ENSR
1835 South Bragaw Street, Suite 490, Anchorage, Alaska 99508-3439
T 907.561.5700 F 907.273.4555 www.ensr.aecom.com

October 23, 2007

Jim Frechione
Contaminated Sites Program
Division of Spill Prevention and Response
Department of Environmental Conservation
610 University Avenue
Fairbanks, AK 99709-3643

Subject: Aggie Repeater Closure Report

ENSR Project Number 00550-341

Dear Mr. Frechione,

ENSR Corporation (ENSR) is pleased to submit this report on behalf of Mr. Larry Bamberger, AT&T Environmental, Health, and Safety Operations Manager, in support of a No Further Action (NFA) determination for the Aggie Repeater site. The following report presents the results of Site Assessment work conducted by ENSR at the Aggie Repeater and summarizes all field activities performed at the site, including a review of sampling results, data quality, and site management recommendations.

The remediation program was conducted in accordance with the Alaska Department of Environmental Conservation (ADEC)-approved Work Plan[1] and the requirements specified in State of Alaska regulations in Title 18 of the Alaska Administrative Code (AAC), Chapter 75.335.

PROGRAM HISTORY

ENSR, on behalf of AT&T Inc. (AT&T), has been conducting site characterization and petroleum hydrocarbon contamination cleanup actions at AT&T microwave repeater facilities along the Trans-Alaska Pipeline System (TAPS). Environmental investigations began in 2002 when a Phase I Site Assessment at each of 26 repeater sites was conducted in accordance with American Society for Testing of Materials (ASTM) standards. Based on information obtained during the Phase I, a more comprehensive Phase II investigation was implemented for the repeaters. For the next 4 years, the AT&T TAPS Site Assessment/Remediation Program was conducted in accordance with discussions and decisions between AT&T, Alyeska Pipeline Services Co. (APSC), and ADEC Prevention and Emergency Response Program (PERP). Stakeholder meetings were held biannually to review site characterization findings and remedial excavation activities and agree to any required follow-up work. As a result, each year's site characterization (site assessment) and cleanup actions (remediation) were conducted based on field observations, field screening measurements, and analytical laboratory sampling results mutually agreed to by AT&T, APSC, and ADEC PERP staff. The program was also

[1] ENSR. 2003. Investigation and Remediation Memorandum Work Plan. May 1.

conducted in accordance with requirements as specified in Title 18 of the Alaska Administrative Code, Chapter 75 (18 AAC 75), also known as the Oil and Hazardous Substances Pollution Control Regulations.

Figures illustrating the site location, facility layout, sampling locations, and field and analytical results are provided in Attachment 1. Laboratory analytical results from 2003 to the 2006 are provided in tables in Attachment 2. Site photos for each field visit are Attachment 3. Attachment 4 includes photographs of AT&T current site refueling process.

INTRODUCTION

The Aggie Repeater (elevation 3,193 feet above mean sea level [AMSL]) is situated on top of Wickersham Dome at the southwest corner of the White Mountains National Recreation Area, approximately 28 miles north of Fairbanks, Alaska. The repeater site can be accessed by trail or by helicopter. The repeater site consists of four aboveground storage tanks (ASTs), a generator module, a battery (equipment) module, and a microwave repeater tower. Soils at this repeater site are silt with gravel, cobbles, and boulders. The AST area is in a slight depression on imported sandy gravels. Bedrock (schist) is exposed around the site and is estimated to be approximately 3 feet below ground surface (bgs) in the AST area.

No groundwater was encountered at this site. The nearest surface water is the headwaters of Wickersham Creek, approximately 1.5 miles to the northeast and downgradient of the site. Vegetation covers about 85 percent of the site and is comprised mainly of tundra-type ground cover with a few short willow trees. Figures illustrating the site location and layout, analytical results tables, and selected site photos are attached.

This repeater site was constructed in 1976 and is reported to be on State of Alaska land within the TAPS corridor. No previous structures, including interim communication facilities, are known to have existed at this location based on the information made available to ENSR. The ASTs are refueled annually by fuel bladders sling-loaded to the site by helicopter. The fuel bladder staging area is approximately 15 feet southeast of the AST area.

In 2003, the ASTs and associated piping were completely retrofitted with new spill protection equipment. This retrofit included overfill protection, double wall supply and return lines, and other current performance based fuel system upgrades. The retrofit was followed by implementation of new best management practices for the fueling operations, including new procedures for the annual refueling operations. Currently, a portable secondary containment device is sling-loaded to the site prior to delivery of the fuel bladder and set up in designated areas near the ASTs. The bladders are subsequently placed inside the secondary containment during the refueling process. The secondary containment prevents any spillage during initial fuel line connections, fueling process and disconnection activities. Photographs of the refueling equipment and process are provided in Attachment 4.

PREVIOUS INVESTIGATIONS

Soil cleanup levels at the Aggie Repeater are established as ADEC Method One, Category D (2,000 mg/kg diesel range organics [DRO] and 2,000 mg/kg residual range organics [RRO])[2].

Initial photoionization detector (PID) results from the AST area indicated possible contamination under each tank. Potentially contaminated soils (based on field screening results) were removed from each tank valve area, from under the centers of AST 1 and AST 3, and from between tanks. Approximately 12 cubic yards of potentially contaminated material was removed from the AST area.

Analytical samples were collected from each excavation at the highest heated headspace (HHS)/PID location remaining after soil removal. Analytical results for DRO ranged from 55.4 mg/kg to 5,890 mg/kg. Although impacted soil remains above the cleanup level, it was determined in the field that further excavation was not possible due to structural constraints, such as the large boulder under the center of AST 3 that prevented further excavation. Bedrock in this area (estimated to be 3 feet bgs) should minimize contaminant migration.

Phase I observations noted stressed vegetation and petroleum odors 20 feet southeast of the AST area in the Fuel Bladder Staging Area. Field screening results conducted during the Phase III assessment identified potentially contaminated soil at this location. This soil was excavated to between 12 and 18 inches bgs, and an analytical sample was collected. DRO was reported at an estimated concentration of 8.48 mg/kg. Approximately 0.75 cubic yard of contaminated soil was removed from this area. Field screening and analytical results indicate that all soil contamination was removed from this area.

During the 2004 field season, less than 1 cubic yard of potentially contaminated material was removed from the center of AST 3. The 2003 excavation at the center of AST 3 was extended northwest until field screening results indicated that the remaining soils were below cleanup level. A confirmation analytical sample was collected from the northwest wall of the excavation at 18 inches below grade and reported a DRO result of 32.4 mg/kg.

The highest remaining DRO concentration (5,890 mg/kg) at the Aggie Repeater site, collected in 2003, was located adjacent to the southern footer of AST 3 at 24 inches bgs; that soil cannot be removed without compromising the stability of the tank. This sample represents a small amount of contamination remaining beneath the center of AST 3. All other excavations were advanced until all soil above the cleanup level was removed.

An additional area of potential contamination was identified during the 2004 site walkover. A screening sample was collected from beneath the center of AST 2, which indicated an anomaly when compared with 2003 results. The 2004 screening result of 29.8 parts per million (ppm) was 22.4 ppm greater than the 2003 screening result of 8.4 ppm collected from the same location. The screening results did not decrease immediately with depth, therefore an analytical sample was collected. The result of the primary DRO sample was 4,020 mg/kg – above cleanup level; the result of the duplicate DRO sample was 1,050 mg/kg – below cleanup level.

