Denny G. Foust
DEPUTY OIL & GAS INSPECTOR
JUL 11 8 1996

dp dugan production corp.

Approved

RECEIVED
JUN - 5 1996
OIL CON. DIV.
DIST. 3

June 4, 1996

Mr. Bill Olson
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, NM 87505

Re: Final Excavation Closure
Dugan Production Corp's
My Place No. 1
Unit L, Sec. 3, T29N, R15W
San Juan County, NM

Dear Mr. Olson,

We are writing to request approval from the New Mexico Oil Conservation Division to fill in three excavated areas on the well site location of the captioned well, leaving a small amount of hydrocarbon contamination in place. The My Place No. 1 wellbore was plugged and abandoned on March 24, 1994 and all surface equipment has been removed. This well is on the edge of the established Vulnerable Area being very close to the 100' contour for the San Juan River. The Farmers Mutual Irrigation Ditch is also up gradient along the northern edge of the well location. Attachment No. 1 was reproduced from the Waterflow USGS topographic map and presents the My Place No. 1 well location along with the approximate boundary of the Vulnerable Area which I've traced from the official Vulnerable Area maps.

Attachment No. 2 is a diagram of the My Place No. 1 wellsite which was drawn approximately to scale and presents the approximate locations of the three areas excavated during our site assessment; the separator pit (No. 1), tank drain pit (No. 2) and the bermed area used for the oil storage tanks prior to their removal (No. 3). Also presented is the area used to landfarm the material removed from the three excavations.

Our assessment of this site for pit closure requirements was initiated on October 18, 1995 and included excavating all hydrocarbon contaminated material from the separator and tank drain pits, however, after removing approximately 182 cubic yards of rock and sand from the bermed area previously used for the oil storage tanks, we still had some contaminated material in the southwesterly side wall of the excavation which had been dug out to approximately 28' x 16' and approximately 14' deep. Along this side wall, the

709 E. MURRAY DR. • P. O. BOX 420 • FARMINGTON, N.M. 87499-0420 • PHONE: (505) 325-1821 • FAX# (505) 327-4613

contaminated area is approximately 4' wide and extends from approximately 8' to 12' in depth. The contaminated material appears to have been removed from the sidewalls in all other directions and we believe that the vertical movement is limited to the 14' excavated. The material recovered was approximately 80% river rock (some as large as 18" in diameter) and 20% sandy soil. The material remaining in a southwesterly direction is believed to contain very little actual contamination based upon our excavation work in the tank drain pit (pit no. 2) and the fact that we also do not see any contamination along the hillside which drops off approximately 60' just 14-15' west of the excavation. The reasons we are requesting to leave this material in place are:

1.) The aerial extent is limited to approximately 300 ft^2 (0.007 acres) and has been delineated with a high degree of confidence by our excavation work in excavations no. 2 & 3 plus the westerly edge of the location.

2.) Surface water is believed to be at least 70' deep based upon known water depths in a water well approximately 2/3 of a mile to the southwest (SESW Sec. 4, T29N, R15W) and the San Juan River level approximately 1/3 of a mile to the southwest.

3.) The proximity of the Farmers Mutual Irrigation Ditch provides little concern as the ditch is up-gradient from our area of concern and it appears that the ditch is fairly well sealed as we did not encounter any water in our excavations and the soil excavated was fairly dry. We did not accumulate any water in the excavations during the 7½ months that they have been open and the ditch did carry water until early December 1995 and was returned to service in early April 1996.

4.) Our location is underlain by the Fruitland Coal at an approximate depth of 40 to 50' which will serve as a vertical barrier should there be any concern that vertical movement may occur at some future date.

5.) The material being excavated consists of approximately 80% river rock and 20% sandy soil and is very difficult to dig. Removal of the remaining contamination can be done, however, it will be fairly costly to do so and will require that the existing excavations be filled-in in order to have room to locate the digging equipment and to pile the excavated material between the existing excavation and the ±14' to the location edge. We do not believe that this effort is warranted by the small amount of contaminants that remain.

Pit Remediation and Closure Reports for the three areas excavated are attached along with copies of Site Assessment Reports prepared

by Blagg Engineering dated 10/29/95 and 5/9/96 which present results of all site assessment and testing performed. Please note that even though each excavation carries a ranking score of 30 points, primarily the result of proximity to the Farmers Mutual Irrigation ditch, since the ditch is up-gradient to all three excavations, Mr. Denny Foust has agreed that contamination from our sites is of no concern to the up-gradient irrigation ditch and that we could use a closure standard of 1000 ppm TPH rather than 100 ppm TPH which corresponds with the ranking score of 30. It is our understanding that Mr. Foust did discuss this concession with you at the time we were doing our assessment and that you were in agreement that we could discount our down-gradient proximity to the irrigation ditch and use the 1000 ppm TPH closure standard that would otherwise exist for this site.

All excavated material was spread on location in the area presented on Attachment No. 2 at depths of 6" to 18" and was mixed with a total of 200 lbs. of 46-0-0 commercial blended fertilizer. Landfarming operations began on 10/20/95 and a composite sample taken by Blagg Engineering on May 1, 1996 after ±6 months tested a TPH of 14.3 mg/kg and had a field PID reading of 7 ppm. The soil appears to have remediated sufficiently and is ready to be returned to the excavated sites, which we are now proposing.

Should you have any questions or need additional information, please let me know.

