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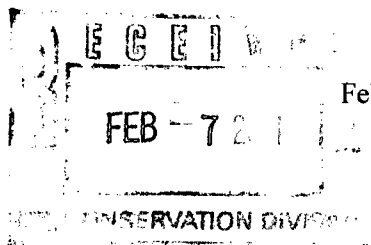
REPORTS

DATE:

2/5/2001

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505)632-1199 Fax: (505)632-3903



February 5, 2001

Mr. Bill Olson - Hydrologist
State of New Mexico Oil Conservation Division
1220 St. Francis Drive
Santa Fe, NM 87505

**RE: JAQUEZ GC E #1 ABANDONED PIT - SUBSEQUENT REMEDIATION REPORT
UNIT F, SEC. 6, T29N, R9W, SAN JUAN CO., N.M.**

Dear Mr. Olson:

Blagg Engineering, Inc., on behalf of BP Amoco, respectfully submits the attached soil and groundwater documentation requested by the New Mexico Oil Conservation Division (NMOCD) as addressed in the letter dated December 7, 2000 (attached).

The following table discloses the laboratory results from the abandoned pit:

Sample ID	Sample Matrix	OVM (ppm)	Benz. (ppb)	Tolu. (ppb)	Ethylbenzene (ppb)	Total xylenes (ppb)	Total BTEX (ppb)	TPH (ppm)
TH-1A@ 2'	SOIL	0.0	-	-	-	-	-	ND
TH-GW @ 4'	GW	-	ND	ND	ND	ND	-	-
MW # 1 AP	GW	-	ND	ND	ND	ND	-	-

OVM - organic vapor meter, Benz. - benzene, Tolu. - toluene, BTEX - benzene, toluene, ethylbenzene, and total xylenes, TPH - total petroleum hydrocarbons utilizing US EPA method 8015B, GW - groundwater, ND - non detect., ppm - parts per million, ppb - parts per billion.

Since all mutually understood criteria for permanent closure have been met for both soil and groundwater, BP Amoco is requesting such status for the abandoned pit.

If you have questions, please contact either myself or Jeffrey C. Blagg. Thank you for your cooperation and assistance.

Sincerely,
BLAGG ENGINEERING, INC.

Nelson Velez
Nelson Velez
Staff Geologist

Attachments: Pit Closure Documentation, Laboratory Reports, QA/QC Records

cc: Denny Foust, Environmental Geologist, New Mexico Oil Conservation Division, Aztec, NM
Buddy Shaw, Environmental Coordinator, BP Amoco, Farmington, NM (without attachment)

NV/nv

JAQ-E1-5.CVL



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

December 7, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. 5051-3938

Mr. B.D. Shaw
BP Amoco
200 Amoco Court
Farmington, New Mexico 87401

**RE: REMEDIATION WORK PLAN
JAQUEZ GC E#1 ABANDONED PIT**

Dear Mr. Shaw:

The New Mexico Oil Conservation Division (OCD) has reviewed BP Amoco's October 4, 2000 "REMEDICATION WORK PLAN – BP AMOCO'S JAQUEZ GC E#1 – ABANDONED PIT, UNIT O, SEC. 6, T29N, R9W, SAN JUAN CO., N.M." which was submitted on behalf of BP Amoco by their consultant Blagg Engineering, Inc. This document contains BP Amoco's plan to conduct additional investigations of the "abandoned pit" at BP Amoco's Jaquez GC E#1 well site.

The above referenced work plan **is approved** with the following conditions:

1. All soil and ground water samples shall be obtained and analyzed using EPA approved methods and quality assurance/quality control (QA/QC).
2. BP Amoco shall submit a report on the investigations to the OCD Santa Fe Office by February 7, 2001 with a copy provided to the OCD Aztec District Office.
3. BP Amoco shall notify the OCD at least 48 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and split samples.

Please be advised that OCD approval does not limit BP Amoco to the proposed work plan should the plan fail to determine the extent of contamination related to BP Amoco's activities, or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve BP Amoco of responsibility for compliance with any other federal, state or local laws and regulations.

If you have any questions, please call me at (505) 827-7154.

Sincerely,

A handwritten signature in cursive script that reads "Will Olson".

