3R – 448

2008 GWMR

10 / 29 / 2008

Animas Environmental Services, LLC

624 E. Comanche . Farmington, NM 87401 . TEL 505-564-2281 . FAX 505-324-2022 . www.animasenvironmental.com

October 29, 2008

Wayne Price
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

Re: Periodic Progress Report for the Benson-Montin-Greer Highway 537 Llaves Pipeline 2008 Oil Spill, Rio Arriba County, New Mexico

Dear Mr. Price:

Animas Environmental Services, LLC (AES) conducted groundwater sampling of monitoring wells on behalf of Benson-Montin-Greer Drilling Corporation (BMG) at the BMG Highway 537 Llaves Pipeline 2008 Spill Location on September 24, 2008. This sampling was conducted in accordance with recommendations presented in the Site Investigation Report prepared by AES and submitted on June 23, 2008.

The spill originated on the Schmitz Ranch, on the south side of Highway 537, within the NW¼ NE¼ of Section 18, T25N, R3W (latitude and longitude recorded as N36° 24' 214" and W107° 11' 053") and flowed south and southwest through a small unnamed arroyo for a distance of approximately 920 linear feet. A map of the spill investigation area is presented as Figure 2.

1.0 Spill History

On December 31, 2007, a Western Refining truck driver discovered the Llaves pipeline leak and immediately contacted BMG. BMG personnel arrived on-site at about 1630 on the same day and confirmed the leak. BMG shut down the Llaves pipeline pumps and closed a block valve located about one mile upstream. BMG personnel also constructed a small earthen dam across the arroyo to prevent any further surface migration of the oil. BMG contracted with TNT Excavating to remove the oil that had pooled along the surface of the small arroyo. Approximately 40 barrels (bbls) of oil were recovered and placed in storage tanks at the BMG Hwy 537 Transfer Station. A total of 3,932 cubic yards of contaminated soils were excavated and transported to the TNT Landfarm facility for disposal.

On January 9, 2008, the Llaves pipeline was repaired, and AES inspected the site as part of preparation of the Sampling and Analysis Plan, which was submitted to NMOCD on January 23, 2008. BMG notified the National Response Center of the spill on January 23, 2008, and the release was given an identification number of 860429.

2.0 Groundwater Monitoring and Sampling

AES personnel conducted groundwater monitoring and sampling at the project area on September 24, 2008. Groundwater samples were laboratory analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) and total petroleum hydrocarbons (TPH) per EPA Methods 8021/8015 at Hall Environmental Analysis Laboratory (Hall), Albuquerque, New Mexico.

2.1 Groundwater Measurements and Water Quality Data

During the September 2008 sampling event, groundwater measurements and water quality data were recorded for MW-1 through MW-4 and MW-6 through MW-9. Water quality data for MW-5 was not recorded because of a low yield in this well. Groundwater elevations were measured with a Keck water level (with an accuracy to 0.01 foot) and found to range from 29.61 feet below ground surface (bgs) in MW-2 down to 38.16 feet bgs in MW-7.

Water quality measurements were made with a YSI Water Quality Meter. Temperature ranged from 13.70°C in MW-4 to 15.32°C in MW-1, and pH ranged from 6.80 to 7.08. Dissolved oxygen concentrations ranged between 2.75 mg/L in MW-2 and 6.11 mg/L in MW-7; oxidation reduction potential (ORP) ranged from -9.6 mV to 50.3 mV; and conductivity was between 1.464 mS and 3.588 mS. Depth to groundwater measurements and water quality data are summarized and present in Table 1. Water Sample Collection Forms are included as Appendix A.

2.2 Groundwater Analytical Results

Groundwater samples were collected from MW-1 through MW-4 and MW-6 through MW-9 for laboratory analysis. Benzene concentrations were above the applicable New Mexico Water Quality Control Commission (WQCC) standard of 10 µg/L in MW-8 (65 µg/L) and MW-9 (17 µg/L). Benzene concentrations were below laboratory detection limits, and therefore well below applicable New Mexico Water Quality Control Commission (WQCC) standards, for each of the other wells sampled. Toluene, ethylbenzene, and xylene concentrations were below applicable WQCC standards in each of the wells sampled. Gasoline range organics (GRO) concentrations were above the laboratory detection limit in MW-7 (0.069 mg/L), MW-8 (0.90 mg/L), and MW-9 (0.32 mg/L). Diesel and motor oil range organics concentrations were below laboratory detection limits in each of the wells sampled.

Tabulated laboratory analytical results are included in Table 2, and laboratory analytical reports are presented in Appendix B.

3.0 Conclusions and Recommendations

AES recommends remediation of site soils in the vicinity of the excavation via mechanical high vacuum extraction of soil vapors and contaminated groundwater. A corrective action plan (CAP) outlining proposed remedial efforts at the site will be prepared and submitted to NMOCD by December 15, 2008.

If you have any questions about site conditions or this report, please feel free to contact Elizabeth McNally or Ross Kennemer at (505) 564-2281.

Lany Cupps
Project Manager

Ross Kennemer
Environmental Scientist
Senior Project Manager

Elizabeth McNally, P.E.

