

District I

P.O. Box 1200, Hobbs, NM

District II

P.O. Drawer DD, Aztec, NM 88211

DEPUTY OIL & GAS INSPECTOR

100 Rio Brazos Rd., Aztec, NM 87410

MAY 03 1999

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

RECEIVED
FEB 17 1999

PIT REMEDIATION AND CLOSURE REPORT

Approved

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

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: HARE 6C C #1
Well Name

Location: Unit or Qtr/Qtr Sec M Sec 25 T 29N R 10W County SAN JUAN

Pit Type: Separator Dehydrator Other Blow

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

Pit Location: Pit dimensions: length 40', width 35', depth 10'
(attach diagram)

Reference: wellhead X, other

Footage from reference: 220'

Direction from reference: 30 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) 20

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): 20

Date Remediation Started: _____ Date Completed: 4/1/94

Remediation Method: Excavation X Approx. cubic yards 518
(Check all appropriate sections) Landfarmed X Insitu Bioremediation _____
Other COMPOST

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

General Description Of Remedial Action: _____

Excavation

Ground Water Encountered: No _____ Yes X Depth 13'

Final Pit: Sample location see Attached Documents

Closure Sampling: _____

(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample depth _____

Sample date _____ Sample time _____

Sample Results

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) _____

TPH _____

Ground Water Sample: Yes X 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 4/25/94

SIGNATURE

B. Shaw

PRINTED NAME
AND TITLE

Buddy D. Shaw
Environmental Coordinator

B - NO
T - 0.7
E - NO
X - 2.6

WATER - OK

RESULTS TO BOB MLOY 4-11-94

PH = NO

PEO

CLOSE

NEAR: ABRAMS GC 'B' #2
HARE GC 'C' 1

ENVIROTECH Inc.

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

PIT NO: C4363

C.O.C. NO: 3476

ABRAMS

FIELD REPORT: CLOSURE VERIFICATION

JOB No: 92140

PAGE No: 1 of 1

LOCATION: LEASE HARE GC 'C' WELL 1 QD SW/4 SW/4 (M)
SEC 25 TWP: 29N RNG: 10W BM NM CNTY: SJ ST NM PIT BLOW
CONTRACTOR: PAUL VELASQUEZ
EQUIPMENT USED: EXCAVATOR

DATE STARTED: 4-1-94
DATE FINISHED: 4-1-94

ENVIRONMENTAL
SPECIALIST: PEO

SOIL REMEDIATION: QUANTITY: ~ 35' x 40' x 10' DEEP

DISPOSAL FACILITY: LANDFILL/COMPOST ON SITE

LAND USE: FARMING

SURFACE CONDITIONS: EXCAVATED PRIOR TO ARIAL

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 220' FEET N.30°W FROM WELLHEAD.
SILTY SAND PIT - WATER @ ~ 14' NO SIGN OF CONTAMINATED SOILS REMAIN
WATER - NO ODOOR, APPEARS CLEAR.

ABRAMS GC 'B' #2 ALSO BLOWS INTO THIS PIT

FIELD 418.1 CALCULATIONS

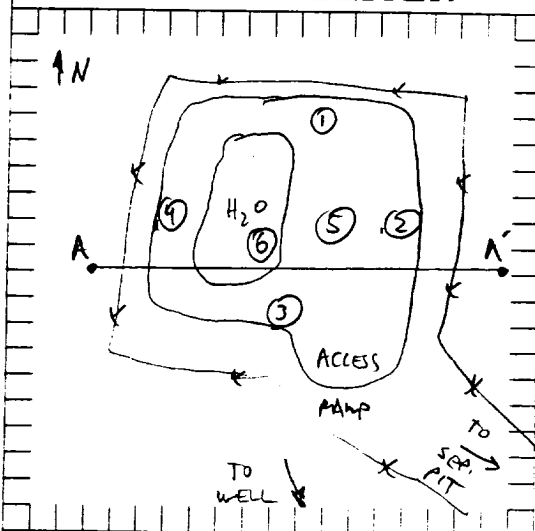
SAMPLE I.D.	LAB No:	WEIGHT (g)	ML. FREON	DILUTION	READING	CALC. ppm