William C. Olson
Hydrologist
Environmental Bureau

xc: Denny Foust, OCD Aztec District Office
Nelson Velez, Blagg Engineering, Inc.
John Jaquez

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE

PTT REMEDIATION AND CLOSURE REPORT

Operator: Amoco Production Company Telephone: (505) - 326-9200

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: Jaquez GC E #1
Well Name

Location: Unit or Qtr/Qtr Sec F Sec 6 T29N R 9W County SAN JUAN

Pit Type: Separator ___ Dehydrator ___ Other ABANDONED

Land Type: BLM ___, State ___, Fee , Other _____

Pit Location: Pit dimensions: length 30', width 30', depth 5'
(Attach diagram)

Reference: wellhead , other _____

Footage from reference: 149'

Direction from reference: 74 Degrees East North
 West South

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet	(20 points)	
	50 feet to 99 feet	(10 points)	
	Greater than 100 feet	(0 Points)	<u>20</u>
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources)	Yes	(20 points)	
	No	(0 points)	<u>0</u>
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	(20 points)	
	200 feet to 1000 feet	(10 points)	
	Greater than 1000 feet	(0 points)	<u>20</u>
RANKING SCORE (TOTAL POINTS):			<u>40</u>

Date Remediation Started: _____ Date Completed: 1/23/01

Remediation Method: Excavation Approx. cubic yards 60-100
(Check all appropriate sections) Landfarmed _____ Insitu Bioremediation _____
Other COMPOSTED

Remediation Location: Onsite _____ Offsite NYE GC 8 #1E (F-7-29-9)
(ie. landfarmed onsite, name and location of offsite facility)

General Description Of Remedial Action: _____
Excavation, GROUNDWATER IMPACTED.

Ground Water Encountered: No _____ Yes Depth 2'-4'

Final Pit: Sample location see Attached Documents

Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths) MULTIPLE SAMPLES COLLECTED.

Sample depth _____

Sample date _____ Sample time _____

Sample Results

Benzene (ppm) _____

Total BTEX (ppm) _____

Field headspace (ppm) _____

TPH _____

Ground Water Sample: Yes No _____ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 1/23/01

SIGNATURE B. Shaw

PRINTED NAME AND TITLE

Buddy D. Shaw
ENVIRONMENTAL COORDINATOR

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>4905</u> C.D.C. NO: _____
----------------------	--	--

FIELD REPORT: CLOSURE VERIFICATION PAGE No: 1 of 1

LOCATION: NAME: <u>Jaquez GC E</u> WELL #: <u>1</u> PIT: <u>ABAND.</u>	DATE STARTED: <u>1/18/01</u>
QUAD/UNIT: <u>F SEC: 6</u> TWP: <u>29N</u> RNG: <u>9W</u> PM: <u>NM</u> CNTY: <u>ST</u> ST: <u>NM</u>	DATE FINISHED: <u>1/23/01</u>
QTR/FOOTAGE: _____ SENEW CONTRACTOR: <u>PAUL & SONS</u>	ENVIRONMENTAL SPECIALIST: <u>NJ</u>

EXCAVATION APPROX. 30 FT. x 30 FT. x 5 FT. DEEP. CUBIC YARDAGE: 60-100
 DISPOSAL FACILITY: NYE GC R #1E (F-7-29-9) REMEDIATION METHOD: COMPOSTED
 LAND USE: RESIDENTIAL LEASE: FEE FORMATION: PC

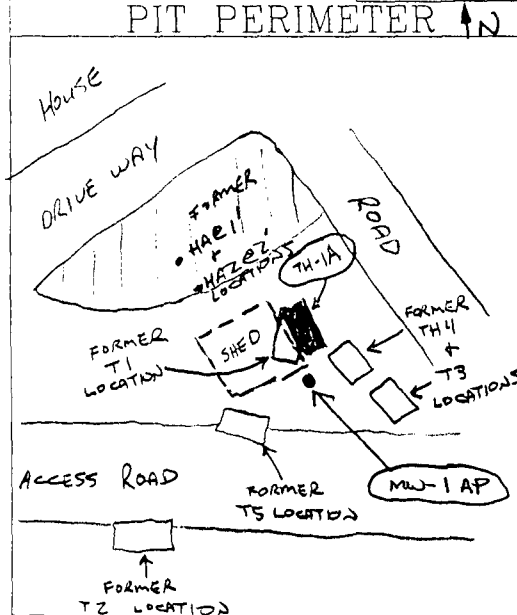
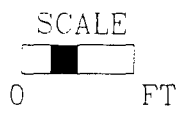
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 149 FT. N74W FROM WELL-HEAD
 DEPTH TO GROUNDWATER: < 50' NEAREST WATER SOURCE: > 1000' NEAREST SURFACE WATER: < 200'

