District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

30-045-25834

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Dugan Production Corp.	Contact	Kurt Fagrelius
Address	P.O. Box 420	Telephone No.	505-325-1821
Facility Name	Bisti State Com #1	Facility Type	Permanent Pit

Surface Owner Tribal Trust	Mineral Owner State	Lease No. E-3148-2

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	2	25N	13W	330	South	330	West	San Juan

Latitude 36.42369 N Longitude 108.19594 W

NATURE OF RELEASE

Type of Release Spill Clean-Up and Pit Closure	Volume of Release Unknown	Volume Recovered N.A.
Source of Release Below grade permanent pit release	Date and Hour of Occurrence ?	Date and Hour of Discovery N.A.
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? N/A	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

RECEIVED
JAN 2011
OIL CONS. DIV. DIST. 3

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*
During permanent pit closure a chloride and TPH impact were discovered. A five-point composite sample tested 1040-mg/kg chloride and 235-mg/kg TPH (418.1 Mthd.) which exceed the threshold limits of 19.15.17.13.C. See attached sample results.

Describe Area Affected and Cleanup Action Taken.* Contamination was addressed under the "spill rule" 19.15.30. C-144 ranking=0. The Chloride release (1040-mg/kg) and TPH release (27.8-mg/kg 8015 Mthd.) do not pose a threat to groundwater contamination. See attachment to "Final C-141".

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Kurt Fagrelius	OIL CONSERVATION DIVISION
Printed Name: Kurt Fagrelius	Approved by District Supervisor: Jonathan D. Kelly
Title: VP Exploration	Approval Date: 1/11/2012 Expiration Date:
E-mail Address: kfagrelius@duganproduction.com	Conditions of Approval. Attached ☐
Date: 1/4/2011 Phone: 505-325-1821	

* Attach Additional Sheets If Necessary

nSK 1201148690

18

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

September 15, 2010

MIKE SANDOVAL

DUGAN PRODUCTION

P. O. BOX 420

FARMINGTON, NM 87499

RE: PIT CLOSURES

Enclosed are the results of analyses for samples received by the laboratory on 09/08/10 10:30.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene
Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

DUGAN PRODUCTION
MIKE SANDOVAL
P. O. BOX 420
FARMINGTON NM, 87499
Fax To: (505) 327-4043

Received:	09/08/2010	Sampling Date:	09/07/2010
Reported:	09/15/2010	Sampling Type:	Soil
Project Name:	PIT CLOSURES	Sampling Condition:	** (See Notes)
Project Number:	BISTI STATE COM #1 SEPARATOR PIT	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: BRISTI STATE COM #1 (H020811-01)

BTEX 8021B mg/kg **Analyzed By: CK**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2010	ND	2150	85.9	2500	2.16	
Toluene*	<0.050	0.050	09/13/2010	ND	2000	79.9	2500	2.19	
Ethylbenzene*	<0.050	0.050	09/13/2010	ND	2090	83.5	2500	2.15	
Total Xylenes*	<0.150	0.150	09/13/2010	ND	6080	81.1	7500	2.55	

Surrogate 4-Bromofluorobenzene (PII *105 %* *80-120*

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1040**	16.0	09/08/2010	ND	432	108	400	0.00	

TPH 418.1 mg/kg **Analyzed By: AB**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TPH 418.1	**235**	100	09/10/2010	ND	926	90.8	1020	4.02	

TPH 8015M mg/kg **Analyzed By: AB** **S-04**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/15/2010	ND	196	98.1	200	1.07	
DRO >C10-C28	**27.8**	10.0	09/15/2010	ND	167	83.6	200	3.54	
Total TPH C6-C28	**27.8**	10.0	09/15/2010						

Surrogate 1-Chlorooctane *83.1 %* *70-130*

Surrogate 1-Chlorooctadecane *236 %* *70-130*

Cardinal Laboratories

* =Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Celey D. Keene

Celev D. Keene, Lab Director/Quality Manager

CHAIN OF CUSTODY RECORD

Page ___ of ___

Client: Dugan Prod.
Contact: Mike Sandoval
Address:
Phone Number: 320-0979
FAX Number: 327-4043

NOTES
1) Ensure proper container packaging.
2) Ship samples promptly following collection.
3) Designate Sample Reject Disposition

PO# Bist. State Com #1
Project Name: Separator Pit

Table 1. – Matrix Type
1 = Surface Water. 2 = Ground Water
3 = Soil/Sediment. 4 = Rinsate. 5 = Oil
6 = Waste. 7 = Other (Specify) ___

