BLOW – VISK RANK) C 144 sep Pit Comp

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

PIT REMEDIATION AND CLOSURE REPORT

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

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: Well Name GERK GC B #1

Location: Unit or Qtr/Qtr Sec G Sec 30 T 29 N R 9 W County SAN JUAN

Pit Type: Separator ___ Dehydrator ___ Other BLOW

Land Type: BLM ___, State ___, Fee ___, Other COM AGMT.

Pit Location: (Attach diagram)
Pit dimensions: length 35', width 35', depth 13'
Reference: wellhead X, other ___
Footage from reference: 155
Direction from reference: 45 Degrees ___ East North X of X 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)	10
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)	0
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)	0
	RANKING SCORE (TOTAL POINTS):	10

Date Remediation Started: _____ **Date Completed:** 4/28/94

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 590

Landfarmed X Insitu Bioremediation ___

Other _____

Remediation Location: (ie. landfarmed onsite, name and location of offsite facility) Onsite X Offsite _____

General Description Of Remedial Action: _____

Excavation, BEDROCK BOTTOM - LISK ASSESSED. QV

Ground Water Encountered: No X Yes ___ **Depth** _____

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location see Attached Documents

Sample depth 13'

Sample date 4-28-94 Sample time _____

Sample Results

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) 1265

TPH 620 ppm

Ground Water Sample: Yes ___ No X (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 ~~4/29/94~~ 5/23/98

SIGNATURE B J Shaw

PRINTED NAME AND TITLE Buddy D. Shaw Environmental Coordinator

RCO

RESULTS TO PAUL V. 4-28-94

CLIENT: AMOCO

ENVIROTECH Inc.

5796 US HWY. 64, FARMINGTON, NM 87401
(505) 632-0615

PIT NO: C4978
C.O.C. NO: —

FIELD REPORT: CLOSURE VERIFICATION

JOB No: 92140
PAGE No: 1 of 1

LOCATION: LEASE: GERK GC B WELL #: 1 PIT: BLOW
SW/4 NE/4
UNIT: G SEC: 30 TWP: 29N RNG: 9W BM: NM CNTY: SJ ST: NM
CONTRACTOR: PAUL VELASQUEZ

DATE STARTED:
DATE FINISHED: 4-28-94
ENVIRONMENTAL SPECIALIST: RCO

SOIL REMEDIATION: EXCAVATION APPROX. 35 FT. x 35 FT. x 13 FT. DEEP.
DISPOSAL FACILITY: ON SITE LANDFARM
LAND USE: RANGE

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 155 FEET N45°W FROM WELLHEAD.
DEPTH TO GROUNDWATER: >50' NEAREST SURFACE WATER: >1000' NEAREST WATER SOURCE: >1000'
NMOCD RANKING SCORE: 10 NMOCD TPH CLOSURE STD: 1000 PPM

SOIL AND EXCAVATION DESCRIPTION: PIT EXCAVATED IN SHALE/BEDROCK SANDSTONE.
SOME GAS SEEPAGE VISIBLE ON PIT WALLS + BOTTOM
WALLS + BOTTOM ARE HARD.
NO ADDITIONAL EXCAVATION POSSIBLE.
CONTAMINATION REMAINS IN ROCK FRACTURES / BEDROCK SANDSTONE ONLY.

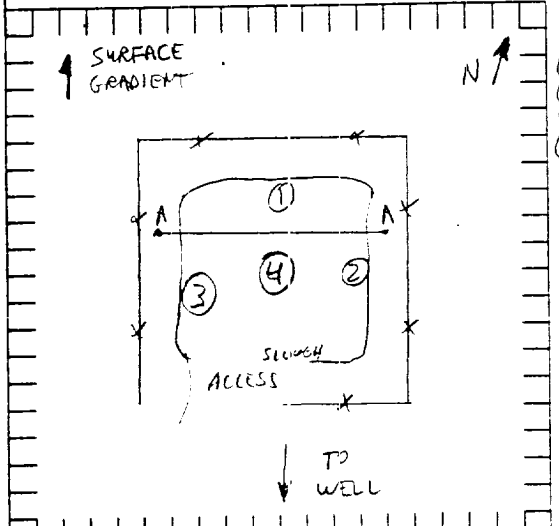
BEDROCK BOTTOM
BGK ASSESSED
PAV

FIELD 418.1 CALCULATIONS

SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
④ C3@13'	GAC 435	10.00	20	—	310	620