DEPTH TO GROUNDWATER: 14'
NEAREST WATER SOURCE: >1000'
NEAREST SURFACE WATER: >1000'
NMDC BANKING CODE: 720
NMDC TPA CLOSURE STD: 100 ppm TPH

SCALE

0 10 20 FEET

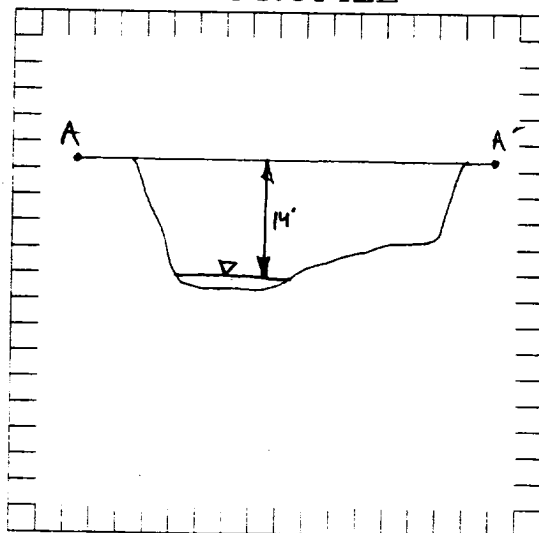
PIT PERIMETER



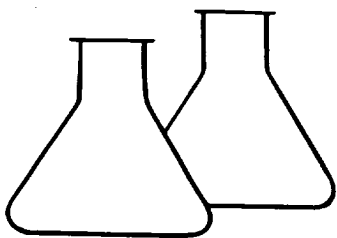
OVN RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
① US@9'	14
② ES@6'	3
③ SS@10'	3
④ WS@9'	2
⑤ EB@10'	7
⑥ WB@13'	WATER
	LAB
⑤	418.1 - SOIL
⑥	BTEX - WATER

PIT PROFILE



TRAVEL NOTES. CALLOUT: 3-31-94 ONSITE: 4-1-94 1100



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 EB @ 10'	Date Sampled:	04-01-94
Laboratory Number:	7144	Date Received:	04-01-94
Sample Matrix:	Soil	Date Analyzed:	04-08-94
Preservative:	Cool	Date Reported:	04-08-94
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter -----	Concentration (mg/kg) -----	Det. Limit (mg/kg) -----
Total Petroleum Hydrocarbons	ND	20.0

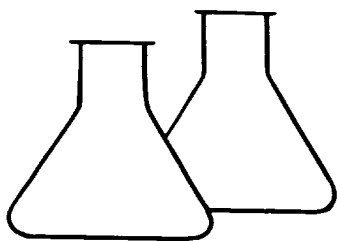
ND = Parameter not detected at the stated detection limit.
N/A = Not applicable

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

Comments: Hare GC "C" #1/Abrams GC "B" #2 Blow Pit C4363

Tony Trestano
Analyst

Marvin S. Young
Review



ENVIROTECH LABS

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

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	6 WB @ 13'	Date Reported:	04-05-94
Laboratory Number:	7145	Date Sampled:	04-01-94
Sample Matrix:	Water	Date Received:	04-04-94
Preservative:	HgCl & Cool	Date Analyzed:	04-04-94
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	ND	0.2
Toluene	0.7	0.4
Ethylbenzene	ND	0.2
p,m-Xylene	1.4	0.2
o-Xylene	1.2	0.2

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	88 %
	Bromofluorobenzene	86 %

Method: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Hare GC "C" #1/Abrams GC "B" #2 Blow pit C4363

Tony Tristano
Analyst

Morris D. Young
Review

MIN KUN NORN FORM 579-81

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	C4363 LOCATION NO: <u>C4364</u> C.O.C. NO: <u>5624</u>
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FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: <u>HARE GC C</u> WELL #: <u>1</u> PITS: <u>BLOW, SEP.</u> QUAD/UNIT(M) SEC: <u>25</u> TWP: <u>29N</u> RNG: <u>16W</u> PM: <u>NM</u> CNTY: <u>ES</u> ST: <u>NM</u> QTP/FOOTAGE: <u>SW/4 SW/4</u> CONTRACTOR: <u>P+S</u>	DATE STARTED: <u>11-25-97</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV/EP.</u>
--	--

SOIL REMEDIATION:

REMEDIATION SYSTEM: <u>LANDFARM</u>	APPROX. CUBIC YARDAGE: <u>2,300</u>
LAND USE: <u>RANGE</u>	LIFT DEPTH (ft): <u>NA</u>

FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: <50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'

NMDCD RANKING SCORE: 20 NMDCD TPH CLOSURE STD: 100 PPM

SOIL IS A DK. YELLOW O/ LT. BROWN SILTY SAND. DRY.