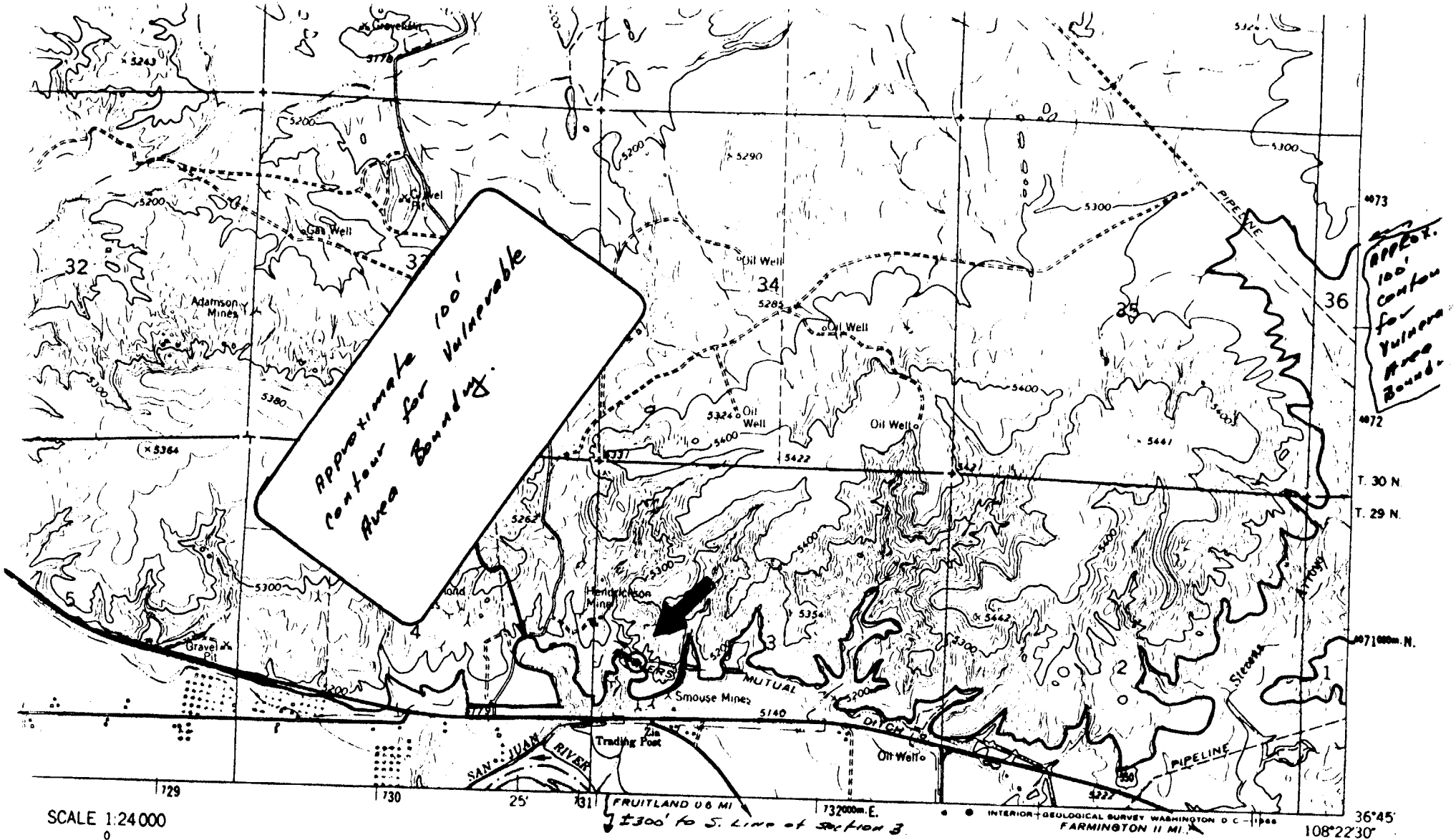
Sincerely,

John D Roe

John D. Roe
Manager of Engineering

JDR/cg

cc: Mr. Denny Foust - NMOCD, Aztec



SCALE 1:24000

0 1 MILE

2000 3000 4000 5000 6000 7000 FEET

0 1 KILOMETER

NTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

Dugan Production Corp
my place No. 1
2210' FSL + 670' FWL (unit L)
Section 3, T-29N, R-15W
San Juan County, NM

Attachment No. 1

ROAD CLASSIFICATION

vy-duty — Light-duty

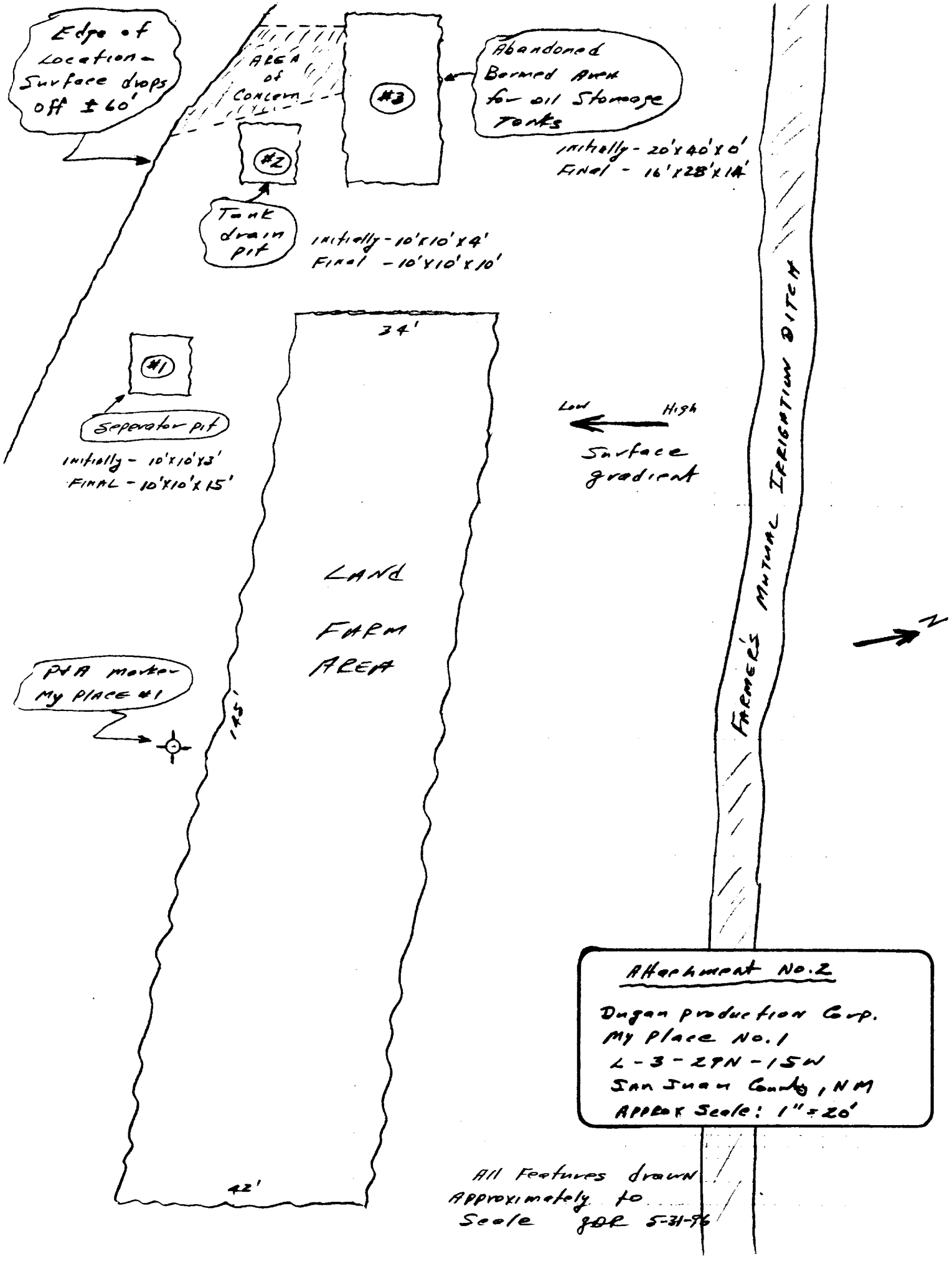
ium-duty — Unimproved dirt

U.S. Route

WITH NATIONAL MAP ACCURACY STANDARDS
EY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
APHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

