EPWW-007

GENERAL CORRESPONDENCE

2010 - Present

Jones, Brad A., EMNRD

From:

Paul Laur <paul@eldoradobiofuels.com>

Sent:

Thursday, February 13, 2014 4:53 PM

To:

Jones, Brad A., EMNRD

Subject:

EB C_147

Attachments:

Eldorado Biofuels C-147 Application 9_13.pdf

Brad,

Here is the application that I submitted to the Hobbs office last September.

Thanks,

Paul

Paul Laur Eldorado Biofuels (505) 670-8490 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

For S	tate Us	e Only:		
1.4				

Form C-147 September 6, 2013

Submit 1 Copy to Appropriate District Office

APPLICATION FOR RE-USE OF PRODUCED WATER, DRILLING FLUIDS, OR OTHER LIQUID OIL FIELD WASTE OTHER THAN FOR DELIVERY TO A PERMITTED SWD WELL OR FACILITY, SECONDARY RECOVERY OR PRESSURE MAINTENANCE INJECTION FACILITY, SURFACE WASTE MANAGEMENT FACILITY, PERMANENT PIT, OR TO A DRILL SITE FOR USE AS DRILLING, COMPLETION, OR PLUGGING FLUID, PURSUANT TO 19.15.34.12(B) OR 19.15.34.13 NMAC

No OCD permit is required for the re-use of produced water, drilling fluids or other oil field liquids for use as a drilling or completion fluid or other type of oil field fluid, including makeup water, fracturing fluid or drilling mud, at a permitted drilling, production or plugging operation; or other use as permitted by OCD rules. The re-use of produced water may NOT be used in fresh water zones in drilling or plugging operations. Produced water must be stored and re-used in a manner that protects fresh water, public health, and the environment. This Application is not for the disposal of produced water.

	Application:
2.	Type of fluid to be re-used: Produced water Drilling fluid Frac fluid Other
3.	Proposed Re-use: Road Construction Road Maintenance
	Other Algae CULTIVATION
4.	Operator: ELDORAdo Biofuels, LLC OGRID
	Address: 7 Avenida Vista Grande, #454, SANTA FE, NM 87508
	Contact Person: P-Aul LAUR Phone: (505) 670 - 8490
5.	Contact Person: P-Aul LAUR Phone: (505) 670 - 8490 BLOWN # 55WD: API 30, 025 - 09807 Facility Location: 14 UNIT N 14 Section 24 Township 25 South
	Range 36-645 County Lea County Attach a plat of the facility and maps that show the source(s) of produced water or other oil field waste, and the location(s) of re-use. Include a list of facility names and API numbers for proper identification, or pit permit number.
6. no	Scheduled dates for use: $\frac{9/15/2013 - \frac{3}{16}/2013}{2013}$. If there are deviations from the scheduled dates, tification of the alternative dates is required to be provided to the District/Division prior to deviation.
7.	Is this a currently permitted use? Yes No If yes, provide permit number $\frac{EPWM - 00}{7}$

If the produced water is transported off-lease by motor vehicle, the transporter must possess an approved form C-133 and an approved use permit.

- 8. Attach the names, addresses, and contact information of the applicant and principal individual(s) with primary responsibility for overseeing re-use.
- 9. For all road construction or maintenance projects, and any other activity where produced water or other oilfield waste may move directly or indirectly into protectable ground water, attach laboratory analyses, performed by an independent commercial laboratory, for major cations and anions; benzene, toluene, ethyl benzene and xylenes (BTEX); RCRA metals; and total dissolved solids (TDS) of fluid to be re-used. Describe the method of application and volume of produced water that will be applied to road to ensure ponding will not occur and there will be no adverse impact on groundwater or surface water.
- 10. Attach a description of the purpose and process for treating the fluid for use. Include projected volumes of fluids to be used and waste materials, which may be subject to OCD Rules 19.15.35 and 19.15.36 NMAC.
- 11. Attach a hydrogen sulfide prevention and contingency plan, if applicable, that complies with those provisions of 19.15.11 NMAC.
- 12. For modification of an existing permit for re-use, describe the proposed change and identify information that has changed from the last form C-147 filing.
- 13. The division may require additional information to demonstrate that the use will not adversely impact fresh water, public health, safety or the environment and that the facility will comply with division rules and orders. Produced water shall not be used in contact with fresh water zones.

14. TERM AND TERMINATION OF PERMIT

The re-use authorized by this permit shall expire 180 days from date of approval. Nothing herein limits the number of modifications or renewals which may be granted. The OCD may cancel or suspend a permit if conditions are not met or if contamination occurs.

15. CERTIFICATION

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name: PAUL M. LAUR.	Title: CED / President
Signature: Darl M. h	Date: Sept. 10, 2013
E-mail Address: Paul Q eldoradobiofuels.	com
16. CONDITIONS OF APPROVAL	
17. OIL CONSERVATION DIVISION	
Approved Until:	
Ву:	
Title:	
If the produced water is transported off-lease by possess an approved form C-133 and an approved	

Jones, Brad A., EMNRD

From:	Paul Laur <paul@eldoradobiofuels.com></paul@eldoradobiofuels.com>
Sent:	Thursday, February 13, 2014 4:43 PM

To: Jones, Brad A., EMNRD

Subject: Fwd: Produced Water Re-Use Application

Hi Brad,

Here is the confirmation notice of our permit approval.

Thanks,

Paul

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

From: Leking, Geoffrey R, EMNRD < Geoffrey R. Leking@state.nm.us >

Date: Mon, Sep 16, 2013 at 10:21 AM

Subject: Produced Water Re-Use Application

To: "paul@eldoradobiofuels.com" <paul@eldoradobiofuels.com>

Paul

The application has been approved. I will have it scanned into the web. Thank you.

Geoffrey Leking

Environmental Specialist

NMOCD-Hobbs

1625 N. French Drive

Hobbs, NM 88240

Office: (575) 393-6161 Ext. 113

Cell: (575) 399-2990

email: geoffreyr.leking@state.nm.us

Paul Laur Eldorado Biofuels (505) 670-8490

Jones, Brad A., EMNRD

From: Jones, Brad A., EMNRD

Sent: Thursday, October 03, 2013 4:04 PM

To: Gonzales, Elidio L, EMNRD

Subject: Eldorado Biofuels - PW treatment and reuse

Attachments: 2013 0830 Eldorado Biofuels Request.pdf; 2013 1001 Hobbs News Sun Eldorado

Biofuels Article.pdf

EL,

I have included a copy of the last renewal approval for Paul Laur – Eldorado Biofuels with his request. Paul hand-delivered the submittal on Aug. 30, 2013. Form C-147 was posted on the OCD website on Sept. 6, 2013 and the produced water notice was posted on the website on Sept. 9, 2013. I called Paul on Sept. 10th and informed him of the new documents and to submit his renewal and modification requests to the appropriate district office. I have also included a news article from the Hobbs News Sun that was published in Monday's paper. Call me if you need to know more.

Brad

Brad A. Jones

Environmental Engineer
Environmental Bureau
NM Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505
E-mail: brad.a.jones@state.nm.us

Office: (505) 476-3487 Fax: (505) 476-3462 August 30, 2013

Mr. Brad Jones Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505

RE: EPWM-007 Permit Renewal Request - Storage and Use of Produced Water with a modification request.

Dear Mr. Jones,

Please accept this written request for approval to renew OCD Permit EPWM-007 to store and use produced water as a growth medium for algae cultivation in lined open ponds at Eldorado Biofuels' facility in Jal, NM, pursuant to New Mexico Environment Department (NMED) Ground Water Discharge Permit DP - 1781.

Eldorado Biofuels, has a produced water treatment facility located on a property leased from Fulfer Oil & Cattle Company at Brown No. 5 SWD: API 30-025-09807, Unit N, Section 24, Township 25 South, Range 36 East, Lea County, New Mexico. The purpose of this facility is to cultivate algae in treated produced water for biofuels and bioproducts production.

The Company is currently operating under a permit from the New Mexico Oil Conservation Division (OCD), EPWM-007, set to expire on September 15, 2013. The annual report of produced water diverted from Brown #5 SWD will be submitted on or before November 14, 2013.

We are in the process of exploring opportunities to sell our treatment of produced water to oil & gas exploration and production (E&P) and oilfield service companies for use in well completions. Post algae-conditioned water will be further treated using desalination and filtration technologies to the specifications required by the E&P companies. This may ultimately provide a viable alternative to using fresh, potable ground water for this purpose. We would also like to develop microbial and algal treatments for flow-back water at our Jal facility, and request that the use of flow-back water be permitted at the Jal facility.

We wish to transport the treated produced water to the Pitchfork Ranch, approximately 10 miles west of Jal via pipeline. A Temporary Utility Permit will be obtained from the NM Department of Transportation for surface pipes for the proof of concept period, which, upon successful completion will be followed by permanent pipelines. We will continue to use Brown #5 SWD for supply and disposal of produced and flow-back water, respectively.

Thank you in advance for your continued support and assistance.

Sincerely,

Paul Laur CEO/President

Eldorado Biofuels, LLC

State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez

Governor

John Bemis
Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jami Bailey
Division Director
Oil Conservation Division



August 27, 2012

Paul Laur Eldorado Biofuels, LLC 7 Avenida Vista Grande #454 Santa Fe. New Mexico 87506

RE: Request for Renewal of Temporary Approval EPWM-007

Eldorado Biofuels, LLC

Fulfer Oil & Cattle Co. Brown No. 5 SWD (API 30-025-09807)

Location: Unit N, Section 24, Township 25 South, Range 36 East, NMPM

Lea County, New Mexico

Dear Mr. Laur:

The Oil Conservation Division (OCD) has reviewed Eldorado Biofuels, LLC's (Eldorado) renewal request, dated August 6, 2012, of OCD's temporary approval EPWM-007. Based upon the information provided in the request, OCD understands that Eldorado will take produced water from the Fulfer Oil & Cattle Company's Brown No. 5 SWD (API 30-025-09807) to store and treat for use as a growth medium for algae cultivation at Eldorado's facility in Jal, New Mexico, located within Unit N of Section 24, Township 25 South, Range 36 East, NMPM, Lea County. The algae cultivation activities are permitted under the New Mexico Environment Department's Ground Water Quality Bureau temporary discharge permit DP-1781.

Eldorado's renewal request is hereby approved pursuant to Subsection B of 19.15.34.12 NMAC with the following conditions:

- Eldorado shall comply with all applicable requirements of the Produced Water Rule (19.15.34 NMAC), the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), and all conditions specified in this temporary approval and shall operate and close the project in accordance with the original request of December 16, 2010 and the August 26, 2011 modification request;
- 2. Eldorado shall store, treat, and use produced water only as proposed in the original request of December 16, 2010 and the August 26, 2011 modification request. Eldorado shall submit a modification request and obtain OCD's approval prior to the installation of additional tanks or other structures within the boundaries of the facility, initiating any changes in the storage, treatment, or use of the produced water (treated or untreated) or the disposition of any unused produced water;
- Eldorado may only store, treat, and use produced water from the Fulfer Oil & Cattle Company's
 Brown No. 5 SWD (API 30-025-09807). Eldorado shall submit a modification request and obtain
 OCD's approval prior to switching to a new source of the produced water for treatment;

Mr. Laur Eldorado Biofuels, LLC EPWM-007 August 27, 2012 Page 2 of 2

- Eldorado shall store and treat produced water within the constructed containment area to prevent unauthorized releases. Eldorado shall report all unauthorized discharges, spills, leaks, and releases of produced water or other oilfield waste pursuant to 19.15.29 NMAC;
- Eldorado shall not manage any oilfield waste at the produced water treatment facility site on the ground in pits, ponds, below-grade tanks or land application units without an OCD approved permit;
- 6. Eldorado shall not discharge any treated or untreated produced water on the ground, to ground water, or into any surface water body;
- Eldorado shall ensure that liquid oilfield waste and produced water (treated or untreated) is transported using an OCD permitted (C-133 Authorization to Move Produced Water) hauler;
- 8. Eldorado shall dispose of its solid and semi-solid oilfield waste, including, but not limited to, flocculants, treatment filters, membranes, etc., at Sundance Services, Inc.'s Surface Waste Management Facility (NM1-003) as proposed in its August 26, 2011 request. Eldorado shall retain records (OCD Form C-138) documenting all oilfield waste removed from the site. The records shall indicate the facility name and permit number of the OCD approved facility in which the oilfield waste is disposed;
- Eldorado shall dispose of any unused, treated or untreated produced water at the Fulfer Oil & Cattle Company's Brown No. 5 SWD (API 30-025-09807); and
- 10. Eldorado shall submit an annual report of discharge volumes (produced water diverted) in gallons to the OCD's Environmental Bureau within 60 days after the temporary permission expiration date.

This temporary approval shall expire September 14, 2013. Renewal requests for temporary approvals shall be submitted 45 days prior to the expiration date. Temporary approval may be revoked or suspended for violation of any applicable provisions and/or conditions. OCD may administratively modify this temporary approval at any time, if it determines that an emergency exists requiring emergency response operations to abate immediate threats to fresh water, public health, and the environment.

Please be advised that approval of this request does not relieve Eldorado of liability should operations result in pollution of surface water, ground water or the environment; nor does approval relieve Eldorado of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact Mr. Brad A. Jones of my staff at (505) 476-3487 or brad.a.jones@state.nm.us.

