

OK
Risk
Assessment

JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528

SUBMIT COPY TO
NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

Approved

Operator: Williams Production Company Telephone: 918-561-6250
Address: P.O. Box 3102, MS 37-4 Tulsa Ok. 74101
Facility or Well Name: JICARILLA 92 #1S
Location: Unit or Qtr/Qtr Sec N Sec 30 T27N R3W County RIO ARriba
Well Type: Separator ☐ Dehydrator ☐ Other PRODUCTION
Land Type: JICARILLA APACHE RESERVATION

Pit Location: _____ Pit dimensions: length 25', width 25', depth 3'
 Reference: wellhead _____, other _____
 Footage from reference: _____
 Direction from reference: _____ Degrees _____ of _____ East North _____
 _____ West South _____

epth To Groundwater: (20 points)
 Vertical distance from - (10 points)
 contaminants to seasonal (0 points) C
 ph water elevation of
 groundwater)

Distance to an Ephemeral Stream
Downgradient dry wash greater than
2 feet in width

Less than 100 feet (10 points)
Greater than 100 feet (0 points) 0

Distance to Nearest Lake, Playa, or Watering Pond (10 points)
 Downgradient lakes, playas and
 stock or wildlife watering ponds) Greater than 100 feet (0 points) 0

Wellhead Protection Area:
less than 200 feet from a private
domestic water source, or: less than
200 feet from all other water sources)

Yes (20 points)
No (0 points) 0

To Surface Water:

→ distance to perennial ponds, rivers, streams, creeks, irrigation canals and ditches)

Less than 100 feet	(20 points)
100 feet to 1000 feet	(10 points)
Greater than 1000 feet	(0 points) <u>0</u>

14. RANKING SCORE (TOTAL POINTS): 20

Date Remediation Started: 9/15/98 Date Completed: 9/17/98

Remediation Method: Excavation X Approx. cubic yards 1301

(Check all appropriate sections) Landfarmed X Insitu Bioremediation _____

Other _____

Remediation Location: Onsite X Offsite _____

(i.e. landfarmed onsite, name and location of offsite facility) _____

General Description of Remedial Action: ON-SITE LAND FARMING

Groundwater Encountered: No X Yes _____ Depth _____

Final Pit: Sample location _____
Closure Sampling: JICARILLA 92#15 (ROCK ENCOUNTERED)
(if multiple samples, attach sample results and diagram of sample locations and depths) Sample depth 14' + SIDE WALLS
Sample date 9/17/98 Sample time 1130

Sample Results BOTT WALL
Soil: Benzene (ppm) ND/ND Water: Benzene (ppb) _____
Total BTEX (ppm) 106.200/0248 Toluene (ppb) _____
Field Headspace (ppm) 2200/2 Ethylbenzene (ppb) _____
TPH (ppm) 1350/0022 Total Xylenes (ppb) _____

Groundwater 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 10/22/98 PRINTED NAME Don Fernald
SIGNATURE [Signature] AND TITLE Project Manager

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO _____ (REASON) Site Fund Risk Assessment completed. Spray w/ fertilizer

SIGNED: [Signature] DATE: 10/23/98

Well Name:	Jicarilla 92 #15
Well Legals:	Unit N, Sec 30, T27N, R3W
Pit Type:	Production
Horizontal Distance to Surface Water:	Greater than 1,000 feet
Groundwater Depth:	Greater than 100 feet

RISK ANALYSIS

Williams Production Company (Williams) requests closure of Jicarilla 92 #15 using a limited risk analysis of the site conditions.

1. Williams estimated groundwater to be at a depth of 100 feet based upon elevation of the site to Cedar Canyon. (Reference: topographic map.)
2. This site is not located within 200 feet of a domestic water well and is not within 1,000 feet of any other water source.
3. Distance from the site to surface water is greater than 1,000 feet.
4. Williams excavated 1301 cubic yards from the former pit. Sandstone was encountered at 14 feet below ground surface.

Based upon the information provided above, Williams believes the Jicarilla 92 #15 poses minimal risk to the environment. The bulk of the impacted soil was removed during the initial excavation minimizing the possibility of surface water contamination. Bedrock/sandstone provides a barrier between remaining contamination and groundwater. Vertical migration through bedrock or sandstone to groundwater is highly unlikely. The excavation will be backfilled and graded to divert precipitation away from the excavation area. Residual hydrocarbons remaining in the soil at the bottom of the initial excavation will naturally degrade in time with minimal risk to the environment. A fertilizer was sprayed on the excavated pit walls and in the bottom of the excavation to further enhance the bioremediation activity.

Drawing not to scale.