SCALE
0 10 20 FEET

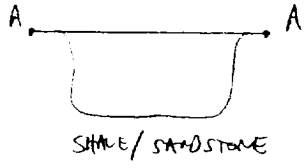
PIT PERIMETER



OVM RESULTS

	SAMPLE ID	FIELD HEADSPACE PID (ppm)
①	NS@10'	1126
②	ES@9'	191
③	SWS@9'	16
④	CB@13'	1265

PIT PROFILE



TRAVEL NOTES: CALLOUT: 4-28-94 ONSITE: 4-28-94 1230

Well Name:	**Gerk GC B #1**
Well Site location:	Unit G, Sec. 30, T29N, R9W
Pit Type:	Blow Pit
Producing Formation:	Basin Dakota
Pit Category:	Vulnerable
Horizonal Distance to Surface Water:	> 1000 ft.
Vicinity Groundwater Depth:	< 100 ft.

RISK ASSESSMENT

Pit remediation activities were terminated when trackhoe encountered shale/sandstone bedrock at 13 feet below grade.

No past or future threat to surface water or groundwater is likely based on the following considerations:

1. Past production fluids were contained locally by a relatively shallow shale/sandstone bedrock located 13 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below sandstone bedrock.

2. Topographic information does not indicate off site lateral fluid migration near the earthen pit.

3. Daily discharge into the earthen pit has been terminated (double sidewall steel tank installed). Prior discharge into the pit is believed to be under 5 barrels per day.

4. Field headspace readings (OVM/PID) on Basin Dakota type locations do not reflect direct correlation to total BTEX per USEPA Method 8020 concentrations. Listed below are several typical AMOCO Basin Dakota pit soil analyses comparing headspace to Benzene and total BTEX results.

LOCATION	HEADSPACE (ppm)	BENZENE (ppm)	TOTAL BTEX (ppm)
Frost, Jack B 1E	**1100**	**0.011**	**5.889**
Berger A1	**482**	**0.084**	**0.681**
Mudge Com B 1E	**684**	**0.017**	**16.438**
L.C. Kelly #5	**1235**	**0.643**	**13.908**

The comparisons listed above demonstrates that headspace testing is not an accurate measurement to Benzene or total BTEX concentrations when above standards for Basin Dakota type pits.

Based upon the information given, we conclude that the subsurface lateral impact from the earthen pit is very limited and that the shale/sandstone bottom creates enough of a impermeable barrier as to subdue impact to groundwater below it (please refer to AMOCO's report "Post Excavation Pit Closure Investigation Summary, July, 1995", with cover letter dated November 30, 1995). AMOCO therefore request pit closure approval on this location.

ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615 • FAX: (505) 632-1865

FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	CB @ 13'	Date Analyzed:	4-28-94
Project Location:	Gerk GC B 1	Date Reported:	4-28-94
Laboratory Number:	GAC0435	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**620**	**10**

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
750	820	9

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Blow Pit C4978

R. E. O'Neal
Analyst

Tony Tristan
Review

C4981

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

PIT REMEDIATION AND CLOSURE REPORT

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

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: Well Name GERK GC B1

Location: Unit or Qtr/Qtr Sec G Sec 30 T 29N R 9W County SAN JUAN

Pit Type: Separator X Dehydrator ___ Other ___

Land Type: BLM ___, State ___, Fee ___, Other Com. Agmt.

t Location: (Attach diagram)
Pit dimensions: length 20', width 45', depth 7'
Reference: wellhead X, other ___
Footage from reference: 150
Direction from reference: 35 Degrees X East North X of ___ 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)	10
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)	0
.stance 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)	0
	RANKING SCORE (TOTAL POINTS):	10