Sincerely,

Jami Bailey Director

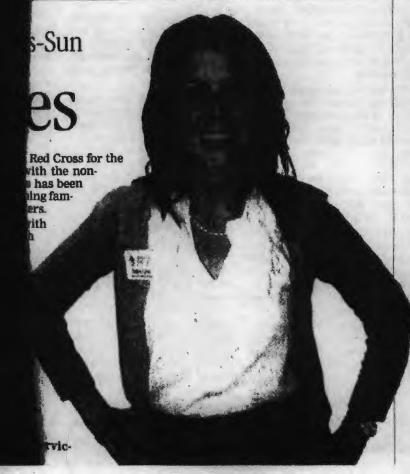
JB/baj

cc: OCD District I Office, Hobbs

gmi Gang

LEVI HILLNEWS-SUN

useum included more than a dozen hand-carved pieces Dean carved each piece from different kinds of wood. nation, call 492-2678.



Biofuel company ready for next step

LEVI HILL NEWS-SUN

A little over three years ago Paul Laur packed up his Albuquerque-based Eldorado Biofuels facility and moved it a piece at a time to Lea County.

He had found the sunshine, brackish water and land he needed to test out his theories on raising algae in brackish water and producing a biofuel. His two-year grant ran out last

year, but not before he proved he could not only clean up brackish oilfield

water and grow algae in it, but also produce biofuel cheaper and faster than traditional cornethanol biofuels.

He also found his algae biomatter left over in the process could be turned into feed for cattle or burned into a methane gas that could fuel a gas-fired power plant to produce electricity, making his project virtually a zero-waste renewable energy source.

Now all he needs is a business partner to kick the project into commercial gear.

"Our initial mission with that project was to demonstrate we could grow algae in treated, produced water, which we did and our second mission was to get a handle on our scaling costs and what it would take to build out one acre," Laur said. "Then we could project a large-scale produc-tion facility. We did that last year and now this year we are actually looking for a commercial project and the driver at this point appears to be the demand for water in Lea. County'

Laur is on the cusp of. expanding his biofuels facility west of Jal. He has almost two acres of land ready to begin. production on, the problem is: finding that commercial part

Eldorado

from PAGE 1

ner to get going.

He either needs a company willing to buy the biofuel, or the algae-created methane to power a power plant, or someone interested in his water. He filed an application with Xcel Energy last year to provide the company with methane gas to power a power plant, but Xcel has put their renewable portfolio plans on hold.

Laur said he thinks he has found the commercial driver in produced oilfield water.

"So what we have found is essentially the cost of competing with fossil fuels using blofuels isn't economically viable without a lot of infrastructure and that infrastructure in oil and gas has built over four generations," he said, citing that recent oil and gas technology developments have made it hard to compete with fossil fuels because of the abundance of oil and gas hitting the market.

"So we are having to finance that infrastructure at this point to be competitive and it seems on a pure energy play that is not a good investment, but since the algae serves a second function of cleaning up waste water, we can leverage that aspect of the business to get our infrastructure built," he said.

Laur's facility is taking produced oilfield water and using it to grow the algae. Once the algae is harvested, the water is clean enough to be reused in oilfield fracturing jobs or even in potash mining.

For oilfield company's struggling to find disposal sites for the millions of gallons of brackish water produced every day in the Permian Basin, Laur's facility could



Eldorado Biofuels President Paul Laur shows Sen. Tom Udall the algae-filled water that will soon be harvested so the company can produce both biofuel and a high-protein cattle feed.

offer them a low cost alternative that would not only give them a disposal facility, but return them useable water at a lower rate than buying fresh water.

"The oil and gas exploration and production is very strong in Lea County and will be strong for next 5-10 years. We are working with the oil companies to provide them with the water they will need," he said. "In fact, we are running tests using different cocktails of bacteria and enzymes to recycle that flow-back water."

The boom in oil and gas technology is proving to be a double-edged sword for the biofuels project. On one had it has made it hard to compete with fossil fuels in the price market, but on the other hand, the boom is the perfect economic driver Laur's project can piggy-back on.

"We are in a very good position to move forward," he said. "A year ago that wasn't the case. We were stuck in a holding pattern until an economic driver came along. Once we have a facility that is generating a significant amount of biofuels, we have customers for the algae. We just need the infrastructure to provide enough volume to make it worthwhile."

That means if Laur can get the business going providing a service to the oilfield in the form of brackish water disposal and resale, the facility will be producing enough algae and biofuels to launch into those markets as well.

"I think we are going to be a light year ahead a year from now," he said. "It is just kind of hitting that critical mass point."

Levi Hill can be reached at 391-5438 or reporter2@bobbsnews.com.

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C y S r

August 30, 2013

Mr. Brad Jones
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: EPWM-007 Permit Renewal Request – Storage and Use of Produced Water with a modification request.

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Thank you in advance for your continued support and assistance.

Sincerely,

Paul Laur CEO/President

Eldorado Biofuels, LLC

State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

John Bemis
Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jami Bailey
Division Director
Oil Conservation Division



August 27, 2012

Paul Laur Eldorado Biofuels, LLC 7 Avenida Vista Grande #454 Santa Fe, New Mexico 87506

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Eldorado Biofuels, LLC

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Mr. Laur Eldorado Biofuels, LLC EPWM-007 August 27, 2012 Page 2 of 2

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If there are any questions regarding this matter, please do not hesitate to contact Mr. Brad A, Jones of my staff at (505) 476-3487 or brad.a.jones@state.nm.us.

Sincerely,

Jami Bailey Director

JB/baj

cc: OCD District I Office, Hobbs

ani Bag

Jones, Brad A., EMNRD

From: Paul Laur <paul@eldoradobiofuels.com>
Sent: Friday, August 30, 2013 12:53 PM

To: Jones, Brad A., EMNRD

Subject: Eldorado Biofuels Permit Renewal and Modification Request

Attachments: OCD IPWM-007 2013 Renewal Request.pdf

Dear Brad,

Hope you are well.

Please find attached our written request for renewing the algae facility permit in Jal, NM. I am happy to come in and meet with you to discuss our expansion plans and to obtain your advice on how best to proceed. I should be in town next week and am also setting up a meeting with NMED to discuss these plans and would like to combine it with our meeting if possible.

Thank you,

Paul

--

Paul Laur Eldorado Biofuels (505) 670-8490



August 30, 2013

Mr. Brad Jones Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505

RE: EPWM-007 Permit Renewal Request - Storage and Use of Produced Water with a modification request.

Dear Mr. Jones,

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Thank you in advance for your continued support and assistance.

Sincerely,

Paul Laur CEO/President

Eldorado Biofuels, LLC

Jones, Brad A., EMNRD

From:

Paul Laur <paul@eldoradobiofuels.com> Wednesday, December 19, 2012 2:31 PM

Sent: To:

Jones, Brad A., EMNRD

Subject:

Eldorado Produced Water Report

Attachments:

Eldorado Biofuels Produced Water Report _ 1.pdf

Hi Brad,

Attached is the report that I owed you last month. Sorry to be late with this. I've been really busy in Jal trying to button up the DOE report and get the results of our project published. We have had very good success with growing algae in treated produced water thus far and I anticipate good things to come in the New Year. I wasn't sure how you wanted this information presented, or if there is a form I should be using, so please let me know and I'll redo it plus have the format down for next time.

Hope you have a Merry Christmas. I will drop a hard copy of this in the mail.

Best wishes,

Paul

Paul Laur Eldorado Biofuels (505) 670-8490

Eldorado Biofuels Produced Water Report #1 January 2011 - September 15th, 2012

	Diverted from	Discharged into Algae	Transported Off	Paturnad to Brown	
Period		Impoundments	1 '	# S SWD	Comments
		(Quantities	in Barrels)		
					Transported by Fulco Trucking Company to/from Texas AgriLife research facility
1st & 2nd Quarters 2011	6	0	6	0	in Pecos, TX. Returned quantity used for algae incubation in photo bioreactor.
3rd & 4th Quarters 2011	41	50	0	26	Initial PW diverted was mixed with approximately 120 bbls of fresh water in treatment system to acclimate algae.
1st & 2nd Quarters 2012	457	251	0	63	Fresh water was used for make up water during a portion of this period due to maintenance on equipment and algae strain adaptation.
3rd & 4th Quarters 2012	<u> </u>				Fresh water was used for make up water during a portion of this period due to
(up to 9/15/12 only)	28	94	0	15	maintenance on equipment and algae strain adaptation.
Totals this Report:	531	396	6	104	

Jones, Brad A., EMNRD

From: Paul Laur <paul@eldoradobiofuels.com>
Sent: Monday, August 06, 2012 1:38 PM

To: Jones, Brad A., EMNRD

Subject: Eldorado Biofuels Renewal Request

Attachments: 2012 Renewal Request OCD Permit EPWM-007.pdf; Scaned signed renewal request.pdf

Hi Brad,

Please find attached our request to renew Eldorado Biofuel's permit to treat produced water in Jal. Also attached is a scanned signed copy. I will mail the original to you today.

I hope you are doing well and enjoying the summer. Please let me know if I need to submit anything else at this time.

Kind regards,

Paul

--

Paul Laur Eldorado Biofuels (505) 670-8490



August 6, 2012

Mr. Brad Jones Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505

RE: EPWM-007 Permit Renewal Request – Storage and Use of Produced Water

Dear Mr. Jones,

Sincerely,

This letter serves as a written request for approval to renew OCD Permit EPWM-007 to store and use produced water as a growth medium for algae cultivation in lined open ponds at Eldorado Biofuels' facility in Jal, NM, pursuant to New Mexico Environment Department (NMED) Ground Water Discharge Permit DP - 1781.

Eldorado Biofuels, "The Company", has a produced water treatment facility located on a property leased from Fulfer Oil & Cattle Company at Brown No. 5 SWD: API 30-025-09807, Unit N, Section 24, Township 25 South, Range 36 East, Lea County, New Mexico. The purpose of this facility is to cultivate algae in treated produced water for biofuels and bioproducts production.

The Company is currently operating under a permit from the New Mexico Oil Conservation Division (OCD), EPWM-007, set to expire on September 15, 2012. All conditions of this existing permit will apply to continued operations, including the annual report of produced water diverted from Brown #5 SWD (cited above), due on or before November 14, 2012.

Thank you in	advance for y	our continued	support and	assistance.

Paul Laur CEO/President Eldorado Biofuels, LLC Eldorado Biofuels Produced Water Report #1 January 2011 - September 15th, 2012

	Diverted from	Diverted from Discharged into Algae Transported Off Returned to Brown	Transported Off	Returned to Brown	
Period	Brown #5 SWD Impoundments		Site	# 5 SWD	Comments
		(Quantities in Barrels)	n Barrels)		
					Transported by Fulco Trucking Company to/from Texas AgriLife research facility
1st & 2nd Quarters 2011	9	0	9	0	in Pecos, TX. Returned quantity used for algae incubation in photo bioreactor.
					Initial PW diverted was mixed with approximately 120 bbls of fresh water in
3rd & 4th Quarters 2011	41	20	0	76	treatment system to acclimate algae.
					Fresh water was used for make up water during a portion of this period due to
1st & 2nd Quarters 2012	457	251	0	63	maintenance on equipment and algae strain adaptation.
3rd & 4th Quarters 2012					Fresh water was used for make up water during a portion of this period due to
(up to 9/15/12 only)	28	94	0	15	maintenance on equipment and algae strain adaptation.
Totals this Report:	531	396	9	104	

Submitten By.

PAUM, h 12-18-12 PAUM, LAUR PRESDENT, Elderad Bistuds



August 26, 2011

Mr. Brad Jones Environmental Bureau NM Oil Conservation Division 1220 S St. Francis Drive Santa Fe, NM 87505

RE: Permit Application - Storage and Treatment of Produced Water

Dear Mr. Jones,

RECEIVED OCD

ZOIL AUG 26 P 3:51

This letter serves as a written request for approval to store and treat produced water to prepare it for use as a growth medium for algae cultivation in lined open ponds at Eldorado Biofuels' facility in Jal, NM. Eldorado Biofuels has requested approval for the use of treated produced water under a separate permit from the NMED; Temporary Discharge Permit DP-1781.

Eldorado Biofuels (the Company) is setting up a produced water treatment facility on a property leased from Fulfer Oil & Cattle Company at Brown No. 5 SWD (API 30-025-09807), Unit N, Section 24, Township 25 South, Range 36 East. The purpose of the facility is to conduct further research and development on water treatment, algae cultivation, harvesting, extraction and conversion processes in a small commercial pilot setting to produce biofuels and bioproducts.

The Company is currently operating under a temporary permit from the New Mexico Oil Conservation Division (OCD), EPWM-007, to store and treat produced water for research and development at the Fulfer site.

As an industrial member of the National Alliance for Advanced Biofuels and Bioproducts (NAABB) consortium, the Company cooperates with certain NAABB members, specifically Los Alamos National Lab and Texas A&M University, in ongoing water analysis and algae cultivation research, and will provide samples of raw and treated produced water to the consortium for these purposes. No more than 150 gal will be leaving the facility over the course of one year for this purpose.