Attachment:

Figure 1.	Topographical Site Location Map
Figure 2.	Site Plan with Laboratory Analytical Results
Table 1.	Summary of Groundwater Measurement Data
Table 2.	Summary of Groundwater Analytical Results
Appendix A.	Water Sample Collection Forms
Appendix B.	Laboratory Analytical Reports

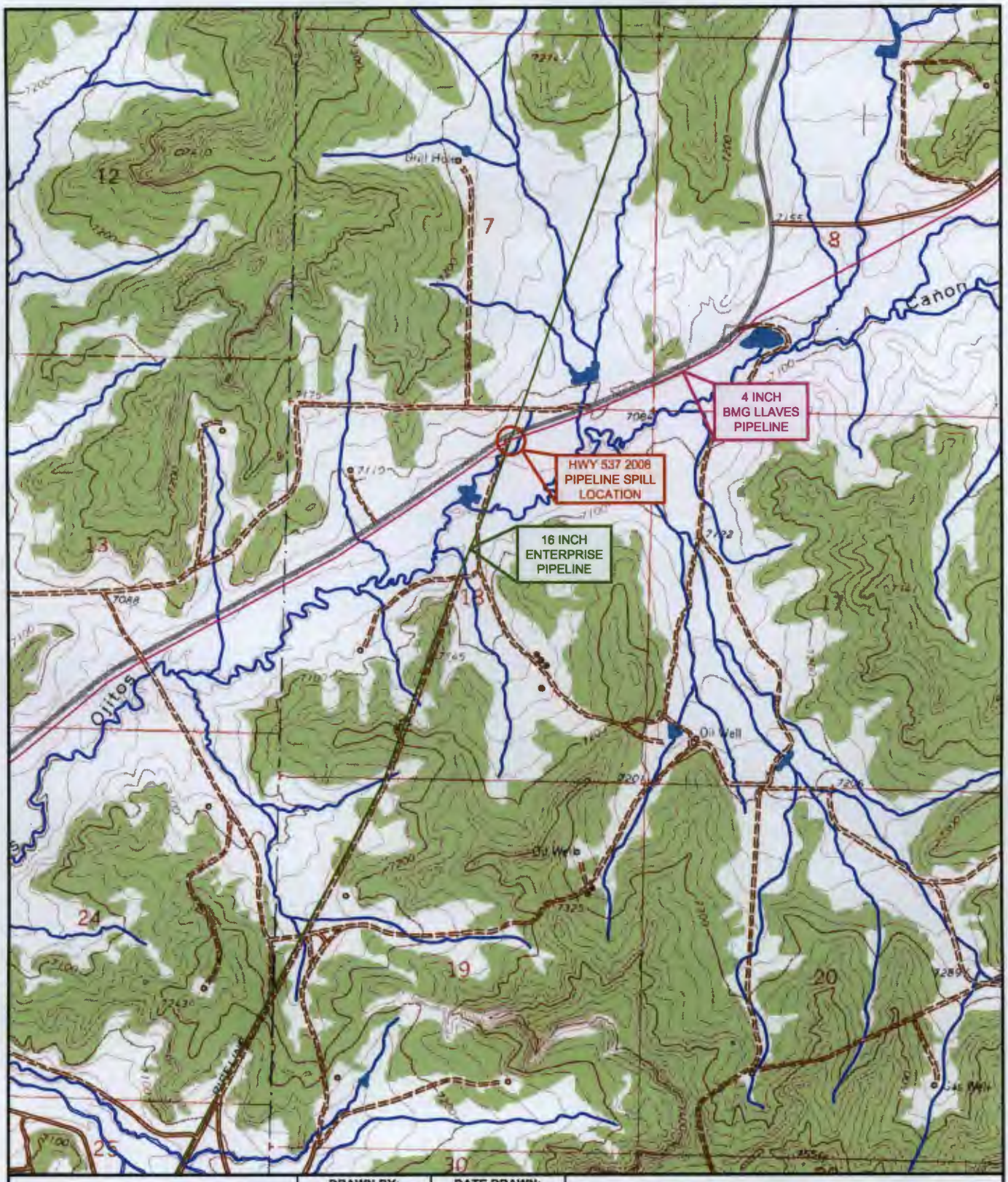
Cc:

Brandon Powell
New Mexico Oil Conservation Division
1000 Rio Brazos Rd.
Aztec, NM 87410

Craig Schmitz
#70 CR 405
Lindrith, NM 87029

Private Landowner
C/O Mike Dimond
Benson-Montin-Greer Drilling Corp.

Mike Dimond
Benson-Montin-Greer Drilling Corp.
4900 College Blvd
Farmington NM 87402



AES
Animas Environmental Services, LLC

DRAWN BY: Ross Kennemer	DATE DRAWN: January 21, 2008
REVISIONS BY: Nathan Willis	DATE REVISED: October 28, 2008
CHECKED BY: E. McNally	DATE CHECKED: October 28, 2008
APPROVED BY: E. McNally	DATE APPROVED: October 28, 2008

