0.33	16.5	28.1	37	43.7	212	0.2
Benzo(b)fluoranthene	0.33	16.5	30.3	26.9	27.9	208	0.7
Benzo(k)fluoranthene	0.33	16.5	10.0J	9.85J	12.6J	40.6	7.5
Benzo(a)pyrene	0.33	16.5	9.70J	15.8J	18.8	81	0.075
Chrysene	0.33	16.5	34.2	44.9	54.3	231	23
Dibenzo(a,h)anthracene	0.33	16.5	4.06J	2.01J	2.24J	3.16J	0.25
Fluoranthene	0.33	16.5	133	257	239	1160	3.4
Indeno(1,2,3-cd) pyrene	0.33	16.5	4.06J	6.38J	7.19J	38.7	2.6
Phenanthrene	0.33	16.5	188	428	526	1940	5.4
Pyrene	0.33	16.5	95.8	138	163	861	8.2
Naphthalene	0.33	16.5	BQL	300	520	BQL	0.86
Dilution Factor [^]			50				

ppm = parts per million (mg/kg)

BNA = Base Neutral Acid Extractables

BQL = BQL (Below Quantitation Limits)

J = Estimated value. Present but below Quantitation Limit.

[^] = Quantitation Limit adjusted for Dilution Factor = Quantitation Limit x Dilution Factor

Concentrations in **bold** exceed NCDENR Soil Cleanup Levels

CL = Cylinder Door

Soil sample collected from soil adjacent to treatment cylinder door.

TABLE 2

**HOLCOMB CREOSOTE
Closure Sample Collection - Round 1
Drain Pit Wipe Testing**

EPA Method 8270 BNA

Samples collected July 9, 2010

Sample Point	Method Quantitation Limit (ppm)	5		10					Dilution Factor ^
		DPWP4	Dilution Adjusted Quantitation Limit^ (ppm)	DPWP1	DPWP2	DPWP3	DPWP5		
EPA 8270 (ppm)									
Acenaphthylene*	0.33	1.65	BQL	3.3	BQL	BQL	BQL	BQL	*
Anthracene*	0.33	1.65	0.009J	3.3	0.028J	0.083J	0.053J	0.016J	*
Benzo(a)anthracene*	0.33	1.65	0.017J	3.3	0.023J	0.060J	0.036J	0.017J	*
Benzo(b)fluoranthene*	0.33	1.65	0.025J	3.3	0.053J	0.137	0.064J	0.037J	*
Benzo(k)fluoranthene*	0.33	1.65	0.010J	3.3	0.020J	0.036J	0.021J	0.012J	*
Benzo(a)pyrene*	0.33	1.65	BQL	3.3	BQL	0.015J	BQL	BQL	*
Chrysene*	0.33	1.65	0.052	3.3	0.058J	0.171	0.083J	0.044J	*
Dibenzo(a,h)anthracene	0.33	1.65	BQL	3.3	BQL	BQL	BQL	BQL	*
Fluoranthene*	0.33	1.65	0.135	3.3	0.206	0.427	0.264	0.149	*
Indeno(1,2,3-cd) pyrene*	0.33	1.65	BQL	3.3	BQL	0.017J	BQL	BQL	*
Phenanthrene*	0.33	1.65	0.023J	3.3	0.068J	0.237	0.133	0.034J	*
Pyrene*	0.33	1.65	0.08	3.3	0.123	0.278	0.168	0.090J	*
Naphthalene*	0.33	1.65	BQL	3.3	BQL	0.285	BQL	BQL	*
Total PAHs *	n/a	n/a	#NAME?	n/a	0.329	1.535	0.565	0.149	0.031

ppm = parts per million (mg/kg)

BNA = Base Neutral Acid Extractables

BQL = BQL (Below Quantitation Limits)

J = Estimated value. Present but below Quantitation Limit.

[^] = Quantitation Limit adjusted for Dilution Factor = Quantitation Limit x Dilution Factor

PAH = Poly-Aromatic Hydrocarbon

* = Constituent cleanup level not established. Total PAH cleanup level applies.

Concentrations in **bold** exceed NCDENR Cleanup Levels

DPWP = Drain Pit Wipe

Wipe samples collected from liner at same locations as DP1 through DP5 near drain pit.