Eldorado Biofuels agrees to the following conditions with respect to storage and treatment of produced water at their Jal facility:

- 1. Produced water will be stored and treated at the Eldorado Jal Facility located at Fulfer Oil & Cattle Company, Brown No. 5 SWD (API 30-025-09807), Unit N, Section 24, Township 25 South, Range 36 East.
- 2. Produced water will be diverted from the Brown #5 disposal to the Eldorado Biofuels Facility for treatment and then used per the NMED permit cited above. Small amounts of treated produced water may be delivered to the NAABB consortium per an existing research and development contract. All treated produced water that is moved off-site will be hauled by a licensed trucking company.
- 3. Eldorado Biofuels must retain records documenting all produced water received and removed from its Jal Facility. Flow meters are installed to measure the amounts of produced water being diverted for beneficial use. Quarterly water diversion reports will be submitted to the OCD.
- 4. Any solid or semi-solid waste derived from the water treatment process will be properly disposed of at Sundance Services Inc., 1001 6th St, Eunice, NM 88231, or equivalent approved disposal facility.
- 5. Eldorado Biofuels must report all unauthorized discharges of produced water pursuant to rule 19.15.29 or 19.15.30.

Please find enclosed our application for storage and treatment of produced Water. Thank you in advance for your continued support and assistance.

Sincerely,

Paul Laur

CEO

Eldorado Biofuels, LLC

Enclosure: Permit Application - Storage and Treatment of Produced Water



Permit Application for Produced Water Treatment Facility

Date:

August 26, 2011

Application:

Modification of Permit EPWM-007.

Type:

Produced Water Treatment Facility

Operator:

Eldorado Biofuels, LLC

Site Coordinates:

Fulfer Oil & Cattle Co., at Brown No. 5 SWD (API 30-025-09807),

Unit N, Section 24 Township 25 South, Range 36 East

Business Address:

7 Avenida Vista Grande #454

Santa Fe, NM 87508

Contact Person:

Paul Laur

Contact Phone:

505-670-8490

Purpose:

- Eldorado Biofuels, LLC, (the company) proposed to the New Mexico Oil Conservation
 Division (OCD) that the company establishes and operates a Produced Water Treatment
 Facility at the company's Jal, NM facility, located at Brown No. 5 SWD (API 30-025-09807),
 Unit N, Section 24 Township 25 South, Range 36 East.
- Produced water will be supplied from Brown No. 5, API 30-025-09807, located at Unit N, Section 24 Township 25 South, Range 36 East. This will be the only source of produced water for the company's treatment facility.
- Treated produced water will be made available to Texas A&M University and Los Alamos
 National Lab for analysis and research purposes (not exceeding 150 gal total over the course
 of one year).
- Eldorado Biofuels has submitted an application to the New Mexico Environment
 Department for a permit to discharge treated produced water into lined impoundment
 ponds with the purpose of cultivating algae and with the ultimate objective to produce
 biofuel.

Waste Streams:

- Discharged concentrated produced water will be disposed of at the Fulfer Oil & Cattle Co.'s SWD well. In the event that any hauling of produced water is required the company contracts with an OCD approved waste hauler (C-133). For a list of approved hauling companies please refer to Exhibit K.
- Solid and semi-solid waste, including flocculates from the water treatment system is disposed of at the Sundance Services Inc., 1001 6th St, Eunice, NM 88231.

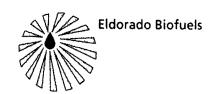


Exhibit Index

Exhibit A Names and Addresses of the

o applicant

o principal officers

o owners of 25% or more of the applicant

o Individual, principally responsible for overseeing the facility

Exhibit B Process Description and Photographs

Exhibit C Containment Area Construction & Reserve Capacity

Exhibit D Site Diagram and As-built Construction Designs

Exhibit E Water Transfer Operations

Exhibit F Operations and Maintenance

Exhibit G Ozone Emission

Exhibit H Hydrogen Sulfide Exposure Control

Exhibit I Closure Plan

Exhibit J C-133 Approved Haulers

Exhibit K OCD Release Notification and Remedial Action

Exhibit L Agreement with Fulfer Oil & Cattle



Exhibit A

Applicant:

Eldorado Biofuels, LLC

7 Avenida Vista Grande #454

Santa Fe, NM 87508

505-670-8490

Officers:

Paul Laur, CEO, President

Owners (> 25%):

Paul Laur

Facility Operations: Paul Laur



Exhibit B

Process Description and Photographs

CONTRACTOR OF THE PROPERTY OF

PROCESS FLOW DESCRIPTION FOR PRODUCED WATER TREATMENT OPERATIONS Eldorado Biofuels Jal Facility, Jal, NM Equipment manufactured by: VM TECHNOLOGY, INC.

The incoming water runs at approximately 50 GPM, through a 2" pipeline. A 2" shut-off valve system is installed on the incoming pipeline. The intake line is also equipped with a meter and all transfers will be recorded.

Water is pumped into a 5,000-gallon 'Raw Product Storage Tank' (manufactured by VM Technology, Inc.) that is located within a spill containment area. The tank is equipped with a high-level, low-level audio alarm system to prevent an overflow of the system. In case the high-level alarm sounds, the operator on site will turn off the alarm and shut off the influent valve to stop the water flowing into the raw water tank. In case the low-level alarm sounds, the operator on site will turn off the alarm and open the valve to allow water entering the raw water tank. The low-level alarm prevents pumps to run dry and equipment to be damaged. Loading and discharge valves are checked every 24 hours during times of operation to monitor for leakage.

As the process continues, water will be pumped from the Raw Product Tank into an 800-gallon cone-bottom mixing tank. Tank A will be used for pH control and monitoring. Tank A will have sulfuric acid injection at 22% and caustic soda at 20% for pH control, if needed.

On site we have 60-gallon storage containers of 20% Caustic Soda and 60-gallon storage of 20% Sulfuric Acid, all within the spill containment area.

From tank A we will be pumping into tank B. In Tank B we will inject an ion polymer to flocculate solids. From tank B we will be pumping the water through the stripping tower holding tank. The stripping tower will have 250 CFM of airflow and 10 gallons of liquid flow through the scrubbing tower. Underneath the scrubbing tower we have a containment tank that will hold approximately 100 gallons of water. Flocculates will be removed through a clean out and disposed of into a 55 gal drum within the containment area.

In the 'Stripping tower' ozone is injected for the destruction of VOC and also for microbial disinfection. On the bottom of the Stripping Tower water will be flowing through a 5GPM valve into a 4,000-gallon 'Finish Product Tank'. No filters or membranes are used in the treatment system.



Out of the Finish Product Tank we use gravity to let the water flow through a 500-gallon CO₂ injection stainless steel tank. Using gravity again, the output from the CO₂ tank will be directed into the algae growing ponds. A flow control and level control valve system is installed. The ponds will be equipped with a high-level alarm system to prevent overflow.

A CONTRACTOR OF THE PROPERTY O

All tanks are filled "over the top", i.e. the discharge into the tank is in the top of that tank. To transfer between tanks, a suction valve is opened on the bottom of the supply tank to feed a transfer pump and a discharge valve is opened in the top of the discharge tank. In the event of a breach anywhere in the lineup, only the supply tank volume would be potentially leaked. The discharge tank fluid would have to bridge a vertical air gap in order to backflow to the pump.



Exhibit C

Containment Area Construction & Reserve Capacity

Containment area construction:

The water treatment facility is built on a 6" reinforced concrete uni-mold 25' x 35' foundation with a 12-inch tall cement wall. A sump pump is installed within the containment area, which, in the event of spillage or leakage, will pump liquids at a discharge rate of approximately 100 gal/min though a 2" discharge line directly into Brown #5 SWD. The sump pump sits in a steel box frame.

Reserve capacity of containment area:

The containment area measures 25' x 35' x 1'deep, which provides a 6,562.5 gallons static holding capacity. All equipment within the containment area is installed on supporting posts to not reduce the containment capacity. The largest tank in the system holds 5,000 gallons; the static reserve capacity of the containment area is 1.3 times the largest tank capacity.

The water treatment system is operated in batches. Batch size may vary. Treated water is used to make-up for evaporation from the algae ponds. Initially the system will be used once a week for a couple of hours.

All tanks are filled "over the top", i.e. the discharge into the tank is in the top of that tank. To transfer between tanks, a suction valve is opened on the bottom of the supply tank to feed a transfer pump and a discharge valve is opened in the top of the discharge tank. In the event of a breach anywhere in the lineup, only the supply tank volume would be potentially leaked. The discharge tank fluid would have to bridge a vertical air gap in order to backflow to the pump.

The sump pump is operated by a float switch in normal operating mode and will discharge to Brown #5 SWD automatically in the event of any leaks or rain storms.



Exhibit D

Site Diagram and As-Built Construction Designs



Exhibit E

Water Transfer Operations

Produced water will be pumped directly from Brown #5 into the raw water holding tanks at the Eldorado Biofuels facility.

Standard operating procedure is to only transfer produced water from Brown #5 when the facility is manned. The facility is anticipated to be operated once a week or as needed to top off evaporated water levels in the algae ponds.

Following lineup, the operator will confirm flow into the raw water holding tank and visually inspect the supplied line for leaks.

A 'high-level' alarm is located in the top of the raw water tank and will sound a buzzer to alert the operator, who will then turn off the pump.

When treated produced water is trucked from the facility to Texas A&M University or Los Alamos National Lab the enclosed water transfer form will be used to log the hauling contractor and the amounts of the water being removed from the facility.



WATER TRANSFER FORM

DATE:	
·	
Water Hauling Company:	
Water Released	
Producer:	
Well API#:	
•	
Valuma /hhl\.	

- Copy of C-133 must be on file with Eldorado Biofuels -



Exhibit F

Operations & Maintenance

The overall system is monitored (please see sample of enclosed 'Daily Maintenance Log') as part of daily maintenance routine during times of operation. The facility is anticipated to be operated once a week or as needed to top off evaporated water levels in the algae ponds.

- The incoming water runs at approximately 50 GPM, through a 2" pipeline. A 2" shut-off
 valve system is installed on the incoming pipeline. The intake line is equipped with a meter
 and all transfers will be recorded.
- Water is pumped into a 5,000-gallon 'Raw Product Storage Tank' that is located within a spill
 containment area. The tank is equipped with a high-level, low-level audio alarm system to
 prevent an overflow of the system.
- In case the high-level alarm sounds, the operator on site will turn off the alarm and shut off the influent valve to stop the water flowing into the raw water tank.
- In case the low-level alarm sounds, the operator on site will turn off the alarm and open the valve to allow water entering the raw water tank. The low-level alarm prevents pumps to run dry and equipment to be damaged.
- Loading and discharge valves are checked <u>every 24 hours</u> during times of operation to monitor for leakage.
- The treatment facility, including all storage tanks, is located within the limits of the containment area.
- The volume of the containment area is approximately 1.3 times of the largest tank capacity.
- Eldorado Biofuels must retain records documenting all produced water received (originating
 from Brown #5) and removed from its Jal Facility (disposed back into Brown #5). Flow
 meters are installed to measure the amounts of produced water being diverted for
 beneficial use. Quarterly water diversion reports will be submitted to the OCD.
- All water transports will be contracted out to a state approved produced water hauler with a current C-133.
- All system maintenance logs are kept on-site and will be made available upon request.
- Any solid or semi-solid waste derived from the water treatment process will be properly disposed of at Sundance Services Inc., 1001 6th St, Eunice, NM 88231, or equivalent approved disposal facility. (Form C-138 enclosed)



Contingency Plan - System Failure

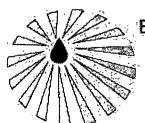
In the event of influent water system failure, raceways will be emptied according to their regular schedule and raceways will not be refilled until problem is corrected. Influent water is stored in holding tanks on site.

In the event of discharge system failure, water can be left in algae raceways until system is repaired or spare pumps are being hooked up to pump discharge water into separate holding tanks. In case algae cannot be harvested at that time all water will be disposed of in an OCD approved disposal facility.

In the event that any pipes leak, break or spillage occurs, the system is shut off to prevent further water entering the pipes. Unauthorized releases are addressed pursuant to the requirements of 19.15.29 NMAC and/or 19.15.30 NMAC, as applicable.

OCD Release Notification and Correction Action

In the event of an accidental water release the OCD will be notified of the incident and corrective measures taken, using Form C-141.