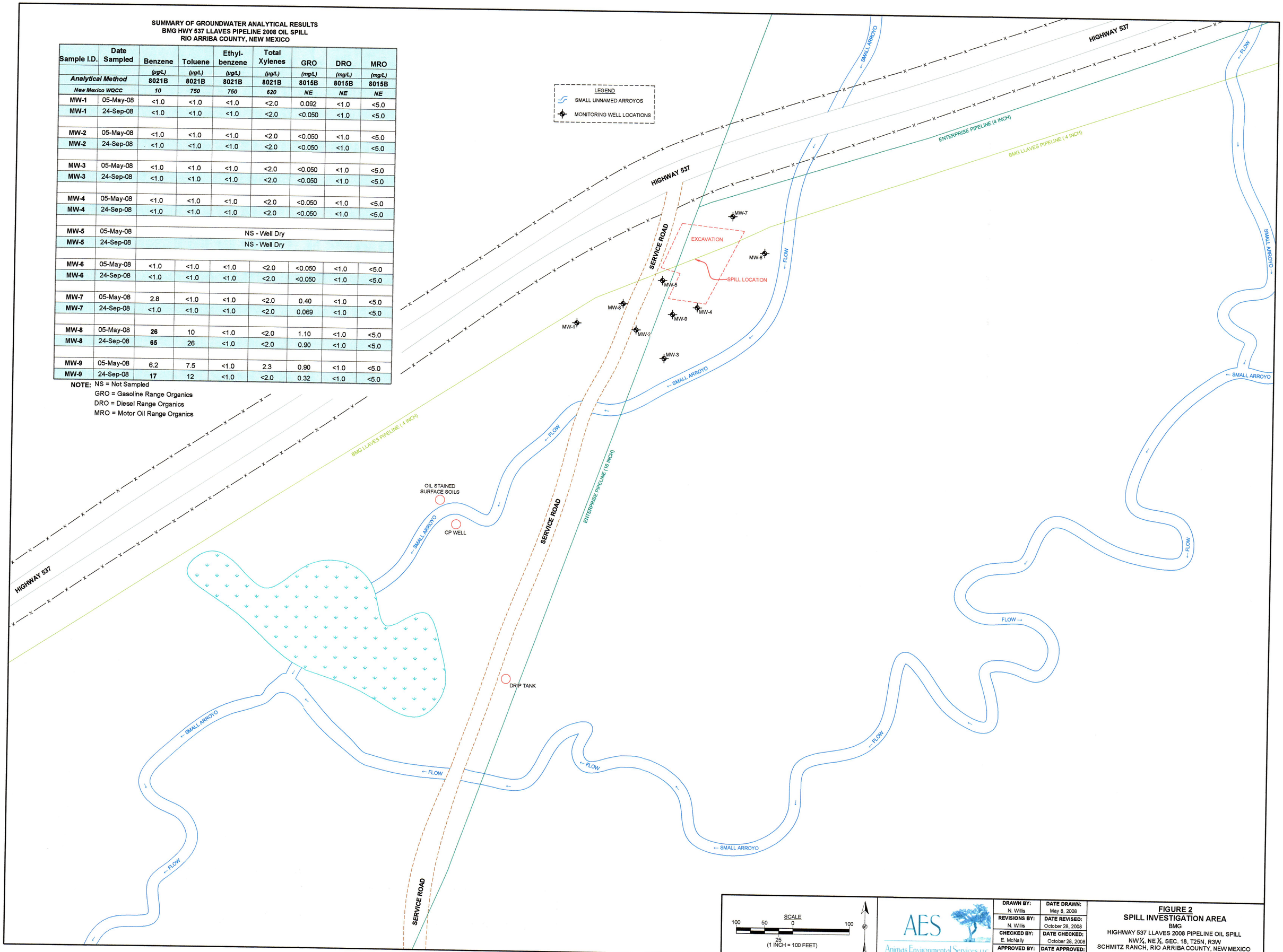
FIGURE 1
TOPOGRAPHICAL SITE LOCATION MAP
BMG
HIGHWAY 537 LLAVES 2008 PIPELINE OIL SPILL
NW ¼, NE ¼, SEC. 18, T25N, R3W
SCHMITZ RANCH, RIO ARRIBA COUNTY, NEW MEXICO
N36°24'214", W107°11'053"

S:\ANIMAS 2000\2008 PROJECTS\BMG\HWY. 537 2008 SPILL\MAPS AND DRAWINGS\FIGURE 1 TOPOGRAPHICAL STIE LOCATION MAP

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
BMG HWY 537 LLAVES PIPELINE 2008 OIL SPILL
RIO ARRIBA COUNTY, NEW MEXICO

Sample I.D.	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	GRO	DRO	MRO
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)
Analytical Method		8021B	8021B	8021B	8021B	8015B	8015B	8015B
New Mexico WQCC		*10*	*750*	*750*	*620*	*NE*	*NE*	*NE*
MW-1	05-May-08	<1.0	<1.0	<1.0	<2.0	0.092	<1.0	<5.0
MW-1	24-Sep-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-2	05-May-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-2	24-Sep-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-3	05-May-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-3	24-Sep-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	05-May-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	24-Sep-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-5	05-May-08	NS - Well Dry						
MW-5	24-Sep-08	NS - Well Dry						
MW-6	05-May-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-6	24-Sep-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-7	05-May-08	2.8	<1.0	<1.0	<2.0	0.40	<1.0	<5.0
MW-7	24-Sep-08	<1.0	<1.0	<1.0	<2.0	0.069	<1.0	<5.0
MW-8	05-May-08	**26**	10	<1.0	<2.0	1.10	<1.0	<5.0
MW-8	24-Sep-08	**65**	26	<1.0	<2.0	0.90	<1.0	<5.0
MW-9	05-May-08	6.2	7.5	<1.0	2.3	0.90	<1.0	<5.0
MW-9	24-Sep-08	**17**	12	<1.0	<2.0	0.32	<1.0	<5.0

NOTE: NS = Not Sampled
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
MRO = Motor Oil Range Organics



