HBP - ____21____

GENERAL CORRESPONDENCE

YEAR(S): __2008-2010___

Jones, Brad A., EMNRD

From: Ford, Michael [MFord@hess.com]
Sent: Friday, September 26, 2008 11:57 AM
To: Jones, Brad A., EMNRD; Martin, Ed, EMNRD
Cc: Holcomb, Danny; Promchotikul, Pitinan
Subject: Discharge of Hydrostatic Test Water - Permit HBP-021

Brad,

Confirming a voice mail I left with your office this morning, this is to provide notice that we plan to do the second discharge of new carbon dioxide pipeline gathering system hydrostatic test water beginning on Monday afternoon, September 29, 2008. We will be moving the water from the proposed discharge location #2 so that it may be sprayed and used for needed dust control at our construction site within Section 5, T-18-N, R-30-E (discharge location #1). Please reference the record for Permit HBP-021 for additional information.

Please contact me if you have any questions regarding this information.

Mike Ford
Environmental Advisor
Hess Corporation
Phone: 713-609-4204

Jones, Brad A., EMNRD

From: Ford, Michael [MFord@hess.com]
Sent: Thursday, September 18, 2008 1:08 PM
To: Jones, Brad A., EMNRD; Martin, Ed, EMNRD
Cc: Holcomb, Danny
Subject: Discharge of Hydrostatic Test Water - Permit HBP-021

Brad,

Confirming our phone conversation this morning, this is to provide notice that we plan to discharge new carbon dioxide pipeline gathering system hydrostatic test water within Section 5, T-18-N, R-30-E beginning on Sunday afternoon, September 21, 2008. Please reference the record for Permit HBP-021 for additional information.

Please contact me if you have any questions regarding this information.

Mike Ford
Environmental Advisor
Hess Corporation
Phone: 713-609-4204

HESS CORPORATION
500 Dallas Street
Houston, TX 77002

July 16, 2008

NEXT DAY DELIVERY

Mr. Brad Jones
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: FEF – WATER DISCHARGE PERMIT
PERMISSION TO DISCHARGE
PIPELINE HYDROSTATIC TESTS
CO2 GATHERING SYSTEM LINE(S)
WEST BRAVO DOME

Dear Mr. Jones:

Hess Corporation submitted a request, dated 5/14/08, for an annual temporary permission to discharge pipeline hydrostatic test water for portions of the new carbon dioxide (CO2) gathering system, constructed of new fiberglass pipe, in the West Bravo Dome field located in northeast New Mexico. Hess Corporation would like to rescind the original application and reapply with this request.

Summary of Activities:

1. Hess Corporation's pipeline construction contractor will hydrostatically test the West Bravo Dome carbon dioxide (CO2) gathering system lines, constructed of new fiberglass pipe, located in Harding County, New Mexico. The volume of water discharged will not exceed 25,000 gallons per hydrostatic test.

2. Water from the Mitchell pond will be used for the tests. This water has been analyzed for the constituents identified in New Mexico Administrative Code (NMAC) 20.6.2.3103 (A), (B) and (C). A copy of these analyses is attached. With the exception of fluoride at 3.7 mg/l, compliance with the New Mexico standards is shown. It should be noted the EPA's current drinking water standard's maximum allowable fluoride concentration is 4.0 mg/l.

3. Oral or written notification will be provided to the New Mexico Oil Conservation Division (NMOCD) 72 hours prior to each hydrostatic discharge event.

4. The discharge will not enter any lake, perennial stream, river or their respective tributaries that may be seasonal (see attached aerial photograph showing distance to nearby watercourses and roads).

5. No discharge will occur:
   a. where ground water is less than 10 feet below ground surface.
   b. within 200 feet of a watercourse, lakebed, sinkhole or playa lake (see attached aerial photo).
   c. within an existing well head protection area
   d. within, or within 500 feet of a wetland (see attached aerial photo).
   e. within 500 feet from the nearest permanent residence, school, hospital, institution or church.

6. Best management practices will be implemented to contain the discharge onsite, not impact adjacent property, and to control erosion. These best management practices will include passing the water through filters to catch solids and then through straw bales surround by a silt fence or spraying the water onto the right of way in a controlled rate so that erosion does not occur.

7. The discharge will not cause any fresh water supplies to be degraded or exceed standards as set forth in Subsections A, B and C of the 20.6.2.3103 New Mexico Water Quality Control Commission Regulations.

8. The landowner at each proposed discharge location will be properly notified of the discharge activities prior to each proposed hydrostatic test event.

9. An annual report, summarizing all tests of new pipeline with less than 25,000 gallons per hydrostatic test event, will be submitted to the OCD within 45 days after the temporary permission expiration date and will contain the following information:
    a. the location of the hydrostatic test
    b. the date of each test
    c. the volume of each discharge
    d. the source and quality of the test water.

A check for $100 was submitted with our original application to address the application filing fee; therefore, we are not submitting a filing fee with this application. If an additional filing fee is required, please let me know. A check in the amount of $150.00 is being sent under separate letter to the Water Quality Management Fund for payment of the required temporary permission fee.

If you should have any questions or require additional information, please feel free to contact me at (713) 609-4204.

Sincerely,

Michael D. Ford

Michael D. Ford
Environmental Advisor

MDF:WBDPIPETESTANNUALPERMLT.DOC

Attachments

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Monday, July 14, 2008

Michael Ford
Hess Corporation
HCR72 Box 30
Mosquero, NM 87733

TEL: (575) 650-0316
FAX

RE: Hess West Bravo Dome

Order No.: 0806232

Dear Michael Ford:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 6/16/2008 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

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-08*

CLIENT:	Hess Corporation	**Client Sample ID:**	Mitchell Creek
Lab Order:	0806232	**Collection Date:**	6/16/2008 7:30:00 AM
Project:	Hess West Bravo Dome	**Date Received:**	6/16/2008
Lab ID:	0806232-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 504.1: EDB						Analyst: **JAT**
1,2-Dibromoethane	ND	0.010		µg/L	1	6/19/2008 5:28:42 PM
Surr: 1,2,3-Trichloropropane	105	54.9-135		%REC	1	6/19/2008 5:28:42 PM
EPA METHOD 8082: PCB'S						Analyst: **JMP**
Aroclor 1016	ND	1.0		µg/L	1	6/26/2008 9:43:34 AM
Aroclor 1221	ND	5.0		µg/L	1	6/26/2008 9:43:34 AM
Aroclor 1232	ND	1.0		µg/L	1	6/26/2008 9:43:34 AM
Aroclor 1242	ND	1.0		µg/L	1	6/26/2008 9:43:34 AM
Aroclor 1248	ND	1.0		µg/L	1	6/26/2008 9:43:34 AM
Aroclor 1254	ND	1.0		µg/L	1	6/26/2008 9:43:34 AM
Aroclor 1260	ND	1.0		µg/L	1	6/26/2008 9:43:34 AM
Surr: Decachlorobiphenyl	68.0	23.9-124		%REC	1	6/26/2008 9:43:34 AM
Surr: Tetrachloro-m-xylene	74.8	28.1-139		%REC	1	6/26/2008 9:43:34 AM
EPA METHOD 8310: PAHS						Analyst: **DMF**
Naphthalene	ND	2.0		µg/L	1	6/30/2008 3:49:31 PM
1-Methylnaphthalene	ND	2.0		µg/L	1	6/30/2008 3:49:31 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	6/30/2008 3:49:31 PM
Acenaphthylene	ND	2.5		µg/L	1	6/30/2008 3:49:31 PM
Acenaphthene	ND	5.0		µg/L	1	6/30/2008 3:49:31 PM
Fluorene	ND	0.80		µg/L	1	6/30/2008 3:49:31 PM
Phenanthrene	ND	0.60		µg/L	1	6/30/2008 3:49:31 PM
Anthracene	ND	0.60		µg/L	1	6/30/2008 3:49:31 PM
Fluoranthene	ND	0.30		µg/L	1	6/30/2008 3:49:31 PM
Pyrene	ND	0.30		µg/L	1	6/30/2008 3:49:31 PM
Benz(a)anthracene	ND	0.070		µg/L	1	6/30/2008 3:49:31 PM
Chrysene	ND	0.20		µg/L	1	6/30/2008 3:49:31 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	6/30/2008 3:49:31 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	6/30/2008 3:49:31 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	6/30/2008 3:49:31 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	6/30/2008 3:49:31 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	6/30/2008 3:49:31 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	6/30/2008 3:49:31 PM
Surr: Benzo(e)pyrene	57.9	38.3-106		%REC	1	6/30/2008 3:49:31 PM
EPA METHOD 300.0: ANIONS						Analyst: **SLB**
Fluoride	3.7	0.10		mg/L	1	6/16/2008 10:18:30 PM
Chloride	38	0.10		mg/L	1	6/16/2008 10:18:30 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	6/16/2008 10:18:30 PM
Sulfate	220	5.0		mg/L	10	6/16/2008 10:35:55 PM
EPA METHOD 7470: MERCURY						Analyst: **SNV**