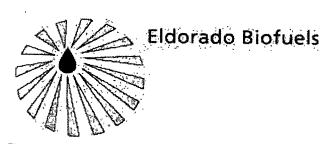


Eldorado Biofuels

Date		/	/
	******	/	

Daily Maintenance Log

Weather Conditions	Comments	
General Conditions		
Wind Direction		
Air Temperature		
Pond conditions	Comments	
Pond 1		
Water Leaks		
Foam Presence		
Foam Level		
Pond 2	 	-
Water Leaks		
Foam Presence		
Foam Level		
Pond 3		· · · · · · · · · · · · · · · · · · ·
Water Leaks		
Foam Presence	 	
Foam Level	 	
Pond 4		
Water Leaks		
Foam Presence		
Foam Level		
Ozone Generator	Comments	
Ozone Supply Pressure		The state of the s
Ozone Flow #2	 	
Ozone Flow #3	 	
Ozone Flow #4	-	
Ozone Flow #5	144	
Ozone Flow #6		
Ozone Power lights off?		
Mixer System	Comments	
Mixer Amps Tank #1		<u>, </u>
Mixer Amps Tank #2		
Mixer Amps Tank #3		
Mixer Amps Tank #4		
Mixer Amps Tank #5	 -	
Mixer Amps Tank #6		
Mixer flush	 	



Data	<i>r</i> .	,
vate	 /	/

Daily Maintenance Log

Air Compressor	0.4.2		Comments	
			Comments	\$ \$ \$.
Drain A/C Pressure Sensor Drain A/C Moisture Traps				
brain Aye Moisture Traps				
O ₂ Concentrator			Comments	
Power ON				
Supply Pressure				
O ₂ Discharge Pressure				
Drain O₂ Moisture Trap		-		
Drain O₂ Concentrator Traps				
R/O Process			Comments	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Inlet PSI		· · · · · · · · · · · · · · · · · · ·		
ORP				
R/O #1 Reject Flow				
R/O #1 Discharge Flow				
R/O #1 ORP				
TOC Instrument	¥2.		Comments	
TOC				
Air Pressure				
nlet Air Flow				
Outlet Air Flow			***	
Acid Level				
Sample Frequency				
Sample Filtration			Comments	18
On Line/Off Line		<u> </u>	a samula e la terragia e	
upply Water Source				
olids Removal System	e veg		Comments	
ilter inlet Pressure				
ilter Discharge Pressure		•		
ettling Tank Level		<u> </u>		
yclone Tank Level				
est Float Switches				
oumpster Solids Level				
Dump Red Dewater System				

<u>District I</u> 1625 N French Dr , Hobbs, NM 88240 District II 1301 W Grand Avenue, Artesia, NM 88210 District IV 1220 S St Francis Dr , Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Revised March 12, 2007

Form C-138

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

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE
1. Generator Name and Address:
2. Originating Site:
3. Location of Material (Street Address, City, State or ULSTR):
4. Source and Description of Waste:
Estimated Volume yd³/bbls Known Volume (to be entered by the operator at the end of the haul) yd³/bbls
SENERATOR CERTIFICATION STATEMENT-OF-WASTE-STATUS I, representative or authorized agent for do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)
RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. **Operator Use Only: Waste Acceptance Frequency: **D Monthly: **D: Weekly: **D: Rev Load**
RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS
do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
5. Transporter:
OCD Permitted Surface Waste Management Facility
Name and Facility Permit #:
Address of Facility:
Method of Treatment and/or Disposal:
☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other
Waste Acceptance Status:
APPROVED DENIED (Must Be Maintained As Permanent Record)
PRINT NAME: DATE:
SIGNATURE: TELEPHONE NO : TELEPHONE

Surface Waste Management Facility Authorized Agent

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 , Santá Fe, NM 87505

State of New Mexico **Energy Minerals and Natural Resources**

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

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

Form C-141

Revised October 10, 2003

			Rele	ease Notific	cation	and Co	orrective A	etion			
						OPERA'	ГOR	□ In	itial Report		
Name of Co	ompany					Contact					
Address					1	Telephone No.					
Facility Na	me]]	Facility Typ	oe				
Surface Ow	ner			Mineral (Owner			Leas	e No.		
				LOCA	ATION	OF RE	LEASE				
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East/West Lin	e County		
			La	titude		_ Longitud	le				
				NAT	TURE	OF REL	EASE				
Type of Rele						Volume of			e Recovered		
Source of Re			·				lour of Occurren	ce Date a	nd Hour of Discovery		
Was Immedi	ate Notice (If YES, To	Whom?				
			Yes _	No Not R	equired						
By Whom?						Date and F					
Was a Water	course Rea	_		•		If YES, Vo	lume Impacting	the Watercourse			
		L.	Yes _] No							
If a Waterco	urse was Im	pacted, Descr	ibe Fully.	*							
*											
									•		
Describe Cau	ise of Probl	em and Reme	dial Action	n Taken.*							
Describe Are	a Affected	and Cleanup A	Action Tak	ren *							
Describe Are	a Affected	and Cleanup 7	ACTION TAN	cen.							
I hereby cert	ify that the	information gi	ven above	is true and comp	lete to th	e best of my	knowledge and u	inderstand that p	ursuant to NMOCD rules and		
nublic health	or the envi	ronment The	accentano	re of a C-141 repo	erease no	NMOCD m	na periorm correc	ctive actions for	releases which may endanger relieve the operator of liability		
should their	operations h	nave failed to a	acceptanc deguately	investigate and r	emediate	contaminati	on that nose a the	reat to ground w	iter, surface water, human health		
or the enviro	nment. In a	ddition, NMC	CD accep	tance of a C-141	report do	es not reliev	e the operator of	responsibility fo	r compliance with any other		
federal, state	or local la	ws and/or regu	ılations.								
					1		OIL CON	SERVATIO	N DIVISION		
Signature:									<u> </u>		
oignature.							D: / : / O				
Printed Name	e:				1	Approved by	District Supervis	sor:			
T'u											
Title:					<i>F</i>	Approval Dat	e:	Expiration	on Date:		
E-mail Addre	ess:					Conditions of	`Approval:				
	· · ·			-	= `		pp.o.u.		Attached		
Date:			Phone:		-				1		

^{*} Attach Additional Sheets If Necessary



Exhibit G

Ozone Emission

No Ozone (O_3) is emitted as part of or consequence of the operation of VM Technology's water treatment.

Ozone in the lower atmosphere is an air pollutant with potentially harmful effects on living organisms.

Our water treatment system utilizes Ozone to chemically attack contaminants in water (iron, arsenic, hydrogen sulfide, nitrites, and complex organic constituents). Ozone also provides an aid to flocculation, an agglomeration of molecules, which aids in filtration, where the iron and arsenic are removed.

All Ozone generated as part of the applied water treatment process is 100% injected into the fluid that is being treated. Ozone initiates an oxidation process, which breaks up the original O_3 molecules and leaves O_2 (Oxygen) as its byproduct. The injected Ozone is 100% consumed by the constituents contained in the water. The Ozone generation system is controlled by an ORP (Oxidation Reduction Potential) system, which is compliant with industry standards.



Exhibit H

1. Hydrogen Sulfide Exposure Control Standard

Any release of H_2S from a holding tank at the Eldorado Biofuels Jal facility would not be of an amount potentially hazardous when it might reach a public area or road.

2. Evacuation Locations

Due to the above mentioned, a H₂S contingency plan is not necessary.

3. Safety Precautions

Pursuant to 19.15.11.12E NMAC, Eldorado Biofuels will chain stairs or ladders leading to the top of a tank or vessel containing 300 ppm or more of hydrogen sulfide in the gaseous mixture, or mark it to restrict entry.

Personnel working at the facility will be provided with personal H_2S warning devices. A wind sack is installed on the water treatment system, which is visible from anywhere in the facility. In the event an alarm sounds, personnel are instructed to vacate the premise and move upwind of the H_2S source.

<u>Note:</u> An H_2S reading will be provided within 30 days of produced water entering the Eldorado Biofuels Jal facility.



Exhibit I

Closure Plan

- In the event of a closure of the Eldorado Biofuels Jal Facility the OCD and the property owner are notified 30 days prior to closing the facility.
- All produced water, raw or treated, are drained from the storage tanks, the water treatment system and the algae cultivation ponds and dispose of into Brown #5, an OCD approved disposal well.
- All components of the water treatment system, the algae cultivation operation and the biofuel production (algae harvesting and extraction equipment) are dismantled and removed from the Fulfer Oil & Cattle Property.
- Solid or semi-solid waste, including flocculates from the water treatment system are disposed of at the Sundance Services, Inc., 1001 6th St, Eunice, NM 88231.
- If an unauthorized discharge has occurred during operations of the Eldorado Biofuels facility the containment area is inspected for compromises to its integrity and for staining or other signs of surface contamination.
- Any such compromises or potential contamination is addressed pursuant to the requirements of 19.15.29 NMAC and/or 19.15.30 NMAC, as applicable.
- Staining or light surface contamination within the containment area resulting from small releases not covered by rule 19.15.29 will be cleaned with standard corrective actions to avoid endangerment of public health or the environment.
- Staining or light surface contamination of surface soil will be remediated by removing surface dirt and disposing of it at an OCD approved facility.
- After all required remedial actions have been completed, the improved site, which
 consists of the concrete containment area and the fencing, is turned over to the
 landowner (please see Exhibit L).
- Per the agreement between Eldorado Biofuels and Fulfer Oil & Cattle, Co. no reclamation or re-vegetation is required of the surface property owner.
- A closure report is submitted to the OCD 60 days after the completion of the facility closure. The report includes:
 - o a summary of closure activities
 - o a description of suspected contamination of the site, if applicable
 - remedial actions taken for removal of contamination, if applicable
 - o photos of the closed site



Exhibit J

C-133 Approved Haulers

C-133 Permitted Water Haulers

Order No.	Company Name	Address 1	Address 2	City	State	Zip 1	Zip 2	Phone
C133-35	DUGAN PRODUCTION CORP	P. O. BOX 420	709 E. MURRAY DRIVE	FARMINGTON	NM	87499	0420	5053251821
C133-81	Noble Trucking, Inc.	3920-B Monroe Rd		Farmington	NM	87401	0000	5053261981
C133-84	PATE TRUCKING CO INC	2904 W MARLAND		HOBBS	NM	BAD A	DDR	5053936264
C133-138	J & R HOT OIL SERVICE	1945 N GRIMES		HOBBS	NM	88240	0000	5053696322
C133-139	Riley Industrial Services Inc.	2615 San Juan Blvd		Farmington	NM	87401	0000	5053274947
C133-140	Ace Services Inc	P.O. Box 551		Aztec	NM		0000	5053347274
C133-142	JFJ LANDFARM LLC	P.O. BOX 2043		FARMINGTON	NM	87401	0000	5056321782
C133-147	Hydro Pure Technology, Inc	P.O. Box 3660		Durango	CO	81302	0000	5053341765
C133-148	DOS AMIGOS TRANSPORT LLC	P.O. BOX 1491		CARLSBAD	NM	88221	0000	5058852066
C133-149	CRAIN'S HOT OIL SERVICE, INC.	P. O BOX 613		LOVINGTON	NM	88260		5753966543
C133-150	WORLD STAR DEVELOPMENT INC	P.O. BOX 127	•	AZTEC	NM	87410	0000	5056328788
C133-151	PERFORMANCE TRUCKING, LP	4205 1/2 FERGUSON RD.		CARLSBAD	NM	88220		5052034130
C133-156	OLIVAS TRANSPORT SERVICE	609 NW Ave I		Seminole	TX	79360	0000	4322093356
C133-157	HERCULES OIIFIELD CONSTRUCTION	40 CR 6330		KIRTLAND	NM	87417	0000	5059470140
C133-158	RAPTOR OILFIELD SERVICES	P O BOX 1103		CUBA	NM	87103	0000	5052152795
C133-159	ROBERTS TRUCKING LLC	91 CRD 4903		BLOOMFIELD	NM	87413	0000	5056329302
C133-161	FULCO OIL SERVICES, LLC	PO BOX 578		JAL	NM	88252	0000	5053952927
C133-165	SAFETY KLEEN SYSTEMS INC	4210 A HAWKINS	•	FARMINGTON	NM	87401	0000	5053279070
C133-167	HARPOLE CONSTRUCTION INC	505 SANDSTONE AVE		FARMINGTON	NM	87401	0000	5053251249
C133-168	HARRIS TRUCKING	PO BOX 777		AZTEC	NM		0000	5053343445
C133-170	RIVERSIDE TRANSPORTATION, INC.	P.O. BOX 1898	1708 E GREENE ST.	CARLSBAD	NM	88220		5058853505
C133-172	MOBERGS WELDING INC	2531 CIRCLE DR		BLOOMFIELD	NM	87413	0000	5056341525
C133-173	STONE OILFIELD SERVICE LLC	1101 W AVE D		LOVINGTON	NM	88260	0000	5053961840
C133-175	J & B TRUCKING LLC	PO BOX 826		HOBBS	NM	88241	0000	5053923471
C133-176	DIRT WORKS SERVICES, INC.	PO BOX 195		HOBBS	NM	88241	0000	5053926456
C133-177	LANCE OIL & GAS COMPANY, INC.	1099 18TH STREET, SUITE 12		DENVER	СО	80202		0
C133-179	B J Pipe & Supply	1722 S. Maın		Lovington	NM	88260	- 0000	5053966406
C133-181	B & R Trucking, Inc.	4311 Monica Lane		Carlsbad	NM	88220	0000	5052366012
C133-182	HARVEY'S HOT OIL SERVICE, LLC	1301 W AVENUE J		LOVINGTON	NM	88260		5057049621