NMOCB RANKING SCORE: <u>40</u>	NMOCB TPH CLOSURE STD: <u>100</u> PPM	CHECK ONE <input checked="" type="checkbox"/> PIT ABANDONED <input type="checkbox"/> STEEL TANK INSTALLED <input type="checkbox"/> FIBERGLASS TANK INSTALLED
SOIL AND EXCAVATION DESCRIPTION:		OVM CALIB. READ. <u>52.5</u> ppm TIME: <u>0915</u> <u>pm</u> <u>1/18/01</u>

SOIL APPEARS TO BE FILL DIRT @ TH-1A LOCATION DOWN TO GROUNDWATER (4') (OL. YELL. ORANGE SAND), DISCOLORATION (LT. GRAY WITH VELY SMALL QUANTITIES OF BLACK) OBSERVED BELOW 4' FROM GRADE. DENNY FOUST OF NMOCB ON-SITE TO WITNESS SAMPLING. SHED PLACED UPON MAJORITY OF EXCAVATED AREA

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 2'	0.0
2 @	
3 @	
4 @	
5 @	

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
0 @ 2'	TPH (8015)	1110
TH-1A (4')	BTX (8021)	1130

PIT PROFILE

NOT APPLICABLE - SEE
 MW DETAIL & SOIL LITHOLOGY
 SCHEMATIC

TRAVEL NOTES: CALLOUT: NA ONSITE: 1/18/01 - 1/

MW #1 AP

SOIL LITHOLOGY	OVM (ppm)	SOIL DESCRIPTION
0.0' - 2.0'	1.2	DARK YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, NO APPARENT DISCOLORATION OBSERVED OR HC ODOR DETECTED (0.0-5.0 FT. INTERVAL).
2.0' - 4.0'	0.0	
4.0' - 6.0'	1.7	
6.0' - 8.0'		LIGHT TO MEDIUM GRAY SAND, NON COHESIVE, SATURATED, NO APPARENT HC ODOR DETECTED (5.0-8.0 FT. INTERVAL).
8.0' - 10.0'		LIGHT OLIVE TO LIGHT GRAY SAND, NON COHESIVE, SATURATED, NO APPARENT HC ODOR DETECTED (8.0-15.0 FT. INTERVAL).
10.0' - 12.0'		

NOTE: OVM = Organic Vapor Meter
ppm = parts per million

TIME INSTALLED & FIELD SCREENED: 1315-1400 HRS.

COLLECTED SOIL SAMPLES WITH 2 FOOT SPLIT SPOON VIA CONTINUOUS PUSH DRIVE ADVANCEMENT.

OVM CALIBRATED: 1/18/01 @ 0915 HRS.
CALIB GAS = 52.0 ppm, OVM Registered 52.5 ppm

TOC 2.00' A.G.S.

GROUND SURFACE

▼ WATER TABLE @ 2.04' B.G.S., MEASURED - 1/22/01.

TOS 2.00' B.G.S.

TD 12.00' B.G.S.

INSTALLED USING GEOPROBE 200 WITH 3 3/4 INCH SOLID AUGERS. DROVE 2 INCH PVC WITHIN BORING UPON AUGER REMOVAL INTO NATIVE SOIL.
SAMPLED ON 1/22/01 pH = 7.9
COND. = 400 umhos
Purged 5.0 gallons prior to collecting sample.