WATERFLOW, N. MEX.
N3645 - W10822.5/7.5

1963



Attachment No. 2

Dugan production Corp.
My Place No. 1
L-3-29N-15W
San Juan County, NM
Approx Scale: 1" = 20'

All Features drawn Approximately to Scale JDR 5-31-96

1 NMOCD - Aztec
1 NMOCD - Santa Fe

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

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

Operator: Dugan Production Corp. **Telephone:** 505-325-1821

Address: P.O. Box 420, Farmington, NM 87499

Facility Or Well Name: My Place Well No. 1 (Pit No. 1 of 3)

Location: Unit or Qtr/Qtr Sec L Sec 3 T 29N R 15W County San Juan

Pit Type: Separator X Dehydrator ___ Other ___

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

Pit Location: (Attach diagram)
Pit dimensions: length 10', width 10', depth 3'
Reference: wellhead X, other ___
Footage from reference: 65'
Direction from reference: 85 Degrees ___ East North X
of
X West South ___

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water) est. depth = 70'	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)	20*
	RANKING SCORE (TOTAL POINTS):	30*

* -pit is ±90' down gradient from Farmer's Mutual Irrigation ditch

Date Remediation Started: 10-18-95 **Date Completed:** 5-1-96

Remediation Method: (Check all appropriate sections) **Excavation** X **Approx. cubic yards** 44

Landfarmed X **Insitu Bioremediation** ___

Other _____

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

General Description Of Remedial Action: using a backhoe, excavated pit to 15'. Had hydrocarbon contamination from 4' to ±13' and clearing 13' to 15'. Excavated sidewalls ±5' east & west to depth of 15'. Contamination cleared both directions. Material removed from pit consisted of approx. 80% river rock & 20% sand and was landfarmed on site mixing with 46-0-0 industrial grade fertilizer. TPH of composite landfarm sample 5-1-96 = 14.3 mg/kg (lab 8015) & field PID = 7 ppm.

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 Pit center (Blagg Engineer THI @ 15')

Sample depth 15'

Sample date 10-19-95 **Sample time** _____

Sample Results - Blagg Engineering reports dated 10/27/95 & 5/9/96 are attached & include test results of all sampling.

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) 47

TPH 100 mg/kg Field 418.1

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 5-31-96

SIGNATURE John D. Roe **PRINTED NAME AND TITLE** John D. Roe, Engineering Manager

1 NMOCD - Aztec
1 NMOCD - Santa Fe

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

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

Operator: Dugan Production Corp. **Telephone:** 505-325-1821

Address: P.O. Box 420, Farmington, NM 87499

Facility Or: Well Name My Place Well No. 1 (Pit 2 of 3)

Location: Unit or Qtr/Qtr Sec L Sec 3 T 29N R 15W County San Juan

Pit Type: Separator ___ Dehydrator ___ Other Tank Drain Pit

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

Pit Location: (Attach diagram)

Pit dimensions: length 10', width 10', depth 4'

Reference: wellhead X, other ___

Footage from reference: 100'

Direction from reference: 60 Degrees ___ East North X of X West South ___

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water) est. depth = 70'	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)	20*
	RANKING SCORE (TOTAL POINTS):	30*

* - pit is ± 75' down gradient from Farmer's Mutual Irrigation ditch.

Date Remediation Started: 10-18-95 **Date Completed:** 5-1-96

Remediation Method: (Check all appropriate sections) **Excavation** X **Approx. cubic yards** 22

Landfarmed X **Insitu Bioremediation** ___

Other _____

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

General Description Of Remedial Action: Using a backhoe, excavated pit to 10'. Had hydrocarbon contamination from 4' to 9' and clean 9' to 10'. Excavated sidewall approx. 5' NE to depth of 10'. Had no contamination. Material removed from pit consisted of approx. 80% river rock and 20% sand and was land farmed on site mixing with 46-0-0 industrial grade fertilizer. TPH of composite landfarm sample 5/1/96 = 14.3 mg/kg (Lab 8015) and field PID= 7 ppm.

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 pit center (Blagg Engineering THI @ 10')

Sample depth 10'

Sample date 10-18-95 **Sample time** _____

Sample Results - Blagg Engineering reports dated 10/27/95 & 5/9/96 are attached & include test results of all sampling.

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) 2

TPH 300 mg/kg - field 418.1

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 5-31-96

SIGNATURE John D. Roe **PRINTED NAME AND TITLE** John D. Roe, Engineering Manager

1 NMOCD - Aztec
1 NMOCD - Santa Fe

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

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

Operator: Dugan Production Corp. **Telephone:** 505-325-1821

Address: P.O. Box 420, Farmington, NM 87499

Facility Or: Well Name My Place Well No. 1 (Excavation No. 3 of 3)

Location: Unit or Qtr/Qtr Sec L Sec 3 T 29N R 15W County San Juan

Pit Type: Separator ___ Dehydrator ___ Other Oil tank bermed area

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

Bermed Area Excavation

~~Pit~~ **Location:** (Attach diagram) **Pit dimensions:** length 40', width 20', depth 0'

Reference: wellhead X, other ___

Footage from reference: 100'

Direction from reference: 50 Degrees ___ East North X of X West South ___

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water) est. depth = 70'	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)	20*
	RANKING SCORE (TOTAL POINTS):	30*

* - excavation is ± 50' down gradient from Farmer's Mutual Irrigation ditch

Date Remediation Started: 10-18-95 **Date Completed:** 5-1-96

Remediation Method: (Check all appropriate sections) **Excavation** X **Approx. cubic yards** 182

Landfarmed X **Insitu Bioremediation** ___

Other ___

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

General Description Of Remedial Action: using a backhoe, excavated the abandoned bermed area for oil storage tanks to a maximum depth of 14' with hydrocarbon contamination existing from surface to 14' but was significantly clearing from 12' to 14'. Excavated sidewalls to north, south & east with contamination clearing. Sidewall to west had contamination, but was not excavated since only 14' existed to edge of location which dropped off ± 60' & contamination was not evident on hill side of location. Material removed from excavation consisted of approx. 80% river rock & 20% sand and landfarmed on site mixing with 46-0-0 industrial grade fertilizer. TPH of composite landfarm sample 5/1/96 = 14.7 mg/kg (Lab 8015) and field PID = 7 ppm.