SCALE
100 50 0 100
25
(1 INCH = 100 FEET)

N

AES Animas Environmental Services, LLC

DRAWN BY: N. Willis	DATE DRAWN: May 8, 2008
REVISIONS BY: N. Willis	DATE REVISED: October 28, 2008
CHECKED BY: E. McNally	DATE CHECKED: October 28, 2008
APPROVED BY: E. McNally	DATE APPROVED: October 28, 2008

FIGURE 2
SPILL INVESTIGATION AREA
BMG
HIGHWAY 537 LLAVES 2008 PIPELINE OIL SPILL
NW¼, NE¼, SEC. 18, T25N, R3W
SCHMITZ RANCH, RIO ARRIBA COUNTY, NEW MEXICO
N36°24'214", W107°11'053"

S:\ANIMAS 2000\2008 PROJECTS\BMG\HWY. 537 2008 SPILL\MAPS AND DRAWINGS\FIGURE 2 SPILL INVESTIGATION AREA 102808

TABLE 1
SUMMARY OF GROUNDWATER MEASUREMENT AND WATER QUALITY DATA
BMG HWY 537 LLAVES PIPELINE 2008 OIL SPILL
Rio Arriba County, New Mexico

Well ID	Date Sampled	Depth to Water (ft)	Surveyed TOC (ft)	GW Elev. (ft)	pH	Conductivity (mS)	DO (mg/L)	Temperature (C)	ORP (mV)
MW-1	05-May-08	31.45	TBS	NA	7.62	4.051	1.48	15.57	141.9
MW-1	24-Sep-08	31.91	TBS	NA	6.80	3.588	2.97	15.32	18.1
MW-2	05-May-08	29.01	TBS	NA	7.59	2.276	2.21	16.43	90.8
MW-2	24-Sep-08	29.61	TBS	NA	6.93	2.073	2.75	14.93	36.0
MW-3	05-May-08	29.49	TBS	NA	7.79	4.083	2.42	15.91	75.7
MW-3	24-Sep-08	30.07	TBS	NA	6.85	2.778	2.80	14.44	18.5
MW-4	05-May-08	32.74	TBS	NA	7.70	2.699	2.36	14.62	-37.5
MW-4	24-Sep-08	33.21	TBS	NA	6.98	2.163	3.04	13.70	42.9
MW-5	05-May-08		TBS	NA	NS - WELL DRY				
MW-5	24-Sep-08		TBS	NA	NS - WELL DRY				
MW-6	05-May-08	36.03	TBS	NA	7.73	1.764	2.43	13.95	87.3
MW-6	24-Sep-08	36.44	TBS	NA	7.00	1.464	3.95	14.19	50.3
MW-7	05-May-08	37.71	TBS	NA	NM - LOW YIELD				
MW-7	24-Sep-08	38.16	TBS	NA	7.08	1.572	6.11	13.99	36.3
MW-8	05-May-08	33.71	TBS	NA	NM - LOW YIELD				
MW-8	24-Sep-08	34.20	TBS	NA	6.88	1.672	3.06	15.24	-9.6
MW-9	05-May-08	31.81	TBS	NA	7.85	1.955	2.59	15.01	-37.9
MW-9	24-Sep-08	32.26	TBS	NA	7.08	1.515	2.84	14.03	43.3

TABLE 1
SUMMARY OF GROUNDWATER MEASUREMENT AND WATER QUALITY DATA
BMG HWY 537 LLAVES PIPELINE 2008 OIL SPILL
Rio Arriba County, New Mexico

Well ID	Date Sampled	Depth to Water (ft)	Surveyed TOC (ft)	GW Elev. (ft)	pH	Conductivity (mS)	DO (mg/L)	Temperature (C)	ORP (mV)

NOTE: NS = NOT SAMPLED
NM = NOT MEASURED
NA = NOT AVAILABLE
TBS = TO BE SURVEYED

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
BMG HWY 537 LLAVES PIPELINE 2008 OIL SPILL
Rio Arriba County, New Mexico

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	GRO	DRO	MRO
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)
Analytical Method		**8021B**	**8021B**	**8021B**	**8021B**	**8015B**	**8015B**	**8015B**
New Mexico WQCC		***10***	***750***	***750***	***620***	***NE***	***NE***	***NE***
MW-1	05-May-08	<1.0	<1.0	<1.0	<2.0	0.092	<1.0	<5.0
MW-1	24-Sep-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-2	05-May-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-2	24-Sep-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-3	05-May-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-3	24-Sep-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	05-May-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	24-Sep-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-5	05-May-08	NS - Well Dry						
MW-5	24-Sep-08	NS - Well Dry						
MW-6	05-May-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-6	24-Sep-08	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-7	05-May-08	2.8	<1.0	<1.0	<2.0	0.40	<1.0	<5.0
MW-7	24-Sep-08	<1.0	<1.0	<1.0	<2.0	0.069	<1.0	<5.0
MW-8	05-May-08	**26**	10	<1.0	<2.0	1.10	<1.0	<5.0
MW-8	24-Sep-08	**65**	26	<1.0	<2.0	0.90	<1.0	<5.0
MW-9	05-May-08	6.2	7.5	<1.0	2.3	0.90	<1.0	<5.0
MW-9	24-Sep-08	**17**	12	<1.0	<2.0	0.32	<1.0	<5.0