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-08*

CLIENT:	Hess Corporation	**Client Sample ID:**	Mitchell Creek
Lab Order:	0806232	**Collection Date:**	6/16/2008 7:30:00 AM
Project:	Hess West Bravo Dome	**Date Received:**	6/16/2008
Lab ID:	0806232-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7470: MERCURY						Analyst: SNV
Mercury	ND	0.00020		mg/L	1	7/7/2008 2:51:09 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Aluminum	0.066	0.020		mg/L	1	7/8/2008 3:10:18 PM
Barium	0.11	0.010		mg/L	1	7/8/2008 3:10:18 PM
Boron	0.31	0.040		mg/L	1	7/8/2008 3:10:18 PM
Cadmium	ND	0.0020		mg/L	1	7/8/2008 3:10:18 PM
Chromium	ND	0.0060		mg/L	1	6/23/2008 1:34:00 PM
Cobalt	ND	0.0060		mg/L	1	7/8/2008 3:10:18 PM
Copper	ND	0.0060		mg/L	1	7/8/2008 3:10:18 PM
Iron	0.085	0.050		mg/L	1	7/8/2008 3:10:18 PM
Lead	ND	0.0050		mg/L	1	6/23/2008 1:34:00 PM
Manganese	0.089	0.0020		mg/L	1	7/8/2008 3:10:18 PM
Molybdenum	ND	0.0080		mg/L	1	7/8/2008 3:10:18 PM
Nickel	ND	0.010		mg/L	1	7/8/2008 3:10:18 PM
Silver	ND	0.0050		mg/L	1	7/8/2008 3:10:18 PM
Zinc	ND	0.020		mg/L	1	7/8/2008 3:10:18 PM
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Toluene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Naphthalene	ND	2.0		µg/L	1	6/19/2008 11:10:09 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2008 11:10:09 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2008 11:10:09 PM
Acetone	ND	10		µg/L	1	6/19/2008 11:10:09 PM
Bromobenzene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Bromoform	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Bromomethane	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
2-Butanone	ND	10		µg/L	1	6/19/2008 11:10:09 PM
Carbon disulfide	ND	10		µg/L	1	6/19/2008 11:10:09 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Chlorobenzene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Chloroethane	ND	2.0		µg/L	1	6/19/2008 11:10:09 PM
Chloroform	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Chloromethane	ND	1.0		µg/L	1	6/19/2008 11:10:09 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: *14-Jul-08*

CLIENT:	Hess Corporation	**Client Sample ID:**	Mitchell Creek
Lab Order:	0806232	**Collection Date:**	6/16/2008 7:30:00 AM
Project:	Hess West Bravo Dome	**Date Received:**	6/16/2008
Lab ID:	0806232-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2008 11:10:09 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Dibromomethane	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2008 11:10:09 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
2-Hexanone	ND	10		µg/L	1	6/19/2008 11:10:09 PM
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2008 11:10:09 PM
Methylene Chloride	ND	3.0		µg/L	1	6/19/2008 11:10:09 PM
n-Butylbenzene	ND	1 0		µg/L	1	6/19/2008 11:10:09 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Styrene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2008 11:10:09 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2008 11:10:09 PM
Vinyl chloride	ND	1.0		µg/L	1	6/19/2008 11:10:09 PM
Xylenes, Total	ND	1.5		µg/L	1	6/19/2008 11:10:09 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-08*

CLIENT:	Hess Corporation	**Client Sample ID:**	Mitchell Creek
Lab Order:	0806232	**Collection Date:**	6/16/2008 7:30:00 AM
Project:	Hess West Bravo Dome	**Date Received:**	6/16/2008
Lab ID:	0806232-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Surr: 1,2-Dichloroethane-d4	93.7	68.1-123		%REC	1	6/19/2008 11:10:09 PM
Surr: 4-Bromofluorobenzene	97.5	53.2-145		%REC	1	6/19/2008 11:10:09 PM
Surr: Dibromofluoromethane	94.3	68.5-119		%REC	1	6/19/2008 11:10:09 PM
Surr: Toluene-d8	99.5	64-131		%REC	1	6/19/2008 11:10:09 PM
EPA METHOD 9067: TOTAL PHENOLICS						Analyst: **JAT**
Phenolics, Total Recoverable	4.9	2.5		µg/L	1	6/19/2008
SM4500-H+B: PH						Analyst: **KMS**
pH	9.19	0.1		pH units	1	6/17/2008
SM 2540C TOTAL DISSOLVED SOLIDS						Analyst: **KMS**
Total Dissolved Solids	830	20		mg/L	1	6/20/2008

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: *14-Jul-08*

CLIENT:	Hess Corporation	**Client Sample ID:**	Trip Blank
Lab Order:	0806232	**Collection Date:**	
Project:	Hess West Bravo Dome	**Date Received:**	6/16/2008
Lab ID:	0806232-02	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Toluene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Naphthalene	ND	2.0		µg/L	1	6/19/2008 11:38:53 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2008 11:38:53 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2008 11:38:53 PM
Acetone	ND	10		µg/L	1	6/19/2008 11:38:53 PM
Bromobenzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Bromoform	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Bromomethane	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
2-Butanone	ND	10		µg/L	1	6/19/2008 11:38:53 PM
Carbon disulfide	ND	10		µg/L	1	6/19/2008 11:38:53 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Chlorobenzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Chloroethane	ND	2.0		µg/L	1	6/19/2008 11:38:53 PM
Chloroform	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Chloromethane	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2008 11:38:53 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Dibromomethane	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2008 11:38:53 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
2-Hexanone	ND	10		µg/L	1	6/19/2008 11:38:53 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: *14-Jul-08*

CLIENT:	Hess Corporation	**Client Sample ID:**	Trip Blank
Lab Order:	0806232	**Collection Date:**	
Project:	Hess West Bravo Dome	**Date Received:**	6/16/2008
Lab ID:	0806232-02	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2008 11:38:53 PM
Methylene Chloride	ND	3.0		µg/L	1	6/19/2008 11:38:53 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Styrene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2008 11:38:53 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2008 11:38:53 PM
Vinyl chloride	ND	1.0		µg/L	1	6/19/2008 11:38:53 PM
Xylenes, Total	ND	1.5		µg/L	1	6/19/2008 11:38:53 PM
Surr: 1,2-Dichloroethane-d4	92.8	68.1-123		%REC	1	6/19/2008 11:38:53 PM
Surr: 4-Bromofluorobenzene	98.3	53.2-145		%REC	1	6/19/2008 11:38:53 PM
Surr: Dibromofluoromethane	93.8	68.5-119		%REC	1	6/19/2008 11:38:53 PM
Surr: Toluene-d8	97.5	64-131		%REC	1	6/19/2008 11:38:53 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		

Benchmark Analytics, Inc.

4777 Saucon Creek Road
Center Valley, PA 18034

Phone: (610) 974-8100
Fax: (610) 974-8104

Work Order: 08062268

SEND DATA TO:

NAME: Andy Freeman
COMPANY: Hall Environmental Analysis Lab, Inc.
ADDRESS: 4901 Hawkins NE, Suite D
Albuquerque, NM 87109-4372

PHONE: (505) 345-3975
FAX: (505) 345-4107

WO#: 08062268
PAGE: 1 of 1
PO#:
PWS ID#

TEST REPORT

0806232

RECEIVED FOR LAB BY: CMM DATE: 06/17/2008 9:00

SAMPLE: **0806232-01G, Mitchell Creek** Lab ID: 08062268-001A Grab
SAMPLED BY: Client Sample Time: 06/16/2008 7:30

Test	Result	Method	RL	Analysis Start	Analysis End	Analyst *
Arsenic	< 0.0050 mg/L	EPA 200.8	0.01	06/18/08 14:00	06/20/08	JRA-CV
Selenium	< 0.0038 mg/L	EPA 200.8	0.05	06/18/08 14:00	06/20/08	JRA-CV
Uranium	7.29 µg/L	EPA 200.8	30	06/18/08 14:00	06/23/08	JRA-CV
Uranium	4.89 pCi/L	EPA 200.8		06/18/08 14:00	06/23/08	JRA-CV

SAMPLE: **0806232-01I, Mitchell Creek** Lab ID: 08062268-001D Grab
SAMPLED BY: Client Sample Time: 06/16/2008 7:30

Test	Result	Method	RL	Analysis Start	Analysis End	Analyst *
Cyanide	< 0.005 mg/L	SM#20 4500 CN C,E	0.2	06/23/08 10:30	06/23/08	LNP-CV

REMARKS:

The above test procedures meet all the requirements of NELAC and relate only to these samples.
* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER Clint Mel DATE: 7/11/2008

BENCHMARK ANALYTICS, INC.
4777 Saucon Creek Road
Center Valley, PA 18034-9004

PHONE (610) 974-8100
FAX (610) 974-8104

Work Order: 08062268

SEND DATA TO:

NAME: Andy Freeman
COMPANY: Hall Environmental Analysis Lab, Inc.
ADDRESS: 4901 Hawkins NE, Suite D
Albuquerque, NM 87109-4372

PHONE: (505) 345-3975
FAX: (505) 345-4107

WO#: 08062268
PAGE: 1 of 1
PO#:
PWS ID#

TEST REPORT

0806232

RECEIVED FOR LAB BY: CMM DATE: 06/17/2008 9:00

SAMPLE: **0806232-01H, Mitchell Creek** Lab ID: 08062268-001B Grab
SAMPLED BY: Client Sample Time 06/16/2008 7:30

Test	Result	Uncert.	MDA	Units	Method	MCL	Analysis Start	Analysis End	Analyst *
Radium-226	0.07	± 0.05	0.78	pCi/L	EPA 903.0		06/20/08 10:20	07/01/08	BH-CV

SAMPLE: **0806232-01H, Mitchell Creek** Lab ID: 08062268-001C Grab
SAMPLED BY: Client Sample Time 06/16/2008 7:30

Test	Result	Uncert.	MDA	Units	Method	MCL	Analysis Start	Analysis End	Analyst *
Radium-228	-0.19	± 0.48	0.74	pCi/L	EPA 904.0		07/08/08 8:30	07/10/08	CCA-CV