FOR GAL USE ONLY
GAL JOB #

Samplers Signature:

Lab Name. Green Analytical Laboratories (970) 247-4220 FAX (970) 247-4227
Address. 75 Suttle Street, Durango, CO 81303

Sample ID	Collection: Date	Collection: Time	Misc: Collected by: (Init.)	Misc: Matrix Type From Table 1	Misc: No. of Containers	Misc: Sample Filtered ? Y/N	Preservative(s): Unpreserved (Ice Only)	Preservative(s): HNO3	Preservative(s): HCL	Preservative(s): H2SO4	Preservative(s): NAOH	Preservative(s): Other (Specify)	Analyses Required: SEP. PIT	Analyses Required: BTEX	Analyses Required: TPH 418.1	Analyses Required: TPH 8015	Analyses Required: Cl-	Comments
H20811-																		
1. Bist St Com #1	9-7-10	3:20																
2.																		
3																		
4																		
5																		
6																		
7																		
8																		
9.																		
10.																		

Relinquished by:	Date 9-7-10	Time: 3:51	Received by:	Date: 9/7/10	Time: 1551
Relinquished by:	Date	Time:	Received by:	Date: 9/8/10	Time: 10:30

* Sample Reject: | | Return | | Dispose | | Store (30 Days)

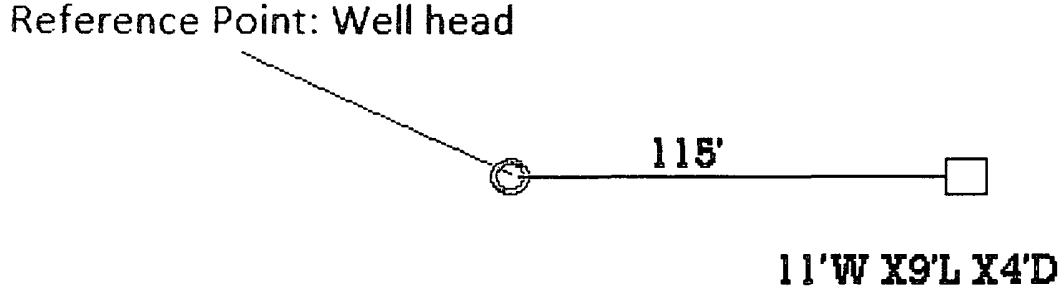
10°C #26

Dugan Production

Bisti State Com #1

Seperator & Tank Pit

N



From Reference Point Go Due E. For
a Distance of 115' to Center of Pit.

Permanent pit: Bisti State Com #1
API number: 30-045-25835

Results of sample analysis on the five-point composite sample collected on the subject permanent pit exceeded limits permissible under the "pit rule" (19.15.17.13.C) (see attached C-141 with analytic results).

The Environmental Bureau of the Oil Conservation Division (OCD) in Santa Fe is hereby provided a C-144 (closure report) and an "initial" C-141 (release notification) with analytic results of soil testing. The closure date on the C-144 (box 21) shows the date that the soil analysis did not meet pit rule standards. Also, this letter hereby provides notice that the subject permanent pit will be closed according to the requirements of the "spill rule" (19.15.30).

The OCD district office in Aztec is hereby provided a copy of the "initial report" C-141 (release notification) with analytic results of soil testing and also notice that the subject permanent pit will be closed according to the requirements of the "spill rule" (19.15.30). Assessment, clean-up and remediation of the reported spill will be done in accordance with the spill rule under the authority of the Aztec District office of the OCD. The "final report" C-141 with photo documentation of site reclamation will be sent to the Aztec District office of the OCD.

Following clean-up of the reported release and determination that the release is not a threat to groundwater contamination, the permanent pit will be closed in accordance with the approved C-144 (closure plan) and will include the following:

1. Stockpiled sub-surface soil will be used to backfill pit and re-contour (to a final or intermediate cover that blends with the surrounding topography). A minimum of four-feet of compacted, non-waste containing, earthen material will be used as backfill.

2. Stockpiled surface soil will be used as a cover over the backfilled pit and disturbed area no longer needed for production operations. The soil cover will include either the background thickness of top soil or one-foot of suitable material to establish vegetation at the site whichever is greater. The soil cover will be constructed to the sites existing grade and prevent water collection or ponding and erosion of the cover material.