TABLE 3
HOLCOMB CREOSOTE
Closure Sample Collection - Round 1
Liner Wipe Testing East Side Rail Track

EPA Method 8270 BNA
Samples collected July 9, 2010

Sample Point	Method Quantitation Limit (ppm)	WP8	WP9	WP10	BLANK	Dilution Adjusted Quantitation Limit [^] (ppm)	WP7	NCDENR Wipe Sample Cleanup Level (ppm)
EPA 8270 (ppm)								
Anthracene*	0.33	0.004J	0.008J	BQL	BQL	3.3	0.018J	*
Benzo(a)anthracene*	0.33	0.003J	0.004J	BQL	BQL	3.3	0.030J	*
Benzo(b)fluoranthene*	0.33	0.004J	0.005J	0.002J	BQL	3.3	0.058J	*
Benzo(k)fluoranthene*	0.33	0.001J	0.001J	BQL	BQL	3.3	0.017J	*
Benzo(a)pyrene*	0.33	BQL	BQL	0.001J	BQL	3.3	BQL	*
Chrysene*	0.33	0.007J	0.007J	0.002J	BQL	3.3	0.078J	*
Dibenzo(a,h)anthracene*	0.33	BQL	BQL	BQL	BQL	3.3	BQL	*
Fluoranthene*	0.33	0.026	0.024	.003J	BQL	3.3	0.212	*
Indeno(1,2,3-cd) pyrene*	0.33	BQL	BQL	BQL	BQL	3.3	BQL	*
Phenanthrene*	0.33	0.02	0.026	0.001J	BQL	3.3	0.055J	*
Pyrene*	0.33	0.015	0.015	0.003J	BQL	3.3	0.123	*
Naphthalene*	0.33	.003J	.003J	0.003J	.002J	3.3	BQL	*
Total PAHs *	n/a	0.061	0.065	n/a	n/a	n/a	0.335	0.031
Dilution Factor [^]						10		

ppm = parts per million (mg/kg)

BNA = Base Neutral Acid Extractables

BQL = BQL (Below Quantitation Limits)

J = Estimated value. Present but below Quantitation Limit.

[^] = Quantitation Limit adjusted for Dilution Factor = Quantitation Limit x Dilution Factor

PAH* = Poly-Aromatic Hydrocarbon

* = Constituent clean up level not established. Total PAH cleanup level applies.

Concentrations in **bold** exceed NCDENR Cleanup Levels

WP = Wipe

Wipe Sample of liner collected along east side of rail track

TABLE 4

HOLCOMB CREOSOTE
Closure Sample Collection - Round 1
Quarry Dust Soil Sampling

EPA Method 8270 BNA
Samples collected July 9, 2010

Sample Point	Method Quantitation Limit (ppm)	Dilution Adjusted Quantitation Limit ^a (ppm)	QD11	QD18	QD5	QD6	QD7	QD8	QD9	QD10	QD16	QD17	QD21	QD22	QD20	QD19	NCDENR Soil Cleanup Level (ppm)
Acenaphthylene	0.33	3.3	BOL	BOL	2.13J	1.26J	BOL	BOL	BOL	1.55J	BOL	BOL	BOL	BOL	BOL	BOL	10
Anthracene	0.33	3.3	0.771J	1.25J	222	67.2	3.82J	11.5	13.7	1.70J	129	23.1	13.1	4.84J	21.4J	20.5J	2.4
Benzo(a)anthracene	0.33	3.3	4	4.1	107	57	5.73J	10.8	15.4	4.66J	85	32.5	30.6	32	19.5J	29.1J	0.2
Benzo(b)fluoranthene	0.33	3.3	12.5	9.19	118	76.9	21	26.8	41.2	13	111	48.9	38.4	59.8	27.2J	36.6J	0.7
Benzo(k)fluoranthene	0.33	3.3	6.78	2.50J	35	30.1	4.06J	6.76	7.86	3.62J	23	15.3	11.1	17	11.6J	18.1J	7.5
Benzo(a)pyrene	0.33	3.3	2.25J	0.806J	18.9	13.1	1.57J	2.65J	5.06J	2.49J	23.2	6.48J	6.43J	16.9	BOL	BOL	0.075
Chrysene	0.33	3.3	8.21	10	227	128	18.5	26	38.8	14.7	14.4	61.5	60.5	49.3	43.1	79.1	23
Dibenzo(a,h)anthracene	0.33	3.3	0.584J	BOL	4.66J	4.06J	BOL	0.716J	1.75J	BOL	5.21J	1.72J	1.46J	17	BOL	BOL	0.25
Fluoranthene	0.33	3.3	8.87	31.5	640	319	35.7	47	112	34	463	192	158	70.6	171	255	3.4
Indeno(1,2,3-cd)pyrene	0.33	3.3	2.23J	1.18J	18.6	16.6	2.42J	3.10J	5.30J	2.70J	19.1	7.06	6.38J	9.4	4.18J	BOL	2.6
Phenanthrene	0.33	3.3	3.08J	11.8	435	166	7.2	10.5	45.7	13.4	324	127	53.8	18.3	106	128	5.4
Pyrene	0.33	3.3	11.9	15.6	433	208	26.6	32.8	53.4	19	37.1	137	98.6	70.9	91.2	138	8.2
Naphthalene	0.33	3.3	BOL	BOL	3.66J	2.05J	BOL	BOL	0.885J	BOL	3.28J	1.28J	1.91J	BOL	BOL	BOL	0.86

QD = Quarry Dust

Samples collected from quarry dust along rail track leading to treat

QD 5 to QD 11 along west side of track; QD 16 to QD 22 along east side of track.