REMARKS:
The above test procedures meet all the requirements of NELAC and relate only to these samples.
* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER Clin Mek DATE: 7/11/2008

CLIENT: Hall Environmental Analysis Lab, Inc.
Work Order: 08062268
Project: 0806232

ANALYTICAL QC SUMMARY REPORT

TestCode: CN_TT_4500E_D

Sample ID: 08062265-001DDUP	SampType: DUP	TestCode: CN_TT_4500	Units: mg/L	Prep Date:	RunNo: 24042
Client ID: ZZZZZZ	Batch ID: R24042	TestNo: A4500-CN-E		Analysis Date: 6/23/2008	SeqNo: 452195

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	< 0.005	0.005						0	0	10	

Sample ID: 08062268-001DMS	SampType: MS	TestCode: CN_TT_4500	Units: mg/L	Prep Date:	RunNo: 24042
Client ID: 0806232-01I, Mitchell Cre	Batch ID: R24042	TestNo: A4500-CN-E		Analysis Date: 6/23/2008	SeqNo: 452197

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.039	0.005	0.05000	0	78.0	90	110				S

Qualifiers:
B Analyte detected in the associated Method Blank
D Limit of detection increased due to matrix interference an
E Value above quantitation range
J Analyte reported below quantitation limits
L Value above calibration range but within annually verifie
LBP Lead based paint is defined as a paint with greater thar
PHQC Sample pH was >2. Due to matrix effects, not all quality
Q Due to matrix effects, not all quality control parameters
R RPD outside accepted recovery limits

CLIENT: Hall Environmental Analysis Lab, Inc.
Work Order: 08062268
Project: 0806232

ANALYTICAL QC SUMMARY REPORT

TestCode: ME_ICPMS_Ddig

Sample ID: MBLK EDD 061908 A	SampType: MBLK	TestCode: ME_ICPMS_	Units: mg/L	Prep Date:	RunNo: 23993
Client ID: PBW	Batch ID: EDD 061908	TestNo: E200.8		Analysis Date: 6/19/2008	SeqNo: 451265

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	< 0.0050	0.0050									
Selenium	< 0.0038	0.0038									

Sample ID: 08061687-001A DUP	SampType: DUP	TestCode: ME_ICPMS_	Units: mg/L	Prep Date:	RunNo: 23993
Client ID: ZZZZZZ	Batch ID: EDD 061908	TestNo: E200.8		Analysis Date: 6/13/2008	SeqNo: 451268

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	< 0.0050	0.0050						0	0	20	
Selenium	< 0.0038	0.0038						0	0	20	

Sample ID: 08061687-001A MS	SampType: MS	TestCode: ME_ICPMS_	Units: mg/L	Prep Date:	RunNo: 23993
Client ID: ZZZZZZ	Batch ID: EDD 061908	TestNo: E200.8		Analysis Date: 6/13/2008	SeqNo: 451269

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	119.8%	0.0050	0.002500	0	0	70	130				S
Selenium	0.0309	0.0038	0.02750	0	112	70	130				

Sample ID: 08062083-001B DUP	SampType: DUP	TestCode: ME_ICPMS_	Units: mg/L	Prep Date:	RunNo: 23993
Client ID: ZZZZZZ	Batch ID: EDD 061908	TestNo: E200.8		Analysis Date: 6/19/2008	SeqNo: 451282

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	< 0.0050	0.0050						0	0	20	
Selenium	< 0.0038	0.0038						0	0	20	

Sample ID: 08062083-001B MS	SampType: MS	TestCode: ME_ICPMS_	Units: mg/L	Prep Date:	RunNo: 23993
Client ID: ZZZZZZ	Batch ID: EDD 061908	TestNo: E200.8		Analysis Date: 6/19/2008	SeqNo: 451283

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	99%	0.0050	0.002500	0	0	70	130				S
Selenium	0.0296	0.0038	0.02750	0	108	70	130				

Qualifiers:

- B Analyte detected in the associated Method Blank
- D Limit of detection increased due to matrix interference an
- E Value above quantitation range
- J Analyte reported below quantitation limits
- L Value above calibration range but within annually verifie
- LBP Lead based paint is defined as a paint with greater thar
- PHQC Sample pH was >2. Due to matrix effects, not all quality
- Q Due to matrix effects, not all quality control parameters
- R RPD outside accepted recovery limits

CLIENT: Hall Environmental Analysis Lab, Inc.
Work Order: 08062268
Project: 0806232

ANALYTICAL QC SUMMARY REPORT

TestCode: RA226_903.0

Sample ID: BLANK	SampType: MBLK	TestCode: RA226_903.0	Units: pCi/L	Prep Date:	RunNo: 24520
Client ID: PBW	Batch ID: R24520	TestNo: E903.0		Analysis Date: 6/20/2008	SeqNo: 462185

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	0.08										

Sample ID: LCS	SampType: LCS	TestCode: RA226_903.0	Units: pCi/L	Prep Date:	RunNo: 24520
Client ID: LCSW	Batch ID: R24520	TestNo: E903.0		Analysis Date: 6/20/2008	SeqNo: 462186

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	15.71		10.66	0	147	74	126				S

Sample ID: LCS DUP 1	SampType: LCSD	TestCode: RA226_903.0	Units: pCi/L	Prep Date:	RunNo: 24520
Client ID: LCSS02	Batch ID: R24520	TestNo: E903.0		Analysis Date: 6/20/2008	SeqNo: 462187

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	12.08		10.66	0	113	74	126		26.0	0	

Sample ID: LCS DUP 2	SampType: LCSD	TestCode: RA226_903.0	Units: pCi/L	Prep Date:	RunNo: 24520
Client ID: LCSS02	Batch ID: R24520	TestNo: E903.0		Analysis Date: 6/20/2008	SeqNo: 462188

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	13.68		10.66	0	128	74	126		14.0	0	S

Sample ID: LCS-RC	SampType: LCS	TestCode: RA226_903.0	Units: pCi/L	Prep Date:	RunNo: 24520
Client ID: LCSW	Batch ID: R24520	TestNo: E903.0		Analysis Date: 6/20/2008	SeqNo: 462190

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	13.83		10.66	0	130	74	126				S

Qualifiers:

- B Analyte detected in the associated Method Blank
- D Limit of detection increased due to matrix interference an
- E Value above quantitation range
- J Analyte reported below quantitation limits
- L Value above calibration range but within annually verific
- LBP Lead based paint is defined as a paint with greater than
- PHQC Sample pH was >2. Due to matrix effects, not all quality
- Q Due to matrix effects, not all quality control parameters
- R RPD outside accepted recovery limits

CLIENT: Hall Environmental Analysis Lab, Inc.
Work Order: 08062268
Project: 0806232

ANALYTICAL QC SUMMARY REPORT

TestCode: RA226_903.0

Sample ID: LCS DUP 2 RC	SampType: LCSD	TestCode: RA226_903.0	Units: pCi/L	Prep Date:	RunNo: 24520
Client ID: LCSS02	Batch ID: R24520	TestNo: E903.0		Analysis Date: 6/20/2008	SeqNo: 462191

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	12.43		10.66	0	117	74	126				

Qualifiers:
B Analyte detected in the associated Method Blank
D Limit of detection increased due to matrix interference an
E Value above quantitation range
J Analyte reported below quantitation limits
I. Value above calibration range but within annually verifie
LBP Lead based paint is defined as a paint with greater thar
PHQC Sample pH was >2. Due to matrix effects, not all quality
Q Due to matrix effects, not all quality control parameters
R RPD outside accepted recovery limits

CLIENT: Hall Environmental Analysis Lab, Inc.
Work Order: 08062268
Project: 0806232

ANALYTICAL QC SUMMARY REPORT

TestCode: RA228_904.0

Sample ID: LCS	SampType: LCS	TestCode: RA228_904.0	Units: pCi/L	Prep Date:	RunNo: 24838
Client ID: LCSW	Batch ID: R24838	TestNo: E904.0		Analysis Date: 7/8/2008	SeqNo: 469064

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	11.39		11.42	0	100	57	143				

Sample ID: BLANK-RC	SampType: MBLK	TestCode: RA228_904.0	Units: pCi/L	Prep Date:	RunNo: 24838
Client ID: PBW	Batch ID: R24838	TestNo: E904.0		Analysis Date: 7/8/2008	SeqNo: 469069

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.17										

13

Qualifiers:
B Analyte detected in the associated Method Blank
D Limit of detection increased due to matrix interference an
E Value above quantitation range
J Analyte reported below quantitation limits
L Value above calibration range but within annually verifie
LBP Lead based paint is defined as a paint with greater thar
PHQC Sample pH was >2. Due to matrix effects, not all quality
Q Due to matrix effects, not all quality control parameters
R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Hess Corporation
Project: Hess West Bravo Dome **Work Order:** 0806232