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Order No.	Company Name	Address 1	Address 2	City	State	Zip 1	Zip 2	Phone
C133-184	MACK'S DRILLING, INC.	P.O. BOX 1061		RATON	NM	87740		5054452693
C133-185	TITO'S TRUCKING, LLC	203B E. WASHINGTON		LOVINGTON	NM	88260		5054413630
C133-186	SUPERIOR ENTERPRISE, LLC	P.O. BOX 246		FARMINGTON	NM	87499		5056341141
C133-188	SLO POKIN LLC	PO BOX 6852		FARMINGTON	NM	87499	6852	5058011441
C133-189	PARKER ENERGY SUPPORT SERVICE	PO BOX 1957		EUNICE	NM	88231		5053940444
C133-190	SMITH & SON CONSTRUCTION-WELDI	2705 N.W. COUNTY RD.		HOBBS	NM	88240	2705	5053971852
C133-191	BOBBY SIKES DBA B&L SATELLITE R	2502 AVENUE O		EUNICE	NM	88231		5053940886
C133-192	BULL HORN INC	PO BOX 2232		HOBBS	NM	88241	2232	5053977606
C133-193	ZIA TRANSPORTS INC	PO BOX 513		HOBBS	NM	88241		5053938352
C133-194	EQUIS ENVIRONMENTAL	P.O. BOX 2367		ODESSA	TX	79760		4323319649
C133-195	RAMON PONCE JR. DBA BRONCO SE	313 N CECIL		HOBBS	NM	88240		5056315279
C133-197	BANDERA PETROLEUM INC	PO BOX 430		HOBBS	NM	88240		5053926456
C133-198	BRYAN'S OILFIELD SERVICE, INC.	PO BOX 759		EUNICE	NM	88231		5053940608
C133-199	ACE TRUCKING, LLC	2001 N. ACOMA DRIVE		HOBBS	NM	88240		5053938131
C133-200	VIKING TRANSPORT LLC	PO BOX 921		CARLSBAD	NM	88221	0921	5053026230
C133-201	PRIDE ENERGY CO. dba PATRIOT WE						0000	
C133-202	JAIME CASTILLO DBA CASTILLO TRU	121 S. SELMAN ST.		HOBBS	NM	88240		5054417373
C133-203	·RAMON BONILLA DBA RB BACKHOE S	501 SOUTH HICKORY	·	KERMIT	TX	79745		4322088667
C133-204	ACD OILFIELD SERVICES, LLC	PO BOX 553		LOVINGTON	NM	88260		5053967264
C133-205	UNIQUE OILFIELD SERVICE, LLC	PO BOX 1536		LOVINGTON	NM	88260		5053960448
C133-207	PAUL MUSSLEWHITE TRUCKING CO.	PO BOX 847		LEVELLAND	TX	79336		8068943151
C133-208	GROVER & JEFFERY VIGIL DBA TOMA	PO BOX 1103		CUBA	NM	87013		5052152896
C133-209	ALEJO & REBECCA MADRID DBA MAD	709 WEST HARRISON		LOVINGTON	NM	88260		5053967529
C133-210	LEGENDARY SERVICES LLC	PO BOX 1091		LOVINGTON	NM	88206		5053960124
C133-211	MESQUITE SERVICES, INC.	PO BOX 1479		CARLSBAD	NM	88221		5057061840
C133-212	RAM SERVICES, INC.	724 S GRIMES		HOBBS	NM	88240		5053939552
C133-214	NABORS WELL SERVICES LTD.	PO BOX 5208		HOBBS	NM	88241		5053922577
C133-215	DARREN WITTMAN DBA TUFFDAWG	1708 WITTMAN DRIVE		HOBBS	NM	88241		5053919353
C133-216	PG ENTERPRISES, LLC	301 MURRAY SW		ALBUQUERQUE	NM	87105		5058649590
C133-217	ANGELINA WELL SERVICE, INC.	HCR 79 BOX 5003		CUBA	NM	87013		5052873949
C133-218	JOSE A. GONZALEZ DBA GLEZZ TRU	1303 E. KATY LANE		HOBBS	NM	88242		5057380812

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Order No.	Company Name	Address 1	Address 2	City	State	Zip 1 Zip 2	Phone
C133-220	UNIQUE VACUUM SERVICE, LLC	1205 N 16TH STREET		LOVINGTON	NM	88260	5753994830
C133-222	CN FARMS & TRUCKING	5 1/2 SUNRISE ROAD	PO BOX 21	MALAGA	NM	88263	5757453638
C133-223	MEDICINE ARROW OIL FIELD SERVIC	5596 COUNTY RD. CR 516	PO BOX 691	BAYFIELD	СО	81122	9707592335
C133-224	JJV OILFIELD SERVICES LLC	525 WEST AVE. B		LOVINGTON	NM	88260	5056312191
C133-226	THE COLBORN COMPANY, INC.	P.O.BOX 1804	524 TEXAS AVENUE	EUNICE	NM	88231	5053942463
C133-227	NABORS WELL SERVICES CO.	2764 COMPASS DRIVE	SUITE 201	GRAND JUNCTION	СО	81506	9702410502
C133-228	DELONG, LC	911 W. CASTLEBERRY RR		ARTESIA	NM	88210	5057464716
C133-229	RANGER SERVICES LLC	3513 SIX SHOOTER		LOVINGTON	NM	88260	5753991502
C133-230	NESSA OILFIELD SERVICES	718 N LOVE		LOVINGTON	NM	88260	5756021715
C133-231	HERRERA TRUCKING LLC	PO BOX 3232		FARMINGTON	NM	87499	5056322668
C133-232	G&L TRUCKING LLC	1009 WEST BROADWAY		HOBBS	NM	88240	5753910501
C133-233	TRI ENERGY SERVICES, INC.	7949 EAST MAIN STREET		FARMINGTON	NM	87402	5053257005
C133-234	MOUNTAIN STATES HOTSHOT, LLC	3181 BUNTING AVENUE		GRAND JUNCTION	СО	81504	9703611121
C133-235	FULCO TRUCKING, LLC	109 SOUTH 9TH STREET		JAL	NM	88252	5753953178
C133-236	MACK ENERGY CORPORATION	PO BOX 960	11352 LOVINGTON HW	ARTESIA	NM	88211	5757481288
C133-237	OCHOA TRUCKING, INC.	1113 W. GORE		LOVINGTON	NM	88260	5754413393
C133-238	DANIEL MARQUEZ DBA DAN'S TRUCK	806 WEST AVENUE E		LOVINGTON	NM	88260	5753962066
C133-239	QUALITY TRANSPORT, INC.	7 CRAWFORD LANE		JAL	NM	88252	5753952273
C133-240	DEPENDABLE TRUCKING, LLC	214 N MAIN		CARLSBAD	NM	88220	5752342028
C133-241	HIGH TECH RENTAL TOOLS	PO BOX 1244	1231 S. MAIN STREET	AZTEC	NM	87410	5053342266
C133-242	JAVIER ENRIQUEZ DBA J.E. TRUCKIN	2516 N CHARLCIA BLVD.		HOBBS	NM	88240	5754921583
C133-243	PACHECO CONSTRUCTION & TRUCKI	3638 ROUTE 66	PO BOX 1405	TUCUMCARI	NM	88401	5754614811
C133-244	WAPITI ENERGY SERVICES, LLC	4101 N Butler	Suite 8101	Farmington	NM	87401 0000	5053272679
C133-245	ENERVEST OPERATING L.L.C.	1001 FANNIN STREET	SUITE 800	HOUSTON	TX	77002	7136593500
C133-246	STEVE KENT TRUCKING NM, LLC	PO BOX 1890	2405 N. FRENCH DRIV	HOBBS	NM	88240	5753910105
C133-247	MAND S SERVICE, INC.	2614 W AVENUE D		LOVINGTON	NM	88260	5753966722
C133-248	BAILEY'S WELDING SERVICE, INC.	5861 HWY 64		FARMINGTON	NM	87401	5056323739
C133-249	ASTOCO OILFIELD SERVICES, LLC	2120 E. STARLIGHT RD		HOBBS	NM	88240	5753906858
C133-250	Najera's Trucking	P.O. Box 2053	1326 E. Rose Ln.	Hobbs	NM	88240	5753939054
C133-253	ATG ENTERPRISES, INC.	1923 HOLLYHOCK CIRCLE		FARMINGTON	NM	87401	3082895220
C133-254	F&M CONSTRUCTION, INC.	479 WOLVERINE DRIVE		BAYFIELD	со	81122	9708840109

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Order No.	Company Name	Address 1	Address 2	City	State	Zip 1 Zip 2	Phone
C133-255	D&JD SERVICES, LTD.	PO BOX 1149		ANDREWS	TX	79714	4325235290
C133-256	CIRILO G. CORTEZ DBA CORTEZ TRU	2403 LOS ALAMOS		CARLSBAD	NM	88220	5752341424
C133-257	550 WATER SERVICES LLC	12341 HIGHWAY 550 SOUTH		BLOOMFIELD	NM	87413	5059472152
C133-258	STANDARD E&S, L.L.C.	2101 S. BICKLEYAVE.	PO BOX 667	PECOS	TX	79772	4324486113
C133-259	N&M OILFIELD SERVICES, LLC	310 WEST NAVAJO DRIVE	403 WEST APACHE D	HOBBS	NM	88240	5753180638
C133-262	KENEMORE WELDING AND OILFIELD	PO BOX 154		MALJAMAR	NM	88264	5756762332
C133-263	L&E SERVICES, LLC	PO BOX 70	132745 LOVINGTON HI	LOCO HILLS	NM	88255	5756772111
C133-264	DURANGO TRUCKING DBA JOSE C A	3610 E STANOLIND RD		HOBBS	NM	88240	5754080230
C133-265	ALLIANCE TRUCKING, LLC	30 W. BELVIN		ARTESIA	NM	88210	5757487743
C133-266	SAHARA TRANSPORT SERVICES, LLC	1307 W. HOWARD STREET		CARLSBAD	NM	88220	5757069556
C133-267	STEARNS, INC.	HC 65 BOX 988		CROSSROADS	NM	88114	5756752356
C133-268	RGB, LLC	7315 NORRIS ROAD		CARLSBAD	NM	88220	5753619142
C133-269	B&R TRUCKING, INC.	4311 MONICA LANE		CARLSBAD	NM	88220	5752366012
C133-270	TARGA TRANSPORT LLC	PO BOX 1909		EUNICE	NM	88231	5753942534
C133-271	C & C TRANSPORT, LLC	1009 W. HUMBLE STREET		HOBBS	NM	88240	5753917832
C133-272	MICO OILFIELD SERVICES, LLC	18 W. CENTRAL	SUITE 6	LOVINGTON	NM	88260	5753995551
C133-273	ROCKING RAFTER O RANCH, LLC	PO BOX 3440		GILLETTE	WY	82717	3076824511
C133-274	3-K OIL AND GAS SERVICES, LLC	101 E PANTHER DRIVE		JAL	NM	88252	5753959970
C133-275	SUNDANCE SERVICES, INC.	PO BOX 1162		EUNICE,	NM	88231	5753942511
C133-276	EXTREME SERVICES, LLC	85 W. LEMAN RD.		LOVINGTON	NM	88260	5756317896
C133-277	DANNY'S HOT OIL SERVICE, INC	816 W BROADWAY		TATUM	NM	88267	5753983490
C133-279	ENDEAVOR SERVICES, INC.	501 W STANOLIND		HOBBS	NM	88240	5754080392
C133-280	VICTOR'S LEASE SERVICE LLC	2902 HORIZON RD		LOVINGTON	NM	88260	5753966927
C133-281	BLUE STAR OILFIELD SERVICES LLC	3722 NATIONAL PARKS HIGH		CARLSBAD	NM	88221	5752340371
C133-282	R W TRUCKING, LLC	1708 E GREENE STREET		CARLSBAD	NM	88220	5757066595
C133-283	EXCALIBUR CORP	804 AVE I		EUNICE	NM	88231	5753940627
C133-284	GUNS UP SERVICES, LLC	1323 MAIN STREET		EUNICE	NM	88231	5753992457
C133-285	MANUEL FRANCO	301 W ROJO		HOBBS	NM	88240	5753934246
C133-286	CRI HOLDINGS, LLC	4507 W CARLSBAD HWY		HOBBS	NM	88240	5753931079
C133-287	ALICIA MORALES DBA ALFA & OMEG	801 19TH STREET		EUNICE	NM	88231	4322883101
C133-288	WEST STATES ENERGY CONTRACTO	PO BOX 1457		BLOOMFIELD	NM	87413	5056326988