TOC = TOP OF CASING
TOS = TOP OF SCREEN
TD = TOTAL DEPTH
AGS = ABOVE GROUND SURFACE
BGS = BELOW GROUND SURFACE

MW DETAIL & SOIL LITHOLOGY SCHEMATIC 01/01

PROJECT: MW INSTALL.
DRAWN BY: NJV
FILENAME: MWDETAIL.SKD
INSTALLED: 1/19/01

BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

BP AMOCO
JAQUEZ GC E #1
SE/4 NW/4 SEC. 6, T29N, R9W
SAN JUAN COUNTY, NEW MEXICO

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Blagg / BP	Project #:	04034-010
Sample ID:	TH - 1A @ 2'	Date Reported:	01-19-01
Laboratory Number:	19112	Date Sampled:	01-18-01
Chain of Custody No:	8265	Date Received:	01-18-01
Sample Matrix:	Soil	Date Extracted:	01-19-01
Preservative:	Cool	Date Analyzed:	01-19-01
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

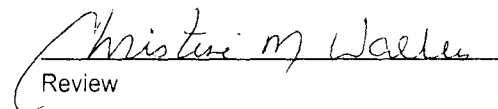
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.1

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Jaquez GC E #1 Abandoned Pit.**


Analyst


Review

CHAIN OF CUSTODY RECORD

08265

Client / Project Name		Project Location				ANALYSIS / PARAMETERS				
BAGS / BP		ABANDONED PITT								
SAMPLER: NV		JAREZ GC E #1								
Client No.		04034-010		Sample Matrix						
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	Received by: (Signature)	Date	Time	Remarks	
TH-1A RZ'	1/18/01	1110	19112	SOIL	1 ✓	<i>L. Ojeda</i>	1-18-01	1324	PRESERV. - COOL	
Relinquished by: (Signature)										
<i>Alfonso VJ</i>										
Relinquished by: (Signature)										
Relinquished by: (Signature)										
ENVIROTECH INC.										
5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615										

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	01-19-TPH QA/QC	Date Reported:	01-19-01
Laboratory Number:	19111	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-19-01
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	08-03-00	6.2648E-002	6.2586E-002	0.10%	0 - 15%
Diesel Range C10 - C28	08-03-00	2.0382E-002	2.0341E-002	0.20%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	242	241	0.4%	0 - 30%
Diesel Range C10 - C28	204	203	0.3%	0 - 30%

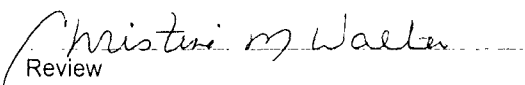
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	242	250	491	100%	75 - 125%
Diesel Range C10 - C28	204	250	453	100%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for samples 19111 - 19114.


Analyst


Review

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 25-Jan-01

Client: Blagg Engineering	Client Sample Info: Jacquez GC E#1
Work Order: 0101025	Client Sample ID: TH-GW @ 4ft.
Lab ID: 0101025-01A Matrix: AQUEOUS	Collection Date: 1/18/2001 11:30:00 AM
Project: BP- Jacquez GC E#1, Abandoned Pit	COC Record: 10779

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B			Analyst: DM	
Benzene	ND	0.5		µg/L	1	1/19/2001
Toluene	ND	0.5		µg/L	1	1/19/2001
Ethylbenzene	ND	0.5		µg/L	1	1/19/2001
m,p-Xylene	ND	1		µg/L	1	1/19/2001
o-Xylene	ND	0.5		µg/L	1	1/19/2001

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499
EMAIL: ONSITE@ONSITELTD.COM

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



CHAIN OF CUSTODY RECORD

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

10779

Date: 1/13/01
Page: 1 of 1

Purchase Order No.:		Project No.:	
Name: <u>JEFF BAGE</u>		Dept.:	
Company: <u>OLAGE ENGINEERING, INC.</u>			
Address:			
City, State, Zip:			
Telephone No.:		Telefax No.:	
<u>632-1199</u>		<u>632-3903</u>	
Name: <u>Neilson Veizer</u>		Title:	
Company: <u>same</u>			
Mailing Address:			
City, State, Zip:			
Telephone No.:		Telefax No.:	
<u>632-1199</u>		<u>632-3903</u>	
PROJECT LOCATION: <u>BD - TOWER GC E #1 - ABANDONED PIT</u>		ANALYSIS REQUESTED	
SAMPLER'S SIGNATURE:		Number of Containers	
SAMPLE IDENTIFICATION		REPORT RESULTS TO	
DATE	TIME	MATRIX	PRES.
<u>1/13/01</u>	<u>1130</u>	<u>WATER</u>	<u>HCl/8 COOL</u>
TH - GWEY4'		2	
LAB ID		<u>0106201</u>	
Relinquished by: <u>Neilson Veizer</u>		Date/Time: <u>1/13/01 1345</u>	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Method of Shipment:		Rush <input type="checkbox"/> 24-48 Hours <input type="checkbox"/> 10 Working Days <input type="checkbox"/> By Date <input type="checkbox"/>	
Authorized by: _____		Special Instructions / Remarks:	
(Client Signature Must Accompany Request)		Date: _____	