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: MB		*MBLK*			Batch ID: **R28957**		Analysis Date: 6/16/2008 10:07:20 AM		
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Sulfate	ND	mg/L	0.50						
Sample ID: LCS		*LCS*			Batch ID: **R28957**		Analysis Date: 6/16/2008 10:24:44 AM		
Fluoride	0.5085	mg/L	0.10	102	90	110			
Chloride	5.084	mg/L	0.10	102	90	110			
Nitrogen, Nitrate (As N)	2.598	mg/L	0.10	104	90	110			
Sulfate	10.37	mg/L	0.50	104	90	110			
Method: EPA Method 9067: Total Phenolics									
Sample ID: MB-16235		*MBLK*			Batch ID: **16267**		Analysis Date: 6/19/2008		
Phenolics, Total Recoverable	ND	µg/L	2.5						
Sample ID: LCS-16235		*LCS*			Batch ID: **16267**		Analysis Date: 6/19/2008		
Phenolics, Total Recoverable	26.08	µg/L	2.5	130	51.7	133			
Sample ID: LCSD-16235		*LCSD*			Batch ID: **16267**		Analysis Date: 6/19/2008		
Phenolics, Total Recoverable	25.48	µg/L	2.5	127	51.7	133	2.33	0	
Method: EPA Method 504.1: EDB									
Sample ID: MB-16525		*MBLK*			Batch ID: **16252**		Analysis Date: 6/19/2008 1:10:14 PM		
1,2-Dibromoethane	ND	µg/L	0.010						
Sample ID: LCS-16525		*LCS*			Batch ID: **16252**		Analysis Date: 6/19/2008 1:22:58 PM		
1,2-Dibromoethane	0.1200	µg/L	0.010	120	70	130			
Sample ID: LCSD-16525		*LCSD*			Batch ID: **16252**		Analysis Date: 6/19/2008 1:35:47 PM		
1,2-Dibromoethane	0.1230	µg/L	0.010	123	70	130	2.47	13.5	
Method: EPA Method 8082: PCB's									
Sample ID: MB-16232		*MBLK*			Batch ID: **16232**		Analysis Date: 6/25/2008 9:27:06 PM		
Aroclor 1016	ND	µg/L	1.0						
Aroclor 1221	ND	µg/L	5.0						
Aroclor 1232	ND	µg/L	1.0						
Aroclor 1242	ND	µg/L	1.0						
Aroclor 1248	ND	µg/L	1.0						
Aroclor 1254	ND	µg/L	1.0						
Aroclor 1260	ND	µg/L	1.0						
Sample ID: LCS-16232		*LCS*			Batch ID: **16232**		Analysis Date: 6/25/2008 10:15:40 PM		
Aroclor 1016	1.888	µg/L	1.0	37.8	27.4	132			
Aroclor 1260	2.680	µg/L	1.0	53.6	47.6	119			
Sample ID: LCSD-16232		*LCSD*			Batch ID: **16232**		Analysis Date: 6/25/2008 11:04:50 PM		
Aroclor 1016	2.844	µg/L	1.0	56.9	27.4	132	40.4	45.7	
Aroclor 1260	2.960	µg/L	1.0	59.2	47.6	119	9.93	30	

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

QA/QC SUMMARY REPORT

Client: Hess Corporation
Project: Hess West Bravo Dome **Work Order:** 0806232

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8310: PAHs									
Sample ID: MB-16218		*MBLK*			Batch ID:	**16218**	Analysis Date:	6/30/2008 12:39:04 PM	
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	2.0						
2-Methylnaphthalene	ND	µg/L	2.0						
Acenaphthylene	ND	µg/L	2.5						
Acenaphthene	ND	µg/L	5.0						
Fluorene	ND	µg/L	0.80						
Phenanthrene	ND	µg/L	0.60						
Anthracene	ND	µg/L	0.60						
Fluoranthene	ND	µg/L	0.30						
Pyrene	ND	µg/L	0.30						
Benz(a)anthracene	ND	µg/L	0.070						
Chrysene	ND	µg/L	0.20						
Benzo(b)fluoranthene	ND	µg/L	0.10						
Benzo(k)fluoranthene	ND	µg/L	0.070						
Benzo(a)pyrene	ND	µg/L	0.070						
Dibenz(a,h)anthracene	ND	µg/L	0.070						
Benzo(g,h,i)perylene	ND	µg/L	0.080						
Indeno(1,2,3-cd)pyrene	ND	µg/L	0.080						
Sample ID: LCS-16218		*LCS*			Batch ID:	**16218**	Analysis Date:	6/30/2008 1:27:04 PM	
Naphthalene	14.31	µg/L	2.0	35.8	31.5	90.7			
1-Methylnaphthalene	14.91	µg/L	2.0	37.2	32.5	93.3			
2-Methylnaphthalene	14.20	µg/L	2.0	35.5	32.8	89.6			
Acenaphthylene	15.51	µg/L	2.5	38.7	37.8	92.4			
Acenaphthene	16.75	µg/L	5.0	41.9	38.6	93.9			
Fluorene	1.850	µg/L	0.80	46.1	38	95.5			
Phenanthrene	1.160	µg/L	0.60	50.2	32.9	107			
Anthracene	1.060	µg/L	0.60	52.7	35.2	98.3			
Fluoranthene	2.110	µg/L	0.30	52.6	36.4	104			
Pyrene	1.900	µg/L	0.30	47.4	37.1	102			
Benz(a)anthracene	0.1700	µg/L	0.070	42.4	33.7	101			
Chrysene	0.9700	µg/L	0.20	48.3	35.2	96.1			
Benzo(b)fluoranthene	0.2400	µg/L	0.10	47.9	33.6	94.2			
Benzo(k)fluoranthene	0.1200	µg/L	0.070	44.0	25.4	110			
Benzo(a)pyrene	0.1200	µg/L	0.070	47.8	26.9	102			
Dibenz(a,h)anthracene	0.2400	µg/L	0.070	47.9	40.7	92.1			
Benzo(g,h,i)perylene	0.2400	µg/L	0.080	48.0	24.3	109			
Indeno(1,2,3-cd)pyrene	0.5020	µg/L	0.080	50.1	42.6	99.9			
Sample ID: LCSD-16218		*LCSD*			Batch ID:	**16218**	Analysis Date:	6/30/2008 2:15:04 PM	
Naphthalene	23.20	µg/L	2.0	58.0	31.5	90.7	47.4	32.1	R
1-Methylnaphthalene	23.73	µg/L	2.0	59.2	32.5	93.3	45.7	32.7	R
2-Methylnaphthalene	23.01	µg/L	2.0	57.5	32.8	89.6	47.4	34	R
Acenaphthylene	23.33	µg/L	2.5	58.2	37.8	92.4	40.3	38.8	R
Acenaphthene	25.02	µg/L	5.0	62.6	38.6	93.9	39.6	38.6	R
Fluorene	2.620	µg/L	0.80	65.3	38	95.5	34.5	29.3	R

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

QA/QC SUMMARY REPORT

Client: Hess Corporation
Project: Hess West Bravo Dome **Work Order:** 0806232

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8310: PAHs									
Sample ID: LCSD-16218		*LCSD*			Batch ID:	**16218**	Analysis Date:		6/30/2008 2:15:04 PM
Phenanthrene	1.470	µg/L	0.60	65.7	32.9	107	23.6	25	
Anthracene	1.400	µg/L	0.60	69.7	35.2	98.3	27.6	23.9	R
Fluoranthene	2.780	µg/L	0.30	69.3	36.4	104	27.4	15.7	R
Pyrene	2.550	µg/L	0.30	63.6	37.1	102	29.2	15.3	R
Benz(a)anthracene	0.2500	µg/L	0.070	62.3	33.7	101	38.1	19	R
Chrysene	1.340	µg/L	0.20	66.7	35.2	96.1	32.0	16.6	R
Benzo(b)fluoranthene	0.3200	µg/L	0.10	63.9	33.6	94.2	28.6	21.7	R
Benzo(k)fluoranthene	0.1600	µg/L	0.070	60.0	25.4	110	28.6	19.4	R
Benzo(a)pyrene	0.1500	µg/L	0.070	59.8	26.9	102	22.2	16.7	R
Dibenz(a,h)anthracene	0.3200	µg/L	0.070	63.9	40.7	92.1	28.6	17.3	R
Benzo(g,h,i)perylene	0.3200	µg/L	0.080	64.0	24.3	109	28.6	18	R
Indeno(1,2,3-cd)pyrene	0.6560	µg/L	0.080	65.5	42.6	99.9	26.6	17.7	R
Method: EPA Method 7470: Mercury									
Sample ID: MB-16412		*MBLK*			Batch ID:	**16412**	Analysis Date:		7/7/2008 2:45:45 PM
Mercury	ND	mg/L	0.00020						
Sample ID: LCS-16412		*LCS*			Batch ID:	**16412**	Analysis Date:		7/7/2008 2:47:33 PM
Mercury	0.005104	mg/L	0.00020	102	80	120			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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QA/QC SUMMARY REPORT

