

Rick Bellock

OIL CONSERVATION DIVISION

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

RECEIVED
DEC - 6 1999

PIT REMEDIATION AND CLOSURE REPORT

OIL CON. DIV.
DIST. 3

Operator: Burlington Resources (Williams Field Services) Telephone: (801) 584-6361
Address: P.O. Box 58900, Salt Lake City, Utah 84158-0900
WellName: SJ 27-4 UNIT #145 (85701)
Location: Unit or Qtr/Qtr Sec K Sec 21 T 27N R 4W County Rio Arriba
PitType Dehydrator
LandType Forest

Pit Location: Pit dimensions: length 17 ft., width 18 ft., depth 5 ft.
(Attach diagram)

Reference: Wellhead

Footage from reference: 86 ft.

Direction from reference: 204 Degrees East of North

| | | | |
|--------------------------|-----------------------|-------------|----------|
| Depth To Ground Water: | Less than 50 feet | (20 points) | |
| (Vertical distance from | 50 feet to 99 feet | (10 points) | |
| contaminants to seasonal | Greater than 100 feet | (0 points) | <u>0</u> |
| high water elevation of | | | |
| ground water) | | | |

| | | | |
|---|-----|-------------|----------|
| Wellhead Protection Area: | Yes | (20 points) | |
| (Less than 200 feet from a private | No | (0 points) | <u>0</u> |
| domestic water source, or; less than | | | |
| 1000 feet from all other water sources) | | | |

| | | | |
|--|-------------------------|-------------|----------|
| Distance To Surface Water: | Less than 200 feet | (20 points) | |
| (Horizontal distance to perennial | 200 feet to 1,000 feet | (10 points) | |
| lakes, ponds, rivers, streams, creeks, | Greater than 1,000 feet | (0 points) | <u>0</u> |
| irrigation canals and ditches) | | | |

Ranking Score (TOTAL POINTS): 0

Date Remediation Started: 8/26/98

Date Completed: 8/26/98

Remediation Method: Excavation ☒

Approx. Cubic Yard 60

(check all appropriate sections)

Landfarmed ☒

Insitu Bioremediation

Other LF Headspace 0ppm

Remediation Location: Onsite ☒ Offsite

(ie. landfarmed onsite, name and location of offsite facility)

General Description Of Remedial Action:

The pit was excavated to remove gross petroleum contamination. The excavated material was placed into an onsite landfarm.

Ground Water Encountered: No

Final Pit:

Sample location 27-4#145 V-EXFL-01

Closure Sampling:

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

Two samples were collected, one sample from the excavation bottom and the second sample was made up of 4 points from each excavation wall.

Sample depth 5 feet

Sample date 8/28/98

Sample time 9:30

Sample Result

Benzene (ppm) <0.050

Total BTEX (ppm) <0.050

Field Headspace (ppm)


TPH (ppm) 4.82

Ground Water Sample: No

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

DATE 10-11-99

SIGNATURE



PRINTED NAME
AND TITLE

Mark Harvey for Williams Field Services
PROJECT COORDINATOR



Environmental Services
P.O. Box 58900
Salt Lake City, UT 84158-0900

Pit Closure and Retirement Addendum- Risk Assessment

Any residual contamination remaining at the San Juan 27-4 #145 poses low risk to human health and the environment. This conclusion is based in part on the information below:

Toxicity Information

Toxicity values for TPH have not been established due to the variability of the chemical makeup of TPH. Normally, the toxicity is based on the toxicity of the particular constituents of concern which may be present and are evaluated based on health-based standards. The most common constituents examined include benzene, ethylbenzene, toluene, and xylene.

In the absence of constituents of concern or when the concentrations of the constituents of concern are negligible, the acceptable level of TPH is established by considering the following:

- No liquid product should remain in the soil
- The TPH should not harm vegetation
- The TPH concentrations should not create an odor nuisance
- Hydrocarbon vapors which may emanate from the impacted soil should not generate harmful or explosive vapors
- Site monitoring should indicate that TPH levels are stable or declining

While residual TPH and / or BTEX contamination may exist at this site, excavation activities were suspended based on encountering bedrock or production equipment which limited continued safe excavation. Based on the analysis of the soil confirmation sample and the site conditions, closure of this site is warranted for the following reasons:

1. Soils which exhibited high levels of TPH and BTEX have been removed.
2. Residual TPH concentrations are below levels which would be problematic based on the criteria above.
3. Discharge has been eliminated and a steel tank installed to prevent any future release to soils.
4. Depth to groundwater is estimated at greater than 100'.
5. Vertical migration of contamination is limited due to bedrock and/or the low vertical hydraulic conductivity of underlying soils.
6. TPH concentrations will not increase and are likely to degrade over time in-situ.