[2] ENSR. 2003. Technical Memorandum: Proposed Petroleum Hydrocarbon Soil Cleanup Levels for TAPS Corridor Repeater Sites. August 18.

FIELD ACTIVITIES

The 2005 field activities included collecting a series of PID screening samples beneath AST 2 to determine if any contamination was remaining. Ten PID screening samples were collected from beneath AST 2 at depths up to 12 inches bgs. All 10 PID samples returned results below the action level of 10 ppm, and therefore no soil was removed from the site.

Two analytical samples were collected from beneath AST 2. Sample 05AGGIE01 was collected from beneath the center of the tank at 12 inches bgs. Sample 05AGGIE02 was collected from the northwest corner of AST 2 at 6 inches bgs.

A DRO concentration of 61.1 mg/kg and an RRO concentration of 197 mg/kg were reported from analytical sample 05AGGIE01. Sample 05AGGIE02 also returned results below the cleanup levels with a DRO concentration of 96.1 mg/kg and an RRO result of 85.6 mg/kg.

In 2006 ENSR returned to the site to reconfirm the sampling conducted in 2005. Eight additional PID samples were collected from up to 12 inches bgs beneath AST 2. All 8 PID samples returned results below the action level of 10 ppm. Four analytical samples were collected from beneath AST 2.

Samples 06AGGIE01SL and 06AGGIE02SL were collected from the same location as the sample collected in 2004 that had a result above the cleanup level. Samples 06AGGIE03SL and 06AGGIE04SL were collected at 12 inches bgs. The DRO results of the samples ranged from 46.2 to 117 mg/kg.

SUMMARY AND RECOMMENDATIONS

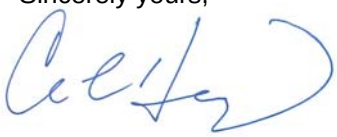
Bedrock (schist) is exposed around the site and is estimated to be approximately 3 feet bgs in the AST area. No surface water or groundwater was observed in the vicinity of the site. The source of contamination at this site is likely due to surface releases that occurred during fueling of the ASTs. The likelihood of future surface spills has been significantly reduced because the ASTs and associated piping were completely retrofitted with new spill protection equipment in 2003, and concurrently implemented new refueling procedures; now SOP for the TAPS refueling operations.

The Aggie Repeater site has been sufficiently characterized as a result of site assessment activities conducted during the program. Approximately 16 cubic yards of potentially contaminated soil was removed. This is all the accessible contaminated soil identified during the program. A minimal amount of soil above the cleanup level remains beneath AST 3, and this material cannot be accessed without compromising the stability of the tank.

In meetings held on February 1, 2005 and November 2, 2005, with ENSR, ADEC representatives, Alyeska Pipeline, and AT&T Corporation, all parties present agreed that an NFA determination is warranted for the Aggie Repeater Site. ENSR recommends that the Aggie repeater site receive an NFA determination from the ADEC as all accessible contaminated material above the established cleanup levels has been removed from the site. Any residual contaminated material will not be encountered in the daily operation of the site. Based on this information, ENSR respectfully requests that you issue a determination of No Further Action for the Slope Repeater site.

ENSR is pleased to have the opportunity to provide this information to you.

Sincerely yours,



Chris Humphrey
Project Manager

ATTACHMENT 1: FIGURES

- Figure 1. Aggie Repeater Site Location
- Figure 1. Field Screening and Analytical Results (2006)
- Figure 1. Field Screening and Analytical Results (2005)
- Figure 1. Field and Analytical Results (2004)
- Figure 2. Field Screening and Analytical Results (2003)

ATTACHMENT 2: TABLES

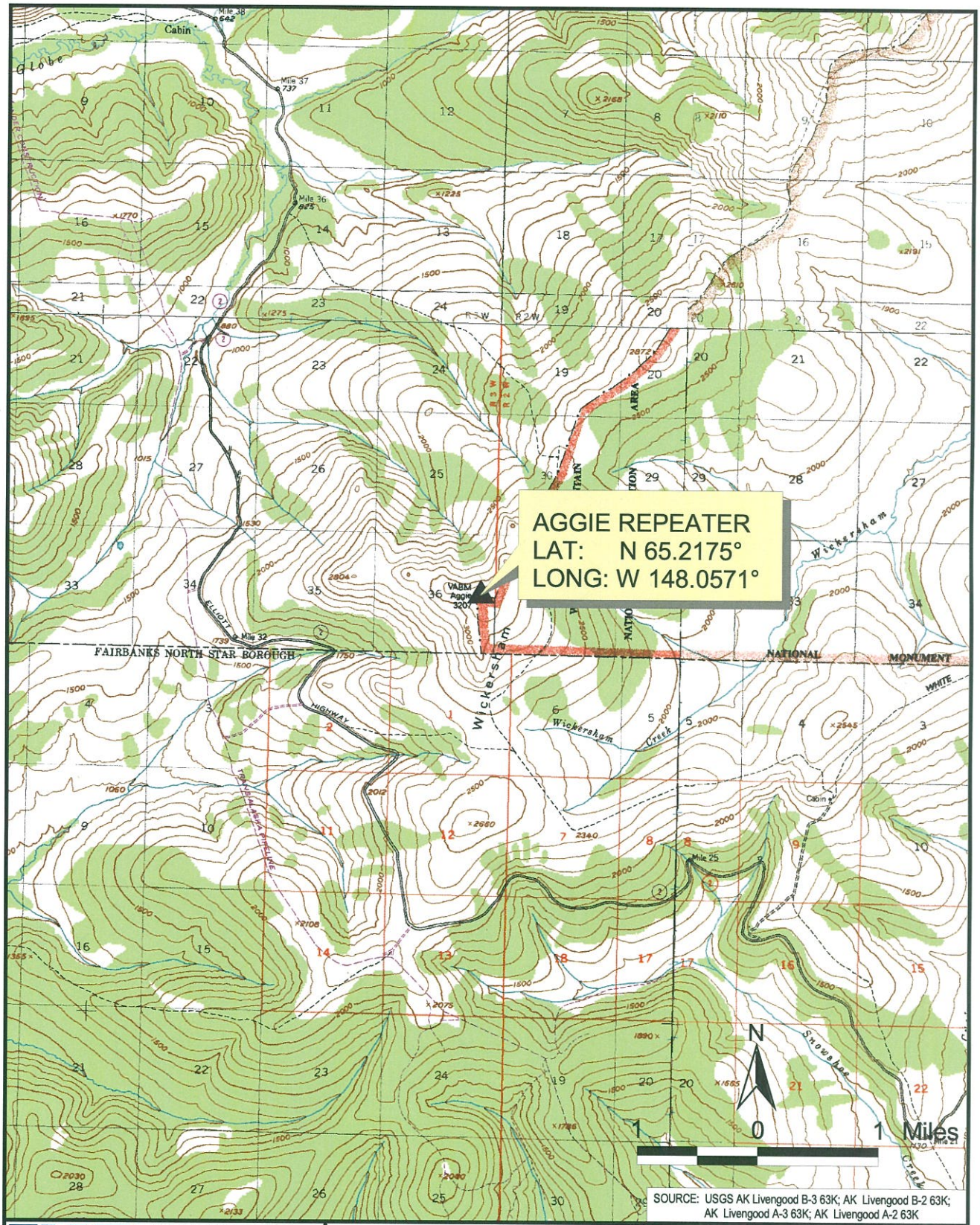
- Table 1: AT&T Soil Sampling 2006
- Table 1: AT&T Soil Sampling 2005
- Table 1: 2004 Soil Sampling Analytical Results
- Table 1: Aggie Repeater, 2003 Soil Sampling Analytical Results