Client: Hess Corporation
Project: Hess West Bravo Dome **Work Order:** 0806232

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals									
Sample ID: 0806232-01FMSD		*MSD*			Batch ID:	**16227**	Analysis Date:		6/23/2008 1:40:40 PM
Chromium	0.4655	mg/L	0.0060	93.1	75	125	5.67	20	
Lead	0.4623	mg/L	0.0050	92.5	75	125	6.95	20	
Sample ID: 0806232-01FMSD		*MSD*			Batch ID:	**16227**	Analysis Date:		7/8/2008 3:17:49 PM
Aluminum	0.5352	mg/L	0.020	93.9	75	125	0.966	20	
Barium	0.5950	mg/L	0.010	97.0	75	125	1.33	20	
Boron	0.8374	mg/L	0.040	105	75	125	1.88	20	
Cadmium	0.4913	mg/L	0.0020	98.3	75	125	1.85	20	
Cobalt	0.4833	mg/L	0.0060	96.7	75	125	0.243	20	
Copper	0.4927	mg/L	0.0060	98.5	75	125	0.938	20	
Iron	0.5883	mg/L	0.050	101	75	125	1.05	20	
Manganese	0.5669	mg/L	0.0020	95.6	75	125	0.947	20	
Molybdenum	0.5313	mg/L	0.0080	105	75	125	2.28	20	
Nickel	0.4816	mg/L	0.010	96.3	75	125	2.08	20	
Silver	0.4793	mg/L	0.0050	95.9	75	125	1.27	20	
Zinc	0.5012	mg/L	0.020	100	75	125	2.01	20	
Sample ID: MB-16227		*MBLK*			Batch ID:	**16227**	Analysis Date:		6/19/2008 3:05:17 PM
Aluminum	ND	mg/L	0.020						
Barium	ND	mg/L	0.010						
Boron	ND	mg/L	0.040						
Cadmium	ND	mg/L	0.0020						
Chromium	ND	mg/L	0.0060						
Cobalt	ND	mg/L	0.0060						
Copper	ND	mg/L	0.0060						
Iron	ND	mg/L	0.050						
Lead	ND	mg/L	0.0050						
Manganese	ND	mg/L	0.0020						
Molybdenum	ND	mg/L	0.0080						
Nickel	ND	mg/L	0.010						
Silver	ND	mg/L	0.0050						
Zinc	ND	mg/L	0.020						
Sample ID: MB-16227		*MBLK*			Batch ID:	**16227**	Analysis Date:		6/23/2008 1:27:33 PM
Chromium	ND	mg/L	0.0060						
Lead	ND	mg/L	0.0050						
Sample ID: MB-16227		*MBLK*			Batch ID:	**16227**	Analysis Date:		7/8/2008 2:56:39 PM
Aluminum	ND	mg/L	0.020						
Barium	ND	mg/L	0.010						
Boron	ND	mg/L	0.040						
Cadmium	ND	mg/L	0.0020						
Cobalt	ND	mg/L	0.0060						
Copper	ND	mg/L	0.0060						
Iron	ND	mg/L	0.050						
Manganese	ND	mg/L	0.0020						
Molybdenum	ND	mg/L	0.0080						

Qualifiers:

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QA/QC SUMMARY REPORT

Client: Hess Corporation
Project: Hess West Bravo Dome **Work Order:** 0806232

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals									
Sample ID: MB-16227		*MBLK*			Batch ID:	**16227**	Analysis Date:		7/8/2008 2:56:39 PM
Nickel	ND	mg/L	0.010						
Silver	ND	mg/L	0.0050						
Zinc	ND	mg/L	0.020						
Sample ID: LCS-16227		*LCS*			Batch ID:	**16227**	Analysis Date:		6/19/2008 3:08:20 PM
Aluminum	0.4852	mg/L	0.020	96.3	80	120			
Barium	0.4716	mg/L	0.010	94.3	80	120			
Boron	0.4712	mg/L	0.040	92.9	80	120			
Cadmium	0.4657	mg/L	0.0020	93.1	80	120			
Chromium	0.4700	mg/L	0.0060	94.0	80	120			
Cobalt	0.4524	mg/L	0.0060	90.5	80	120			
Copper	0.4799	mg/L	0.0060	96.0	80	120			
Iron	0.4724	mg/L	0.050	94.5	80	120			
Lead	0.4650	mg/L	0.0050	93.0	80	120			
Manganese	0.4710	mg/L	0.0020	94.2	80	120			
Molybdenum	0.4845	mg/L	0.0080	96.9	80	120			
Nickel	0.4531	mg/L	0.010	90.6	80	120			
Silver	0.4797	mg/L	0.0050	95.9	80	120			
Zinc	0.4617	mg/L	0.020	92.3	80	120			
Sample ID: LCS-16227		*LCS*			Batch ID:	**16227**	Analysis Date:		6/23/2008 1:29:59 PM
Chromium	0.4388	mg/L	0.0060	87.8	80	120			
Lead	0.4305	mg/L	0.0050	86.1	80	120			
Sample ID: LCS-16227		*LCS*			Batch ID:	**16227**	Analysis Date:		7/8/2008 2:59:40 PM
Aluminum	0.4788	mg/L	0.020	93.0	80	120			
Barium	0.4854	mg/L	0.010	97.1	80	120			
Boron	0.5076	mg/L	0.040	102	80	120			
Cadmium	0.4870	mg/L	0.0020	97.4	80	120			
Cobalt	0.4958	mg/L	0.0060	99.2	80	120			
Copper	0.4833	mg/L	0.0060	96.7	80	120			
Iron	0.5185	mg/L	0.050	104	80	120			
Manganese	0.4815	mg/L	0.0020	96.3	80	120			
Molybdenum	0.5174	mg/L	0.0080	103	80	120			
Nickel	0.4779	mg/L	0.010	95.6	80	120			
Silver	0.4764	mg/L	0.0050	95.3	80	120			
Zinc	0.4978	mg/L	0.020	99.6	80	120			
Sample ID: 0806232-01FMS		*MS*			Batch ID:	**16227**	Analysis Date:		6/23/2008 1:38:10 PM
Chromium	0.4398	mg/L	0.0060	88.0	75	125			
Lead	0.4312	mg/L	0.0050	86.2	75	125			
Sample ID: 0806232-01FMS		*MS*			Batch ID:	**16227**	Analysis Date:		7/8/2008 3:14:59 PM
Aluminum	0.5300	mg/L	0.020	92.9	75	125			
Barium	0.5871	mg/L	0.010	95.4	75	125			
Boron	0.8218	mg/L	0.040	102	75	125			
Cadmium	0.4823	mg/L	0.0020	96.5	75	125			
Cobalt	0.4845	mg/L	0.0060	96.9	75	125			

Qualifiers:

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QA/QC SUMMARY REPORT

Client: Hess Corporation
Project: Hess West Bravo Dome **Work Order:** 0806232

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals									
Sample ID: 0806232-01FMS		*MS*			Batch ID:	**16227**	Analysis Date:	7/8/2008 3:14:59 PM	
Copper	0.4881	mg/L	0.0060	97.6	75	125			
Iron	0.5945	mg/L	0.050	102	75	125			
Manganese	0.5615	mg/L	0.0020	94.6	75	125			
Molybdenum	0.5193	mg/L	0.0080	103	75	125			
Nickel	0.4717	mg/L	0.010	94.3	75	125			
Silver	0.4732	mg/L	0.0050	94.6	75	125			
Zinc	0.4913	mg/L	0.020	98.3	75	125			
Method: SM 2540C Total Dissolved Solids									
Sample ID: MB-16241		*MBLK*			Batch ID:	**16241**	Analysis Date:	6/20/2008	
Total Dissolved Solids	ND	mg/L	20						
Sample ID: LCS-16241		*LCS*			Batch ID:	**16241**	Analysis Date:	6/20/2008	
Total Dissolved Solids	1005	mg/L	20	100	80	120			

Qualifiers:

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QA/QC SUMMARY REPORT

Client: Hess Corporation
Project: Hess West Bravo Dome **Work Order:** 0806232

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			**Batch ID:** R28995		Analysis Date:	6/19/2008 8:54:12 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

Qualifiers:

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QA/QC SUMMARY REPORT

Client: Hess Corporation
Project: Hess West Bravo Dome **Work Order:** 0806232

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID:	**R28995**	Analysis Date:	6/19/2008 8:54:12 AM	
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 100ng lcs		*LCS*			Batch ID:	**R28995**	Analysis Date:	6/19/2008 9:52:08 AM	
Benzene	21.08	µg/L	1.0	105	86.8	120			
Toluene	20.29	µg/L	1.0	101	64.1	127			
Chlorobenzene	20.88	µg/L	1.0	104	82.4	113			
1,1-Dichloroethene	24.61	µg/L	1.0	123	86.5	132			
Trichloroethene (TCE)	18.71	µg/L	1.0	93.5	77.3	123			

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name HESS | Date Received: 6/16/2008

Work Order Number 0806232 | Received by: AT

Checklist completed by: _____ 6/16/08 (Signature / Date) | Sample ID labels checked by: AT (Initials)

Matrix. | Carrier name Client drop-off

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? 1° *<6° C Acceptable* If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Hess Corporation