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Order No.	Company Name	Address 1	Address 2	City	State	Zip 1 Zip 2	Phone
C133-289	ROGELIO MARQUEZ DBA ROGER M T	607 WEST AVENUE E		LOVINGTON	NM	88260	5753962092
C133-290	22 BAR, LLC	501 SOUTH 6TH STREET		LOVING	NM	88256	5754993563
C133-291	FRANCOS TRUCKING LLC	2714 PROSPECT STREET		CARLSBAD	NM	88220	5754999441
C133-292	ALL IN OILFIELD SERVICES LLC	1900 W CHURCH APT 5	PO BOX 1986	CARLSBAD	NM	88220	5757068585
C133-293	ARAPAHOE OILFIELD SERVICES, LLC	2906 WEST MARLAND		HOBBS	NM	88240	5053938685
C133-294	SAUL CABALLERO DBA CUATE OILFIE	721 WEST TYLER		LOVINGTON	NM	88260	5753966790
C133-295	SILBERIO PINON DBA PINON TRUCKI	1009 9TH STREET	PO BOX 1064	SEAGRAVES	TX	79359	8062150710
C133-296	E R WELL SERVICE LLC	1515 CALLE SUR		HOBBS	NM	88240	5759422185
C133-297	ROCA SERVICE LLC	900 E MADRID SP 17	1809 SHREYA ST EL P	LAS CRUCES	NM ·	88001	9156913196
C133-298	RAMON FERNANDEZ DBA FDZ TRUCK	1804 FAIRGROUND RD		ARTESIA	NM	88210	5757032511
C133-299	TIGER OF THE NORTH TRANSPORTA	1614 N GULF		HOBBS	NM	88240	5756319612
, C133-300	H.L. TRUCKING, LLC	610 S CARLTON	PO BOX 1272	HOBBS	NM	88240	5756312538
C133-301	GEMINI TRUCKING, LLC	712 W VISTA CT		HOBBS	NM	88240	5753931162
C133-302	BIG DOG TRANSPORT, LLC	701 W ANTELOPE	PO BOX 3972	HOBBS	NM	88240	5754080832
C133-303	AC & COMPANY DBA AC TRUCKING	PO BOX 577		ALTO	NM	88312	5053364069
C133-304	BENCO OILFIELD SERVICES, LLC	819 W ADAMS		LOVINGTON	NM	88260	5753905121
C133-305	JOSE HOLGUIN DBA JOSE HOLGUIN	1214 W JACKON AVE		LOVINGTON	NM	88260	5753909919
C133-306	HORIZON WELL SERVICE, LLC	613 E CORBETT	PO BOX 1251	HOBBS	NM	88240	5756056497
C133-307	SB WEED CONTROL, LLC DBA SB OIL	213 S MESA STREET		CARLSBAD	NM	88220	5758852066
C133-308	CHEMICAL TRANSPORATION, INC.	505 SANDSTONE AVENUE		FARMINGTON	NM	87401	5053272676
C133-309	E.O.S. RENTALS, LLC	1120 WEST COUNTY ROAD	4008 NORTH GRIMES	HOBBS	NM	88240	5753970100
C133-310	REFUGIO HOLGUIN DBA HOLGUIN TR	1202 WEST JACKSON	2204 WEST ELM STRE	LOVINGTON	NM	88260	5753900805
C133-311	MORENO ENTERPRISES, LLC DBA TR	401 WEST BLANCO DRIVE	504 E MARLAND	HOBBS	NM	88240	0
C133-312	TEXAS LOBO TRUCKING, LLC	1902 N FRENCH		HOBBS	NM	88240	5753911331
C133-313	JUAN URIAS DBA EMMANUEL TRUCKI	1227 S. SELMEN ST.		HOBBS	NM	88240	5756313764
C133-314	DUKE OILFIELD SERVICES, LLC	1105 W AVENUE D	PO BOX 1253	LOVINGTON	NM	88260	5754415661
C133-315	ARISTEO LUNA DBA LION KING TRAN	203 W. MIDWEST		HOBBS	NM	88240	5754082195
C133-316	SPECTRA OILFIELD SERVICES, LLC	606 E. STANOLIND RD.	PO BOX 846	HOBBS	NM	88240	5753930465
C133-317	PARTNERS WATER HAULING, LLC	1007 W. MAIN STREET		ARTESIA	NM	88210	5757361366
C133-318	GABRIEL ALVARADO DBA AMERICA O	817 WEST PRINCESS JEANN		HOBBS	NM	88240	5759423118
C133-319	TURBO TRUCKING LLC	1113 WEST AVENUE D		LOVINGTON	NM	88260	5758089163

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Order No.	Company Name	Address 1	Address 2	City	State	Zip 1 Zip 2	Phone
C133-320	AUXILIARY ENERGY SERVICES, LLC	5712 W. GUM ROAD	PO BOX 1258	LOVINGTON	NM	88260	5756021108
C133-321	D & T BACKHOE, INC.	321 E. AVENUE D	PO BOX 608	LOVINGTON	NM	88260	5753967465
C133-322	JOSE AVALOS DBA I & W RENTAL SE	203 S. AVENUE F	PO BOX 1053	TATUM	NM	88267	5756051824

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Exhibit K

OCD Release Notification and Remedial Action

In compliance with current OCD Rule 19.15.29 and 19.15.30 Eldorado Biofuels is to notify the OCD in the event of an 'unauthorized release' according rule 19.15.29 using Form C-141.

Eldorado Biofuels is to comply with remedial actions for the prevention and abatement of water pollution according to current OCD Rule 19.15.30.

TITLE 19 NATURAL RESOURCES AND WILDLIFE

CHAPTER 15 OIL AND GAS

PART 29 RELEASE NOTIFICATION

19.15.29.1 ISSUING AGENCY: Energy, Minerals and Natural Resources Department, Oil Conservation

Division.

[19.15.29.1 NMAC - N, 12/1/08]

19.15.29.2 SCOPE: 19.15.29 NMAC applies to persons engaged in oil and gas development and production within New Mexico.

[19.15.29.2 NMAC - N, 12/1/08]

19.15.29.3 STATUTORY AUTHORITY: 19.15.29 NMAC is adopted pursuant to the Oil and Gas Act, NMSA 1978, Section 70-2-6, Section 70-2-11 and Section 70-2-12. [19.15.29.3 NMAC - N, 12/1/08]

19.15.29.4 DURATION: Permanent.

[19.15.29.4 NMAC - N, 12/1/08]

19.15.29.5 EFFECTIVE DATE: December 1, 2008, unless a later date is cited at the end of a section. [19.15.29.5 NMAC - N, 12/1/08]

19.15.29.6 OBJECTIVE: To require persons who operate or control the release or the location of the release to report the unauthorized release of oil, gases, produced water, condensate or oil field waste including regulated NORM, or other oil field related chemicals, contaminants or mixtures of those chemicals or contaminants that occur during drilling, producing, storing, disposing, injecting, transporting, servicing or processing and to establish reporting procedures.

[19.15.29.6 NMAC - N, 12/1/08]

19.15.29.7 DEFINITIONS:

- **A.** "Major release" means:
 - (1) an unauthorized release of a volume, excluding gases, in excess of 25 barrels;
 - (2) an unauthorized release of a volume that:
 - (a) results in a fire;
 - (b) will reach a watercourse;
 - (c) may with reasonable probability endanger public health; or
 - (d) results in substantial damage to property or the environment;
 - (3) an unauthorized release of gases in excess of 500 MCF; or
- (4) a release of a volume that may with reasonable probability be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC.
- **B.** "Minor release" means an unauthorized release of a volume, greater than five barrels but not more than 25 barrels; or greater than 50 MCF but less than 500 MCF of gases. [19.15.29.7 NMAC Rp, 19.15.3.116 NMAC, 12/1/08]

19.15.29.8 RELEASE NOTIFICATION:

- A. The person operating or controlling either the release or the location of the release shall notify the division of unauthorized release occurring during the drilling, producing, storing, disposing, injecting, transporting, servicing or processing of oil, gases, produced water, condensate or oil field waste including regulated NORM, or other oil field related chemicals, contaminants or mixture of the chemicals or contaminants, in accordance with the requirements of 19.15.29 NMAC.
- **B.** The person operating or controlling either the release or the location of the release shall notify the division in accordance with 19.15.29 NMAC with respect to a release from a facility of oil or other water contaminant, in such quantity as may with reasonable probability be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC.

[19.15.29.8 NMAC - Rp, 19.15.3.116 NMAC, 12/1/08]

19.15.29 NMAC

- 19.15.29.9 **REPORTING REQUIREMENTS:** The person operating or controlling either the release or the location of the release shall provide notification of releases in 19.15.29.8 NMAC as follows.
- A. The person shall report a major release by giving both immediate verbal notice and timely written notice pursuant to Subsections A and B of 19.15.29.10 NMAC.
- **B.** The person shall report a minor release by giving timely written notice pursuant to Subsection B of 19.15.29.10 NMAC.

[19.15.29.9 NMAC - Rp, 19.15.3.116 NMAC, 12/1/08]

19.15.29.10 CONTENTS OF NOTIFICATION:

- A. The person operating or controlling either the release or the location of the release shall provide immediate verbal notification within 24 hours of discovery to the division district office for the area within which the release takes place. In addition, the person shall provide immediate verbal notification of a release of a volume that may with reasonable probability be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC to the division's environmental bureau chief. The notification shall provide the information required on form C-141.
- B. The person operating or controlling either the release or the location of the release shall provide timely written notification within 15 days to the division district office for the area within which the release occurs by completing and filing form C-141. In addition, the person shall provide timely written notification of a release of a volume that may with reasonable probability be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC to the division's environmental bureau chief within 15 days after the release is discovered. The written notification shall verify the prior verbal notification and provide appropriate additions or corrections to the information contained in the prior verbal notification.

 [19.15.29.10 NMAC Rp, 19.15.3.116 NMAC, 12/1/08]
- 19.15.29.11 CORRECTIVE ACTION: The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.

[19.15.29.11 NMAC - Rp, 19.15.3.116 NMAC, 12/1/08]

HISTORY of 19.15.29 NMAC:

History of Repealed Material: 19.15.3 NMAC, Drilling (filed 10/29/2001) repealed 12/1/08.

NMAC History:

That applicable portion of 19.15.3 NMAC, Drilling (Section 116) (filed 10/29/2001) was replaced by 19.15.29 NMAC, Release Notification, effective 12/1/08.

19.15.29 NMAC 2

TITLE 19 NATURAL RESOURCES AND WILDLIFE

CHAPTER 15 OIL AND GAS PART 30 REMEDIATION

19.15.30.1 ISSUING AGENCY: Energy, Minerals and Natural Resources Department, Oil Conservation

Division.

[19.15.30.1 NMAC - N, 12/1/08]

19.15.30.2 SCOPE: 19.15.30 NMAC applies to persons engaged in oil and gas development and production within New Mexico.

[19.15.30.2 NMAC - N, 12/1/08]

19.15.30.3 STATUTORY AUTHORITY: 19.15.30 NMAC is adopted pursuant to the Oil and Gas Act, NMSA 1978, Sections 70-2-6, 70-2-11 and 70-2-12.

[19.15.30.3 NMAC - N, 12/1/08]

19.15.30.4 DURATION: Permanent.

[19.15.30.4 NMAC - N, 12/1/08]

19.15.30.5 EFFECTIVE DATE: December 1, 2008, unless a later date is cited at the end of a section. [19.15.30.5 NMAC - N, 12/1/08]

19.15.30.6 OBJECTIVE: To abate pollution of subsurface water so that ground water of the state that has a background concentration of 10,000 mg/l or less TDS is either remediated or protected for use as domestic, industrial and agricultural water supply, and to remediate or protect those segments of surface waters that are gaining because of subsurface-water inflow for uses designated in the water quality standards for interstate and intrastate surface waters in New Mexico, 20.6.4 NMAC; and abate surface-water pollution so that surface waters of the state are remediated or protected for designated or attainable uses as defined in the water quality standards for interstate and intrastate surface waters in New Mexico, 20.6.4 NMAC.

[19.15.30.6 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.7 **DEFINITIONS:** [RESERVED]

[See 19.15.2.7 NMAC for definitions.]

19.15.30.8 PREVENTION AND ABATEMENT OF WATER POLLUTION:

A. If the background concentration of a water contaminant exceeds the standard or requirement of Subsections A, B or C of 19.15.30.9 NMAC, the responsible person shall abate the pollution to the background concentration.

B. The standards and requirements set forth in of Subsections A, B or C of 19.15.30.9 NMAC are not intended as maximum ranges and concentrations for use, and nothing contained in 19.15.30.9 NMAC limits the use of waters containing higher ranges and concentrations.

[19.15.30.8 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.9 ABATEMENT STANDARDS AND REQUIREMENTS:

- A. The responsible person shall abate the vadose zone so that water contaminants in the vadose zone will not with reasonable probability contaminate ground water or surface water, in excess of the standards in Subsections B and C of 19.15.30.9 NMAC, through leaching, percolation or other transport mechanisms, or as the water table elevation fluctuates.
- B. The responsible person shall abate ground-water pollution at a place of withdrawal for present or reasonably foreseeable future use, where the TDS concentration is 10,000 mg/l or less, to conform to the following standards:
 - (1) toxic pollutants as defined in 20.6.2.7 NMAC shall not be present; and
 - (2) the standards of 20.6.2.3103 NMAC shall be met.
- C. The responsible person shall abate surface-water pollution to conform to the water quality standards for interstate and intrastate surface waters in New Mexico, 20.6.4 NMAC.
 - **D.** The division shall not consider subsurface-water and surface-water abatement complete until eight

consecutive quarterly samples, or an alternate lesser number of samples the director approves, from the compliance sampling stations the director approved meet the abatement standards in Subsections A, B and C of 19.15.30.9 NMAC. The division shall consider abatement of water contaminants measured in solid-matrix samples of the vadose zone complete after one-time sampling from compliance stations the director approves.