ATTACHMENT 3: AT&T SITE PHOTOGRAPHS

ATTACHMENT 4: AT&T Refueling Process Photographs

ATTACHMENT 1

FIGURES



SOURCE: USGS AK Livengood B-3 63K; AK Livengood B-2 63K; AK Livengood A-3 63K; AK Livengood A-2 63K

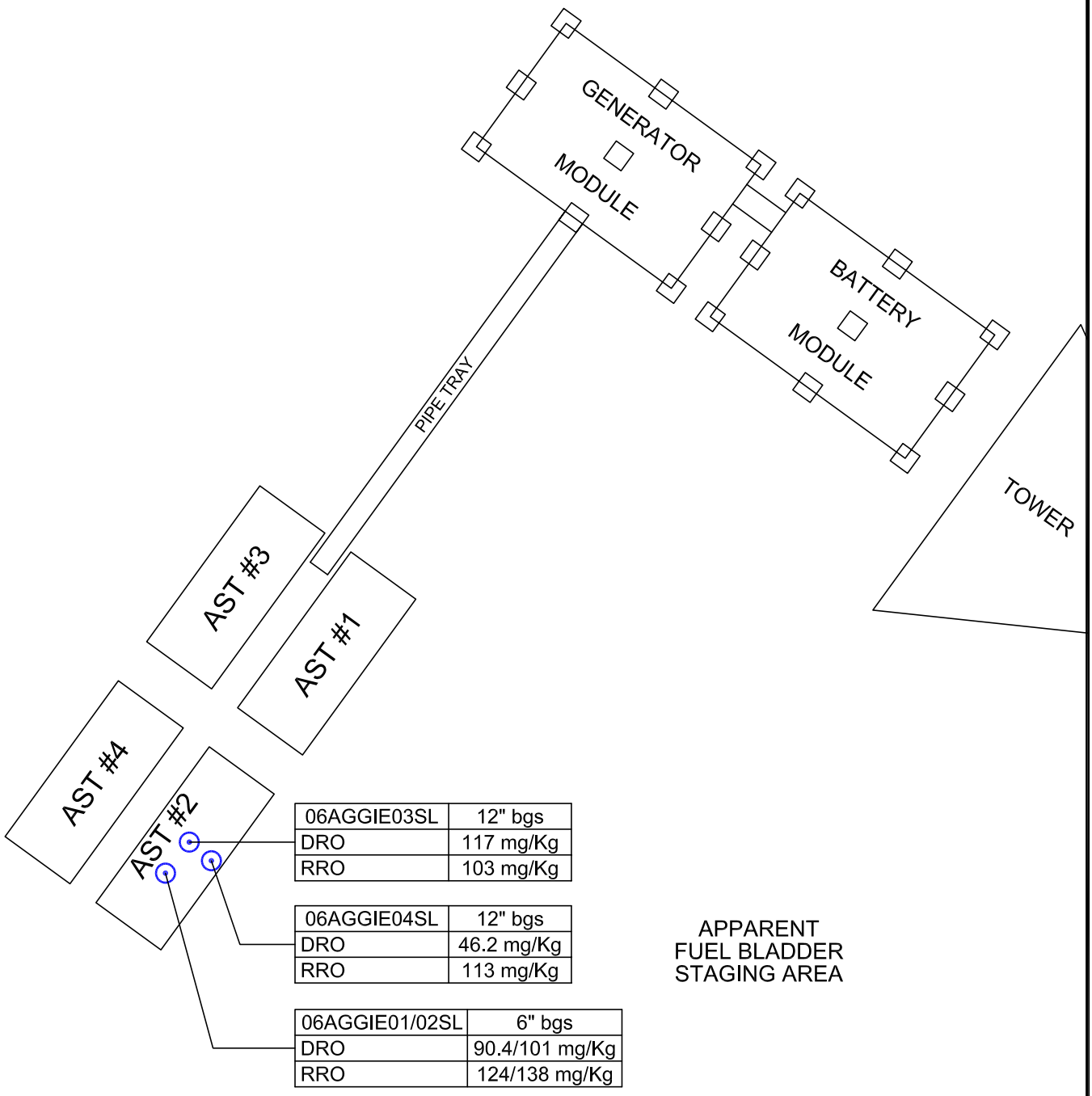
ENSR INTERNATIONAL
1835 S. BRAGAW STREET, #490
ANCHORAGE, AK 99512
(907) 561-5700
FAX: (907) 273-4555

FILE: AT&TRepeater DRAWN: JAH
VIEW: 14aggie CHECK: MAJ
DATE: 01/12/04 P.M.: M. JONES

FIGURE 1

AGGIE REPEATER
SITE LOCATION

AT&T CORPORATION
PHASE III SITE ASSESSMENTS/
REMEDIATION PROGRAM
TAPS REPEATER SITES
PROJECT 00550-338-1500



LEGEND

⊙ LAB SAMPLE LOCATION

KEY

AST	ABOVEGROUND STORAGE TANK
bgs	BELOW GROUND SURFACE
DRO	DIESEL RANGE ORGANICS (mg/Kg)
PPM	PARTS PER MILLION
mg/Kg	MILLIGRAMS PER KILOGRAM

NOTES

1. ONLY ANALYTICAL RESULTS FOR COMPOUNDS OF POTENTIAL CONCERN ARE SHOWN.

ENSR | AECOM

ENSR CORPORATION
1835 SOUTH BRAGAW, SUITE 490
ANCHORAGE, ALASKA 99512
PHONE: (907) 561-5700
FAX: (907) 273-4555
WEB: HTTP://WWW.ENSR.AECOM.COM

