

Appendix 5 – Revegetation and Noxious Weed Management

Memo – Inquiry to BLM, Carlsbad Office and Response
BLM Guidance – Seed Mix #2

Larry Davis

From: Amos, James <jamos@blm.gov>
Sent: Wednesday, March 29, 2017 3:56 PM
To: Bryson, Tye
Cc: Larry Davis
Subject: Re: BLM Recommendation - Seed mix

Mr. Davis, you have done your homework. BLM Seed Mix No.2 will suffice. As for noxious weeds, the fire may have helped better than anything we would recommend. I don't see a problem with noxious weeds taking over. thanks

On Wed, Mar 29, 2017 at 8:10 AM, Bryson, Tye <tbryson@blm.gov> wrote:
Jim:

can you help Mr> Davis with this request?

----- Forwarded message -----

From: Larry Davis <Larry.Davis@energyquest.us>

Date: Tue, Mar 28, 2017 at 3:34 PM

Subject: BLM Recommendation - Seed mix

To: "tbryson@blm.gov" <tbryson@blm.gov>

Mr. Bryson,

My company operates oil/gas wells in the Bagley Field, Lea County, New Mexico. I am preparing a surface remediation proposal to submit to the New Mexico State Land Office for a site in the Bagley Field, located about 8 miles SE of Caprock, New Mexico. A while back, a lightning strike caused a grass fire in the area where we operate wells on State Leases. NMOCD and the State Land Office are requiring that the area be re-seeded with an appropriate mix of native seed for that area. I asked Ms. Amber Groves of the NMSLO for remediation guidance, but the information did not include specifications for a seed mix. I know that the BLM and New Mexico state agencies generally work closely together to protect the environment of New Mexico, so I thought you might be able to help me.

I have a printed copy of the recommended mix for use in the Loco Hills area of Eddy County, provided by the Roswell District of the BLM. The recommended mix for that location was BLM Seed Mix #2 consisting of sand dropseed, sand lovegrass, and Plains bristlegrass, with ratios of pounds of pure live seed per acre provided for different application methods. If I have analyzed the ecoregion correctly, the Loco Hills area and the Bagley Field site are both within the Arid Llano Estacado, Southern High Plains, Southeast part of the Southern Shortgrass Prairie. Based upon my research, Seed Mix #2 appears to be the appropriate mix for re-seeding the burned area. We do not wish to disturb the native grasses that already are recovering, so we intend to distribute the seed via the broadcasting method and lightly rake to cover the seed.

Additionally, I would ask your advice about determining if there are noxious weeds/plants in the area that might need controls incorporated into my proposal.

I realize that State Leases not under your normal area of concern, but the BLM has provided me with reliable, straight forward guidance in the past. Any assistance you can offer would be appreciated.

Thank you,

Larry D. Davis

Environmental Quality Manager



Telephone: 281-651-5201 (direct)

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Ty Bryson

Pecos District
Fire Management Officer
575.234.5960 (O)
575.361.5960 (C)

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James A. Amos
Bureau of Land Management

Carlsbad Field Office
Supervisory Petroleum Engineering Tech
620 East Greene Street
Carlsbad, NM. 88220
Office: (575) 234-5909
Fax: (575) 234-5927
Cell: (575) 361-2648
E-mail: jamos@blm.gov

BLM Serial Number _____
 Company Reference _____

BLM SEEDING REQUIREMENTS IN THE ROSWELL DISTRICT

Seed Mixture 2 (Sandy Sites)

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)/acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed shall be tested and the viability testing of seed shall be done in accordance with State law(s) and within nine months prior to purchase. Commercial seed shall be either certified or registered seed. The seed mixture container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed shall be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop to the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre noted below are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth will not be made before completion of the first growing season after seeding.

Species to be planted in pounds of pure live seed per acre:

Sand dropseed (<u>Sporobolus cryptandrus</u>)	1.0
Sand lovegrass (<u>Eragrostis trichodes</u>)	1.0
Plains bristlegrass (<u>Setaria macrostachya</u>)	2.0

Pounds of pure live seed: Pounds of seed X percent purity X percent germination = pounds pure live seed

Total Pounds: _____
 Total Primary Restoration Mix: _____
 LRS Mixture (Temporary Ground Cover):
 Winter Wheat (Triticum aestivum or T. durum) _____
 Grand Total: 35-40 lbs/Acre (PLS)