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 North end of excavation (Blagg Engineering TH2N @ 14')

Sample depth 14'

Sample date 10-19-95 **Sample time** ___

Sample Results - Blagg Engineering reports dated 10/27/95 & 5/9/96 are attached & include test results of all sampling.

Benzene(ppm) ___

Total BTEX(ppm) ___

Field headspace(ppm) 151

TPH 330 mg/kg - Field 418.1

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

soil very dry

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

DATE 5-31-96

SIGNATURE John D. Roe **PRINTED NAME AND TITLE** John D. Roe, Engineering Manager

BLAGG ENGINEERING, INC.

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

October 27, 1995

Mr. John Roe, Engineering Manager
Dugan Production Corporation
P.O. Box 420
Farmington, New Mexico 87499

Re: Pit Assessment
My Place #1 Well Location

Dear Mr. Roe:

Attached are field reports and laboratory results for pit assessment work performed by Blagg Engineering, Inc. (BEI) at the Dugan Production Corporation Gary C #1 well location. This work was initiated on October 18, 1995 and completed on October 19, 1995. Three areas were assessed: a Separator pit, a Tank Drain pit, and the area within the tank berm. The My Place #1 is an abandoned well.

Field analysis of TPH was performed using a Total Petroleum Hydrocarbon Analyzer manufactured by General Analysis Corporation and the Field Headspace Method was performed using a Photoionization Detector (PID) manufactured by Environmental Instruments Company.

Contamination in the Separator pit was found to be limited to the pit area and extending to a depth of approximately 14 feet. Contaminated soils in excess of OCD standards were excavated and landfarmed on the well pad. Contamination in the Tank Drain pit was also found to be limited to the pit area and extended to a depth of approximately 10 feet. These contaminated soils were also excavated and landfarmed on the well pad. Contamination in the abandoned tank berm area was more extensive and found to extend slightly to the west outside of the berm and to a depth of approximately 13 feet. The majority of these contaminated soils were excavated and landfarmed on the well pad. Some contaminated soils could not be excavated at the northwest extent of the excavation due to interference with a steep embankment at the western boundary of the location .

Field test results for TPH and OVM sampling are presented in Table 1. The excavated pits were fenced for safety. It has been proposed by the operator to sample and analyze the landfarmed soils at a future date to determine the status of bioremediation. Following successful treatment, the soils are proposed to be returned to the excavated pits.

Respectfully submitted,
Blagg Engineering, Inc.

Robert E. O'Neill

Robert E. O'Neill, M.S.
Civil Engineering, Environmental

Reviewed by:

Jeffrey C. Blagg

Jeffrey C. Blagg, P.E.
President

Attachments

GARY-C#1.COV

Table 1
Dugan Production Corporation
My Place #1
Field Assessment Analytical Results

Date	Pit	Sample Description	Headspace (ppm)	TPH (ppm)
10-18-95	Separator	TH1 @ 9'	646	NA
10-19-95	Separator	TH1 @ 15'	47	100
10-19-95	Separator	TH2 @ 8'	7	32
10-18-95	Tank Drain	TH1 @ 6'	4	7100
10-18-95	Tank Drain	TH1 @ 10'	2	300
10-19-95	Tank Drain	TH3 @ 7'	0	24
10-19-95	Tank Berm	TH2N @ 14'	151	330
10-19-95	Tank Berm	TH2S @ 7'	NA	140

CLIENT: DUGAN PROD.

BLAGG ENGINEERING, INC.

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

PIT NO: _____
C.O.C. NO: _____

FIELD REPORT: SITE ASSESSMENT

JOB No: _____
PAGE No: 1 of 1

PROJECT: PIT ASSESSMENT
CONTRACTOR: STOVER + SONS
EQUIPMENT USED: BACKHOE

DATE STARTED: 10-18-95
DATE FINISHED: 10-19-95
ENVIRO. SPCLT: RCJ
OPERATOR: HOWARD

LOCATION: MY PLACE #1 PIT TYPE: SEPARATOR
QUAD/UNIT: L SEC: 3 TWP: 29 N RNG: 15 W PM: NM CNTY: SJ ST: NM
QTR/FOOTAGES: NW / SW LEASE #: FEE - HACKY SMOUSE
LAND USE: RURAL SURFACE CONDITIONS: COBBLES - STAIN - CEMENT

FIELD NOTES & REMARKS: PIT IS LOCATED APPROXIMATELY 65 FEET N85°W OF WELLHEAD.
DEPTH TO G.W: 750' NEAREST WATER SOURCE: 71000' NEAREST SURFACE WATER 75' UP GRADIENT
RANKING SCORE: 10 * CLOSURE STD: 1000 *

SAMPLE INVENTORY		
SMPL ID:	SMPL TYPE:	LABORATORY ANALYSIS:
T1@15'	GRAB	418.1
T2@8'	GRAB	418.1

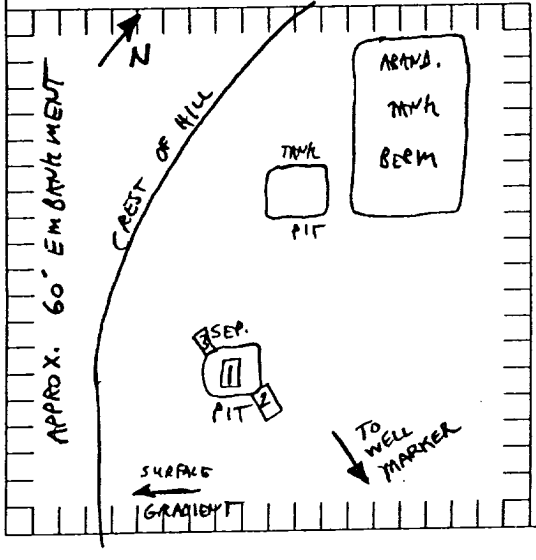
MOIST, BLACK, COBBLEY SAND - HEAVY BLACK STAIN + ODOR.

50 x 2 = 100
16 x 2 = 32

* CLOSURE STANDARD OF 1000 PPM TPH Per approval of NMOCD, MR. Denny Foust & MR Bill Olson, on Oct 24, 1995.