NOTE: NS = Not Sampled
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
MRO = Motor Oil Range Organics

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-1

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill
Location: Rio Arriba County, New Mexico
Project: Groundwater Monitoring
Sampling Technician: N.W.Ellis
Purge / No Purge: No Purge
Well Diameter (in): 0.75
Initial D.T.W. (ft): 31.91 **Time:** 1353 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): **Time:** 1357 *(taken prior to purging well)*
Final D.T.W. (ft): **Time:** *(taken after sample collection)*

Project No.: AES 080101
Date: 9-24-08
Arrival Time: 1350
Air Temp: 75°F
T.O.C. Elev. (ft):
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1401	15.32	3.588	2.97	6.80	18.1	1/16 gallon	
1406							Samples collected

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX per EPA Method 8021 (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (40mL Vial w/ no poly)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level, YSI Water Quality Meter, and New Disposable Bailer

Notes/Comments

revised: 05/23/07

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-1 & 2

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill
Location: Rio Arriba County, New Mexico
Project: Groundwater Monitoring
Sampling Technician: A. Willis
Purge / No Purge: No Purge
Well Diameter (in): 0.75
Initial D.T.W. (ft): 29.61 **Time:** 1223 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 29.61 **Time:** 1225 *(taken prior to purging well)*
Final D.T.W. (ft): **Time:** *(taken after sample collection)*

Project No.: AES 080101
Date: 9-24-08
Arrival Time: 1218
Air Temp: 68°F
T.O.C. Elev. (ft):
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1227	14.93	2.073	2.75	6.93	36.0	1/16 gallon	
1232							Samples collected

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX per EPA Method 8021 (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (40mL Vial w/ no poly)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level, YSI Water Quality Meter, and New Disposable Bailer

Notes/Comments

revised: 05/23/07

MONITORING WELL SAMPLING RECORD

Animas Environmental Services

624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Monitor Well No: MW-03

Site: Highway 537 Station Spill
Location: Rio Arriba County, New Mexico
Project: Groundwater Monitoring
Sampling Technician: N. Willis
Purge / No Purge: No Purge
Well Diameter (in): 0.75
Initial D.T.W. (ft): 30.09 **Time:** 1157 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 30.07 **Time:** 1201 *(taken prior to purging well)*
Final D.T.W. (ft): **Time:** *(taken after sample collection)*

Project No.: AES 080101
Date: 9-24-08
Arrival Time: ~~1134~~ 1155
Air Temp: 68°F
T.O.C. Elev. (ft):
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1203	14.44	2.778	2.80	6.85	18.5	1/16 gallon	
1208	—						Samples Collected

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX per EPA Method 8021 (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (40mL Vial w/ no poly)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level, YSI Water Quality Meter, and New Disposable Bailer

Notes/Comments

revised: 05/23/07

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-4

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill
Location: Rio Arriba County, New Mexico
Project: Groundwater Monitoring
Sampling Technician: N. Willis
Purge / No Purge: Purge
Well Diameter (in): 2 3/4"
Initial D.T.W. (ft): 33.25 **Time:** 1058 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 33.21 **Time:** 1100 *(taken prior to purging well)*
Final D.T.W. (ft): **Time:** *(taken after sample collection)*

Project No.: AES 080101
Date: 9-24-08
Arrival Time: 1053
Air Temp: 68°F
T.O.C. Elev. (ft):
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1102	13.70	2.163	3.04	6.98	42.9	1/16 gallon	
1107							Samples collected

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX per EPA Method 8021 (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (40mL Vial w/ no poly)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level, YSI Water Quality Meter, and New Disposable Bailer

Notes/Comments

revised: 05/23/07

MONITORING WELL SAMPLING RECORD

Animas Environmental Services

624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Monitor Well No: MW-4 S

Site: Highway 537 Station Spill
Location: Rio Arriba County, New Mexico
Project: Groundwater Monitoring
Sampling Technician: N. Willis
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): Dry **Time:** 1315 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): **Time:** *(taken prior to purging well)*
Final D.T.W. (ft): **Time:** *(taken after sample collection)*

Project No.: AES 080101
Date: 9-24-08
Arrival Time: 1312
Air Temp: 72°F
T.O.C. Elev. (ft):
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
Well Dry							

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX per EPA Method 8021 (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (40mL Vial w/ no poly)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level, YSI Water Quality Meter, and New Disposable Bailer

Notes/Comments

revised: 05/23/07

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-6

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill
Location: Rio Arriba County, New Mexico
Project: Groundwater Monitoring
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): # 3/4"
Initial D.T.W. (ft): 36.44 **Time:** 1021 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 36.44 **Time:** 1024 *(taken prior to purging well)*
Final D.T.W. (ft): **Time:** *(taken after sample collection)*

Project No.: AES 080101
Date: 9-24-08
Arrival Time: 1018
Air Temp: 65°F
T.O.C. Elev. (ft):
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
~~1027~~						1/16 gallon	
1034	14.19	1.464	3.95	7.00	50.3	1/16 gallon	
1040							samples collected

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX per EPA Method 8021 (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (40mL Vial w/ no poly)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level, YSI Water Quality Meter, and New Disposable Bailer

Notes/Comments

revised: 05/23/07

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-7

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill
Location: Rio Arriba County, New Mexico
Project: Groundwater Monitoring
Sampling Technician: N. Willis
Purge / No Purge: Purge
Well Diameter (in): 3/4"
Initial D.T.W. (ft): 38.16 **Time:** 0943 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): **Time:** 0947 *(taken prior to purging well)*
Final D.T.W. (ft): **Time:** *(taken after sample collection)*