On Site Technologies, LTD.

Date: 25-Jan-01

QC SUMMARY REPORT
Method Blank

CLIENT: Blagg Engineering

Work Order: 0101025

Project: BP- Jacques GC E#1, Abandoned Pit

Sample ID: MB1 Batch ID: GC-1_010119 Test Code: SW8021B Units: µg/L Analysis Date 1/19/2001 Prep Date:

Client ID: 0101025 Run ID: GC-1_010119A SeqNo: 34539

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	ND	0.5									
m,p-Xylene	.1352	1									J
Methyl tert-Butyl Ether	ND	1									J
o-Xylene	.0649	0.5									J
Toluene	ND	0.5									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

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

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 25-Jan-01

QC SUMMARY REPORT

Sample Matrix Spike

CLIENT: Blagg Engineering
Work Order: 0101025
Project: BP- Jacques GC E#1, Abandoned Pit

Sample ID:	0101006-01AMS	Batch ID:	GC-1_010119	Test Code:	SW8021B	Units:	µg/L	Analysis Date	1/19/2001	SeqNo:	34540	Prep Date:	
Client ID:	0101025	Run ID:	GC-1_010119A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result												
Benzene	379.1	5	400	0	94.8%	88	112						
Ethylbenzene	371.3	5	400	0.073	92.8%	86	113						
m,p-Xylene	741	10	800	0.1987	92.6%	85	108						
Methyl tert-Butyl Ether	397	10	400	0	99.3%	86	117						
o-Xylene	376.9	5	400	0.1065	94.2%	92	110						
Toluene	377.5	5	400	0	94.4%	88	116						

Sample ID:	0101006-01AMS	Batch ID:	GC-1_010119	Test Code:	SW8021B	Units:	µg/L	Analysis Date	1/19/2001	SeqNo:	34541	Prep Date:	
Client ID:	0101025	Run ID:	GC-1_010119A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result												
Benzene	388.4	5	400	0	97.1%	88	112	379.1	2.4%	6			
Ethylbenzene	380.8	5	400	0.073	95.2%	86	113	371.3	2.5%	6			
m,p-Xylene	759.5	10	800	0.1987	94.9%	85	108	741	2.5%	6			
Methyl tert-Butyl Ether	396.1	10	400	0	99.0%	86	117	397	0.2%	7			
o-Xylene	385.3	5	400	0.1065	96.3%	92	110	376.9	2.2%	6			
Toluene	386	5	400	0	96.5%	88	116	377.5	2.2%	6			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

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

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 25-Jan-01

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: Blagg Engineering
Work Order: 0101025
Project: BP- Jacques GC E#1, Abandoned Pit

Sample ID:	LCS WATER	Batch ID:	GC-1_010119	Test Code:	SW8021B	Units:	µg/L	Analysis Date	1/19/2001	Prep Date:			
Client ID:	0101025	Run ID:	GC-1_010119A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result												
Benzene	39.25	0.5	40	0	98.1%	96	111						
Ethylbenzene	38.71	0.5	40	0	96.8%	96	111						
m,p-Xylene	77.27	1	80	0.1352	96.4%	92	105						
Methyl tert-Butyl Ether	39.68	1	40	0	99.2%	93	113						
o-Xylene	39.1	0.5	40	0.0649	97.6%	97	110						
Toluene	39.13	0.5	40	0	97.8%	97	109						

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

On Site Technologies, LTD.