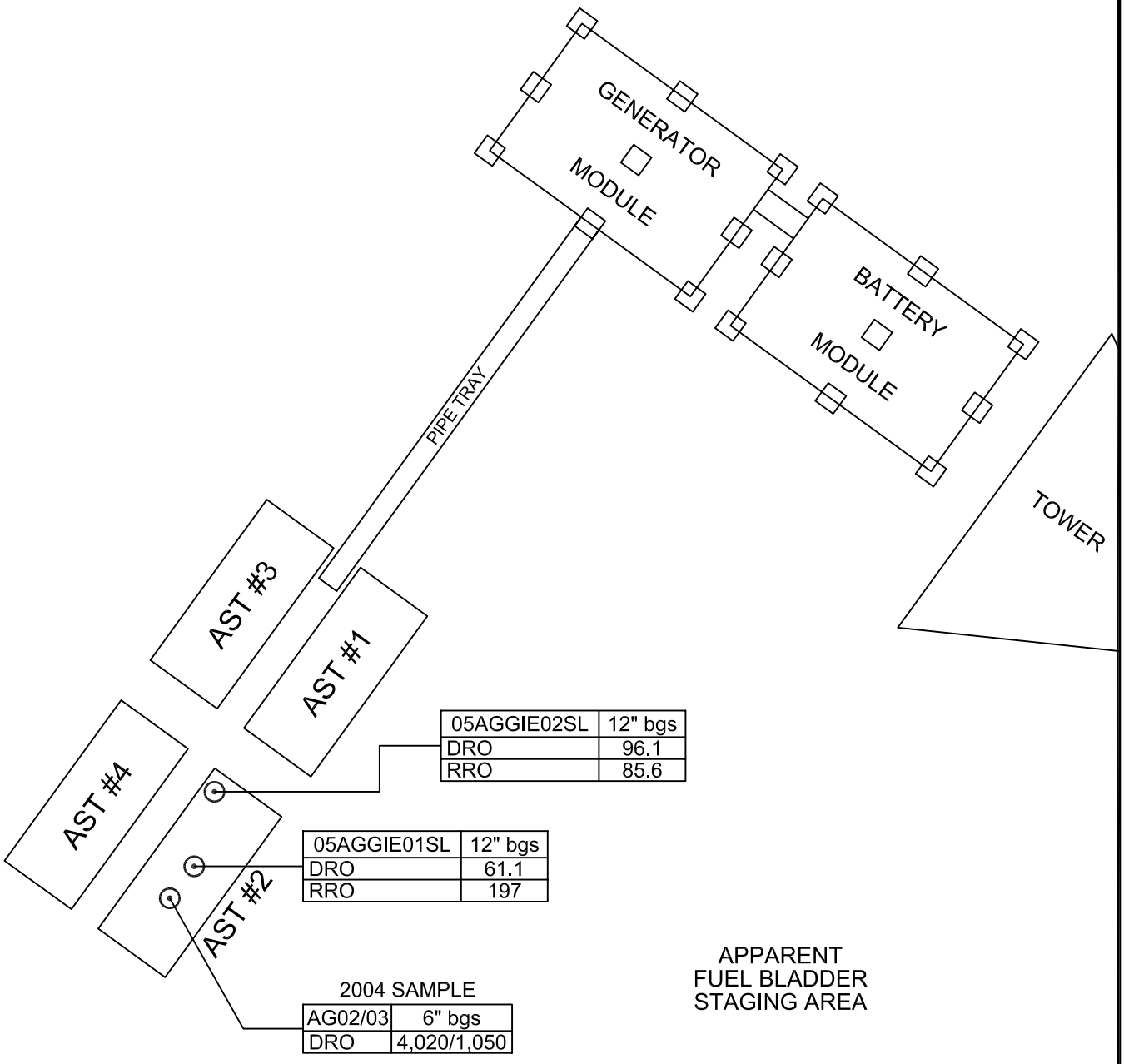
AGGIE REPEATER FIELD SCREENING AND ANALYTICAL RESULTS

2006 AT&T PHASE V SITE ASSESSMENT/ REMEDIATION PROGRAM

FIGURE NUMBER: 1

DRAWN BY:	DATE:	PROJECT NUMBER:	CHECKED BY:
KM	09/11/07	00550-341-2000	JS

FILENAME: 01FRANKLIN07



LEGEND

⊙ LAB SAMPLE LOCATION

KEY

AST	ABOVEGROUND STORAGE TANK
bgs	BELOW GROUND SURFACE
DRO	DIESEL RANGE ORGANICS (mg/Kg)
PPM	PARTS PER MILLION
mg/Kg	MILLIGRAMS PER KILOGRAM

NOTES

1. ONLY ANALYTICAL RESULTS FOR COMPOUNDS OF POTENTIAL CONCERN ARE SHOWN.

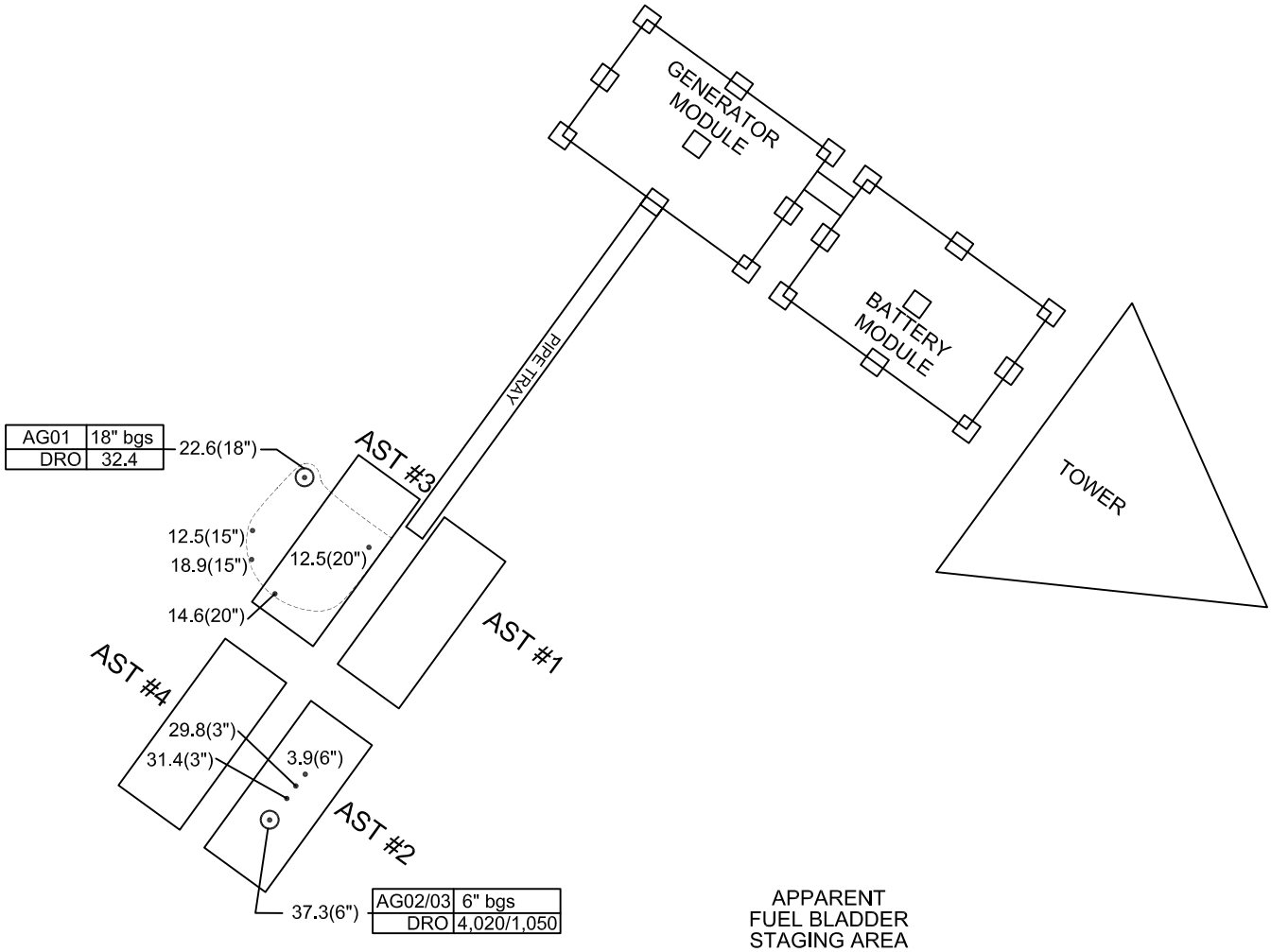
ENSR ALLIANCE
1835 SOUTH BRAGAW STREET, #490
ANCHORAGE, AK 99512
(907) 561-5700
FAX: (907) 273-4555