Project No.: AES 080101
Date: 9-24-08
Arrival Time: 09:38
Air Temp: 63°F
T.O.C. Elev. (ft):
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
954	13.99	1.572	6.11	7.08	36.3	1/16 gallon	
1000							Samples Collected

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX per EPA Method 8021 (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (40mL Vial w/ no poly)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level, YSI Water Quality Meter, and New Disposable Bailer

Notes/Comments

revised: 05/23/07

MONITORING WELL SAMPLING RECORD

Monitor Well No: **MW-8**

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill
Location: Rio Arriba County, New Mexico
Project: Groundwater Monitoring
Sampling Technician: N. Willis
Purge / No Purge: No Purge
Well Diameter (in): 0.75
Initial D.T.W. (ft): 34.24 **Time:** 1325 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 34.20 **Time:** 1328 *(taken prior to purging well)*
Final D.T.W. (ft): **Time:** *(taken after sample collection)*

Project No.: AES 080101
Date: 9-24-08
Arrival Time: 1322
Air Temp: 72°F
T.O.C. Elev. (ft):
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1331	15.24	1.672	3.06	6.88	-9.6	1/16 gallon	
1336							Samples collected

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX per EPA Method 8021 (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (40mL Vial w/ no poly)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level, YSI Water Quality Meter, and New Disposable Bailer

Notes/Comments

revised: 05/23/07

MONITORING WELL SAMPLING RECORD

Animas Environmental Services

624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Monitor Well No: MW-9

Site: Highway 537 Station Spill
Location: Rio Arriba County, New Mexico
Project: Groundwater Monitoring
Sampling Technician: N. Willis
Purge / No Purge: No Purge
Well Diameter (in): 0.75
Initial D.T.W. (ft): 32.28 **Time:** 1249 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 32.26 **Time:** 1252 *(taken prior to purging well)*
Final D.T.W. (ft): **Time:** *(taken after sample collection)*

Project No.: AES 080101
Date: 9-24-08
Arrival Time: 1245
Air Temp: 71°F
T.O.C. Elev. (ft):
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1254	14.03	1.515	2.84	7.08	43.3	1/16 gallon	
1300							Samples collected

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX per EPA Method 8021 (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (2 40mL Vials w/ HCl preserve)
TPH C_6-C_{36} per EPA Method 8015B (40mL Vial w/ no poly)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level, YSI Water Quality Meter, and New Disposable Bailer

Notes/Comments

revised: 05/23/07

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Monday, October 06, 2008

Ross Kennemer
Animas Environmental Services
624 East Comanche
Farmington, NM 87401

TEL: (505) 564-2281
FAX (505) 324-2022

RE: BMG Highway 537 2008 Spill

Order No.: 0809525

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory, Inc. received 9 sample(s) on 9/26/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *06-Oct-08*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	MW-1
Lab Order:	0809525	**Collection Date:**	9/24/2008 2:06:00 PM
Project:	BMG Highway 537 2008 Spill	**Date Received:**	9/26/2008
Lab ID:	0809525-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/2/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/2/2008
Surr: DNOP	127	58-140		%REC	1	10/2/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/2/2008 10:49:18 PM
Surr: BFB	91.5	59.9-122		%REC	1	10/2/2008 10:49:18 PM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	10/2/2008 10:49:18 PM
Toluene	ND	1.0		µg/L	1	10/2/2008 10:49:18 PM
Ethylbenzene	ND	1.0		µg/L	1	10/2/2008 10:49:18 PM
Xylenes, Total	ND	2.0		µg/L	1	10/2/2008 10:49:18 PM
Surr: 4-Bromofluorobenzene	93.4	65.9-130		%REC	1	10/2/2008 10:49:18 PM

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	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *06-Oct-08*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	MW-2
Lab Order:	0809525	**Collection Date:**	9/24/2008 12:32:00 PM
Project:	BMG Highway 537 2008 Spill	**Date Received:**	9/26/2008
Lab ID:	0809525-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/2/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/2/2008
Surr: DNOP	129	58-140		%REC	1	10/2/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/2/2008 11:19:46 PM
Surr: BFB	89.5	59.9-122		%REC	1	10/2/2008 11:19:46 PM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	10/2/2008 11:19:46 PM
Toluene	ND	1.0		µg/L	1	10/2/2008 11:19:46 PM
Ethylbenzene	ND	1.0		µg/L	1	10/2/2008 11:19:46 PM
Xylenes, Total	ND	2.0		µg/L	1	10/2/2008 11:19:46 PM
Surr: 4-Bromofluorobenzene	88.9	65.9-130		%REC	1	10/2/2008 11:19:46 PM

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	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *06-Oct-08*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	MW-3
Lab Order:	0809525	**Collection Date:**	9/24/2008 12:08:00 PM
Project:	BMG Highway 537 2008 Spill	**Date Received:**	9/26/2008
Lab ID:	0809525-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/2/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/2/2008
Surr: DNOP	129	58-140		%REC	1	10/2/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/2/2008 11:50:10 PM
Surr: BFB	85.9	59.9-122		%REC	1	10/2/2008 11:50:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	10/2/2008 11:50:10 PM
Toluene	ND	1.0		µg/L	1	10/2/2008 11:50:10 PM
Ethylbenzene	ND	1.0		µg/L	1	10/2/2008 11:50:10 PM
Xylenes, Total	ND	2.0		µg/L	1	10/2/2008 11:50:10 PM
Surr: 4-Bromofluorobenzene	83.3	65.9-130		%REC	1	10/2/2008 11:50:10 PM