Date: 25-Jan-01

CLIENT: Blagg Engineering
 Work Order: 0101025
 Project: BP- Jacques GC E#1, Abandoned Pit

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

Sample ID:	CCV1 BTEX_0012	Batch ID:	GC-1_010119	Test Code:	SW8021B	Units:	µg/L	Analysis Date:	1/19/2001	Prep Date:			
Client ID:	0101025	Run ID:	GC-1_010119A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result												
Benzene	19.56	0.5	20	0	0	0	97.8%	85	115				
Ethylbenzene	19.48	0.5	20	0	0	0	97.4%	85	115				
m,p-Xylene	39.06	1	40	0	0	0	97.7%	85	115				
Methyl tert-Butyl Ether	19.58	1	20	0	0	0	97.9%	85	115				
o-Xylene	19.7	0.5	20	0	0	0	98.5%	85	115				
Toluene	19.6	0.5	20	0	0	0	98.0%	85	115				
1,4-Difluorobenzene	75.72	0	80	0	0	0	94.7%	70	130				
4-Bromochlorobenzene	81.29	0	80	0	0	0	101.6%	70	130				
Fluorobenzene	76.81	0	80	0	0	0	96.0%	70	130				

Sample ID:	CCV2 BTEX_0012	Batch ID:	GC-1_010119	Test Code:	SW8021B	Units:	µg/L	Analysis Date:	1/19/2001	Prep Date:			
Client ID:	0101025	Run ID:	GC-1_010119A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result												
Benzene	19.02	0.5	20	0	0	0	95.1%	85	115				
Ethylbenzene	18.88	0.5	20	0	0	0	94.4%	85	115				
m,p-Xylene	37.81	1	40	0	0	0	94.5%	85	115				
Methyl tert-Butyl Ether	19.74	1	20	0	0	0	98.7%	85	115				
o-Xylene	19.21	0.5	20	0	0	0	96.1%	85	115				
Toluene	19	0.5	20	0	0	0	95.0%	85	115				
1,4-Difluorobenzene	75.71	0	80	0	0	0	94.6%	70	130				
4-Bromochlorobenzene	79.99	0	80	0	0	0	100.0%	70	130				
Fluorobenzene	76.85	0	80	0	0	0	96.1%	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering
Work Order: 0101025
Project: BP- Jacques GC E#1, Abandoned Pit

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

Sample ID: CCV3 BTEX_0012 Batch ID: GC-1_010119 Test Code: SW8021B Units: µg/L Analysis Date 1/19/2001 Prep Date:
 Client ID: 0101025 Run ID: GC-1_010119A SeqNo: 34537

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.12	0.5	40	0	95.3%	85	115				
Ethylbenzene	37.29	0.5	40	0	93.2%	85	115				
m,p-Xylene	74.33	1	80	0	92.9%	85	115				
Methyl tert-Butyl Ether	39.61	1	40	0	99.0%	85	115				
o-Xylene	37.94	0.5	40	0	94.8%	85	115				
Toluene	37.92	0.5	40	0	94.8%	85	115				
1,4-Difluorobenzene	74.53	0	80	0	93.2%	70	130				
4-Bromochlorobenzene	80.31	0	80	0	100.4%	70	130				
Fluorobenzene	76.86	0	80	0	96.1%	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
 S - Spike Recovery outside accepted recovery limits
 B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits
 R - RPD outside accepted recovery limits

CLIENT: Blagg Engineering
 Work Order: 0101025
 Project: BP- Jacquez GC E#1, Abandoned P
 Test No: SW8021B

**QC SUMMARY REPORT
 SURROGATE RECOVERIES**

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0101006-01A	95.1	98.5	96.4
0101006-01AMS	94.4	99.8	96.1
0101006-01AMSD	93.8	99.9	95.4
0101006-02A	94.2	99.7	97.1
0101006-03A	94.6	99	96.8
0101006-04A	94.4	104	97
0101006-05A	94.7	99	96.5
0101006-06A	94.6	98.8	97.2
0101006-07A	94.3	99.4	97.3
0101014-01A	94.7	99.1	96.5
0101014-02A	92.6	100	95.7
0101025-01A	94.5	100	97.1
CCV1 BTEX_00121	94.6	102	96
CCV2 BTEX_00121	94.6	100	96.1
CCV3 BTEX_00121	93.2	100	96.1
LCS WATER	93.4	99.7	96.1
MBI	94.8	106	96.6