*Pounds of seed x percent purity x percent germination = pounds pure live seed
 *A.K.A. Setaria macrostachya var. serotina p. Andropogon scoparius

Appendix 6 – Additional Exhibits

Initial Form C-141

Memo dated July 26, 2016 – EMNRD Acceptance of Initial Form C-141

Memo dated January 10, 2017 – Soil Sample Analysis to NMSLO

Memo dated January 23, 2017 – Closure inquiry from NMSLO

Memo dated February 22, 2017 – Work plan inquiry from NMOCD

Updated Form C-141 with incorporated proposal and site photos

Memo dated March 20, 2017 – from NMOCD, with work plan guidelines

Accepted Form C-141 dated July 26, 2016

NMSLO Revegetation Guidelines

Photos of location with GPS annotations

Photos showing burn damage – July 2016

Photos showing regrowth of vegetation – February 2017

Photos showing regrowth of vegetation – April 2017

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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

Form C-141
Revised August 8, 2011

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

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Original report as submitted

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company	Contact
Address	Telephone No.
Facility Name STATE AO #2 and STATE C #1 & #2	Facility Type Oil & Gas flow lines from wells to co-mingled battery

Surface Owner	Mineral Owner	API No.
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LOCATION OF RELEASE

Unit Letter (State AO #2) F	Section 4	Township 12S	Range 33E	Feet from the 1980	North/South Line North line	Feet from the 2050	East/West Line West line	County LEA
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Latitude 33.3096581 Longitude -103.6211777

NATURE OF RELEASE

Type of Release Oil & Gas	Volume of Release Not measurable	Volume Recovered None (burned up by fire)
Source of Release Poly lines - Grass fire caused by lightning damaged the poly lines	Date and Hour of Occurrence 16 July 2016 -1800	Date and Hour of Discovery 16 July 2016 - 1900 (by Tatum VFD)
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Shane Ferguson (pumper)	
By Whom? Tatum VFD	Date and Hour 16 July 2016 1900 Hours	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Lightning strike caused grass fire in proximity of wells. Intensity of the fire damaged approximately 1100 feet of 3" inactive poly lines, 500 feet of 3" active poly lines, and 1100 feet of 2" active poly lines. All product in active lines consumed by fire. All pumps shut-in until replacement of lines could be made.

Describe Area Affected and Cleanup Action Taken.*

Fire burned over several sections. Removed all damaged inactive lines and replaced all burned active poly lines.

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: <i>Larry D. Davis</i> (signed electronically)	OIL CONSERVATION DIVISION	
Printed Name: Larry D. Davis	Approved by Environmental Specialist:	
Title: Environmental Quality Manager	Approval Date:	Expiration Date:
E-mail Address: larry.davis@energyquest.us	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 20 July 2016 Phone: 281-651-5201		

* Attach Additional Sheets If Necessary

Photos of fire damage – State AO #2 and State C #1 & #2



Picture 1



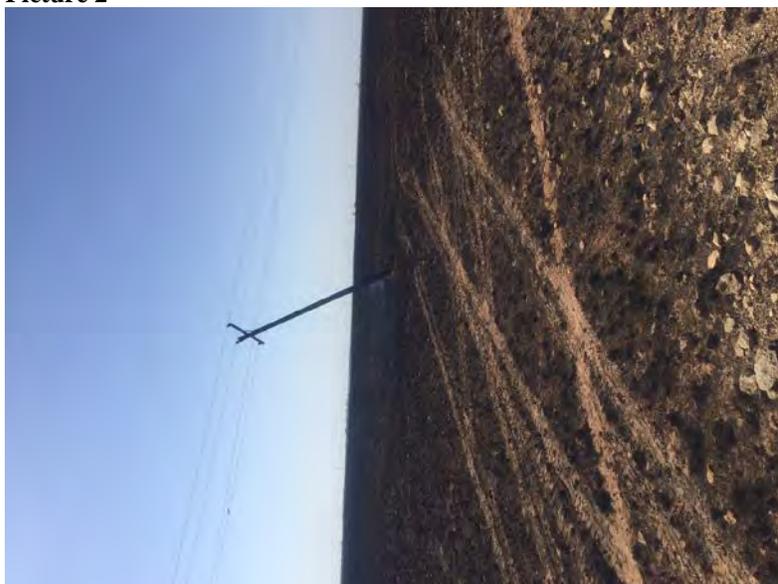
Picture 3



Picture 2



Picture 4



Picture 5 - Powerline pole on fire

Larry Davis

From: Larry Davis
Sent: Tuesday, July 26, 2016 2:23 PM
To: 'Keyes, Jamie, EMNRD'
Subject: RE: Form C141 - Fire State AO #2 & C #1 & #2

Thank you.