X=Wall Samples

◆=Bottom Sample



- Soil Samples Collected on 9/17/98;
Bottom Sample collected at 14 feet
bgs

Meter
House

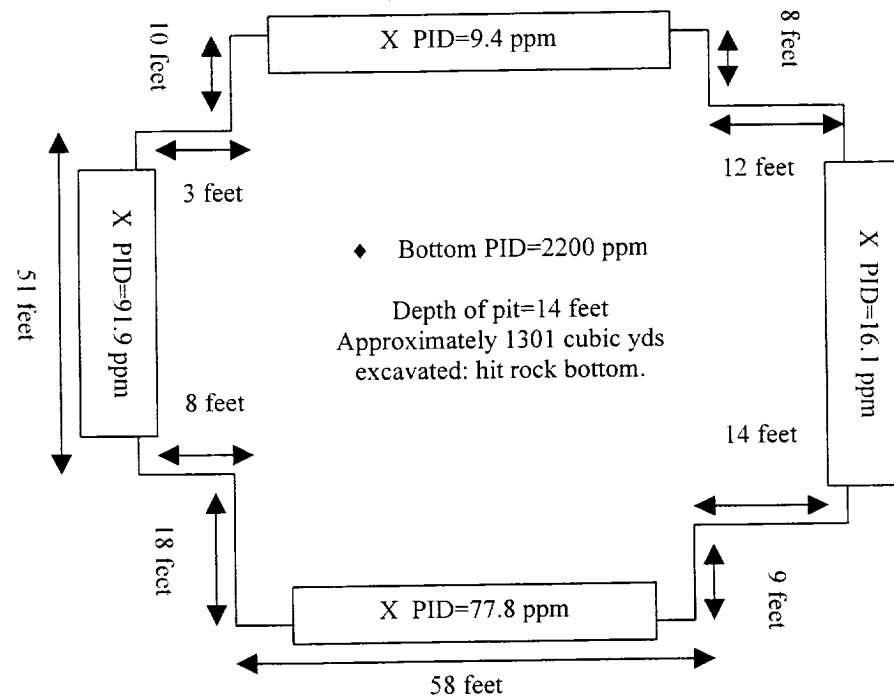
Tank

Dely

Old
Pit

Well
Head

Sep



Jicarilla 92 #15

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 02-Oct-98

Client:	Philip Environmental	Client Sample Info:	Williams Prod. Pits
Work Order:	9809054	Client Sample ID:	Jic. 92 #15 Wall Comp
Lab ID:	9809054-01A	Matrix:	SOIL
Project:	18684 1500.77	Collection Date:	9/17/98 11:30:00 AM
		COC Record:	C2300

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	9/30/98
GASOLINE RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C6-C10	2.2	0.18		mg/Kg	1	9/28/98
BTEX		SW8020A				Analyst: DC
Benzene	ND	1		µg/Kg	1	9/29/98
Toluene	ND	2		µg/Kg	1	9/29/98
Ethylbenzene	1.5	1		µg/Kg	1	9/29/98
m,p-Xylene	17	2		µg/Kg	1	9/29/98
o-Xylene	6.3	1		µg/Kg	1	9/29/98

Qualifiers: PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

1 of 1

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 02-Oct-98

Client:	Philip Environmental	Client Sample Info:	Williams Prod. Pits
Work Order:	9809054	Client Sample ID:	Jic. 92 #15 Bottom Comp @ 14ft.
Lab ID:	9809054-02A	Matrix:	SOIL
Project:	18684 1500.77	Collection Date:	9/17/98 11:30:00 AM
		COC Record:	C2300

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	250	25		mg/Kg	1	9/30/98
GASOLINE RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C6-C10	1100	90		mg/Kg	500	10/1/98
BTEX		SW8020A				Analyst: DC
Benzene	ND	1000		µg/Kg	1000	9/29/98
Toluene	42000	2000		µg/Kg	1000	9/29/98
Ethylbenzene	9200	1000		µg/Kg	1000	9/29/98
m,p-Xylene	97000	2000		µg/Kg	1000	9/29/98
o-Xylene	18000	1000		µg/Kg	1000	9/29/98

Qualifiers:

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E - Value above quantitation range

Surr: - Surrogate

Chain of Custody Record

COC Serial No. C 2300

B-TEX
Hd

Received By:

Steve Archibald
Mona Kiegle
Lara - [unclear]

Samples used: ☒ Yes ☐ No

Williams Prod.

Tic 92 No. 15

Pit has been covered up

Dehy sits directly south of pit.

Fiberglass Tank set in ground

directly west of pit.

Fiberglass Tank may need to be moved.

Room for land farm North of pit.

Williams Prod.