FILE: 14AGGIE05 DRAWN: K. MONGAR
C/SC: 1:10 ZIP: NA
DATE: 09/15/05 CHECK: J. SCHICK

FIGURE 1
AGGIE REPEATER FIELD SCREENING AND ANALYTICAL RESULTS

2005 AT&T PHASE V SITE ASSESSMENT/ REMEDIATION PROGRAM

PROJECT 00550-338-300



LEGEND

- ⊙ LAB SAMPLE LOCATION
- • 012 PHOTOIONIZATION DETECTOR (PID) SAMPLE LOCATION
- AREA OF EXCAVATION
- ESTIMATED AREA OF CONTAMINATION ABOVE 2000 mg/Kg

BGS	BELOW GROUND SURFACE
DRO	DIESEL RANGE ORGANICS (mg/Kg)
AST	ABOVEGROUND STORAGE TANK
PID	PHOTOIONIZATION DETECTOR
HHS/PPM	HEATED HEAD SPACE/PARTS PER MILLION
mg/Kg	MILIGRAMS PER KILOGRAM

NOTES

1. ONLY ANALYTICAL RESULTS FOR COMPOUNDS OF POTENTIAL CONCERN ARE SHOWN.
2. LAB SAMPLE LOCATION IS INDICATED IN SAMPLE NAME BY ### (03KIMBALL###SL) (SEE TABLE 1).
3. LAB SAMPLE LOCATIONS ###/### INDICATE THAT A DUPLICATE SAMPLE WAS COLLECTED AT THIS LOCATION.

N

0 6 12

APPROX. SCALE IN FEET

ENSR INTERNATIONAL
1835 SOUTH BRAGAW STREET, #490
ANCHORAGE, AK 99512
(907) 561-5700
FAX: (907) 273-4555

FILE: 05KIMBALL DRAWN: JAH
C/SC: 1:10 ZIP: NA
DATE: 12/17/03 CHECK: J.HARGY

FIGURE 1
AGGIE REPEATER FIELD AND ANALYTICAL RESULTS

2004 AT&T PHASE IV SITE ASSESSMENT/ REMEDIATION PROGRAM

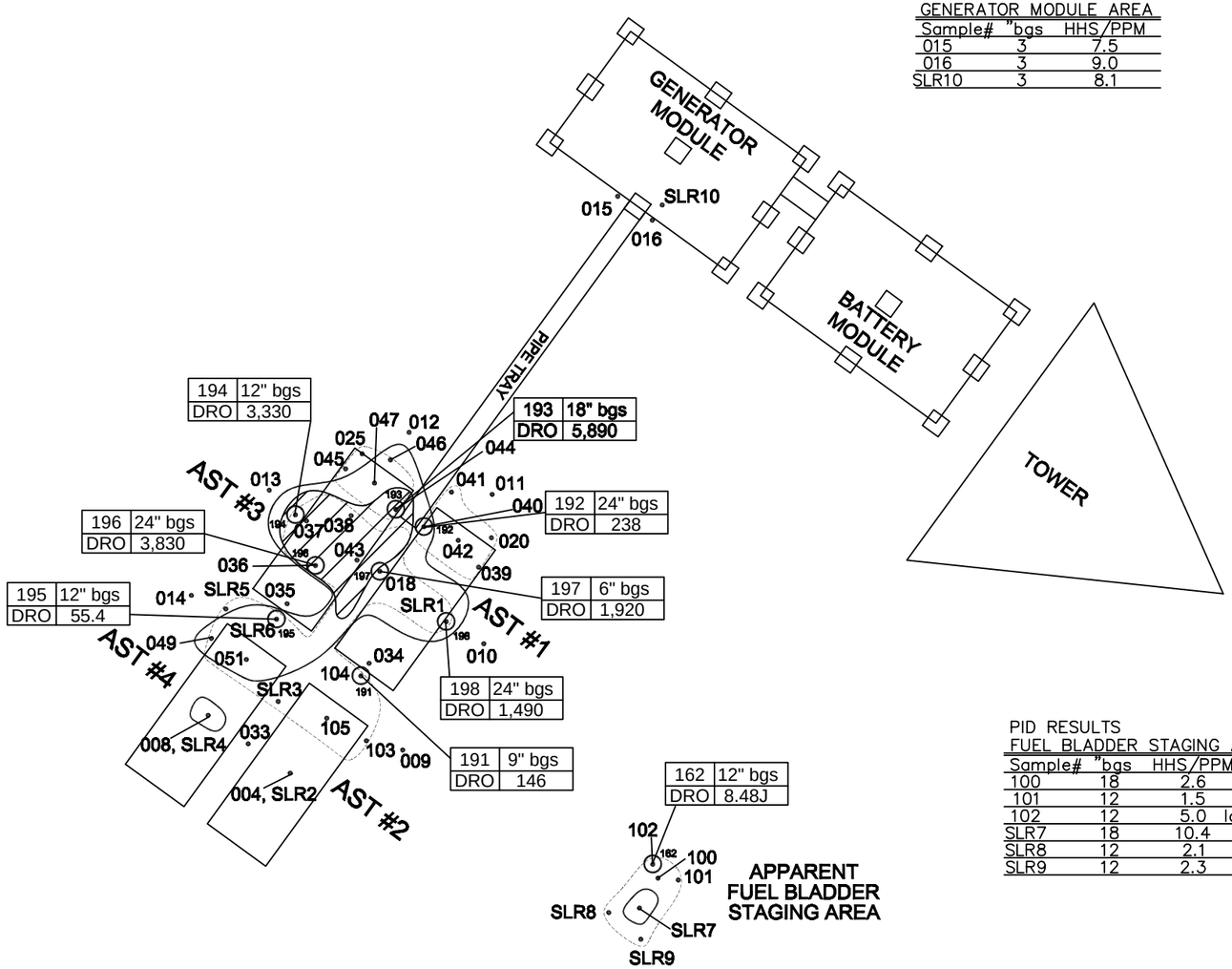
PROJECT 00550-338-200

PID RESULTS
AST AREA

Sample#	"bgs	HHS/PPM	NOTES
004	3	8.4	
008	3	10.5	
009	3	7.3	
010	3	6.8	
011	3	6.1	
012	3	8.3	
013	3	8.2	
014	3	8.3	
018	3	375	(removed) lab sample 197 (6"bgs)
020	12	9.6	
025	12	9.3	
033	0	5.1	
034	0	2.8	
035	0	1.4	
036	24	421	lab sample 196
037	24	99.2	lab sample 194 (12"bgs, sidewall)
038	24	82.5	
039	24	1.9	
040	24	56.7	lab sample 192
041	24	5.9	
042	24	5.9	
043	24	132	
044	21	319	lab sample 193
045	21	8.5	
046	21	11.0	
047	21	25.1	
048	15	2.3	
049	15	21.7	
051	15	49.7	
103	8	5.8	
104	8	9.5	lab sample 191
105	22	5.6	
SLR1	24	53.7	lab sample 198
SLR2	16	5.8	
SLR3	18	5.1	
SLR4	22	2.9	
SLR5	18	4.6	
SLR6	12	73.9	lab sample 195