Larry D. Davis
Environmental Quality Manager

Telephone: 281-651-5201 (direct)

From: Keyes, Jamie, EMNRD [mailto:Jamie.Keyes@state.nm.us]
Sent: Tuesday, July 26, 2016 1:55 PM
To: Larry Davis <Larry.Davis@energyquest.us>
Cc: agroves@slo.state.nm.us
Subject: RE: Form C141 - Fire State AO #2 & C #1 & #2

4359	7/26/2016	A	EnergyQuest	State AO #2	12S 33E 4 F	30-0
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Good afternoon,

The C-141 has been received and the RP # for this event is 4359. The C-141 will be accepted as Initial only at this time. In order to close this RP out sampling should be done around where the active poly lines were located.

Thank you,

Jamie

From: Larry Davis [mailto:Larry.Davis@energyquest.us]
Sent: Wednesday, July 20, 2016 11:13 AM
To: Keyes, Jamie, EMNRD
Subject: Form C141 - Fire State AO #2 & C #1 & #2

Attached is the report regarding damage to poly lines for the State AO #2 and State C #1 & #2, resulting from a grass fire started by lightning on 16 July 2016. All damaged active lines have been replaced; all damaged inactive lines have been removed.

Larry D. Davis
Environmental Quality Manager

Telephone: 281-651-5201 (direct)

Larry Davis

From: Larry Davis
Sent: Tuesday, January 10, 2017 4:21 PM
To: 'Groves, Amber'
Subject: RE: Form C141 - Fire State AO #2 & C #1 & #2
Attachments: Final Report C-141 - STATE AO #2 and STATE C #1 & #2_EnergyQuest.pdf

Attached is the final report with soil sample results included. If I am reading the results correctly, residual contaminants were either not detectable or below reportable levels.

Hope this meets your expectations.

Larry D. Davis
Environmental Quality Manager

Telephone: 281-651-5201 (direct)

From: Groves, Amber [mailto:agroves@slo.state.nm.us]
Sent: Tuesday, January 10, 2017 12:56 PM
To: Larry Davis <Larry.Davis@energyquest.us>
Cc: Oberding, Tomas, EMNRD <Tomas.Oberding@state.nm.us>; Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Subject: RE: Form C141 - Fire State AO #2 & C #1 & #2

Good Afternoon, Larry,

Can I please get an update on the status of this open RP? The C-141 was submitted as an initial/final, however it was accepted through NMOCD as an initial only.

Thank you,

Amber Groves
Remediation Specialist
Field Operations Division
(575)392-3697
(575)263-3209 cell
New Mexico State Land Office
2827 N. Dal Paso Suite 117
Hobbs, NM 88260



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Larry Davis

From: Larry Davis
Sent: Tuesday, January 24, 2017 8:40 AM
To: 'Groves, Amber'
Subject: RE: Form C141 - Fire State AO #2 & C #1 & #2

I have not been to the location. I will contact my area supervisor for that location about photos. Given the time of year, it is unlikely that vegetation has begun to sprout back out. But I will let you know what I learn.

Larry D. Davis
Environmental Quality Manager

Telephone: 281-651-5201 (direct)

From: Groves, Amber [mailto:agroves@slo.state.nm.us]
Sent: Monday, January 23, 2017 12:19 PM
To: Larry Davis <Larry.Davis@energyquest.us>
Subject: RE: Form C141 - Fire State AO #2 & C #1 & #2

Good Morning, Larry,

Do you have an e-mail of closure from NMOCD? NMSLO typically requires a re-vegetation plan, but I am thinking in the case of a fire it might not be necessary. Do you happen to have any recent photos of the area showing that it is re-vegetated?

Thank you,

Amber Groves
Remediation Specialist
Field Operations Division
(575)392-3697
(575)263-3209 cell
New Mexico State Land Office
2827 N. Dal Paso Suite 117
Hobbs, NM 88260



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Larry Davis

From: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Sent: Wednesday, February 22, 2017 4:06 PM
To: Larry Davis
Cc: Oberding, Tomas, EMNRD; Groves, Amber
Subject: RE: Form C141 - Fire State AO #2 & C #1 & #2

Dear Mr. Davis:

What is the status of the workplan for 1RP-4359? This release is not considered resolved until NMOCD received a delineation workplan and actions take.