Since there are no nearby receptors or domestic water sources, this site poses little risk to human health and the environment. Closure is justified based on the relatively low total petroleum hydrocarbon (TPH) concentration and the fact that benzene, toluene, ethylbenzene, and xylene meet applicable closure criteria. Additional information may be found in the Technical Background Document titled: *Risk Based Closure of Unlined Surface Impoundment Sites, San Juan Basin, New Mexico.*

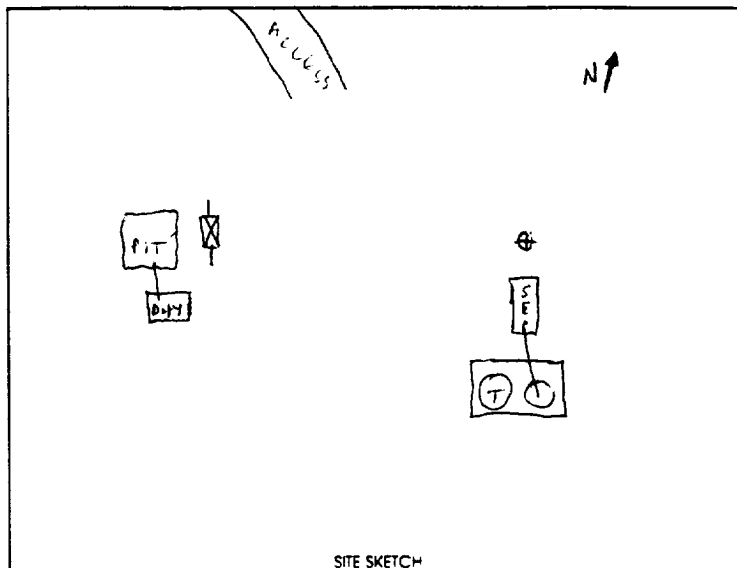
PIT RETIREMENT FORM

Date: 8/26/98 85-701-010 Weather _____
 Well Name 55-27-4 #145 Operator BURLINGTON Sec 21 T 27N R 4W UL _____
 Land Type: BLM STATE FEE INDIAN FOREST County RIO ARriba
 One Call Made (505-765-1234)? ☒ N
 Line Marking Evident? ☒ N

Pit Location:

Reference Wellhead ☒ Other _____
 Distance from: 86'
 Direction: 204 Degrees ☒ E ☒ N of _____
 _____ W _____ S

Starting Pit Dimensions NA x TANK x SET
 Final Pit Dimensions 17 x 18 x 5'



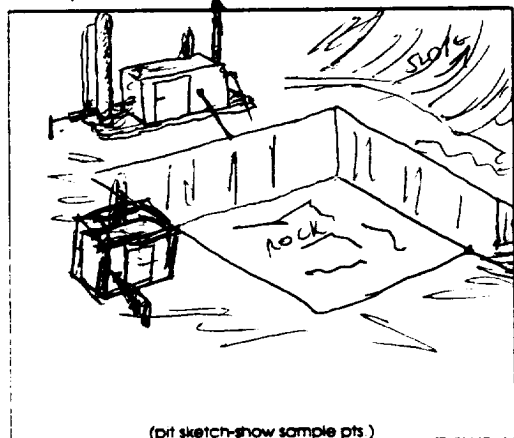
Organic Vapor Readings: Start _____ Soil Description: CLAYE SILT + SAND
 @ 2' _____
 @ 4' _____
 @ 6' _____
 @ 8' _____
 @ _____
 @ _____

Well Proximity To: Residence, Domestic Water Well, Stock Well None
 Arroyo, Wash, Lake, Stream None
 Estimated or Known Distance to Ground Water >100'

Source of Backfill (if other than processed material) _____

Samples collected: Type Progress: Verification: ID 27-4 #145-V-EXFLO1 soil / water
 Progress: Verification: ID 27-4 #145-V-EXNA-01 soil / water
 Progress: Verification: ID _____ soil / water

Sample sent to Lab Via: Courier Hand Carried Other _____ Preservative: ICE Other _____



Comments: MOVE TANK + LIDER - EXCAVATE SOIL - SLIGHT
HYDROCARBON OVER - SOIL + BROKEN BACK - HIT ROCK FLOOR @ 4 1/2'
CUT RAMP - REPLACE FENCE - TOO ROCKY TO SHRED

Soil Shipped to: ON-SITE LE
 Prepared by: M J

Q W A L L A B O R A T O R I E S . I N C .