Address: HCR 72, Box 30
Mosquero, NM 87733

Phone #: 575-650-0316

email or Fax#: dholcomb@hess.com

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

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: Hess West Bravo Dome

Project #: Mitchell Creek

Project Manager: Michael Ford

Sampler: Vince Smith

On Ice: X Yes ☐ No

Sample Temperature: 4

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

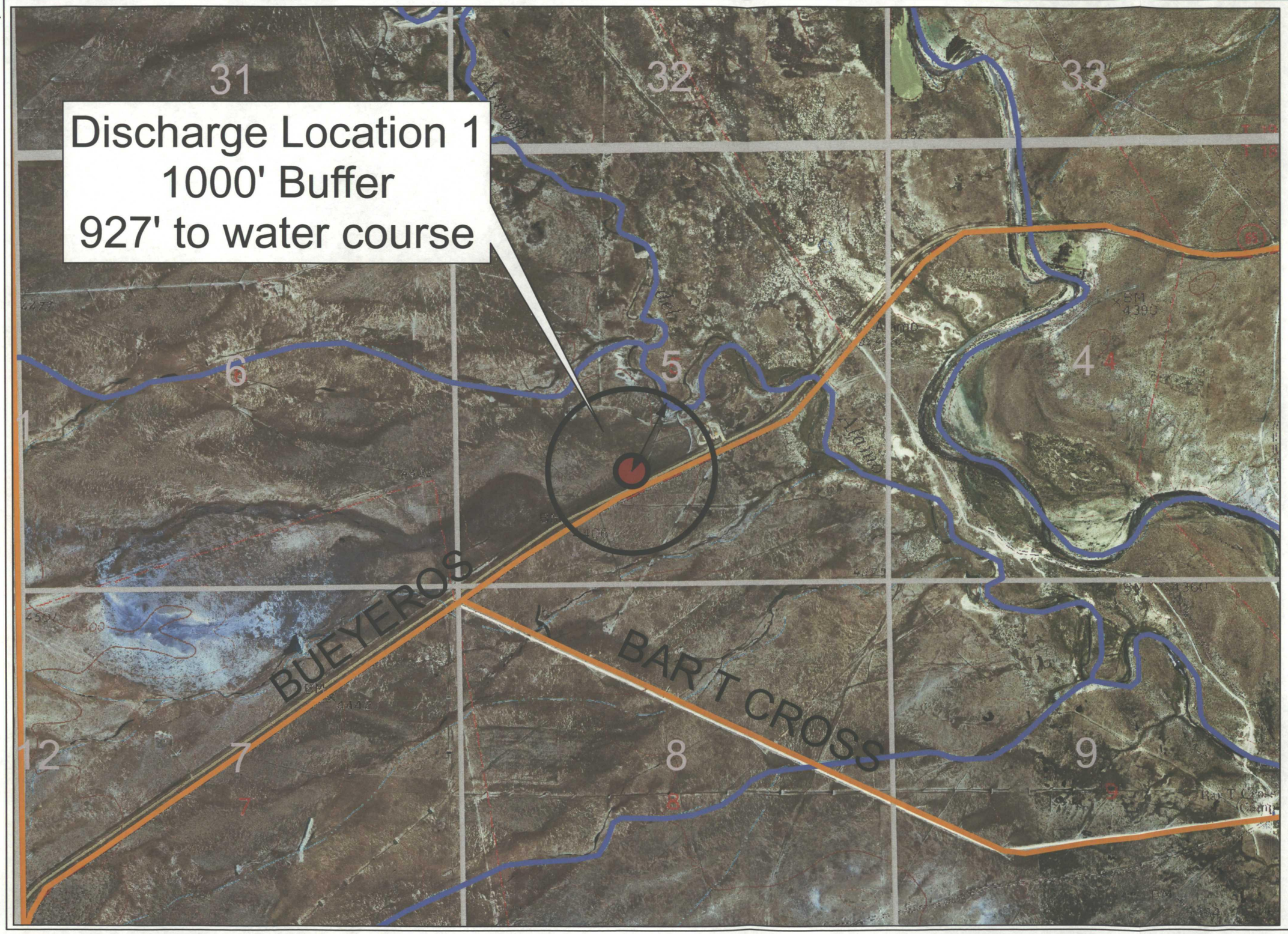
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	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)	See Attached List				Air Bubbles (Y or N)
6/16/08	7:30a	Mitchell Creek	Glass Ampule	H_gCl_2	0806232 -1																
		~~3 bottles~~ triplicate	Brn Glass	H_2SO_4																	
			↓	—																	
			↓	—																	
			Glass Ampule	—																	
			Plastic Qt	HNO_3																	
			↓ ↓	HNO_3																	
			Plastic	HNO_3																	
			↓	HNO_3																	
				$NaOH$																	
				H_2SO_4																	
↓	↓	Trip Blank	↓	—	-2																

Date:	Time:	Relinquished by:	Received by:
6/16/08	8:30a	Vince Smith	
6/16/08	12:25	Victor R. Vigil	6/16/08 1225

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.



-35 deg. 48.918N
103 deg. 46.621W

Legend

- Discharge Point
- Buffer
- Water Course
- Roads

HESS CORPORATION
U.S. ONSHORE PRODUCTION

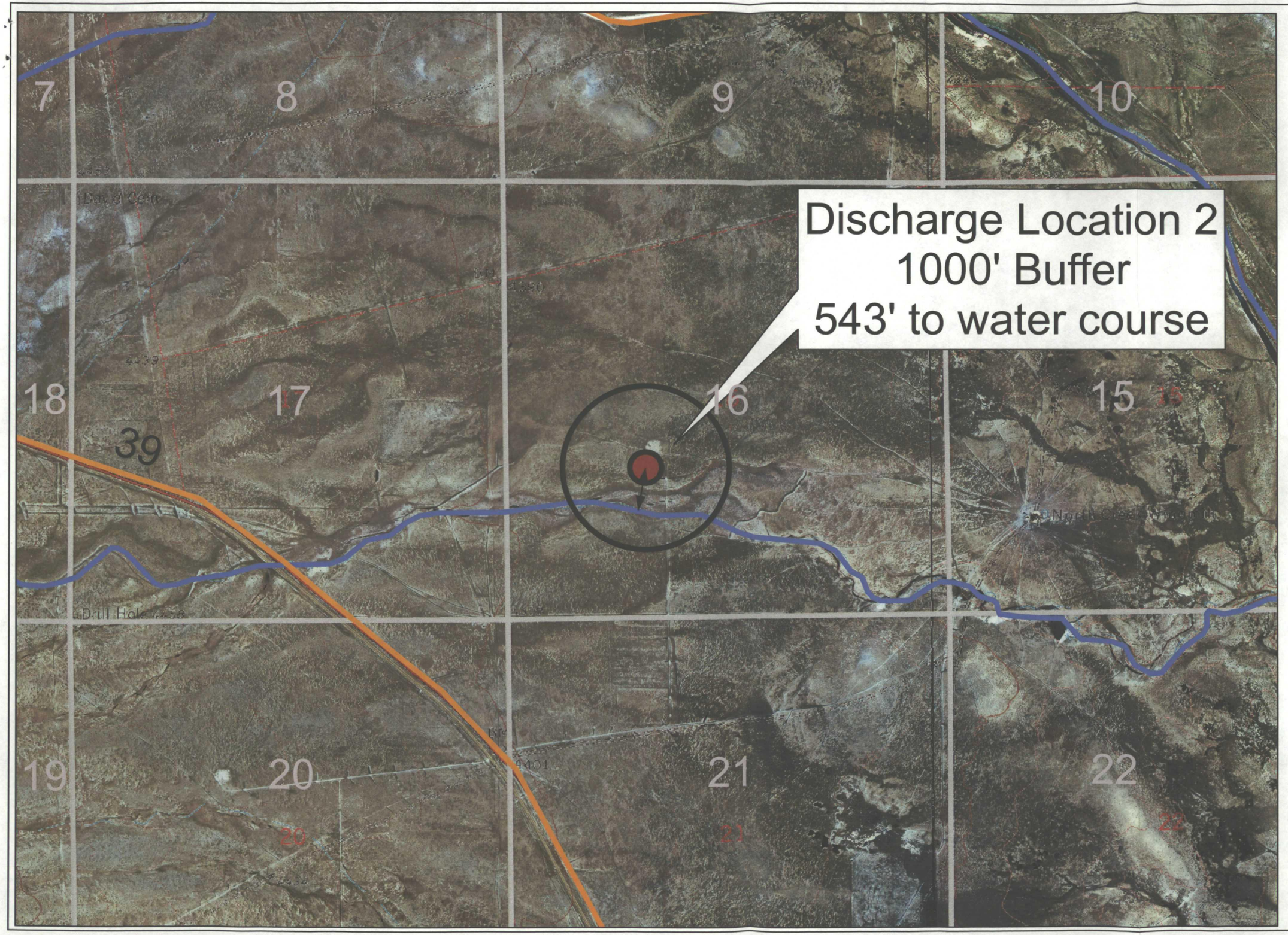
WEST BRAVO DOME AREA
HARDING COUNTY, NEW MEXICO

HYDROSTATIC DISCHARGE LOCATIONS

0 480 960 1,440 1,920 Feet

Geologist: G.A. OLSON
Engineer: D.S. STOLL
Landman: J.S. HUGHART

DATE: JUNE, 2008
BD_WBD_Hydrostatic_Discharge11x17.mxd



-35 deg. 47.253 N
103 deg. 45.689 W

HESS CORPORATION
U.S. ONSHORE PRODUCTION

WEST BRAVO DOME AREA
HARDING COUNTY, NEW MEXICO

HYDROSTATIC DISCHARGE LOCATIONS

0 480 960 1,440 1,920 Feet

Geologist: G.A. OLSON
Engineer: D.S. STOLL
Landman: J.S. HUGHART

DATE: JUNE, 2008
BD_WBD_Hydrostatic_Discharge11x17.mxd

HESS CORPORATION
500 Dallas Street
Houston, TX 77002

July 16, 2008

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Brad Jones
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: FEF – WATER DISCHARGE PERMIT
PERMIT FEE PAYMENT
ANNAUL TEMPORARY PERMIT
PIPELINE HYDROSTATIC TESTS
WEST BRAVO DOME PIPELINES

Dear Mr. Jones:

Attached please find Hess Corporation check #0001683191 in the amount of $150.00 to address payment of the annual temporary permission to discharge fee for the West Bravo Dome Gathering System pipeline hydrostatic tests.

The check is made out to the New Mexico Water Quality Management Fund as required.

If you should have any questions or require additional information, please feel free to contact me at (713) 609-4204.