Thanks,

Olivia Yu
Environmental Specialist
NMOCD, District I
Olivia.yu@state.nm.us
575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Groves, Amber [mailto:agroves@slo.state.nm.us]
Sent: Tuesday, January 10, 2017 11:56 AM
To: Larry Davis <Larry.Davis@energyquest.us>
Cc: Oberding, Tomas, EMNRD <Tomas.Oberding@state.nm.us>; Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
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Amber Groves
Remediation Specialist
Field Operations Division
(575)392-3697
(575)263-3209 cell
New Mexico State Land Office
2827 N. Dal Paso Suite 117
Hobbs, NM 88260



Larry Davis

From: Larry Davis
Sent: Wednesday, March 01, 2017 3:37 PM
To: 'Yu, Olivia, EMNRD'
Subject: RE: Form C141 - Fire State AO #2 & C #1 & #2
Attachments: FORM C-141 - Update of_EnergyQuest 16 July 2016.doc

I have updated the form and added photos of the revegetation. I hope this meets requirements. If not, please let me know what to do.

Larry D. Davis
Environmental Quality Manager

Telephone: 281-651-5201 (direct)

From: Yu, Olivia, EMNRD [mailto:Olivia.Yu@state.nm.us]
Sent: Wednesday, February 22, 2017 4:06 PM
To: Larry Davis <Larry.Davis@energyquest.us>
Cc: Oberding, Tomas, EMNRD <Tomas.Oberding@state.nm.us>; Groves, Amber <agroves@slo.state.nm.us>
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Olivia Yu
Environmental Specialist
NMOCD, District I
Olivia.yu@state.nm.us
575-393-6161 x113

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From: Groves, Amber [mailto:agroves@slo.state.nm.us]
Sent: Tuesday, January 10, 2017 11:56 AM
To: Larry Davis <Larry.Davis@energyquest.us>
Cc: Oberding, Tomas, EMNRD <Tomas.Oberding@state.nm.us>; Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Subject: RE: Form C141 - Fire State AO #2 & C #1 & #2

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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

Form C-141
Revised August 8, 2011

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

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Updated report with incorporated proposal

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company	Contact
Address	Telephone No.
Facility Name STATE AO #2 and STATE C #1 & #2	Facility Type Oil & Gas flow lines from wells to co-mingled battery

Surface Owner	Mineral Owner	API No.
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LOCATION OF RELEASE

Unit Letter (State AO #2) F	Section 4	Township 12S	Range 33E	Feet from the 1980	North/South Line North line	Feet from the 2050	East/West Line West line	County LEA
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Latitude 33.3096581 Longitude -103.6211777

NATURE OF RELEASE

Type of Release Oil & Gas	Volume of Release Not measurable	Volume Recovered None (burned up by fire)
Source of Release Poly lines - Grass fire caused by lightning damaged the poly lines	Date and Hour of Occurrence 16 July 2016 -1800	Date and Hour of Discovery 16 July 2016 - 1900 (by Tatum VFD)
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Shane Ferguson (pumper)	
By Whom? Tatum VFD	Date and Hour 16 July 2016 1900 Hours	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Lightning strike caused grass fire in proximity of wells. Intensity of the fire damaged approximately 1100 feet of 3" inactive poly lines, 500 feet of 3" active poly lines, and 1100 feet of 2" active poly lines. All product in active lines consumed by fire. All pumps shut-in until replacement of lines could be made.

Describe Area Affected and Cleanup Action Taken.*

Fire burned over several sections. Removed all damaged inactive lines and replaced all burned active poly lines. Soil samples taken and submitted to Cardinal Labs. Results attached; residual contaminants not present or below reportable levels.
March 1, 2107 - Supplement to Action Taken – EnergyQuest allowed the burned areas to remain fallow through the balance of the year, allowing Nature to restore natural vegetation. The areas exhibit new growth and vegetation recovery. (See attached photos) EnergyQuest proposes to apply fertilizer to the surface and over-seed the area without disturbing the natural growth. Recovery will be reassessed during the fall of 2017 and will consult with NMOCD to determine if additional steps are required.