PID RESULTS
GENERATOR MODULE AREA

Sample#	"bgs	HHS/PPM
015	3	7.5
016	3	9.0
SLR10	3	8.1



PID RESULTS
FUEL BLADDER STAGING AREA

Sample#	"bgs	HHS/PPM	NOTES
100	18	2.6	
101	12	1.5	
102	12	5.0	lab sample 162
SLR7	18	10.4	
SLR8	12	2.1	
SLR9	12	2.3	

LEGEND

- 019 LAB SAMPLE LOCATION
- 012 PID SAMPLE LOCATION
- DELINEATED AREA OF CONTAMINATION ABOVE 10 HHS/PPM
- ESTIMATED AREA OF CONTAMINATION ABOVE 2,000 mg/Kg
- EXCAVATION BOUNDARY

NOTES

1. ONLY PID RESULTS FOR SOILS THAT REMAIN ARE SHOWN UNLESS NOTED OTHERWISE.
2. ONLY ANALYTICAL RESULTS FOR COMPOUNDS OF POTENTIAL CONCERN ARE SHOWN.
3. LAB SAMPLE LOCATION IS INDICATED IN SAMPLE NAME BY ### (03AGGIE###SL) (SEE TABLE 1).

AST	ABOVEGROUND STORAGE TANK
bgs	BELOW GROUND SURFACE
DRO	DIESEL RANGE ORGANICS (mg/Kg)
HHS/PPM	HEATED HEAD SPACE/PARTS PER MILLION
J	ESTIMATED VALUE
mg/Kg	MILLIGRAMS PER KILOGRAM
PID	PHOTOIONIZATION DETECTOR
SLR1	PID SAMPLE RESULTS FROM SLR CONSULTANT (not all SLR results are shown)

N

0 5 10

APPROX. SCALE IN FEET

ENSR INTERNATIONAL
1835 SOUTH BRAGAW STREET, #490
ANCHORAGE, AK 99512
(907) 561-5700
FAX: (907) 273-4555

2003 AT&T PHASE III
SITE ASSESSMENT/
REMEDIATION PROGRAM

PROJECT 00550-338-1500

FIGURE 2
AGGIE REPEATER
FIELD SCREENING AND ANALYTICAL RESULTS

DATE: 01/21/04	DRAWN BY: JAH	SCALE: AS SHOWN	FILE: 11AGGIE
C/SC: 1:1PS ZIP: NA	P.M.: M. JONES	CHECKED: J.HARGY	PROJECT: 00550-338-1500

ATTACHMENT 2

TABLES

Table 1: AT&T Soil Sampling 2006

Table 1: AT&T Soil Sampling 2005

Table 1: 2004 Soil Sampling Analytical Results

Table 1: Aggie Repeater, 2003 Soil Sampling Analytical Results

Table 1: AT&T Soil Sampling 2006
Aggie Repeater

Parameter	Units	MCL		Sample ID:	06AGGIE01SL	06AGGIE02SL	06AGGIE03SL	06AGGIE04SL
				Sample Date:	8/30/2006	8/30/2006	8/30/2006	8/30/2006
				Sample QC Type:		Duplicate of 06AGGIE01SL		
				Laboratory ID(s):	1064689001	1064689002	1064689003	1064689004
Bulk Petroleum Hydrocarbons [AK102, AK103]								
Diesel Range Organics	mg/kg	2,000	M		90.4 [22.9]	101 [23.4]	117 [23.4]	46.2 [21.9]
Residual Range Organics	mg/kg	2,000	G		124 [22.9]	138 [23.4]	103 [23.4]	113 [21.9]

Key:

MCL = minumum ADEC soil cleanup level per 18AAC75.341 with the following codes: G = ingestion pathway; M = migration to groundwater.
ND = analyte not detected above the method detection limit (MDL).

Notes:

Values in brackets [ ] are PQLs.

Table 1: AT&T Soil Sampling 2005
Aggie Repeater

Parameter	Units	MCL		Sample ID: 05AGGIE01SL Sample Date: 7/28/2005 Sample QC Type: Laboratory ID(s): 1054568032	Sample ID: 05AGGIE02SL Sample Date: 7/28/2005 Sample QC Type: Laboratory ID(s): 1054568033
Bulk Petroleum Hydrocarbons [AK102, AK103]					
Diesel Range Organics	mg/kg	2,000	M	61.1 [21.6]	96.1 [20.3]
Residual Range Organics	mg/kg	2,000	G	197 [21.6]	85.6 [20.3]

Key:

MCL = minumum ADEC soil cleanup level per 18AAC75.341 with the following codes: G = ingestion pathway; M = migration to groundwater.
ND = analyte not detected above the method detection limit (MDL).

Notes:

Values in brackets [ ] are PQLs.

Table 1: 2004 Soil Sampling Analytical Results, AT&T Phase IV Site Assessment / Remediation Program
Aggie Repeater Site

Parameter	Units	Cleanup Level		Sample ID: 04AG01SL Sample Date: 7/12/2004 Sample QC Type: Laboratory ID(s): 1044106022	Sample ID: 04AG02SL Sample Date: 7/12/2004 Sample QC Type: Laboratory ID(s): 1044107017	Sample ID: 04AG03SL Sample Date: 7/12/2004 Sample QC Type: Dup of 04AG02SL Laboratory ID(s): 1044107018
Petroleum Hydrocarbons [AK102, AK103]						
Diesel Range Organics	mg/kg	2,000	E	32.4 [23.1]	**4020** [221]	1050 [86.9]
Residual Range Organics	mg/kg	2,000	E	109 [23.1]	145 [221] J	190 [86.9]
Volatile Organic Compounds [SW8260B]						
Benzene	mg/kg	0.02	M	--	ND (0.00459) [0.0153]	ND (0.00392) [0.0131]
Ethylbenzene	mg/kg	5.5	M	--	ND (0.00918) [0.0294]	ND (0.00785) [0.0252]
o-Xylene	mg/kg	78	M	--	0.0103 [0.0294] J	0.0169 [0.0252] J
Toluene	mg/kg	5.4	M	--	ND (0.0177) [0.0589]	ND (0.0151) [0.0503]
Xylene, Isomers m & p	mg/kg	78	M	--	0.0227 [0.0589] J	0.0302 [0.0503] J
Total Solids [A2540G]						
Total Solids	mg/kg	na		80.3	87.1	88.8

Key:

-- = Analysis not performed on this sample.
J = Result is considered an estimate value.
M = migration to groundwater: ADEC Method Two Table B1.
E = See Technical Memorandum: Proposed Petroleum Hydrocarbon Cleanup Levels for TAPS Corridor Sites (August 18, 2003).
ND = analyte not detected above the practical quantitation limit (PQL).

Notes:

Values in brackets [ ] are PQLs and values in parentheses ( ) are laboratory detection limits.
Values in **bold** indicate exceedance of the ADEC Cleanup Level.

Table 1. Aggie Repeater, 2003 Soil Sampling Analytical Results, AT&T Phase III Site Assessment Program.