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

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ANALYTICAL REPORT

Date: 31-Jan-01

Client:	Blagg Engineering	Client Sample Info:	Jaquez GC E #1 Pit
Work Order:	0101023	Client Sample ID:	MW #1 AP
Lab ID:	0101023-01A	Matrix:	AQUEOUS
Project:	BP; Jaquez GC E #1 Abandoned Pit	Collection Date:	1/22/2001 12:40:00 PM
		COC Record:	10780

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID						Analyst: DM
		SW8021B				
Benzene	ND	0.5		µg/L	1	1/23/2001
Toluene	ND	0.5		µg/L	1	1/23/2001
Ethylbenzene	ND	0.5		µg/L	1	1/23/2001
m,p-Xylene	ND	1		µg/L	1	1/23/2001
o-Xylene	ND	0.5		µg/L	1	1/23/2001

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

1 of 1

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On Site Technologies, LTD.

Date: 31-Jan-01

QC SUMMARY REPORT

Method Blank

CLIENT: Blagg Engineering
Work Order: 0101023
Project: BP; Jaquez GC E #1 Abandoned Pit

Sample ID: MB1 Batch ID: GC-1_010123 Test Code: SW8021B Units: µg/L Analysis Date: 1/23/2001 Prep Date:
Client ID: 0101023 Run ID: GC-1_010123A SeqNo: 34677

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	ND	0.5									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

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

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 31-Jan-01

QC SUMMARY REPORT

Sample Matrix Spike

CLIENT: Blagg Engineering
Work Order: 0101023
Project: BP; Jaquez GC E #1 Abandoned Pit

Sample ID: 0101024-05AMS	Batch ID: GC-1_010123	Test Code: SW8021B	Units: µg/L	Analysis Date 1/23/2001	Prep Date:				
Client ID: 0101023	Run ID: GC-1_010123A	PQL	SPK value	SeqNo: 34678					
Analyte	Result	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	391.2	0	97.8%	84	111				
Ethylbenzene	384.6	1.355	95.8%	84	111				
m,p-Xylene	761.1	800	94.9%	84	108				
Methyl tert-Butyl Ether	441.6	400	98.6%	80	117				
o-Xylene	386.1	400	96.5%	89	107				
Toluene	388.3	400	97.1%	90	107				

Sample ID: 0101024-05AMSD	Batch ID: GC-1_010123	Test Code: SW8021B	Units: µg/L	Analysis Date 1/23/2001	Prep Date:				
Client ID: 0101023	Run ID: GC-1_010123A	PQL	SPK value	SeqNo: 34679					
Analyte	Result	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	375.8	0	94.0%	84	111	391.2	4.0%	8	
Ethylbenzene	370.7	1.355	92.3%	84	111	384.6	3.7%	7	
m,p-Xylene	734.9	800	91.6%	84	108	761.1	3.5%	7	
Methyl tert-Butyl Ether	431.9	400	96.2%	80	117	441.6	2.2%	6	
o-Xylene	373.6	400	93.4%	89	107	386.1	3.3%	6	
Toluene	374	400	93.5%	90	107	388.3	3.8%	6	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

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

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 31-Jan-01

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: Blagg Engineering
Work Order: 0101023
Project: BP, Jaquez GC E #1 Abandoned Pit

Sample ID:	LCS WATER	Batch ID:	GC-1_010123	Test Code:	SW8021B	Units:	µg/L	Analysis Date	1/23/2001	Prep Date:			
Client ID:	0101023	Run ID:	GC-1_010123A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Benzene	39.06	0.5	40	0	97.6%	92	109						
Ethylbenzene	38.56	0.5	40	0	96.4%	92	112						
m,p-Xylene	76.53	1	80	0	95.7%	91	108						
Methyl tert-Butyl Ether	38.2	1	40	0	95.5%	89	116						
o-Xylene	38.76	0.5	40	0	96.9%	93	109						
Toluene	38.85	0.5	40	0	97.1%	93	108						

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 31-Jan-01

CLIENT: Blagg Engineering
 Work Order: 0101023
 Project: BP; Jaquez GC E #1 Abandoned Pit