SCALE
0 10 20 FEET
10' x 10' x 3' DEEP INITIALLY

SITE DIAGRAM



TEST HOLE LOGS:

TH#: 1

SOIL TYPE:	SMPL TYPE:	OVM/TPH
PIT BOTTOM		
STAIN		
BLACK + ODOR		
GP	GRAB	646
BLACK		
BROWN		
GP	GRAB	47

TD = 15

TH#: 2

SOIL TYPE:	SMPL TYPE:	OVM/TPH
SMALL COBBLE	BROWN NO STAIN NO ODOR	
GP	GRAB	7

TD = 15

TH#: 3

SOIL TYPE:	SMPL TYPE:	OVM/TPH
SMALL COBBLE	BROWN NO STAIN NO ODOR TOTAL DEPTH	

TD = 15

TH#: _____

SOIL TYPE:	SMPL TYPE:	OVM/TPH

SOIL TYPE: C - Clay, M - Silt, S - Sand, G - Gravel, Plasticity: L - None, H - Plastic, Grading: P - Poorly, W - Well

CLIENT: DUGAN

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

LOCATION NO: _____
C.O.C. NO: _____

FIELD REPORT: PIT CLOSURE VERIFICATION

LOCATION: NAME: MY PLACE WELL #: 1 PIT: SEPARATOR
QUAD/UNIT: L SEC: 3 TWP: 29N RNG: 15W BM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: NW/SW CONTRACTOR: STOVER + SONS

DATE STARTED: 10-18-95
DATE FINISHED: 10-24-95
ENVIRONMENTAL SPECIALIST: REG

EXCAVATION APPROX. 10 FT. x 10 FT. x 15 FT. DEEP. CUBIC YARDS: 44
DISPOSAL FACILITY: ON SITE REMEDIATION METHOD: LANDFARM
LAND USE: RURAL LEASE: FEE FORMATION: _____

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 65 FEET N85°W FROM WELLHEAD.
DEPTH TO GROUNDWATER: >50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: 75' UPGRADIENT
NMOCD RANKING SCORE: 10* NMOCD TPH CLOSURE STD: 1000* PPM

SOIL AND EXCAVATION DESCRIPTION: PIT DISPOSITION: ABANDONED
WELL ON SITE HAS BEEN P+A.

CONTAMINATED SOILS GRAY + BLACK WITH HEAVY ODOR. ALL EXCAVATED AND LANDFARMED ON LOCATION. VERTICAL + LATERAL EXTENT OF CONTAMINATION NOTED ON ASSESSMENT.

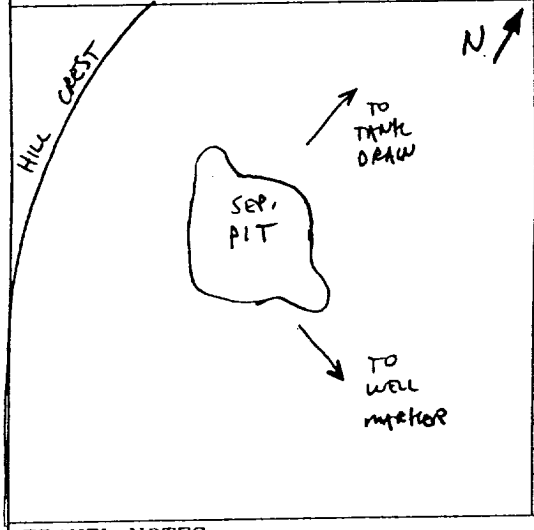
* CLOSURE STANDARD OF 1000 PPM TPH PER APPROVAL OF NMOCD, MR. DENNY FOUST AND MR. BILL OLSON, ON OCTOBER 24, 1995.

FIELD 418.1 CALCULATIONS

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

SCALE
0 5 10FT

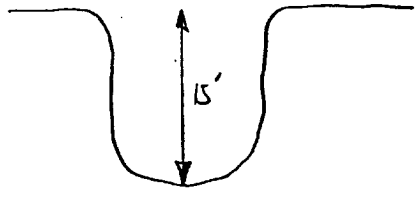
PIT PERIMETER



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1	
2	
3	
4	
5	
LAB	SAMPLES

PIT PROFILE



TRAVEL NOTES: CALLOUT: _____ ONSITE: _____

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:	Dugan Production Corp.	Project #:	
Sample ID:	TH1 @ 15'	Date Analyzed:	10-19-95
Project Location:	My Place #1	Date Reported:	10-20-95
Laboratory Number:	TPH-1625	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**100**	**10**

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	920	910	1

*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: Separator Pit

R. E. O'Neill
Analyst

J. C. Blagg
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:	Dugan Production Corp.	Project #:	
Sample ID:	TH2 @ 8'	Date Analyzed:	10-19-95
Project Location:	My Place #1	Date Reported:	10-20-95
Laboratory Number:	TPH-1626	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**32**	**10**

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	920	910	1

*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: Separator Pit

R. E. O'Neill
Analyst

J. C. Blagg
Review

CLIENT: DUGAN PROD.

BLAGG ENGINEERING, INC.

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

PIT NO: _____

C.O.C. NO: _____

FIELD REPORT: SITE ASSESSMENT

JOB No: _____
PAGE No: 1 of 1

PROJECT: PIT ASSESSMENT
CONTRACTOR: STOVALL + SONS
EQUIPMENT USED: BACKHOE

DATE STARTED: 10-18-95
DATE FINISHED: 10-19-95
ENVIRO. SPCLT: RCO
OPERATOR: HOWARD

LOCATION: MY PLACE #1 PIT TYPE: TANK DRAIN
QUAD/UNIT: L SEC: 3 TWP: 29N RNG: 15W PM: NM CNTY: SJ ST: NM
QTR/FOOTAGES: NW/SW LEASE #: FEE - HARRY SMOUSE
LAND USE: RURAL SURFACE CONDITIONS: COBBLES - STAIN - CEMENT

FIELD NOTES & REMARKS: PIT IS LOCATED APPROXIMATELY 100 FEET N 60°W OF WELLHEAD.
DEPTH TO G.W: >50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER 50' UP GRADIENT
RANKING SCORE: 10 * CLOSURE STD: 1000 * WELL HAS BEEN P+A.