Date Remediation Started: _____ **Date Completed:** 5/2/94

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 235

Landfarmed X Insitu Bioremediation ___

Other _____

Remediation Location: (ie. landfarmed onsite, name and location of offsite facility) Onsite X Offsite _____

General Description of Remedial Action: EXCAVATION. BEDROCK BOTTOM. NO ASSESSED BTEX

Ground Water Encountered: No X Yes ___ Depth _____

Final Pit:
Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location REFER TO "CLOSURE VERIFICATION" SHEET

Sample depth 7'

Sample date 5-2-94 Sample time _____

Sample Results

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) 1356

TPH 53 ppm

Ground Water Sample: Yes ___ No X (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 ~~5/6/94~~ 5/23/98

SIGNATURE B J Shaw

PRINTED NAME AND TITLE Buddy D. Shaw Environmental Coordinator

CLIENT: AMOCO

ENVIROTECH Inc.

5796 US HWY. 64, FARMINGTON, NM 87401
(505) 632-0615

PIT NO: C4981
C.O.C. NO: 3556

FIELD REPORT: CLOSURE VERIFICATION

JOB No: 92140
PAGE No: 1 of 1

LOCATION: LEASE: GERK GC WELL #: B1 PIT: SEP
UNIT: G SEC: 30 TWP: 29N RNG: 9W BM: NM CNTY: SAN JUAN ST: NM
CONTRACTOR: P. VELASQUEZ

DATE STARTED: 5/2/94
DATE FINISHED: 5/2/94
ENVIRONMENTAL SPECIALIST: NV

SOIL REMEDIATION: EXCAVATION APPROX. 20' FT. x 45' FT. x 7' FT. DEEP.
DISPOSAL FACILITY: LANDFARMED ON-SITE
LAND USE: RANGE

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 150 FEET N35E FROM WELLHEAD.
DEPTH TO GROUNDWATER: <100 NEAREST SURFACE WATER: >1000 NEAREST WATER SOURCE: >1000
NMOCD RANKING SCORE: 10 NMOCD TPH CLOSURE STD: 1000 PPM

SOIL AND EXCAVATION DESCRIPTION: ALL DUM READINGS COMPOSED OF SHALY ROCK MATERIAL. SAMPLES ③, ④, & ⑤ LT. MED GRAY FROM B.H. DOOR. VERY SOFT SHALE ONLY OUT TO THE EXTENT OF EQUIP. & UNDERGROUND PIPING.