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	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *06-Oct-08*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	MW-4
Lab Order:	0809525	**Collection Date:**	9/24/2008 11:07:00 AM
Project:	BMG Highway 537 2008 Spill	**Date Received:**	9/26/2008
Lab ID:	0809525-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/2/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/2/2008
Surr: DNOP	127	58-140		%REC	1	10/2/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/3/2008 12:20:41 AM
Surr: BFB	89.0	59.9-122		%REC	1	10/3/2008 12:20:41 AM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	10/3/2008 12:20:41 AM
Toluene	ND	1.0		µg/L	1	10/3/2008 12:20:41 AM
Ethylbenzene	ND	1.0		µg/L	1	10/3/2008 12:20:41 AM
Xylenes, Total	ND	2.0		µg/L	1	10/3/2008 12:20:41 AM
Surr: 4-Bromofluorobenzene	89.0	65.9-130		%REC	1	10/3/2008 12:20:41 AM

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	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *06-Oct-08*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	MW-6
Lab Order:	0809525	**Collection Date:**	9/24/2008 10:40:00 AM
Project:	BMG Highway 537 2008 Spill	**Date Received:**	9/26/2008
Lab ID:	0809525-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/2/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/2/2008
Surr: DNOP	122	58-140		%REC	1	10/2/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/3/2008 12:51:02 AM
Surr: BFB	88.3	59.9-122		%REC	1	10/3/2008 12:51:02 AM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	10/3/2008 12:51:02 AM
Toluene	ND	1.0		µg/L	1	10/3/2008 12:51:02 AM
Ethylbenzene	ND	1.0		µg/L	1	10/3/2008 12:51:02 AM
Xylenes, Total	ND	2.0		µg/L	1	10/3/2008 12:51:02 AM
Surr: 4-Bromofluorobenzene	87.9	65.9-130		%REC	1	10/3/2008 12:51:02 AM

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	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *06-Oct-08*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	MW-7
Lab Order:	0809525	**Collection Date:**	9/24/2008 10:00:00 AM
Project:	BMG Highway 537 2008 Spill	**Date Received:**	9/26/2008
Lab ID:	0809525-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/2/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/2/2008
Surr: DNOP	119	58-140		%REC	1	10/2/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	0.069	0.050		mg/L	1	10/3/2008 1:21:26 AM
Surr: BFB	89.7	59.9-122		%REC	1	10/3/2008 1:21:26 AM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	10/3/2008 1:21:26 AM
Toluene	ND	1.0		µg/L	1	10/3/2008 1:21:26 AM
Ethylbenzene	ND	1.0		µg/L	1	10/3/2008 1:21:26 AM
Xylenes, Total	ND	2.0		µg/L	1	10/3/2008 1:21:26 AM
Surr: 4-Bromofluorobenzene	89.5	65.9-130		%REC	1	10/3/2008 1:21:26 AM

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	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *06-Oct-08*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	MW-8
Lab Order:	0809525	**Collection Date:**	9/24/2008 1:36:00 PM
Project:	BMG Highway 537 2008 Spill	**Date Received:**	9/26/2008
Lab ID:	0809525-07	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/2/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/2/2008
Surr: DNOP	128	58-140		%REC	1	10/2/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	0.90	0.050		mg/L	1	10/3/2008 1:51:47 AM
Surr: BFB	87.0	59.9-122		%REC	1	10/3/2008 1:51:47 AM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Benzene	65	1.0		µg/L	1	10/3/2008 1:51:47 AM
Toluene	26	1.0		µg/L	1	10/3/2008 1:51:47 AM
Ethylbenzene	ND	1.0		µg/L	1	10/3/2008 1:51:47 AM
Xylenes, Total	ND	2.0		µg/L	1	10/3/2008 1:51:47 AM
Surr: 4-Bromofluorobenzene	88.4	65.9-130		%REC	1	10/3/2008 1:51:47 AM

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	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *06-Oct-08*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	MW-9
Lab Order:	0809525	**Collection Date:**	9/24/2008 1:00:00 PM
Project:	BMG Highway 537 2008 Spill	**Date Received:**	9/26/2008
Lab ID:	0809525-08	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/2/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/2/2008
Surr: DNOP	126	58-140		%REC	1	10/2/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	0.32	0.050		mg/L	1	10/3/2008 2:22:04 AM
Surr: BFB	87.0	59.9-122		%REC	1	10/3/2008 2:22:04 AM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Benzene	17	1.0		µg/L	1	10/3/2008 2:22:04 AM
Toluene	12	1.0		µg/L	1	10/3/2008 2:22:04 AM
Ethylbenzene	ND	1.0		µg/L	1	10/3/2008 2:22:04 AM
Xylenes, Total	ND	2.0		µg/L	1	10/3/2008 2:22:04 AM
Surr: 4-Bromofluorobenzene	86.6	65.9-130		%REC	1	10/3/2008 2:22:04 AM