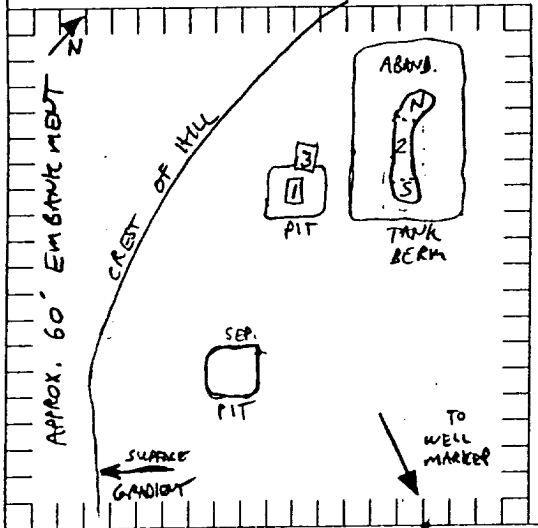
SAMPLE INVENTORY		
SMPL ID:	SMPL TYPE:	LABORATORY ANALYSIS:
T1@6'	GRB	418.1
T1@10'	GRB	"
T3@7'	GRB	"
T2 NE@14'	GRB	"
T2 S@7'	GRB	"

T1: MOIST BROWN, COBBLEY SAND - NO ODOR - NO STAIN.
T2: BLACK STAINED. - LARGE COBBLE TO BOTTOM. NORTH EDGE OF HOLE IS BROWN TOP TO BOTTOM. SOUTH EDGE OF HOLE
T2S@7': OVM = 25 BROWN, NO STAIN/ODOR.

355 x 10 x 2 = 7100
150 x 2 = 300
12 x 2 = 24
165 x 2 = 330
68 x 2 = 136

SCALE 10' x 10' x 4' DEEP INTERVALS
0 10 20 FEET
N = NORTH
S = SOUTH

SITE DIAGRAM



TEST HOLE LOGS:

TH#: 1

SOIL TYPE:	SMPL TYPE:	OVM/TPH
PIT BOTTOM		
BROWN		
GP	GRB	4
BROWN		
GP	GRB	2
TD = 10'		

TH#: 2

SOIL TYPE:	SMPL TYPE:	OVM/TPH
BROWN		
BLACK		
COBBLE		
BLACK		
BROWN		
COBBLE	GRB	151
TD = 14'		

TH#: 3

SOIL TYPE:	SMPL TYPE:	OVM/TPH
BROWN COBBLE + GRAVEL		
GP	GRB	ND
TD = 10'		

TH#: _____

SOIL TYPE:	SMPL TYPE:	OVM/TPH

SOIL TYPE: C = Clay, M = Silt, S = Sand, G = Gravel Plasticity: L = None, H = Plastic Grading: P = Poorly, W = Well

* CLOSURE STANDARD OF 1000 PPM TPH PER APPROVAL OF NMOCD, MR. DENNY FOUST AND MR. BILL OLSON, ON OCTOBER 24, 1995.

CLIENT: DUGAN

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

LOCATION NO: _____
C.O.C. NO: _____

FIELD REPORT: PIT CLOSURE VERIFICATION

LOCATION: NAME: MY PLACE WELL #: 1 PIT: TANK DRAIN
QUAD/UNIT: L SEC: 3 TWP: 29N RNG: 15W BM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: NW/SW CONTRACTOR: STOVER + SONS

DATE STARTED: 10-18-95
DATE FINISHED: 10-24-95
ENVIRONMENTAL SPECIALIST: REG

EXCAVATION APPROX. 10 FT. x 10 FT. x 10 FT. DEEP. CUBIC YARDS: 22
DISPOSAL FACILITY: ON SITE REMEDIATION METHOD: LANDFARM
LAND USE: RURAL LEASE: FEE FORMATION: _____

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 100 FEET N 60°W FROM WELLHEAD.
DEPTH TO GROUNDWATER: >50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: 50' UPGRADIENT
NMOCD RANKING SCORE: 10 * NMOCD TPH CLOSURE STD: 1000 * PPM

SOIL AND EXCAVATION DESCRIPTION: PIT DISPOSITION: ABANDONED

CONTAMINATED SOILS EXCAVATED AND LANDFARMED ON LOCATION. VERTICAL AND LATERAL EXTENT OF CONTAMINATION NOTED ON ASSESSMENT.

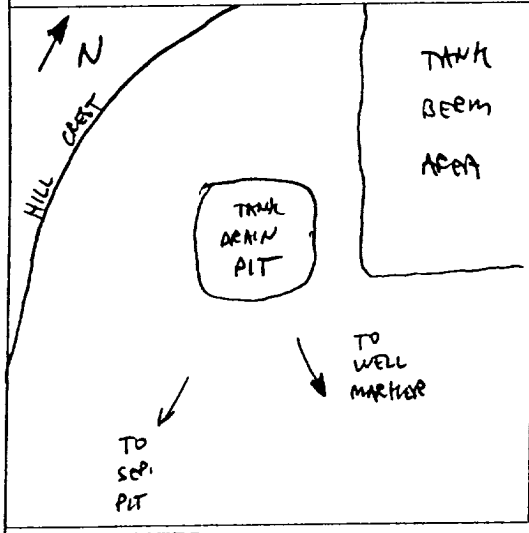
* CLOSURE STANDARD OF 1000 PPM TPH PER APPROVAL OF NMOCD, MR. DENNY FOUST AND MR. BILL OLSON, ON OCTOBER 24, 1995.

FIELD 418.1 CALCULATIONS

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

SCALE
0 5 10 FT

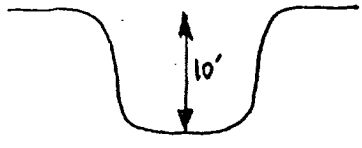
PIT PERIMETER



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1	
2	
3	
4	
5	
LAB	SAMPLES

PIT PROFILE



TRAVEL NOTES: CALLOUT: _____ ONSITE: _____

CLIENT: _____

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

LOCATION NO: _____
C.O.C. NO: _____

FIELD REPORT: PIT CLOSURE VERIFICATION

LOCATION: NAME: MY PLACE WELL #: 1 PIT: TANK BERM
QUAD/UNIT: L SEC: 3 TWP: 29N RNG: 15W BM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: NW/SW CONTRACTOR: STOVER + SONS

DATE STARTED: 10-18-95
DATE FINISHED: 10-24-95
ENVIRONMENTAL SPECIALIST: REJ

EXCAVATION APPROX. 28 FT. x 16 FT. x 11 FT. DEEP. CUBIC YARDS: 182
DISPOSAL FACILITY: ON SITE REMEDIATION METHOD: LANDFARM
LAND USE: _____ LEASE: _____ FORMATION: _____

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 100 FEET N50W FROM WELLHEAD.
DEPTH TO GROUNDWATER: 750' NEAREST WATER SOURCE: 71000' NEAREST SURFACE WATER: 45' UP GRADIENT
NMOCD RANKING SCORE: 10 * NMOCD TPH CLOSURE STD: 1000 * PPM

SOIL AND EXCAVATION DESCRIPTION: PIT DISPOSITION: ABANDONED

SOIL EXCAVATED FROM WITHIN PRODUCTION TANK BERM AREA. HEAVY COBBLE ENCOUNTERED - SOIL BLACK STAINED + HEAVY ODOR. SEE ASSESSMENT FOR VERTICAL + LATERAL EXTENT OF CONTAMINATION + SAMPLE RESULTS