- E. Technical infeasibility.
- (1) If a responsible person is unable to meet the abatement standards set forth in Subsections A and B of 19.15.30.9 NMAC using commercially accepted abatement technology pursuant to an approved abatement plan, the responsible person may propose that abatement standards compliance is technically infeasible.
- (a) The director may consider technical infeasibility proposals involving the use of experimental abatement technology.
- (b) The responsible person may demonstrate technical infeasibility by a statistically valid extrapolation of the decrease in concentrations of a water contaminant over the remainder of a 20 year period, such that projected future reductions during that time would be less than 20 percent of the concentration at the time the responsible person proposes technical infeasibility. A statistically valid decrease cannot be demonstrated by fewer than eight consecutive quarters.
- (c) The technical infeasibility proposal shall include a substitute abatement standard for those contaminants that is technically feasible. The responsible person shall meet abatement standards for other water contaminants not demonstrated to be technically infeasible.
- (2) The director shall not approve a proposed technical infeasibility demonstration for a water contaminant if its concentration is greater than 200 percent of the abatement standard for the contaminant.
- (3) If the director cannot approve any or all portions of a proposed technical infeasibility demonstration because the water contaminant concentration is greater than 300 percent of the abatement standard for each contaminant, the responsible person may further pursue the issue of technical infeasibility by filing a petition with the division seeking approval of alternate abatement standards pursuant to Subsection F of 19.15.30.9 NMAC.
 - **F.** Alternative abatement standards.
- (1) At any time during or after the stage 2 abatement plan's submission, the responsible person may file a petition seeking approval of alternative abatement standards for the standards set forth in Subsections A and B of 19.15.30.9 NMAC. The division may approve alternative abatement standards if the petitioner demonstrates that:
- (a) either compliance with the abatement standards is not feasible, by the maximum use of technology within the responsible person's economic capability; or there is no reasonable relationship between the economic and social costs and benefits, including attainment of the standards set forth in 19.15.30.9 NMAC to be obtained;
- (b) the proposed alternative abatement standards are technically achievable and cost-benefit justifiable; and
- (c) compliance with the proposed alternative abatement standard will not create a present or future hazard to public health or undue damage to property.
- (2) The responsible person shall file a written petition with the division's environmental bureau chief. The petition may include a transport, fate and risk assessment in accordance with accepted methods, and other information as the petitioner deems necessary to support the petition. The petition shall:
 - (a) state the petitioner's name and address;
 - (b) state the date of the petition;
 - (c) describe the facility or activity for which the petitioner seeks the alternate abatement

standards;

- (d) state the address or description of the property upon which the facility is located;
- (e) describe the water body or watercourse the release affected;
- (f) identify the abatement standard from which petitioner wishes to vary;
- (g) state why the petitioner believes that compliance with 19.15.30 NMAC will impose an unreasonable burden upon the petitioner's activity;
 - (h) identify the water contaminant for which the petitioner proposes the alternative standard;
 - (i) state the alternative standard the petitioner proposes;
 - (j) identify the three-dimensional body of water pollution for which the petitioner seeks

approval; and

- (k) state the extent to which the abatement standards set forth in 19.15.30.9 NMAC are now, and will in the future be, violated.
- (3) The division's environmental bureau chief shall review the petition and, within 60 days after receiving the petition, submit a written recommendation to the director to approve, approve subject to conditions or

disapprove any or all of the proposed alternative abatement standards. The recommendation shall include the reasons for the division's environmental bureau chief's recommendation. The division's environmental bureau chief shall submit a copy of the recommendation to the petitioner by certified mail.

- (4) If the division's environmental bureau chief recommends approval, or approval subject to conditions, of any or all of the proposed alternative abatement standards, the division shall hold a public hearing on those standards. If the division's environmental bureau chief recommends disapproval of any or all of the proposed alternative abatement standards, the petitioner may submit a request to the director, within 15 days after the recommendation's receipt, for a public hearing on those standards. If the petitioner does not submit a timely request for hearing, the recommended disapproval shall become a final decision of the director and shall not be subject to review.
- (5) If the director grants a public hearing, the division shall conduct the hearing in accordance with division hearing procedures.
- (6) Based on the record of the public hearing, the division shall approve, approve subject to condition or disapprove any or all of the proposed alternative abatement standards. The division shall notify the petitioner by certified mail of its decision and the reasons for the decision.

 [19.15.30.9 NMAC Rp, 19.15.1.19 NMAC, 12/1/08]
- 19.15.30.10 MODIFICATION OF ABATEMENT STANDARDS: If applicable abatement standards are modified after the division approves the abatement measures, the abatement standards that are in effect at the time that the division approved the abatement measures shall be the abatement standards for the duration of the abatement action, unless the director determines that compliance with those standards may with reasonable probability create a present or future hazard to public health or the environment. In an appeal of the director's determination that additional actions are necessary, the director shall have the burden of proof.

 [19.15.30.10 NMAC Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.11 ABATEMENT PLAN REQUIRED:

- A. Unless otherwise provided by 19.15.30 NMAC responsible persons who are abating, or who are required to abate, water pollution in excess of the standards and requirements set forth in 19.15.30.9 NMAC shall do so pursuant to an abatement plan the director approves. When the director has approved an abatement plan, the responsible person's actions leading to and including abatement shall be consistent with the abatement plan's terms and conditions.
- **B.** In the event of a transfer of the ownership, control or possession of a facility for which an abatement plan is required or approved, where the transferor is a responsible person, the transferee also shall be considered a responsible person for the abatement plan's duration, and may jointly share the responsibility to conduct the actions 19.15.30 NMAC requires with other responsible persons.
- (1) The transferor shall notify the transferee in writing at least 30 days prior to the transfer that the division has required or approved an abatement plan for the facility, and shall deliver or send by certified mail to the director a copy of the notification together with a certificate or other proof that the transferee has received the notification.
- (2) The transferor and transferee may agree to a designated responsible person who shall assume the responsibility to conduct the actions 19.15.30 NMAC requires. The responsible persons shall notify the director in writing if a designated responsible person is agreed upon.
- (3) If the director determines that the designated responsible person has failed to conduct the actions 19.15.30 NMAC requires, the director shall notify all responsible persons of this failure in writing and allow them 30 days, or longer for good cause shown, to conduct the required actions before setting a show cause hearing requiring those responsible persons to appear and show cause why they should not be ordered to comply, a penalty should not be assessed, a civil action should not be commenced in district court or the division should not take other appropriate action.
- C. If the source of the water pollution to be abated is a facility that operated under a discharge plan, the director may require the responsible person to submit a financial assurance plan that covers the estimated costs to conduct the actions the abatement plan requires. Such a financial assurance plan shall be consistent with financial assurance requirements the division adopts.

[19.15.30.11 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.12 EXEMPTIONS FROM ABATEMENT PLAN REQUIREMENT:

A. Except as provided in Subsection B of 19.15.30.12 NMAC, 19.15.30.11 NMAC and 19.15.30.13

NMAC do not apply to a person who is abating water pollution:

- (1) from an underground storage tank, under the authority of the New Mexico environmental improvement board's underground storage tank rules, 20.5 NMAC, or in accordance with the Ground Water Protection Act, NMSA 1978, Section 74-6B-1 et seq.;
- (2) under the EPA's authority pursuant to either the Federal Comprehensive Environmental Response, Compensation and Liability Act, and amendments, or RCRA;
- (3) pursuant to the New Mexico environmental improvement board's hazardous waste management rule, 20.4.1 NMAC;
- (4) under the authority of the United States nuclear regulatory commission or the United States department of energy pursuant to the Atomic Energy Act;
- (5) under the authority of a ground-water discharge plan the director approved, provided that such abatement is consistent with the requirements and provisions of 19.15.30.8 NMAC, 19.15.30.9 NMAC, Subsections C and D of 19.15.30.13 NMAC, 19.15.30.14 NMAC and 19.15.30.19 NMAC;
- (6) under the authority of a letter of understanding, settlement agreement or administrative order on consent or other agreement signed by the director or director's designee prior to March 15, 1997, provided that abatement is being performed in compliance with the terms of the letter of understanding, settlement agreement or administrative order or other agreement on consent; and
- (7) on an emergency basis, or while abatement plan approval is pending, or in a manner that will likely result in compliance with the standards and requirements set forth in 19.15.30.9 NMAC within one year after notice is required to be given pursuant to 19.15.29.9 NMAC provided that the division does not object to the abatement action.
- **B.** If the director determines that abatement of water pollution subject to Subsection A of 19.15.30.12 NMAC will not met the standards of Subsections B and C of 19.15.30.9 NMAC, or that additional action is necessary to protect health, welfare, environment or property, the director may notify a responsible person, by certified mail, to submit an abatement plan pursuant to 19.15.30.11 NMAC and Subsection A of 19.15.30.14 NMAC. The notification shall state the reasons for the director's determination. In an appeal of the director's determination under Subsection B of 19.15.30.12 NMAC, the director shall have the burden of proof. [19.15.30.12 NMAC Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.13 ABATEMENT PLAN PROPOSAL:

- A. Except as provided for in 19.15.30.12 NMAC a responsible person shall, within 60 days of receipt of the director's written notice that the division requires an abatement plan, submit an abatement plan proposal to the director for approval. The responsible person may submit stage 1 and stage 2 abatement plan proposals together. For good cause shown, the director may allow for a total of 120 days to prepare and submit the abatement plan proposal.
 - **B.** Voluntary abatement.
- (1) A person wishing to abate water pollution in excess of the standards and requirements set forth in 19.15.30.9 NMAC may submit a stage 1 abatement plan proposal to the director for approval. Following the director's approval of a final site investigation report prepared pursuant to stage 1 of an abatement plan, a person may submit a stage 2 abatement plan proposal to the director for approval.
- (2) Following approval of a stage 1 or stage 2 abatement plan proposal under Paragraph (1) of Subsection B of 19.15.30.13 NMAC the person submitting the approved plan shall be a responsible person under 19.15.30 NMAC for the purpose of performing the approved stage 1 or stage 2 abatement plan. Nothing in 19.15.30 NMAC precludes the director from applying 19.15.29.11 NMAC to a responsible person if applicable.
- C. Stage 1 abatement plan. The stage 1 of the abatement plan's purpose is to design and conduct a site investigation that adequately defines site conditions, and provide the data necessary to select and design an effective abatement option. Stage 1 of the abatement plan may include the following information depending on the media affected, and as needed to select and implement an expeditious abatement option:
- (1) descriptions of the site, including a site map, and of site history including the nature of the release that caused the water pollution, and a summary of previous investigations;
 - (2) site investigation work plan that defines:
- (a) site geology and hydrogeology; the vertical and horizontal extent and magnitude of vadose-zone and ground-water contamination; subsurface hydraulic conductivity; transmissivity, storativity and rate and direction of contaminant migration; inventory of water wells inside and within one mile from the perimeter of the three-dimensional body where the standards set forth in Subsection C of 19.15.30.9 NMAC are exceeded; and location and number of wells the pollution actually or potentially affects; and

- (b) surface water hydrology, seasonal stream flow characteristics, ground water/surface water relationships, the vertical and horizontal extent and magnitude of contamination and impacts to surface water and stream sediments; the magnitude of contamination and impacts on surface water may be, in part, defined by conducting a biological assessment of fish, benthic macro invertebrates and other wildlife populations; seasonal variations should be accounted for when conducting these assessments;
- (3) monitoring program, including sampling stations and frequencies, for the abatement plan's duration that may be modified, after the director's approval, as the responsible person creates additional sampling stations;
- (4) quality assurance plan, consistent with the sampling and analytical techniques listed in Subsection B of 20.6.2.3107 NMAC and with 20.6.4.14 NMAC of the water quality standards for interstate and intrastate surface waters in New Mexico, for all work to be conducted pursuant to the abatement plan;
- (5) a schedule for stage 1 abatement plan activities, including the submission of summary quarterly progress reports, and the submission, for the director's approval, of a detailed final site investigation report; and
 - (6) additional information that may be required to design and perform an adequate site investigation.
 - D. Stage 2 abatement plan.
- (1) A responsible person shall submit a stage 2 abatement plan proposal to the director for approval within 60 days, or up to 120 days for good cause shown, after the director's approval of the final site investigation report prepared pursuant to stage 1 of the abatement plan. The responsible person may submit a stage 1 and 2 abatement plan proposal together. Stage 2 of the abatement plan's purpose is to select and design, if necessary, an abatement option that, when implemented, results in attainment of the abatement standards and requirements set forth in 19.15.30.9 NMAC, including post-closure maintenance activities.
 - (2) Stage 2 of the abatement plan should include, at a minimum, the following information:
 - (a) a brief description of the current situation at the site;
 - (b) development and assessment of abatement options;
 - (c) a description, justification and design, if necessary, of the preferred abatement option;
- (d) modification, if necessary, of the monitoring program the director approved pursuant to stage 1 of the abatement plan, including the designation of pre- and post-abatement-completion sampling stations and sampling frequencies to be used to demonstrate compliance with the standards and requirements set forth in 19.15.30.9 NMAC;
- (e) site maintenance activities, if needed, the responsible person proposes to perform after abatement activities terminate;
- (f) a schedule for the duration of abatement activities, including the submission of summary quarterly progress reports;
- (g) a public notification proposal designed to satisfy the requirements of Subsections B and C of 19.15.30.15 NMAC; and
- (h) additional information that may be reasonably required to select, describe, justify and design an effective abatement option.

[19.15.30.13 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.14 OTHER REQUIREMENTS:

- **A.** A responsible person shall allow the director's authorized representative upon presentation of proper credentials and with reasonable prior notice to:
 - (1) enter the facility at reasonable times;
 - (2) inspect and copy records an abatement plan requires;
 - (3) inspect treatment works, monitoring and analytical equipment;
- (4) sample wastes, ground water, surface water, stream sediment, plants, animals or vadose-zone material including vadose-zone vapor;
- (5) use monitoring systems and wells under the responsible person's control in order to collect samples of media listed in Paragraph (4) of Subsection A of 19.15.30.14 NMAC; and
- (6) gain access to off-site property the responsible person does not own or control, but is accessible to the responsible person through a third-party access agreement, provided that the agreement allows it.
- **B.** A responsible person shall provide the director, or director's representative, with at least four working days advance notice of sampling to be performed pursuant to an abatement plan, or a well plugging, abandonment or destruction at a facility where the division has required an abatement plan.
- C. A responsible person wishing to plug, abandon or destroy a monitoring or water supply well within the perimeter of the three-dimensional body where the standards set forth in Subsection B of 19.15.30.9

NMAC are exceeded, at a facility where the division has required an abatement plan, shall propose such action by certified mail to the director for approval, unless the state engineer's approval is required. The responsible person shall design the proposed action to prevent water pollution that could result from water contaminants migrating through the well or bore hole. The proposed action shall not take place without the director's written approval, unless the responsible person does not receive written approval or disapproval within 30 days after the date the director receives the proposal.