J = Estimated value. Present but below Quantitation Limit.

^a = Quantitation Limit adjusted for Dilution Factor = Quantitation Limit x Dilution Factor
Concentrations in **bold** exceed NCDENR Soil Cleanup Levels

ppm = parts per million (mg/kg)

BNA = Base Neutral Acid Extractables

BOL = BQL (Below Quantitation Limits)

TABLE 5

HOLCOMB CREOSOTE

Closure Sample Collection - Round 1

Drain Pit Soil Sampling

EPA Method 8270 BNA
Samples collected July 9, 2010

Sample Point	Method Quantitation Limit (ppm)	Dilution Adjusted Quantitation Limit [^] (ppm)	DP1	DP2	Dilution Adjusted Quantitation Limit [^] (ppm)	DP3	DP4	DP5	NCDENR Soil Cleanup Level (ppm)
EPA 8270 (ppm)									
Acenaphthylene	0.33	6.6	1.84J	1.92J	16.5	2.59J	BQL	BQL	10
Anthracene	0.33	6.6	209	201	16.5	415	88.6	107	2.4
Benzo(a)anthracene	0.33	6.6	57.4	71.4	16.5	103	38.8	47	0.2
Benzo(b)fluoranthene	0.33	6.6	103	83.8	16.5	116	79.1	73.8	0.7
Benzo(k)fluoranthene	0.33	6.6	28.7	35.2	16.5	29.9	25.1	23	7.5
Benzo(a)pyrene	0.33	6.6	10.7	21.5	16.5	28.8	7.48J	8.84J	0.075
Chrysene	0.33	6.6	163	123	16.5	173	128	110	23
Dibenzo(a,h)anthracene	0.33	6.6	5.17J	5.54J	16.5	6.67J	3.59J	13.6J	0.25
Fluoranthene	0.33	6.6	548	448	16.5	816	435	448	3.4
Indeno(1,2,3-cd) pyrene	0.33	6.6	20.7	23.3	16.5	22.9	14.7J	13.6J	2.6
Phenanthrene	0.33	6.6	190	200	16.5	700	102	132	5.4
Pyrene	0.33	6.6	321	265	16.5	525	254	273	8.2
Naphthalene	0.33	6.6	5.46J	12.4	16.5	13.6J	4.66J	3.47J	0.86
Dilution Factor [^]			20			50			

ppm = parts per million (mg/kg)

BNA = Base Neutral Acid Extractables

BQL = BQL (Below Quantitation Limits)

J = Estimated value. Present but below Quantitation Limit.

[^] = Quantitation Limit adjusted for Dilution Factor = Quantitation Limit x Dilution Factor

Concentrations in **bold** exceed NCDENR Soil Cleanup Levels

DP = Drain Pit

Soil samples collected from area around drain pit at treatment cylinder.

TABLE 6

**HOLCOMB CREOSOTE
Closure Sample Collection - Round 1
Rail Track Quarry Dust Sampling**

EPA Method 8270 BNA

Samples collected July 20, 2010

Sample Point	Method Quantitation Limit (ppm)	Dilution Adjusted Quantitation Limit ^u (ppm)	RT1	RT2	RT3	Dilution Adjusted Quantitation Limit ^u (ppm)	RT4	RT5	RT6	Dilution Adjusted Quantitation Limit ^u (ppm)	RT7	NCDENR Soil Cleanup Level (ppm)
EPA 8270 (ppm)												
Anthracene	0.33	49.5	48.0J	396	248	495	1940	1580	2050	198	597	2.4
Benzo(a)anthracene	0.33	49.5	99.9	312	222	495	399J	504	402J	198	291	0.2
Benzo(b)fluoranthene	0.33	49.5	121	236	168	495	296J	531	279J	198	303	0.7
Benzo(k)fluoranthene	0.33	49.5	35.4J	106	60.6	495	125J	140J	170J	198	88.2J	7.5
Benzo(a)pyrene	0.33	49.5	31.2J	57.9	40.2J	495	93.6J	144J	93.3J	198	75.9J	0.075
Chrysene	0.33	49.5	149	489	339	495	711	837	705	198	420	23
Fluoranthene	0.33	49.5	402	1750	1180	495	2100	2500	2110	198	1330	3.4
Indeno(1,2,3-cd) pyrene	0.33	49.5	18.1J	45.0J	30.3J	495	BQL	70.2J	BQL	198	33.6J	2.6
Phenanthrene	0.33	49.5	147	1610	1080	495	3210	3150	2480	198	1610	5.4
Pyrene	0.33	49.5	342	1080	714	495	1740	2100	1660	198	1120	8.2
Naphthalene	0.33	49.5	BQL	20.5J	10.0J	495	BQL	60.9J	62.7J	198	BQL	0.86
Dilution Factor ^v												
150												
1500												
600												

ppm = parts per million (mg/kg)

BNA = Base Neutral Acid Extractables

BQL = BQL (Below Quantitation Limits)

J = Estimated value. Present but below Quantitation Limit.