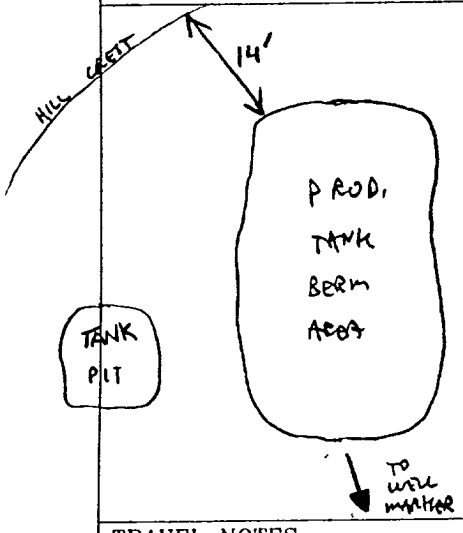
* CLOSURE STANDARD OF 1000 PPM TPH PER APPROVAL OF NMOCD, MR. DENNY FOUST AND MR. BILL OLSON, ON OCTOBER 24, 1995.

FIELD 418.1 CALCULATIONS

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

SCALE
0 5 10FT

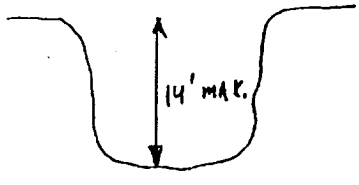
PIT PERIMETER



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1	
2	
3	
4	
5	
LAB	SAMPLES

PIT PROFILE



TRAVEL NOTES: CALLOUT: _____ ONSITE: _____

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:	Dugan Production Corp.	Project #:	
Sample ID:	TH1 @ 6'	Date Analyzed:	10-18-95
Project Location:	My Place #1	Date Reported:	10-20-95
Laboratory Number:	TPH-1618	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**7,100**	**100**

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	920	910	1

*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: Tank Drain Pit

R. E. O'Neill
Analyst

J. C. Blagg
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:	Dugan Production Corp.	Project #:	
Sample ID:	TH1 @ 10'	Date Analyzed:	10-18-95
Project Location:	My Place #1	Date Reported:	10-20-95
Laboratory Number:	TPH-1619	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**300**	**10**

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
920	910	1

*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: Tank Drain Pit

R. E. O'Neill
Analyst

J. C. Blagg
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:	Dugan Production Corp.	Project #:	
Sample ID:	TH2N @ 14'	Date Analyzed:	10-19-95
Project Location:	My Place #1	Date Reported:	10-20-95
Laboratory Number:	TPH-1623	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**330**	**10**

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
920	910	1

*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: Tank Drain

R. E. O'Neill
Analyst

J. C. Blagg
Reviewed

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:	Dugan Production Corp.	Project #:	
Sample ID:	TH2S @ 7'	Date Analyzed:	10-19-95
Project Location:	My Place #1	Date Reported:	10-20-95
Laboratory Number:	TPH-1624	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**140**	**10**

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
920	910	1

*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: Tank Drain

R. E. O'Neill
Analyst

J. C. Blagg
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:	Dugan Production Corp.	Project #:	
Sample ID:	TH3 @ 7'	Date Analyzed:	10-19-95
Project Location:	My Place #1	Date Reported:	10-20-95
Laboratory Number:	TPH-1622	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**24**	**10**

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	920	910	1

*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: Tank Drain Pit

R. E. O'Neill
Analyst

J. C. Blagg
Review

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

May 9, 1996

Mr. John Roe, P.E.
Dugan Production Corporation
P.O. Box 420
Farmington, New Mexico 87499

Re: Soil Sampling Analytical Results & Pit Closure
My Place No. 1 Well Location, San Juan County, NM

Dear Mr. Roe:

Blagg Engineering, Inc. (BEI) is pleased to submit this letter report concerning soil sampling at the Dugan Production Corporation (DPC) My Place No. 1 well, located in unit L, Sec 3-T29N-R15W, San Juan County, New Mexico. Pursuant to your request sampling was conducted on May 1, 1996 to determine the remediation status of landfarmed soils that originated from earthen pits excavated in October, 1995. Testing and evaluation results of the earthen pit sidewalls and bases were included in a BEI report to DPC dated October 27, 1995.

Landfarm Test Results

Soil sampling of the on-site landfarm included arbitrary five (5) point composite sample collection for field determination of volatile organic compounds and laboratory analysis of total petroleum hydrocarbons. The composite sample was thoroughly mixed and placed into appropriate sample containers. Field testing for organic vapor analysis was conducted using the headspace method with a calibrated photoionization detector. A split sample was collected into a glass sample container, stored on ice and submitted to a qualified laboratory for analysis of total petroleum hydrocarbons (TPH) using U.S. EPA Method 8015.

Analytical results of the composite sample are attached. The field headspace value indicated a residual concentration of volatile organic compounds of 7.0 parts per million (ppm) and laboratory analysis of TPH by U.S. EPA Method 8015 reported a concentration of 14.3 mg/Kg (equivalent to 14.3 ppm). Both values are below closure standards for this site. The New Mexico Oil Conservation Division (NMOCD) ranking score for the location was determined following consultation with Mr. Denny Foust and Mr. William Olson of NMOCD on October 24, 1995. The closure standard was set at 100 ppm for field headspace and 1,000 ppm for TPH. The landfarm sample results obtained on May 1, 1996 were found to be below these closure standards, and closure of the landfarm is recommended by BEI.

Earthen Pit & Tank Berm Closure

Two (2) earthen pits and one (1) tank berm area were evaluated for hydrocarbon impacts using excavation in October, 1995. Contaminated soils in excess of NMOCD closure standards were

excavated from the separator pit and tank drain pit on the location. Test results of the sidewalls and pit bottoms for both of these pits following excavation determined that pit closure requirements had been achieved. Results of this testing were included in a letter report submitted to DPC on October 27, 1995.

The tank berm area at the My Place No. 1 location also contained hydrocarbon contamination. Excavation of the tank berm impacted soils was conducted in October 1995 and resulted in development of a pit with approximate dimensions 28' long x 16' wide x 11' average depth. The base, southern and eastern extent of hydrocarbon contamination in excess of NMOCD standards was excavated from this pit. However, there remained visually evident contamination at the northwest extent of the pit that could not be excavated due to space limitations between the pit boundary and a steep embankment falling off to the west. This steep embankment was located approximately 14 feet from the western extent of the excavation and there was no hydrocarbon contamination visually evident on the side of the embankment. It is BEI's opinion that lateral migration of hydrocarbon contamination in the northwest direction from the pit would be limited due to the presence of the steep hill dropping off in this direction.