BOTTOM @ BEDROCK

BEDROCK BOTTOM

COLLECTED LAB SAMPLE FOR TPH (418.1) ⑤ @ 7' TIME - 0915

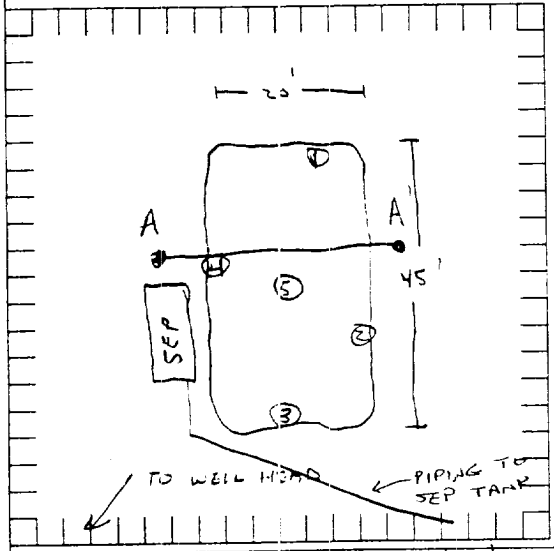
RISK ASSESSED NV

FIELD 418.1 CALCULATIONS

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

SCALE
0 FEET

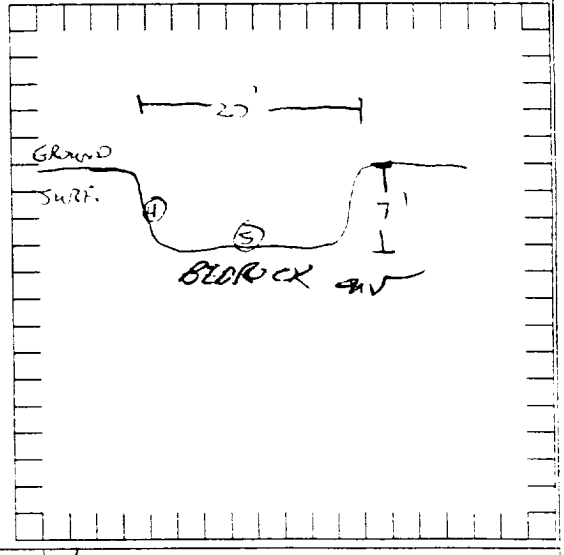
PIT PERIMETER



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
① @ 4'	0.8
② @ 4'	6.3
③ @ 5'	1334
④ @ 4'	536
⑤ @ 7'	1356

PIT PROFILE



TRAVEL NOTES: CALLOUT: 4/29/94 - FRI ONSITE: 5/2/94 - MW

Well Name:	**Gerk GC B #1**
Well Site location:	Unit G, Sec. 30, T29N, R9W
Pit Type:	Separator Pit
Producing Formation:	Basin Dakota
Pit Category:	Vulnerable
Horizonal Distance to Surface Water:	> 1000 ft.
Vicinity Groundwater Depth:	< 100 ft.

RISK ASSESSMENT

Pit remediation activities were terminated when trackhoe encountered shale/sandstone bedrock at 7 feet below grade.

No past or future threat to surface water or groundwater is likely based on the following considerations:

1. Past production fluids were contained locally by a relatively shallow shale/sandstone bedrock located 7 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below sandstone bedrock.

2. Topographic information does not indicate off site lateral fluid migration near the earthen pit.

3. Daily discharge into the earthen pit has been terminated (double sidewall steel tank installed). Prior discharge into the pit is believed to be under 5 barrels per day.

4. Field headspace readings (OVM/PID) on Basin Dakota type locations do not reflect direct correlation to total BTEX per USEPA Method 8020 concentrations. Listed below are several typical AMOCO Basin Dakota pit soil analyses comparing headspace to Benzene and total BTEX results.

LOCATION	HEADSPACE (ppm)	BENZENE (ppm)	TOTAL BTEX (ppm)
Frost, Jack B 1E	**1100**	**0.011**	**5.889**
Berger A1	**482**	**0.084**	**0.681**
Mudge Com B 1E	**684**	**0.017**	**16.438**
L.C. Kelly #5	**1235**	**0.643**	**13.908**

The comparisons listed above demonstrates that headspace testing is not an accurate measurement to Benzene or total BTEX concentrations when above standards for Basin Dakota type pits.

Based upon the information given, we conclude that the subsurface lateral impact from the earthen pit is very limited and that the shale/sandstone bottom creates enough of a impermeable barrier as to subdue impact to groundwater below it (please refer to AMOCO's report "Post Excavation Pit Closure Investigation Summary, July, 1995", with cover letter dated November 30, 1995). AMOCO therefore request pit closure approval on this location.

ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	5 @ 7'	Date Sampled:	05-02-94
Laboratory Number:	7333	Date Received:	05-03-94
Sample Matrix:	Soil	Date Analyzed:	05-03-94
Preservative:	Cool	Date Reported:	05-03-94
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	53	10.0

ND = Parameter not detected at the stated detection limit.
N/A = Not applicable

Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Gerk GC B1 Sep Pit C4981

Tony Talintano
Analyst

Review

3556

CHAIN OF CUSTODY RECORD

C4981

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
AMOCO 92140	SEP PIT GERK GC B1	
Sampler: (Signature) Nelson Velez	Chain of Custody Tape No.	