3. Disturbed areas will be seeded the first growing season after the pit is closed. Seeding will be accomplished by drilling on contour whenever possible or by other division approved methods. BLM stipulated seed mixes will be used on all Federal lands and OCD approved seed mixes (administratively approved if required) will be used on all State or private lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two consecutive growing seasons. If alternate seed mix is required by the state, private owner or tribe, it will be implemented with administrative approval if needed. Seeding or planting will be continued until successful vegetative growth occurs.

4. The Aztec District office of the OCD will be notified after each re-seeding operation and after successful re-vegetation has been achieved.

Kurt Fagrelius
VP – Exploration, Dugan Production Corp.
Farmington, New Mexico 87401
505-325-1821 (O), 505-320-8248 (C)
kfagrelius@duganproduction.com

Lease Name: Bisti State Com #1						
API No.: 30-045-225835						
Site Specific Infromation						
Depth to	**255-ft**	Distance to Surface	**1800-ft**	Wellhead Protection Area	**> 1000-ft**	
Groundwater		Water Body		Distance from Water Source		
Total Ranking Score						
Depth to	Ranking	Distance to Surface	Ranking	Wellhead Protection Area	Ranking Score	Total Ranking
Groundwater	Score	Water Body	Score	Distance from Water Source	Yes =20, No=0	Score
<50-feet	20	<200-feet	20	<1000-feet from water source	**0**	
50 - 99	10	200 - 1000	10	<200-feet domestic water	**0**	
>100-feet	**0**	>1000-feet	**0**			**0**
Total Ranking Score					**Sample**	
		>19	10 - 19	0 - 9	**Analysis**	
Benzene (mg/kg)		10	10	10	**<0.050**	
BTEX (mg/kg)		50	50	50	**<0.150**	
TPH (mg/kg)		100	1000	5000	**27.8**	
Chorides (mg/kg)		N.A.	N.A.	N.A.	**1040**	
Note: Analytical methods used for Benzene SW-846, BTEX SW-846, TPH 8015 and						
Chlorides 4500-C1-B.						
C-144 ranking =0 Chloride release does not pose a threat to groundwater contamination.						

Bisti State Com #1 Hydrogeologic Data

The Bisti State Com #1 is located on Navajo Nation Trust Lands within the Navajo Indian Irrigation Project (NIIP), San Juan County, New Mexico. Water used for irrigation on NIIP is transported to the area from Cutter Dam and Navajo Dam over 25-30 miles to the north and east through an elaborate, cement lined canal system. The area is characterized as very arid with abundant dunes surrounding patches of "Badlands" topography with a sparse cover of grass and sage.

A records search of the NM Office of the State Engineer –iWATERS database was conducted on a three square mile area centered on the Bisti State Com #1 location (Exhibit 2). No water wells were located in the area of the below grade tank. The results of the search are shown on Exhibit 1.

The main source of stock water in the region is encountered in valley-fill deposits in existing arroyos at shallow depths of approximately 15 – 50 feet below the surface. The proposed below grade tank is not located in an arroyo; the nearest arroyo is located over 1800 feet to the northwest (Exhibit 2).

The Nacimiento Formation extends from the surface down to a depth of approximately 255 feet. The interval is comprised of mudstone, shale and traces of siltstone. The interval is not expected to yield significant volumes of groundwater.

The underlying Ojo Alamo Sandstone ranges from 255 feet down to a depth of approximately 350 feet and is comprised of a coarse grained alluvial sandstone inter-bedded with lenses of mudstone and occasional conglomeratic sandstone. The interval is poorly developed at this location and hard to detect in open-hole logs. Sample descriptions and drilling time data from a mud-log run, were used to pick the Ojo top. The Ojo Alamo may yield marginal quantities of water for livestock, however, the water quality is typically greater than 1,000 ppm total dissolved solids and high in sulfate (Stone, 1983).

The underlying Kirtland Shale ranges from approximately 350 feet down to 955 feet and is comprised of shale. The middle sandstone member (Farmington Ss.) is not developed.

Based on electric open hole logs, the iWATERS database and literature reviewed, poor quality ground water might be found at a depth of approximately 255-350 feet from the Ojo Alamo Sandstone.

Excessive drilling depth, unpredictable variations in reservoir quality and water quality have discouraged the drilling of water wells in the in the subject area.

This Hydrogeologic Report was prepared by Mr. Kurt Fagrelius, Geologist for Dugan Production. Mr. Fagrelius has been employed as a geologist for Dugan for the past 31-years, received a MS in Geology from NMIMT in Socorro, NM and a BS in Geology from FLC in Durango, CO.