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: <i>Larry D. Davis</i> (signed electronically)	OIL CONSERVATION DIVISION		
Printed Name: Larry D. Davis	Approved by Environmental Specialist:		
Title: Environmental Quality Manager	Approval Date:	Expiration Date:	
E-mail Address: larry.davis@energyquest.us	Conditions of Approval:		Attached <input checked="" type="checkbox"/>
Date: 01 March 2017	Phone: 281-651-5201		

* Attach Additional Sheets If Necessary



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

Page 1 of Soil Sample Analysis previously submitted

October 27, 2016

GREG MCWILLIAMS

ENERGY QUEST

P. O. BOX 420

WHITEFACE, TX 79379

RE: SOIL SAMPLES

Enclosed are the results of analyses for samples received by the laboratory on 10/24/16 12:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited 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 (V1, 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,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 ENERGY QUEST
 GREG MCWILLIAMS
 P. O. BOX 420
 WHITEFACE TX, 79379
 Fax To: (806) 287-1101

Received:	10/24/2016	Sampling Date:	10/24/2016
Reported:	10/27/2016	Sampling Type:	Soil
Project Name:	SOIL SAMPLES	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: STATE C LEASE (H602382-01)

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	10/25/2016	ND	1.82	90.9	2.00	0.937	
Toluene*	<0.050	0.050	10/25/2016	ND	2.18	109	2.00	1.70	
Ethylbenzene*	<0.050	0.050	10/25/2016	ND	2.26	113	2.00	1.31	
Total Xylenes*	<0.150	0.150	10/25/2016	ND	6.90	115	6.00	1.38	
Total BTEX	<0.300	0.300	10/25/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/24/2016	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/26/2016	ND	197	98.3	200	3.72	
DRO >C10-C28	<10.0	10.0	10/26/2016	ND	213	107	200	5.60	

Surrogate: 1-Chlorooctane 80.6 % 35-147
Surrogate: 1-Chlorooctadecane 100 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY QUEST
 GREG MCWILLIAMS
 P. O. BOX 420
 WHITEFACE TX, 79379
 Fax To: (806) 287-1101

Received:	10/24/2016	Sampling Date:	10/24/2016
Reported:	10/27/2016	Sampling Type:	Soil
Project Name:	SOIL SAMPLES	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: STATE A-O LEASE (H602382-02)

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	10/25/2016	ND	1.82	90.9	2.00	0.937	
Toluene*	<0.050	0.050	10/25/2016	ND	2.18	109	2.00	1.70	
Ethylbenzene*	<0.050	0.050	10/25/2016	ND	2.26	113	2.00	1.31	
Total Xylenes*	<0.150	0.150	10/25/2016	ND	6.90	115	6.00	1.38	
Total BTEX	<0.300	0.300	10/25/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/24/2016	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/26/2016	ND	197	98.3	200	3.72	
DRO >C10-C28	<10.0	10.0	10/26/2016	ND	213	107	200	5.60	

Surrogate: 1-Chlorooctane 77.1 % 35-147
Surrogate: 1-Chlorooctadecane 85.6 % 28-171

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- 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

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
 (575) 393-2326 FAX (575) 393-2476

Page 5 of Soil Sample Analysis previously submitted

Company Name: Energy Quest Project Manager: Greg McWilliams Address: P.O. Box 470 City: Whiteford State: TX Zip: 79379 Phone #: 806-445-1728 Fax #: _____ Project #: _____ Project Owner: _____ Project Name: soil samples Project Location: _____ Sampler Name: Greg		BILL TO P.O. #: _____ Company: _____ Attn: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____	
Lab I.D.: H002387 Sample I.D.: 1 State C Lease 2 State A.O. Lease		(G)RAB OR (C)OMP. _____ # CONTAINERS 11 MATRIX: GROUNDWATER _____ WASTEWATER _____ SOIL <input checked="" type="checkbox"/> OIL _____ SLUDGE _____ OTHER: _____ PRESERV: ACID/BASE: _____ ICE / COOL _____ OTHER: _____	
Date: _____ Time: _____ Relinquished By: _____ Date: _____ Time: _____ Received By: _____		DATE: 10/24/16 TIME: 1:00 BTEX <input checked="" type="checkbox"/> TPH <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/>	
Relinquished By: _____ Date: _____ Time: _____ Received By: _____		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: _____ Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Fax #: _____ REMARKS: greg.mcwilliams@energyquest.us	
Delivered By: (Circle One) g.m. Sampler - UPS - Bus - Other: 16.00		Sample Condition: Cool <input type="checkbox"/> Intact <input checked="" type="checkbox"/> Checked By: [Signature]	