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 9809139

SENT WILLIAMS FIELD SERVICE-MS4JI
 TO: P.O. BOX 58900
 SALT LAKE CITY, UTAH 84108
 MARK HARVEY

DATE REPORTED: 09/08/98
 DATE COLLECTED: 08/28/98
 DATE RECEIVED: 09/02/98

PROJECT: 98 PIT REMEDIATION (CRZ)

Reference Fraction: 9809139-15A

Sample ID: CRZ/27-4#145 V-EXFL-01 / 85701

Sample Matrix: SOIL

Sample Date Collected: 08/28/98 09:30:00

| TEST | METHOD | RESULT | UNITS | DL | ANALYZED | BY |
|-----------------|------------|--------|-------|-------|----------|-----|
| TPH | SW846-8015 | 4.82 | MG/KG | 2.0 | 09/05/98 | SKW |
| TEX | SW846 8021 | | | 3.0 | | |
| BENZENE | | ND | MG/KG | 0.050 | 09/04/98 | JLO |
| TOLUENE | | ND | MG/KG | 0.050 | 09/04/98 | JLO |
| ETHYLBENZENE | | ND | MG/KG | 0.050 | 09/04/98 | JLO |
| TOTAL XYLENES | | ND | MG/KG | 0.050 | 09/04/98 | JLO |
| BFB (SURROGATE) | | 90 | 125 | 75 | | |

ND-NONE DETECTED

DL-DETECTION LIMIT

SU-STANDARD UNITS

B-DETECTED IN METHOD BLANK

APPROVED BY:

TERRY KOESTER

LABORATORY DIRECTOR

QWAL LABORATORIES, INC.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 9809139

SENT WILLIAMS FIELD SERVICE-MS4JI
TO: P.O. BOX 58900
SALT LAKE CITY, UTAH 84108
MARK HARVEY
PROJECT: 98 PIT REMEDIATION (CRZ)

DATE REPORTED: 09/08/98
DATE COLLECTED: 08/28/98
DATE RECEIVED: 09/02/98

Reference Fraction: 9809139-16A
Sample ID: CRZ/27-4#145 V-EXWA-01 / 85701
Sample Date Collected: 08/28/98 09:30:00

Sample Matrix: SOIL

| TEST | METHOD | RESULT | UNITS | DL | ANALYZED | BY |
|-----------------|------------|--------|-------|-------|----------|-----|
| TPH | SW846-8015 | 7.46 | MG/KG | 2.0 | 09/05/98 | SKW |
| BTEX | SW846 8021 | | | 3.0 | | |
| BENZENE | | ND | MG/KG | 0.050 | 09/04/98 | JLO |
| TOLUENE | | ND | MG/KG | 0.050 | 09/04/98 | JLO |
| ETHYLBENZENE | | ND | MG/KG | 0.050 | 09/04/98 | JLO |
| TOTAL XYLENES | | ND | MG/KG | 0.050 | 09/04/98 | JLO |
| BFB (SURROGATE) | | 87 | 125 | 75 | | |

ND-NONE DETECTED
DL-DETECTION LIMIT
SU-STANDARD UNITS
B-DETECTED IN METHOD BLANK

APPROVED BY:


TERRY KOESTER
LABORATORY DIRECTOR

Q W A L L A B O R A T O R I E S , I N C .

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 9809965

SENT WILLIAMS FIELD SERVICE-MS4JI
TO: P.O. BOX 58900
SALT LAKE CITY, UTAH 84108
MARK HARVEY

DATE REPORTED: 10/06/98
DATE COLLECTED: 09/24/98
DATE RECEIVED: 09/30/98

PROJECT: PIT REMEDIATION 98

Reference Fraction: 9809965-15A

Sample ID: 27-4 #145-V-LF-01 / 85701

Sample Matrix: SOIL

Sample Date Collected: 09/24/98 09:30:00

| TEST | METHOD | RESULT | UNITS | DL | ANALYZED | BY |
|-----------------|------------|--------|-------|-------|----------|-----|
| TPH | SW846-8015 | 11.9 | MG/KG | 2.0 | 10/03/98 | SKW |
| BTEX | SW846 8021 | | | 3.0 | | |
| BENZENE | | ND | MG/KG | 0.050 | 10/03/98 | JLO |
| TOLUENE | | ND | MG/KG | 0.050 | 10/03/98 | JLO |
| ETHYLBENZENE | | ND | MG/KG | 0.050 | 10/03/98 | JLO |
| TOTAL XYLENES | | ND | MG/KG | 0.050 | 10/03/98 | JLO |
| BFB (SURROGATE) | | 110 | 125 | 75 | | |

ND=NONE DETECTED

DL=DETECTION LIMIT

SU=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY:


TERRY KOESTER
LABORATORY DIRECTOR