NO STAIN OR HC ODOR.

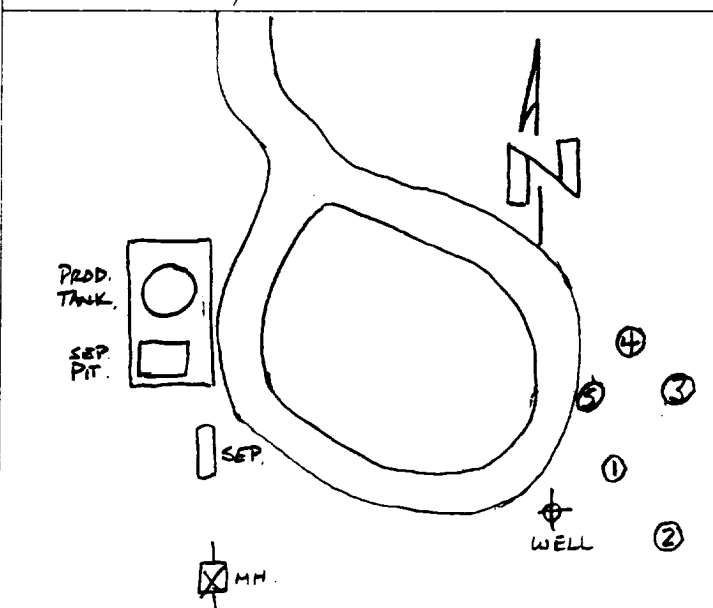
TOOK SPT COMP. FOR LAB. ANALYSIS.

NO ACTUAL LANDFARM OBSERVED ON-SITE, SOIL WAS COMPOSTED & SAMPLED PREVIOUSLY ON 9/12/94, SEE 9/12/94 FIELD REPORT.

FIELD 418.1 CALCULATIONS

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

SKETCH/SAMPLE LOCATIONS



OVM RESULTS

LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
<u>LF-1</u>	<u>0.0</u>	<u>LF-1</u>	<u>8015</u>	<u>0820</u>	<u>ND</u>

SCALE

 0 FT

TRAVEL NOTES: CALLOUT: N/A ONSITE: 11-25-97 0820

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

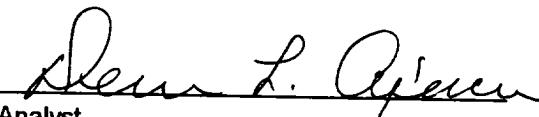
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	12-03-97
Laboratory Number:	C596	Date Sampled:	11-25-97
Chain of Custody No:	5624	Date Received:	11-26-97
Sample Matrix:	Soil	Date Extracted:	11-26-97
Preservative:	Cool	Date Analyzed:	12-01-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

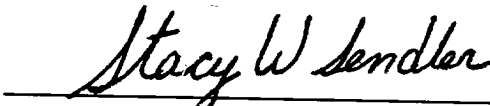
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

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: Hare GC C #1 Landfarm. 5 Pt. Composite.


Analyst


Review

(505) 632-0615

CLIENT: AmocoBLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199LOCATION NO: 80086

C.O.C. NO: _____

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: HARE GC C WELL #: 1 PITS: BLOW, SEP.DATE STARTED: 9/12/94QUAD/UNIT: M SEC: 25 TWP: 29N RNG: 10W BM: NM CNTY: ST ST: NMDATE FINISHED: 9/12/94QTR/FOOTAGE: SW1/4 SW1/4 CONTRACTOR: A. VELASQUEZENVIRONMENTAL
SPECIALIST: NV

SOIL REMEDIATION:

REMEDATION SYSTEM: COMPOSTAPPROX. CUBIC YARDAGE: 2300LAND USE: RANGE/AGRICULT.LEASE: SF-081064

FIELD NOTES & REMARKS:

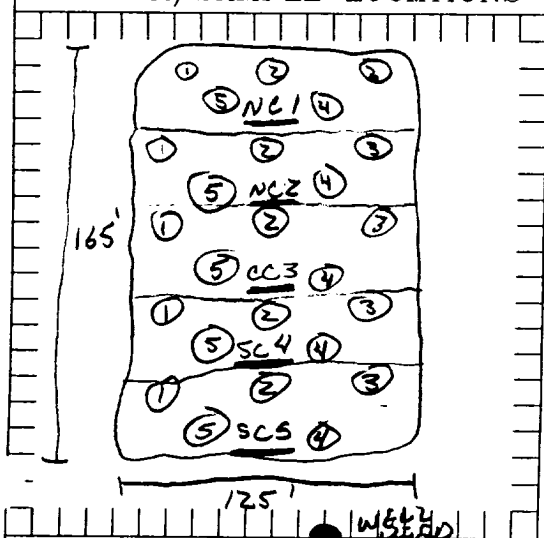
DEPTH TO GROUNDWATER: <50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'NMDCD RANKING SCORE: 20 NMDCD TPH CLOSURE STD: 100 PPM

COMPOSTING ORIGINAL CONDUCTED IN LARGE STOCKPILES.
COMPOST LATER SPREAD OUT INTO SERIES OF ROWS ORIENTED
IN AN EAST-WEST DIRECTION (SEE SKETCH BELOW). FIVE FT.
COMPOSITE SAMPLING CONDUCTED FOR ALL FIELD TPH SAMPLES.

FIELD 418.1 CALCULATIONS

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

SKETCH/SAMPLE LOCATIONS

TPH
RESULTS

SAMPLE ID	FIELD H ₂ O (ppm)
NC1	144
NC2	504
CC3	192
SC4	212
SC5	160

LAB SAMPLES

SAMPLE ID	ANALYSIS

TRAVEL NOTES:

CALLOUT: 9/12/94ONSITE: 9/12/94

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

**FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS**

Client:	Amoco	Project #:	
Sample ID:	NC 1	Date Analyzed:	9-13-94
Project Location:	Hare GC C 1	Date Reported:	9-13-94
Laboratory Number:	TPH-1129	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
-----	-----	-----
Total Recoverable Petroleum Hydrocarbons	140	20

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	-----	-----	-----
	49200	46000	6.72

*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: Compost Stockpile - B0086


Analyst


Review

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

**FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS**

Client:	Amoco	Project #:	
Sample ID:	NC 2	Date Analyzed:	9-13-94
Project Location:	Hare GC C 1	Date Reported:	9-13-94
Laboratory Number:	TPH-1130	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
-----	-----	-----
Total Recoverable Petroleum Hydrocarbons	500	20

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% * Diff.
	-----	-----	-----
	49200	46000	6.72

*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: Compost Stockpile - B0086

T. E. Vely
Analyst

P. E. O'Neil
Review

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

**FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS**

Client:	Amoco	Project #:	
Sample ID:	CC 3	Date Analyzed:	9-13-94
Project Location:	Hare GC C 1	Date Reported:	9-13-94
Laboratory Number:	TPH-1131	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
-----	-----	-----
Total Recoverable Petroleum Hydrocarbons	190	20

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	-----	-----	-----
	49200	46000	6.72

*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: Compost Stockpile - B0086

Thomas Vely
Analyst

R. E. O'Neil
Review

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

**FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS**

Client: Amoco
Sample ID: SC 4
Project Location: Hare GC C 1
Laboratory Number: TPH-1132

Project #:
Date Analyzed: 9-13-94
Date Reported: 9-13-94
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	210	20

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	49200	46000	6.72

*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: Compost Stockpile - B0086

Nelson Vitz
Analyst

R. E. O'Neil
Review

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

**FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS**

Client: Amoco
Sample ID: SC 5
Project Location: Hare GC C 1
Laboratory Number: TPH-1133

Project #:
Date Analyzed: 9-13-94
Date Reported: 9-13-94
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	160	20

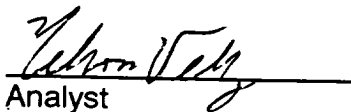
ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	49200	46000	6.72

*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: Compost Stockpile - B0086


Analyst


Review