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	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *06-Oct-08*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TRIP BLANK
Lab Order:	0809525	**Collection Date:**	
Project:	BMG Highway 537 2008 Spill	**Date Received:**	9/26/2008
Lab ID:	0809525-09	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	10/3/2008 2:52:25 AM
Toluene	ND	1.0		µg/L	1	10/3/2008 2:52:25 AM
Ethylbenzene	ND	1.0		µg/L	1	10/3/2008 2:52:25 AM
Xylenes, Total	ND	2.0		µg/L	1	10/3/2008 2:52:25 AM
Surr: 4-Bromofluorobenzene	91.3	65.9-130		%REC	1	10/3/2008 2:52:25 AM

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	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

QA/QC SUMMARY REPORT

Client: Animas Environmental Services
Project: BMG Highway 537 2008 Spill **Work Order:** 0809525

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-17226		*MBLK*			Batch ID: **17226**		Analysis Date:		10/2/2008
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-17226		*LCS*			Batch ID: **17226**		Analysis Date:		10/2/2008
Diesel Range Organics (DRO)	5.264	mg/L	1.0	105	74	157			
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCSD-17226		*LCSD*			Batch ID: **17226**		Analysis Date:		10/2/2008
Diesel Range Organics (DRO)	5.982	mg/L	1.0	120	74	157			
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 0809525-02A MSD		*MSD*			Batch ID: **R30493**		Analysis Date:		10/2/2008 2:37:23 PM
Gasoline Range Organics (GRO)	0.4994	mg/L	0.050	99.9	80	115	0.320	8.39	
Sample ID: 5ML RB		*MBLK*			Batch ID: **R30493**		Analysis Date:		10/2/2008 9:02:21 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		*LCS*			Batch ID: **R30493**		Analysis Date:		10/2/2008 1:05:53 PM
Gasoline Range Organics (GRO)	0.4920	mg/L	0.050	98.4	80	115			
Sample ID: 0809525-02A MS		*MS*			Batch ID: **R30493**		Analysis Date:		10/2/2008 2:06:51 PM
Gasoline Range Organics (GRO)	0.5010	mg/L	0.050	100	80	115			
Method: EPA Method 8021B: Volatiles									
Sample ID: 0809525-02A MSD		*MSD*			Batch ID: **R30493**		Analysis Date:		10/2/2008 2:37:23 PM
Benzene	6.518	µg/L	1.0	116	85.9	113	2.22	27	S
Toluene	44.13	µg/L	1.0	110	86.4	113	1.26	19	
Ethylbenzene	9.102	µg/L	1.0	114	83.5	118	2.17	10	
Xylenes, Total	53.07	µg/L	2.0	115	83.4	122	1.79	13	
Sample ID: 5ML RB		*MBLK*			Batch ID: **R30493**		Analysis Date:		10/2/2008 9:02:21 AM
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID: **R30493**		Analysis Date:		10/2/2008 1:36:19 PM
Benzene	19.72	µg/L	1.0	98.6	85.9	113			
Toluene	19.68	µg/L	1.0	98.4	86.4	113			
Ethylbenzene	20.35	µg/L	1.0	102	83.5	118			
Xylenes, Total	60.30	µg/L	2.0	101	83.4	122			
Sample ID: 0809525-02A MS		*MS*			Batch ID: **R30493**		Analysis Date:		10/2/2008 2:06:51 PM
Benzene	6.664	µg/L	1.0	119	85.9	113			S
Toluene	44.69	µg/L	1.0	112	86.4	113			
Ethylbenzene	9.302	µg/L	1.0	116	83.5	118			
Xylenes, Total	54.03	µg/L	2.0	117	83.4	122			

Qualifiers:

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
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name ANIMAS ENVIRONMENTAL Date Received: 9/26/2008

Work Order Number 0809525 Received by: ARS

Checklist completed by: _____ 9/26/08 Sample ID labels checked by: _____

Signature Date Initials

Matrix: Carrier name Greyhound

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace? No VOA vials submitted ☐		Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	3°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: One voa broken upon arrival sample 0809525-4. AJ 9/26

Corrective Action _____

Chain-of-Custody Record

Client: Animas Environmental Services, LLC.

Address: 624 E. Comanche Farmington, NM 87401

Phone #: 505-564-2281

email or Fax#: 505-324-2022

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)
☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☑ Standard ☐ Rush _____

Project Name: BMG Hwy 537 '08 Spill

Project #:

Project Manager: Ross Kennemer

Sampler: Nathan Wills

On Ice: ☑ Yes ☐ No

Sample Temperature: 3°

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	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0809525	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8260)	8310 (PNA or PAH)	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	[illegible]	8021/8015 BTEX + TPH C_6-C_{36}			Air Bubbles (Y or N)
9-24-08	1406	MW-1	40ml glass	4-HCl/1-NA	1													X			
	1232	MW-2			2													X			
	1208	MW-3			3													X			
	1107	MW-4			4													X			
		~~MW-5~~																X			
	1040	MW-6			5													X			
	1000	MW-7			6													X			
	1336	MW-8			7													X			
9/24/08	1300	MW-9	40ml glass	4-HCl/1-NA	8													X			
9/24/08	0612	Trip Blank	40ml glass	2-HCl	9													X			

Date:	Time:	Relinquished by:	Received by:	Date:	Time:
9/24/08	1634	Nathan Wills	Ross Kennemer	9/24/08	1634
9/25/08	0705	Ross Kennemer	[illegible]	9/25/08	16:45

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.