

Henry E. Faust
DEPUTY OIL & GAS INSPECTOR

AUG 19 1999

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

OK
Risk Bedrock.
RECEIVED
MAY 27 1999
OIL CON. DIV.
DIST. 3

PIT REMEDIATION AND CLOSURE REPORT

30-039-06830

Operator: Chateau Oil And Gas Telephone: (801) 584-6361
Address: P.O. Box 58900, Salt Lake City, Utah 84158-0900
WellName: CHAMPLIN #4 DK (86480)
Location: Unit or Qtr/Qtr Sec *F* Sec 35 T 27N R 4W County Rio Arriba
PitType Dehydrator
LandType: Forest

Pit Location: Pit dimensions: length 14 ft., width 13 ft., depth 9 ft.
(Attach diagram)

Reference: Wellhead

Footage from reference: 102 ft.

Direction from reference: 93 Degrees East of North

Depth To Ground Water:

(Vertical distance from
contaminants to seasonal
high water elevation of
ground water)

Less than 50 feet	(20 points)
50 feet to 99 feet	(10 points)
Greater than 100 feet	(0 points) <u>10</u>

Wellhead Protection Area:

(Less than 200 feet from a private
domestic water source, or; less than
1000 feet from all other water sources)

Yes	(20 points)
No	(0 points) <u>0</u>

Distance To Surface Water:

(Horizontal distance to perennial
lakes, ponds, rivers, streams, creeks,
irrigation canals and ditches)

Less than 200 feet	(20 points)
200 feet to 1,000 feet	(10 points)
Greater than 1,000 feet	(0 points) <u>0</u>

Ranking Score (TOTAL POINTS): 10

Date Remediation Started: 7/15/98

Date Completed: 7/15/98

Remediation Method: Excavation ☒

Approx. Cubic Yard 60

(check all appropriate sections)

Landfarmed ☒Insitu Bioremediation ☐

Other

Landfarmed soil after mechanical aeration.

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 mechanically aerated and placed into an onsite landfarm.

Ground Water Encountered: No

Final Pit:

Sample location CHAMPLIN #4DK-V-EXWA-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 9 feet

Sample date 7/15/98

Sample time 17:07

Sample Result

Benzene (ppm) <0.05

Total BTEX (ppm) 35.890

Field Headspace (ppm)

TPH (ppm) 1070

Ground Water Sample: No

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

DATE 5-20-99

SIGNATURE

PRINTED NAME Mark Harvey for Williams Field Services
AND TITLE

PIT RETIREMENT FORM

Date: 2/15/98

86480

Weather PRTY CLOUDY ~ 90°

Well Name CHAMPLIN #4 DK Operator CHATEAU

Sec 35 T 27N R 4W UL C

Land Type: BLM STATE FEE INDIAN FOREST

County RED ARIZONA

One Call Made (505-765-1234)? Y N

Line Marking Evident? Y N

Pit Location:

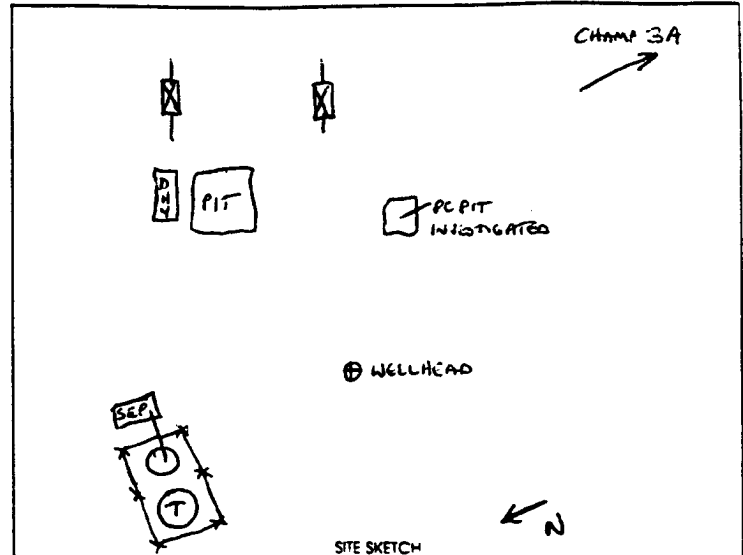
Reference Wellhead X Other _____

Distance from: 102'