Sample No / Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (418.1)						Remarks
(5) @ 7'	5/2/94	0915	7333	SOIL	1	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	5/3/94	0720	Kevin L. Gresham	5-3-94	0720
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

C4982

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

PIT REMEDIATION AND CLOSURE REPORT

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

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: Well Name GERK GC B 1

Location: Unit or Qtr/Qtr Sec G Sec 30 T29N R 9W County SAN JUAN

Pit Type: Separator ___ Dehydrator ___ Other ABANDONED COMPRESSOR

Land Type: BLM ___, State ___, Fee ___, Other Com. AGMT.

t Location: (Attach diagram)
Pit dimensions: length 13', width 16', depth 6'
Reference: wellhead X, other ___
Footage from reference: 102'
Direction from reference: 70 Degrees X East North X of ___ 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)	10
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)	0
stance 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)	0
	RANKING SCORE (TOTAL POINTS):	10

Date Remediation Started: _____ **Date Completed:** 5/2/94

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 50

Landfarmed X Insitu Bioremediation ___

Other _____

Remediation Location: (ie. landfarmed onsite, name and location of offsite facility) Onsite X Offsite _____

General Description Of Remedial Action: EXCAVATION - BEDROCK BOTTOM. RISK ASSESSED - NFA

Ground Water Encountered: No X Yes ___ Depth _____

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location REFER TO "CLOSURE VERIFICATION" SHEET

Sample depth 6'

Sample date 5-2-94 Sample time _____

Sample Results

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) 323

TPH 1900 ppm

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

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

DATE ~~5/6/94~~ 5/23/98

SIGNATURE B J Shaw PRINTED NAME AND TITLE Buddy D. Shaw Environmental Coordinator

F 20

CLIENT: AMOCO

ENVIROTECH Inc.

5796 US HWY. 64, FARMINGTON, NM 87401
(505) 632-0615

PIT NO: C4982
C.O.C. NO: 3557

FIELD REPORT: CLOSURE VERIFICATION

JOB No: 92140
PAGE No: 1 of 1

LOCATION: LEASE: GERK GC WELL #: B1 PIT: ABAND. COMPR.
UNIT: G SEC: 30 TWP: 29N RNG: 9W BM: NM CNTY: SAN JUAN ST: NM
CONTRACTOR: P. VELASQUEZ

DATE STARTED: 5/2/94
DATE FINISHED: 5/2/94
ENVIRONMENTAL SPECIALIST: NV

SOIL REMEDIATION: EXCAVATION APPROX. 13' FT. x 16' FT. x 6' FT. DEEP.
DISPOSAL FACILITY: LANDFARMED ON-SITE
LAND USE: RANGE

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 102 FEET N70E FROM WELLHEAD.
DEPTH TO GROUNDWATER: <100' NEAREST SURFACE WATER: >1000' NEAREST WATER SOURCE: >1000'
NMOCD RANKING SCORE: 10 NMOCD TPH CLOSURE STD: 1000 PPM

SOIL AND EXCAVATION DESCRIPTION: ALL OVM SAMPLES COMPOSED OF SHALY ROCK MATERIAL. BOTTOM CENTER SAMPLE HAD SLIGHT HC ODOR.