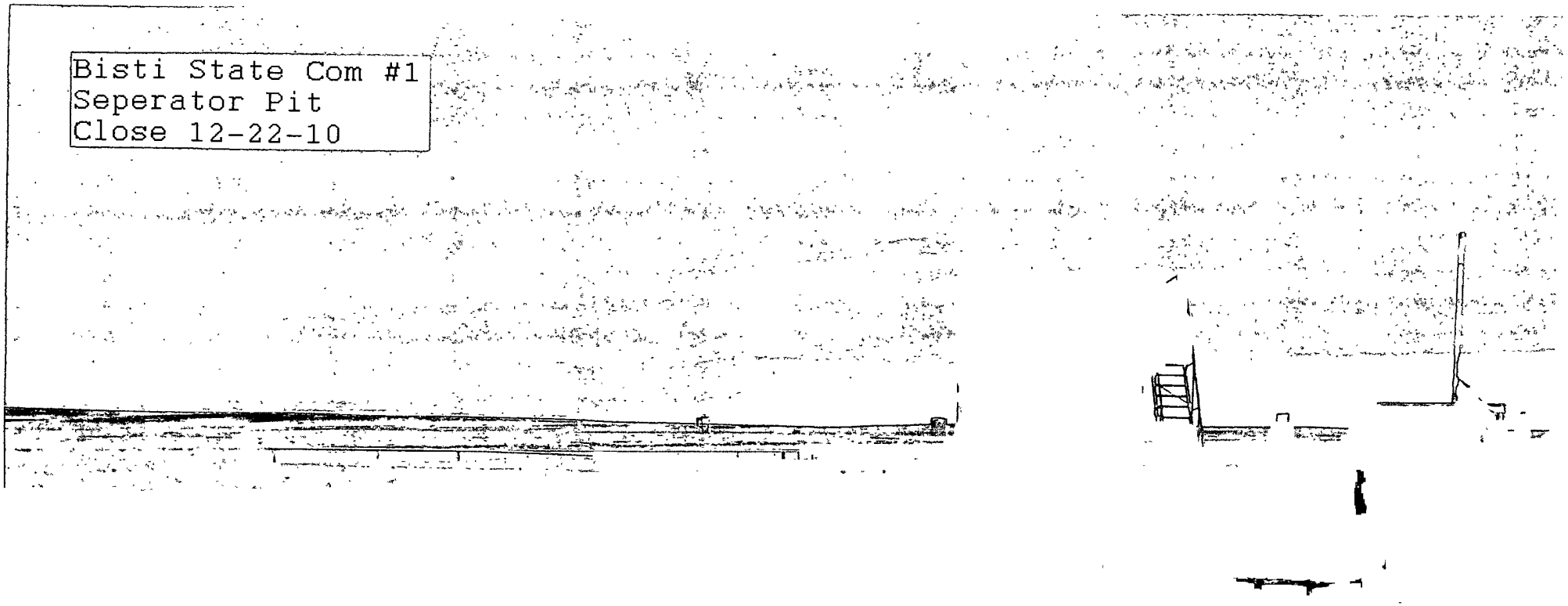
Stone, W.J., Lyford, F.P., Frenzel, P.F., Mizell, N.H., and Padgett, E.T., 1983, Hydrogeology and water resources of San Juan Basin, New Mexico: New Mexico Bureau of Mines and Mineral Resources Hydrologic Report 6, 70 p.

Brown, D.R., and Stone, W.J., 1979, Hydrogeology of Aztec quadrangle, San Juan County, New Mexico: New Mexico Bureau of Mines and Mineral Resources Hydrogeologic Sheet 1.

Levings, G.W., Craigg, S.D., Dam, W.L. Kernodle, J.M., and Thorn, C.R., 1990, Hydrogeology of the San Jose, Nacimiento, and Animas Formations in the San Juan Structural Basin, New Mexico, Colorado, Arizona and Utah: U.S. Geological Survey, Atlas HA-720-A, Sheet 1 and 2.

Thorn, C.R., Levings, G.W., Craigg, S.D., Dam, W.L., and Kernodle, J.M., 1990, Hydrogeology of the Ojo Alamo Sandstone in the San Juan Structural Basin, New Mexico, Colorado, Arizona and Utah: U.S. Geological Survey, Atlas HA-720-B, Sheet 1 and 2.