^v = Quantitation Limit adjusted for Dilution Factor = Quantitation Limit x Dilution Factor

Concentrations in **bold** exceed NCDENR Soil Cleanup Levels

RT = Rail Track

Samples collected from quarry dust along center line of rail track leading to treatment cylinder.

TABLE 7

HOLCOMB CREOSOTE

Closure Sample Collection - Round 1

Rail Track Wipe Sampling

EPA Method 8270 BNA
Samples collected July 21, 2010

Sample Point	Method Quantitation Limit (ppm)	RTW1	RTW2	RTW3	RTW4	RTW5	RTW6	RTW7	NCDENR Wipe Sample Cleanup Level (ppm)
EPA 8270 (ppm)									
Anthracene*	0.33	38.5	4.04J	BQL	6.38J	20.4	16.5	19.6	*
Benzo(a)anthracene*	0.33	21.6	2.79J	1.28J	1.71J	8.30J	25	27.6	*
Benzo(b)fluoranthene*	0.33	19.3	2.63J	1.20J	1.80J	6.38J	16.4	27	*
Benzo(k)fluoranthene*	0.33	8.02J	1.69J	BQL	BQL	3.10J	8.09J	3.00J	*
Benzo(a)pyrene*	0.33	6.73J	1.22J	BQL	BQL	2.98J	9.24J	11.1	*
Chrysene*	0.33	32.7	4.65J	2.10J	2.88J	9.81J	43	33.8	*
Fluoranthene*	0.33	100	14.9	6.98J	12.2	39.7	103	107	*
Indeno(1,2,3-cd) pyrene*	0.33	4.07J	BQL	BQL	BQL	BQL	2.82J	4.07J	*
Phenanthrene*	0.33	126	18	6.88J	20	68	121	97.1	*
Pyrene*	0.33	73.5	7.57J	3.61J	5.64J	25.2J	77.8	89.6	*
Naphthalene*	0.33	1.24J	BQL	BQL	BQL	BQL	3.68J	2.22J	*
Total PAHs *	n/a	411.6	32.9	n/a	32.2	128.1	402.7	412.8	0.031

ppm = parts per million (mg/kg)

BNA = Base Neutral Acid Extractables

BQL = BQL (Below Quantitation Limits)

J = Estimated value. Present but below Quantitation Limit.

^ = Quantitation Limit adjusted for Dilution Factor = Quantitation Limit x Dilution Factor

PAH = Poly-Aromatic Hydrocarbon

* = Constituent clean up level not established. Total PAH cleanup level applies.

Concentrations in **bold** exceed NCDENR Cleanup Levels

RTW = Rail Track Wipe

Wipe samples collected from liner leading beneath center line rail track leading to treatment cylinder.

Samples collected July 23, 2010

[illegible]

RB# SS# = Rail Boring Spill Spoon Sample

ppm = parts per million (mg/kg)
BNA = Base Neutral Acid Extractables

BOL = BOL (Below Quantitation Limits)

J = Estimated value. Present but below

3 = Estimated Value; 1 = Present but Below Graduation Limit; 0 = Quantitation Limit adjusted for Dilution Factor = Quantitation Limit

$$\lambda = \text{Quantitation Limit adjusted for Dilution Factor} = \text{Quantitation Limit} \times \text{Dilution Factor}$$

Concentrations in **bold** exceed NCDENR Soil Cleanup Levels

TABLE 9

HOLCOMB CREOSOTE
Closure Sample Collection - Round 1
Rail Boring Shelby Tube Soil Sampling