BEDROCK BOTTOM

COLLECTED LAB SAMPLE FOR TPH (418.1) ⑤ @ 6' TIME - 10

RISK ASSESSED ✓

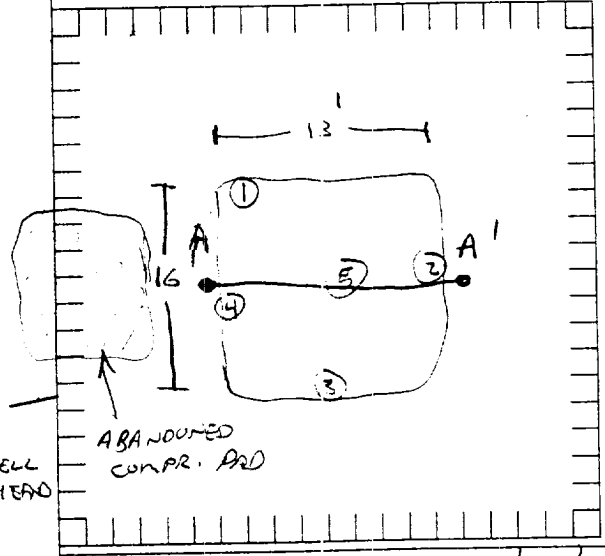
FIELD 418.1 CALCULATIONS

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

SCALE
0 FEET

N

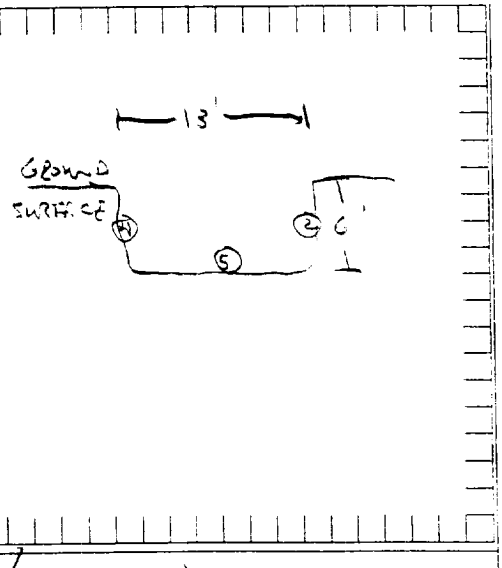
PIT PERIMETER



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 2'	46.9
2 @ 2'	5.0
3 @ 2'	7.6
4 @ 2'	15.7
5 @ 6'	323

PIT PROFILE



TRAVEL NOTES: CALLOUT: 4/29/94 - FRI ONSITE: 5/2/94 - MON

Well Name:	**Gerk GC B #1**
Well Site location:	Unit G, Sec. 30, T29N, R9W
Pit Type:	Compressor Pit
Producing Formation:	Basin Dakota
Pit Category:	Vulnerable
Horizonal Distance to Surface Water:	> 1000 ft.
Vicinity Groundwater Depth:	< 100 ft.

RISK ASSESSMENT

Pit remediation activities were terminated when trackhoe encountered shale/sandstone bedrock at 6 feet below grade.

No past or future threat to surface water or groundwater is likely based on the following considerations:

1. Past production fluids were contained locally by a relatively shallow shale/sandstone bedrock located 6 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below sandstone bedrock.

2. Topographic information does not indicate off site lateral fluid migration near the earthen pit.

3. Daily discharge into the earthen pit has been terminated (double sidewall steel tank installed). Prior discharge into the pit is believed to be under 5 barrels per day.

4. Field headspace readings (OVM/PID) on Basin Dakota type locations do not reflect direct correlation to total BTEX per USEPA Method 8020 concentrations. Listed below are several typical AMOCO Basin Dakota pit soil analyses comparing headspace to Benzene and total BTEX results.

LOCATION	HEADSPACE (ppm)	BENZENE (ppm)	TOTAL BTEX (ppm)
Frost, Jack B 1E	**1100**	**0.011**	**5.889**
Berger A1	**482**	**0.084**	**0.681**
Mudge Com B 1E	**684**	**0.017**	**16.438**
L.C. Kelly #5	**1235**	**0.643**	**13.908**

The comparisons listed above demonstrates that headspace testing is not an accurate measurement to Benzene or total BTEX concentrations when above standards for Basin Dakota type pits.

Based upon the information given, we conclude that the subsurface lateral impact from the earthen pit is very limited and that the shale/sandstone bottom creates enough of a impermeable barrier as to subdue impact to groundwater below it (please refer to AMOCO's report "Post Excavation Pit Closure Investigation Summary, July, 1995", with cover letter dated November 30, 1995). AMOCO therefore request pit closure approval on this location.

ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	5 @ 6'	Date Sampled:	05-02-94
Laboratory Number:	7334	Date Received:	05-03-94
Sample Matrix:	Soil	Date Analyzed:	05-03-94
Preservative:	Cool	Date Reported:	05-03-94
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	1,900	10.0

ND = Parameter not detected at the stated detection limit.
N/A = Not applicable

Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Gerk GC B1 Abandoned Compressor C4982

Tony Tinsley
Analyst

Marvin D. Young
Review

3557

C4982

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
AMOCO 92140	ABANDONED COMPRESSOR GERK GC B1	
Sampler: (Signature) Nelson Velez	Chain of Custody Tape No.	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (418.1)						Remarks
(5) @ 6'	5/2/94	1010	7334	SOIL	1	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	5/2/94	0725	Denise L. Glenn	5-3-94	0725
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

san juan repro Form 578-81

CLIENT: AMOCO

BLAGG ENGINEERING, INC.