Direction: 93 Degrees X E N X of _____ W S _____

Starting Pit Dimensions 12' x 12' x 2'

Final Pit Dimensions 13' x 14' x 9'



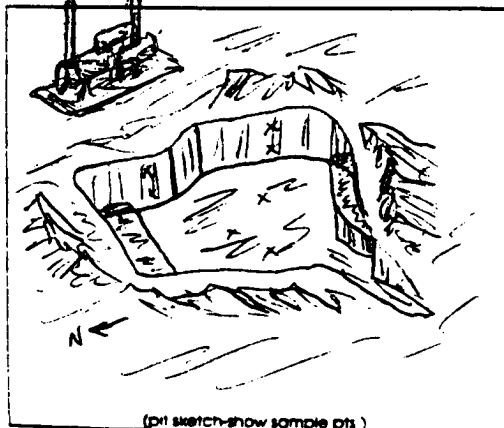
Organic Vapor Readings:	Start _____	Soil Description: <u>SILTY SAND</u>
	@ 2' _____	" "
	@ 4' _____	" "
	@ 6' _____	" "
	@ 8' _____	" "
	@ _____	<u>SANDSTONE - BEDROCK</u>
	@ _____	

Well Proximity To: Residence, Domestic Water Well, Stock Well NONE
 Arroyo, Wash, Lake, Stream NONE
 Estimated or Known Distance to Ground Water 75-100'

Source of Backfill (if other than processed material) _____

Samples collected:	Type	Progress: Verification:	ID <u>CHAMPLIN #4 DK-V-EXWA-01</u> <u>SOIL</u> / water
		Progress: Verification:	ID <u>CHAMPLIN #4 DK-V-EXFL-01</u> <u>SOIL</u> / water
		Progress: Verification:	ID _____ soil / water

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



Comments: SET UP + BEGIN EXCAVATING - MATERIAL HAS MODERATE TO STRONG HYDROCARBON ODOR - SOIL FEELS 'OILY' - EXCAVATE TO 9' WHERE BEDROCK PREVENTS FURTHER EXCAVATING - SIDEWALL AGAINST DCHT REMAINS STABLE - SHRED ALL SOIL + PLACE IN ON-SITE LANDFARM - C.J. RAMP + TERRACE EXCAVATION -

Soil Shipped to: ON-SITE
 Prepared by: M. J. [Signature]

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 #: 9807539

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

DATE REPORTED: 07/23/98
DATE COLLECTED: 07/15/98
DATE RECEIVED: 07/17/98

PROJECT: JICARILLA DISTRICT '98

Reference Fraction: 9807539-16A

Sample ID: CHAMPLIN #4DK-V-EXWA-01

Sample Matrix: SOIL

Sample Date Collected: 07/15/98 17:07:00

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	BY
TPH	SW846-8015	1070	MG/KG	2.0	07/22/98	SKW
BTEX	SW846 8021			3.0		
BENZENE		ND		0.050	07/21/98	JLO
TOLUENE		3.19		0.050	07/21/98	JLO
ETHYLBENZENE		ND		0.050	07/21/98	JLO
TOTAL XYLENES		32.7		0.050	07/21/98	JLO
BFB (SURROGATE)		114	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 .

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LABORATORY REPORT:

REFERENCE #: 9807539

SENT WILLIAMS FIELD SERVICE-MS4JI
TO: P.O. BOX 58900
SALT LAKE CITY, UTAH 84108
MARK HARVEY
PROJECT: JICARILLA DISTRICT '98

DATE REPORTED: 07/23/98
DATE COLLECTED: 07/15/98
DATE RECEIVED: 07/17/98

Reference Fraction: 9807539-17A

Sample ID: CHAMPLIN #4DK-V-EXPL-01

Sample Matrix: SOIL

Sample Date Collected: 07/15/98 17:12:00

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	BY
TPH	SW846-8015	2220	MG/KG	40.0	07/22/98	SKW
BTEX	SW846 8021			3.0		
BENZENE		0.55	MG/KG	0.50	07/21/98	JLO
TOLUENE		21.9	MG/KG	0.50	07/21/98	JLO
ETHYLBENZENE		4.49	MG/KG	0.50	07/21/98	JLO
TOTAL XYLENES		84.1	MG/KG	0.50	07/21/98	JLO
BFB (SURROGATE)		102	125	75		