Sincerely,

Michael D. Ford

Michael D. Ford
Environmental Advisor

MDF:WBDPIPETESTFEELT2.DOC

Attachment

HESS CORPORATION
500 Dallas Street
Houston, TX 77002

May 19, 2008

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Brad Jones
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: FEF – WATER DISCHARGE PERMIT
PERMIT APPLICATIONS FEE PAYMENT
PIPELINE HYDROSTATIC TESTS
WEST BRAVO DOME PIPELINES

Dear Mr. Jones:

Attached please find Hess Corporation check #0001680101 in the amount of $300.00 to address payment of two pipeline hydrostatic test water discharge permit applications and one annual permission to discharge request filing fees.

The check is made out to the New Mexico Water Quality Management Fund as required.

If you should have any questions or require additional information, please feel free to contact me at (713) 609-4204.

Sincerely,

Michael D. Ford

Michael D. Ford
Environmental Advisor

MDF:WBDPIPETESTFEELT.DOC

Attachment

HESS CORPORATION
500 Dallas Street
Houston, TX 77002

May 14, 2008

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Brad Jones
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: FEF – WATER DISCHARGE PERMIT
PERMISSION TO DISCHARGE
PIPELINE HYDROSTATIC TESTS
CO2 GATHERING SYSTEM LINE(S)
WEST BRAVO DOME

Dear Mr. Jones:

This is to request an annual temporary permission to discharge pipeline hydrostatic test water for portions of Hess Corporation's new carbon dioxide (CO2) gathering system in the West Bravo Dome field located in northeast New Mexico. Information addressing the specific requirements for issuing the annual temporary permission to discharge is contained in the attached document. A map showing the location of the proposed discharges is also included.

A check in the amount of $100.00 will be sent under separate letter to the Water Quality Management Fund for payment of the required notice of intent to discharge filing fee.

If you should have any questions or require additional information, please feel free to contact me at (713) 609-4204.

Sincerely,

Michael D. Ford

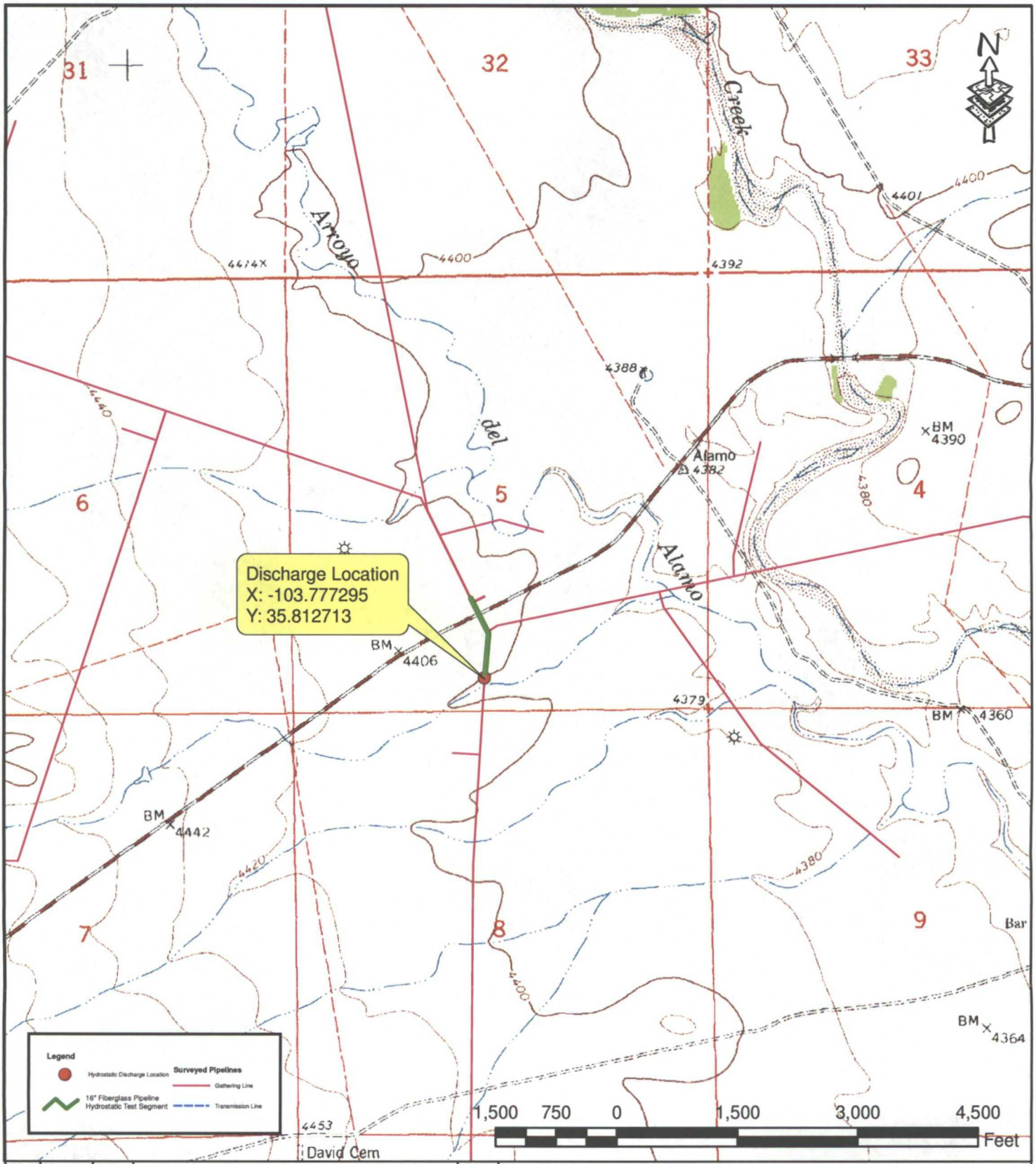
Michael D. Ford
Environmental Advisor

MDF-WBDPIPETEST3LT.DOC

Attachment

NEW MEXICO OIL CONSERVATION DIVISION
INFORMATION REQUIRED
ANNUAL TEMPORARY PERMISSION TO DISCHARGE WATER USED FOR HYDROSTATIC TESTING
CARBON DIOXIDE GATHERING SYSTEM LINES

Information Required	CO2 Gathering System Line	CO2 Gathering System Line	CO2 Gathering System Line
Pipe ID	16.01	6.40	9.72
Type	Ameron	Centron	Centron
Footage	2000	2000	2000
Gallons	20,916	3,342	7,709
BBL	498	80	184
(a) volume does not exceed 25,000 gallons per hydrostatic test	20,916 Gallons	3,342 Gallons	7,709 Gallons
(b) water from a public/municipal water supply or other OCD approved sources is used for each test	Approx. 21,000 gallons of non-potable water sourced from nearby water wells that could potentially have sand, NORM	Approx. 3,350 gallons of non-potable water sourced from nearby water wells that could potentially have sand, NORM	Approx. 7,700 gallons of non-potable water sourced from nearby water wells that could potentially have sand, NORM
(c) oral or written notification must be provided to the OCD 72 hours prior to each hydrostatic discharge event	Oral notification will be provided	Oral notification will be provided	Oral notification will be provided
(d) the discharge does not enter any lake, perennial stream, river or their respective tributaries that may be seasonal	See drawing "Discharge Location 2"	See drawing "Discharge Location 3"	See drawing "Discharge Location 4"
(e) no discharge shall occur:	–	–	–
i. where groundwater is less than 10 feet below ground surface	Local ranchers have indicated groundwater present around 50 ft below surface	Local ranchers have indicated groundwater present around 50 ft below surface	Local ranchers have indicated groundwater present around 50 ft below surface
ii. within 200 feet of a watercourse, lakebed, sinkhole or playa lake	No	No	No
iii. within an existing wellhead protection area	No	No	No
iv. within, or within 500 feet of, a wetland	No	No	No
v. within 500 feet from the nearest permanent residence, school, hospital, institution or church	No	No	No
(f) best management practices must be implemented to contain the discharge onsite, does not impact adjacent property, and to control erosion	After the water passes through the filters to catch solids it will then pass through straw bales surrounded by a silt fence to prevent erosion	After the water passes through the filters to catch solids it will then pass through straw bales surrounded by a silt fence to prevent erosion	After the water passes through the filters to catch solids it will then pass through straw bales surrounded by a silt fence to prevent erosion
(g) the discharge does not cause any fresh water supplies to be degraded or to exceed standards set forth in Subsections A, B, and C of the 20.6.2.3103 NMAC	the discharge should not cause any fresh water supplies to be degraded or to exceed standards set forth in Subsections A, B, and C of the 20.6.2.3103 NMAC	the discharge should not cause any fresh water supplies to be degraded or to exceed standards set forth in Subsections A, B, and C of the 20.6.2.3103 NMAC	the discharge should not cause any fresh water supplies to be degraded or to exceed standards set forth in Subsections A, B, and C of the 20.6.2.3103 NMAC
(h) the landowner(s) of each proposed discharge and/or collection/retention or alternative discharge location must be properly notified of the activities prior to each proposed hydrostatic test event	Mike Fitzgerald (F & F Cattle Co.)	Mike Fitzgerald (F & F Cattle Co.)	Mike Fitzgerald (F & F Cattle Co.)
(i) an annual report will be submitted to the OCD within 45 days after the temporary permission expiration date and shall contain the following information:	–	–	–
(i) the location of the hydrostatic test	See drawing "Discharge Location 2"	See drawing "Discharge Location 3"	See drawing "Discharge Location 4"
(ii) the date of each test	Will be provided in the report	Will be provided in the report	Will be provided in the report
(iii) the volume of each discharge	20,916 Gallons	3,342 Gallons	7,709 Gallons
(iv) the source and quality of test water	Approx. 21,000 gallons of non-potable water sourced from nearby water wells that could potentially have sand, NORM	Approx. 3,350 gallons of non-potable water sourced from nearby water wells that could potentially have sand, NORM	Approx. 7,700 gallons of non-potable water sourced from nearby water wells that could potentially have sand, NORM



REV	Date	By	Description	CHK
A	5/08	DM	Issue for Approval	ND

Project No. 11351

MUSTANG ENGINEERING, L.P.