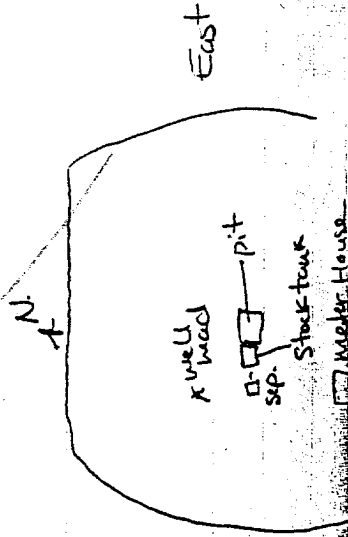
Tic 92 No. 12

Stack Tank directly west of pit.

Sep. West of Stack Tank.

Well head North of pit.

Room for land farm North of well head.



9-15-98

Jic. 92#15

- Moved to location at 3:00 pm.
- Pulled down fencing, dug initial pit. readings on PID went over 2,000 ppm.
- Dug west wall closest to tank to see if tank would need to be moved.
- Reading on west wall were 1600 ppm. Told Ron we would need tank moved he said he could do it in the morning.
- Shut down and left location at 4:00 pm.
- Got back to yard at 5:45.

9-16-98

Tic. 92 #15

- Got to location at 8:10 AM. JVS crew was there to move tank.
- Sinco was pulling liquid out of tank.
- Morgan moved letter off tank with track hoe.
- Started digging on west wall.
- Wall clean up directly under where tank was sitting.
- Landfarmed soil north of pit.
- Measured hole at 10:55
 $44 \times 26 \times 14 = 593$
 - 100 yds for notes left in south west corner.
493 yds
- Went to holy rate at 11:00 AM.
- Dug out south wall, landfarmed more soil west of pit.
- Shut down at 3:30 greased fuel egs put up fencing. Left location at 4:10 got to yard at 5:50 pm.

9-17-98

Jic. 92#15
500 yds.

- Got to location at 8:05 pulled down
fencing and plug out rest of north wall
then moved over to east wall to finish
it. ~~to~~

- Took reading with on. Northeast
corner PID read 25.6 ppm.