EPA Method 8270 BNA
Samples collected July 27, 2010

Sample Point	Method	Quantitation Limit (ppm)	RB1 0'	RB4 3'	RB6 3'	RB9 3'	Dilution Adjusted Quantitation Limit* (ppm)	RB2 0'	RB3 0'	RB8 0'	Dilution Adjusted Quantitation Limit* (ppm)	RB4 0'	RB7 0'	RB2 3'	RB5 3'	RB6 0'	RB7 3'	RB8 3'	Dilution Adjusted Quantitation Limit* (ppm)	RB9 0'	Cleanup Level (ppm)
Sample Depth (ft. bgs)		0	3	3	3	3		0	0	0		0	0	3	3	0	3	3		0	0
EPA 8270 (ppm)																					
Acenaphthylene		0.33	BOL	BOL	0.081J	BOL	1.65	BOL	0.830J	3.3	BOL	6.6	BOL	16.5	BOL	BOL	BOL	4.94J	66	BOL	BOL
Anthracene		0.33	0.492	0.177J	0.124J	BOL	1.65	2.76	0.958J	7.04	3.3	2.84J	0.122J	16.5	BOL	BOL	9.61J	4.94J	66	BOL	BOL
Benzo(a)anthracene		0.33	0.501	0.552	1.76	BOL	1.65	1.62J	5.14	5.42	3.3	12.6	22.2	16.5	32.8	46	55.4	74.4	66	56.7J	252
Benzo(b)fluoranthene		0.33	0.927	0.907	1.19	BOL	1.65	1.58J	6.42	9.65	3.3	11.6	23.7	16.5	17.8	18.3	39.9	13.9J	66	34.0J	204
Benzo(k)fluoranthene		0.33	0.321J	0.439	0.448	BOL	1.65	0.666J	1.98	2.63	3.3	3.75	7.94	16.5	10.1J	9.85J	16.4J	7.67J	66	BOL	90.9
Benzo(a)pyrene		0.33	0.411	0.515	0.66	BOL	1.65	0.672J	2.89	4.25	3.3	4.66	10.4	16.5	8.02J	4.64J	15.7J	22.3	66	BOL	106
Chrysene		0.33	0.633	0.764	1.7	BOL	1.65	2.14	5.3	6.33	3.3	13	23.4	16.5	44.8	45.1	82.3	97.2	66	67.9	254
Dibenz(a,h)anthracene		0.33	BOL	BOL	BOL	BOL	1.65	BOL	3.03	8.47	3.3	11.5	16.8	16.5	180	460	247	1680	66	428	1170
Fluoranthene		0.33	1.27	1.49	1.75	0.095J	1.65	7.21	3.03	8.47	3.3	11.5	16.8	16.5	180	460	247	1680	66	428	1170
Indeno(1,2,3-cd) pyrene		0.33	0.254J	0.481	0.243J	BOL	1.65	BOL	1.33J	2.09	3.3	2.22J	4.58J	16.5	BOL	BOL	6.96J	4.26J	66	BOL	49.9J
Phenanthrene		0.33	1.36	0.255J	0.221J	BOL	1.65	8.43	1.96	1.51J	3.3	2.53J	BOL	16.5	11.4J	919	57.7	3540	66	656	483
Pyrene		0.33	1.13	13.6	2.16	0.184J	1.65	5.14	5.03	6.33	3.3	14.4	43.5	16.5	103	280	250	1060	66	288	980
Naphthalene		0.33	BOL	BOL	BOL	BOL	1.65	BOL	BOL	BOL	3.3	BOL	BOL	16.5	BOL	BOL	BOL	583	66	28.0J	BOL

RB# = Rail Boring (Shelby tube samples) Depth
Shelby tube samples collected from borings in centerline of rail track leading to treatment cylinder.

ppm = parts per million (mg/kg)
BNA = Base Neutral Acid Extractables
BOL = BQL (Below Quantitation Limits)
J = Estimated value. Present but below Quantitation Limit.
^ = Quantitation Limit adjusted for Dilution Factor = Quantitation Limit x
Concentrations in **bold** exceed NCDENH Soil Cleanup Levels

TABLE 10

HOLCOMB CREOSOTE

Closure Sample Collection - Round 1

Creosote Tank Soil Sampling

EPA Method 8270 BNA
Samples collected July 23, 2010

Sample Point	Method Quantitation Limit (ppm)	CT1	Dilution Adjusted Quantitation Limit [^] (ppm)	CT2	CT3	NCDENR Soil Cleanup Level (ppm)
EPA 8270 (ppm)						
Anthracene	0.33	BQL	1.65	1.32J	0.526J	2.4
Benzo(a)anthracene	0.33	0.096J	1.65	5.11	1.9	0.2
Benzo(b)fluoranthene	0.33	0.200J	1.65	9.81	6.36	0.7
Benzo(k)fluoranthene	0.33	0.109J	1.65	2.77	1.71	7.5
Benzo(a)pyrene	0.33	0.103J	1.65	3.64	3.13	0.075
Chrysene	0.33	0.190J	1.65	7.26	2.53	23
Fluoranthene	0.33	0.248J	1.65	4.26	2.38	3.4
Indeno(1,2,3-cd)pyrene	0.33	BQL	1.65	1.27J	0.990J	2.6
Phenanthrene	0.33	BQL	1.65	1.86	BQL	5.4
Pyrene	0.33	0.279J	1.65	14.6	2.59	8.2
Dilution Factor [^]			5			

ppm = parts per million (mg/kg)

BNA = Base Neutral Acid Extractables

BQL = BQL (Below Quantitation Limits)

J = Estimated value. Present but below Quantitation Limit.

[^] = Quantitation Limit adjusted for Dilution Factor = Quantitation Limit x Dilution Factor

Concentrations in **bold** exceed NCDENR Soil Cleanup Levels

CT = Creosote Tank

Soil samples collected from hand auger installed adjacent to creosote tank.