P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO: C4978 C4981
C.O.C. NO: 5570

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: GERK GC B WELL #: 1 PITS: BLOW, SEP., COMPR.
QUAD/UNIT: (G) SEC: 30 TWP: 29N RNG: 9W PM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: SW/4 NE/4 CONTRACTOR: P & S

DATE STARTED: 11-20-97
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: NV/EP

SOIL REMEDIATION:

REMEDIATION SYSTEM: LANDFARM
APPROX. CUBIC YARDAGE: 825
LAND USE: RANGE.
LIFT DEPTH (ft): NA

FIELD NOTES & REMARKS:

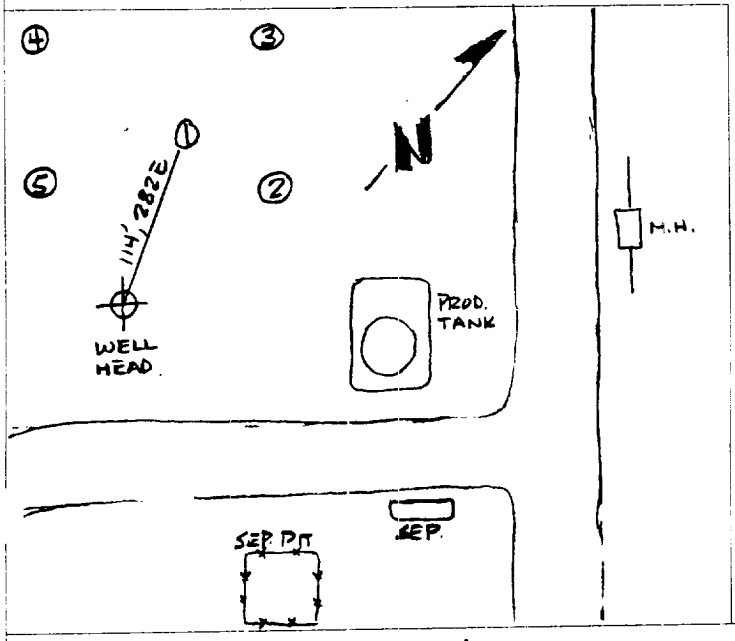
DEPTH TO GROUNDWATER: <100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOCD RANKING SCORE: 10 NMOCD TPH CLOSURE STD: 1000 PPM

SOIL IS DRY LIGHT GRAY CLAY W/SILTY SAND.
NO STAIN OR H.C. ODOR TOOK 5 PT COMPOSITE FOR LAB ANALYSIS, UNCERTAIN IF AREA SAMPLE IS ACTUAL LANDFARMED SOIL.

FIELD 418.1 CALCULATIONS

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

SKETCH/SAMPLE LOCATIONS



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
LF-1	0.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	8015	1120	ND

SCALE
0 FT

TRAVEL NOTES: CALLOUT: N/A ONSITE: 11-20-97 1120

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	11-25-97
Laboratory Number:	C545	Date Sampled:	11-20-97
Chain of Custody No:	5570	Date Received:	11-21-97
Sample Matrix:	Soil	Date Extracted:	11-21-97
Preservative:	Cool	Date Analyzed:	11-24-97
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**	**0.2**

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: **Gerk GC B #1 Landfarm. 5 Pt. Composite.**

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
BLAGG / AMOCO	LANDFARM GERK GC B #1	

Sampler: (Signature) — Ed Kuster

Chain of Custody Tape No. 04038-10

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015)						Remarks
												PRESERV. - COOL
LF-1	11/20/97	1120	C545	SOIL	1	✓						5 PT. COMPOSITE
				Sample received cool & intact								

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Ed Kuster	11/20/97	0747	Nelson Velez	11/21/97	0747
Nelson Velez	11/21/97	0904	Allen L. Cyler	11-21-97	0904
Relinquished by: (Signature)			Received by: (Signature)		

Ref Cox's 5564 → 5574

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