Parameter	Units	Cleanup Level				
Location:				AST #1 Valve	AST #1 Center	AST #1 Center	AST #1 End
Sample ID:				03AGGIE192SL	03AGGIE197SL	03AGGIE198SL	03AGGIE191SL
Depth (bgs):				24 inches	6 inches	24 inches	9 inches
Sample Date:				9/5/2003	9/5/2003	9/5/2003	9/5/2003
Sample QC Type:							
Laboratory ID(s):				1035283012	1035800001	1035800002	1035283011
Bulk Petroleum Hydrocarbons [AK102, AK103]							
Diesel Range Organics	mg/kg	2,000	D	238 [21.9]	1,920 [112]	1,490 [97]	146 [22.3]
Residual Range Organics	mg/kg	2,000	D	35.8 [21.9]	122 [112]	63.5 [97] J	42.7 [22.3]
Volatile Organic Compounds [8260B]							
Benzene	mg/kg	0.02	M	--	--	--	--
Ethylbenzene	mg/kg	5.5	M	--	--	--	--
o-Xylene	mg/kg	78	M	--	--	--	--
Toluene	mg/kg	5.4	M	--	--	--	--
Xylene, Isomers m & p	mg/kg	78	M	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) [PAHSIM]							
Acenaphthene	mg/kg	210	M	--	--	--	--
Acenaphthylene	mg/kg	na		--	--	--	--
Anthracene	mg/kg	4,300	M	--	--	--	--
Benzo(a)anthracene	mg/kg	6	M	--	--	--	--
Benzo(a)pyrene	mg/kg	1	G	--	--	--	--
Benzo(b)fluoranthene	mg/kg	11	G	--	--	--	--
Benzo(g,h,i)perylene	mg/kg	na		--	--	--	--
Benzo(k)fluoranthene	mg/kg	110	G	--	--	--	--
Chrysene	mg/kg	620	M	--	--	--	--
Dibenzo(a,h)anthracene	mg/kg	1	G	--	--	--	--
Fluoranthene	mg/kg	2,100	M	--	--	--	--
Fluorene	mg/kg	270	M	--	--	--	--
Indeno(1,2,3-cd)pyrene	mg/kg	11	G	--	--	--	--
Naphthalene	mg/kg	21	M	--	--	--	--
Phenanthrene	mg/kg	na		--	--	--	--
Pyrene	mg/kg	1,500	M	--	--	--	--
Total Solids [A2540G]							
Total Solids	mg/kg	na		90.2	89.1	86.6	87.6

Key:

-- = analysis not performed on this sample.
bgs = below ground surface.
Cleanup Level = Method One or Method Two Table B1 (18AAC75.341) with the following codes specifying the pathway: G = ingestion pathway; M = migration to groundwater.
D = ADEC Method One, Category D Cleanup Level.
J = result is considered an estimate value.
na = no cleanup level listed for this analyte.
ND = parameter not detected above the method quantitation limit (MQL).

Notes:

Values in brackets are MQLs.
Values in bold indicate exceedance of the ADEC Cleanup Level.

Table 1. Aggie Repeater, 2003 Soil Sampling Analytical Results, AT&T Phase III Site Assessment Program (Continued).

Parameter	Units	Cleanup Level	Location:	AST #3 Valve	AST #3 Center	AST #3 Center	AST #3 End	Fuel Staging Area
			Sample ID:	03AGGIE193SL	03AGGIE194SL	03AGGIE196SL	03AGGIE195SL	03AGGIE162SL
			Depth (bgs):	18 inches	12 inches	24 inches	12 inches	12 inches
			Sample Date:	9/5/2003	9/5/2003	9/5/2003	9/5/2003	8/30/2003
			Sample QC Type:					
			Laboratory ID(s):	1035283013	1035283014	1035283016	1035283015	1035256003
Bulk Petroleum Hydrocarbons [AK102, AK103]								
Diesel Range Organics	mg/kg	2,000 D		**5,890** [225]	**3,330** [241]	**3,830** [238]	55.4 [24.1]	8.48 [22.2] J
Residual Range Organics	mg/kg	2,000 D		128 [225] J	107 [241] J	116 [238] J	32.7 [24.1]	41.4 [22.2]
Volatile Organic Compounds [8260B]								
Benzene	mg/kg	0.02 M		--	--	ND [0.0180]	--	--
Ethylbenzene	mg/kg	5.5 M		--	--	ND [0.0692]	--	--
o-Xylene	mg/kg	78 M		--	--	ND [0.0692]	--	--
Toluene	mg/kg	5.4 M		--	--	ND [0.0692]	--	--
Xylene, Isomers m & p	mg/kg	78 M		--	--	ND [0.0692]	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) [PAHSIM]								
Acenaphthene	mg/kg	210 M		--	--	ND [0.0597]	--	--
Acenaphthylene	mg/kg	na		--	--	ND [0.0597]	--	--
Anthracene	mg/kg	4,300 M		--	--	ND [0.0597]	--	--
Benzo(a)anthracene	mg/kg	6 M		--	--	ND [0.0597]	--	--
Benzo(a)pyrene	mg/kg	1 G		--	--	ND [0.0597]	--	--
Benzo(b)fluoranthene	mg/kg	11 G		--	--	0.0341 [0.0597] J	--	--
Benzo(g,h,i)perylene	mg/kg	na		--	--	ND [0.0597]	--	--
Benzo(k)fluoranthene	mg/kg	110 G		--	--	ND [0.0597]	--	--
Chrysene	mg/kg	620 M		--	--	0.0272 [0.0597] J	--	--
Dibenzo(a,h)anthracene	mg/kg	1 G		--	--	ND [0.0597]	--	--
Fluoranthene	mg/kg	2,100 M		--	--	0.0430 [0.0597] J	--	--
Fluorene	mg/kg	270 M		--	--	ND [0.0597]	--	--
Indeno(1,2,3-cd)pyrene	mg/kg	11 G		--	--	ND [0.0597]	--	--
Naphthalene	mg/kg	21 M		--	--	ND [0.597]	--	--
Phenanthrene	mg/kg	na		--	--	ND [0.0597]	--	--
Pyrene	mg/kg	1,500 M		--	--	0.0664 [0.0597]	--	--
Total Solids [A2540G]								
Total Solids	mg/kg	na		90.0	83.6	84.6	83.2	92.7

Key:

-- = analysis not performed on this sample.
bgs = below ground surface.
Cleanup Level = Method One or Method Two Table B1 (18AAC75.341) with the following codes specifying the pathway: G = ingestion pathway; M = migration to groundwater.
D = ADEC Method One, Category D Cleanup Level.
J = result is considered an estimate value.
na = no cleanup level listed for this analyte.
ND = parameter not detected above the method quantitation limit (MQL).

Notes:

Values in brackets are MQLs.
Values in bold indicate exceedance of the ADEC Cleanup Level.

ATTACHMENT 3

AT&T SITE PHOTOGRAPHS

AT&T SITE PHOTOGRAPHS

Aerial view of Aggie Repeater, looking north.

AST area, view looking southwest.

Remedial excavations at Tank 3.

Remedial excavations between Tank 2 and Tank 4 in valve area.

Excavation at Tank 1 valve, August 18.

Stressed vegetation south of AST Area, apparent Fuel Bladder Staging Area.

Excavation at apparent Fuel Bladder Staging Area.

AT&T SITE PHOTOGRAPHS

Final excavation northwest of AST 3 center. Looking north.

PID screening samples collected from center of AST 2. Looking northwest.

Backfilling 2003 excavation at valve of AST 1. Looking southwest.