TABLE 11

HOLCOMB CREOSOTE Closure Sample Collection - Round 1 Concrete Pit Shelby Tube Soil Sampling

EPA Method 8270 BNA
Samples collected July 22, 2010

Sample Point	Method	Quantitation Limit (ppm)	CP4 5'	Dilution Adjusted Quantitation Limit ^u (ppm)	CP4 8'	Dilution Adjusted Quantitation Limit ^u (ppm)	CP5 5'	Dilution Adjusted Quantitation Limit ^u (ppm)	CP5 8'	Clean up Level (ppm)
Sample Depth (ft. bgs)	5		8		5		8			
EPA 8270 (ppm)										
Acenaphthylene	BQL	0.33	BQL	1.65	3.05J	0.66	BQL	0.66	10	
Anthracene	BQL	0.33	BQL	1.65	0.910J	0.66	BQL	0.66	0.778	2.4
Benzo(a)anthracene	BQL	0.33	BQL	1.65	2.17	0.66	16.4	0.66	0.988	0.2
Benzo(b)fluoranthene	BQL	0.33	BQL	1.65	4.07	0.66	28.3	0.66	1.5	0.7
Benzo(k)fluoranthene	BQL	0.33	BQL	1.65	1.42J	0.66	9.81	0.66	0.437J	7.5
Benzo(a)pyrene	BQL	0.33	BQL	1.65	2.21	0.66	11.6	0.66	0.534J	0.075
Chrysene	BQL	0.33	BQL	1.65	4.06	0.66	22.5	0.66	1.33	23
Fluoranthene	BQL	0.33	BQL	1.65	2.37	0.66	59.7	0.66	1.98	3.4
Indeno(1,2,3-cd) pyrene	BQL	0.33	BQL	1.65	1.20J	0.66	7.31	0.66	0.222J	2.6
Phenanthrene	BQL	0.33	BQL	1.65	BQL	0.66	129	0.66	0.514J	5.4
Pyrene	BQL	0.33	BQL	1.65	4.22	0.66	48.6	0.66	3.28	8.2
Naphthalene	BQL	0.33	BQL	1.65	BQL	0.66	22.8	0.66	BQL	0.86

Dilution Factor ^u

ppm = parts per million (mg/kg)

BNA = Base Neutral Acid Extractables

BQL = BQL (Below Quantitation Limits)

J = Estimated value. Present but below Quantitation Limit.

^u = Quantitation Limit adjusted for Dilution Factor = Quantitation Limit x Dilution Factor
Concentrations in **bold** exceed NCDENR Soil Cleanup Levels

CP# # = Concrete Pit (#) Depth (in feet)

Shelby tube samples collected from borings adjacent to rail track leading to concrete pit.

Samples collected July 20, 21, and 22, 2010

(sample depths have been adjusted to rounded real bgs)

BOL = BOL (Below Quantitation Limits)

J = Estimated value. Present but below Quantitation Limit.

$$^v = \text{Quantitation Limit adjusted for Dilution Factor} = \text{Quantitation Limit} \times \text{Dilution Factor}$$

Split spoon soil samples collected from borings adjacent to concrete pit.

TABLE 13
HOLCOMB CREOSOTE
Closure Sample Collection - Round 1
Lower Boring Split Spoon Soil Sampling

EPA Method 8270 BNA
Samples collected July 23, 2010

Sample Point	Method Quantitation Limit (ppm)	LB3 SS1	LB3 SS2	LB2 SS1	LB2 SS2	LB1 SS2	Dilution Adjusted Quantitation Limit^ (ppm)	LB1 SS1	NCDENR Soil Clean up Level (ppm)
EPA 8270 (ppm)									
Sample Depth (ft. bgs)		0-2	2-4	0-2	2-4	2-4		0-2	
Anthracene	0.33	0.079J	BQL	BQL	BQL	0.191J	16.5	148	2.4
Benzo(a)anthracene	0.33	0.224J	BQL	0.120J	BQL	0.253J	16.5	242	0.2
Benzo(b)fluoranthene	0.33	0.31	BQL	.0105J	BQL	0.173J	16.5	122	0.7
Benzo(k)fluoranthene	0.33	BQL	BQL	BQL	BQL	0.102J	16.5	38.6	7.5
Benzo(a)pyrene	0.33	0.123J	BQL	0.058J	BQL	0.100J	16.5	69	0.075
Chrysene	0.33	0.449	BQL	0.141J	BQL	0.267J	16.5	190	23
Dibenzo(a,h)anthracene	0.33	BQL	BQL	BQL	BQL	BQL	16.5	BQL	0.25
Fluoranthene	0.33	1.24	BQL	0.253J	BQL	1.27	16.5	1080	3.4
Indeno(1,2,3-cd)pyrene	0.33	BQL	BQL	BQL	BQL	BQL	16.5	21.6	2.6
Phenanthrene	0.33	1.34	BQL	BQL	BQL	0.873	16.5	1730	5.4
Pyrene	0.33	0.861	BQL	0.381	BQL	1.09	16.5	678	8.2
Naphthalene	0.33	BQL	BQL	BQL	BQL	0.064J	16.5	207	0.86
Dilution Factor ^							50		

ppm = parts per million (mg/kg)

BNA = Base Neutral Acid Extractables

BQL = BQL (Below Quantitation Limits)

J = Estimated value. Present but below Quantitation Limit.