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326 #75

Photos of Vegetation Recovery (February 2017) - State AO #2 and State C #1 & #2



Picture 6 - February 2017



Picture 8 - February 2017



Picture 7 - February 2017



Tracks of removed
burned poly line

Larry Davis

From: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Sent: Monday, March 20, 2017 11:21 AM
To: Larry Davis
Cc: agroves@slo.state.nm.us
Subject: RE: Form C141 - Fire State AO #2 & C #1 & #2

Dear Mr. Davis:

The provided information does not meet NMOCD requirements. At a minimum, I am looking for these items:

1. Scaled, preferably digital, map of the site with location of release, locations of proposed or actual sample points, and dimensions of the release demarcated. You can either mark on the map or provide a table on a subsequent page of sample points and respective GPS coordinates.
2. A) Documentation of depth to groundwater search. Go to <http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html>
You may search with PLSS, but optimally use the UTM NAD83 radius search. Use the UTM conversion tool to get GPS coordinates in lat/long degrees into UTM coordinates. Use a radius of 2000 m and 5000 m. Output the report in pdf format. Check the Chevron Trend Map for Lea County as well and use the conservative value from both sources to determine water table depth.
B) Check on a topographical map and report distance to surface water body and water source.
3. Tabulate field and analytical results for chlorides, BTEX, and TPH with IDs and depth of samples. Put the lab analyticals and chain of command afterwards or in an appendix.
4. Georeferenced photos in tiff, jpg, jpeg etc. format if available. This is easiest if photos are taken with a smartphone with GPS location activated. Otherwise, provide photos that were taken from the same spot pre- and post-cleanup.
5. Attach a copy of the reviewed initial C141.
6. Any releases on State leases (such as this one) will need to have a revegetation plan. Like approval from Amber Groves (State Land Office) will be required.

A proposed plan of action can be suggested based on the preliminary delineation results, but NMOCD reserves the right to request further vertical/horizontal delineation or alternate remediation plans. Also, please inform NMOCD and NMSLO when field sampling to provide witnessing opportunities and guidance.

Please let us (Amber and I) know if you would like to meet to discuss this information.

Thanks,

Olivia Yu
Environmental Specialist
NMOCD, District I
Olivia.yu@state.nm.us
575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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

RECEIVED
By JKeyes at 12:46 pm, Jul 26, 2016
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Accepted as Initial Only

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company		Contact
Address		Telephone No.
Facility Name STATE AO #2 and STATE C #1 & #2		Facility Type Oil & Gas flow lines from wells to co-mingled battery
Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter (State AO #2) F	Section 4	Township 12S	Range 33E	Feet from the 1980	North/South Line North line	Feet from the 2050	East/West Line West line	County LEA
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Latitude 33.3096581 Longitude -103.6211777

NATURE OF RELEASE

Type of Release Oil & Gas	Volume of Release Not measurable	Volume Recovered None (burned up by fire)
Source of Release Poly lines - Grass fire caused by lightning damaged the poly lines	Date and Hour of Occurrence 16 July 2016 -1800	Date and Hour of Discovery 16 July 2016 - 1900 (by Tatum VFD)
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Shane Ferguson (pumper)	
By Whom? Tatum VFD	Date and Hour 16 July 2016 1900 Hours	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Lightning strike caused grass fire in proximity of wells. Intensity of the fire damaged approximately 1100 feet of 3" inactive poly lines, 500 feet of 3" active poly lines, and 1100 feet of 2" active poly lines. All product in active lines consumed by fire. All pumps shut-in until replacement of lines could be made.

Describe Area Affected and Cleanup Action Taken.*

Fire burned over several sections. Removed all damaged inactive lines and replaced all burned active poly lines.

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: <i>Larry D. Davis</i> (signed electronically)	OIL CONSERVATION DIVISION	
Printed Name: Larry D. Davis	Approved by Environmental Specialist:	
Title: Environmental Quality Manager	Approval Date: <u>07/26/2016</u>	Expiration Date: <u>09/26/2016</u>
E-mail Address: larry.davis@energyquest.us	Conditions of Approval: <u>Discrete samples only. Delineate and remediate per NMOCD guidelines.</u>	Attached <input type="checkbox"/> <u>IRP 4359</u>
Date: 20 July 2016 Phone: 281-651-5201		

* Attach Additional Sheets If Necessary

nJXK1620845910
pJXK1620846096

Photos of fire damage – State AO #2 and State C #1 & #2



Picture 1



Picture 3



Picture 2



Picture 4



Picture 5 - Powerline pole on fire

**NMSLO Surface Reclamation and Remediation:
Revegetation and Noxious Weed Management Plans**

Any site remediation or reclamation proposal involving State Trust Land, including any proposal requiring the authorization of the NMOCD, must be accompanied by a Revegetation and Noxious Weed Management Plan. The Plan must be approved by NMSLO staff prior to implementation. In addition, the NMSLO will NOT release the operator from the responsibility of revegetating the surface site until the final report has been submitted, the work approved, and all other requirements are met.