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	Analysis Date 1/23/2001		Prep Date:
												Run ID:	SeqNo:	
												GC-1_010123	34674	
Benzene	19.49	0.5	20	0	97.5%	85	115							
Ethylbenzene	19.47	0.5	20	0	97.4%	85	115							
m,p-Xylene	38.71	1	40	0	96.8%	85	115							
Methyl tert-Butyl Ether	18.92	1	20	0	94.6%	85	115							
o-Xylene	19.5	0.5	20	0	97.5%	85	115							
Toluene	19.38	0.5	20	0	96.9%	85	115							
1,4-Difluorobenzene	74.77	0	80	0	93.5%	85	103							
4-Bromochlorobenzene	78.71	0	80	0	98.4%	93	108							
Fluorobenzene	77.02	0	80	0	96.3%	88	103							

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	Analysis Date 1/23/2001		Prep Date:
												Run ID:	SeqNo:	
												GC-1_010123A	34675	
Benzene	19.3	0.5	20	0	96.5%	85	115							
Ethylbenzene	19.27	0.5	20	0	96.3%	85	115							
m,p-Xylene	38.36	1	40	0	95.9%	85	115							
Methyl tert-Butyl Ether	19.26	1	20	0	96.3%	85	115							
o-Xylene	19.45	0.5	20	0	97.2%	85	115							
Toluene	19.26	0.5	20	0	96.3%	85	115							
1,4-Difluorobenzene	74.71	0	80	0	93.4%	85	103							
4-Bromochlorobenzene	78.45	0	80	0	98.1%	93	108							
Fluorobenzene	77.16	0	80	0	96.4%	88	103							

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT
Continuing Calibration Verification Standard

CLIENT: Blagg Engineering
Work Order: 0101023
Project: BP; Jaquez GC E #1 Abandoned Pit

Sample ID: CCV3 BTEX_0012 Batch ID: GC-1_010123 Test Code: SW8021B Units: µg/L Analysis Date: 1/23/2001 Prep Date:

Client ID: 0101023 Run ID: GC-1_010123A SeqNo: 34700

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.64	0.5	40	0	96.6%	85	115				
Ethylbenzene	37.85	0.5	40	0	94.6%	85	115				
m,p-Xylene	75.21	1	80	0	94.0%	85	115				
Methyl tert-Butyl Ether	38.72	1	40	0	96.8%	85	115				
o-Xylene	38.32	0.5	40	0	95.8%	85	115				
Toluene	38.45	0.5	40	0	96.1%	85	115				
1,4-Difluorobenzene	74.83	0	80	0	93.5%	85	103				
4-Bromochlorobenzene	78.22	0	80	0	97.8%	93	108				
Fluorobenzene	76.46	0	80	0	95.6%	88	103				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

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

B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering
 Work Order: 0101023
 Project: BP; Jaquez GC E #1 Abandoned Pit
 Test No: SW8021B

**QC SUMMARY REPORT
 SURROGATE RECOVERIES**

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0101023-01A	94.3	99.7	97
0101024-01A	94.2	99.9	96.8
0101024-02A	94.9	99.7	97.1
0101024-03A	94.9	99.1	97.1
0101024-04A	93.8	98.8	97.5
0101024-05AMS	93.2	98.9	95.4
0101024-05AMSD	93.5	99	95.4
0101024-06A	94	99.5	97.6
0101024-07A	94.4	98.6	97.4
0101024-08A	93.4	98.1	96
0101024-09A	94.1	95.3	97.2
0101024-10A	94.1	96.9	97
0101024-11A	94.6	97.8	96.8
0101024-12A	93.6	97.6	95.9
0101024-13A	93.4	97	95.9
0101024-14A	94.6	99.4	97.2
0101024-15A	94.6	98.5	97
CCV1 BTEX_00121	93.5	98.4	96.3
CCV2 BTEX_00121	93.4	98.1	96.4
CCV3 BTEX_00121	93.5	97.8	95.6
LCS WATER	93.1	101	95.9
MB1	93.8	98.5	97.5

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	85-103
4BCBZ	= 4-Bromochlorobenzene	93-108
FLBZ	= Fluorobenzene	88-103

* Surrogate recovery outside acceptance limits