Recommendation for Closure

BEI recommends closure of the landfarm, earthen pit excavations and tank berm excavation at the My Place No. 1 well location. Soils excavated from these pits have been remediated on-site by landfarming. A composite soil sample from the landfarm collected on May 1, 1996 for testing of field headspace and laboratory TPH determined that NMOCD closure standards had been achieved.

Contaminated soils excavated from the separator pit and tank drain pit on the location were excavated in October, 1995. Pit sidewall and bottom testing conducted in October, 1995 determined that these pits were within NMOCD closure standards. The tank berm area was also excavated in October, 1995 and contaminated soils at the southern, eastern and base of the pit were removed. Some contamination was visually evident on the northwest sidewall of this excavation, but space and safety limitations created by a steep embankment west of this pit prevented further excavation. The lateral extent of contamination to the northwest in this pit is restricted by the presence of the steep embankment, and remaining contamination is believed to be limited.

Respectfully submitted,
Blagg Engineering, Inc.

Jeffrey C. Blagg, President
NMPE 11607

Attachments:
Landfarm Closure Verification Field Report
Laboratory Analytical Reports

CLIENT: DUGAN PRODUCTION

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

LOCATION NO: _____
C.O.C. NO: 4774

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: MY PLACE #1 LEASE: FEE
QUAD/UNIT: L SEC: 3 TWP: 29 N RNG: 15 W BM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: NW/SW CONTRACTOR: STOVER

DATE STARTED: 5-1-96
DATE FINISHED: _____
ENVIRONMENTAL SPECIALIST: RCJ

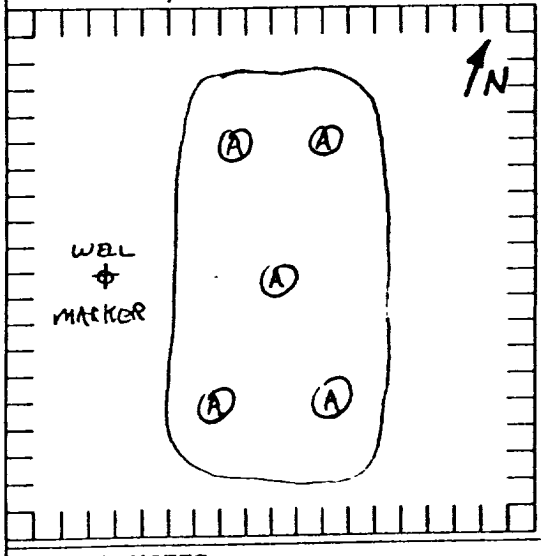
SOIL REMEDIATION:
REMEDIATION SYSTEM: LANDFARM APPROX. CUBIC YARDAGE: 248
LAND USE: RURAL

FIELD NOTES & REMARKS:
DEPTH TO GROUNDWATER: >50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: 50' UP-GRADIENT
NMOCD RANKING SCORE: 10 NMOCD TPH CLOSURE STD: 1000 PPM
COMPOSITE SOIL SAMPLE COLLECTED FROM THE LANDFARM.
SOIL CONSISTS OF A MOIST → DRY, BROWN, SANDY COBBLE. HEAVY COBBLE.
LIGHT STAIN AND LIGHT ODOR EVIDENT ON SOIL.

FIELD 418.1 CALCULATIONS

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

SKETCH/SAMPLE LOCATIONS



SCALE
0 FT

OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
COMP. A	7.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULTS
COMP. A	8015	0950	14.3

TRAVEL NOTES: CALLOUT: 4-26-96 ONSITE: 5-1-96 0930

FORM REVISED 4/96

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg Eng. / Dugan	Project #:	04034
Sample ID:	Comp. A	Date Reported:	05-01-96
Laboratory Number:	A157	Date Sampled:	05-01-96
Chain of Custody No:	4774	Date Received:	05-01-96
Sample Matrix:	Soil	Date Extracted:	05-01-96
Preservative:	Cool	Date Analyzed:	05-01-96
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.4
Diesel Range (C10 - C28)	14.3	0.4
Total Petroleum Hydrocarbons	14.3	0.4

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: **My Place #1, Landfarm.**

Analyst

Review

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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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

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:	Laboratory Blank	Date Reported:	05-01-96
Laboratory Number:	05-01-TPH.BLANK	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-01-96
Condition:	N/A	Analysis Requested:	TPH

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Gasoline Range C5 - C10	ND	0.4
Diesel Range C10 - C28	ND	0.4
Total Petroleum Hydrocarbons	ND	0.4

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: **QA/QC for sample A157.**

Analyst

Review

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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:	Matrix Duplicate	Date Reported:	05-01-96
Laboratory Number:	A157	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	Cool	Date Analyzed:	05-01-96
Condition:	Cool and Intact	Analysis Requested:	TPH

Parameter	Sample Result (mg/Kg)	Duplicate Result (mg/Kg)	Percent Difference
Gasoline Range (C5 - C10)	**ND**	**ND**	**0.0%**
Diesel Range (C10 - C28)	**14.3**	**14.4**	**0.1%**
Total Petroleum Hydrocarbons	**14.3**	**14.4**	**0.1%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Max Difference
	Petroleum Hydrocarbons	**30%**

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: **QA/QC for sample A157.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Hydrocarbons
Total Petroleum Hydrocarbons
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	05-01-96
Laboratory Number:	A157	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Analysis Requested:	TPH	Date Analyzed:	05-01-96
Condition:	N/A		

Parameter	Sample Result (mg/kg)	Spike Added (mg/kg)	Spiked Sample Result (mg/kg)	Det. Limit (mg/kg)	Percent Recovery
Gasoline Range (C5 - C10)	ND	250	250	0.4	100%
Diesel Range (C10 - C28)	14.3	250	266	0.4	101%
Total Petroleum Hydrocarbons	14.3	500	516	0.4	100%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Acceptance Range
	Petroleum Hydrocarbons	75 - 125%

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: **QA/QC for sample A157.**

Analyst

Review

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

4774

CHAIN OF CUSTODY RECORD

Client/Project Name: BLAGG /DUGAN

Project Location: MY PLACE #1

Sampler: (Signature) R. E. O'Neill

Chain of Custody Tape No. 04034

ANALYSIS/PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	8015					Remarks
COMP. A	5-1-96	0950	A157	SOIL	1	✓					LANDFARM

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
R. E. O'Neill	5-1-96	1054	[signature]	5-1-96	1054

ENVIROTECH INC.
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Farmington, New Mexico 87401
(505) 632-0615

san juan repro Form 578-81