The goal is to achieve native plant cover and diversity levels equal to or exceeding the natural potential levels in undisturbed soils adjacent to the project area. The Plan should include the following:

Seed mix (native seed only), seeding rate/acre, method of dispersal, timing of dispersal, follow up monitoring plan, a re-seeding plan if initial efforts are unsuccessful, a plan for addressing noxious weeds, and a final report. The report should include a brief narrative of the seeding and monitoring efforts plus photos of the seeding process and of the revegetated area.

The Noxious Weed component of the Plan should include identification of the species of concern and the methods used to eradicate those species from the site. Eradication techniques may include mechanical treatment, chemical treatment, follow-up and monitoring. Submittals should be sent directly to Ms. Amber Groves, NMSLO Remediation Specialist, at agroves@slo.state.nm.us or call 575-392-3697 for more information.

All seed mixtures submitted for approval must specify pounds of pure live seed per acre. The seed shall contain no primary or secondary noxious weeds. Commercially sold seed will be either certified or registered seed.

Once the report has been submitted and the work approved, the NMSLO will provide acknowledgment that remediation requirements have been met.

Photos of fire damage (July 2016) – State AO #1, State AO #2 Lease and State C #1, State C #2 Lease



Picture 1 Facing East towards State C #1
GPS 33.3133060°, -103.6210567°



Picture 4 From atop South Tank of Battery Facing East
GPS 33.3128476°, -103.6216937°



Picture 2 Facing South towards State AO #2
GPS 33.3125892°, -103.6211070°



Picture 5 - Powerline pole on fire
GPS 33.3110873°, -103.6209878°



Picture 3 From atop South Tank of Battery, Facing West
GPS 33.3128476°, -103.6216937°

Photos previously submitted with updated report, now with GPS coordinates

Vegetation Recovery (February 2017) - State AO #1, State AO #2 Lease and State C #1, State C #2 Lease



Picture 6 - February 2017 Facing East towards State C #1
GPS 33.3133556°, -103.6207889°



Picture 8 - February 2017 Facing West towards State AO #1
GPS 33.3133694°, -103.6206056°



Picture 7 - February 2017
GPS 33.3126333°, -103.6210944



Picture 9 February 2017 Facing South towards State AO #2
GPS 33.3126861°, -103.6211083°

Vegetation Recovery – April 25, 2017



Picture 10 – Same Location as **Picture 1**, Facing East towards State C #1
GPS 33.3133060°, -103.6210567°



Picture 13 – Same Location as **Picture 4**, Facing East
GPS 33.3128476°, -103.6216937°



Picture 11 - Same Location as **Picture 2**; Facing South towards State AO #2
GPS 33.3125892°, -103.6211070°



Picture 14 – Same Location as **Picture 5**, Facing Southeast. Power pole has been replaced
GPS 33.3110873°, -103.6209878°



Picture 12 – Same Location as **Picture 3** Facing West
GPS 33.3128476°, -103.6216937°

These photos show natural regrowth from same perspectives as photos submitted with original report.

Vegetation Recovery – April 25, 2017



Picture 15 Facing West towards State AO #1
GPS 33.3133427°, -103.6175504°



Picture 17 Facing West towards State AO #1
GPS 33.3134143°, -103.6195756°



Picture 16 Facing West towards State AO #1
GPS 33.3133541°, -103.6181658°



Picture 18 Facing Southeast
GPS 33.3132334°, -103.6199969°



Picture 19 Facing Northeast
GPS 33.3132334°, -103.6199969



Picture 21 Facing South towards State AO #2
GPS 33.3129332°, -103.6214456°



Picture 20 Facing Southeast
GPS 33.3132334°, -103.6199969



Picture 22 Facing East towards State C #1
GPS 33.3133427°, -103.6175504°