Ran Head space with PID

North 9.4 ppm

South 12.8 ppm

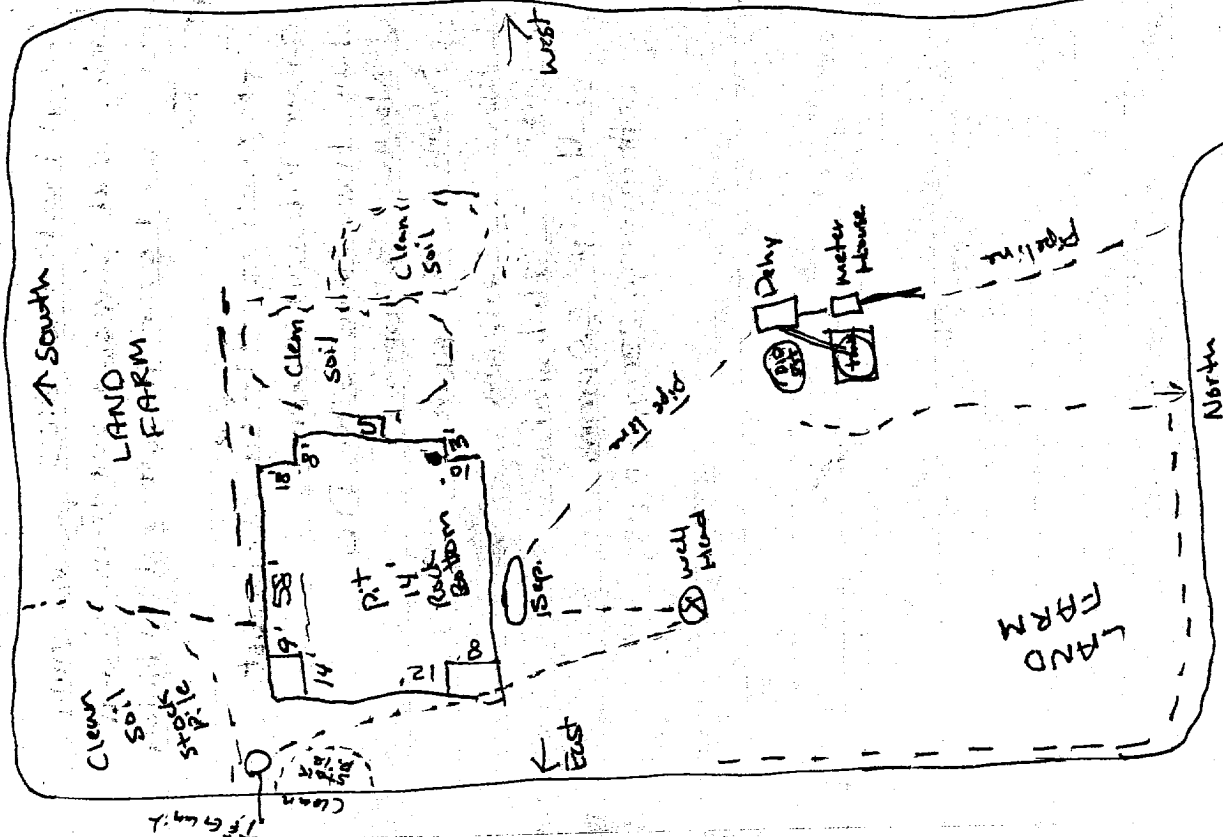
East 16.1 ppm

West 91.9 ppm

Wall comp. 2.0 ppm

Bottom comp. 2200 ppm

Fig. 92 #15



JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528

SUBMITTED BY TO
NATURAL RESOURCES DEPT
AND DULCE, N.M. ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

Operator: WILLIAMS PRODUCTION COMPANY Telephone: 918-561-6250
Address: P.O. BOX 3102, MS 37-4 TULSA, OK. 74101
Facility or Well Name: JICARILLA 92#15
Location: Unit or Qtr/Qtr Sec N Sec 30 T 27N R 3W County RIO ARriba
Land Type: JICARILLA APACHE RESERVATION

Date Remediation Started: 9/15/98 Date Completed: 11/12/98
Remediation Method: Landfarmed X Approx. cubic yards 1301
Composted
Other

Depth To Groundwater: (pts.) <u>0</u>	Final Closure Sampling:
Distance to an Ephemeral Stream (pts.) <u>0</u>	Sampling Date: <u>11/12/98</u> Time: <u>1115</u>
Distance to Nearest Lake, Playa, or Watering Pond (pts.) <u>0</u>	Sample Results:
Wellhead Protection Area: (pts.) <u>0</u>	Field Headspace (ppm) <u>1075</u>
Distance To Surface Water: (pts.) <u>0</u>	TPH (ppm) <u>99.6</u> Method <u>8015</u>
RANKING SCORE (TOTAL POINTS): <u>0</u>	Other <u>BTEX METHOD 8020</u>
	<u>1.168 (PPM)</u>

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

DATE 11/19/98 PRINTED NAME ROBERT THOMASON
SIGNATURE Robert Thompson AND TITLE PROJECT MANAGER

AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO (REASON) Okay to use as backfill.

SIGNED: Karena L. Caliendo DATE: 11/23/98

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 18-Nov-98

Client: Philip Environmental

Work Order: 9811042

Lab ID: 9811042-01A Matrix: SOIL

Project: 18684 .77

Client Sample Info: Williams Production Pits

Client Sample ID: Jicarilla 92 #15 Landfarm

Collection Date: 11/12/98 11:15:00 AM

COC Record: C2322

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	93	25		mg/Kg	1	11/18/98
GASOLINE RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C6-C10	6.6	0.36		mg/Kg	2	11/17/98
BTEX		SW8020A				Analyst: DC
Benzene	ND	2		µg/Kg	2	11/15/98
Toluene	ND	4		µg/Kg	2	11/15/98
Ethylbenzene	18	2		µg/Kg	2	11/15/98
m,p-Xylene	790	4		µg/Kg	2	11/15/98
o-Xylene	360	2		µg/Kg	2	11/15/98

Qualifiers:

PQL - Practical Quantitation Limit

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J - Analyte detected below Practical Quantitation Limit

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S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

1 of 1

Chain of Custody Record

(505) 326-2262 Phone
(505) 326-2388 FAX

COC Serial No. C 2322

[illegible]

Relinquished by:

neimquired by:		Signature		Date	Time
Moff Kieckhefer		[Signature]		11-12-98	1825
[Signature]		[Signature]		11-13-98	0925

Samples Iced:

Carrier:

Preservatives (ONLY for Water Samples)

Shipping and Lab Notes:

☐ Cyanide Sodium hydroxide (NaOH)
☐ Volatile Organic Analysis Hydrochloric acid (HCl)
☐ Metals Nitric acid (HNO₃)
☐ TPH (418.1) Sulfuric acid (H₂SO₄)
☐ Other (Specify) _____
☐ Other (Specify) _____

Jic 92¹⁵ 1500 . 77

Arrived took P2 & Reading that were
3 ppm I took sample when heated
up it was 1075 ppm the P2 Reading
are not accurate because tank farm is
so ^{muddy} ~~low~~ that it is

147

Time 1115