^ = Quantitation Limit adjusted for Dilution Factor = Quantitation Limit x Dilution Factor

Concentrations in **bold** exceed NCDENR Soil Cleanup Levels

LB# SS# = Lower Boring Split Spoon Sample

Split spoon soil samples collected from lower borings east of rail track leading to treatment cylinder.

TABLE 14
HOLCOMB CREOSOTE
Closure Sample Collection - Round 1
Lower Level Soil Sampling
 EPA Method 8270 BNA
 Samples collected July 22, 2010

Sample Point	Method Quantitation Limit (ppm)	EPA 8270 (ppm)													
LL S1	Dilution Adjusted Quantitation Limit ^u (ppm)	82.5	BQL	99	BQL	BQL	BQL	246	320	7.75	16.5	2.23J	10	Anthracene	0.33
LL S2	Dilution Adjusted Quantitation Limit ^u (ppm)	82.5	834	99	182	500	266	1.65	2.55	16.5	21.4	0.2	Benzo(a)anthracene	0.33	82.5
LL S3	Dilution Adjusted Quantitation Limit ^u (ppm)	82.5	633	99	293	285	212	1.65	9.08	16.5	45.4	0.7	Benzo(b)fluoranthene	0.33	82.5
LL S4	Dilution Adjusted Quantitation Limit ^u (ppm)	82.5	237J	99	74.9J	135	67.0J	1.65	3.17	16.5	12.7J	7.5	Benzo(k)fluoranthene	0.33	82.5
LL S5	Dilution Adjusted Quantitation Limit ^u (ppm)	82.5	309	99	157	162	99.7	1.65	6.62	16.5	23.6	0.075	Benzo(a)pyrene	0.33	82.5
LL S6	Dilution Adjusted Quantitation Limit ^u (ppm)	82.5	1080	99	215	458	388	1.65	7.65	16.5	27.2	23	Chrysene	0.33	82.5
LL S7	Dilution Adjusted Quantitation Limit ^u (ppm)	82.5	BQL	99	BQL	BQL	BQL	1.65	0.303J	16.5	BQL	0.25	Dibenzo(a,h)anthracene	0.33	82.5
LL S8	Dilution Adjusted Quantitation Limit ^u (ppm)	82.5	2840	99	180	2240	1260	1.65	1.67	16.5	35.1	3.4	Fluoranthene	0.33	82.5
LL S9	Dilution Adjusted Quantitation Limit ^u (ppm)	82.5	83.7J	99	50.4J	47.8J	27.1J	1.65	4.86	16.5	13.2J	2.6	Indeno(1,2,3-cd)pyrene	0.33	82.5
LL S10	Dilution Adjusted Quantitation Limit ^u (ppm)	82.5	1,110	99	18.0J	408	513	1.65	0.748J	16.5	1.84J	5.4	Phenanthrene	0.33	82.5
LL S11	Dilution Adjusted Quantitation Limit ^u (ppm)	82.5	1800	99	182	1900	1190	1.65	3.22	16.5	47.2	8.2	Pyrene	0.33	82.5
LL S12	Dilution Adjusted Quantitation Limit ^u (ppm)	82.5	61.5J	99	BQL	BQL	BQL	1.65	BQL	16.5	BQL	0.86	Naphthalene	0.33	82.5

ppm = parts per million (mg/kg)
 BNA = Base Neutral Acid Extractables
 BQL = BQL (Below Quantitation Limits)
 J = Estimated value. Present but below Quantitation Limit.
^u = Quantitation Limit adjusted for Dilution Factor = Quantitation Limit x Dilution Factor
 LL S = Lower Level Soil
 Soil samples collected at ground surface from lower level.
 Sample locations shown on Figure ____.

TABLE 15

HOLCOMB CREOSOTE

Closure Sample Collection - Round 1

Lower Level Wipe Sampling

EPA Method 8270 BNA
Samples collected July 21, 2010

Sample Point	Method Quantitation Limit (ppm)	LL W2	Dilution Adjusted Quantitation Limit^ (ppm)	LL W1	NCDENR Wipe Sample Cleanup Level (ppm)
EPA 8270 (ppm)					
Acenaphthylene*	0.33	BQL	3.3	BQL	*
Anthracene*	0.33	1.93J	3.3	46.6J	*
Benzo(a)anthracene*	0.33	3.24J	3.3	53.5J	*
Benzo(b)fluoranthene*	0.33	2.64J	3.3	43.2J	*
Benzo(k)fluoranthene*	0.33	1.22J	3.3	17.9J	*
Benzo(a)pyrene*	0.33	1.33J	3.3	21.0J	*
Chrysene*	0.33	5.37J	3.3	97.1J	*
Dibenzo(a,h)anthracene*	0.33	BQL	3.3	BQL	*
Fluoranthene*	0.33	12	3.3	248	*
Indeno(1,2,3-cd) pyrene*	0.33	BQL	3.3	11.0J	*
Phenanthrene*	0.33	9.66J	3.3	240	*
Pyrene*	0.33	6.97J	3.3	174	*
Naphthalene*	0.33	1.83J	3.3	24.2J	*
Total PAHs *	n/a	12	n/a	662	0.031
Dilution Factor ^			10		

ppm = parts per million (mg/kg)

BNA = Base Neutral Acid Extractables

BQL = BQL (Below Quantitation Limits)

J = Estimated value. Present but below Quantitation Limit.