DUGAN PRODUCTION CORP.
Bisti State Com #1
E-314 -2
API#30-045-25835
SW/4 SW/4. Unit M
Sec.2.T-25-N.R-13-W.NMPM
San Juan County. NM
For Emergency Call (505) 325-1823


Bisti State Com #1
Seperator Pit
Close 12-22-10

Kurt Fagrelius

From: Kurt Fagrelius
Sent: Wednesday, December 15, 2010 9:49 AM
To: 'Powell, Brandon, EMNRD'; 'Spencer, Bertha', 'dave_mankiewicz@nm.blm gov'; 'Mark_Kelly@nm.blm.gov', 'lucas_vargo@blm gov'
Cc: Johnny Lane; Mike Sandoval
Attachments: 72-Hour Notice to Close 12-20 to 12-23-2010.xls

Dear Mr. Brandon Powell, Ms. Bertha Spencer, Mr. Dave Mankiewicz, Mr. Mark Kelly and Mr. Lucas Vargo,

Dugan Production Corp is hereby giving notice that Dugan will be closing the permanent pits on the following well pads:

1) Western Federal #8Y
2) Bisti State Com #1
3) Olson #1
4) Herry Monster #1

Site specific and soil analysis information for each permanent pit is included in the enclosed attachment

Those highlighted in blue (#'s 1 & 2) are located on Tribal Trust Surface; and those highlighted in red (# 3 & #4) are located on Federal Surface

Permanent pits will be closed starting Monday December 20, 2010 thru Thursday December 23, 2010.

If you have any questions or require additional information, please contact me.

Kurt Fagrelius
Dugan Production Corp
709 East Murray Drive
Farmington, New Mexico 87401
505-325-1821 (O), 505-320-8248 (C)
kfagrelius@duganproduction.com

Dugan Production Corp. Permanent Pits to be Closed on December 20 to December 23, 2010				
Lease Name	Western Federal #8Y	Bisti State Com #1	Olson #1	Herry Monster #1
API Number	30-045-23545	30-045-25835	30-045-26516	30-045-25515
Surface Owner - Notice Sent	Tribal Trust	Tribal Trust	Federal	Federal
Location - UL, Sec., Twp, Rge	B-18-26N-11W	M-2-25N-13W	I-11-23N-10W	M-12-24N-11W
Latitude	36.4929 N	36.42369 N	36.23965 N	36.32284 N
Longitude	108.04185 W	108.19594 W	107.85847 W	107.96014 W
C-144 Ranking Score	20	0	10	10
Benzene (mg/kg)	<0.050	<0.050	<0.050	<0.050
Betex (mg/kg)	<0.150	<0.150	<0.300	<0.300
TPH (mg/kg) - Analy Mthd	<10 - 8015	27.8 - 8015	<100 - 418.1	<100 - 418.1
Chlorides (mg/kg)	48	1040	1960	1490
Total Yards Contaminated Soil Hauled to Landfarm	36	N.A.	N.A.	60

Kurt Fagrelius

From: postmaster@duganproduction.com
Sent: Wednesday, December 15, 2010 9:49 AM
To: Kurt Fagrelius
Subject: Delivery Status Notification (Relay)

Attachments: ATT35410.txt; Untitled Attachment


ATT35410.txt (407 B) Untitled Attachment

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

Brandon.Powell@state.nm.us

Kurt Fagrelius

From: postmaster@duganproduction.com
Sent: Wednesday, December 15, 2010 9:51 AM
To: Kurt Fagrelius
Subject: Delivery Status Notification (Relay)

Attachments: ATT35422.txt, Untitled Attachment


ATT35422.txt (396 B)
Untitled Attachment

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

Bertha.Spencer@bia.gov

Kurt Fagrelius

From: lvargo@blm.gov
Sent: Wednesday, December 15, 2010 10:01 AM
To: Kurt Fagrelius

Return Receipt

Your document:

was received by: Lucas Vargo/FFO/NM/BLM/DOI

at: 12/15/2010 10:00:55 AM

Kurt Fagrelius

From: dmankiew@blm.gov
Sent: Wednesday, December 15, 2010 10:28 AM
To: Kurt Fagrelius

Return Receipt

Your document:

was received by: Dave Mankiewicz/FFO/NM/BLM/DOI

at: 12/15/2010 10:28:12 AM

Kurt Fagrelius

From: Spencer, Bertha [Bertha.Spencer@bia.gov]
To: Kurt Fagrelius
Sent: Wednesday, December 15, 2010 11:59 AM
Subject: Read:

Your message

To: Bertha.Spencer@bia.gov
Subject:

was read on 12/15/2010 11:59 AM.