HESS CORPORATION
U.S. ONSHORE PRODUCTION

Bravo Dome and West Bravo Dome Areas
Gathering System
Harding County — Hydrostatic Discharge Location 2 — New Mexico

Drawn By: DM	Date: 5/6/08	Drawing: D-WBD-7900-9096	REV. A
Checked By: ND	Date: 5/7/08		
	Approved: ND		

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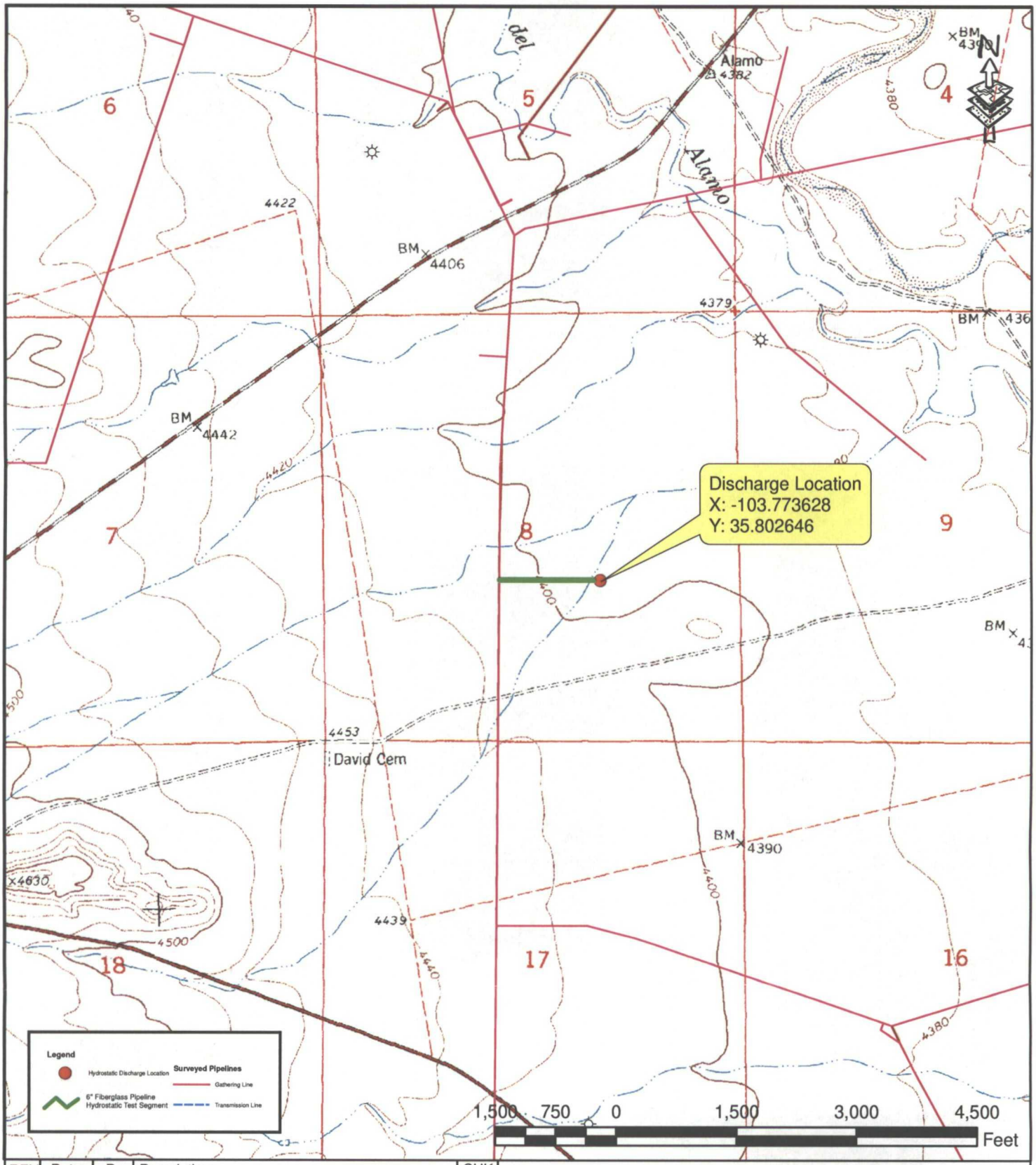

REV	Date	By	Description	CHK
A	5/08	DM	Issue for Approval	ND

Project No. 11351

MUSTANG ENGINEERING, L.P.

HESS CORPORATION
U.S. ONSHORE PRODUCTION

Bravo Dome and West Bravo Dome Areas
Gathering System
Harding County — Hydrostatic Discharge Location 3 — New Mexico

Drawn By: DM	Date: 5/6/08	Drawing: D-WBD-7900-9097	REV. A
Checked By: ND	Date: 5/7/08		
	Approved: ND		

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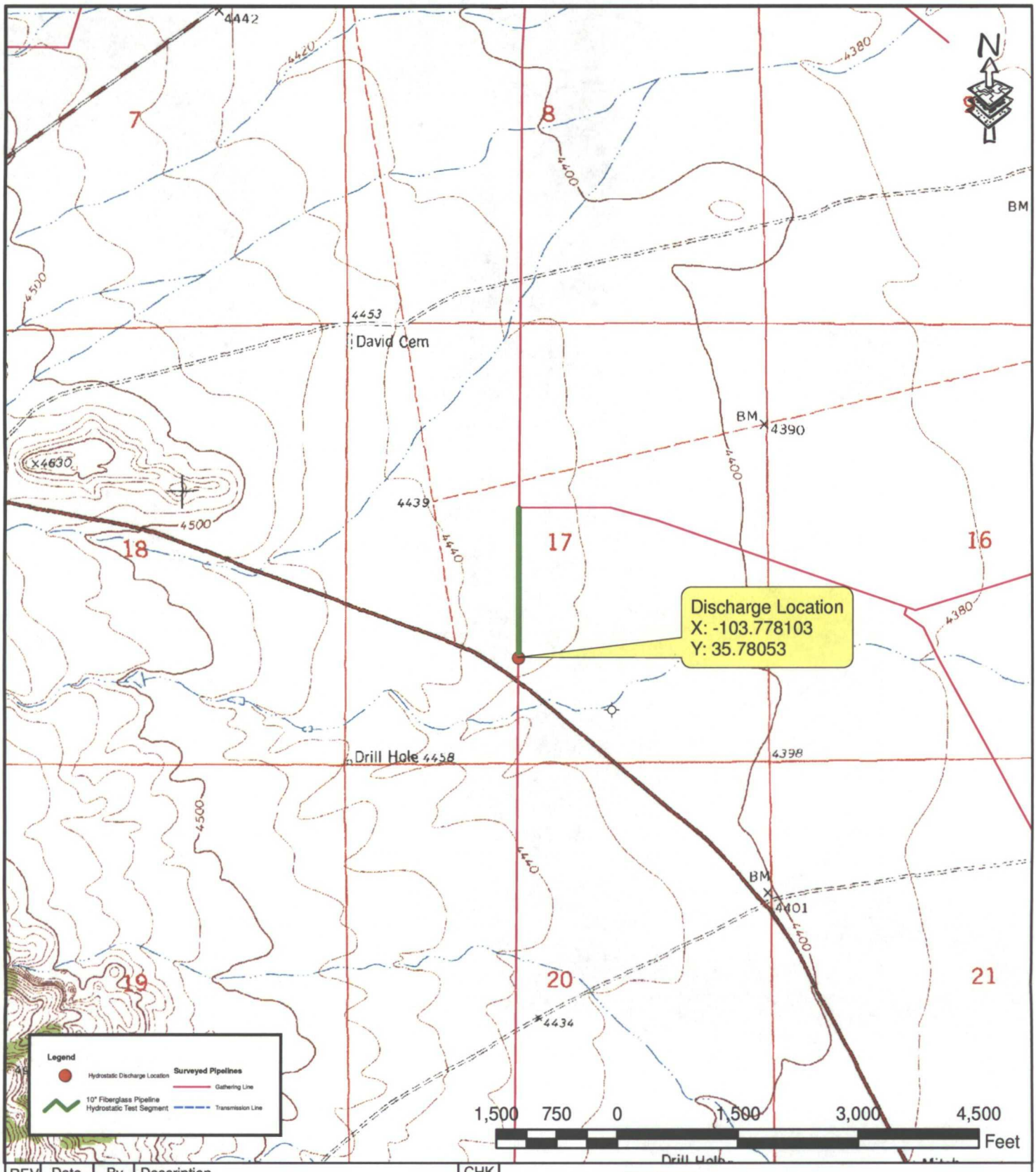

REV	Date	By	Description	CHK
A	5/08	DM	Issue for Approval	ND

Project No. 11351

MUSTANG ENGINEERING, L.P.

HESS CORPORATION
U.S. ONSHORE PRODUCTION

Bravo Dome and West Bravo Dome Areas
Gathering System
Harding County — Hydrostatic Discharge Location 4 — New Mexico

Drawn By: DM	Date: 5/6/08	Drawing: D-WBD-7900-9098	REV. A
Checked By: ND	Date: 5/7/08		
	Approved: ND		

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