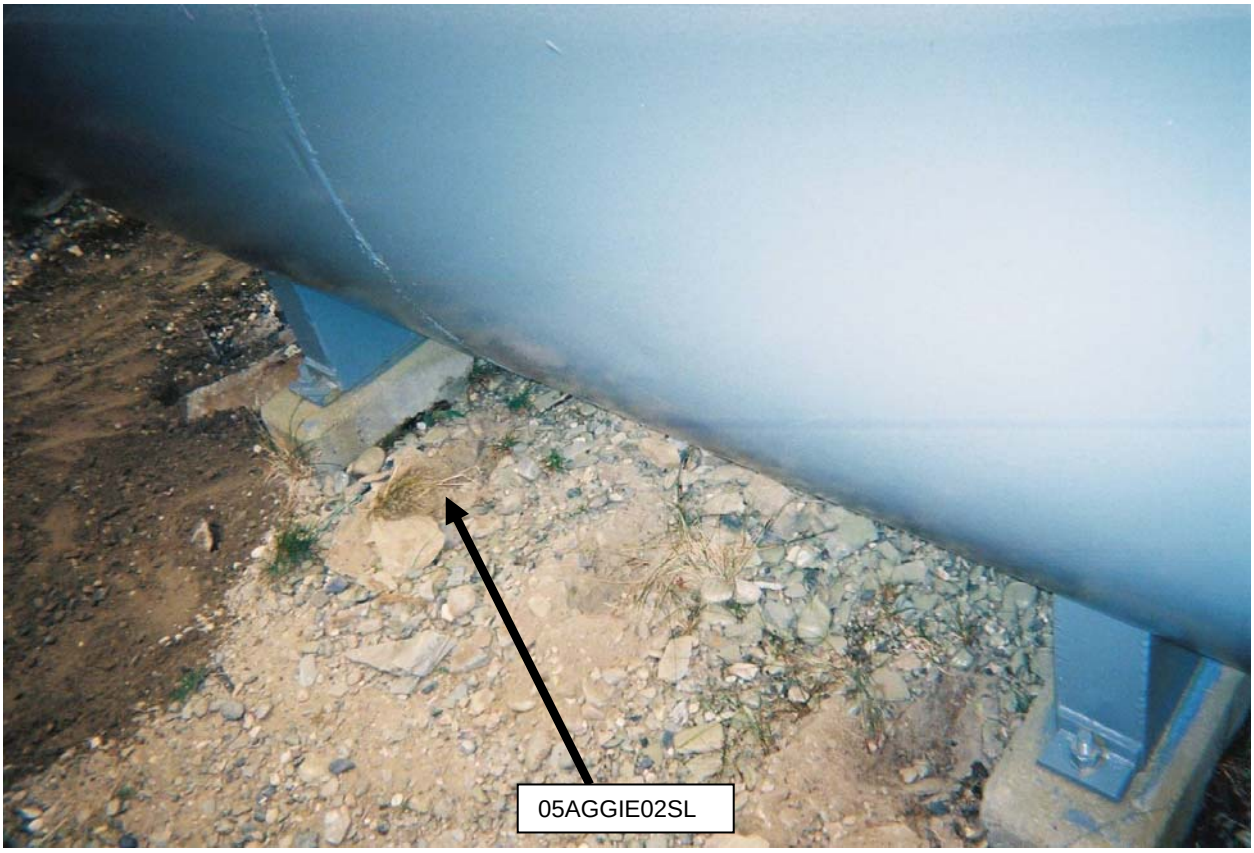
Backfilling center of AST 1. Looking northwest.

AT&T SITE PHOTOGRAPHS

Completed backfill at AST 3 valve and center.

Completed backfill at valve of AST 4.

AT&T SITE PHOTOGRAPHS



PID screening sample locations on the north side of AST 2 with arrow pointing at analytical sample location 05AGGIE02SL..

Backfilling activities in the center of the AST area looking northeast.

AT&T SITE PHOTOGRAPHS

Backfilling excavation with D-1 clean fill flown up to the site by helicopter looking northwest.

Competed backfill and compaction of excavation looking northeast.

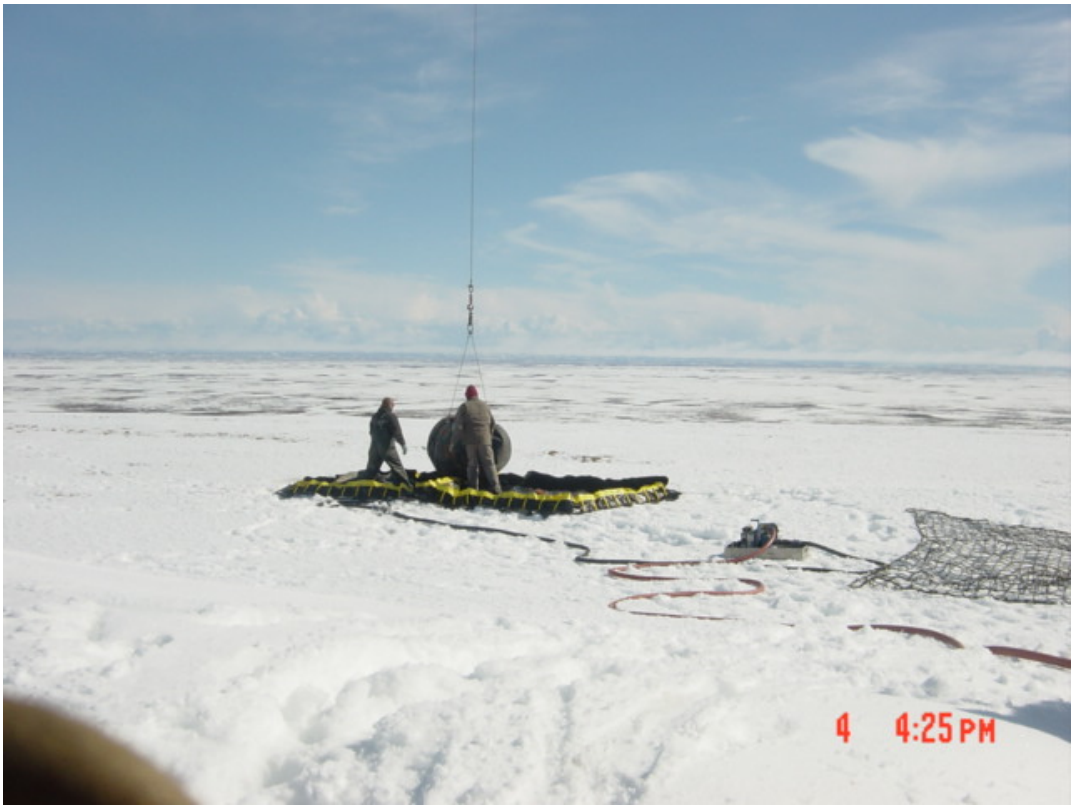
ATTACHMENT 4

AT&T REFUELING PROCESS PHOTOGRAPHS

AT&T TAPS REPEATER SITES REFUELING PROCESS PHOTOGRAPHS

Highway site staging area. Filling fuel bladders within portable secondary containment

Fuel bladder sling load to portable secondary containment system on ground at repeater site.



Landing fuel bladder within portable secondary containment system.

Pump fuel from bladder in secondary containment via modular portable pump with secondary containment.