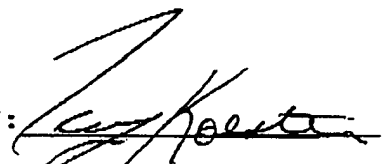
ND=NONE DETECTED

DL=DETECTION LIMIT

SU=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY:


TERRY KOESTER
LABORATORY DIRECTOR



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

Pit Closure and Retirement Addendum- Risk Assessment

The sample analyzed for confirmation at the Champlin # 4 DK exhibited slightly elevated levels of xylene. Xylene toxicity information indicates that such low levels (<200 ppm) pose very low risk to human health and the environment. This conclusion is based in part on the information below:

Toxicity Information

Xylene is a colorless liquid with a strong, sweetish aromatic odor. Studies have indicated that it is neither a carcinogen or mutagen. Bio-accumulation of xylene is limited due to the fact that it is rapidly metabolized and eliminated from the body in urine within a few hours. Rats and dogs exposed to xylene vapor for 13 weeks at 180 - 810 ppm showed no adverse effects related to dose or treatment. (1)

Environmental Effects

Xylene released to soil will volatilize and leach into the ground where it will degrade 70% under aerobic conditions in approximately 10 days or under anaerobic (six months before degradation starts) denitrifying conditions.(2) If released to surface water, the half life of xylene is approximately 1-5 days with the main attenuation process being volatilization.

When released to the atmosphere, xylene may degrade by reactions with hydroxyl radicals which are produced photochemically. As a result of this reaction, xylene has been determined to have a half life of 1.5 hours in summer and 15 hours in winter.(2)

EPA's Office of Air Quality Planning and Standards, has evaluated mixed xylenes for chronic toxicity in order to determine a hazard ranking under Section 112(g) of the Clean Air Act Amendments and assigned a composite score of 8. The scores are based on the minimal effect-dose and a rating on the type of effect. Scores range from 1 to 100, with 100 representing the most toxic. (3)

Based on an evaluation of topography, this site is believed to have ground water greater than 100' below ground surface. Due to the immobility of xylene through soil and a lack of continuous transporting mechanisms, it is very likely that the residual xylene remaining in the pit will degrade in the short term under existing conditions, or certainly during the life of the producing well. Observations and data collected from other sites suggests that the concentration of xylene would diminish vertically and likely be less than 10 ppm within the next 1-5 feet of soil depth. Bedrock was encountered which prevented further excavation. This condition retards vertical migration of contaminants and serves to significantly limit potential groundwater impact.

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, and ethylbenzene meet applicable closure criteria.

(1) Canadian Department of Occupational Health and Database, CCINFO Xylene 1991.

(2) *Handbook of Environmental Fate and Exposure Data for Organic Chemicals*, Vol 1, Large Production and Priority Pollutants, Philip H. Howard. Lewis Pub. 1989.

(3) USEPA. *Technical Background Document to Support Rulemaking Pursuant to the Clean air Act Section 112(g). Ranking of Pollutants with Respect to Hazard to Human Health*. EPAB450/3-92-010. Emissions Standards Division, Office of Air Quality Planning and Standards, Research Triangle Park, NC. 1994.

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 #: 9808765

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

DATE REPORTED: 08/31/98
DATE COLLECTED: 08/21/98
DATE RECEIVED: 08/25/98

PROJECT: JICARILLA DISTRICT '98

Reference Fraction: 9808765-14A

Sample ID: JIC/CHAMPLIN#4DK-V-LF-02

Sample Matrix: SOIL

Sample Date Collected: 08/21/98 09:28:00 / 17

TEST	METHOD	RESULT	UNITS	DL	ANALYZED BY
TPH	SW846-8015	31.7	MG/KG	2.0	08/28/98 SKW

ND-NONE DETECTED

DL-DETECTION LIMIT

SU-STANDARD UNITS

B-DETECTED IN METHOD BLANK

APPROVED BY:


TERRY KOESTER
LABORATORY DIRECTOR