^ = Quantitation Limit adjusted for Dilution Factor = Quantitation Limit x Dilution Factor

PAH = Poly-Aromatic Hydrocarbon

* = Constituent clean up level not established. Total PAH cleanup level applies.

Concentrations in **bold** exceed NCDENR Cleanup Levels

LLW = Lower Level Wipe Sample

Wipe samples collected from lower level at locations of LLS1 and LLS2.

<p style="text-align: center;">HOLCOMB CREOSOTE BASIS OF REMEDIAL COST ESTIMATES</p>
--

Concrete Pit

inside dimensions 24 ft x 14.5 ft x 6 ft (deep); depth of fluid = 4 ft
appears filled with high, viscous creosote sludge to top of fluid at S end;
at N end high, viscous sludge was encountered at depth of 3 ft.
remainder of fluid appears low viscosity and 'watery'.

Total volume of fluids inside pit: 1390 cu ft
estimated volume of sludge: 825 cu ft = 6,200 gal
estimated volume of 'water': 565 cu ft = 4,200 gal

Contaminated soils along former rail track

soils at southern end found to be contaminated to depth of 3 ft
near cylinder door to maximum 9 ft on east side, and 7 ft on west side.
length of rail track 70 ft
estimated width of excavation at S end 6 feet
estimated width of excavation at N end 20 ft
Sta 0+00 - 0+45: average depth: 5 ft; ave width: 7 ft.
Sta 0+45 - 0+70: average depth: 7 ft; ave width: 14 ft.
Therefore, estimated volume of soils to be excavated: 4000 cu ft
equals about 29,900 gallons = 544 x 55-gal drums

Virgin Creosote Tank:

estimated quantity: 4,000 gallon
boiler must be activated to heat the tank to reduce
the viscosity of the creosote to enable it to be pumped
into a tanker

Recovered sludge from Drain pit during clean-up of rail track area

stored in 12 x 55-gal drums

Quarry Dust from around rail track

already stored in 5 drums

Contaminated Soil below Concrete pit

inclined boring identified cont. soil to depth of 10 feet
estimated area 540 sq ft
depth 5 ft below pit
estimated volume 2700 cu ft

<p>HOLCOMB CREOSOTE UNIT COSTS FOR DISPOSAL SERVICES SHAMROCK INTERNATIONAL</p>
--

Each waste type profiling costs: \$530

Concrete Pit

Sludge / fluids \$330 / 55-gal drum hauling per VAC truck

Contaminated Soil Rail Track

soil to be 'drummed' \$330 / 55-gal drum

quarry dust already collected in 5 drums

Sludge from Drip Pan

\$330 / 55-gal drum

Virgin Creosote tank

hauling costs 4000 gallon
\$2800 / load

hoses / pumps used at both ends

\$250 / load (x4)

Flushing costs of tanker:

\$1500 / tanker x 2 per load

loading time costs:

2 hours 'included' in transport costs
anything over this time \$110/hour
add \$220 for each load

ESTIMATED COSTS FOR REMOVAL OF CONTAMINATED MATERIALS / CREOSOTE

contents:	about 6200 gal sludge							
	about 4200 gal contaminated fluid							
Waste profiling	2	tests		test costs	\$530	per type	\$1,060	
haul & dispose	10,400	gallons	190	# drums	\$330	per drum	\$62,700	\$63,760

Waste profiling	1 test		test costs	\$530	per type	\$530	
Starting boiler for heating					estimated	\$2,000	
disposal costs	4,000 gallons					\$5,000	
haul costs		2 hauls	\$2,800	per haul		\$5,600	
hoses / pumps needed at each end		4 times	\$250	each time		\$1,000	
hourly rates loading, etc. (2hrs free)		4 hours	\$110	per hour		\$440	
Tanker wash-outs	2 x per haul	4 times	\$1,500	per washout		\$6,000	
							\$20,570

Waste profiling	1	test		test costs	\$530	per type	\$530	
already drummed			5	drums	\$330	per drum	\$1,650	\$2,180

Waste profiling	1	test		test costs	\$530	per type	\$530	
4,000 cu ft	29,900	gallons	544	# drums	\$330	per drum	\$179,400	\$179,930
TOTAL								\$270,930

Waste profiling	1 test		test costs	\$530	per type	\$530	
2700 cu ft	20,200	gallons	367	# drums	\$330	per drum	\$121,200
							\$196,730
TOTAL							\$467,660