[19.15.30.14 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.15 PUBLIC NOTICE AND PARTICIPATION:

- A. Prior to public notice, the applicant shall give written notice, as approved by the division, of stage 1 and stage 2 abatement plans to the following persons:
- (1) surface owners of record within one mile of the perimeter of the geographic area where the standards and requirements set forth in 19.15.30.9 NMAC are exceeded;
- (2) the county commission where the geographic area where the standards and requirements set forth in 19.15.30.9 NMAC are exceeded is located;
- (3) the appropriate city officials if the geographic area where the standards and requirements set forth in 19.15.30.9 NMAC are exceeded is located or is partially located within city limits or within one mile of the city limits;
- (4) those persons, the director identifies, who have requested notification, who shall be notified by mail;
- (5) the New Mexico trustee for natural resources, and other local, state or federal governmental agencies affected, as the director identifies, which shall be notified by certified mail;
- (6) the governor or president of a tribe, pueblo or nation if the geographic area where the standards and requirements set forth in 19.15.30.9 NMAC are exceeded is located or is partially located within tribal boundaries or within one mile of the tribal boundaries, who shall be notified by certified mail;
- (7) the director may extend the distance requirements for notice if the director determines the proposed abatement plan has the potential to adversely impact public health or the environment at a distance greater than one mile. The director may require additional notice as needed. The applicant shall furnish a copy and proof of the notice to the division.
- B. Within 15 days after the division determines that a stage 1 abatement plan or a stage 2 abatement plan is administratively complete, the responsible person shall issue public notice in a division-approved form in a newspaper of general circulation in the county in which the release occurred, and in a newspaper of general circulation in the state. For the purposes of Subsection B of 19.15.30.15 NMAC, an administratively complete stage 1 abatement plan is a document that satisfies the requirements of Subsection C of 19.15.30.13 NMAC and an administratively complete stage 2 abatement plan is a document that satisfies the requirements of Paragraph (2) of Subsection D of 19.15.30.13 NMAC. The public notice shall include, as approved in advance by the director:
 - (1) the responsible person's name and address:
 - (2) the location of the proposed abatement;
- (3) a brief description of the source, extent and estimated volume of release; whether the release occurred into the vadose zone, ground water or surface water; and a description of the proposed stage 1 or stage 2 abatement plan;
 - (4) a brief description of the procedures the director followed in making a final determination;
- (5) a statement that the public may view a copy of the abatement plan at the division's Santa Fe office or at the division's district office for the area in which the release occurred, and a statement describing how the public can access the abatement plan electronically from a division-maintained site if such access is available;
- (6) a statement that the division will accept the following comments and requests for consideration if the director receives them within 30 days after the date of publication of the public notice:
 - (a) written comments on the abatement plan; and
- (b) for a stage 2 abatement plan, written requests for a public hearing that include reasons why a hearing should be held; and
 - (7) an address and phone number at which interested persons may obtain further information.
- C. A person seeking to comment on a stage 1 abatement plan, or to comment or request a public hearing on a stage 2 abatement plan, shall file written comments or hearing requests with the division within 30 days after the date of public notice, or within 30 days after the director receives a proposed significant modification of a stage 2 abatement plan. Requests for a public hearing shall set forth the reasons why a hearing should be held. The division shall hold a public hearing if the director determines that there is significant public interest or that the

request has technical merit.

D. The division shall distribute notice of an abatement plan's filing with the next division and commission hearing docket following the plan's receipt. [19.15.30.15 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.16 DIRECTOR APPROVAL OR NOTICE OF DEFICIENCY OF SUBMITTALS:

- A. The director shall, within 60 days after receiving an administratively complete stage 1 abatement plan, a site investigation report, a technical infeasibility demonstration or an abatement completion report approve the document, or notify the responsible person of the document's deficiency, based upon the information available.
- **B.** If the division does not hold a public hearing pursuant to Subsection C of 19.15.30.15 NMAC then the director shall, within 90 days after receiving a stage 2 abatement plan proposal, approve the plan, or notify the responsible person of the plan's deficiency, based upon the information available.
- C. If the division holds a public hearing pursuant to Subsection C of 19.15.30.15 NMAC then the director shall, within 60 days after receiving the required information, approve stage 2 of the abatement plan proposal, or notify the responsible person of the plan's deficiency, based upon the information contained in the plan and the information submitted at the hearing.
- D. If the director notifies a responsible person of a deficiency in a site investigation report, or in a stage 1 or stage 2 abatement plan proposal, the responsible person shall submit a modified document to cure the deficiencies the director specifies within 30 days after receiving the notice of deficiency. The responsible person is in violation of 19.15.30 NMAC if the responsible person fails to submit a modified document within the required time, or if the responsible person does not in the modified document make a good faith effort to cure the deficiencies the director specified.
- E. Provided that the responsible person meets the other requirements of 19.15.30 NMAC and provided further that stage 2 of the abatement plan, if implemented, shall result in the standards and requirements set forth in 19.15.30.9 NMAC being met within a schedule that is reasonable given the site's particular circumstances, the director shall approve the plan.

[19.15.30.16 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.17 INVESTIGATION AND ABATEMENT: A responsible person who receives the division's approval for stage 1 or stage 2 of an abatement plan shall conduct investigation, abatement, monitoring and reporting activities in compliance with 19.15.30 NMAC and according to the terms and schedules contained in the approved abatement plans.

[19.15.30.17 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.18 ABATEMENT PLAN MODIFICATION:

- A. The division may modify an approved abatement plan at the responsible person's written request in accordance with 19.15.30 NMAC with the director's written approval.
- B. If data the responsible person submitted pursuant to monitoring requirements specified in the approved abatement plan or other information available to the director indicates that the abatement action is ineffective, or is creating unreasonable injury to or interference with health, welfare, environment or property, the director may require a responsible person to modify an abatement plan within the shortest reasonable time so as to effectively abate water pollution that exceeds the standards and requirements set forth in 19.15.30.9 NMAC, and to abate and prevent unreasonable injury to or interference with health, welfare, environment or property.

 [19.15.30.18 NMAC Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.19 COMPLETION AND TERMINATION:

- A. The division shall consider abatement complete when the responsible person meets the standards and requirements set forth in 19.15.30.9 NMAC. At that time, the responsible person shall submit an abatement completion report, documenting compliance with the standards and requirements set forth in 19.15.30.9 NMAC, to the director for approval. The abatement completion report also shall propose changes to long-term monitoring and site maintenance activities, if needed, to be performed after the abatement plan's termination.
- **B.** Provided that the responsible person meets the other requirements of 19.15.30 NMAC and provided further that the responsible person has met the standards and requirements set forth in 19.15.30.9 NMAC, the director shall approve the abatement completion report. When the director approves the abatement completion report, the director shall also notify the responsible person in writing that the abatement plan is terminated. [19.15.30.19 NMAC Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.20 DISPUTE RESOLUTION: In the event of a technical dispute regarding the requirements of 19.15.29 NMAC, 19.15.30.9 NMAC, 19.15.30.12 NMAC, 19.15.30.13 NMAC, 19.15.30.18 NMAC or 19.15.30.19 NMAC, including notices of deficiency, the responsible person may notify the director by certified mail that a dispute has arisen, and the responsible person desires to invoke the dispute resolution provisions of 19.15.30.20 NMAC provided that the responsible person shall send the notification within 30 days after the responsible person receives the director's decision that causes the dispute. Upon the notification, the deadlines affected by the technical dispute shall be extended for a 30 day negotiation period, or for a maximum of 60 days if approved by the director for good cause shown. During this negotiation period, the director or the director's designee and the responsible person shall meet at least once. A mutually agreed upon third part may facilitate the meeting, but the third party shall assume no power or authority granted or delegated to the director by the Oil and Gas Act or by the division or commission. If the dispute remains unresolved after the negotiation period, the director's decision shall be final. [19.15.30.20 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.21 APPEALS FROM DIRECTOR'S AND DIVISION'S DECISIONS:

- A. If the director
 - (1) determines that an abatement plan is required pursuant to 19.15.29.11 NMAC;
- (2) approves or provides notice of deficiency of a proposed abatement plan, technical infeasibility demonstration or abatement completion report; or
- (3) modifies or terminates an approved abatement plan the director shall provide written notice of the action by certified mail to the responsible person and other persons who participated in the action.
- **B.** A person who participated in the action before the director and that the action listed in Subsection A of 19.15.30.21 NMAC adversely affects may file a petition requesting a hearing before a division examiner.
- C. The person shall make the petition in writing and file it with the division within 30 days after receiving notice of the director's action. The petition shall specify the portions of the action to which the petitioner objects, certify that the person has mailed or hand-delivered a copy of the petition to the director and to the applicant or permittee if the petitioner is not the applicant or permittee and have attached a copy of the action for which the person seeks review. Unless a person makes a timely petition for hearing, the director's action is final.
 - **D.** The hearing before the division shall be conducted in the same manner as other division hearings.
 - E. The petitioner shall pay the cost of the court reporter for the hearing.
- F. A party adversely affected by a division order pursuant to a hearing held by a division examiner, shall have a right to have the matter heard de novo before the commission.
- G. The appeal provisions do not relieve the owner, operator or responsible person of their obligations to comply with federal or state laws including regulations or rules.

 [19.15.30.21 NMAC Rp, 19.15.1.19 NMAC, 12/1/08]

HISTORY of 19.15.30 NMAC:

History of Repealed Material: 19.15.1 NMAC, General Provisions and Definitions (filed 04/27/2001) repealed 12/1/08.

NMAC History:

That applicable portion of 19.15.1 NMAC, General Provisions and Definitions (Section 19) (filed 04/27/2001) was replaced by 19.15.30 NMAC, Remediation, effective 12/1/08.

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. Form C-141 Revised October 10, 2003

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

Attached

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Address						Telephone No.					
Facility Na	me					Facility Typ					
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Surface Ow	ner			Mineral (Owner			Lease N	No.		
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Printed Name	:					Approved by	District Superviso	or:			
Title:						Approval Date	e:	Expiration I	Date:		
E-mail Addre	ss:					Conditions of	Approval:		A44 .1 .1		

Phone: * Attach Additional Sheets If Necessary



Exhibit L

Agreement with Fulfer Oil & Cattle, Co.

June 22, 2011

۷.

This Agreement is made between *Eldorado Biofuels, LLC*, with its principal place of business located at 7 Avenida Vista Grande #454, Santa Fe, NM 87508 and *Fulfer Oil & Cattle Co.*¹, whose principal place of business is located at 101 E Panther Ave, Jal, NM 88252.

Eldorado Biofuels leases from Fulfer Oil & Cattle Company ten acres of land to operate a water treatment and algae cultivation facility. Diverting water via a 2" hard pipeline from the Brown No. 5 SWD (API 30-025-09807) approximately ¼ mile to the site located at Unit N, Section 24 Township 25 South, Range 36 East for treatment and temporary use for growing algae, the water is then returned to the Brown 5 well for disposal through a second 2" pipeline. Water movement from and to the disposal will be metered, recorded and monitored by an operator on site.

Improvements to the property include a foundation, containment area for the water treatment system and other relevant equipment, with security fencing surrounding the entire Eldorado Biofuels operations, including the algae cultivation and biofuels production areas.

In the event of a closure of the Eldorado Biofuels Jal Facility Fulfer Oil & Cattle Co. is notified 30 days prior to closing the facility. All produced water, raw or treated, is drained from the storage tanks, the water treatment system and the algae cultivation ponds and disposed into Brown #5, an OCD approved disposal well.

All components of the water treatment system, the algae cultivation operation and the biofuel production (algae harvesting and extraction equipment) are dismantled and removed from the Fulfer Oil & Cattle Co. property.

After all OCD required remedial actions have been completed, the improved site, which consists of the concrete containment area and the fencing, is turned over to the landowner. OCD ruling may require removing the containment area. No reclamation or re-vegetation of the improved site is required to be undertaken by Eldorado Biofuels.

1 Fulfer Oil & Cattle Co. is the well owner and operator and the surface owner of the property leased by Eldorado Biofuels for their water treatment operation

Fulfer Oil & Cattle Co. will receive a copy of the OCD required closure report upon request. The report includes:

- o a summary of closure activities
- \circ a description of suspected contamination of the site, if applicable
- o remedial actions taken for removal of contamination, if applicable
- photos of the closed site

The parties hereto have executed this Agreement as of the date first above written.

Paul Laur

CEO

Eldorado Biofuels, LLC

Gregg Fulfer

Owner

Fulfer Oil & Cattle, Co.

Jones, Brad A., EMNRD

From: Jones, Brad A., EMNRD

Sent: Wednesday, April 06, 2011 8:10 AM

To: 'Paul Laur'

Cc: VonGonten, Glenn, EMNRD; Olson, Bill, NMENV

Subject: RE: raceways

Attachments: Itr to Leavell re Produced Water Feb.pdf

Paul.

Please read the attached document. It clarifies New Mexico Energy, Minerals, and Natural Resources Department and the Oil Conservation Division's position regarding the permitting of the aquaculture facilities that utilize produced water. You will have to contact the New Mexico Environment Department regarding the permitting of impoundments to grow algae.

Your current approval, EPWM-007, was issued based upon the limited application on which it was requested. In this case, the request was limited "to store and use produced water for research and development at the Fulfer Oil & Cattle Co. Brown No. 5 SWD (API 30-025-09807)" with the express understanding that "Eldorado Biofuels will take produced water from the Fulfer SWD, test, and treat it onsite, and send it for further testing at the National Alliance for Advanced Biofuels and Bioproducts (NAABB), Texas Agrilife, Pecos, Texas facility." This approval, EPWM-007, does not address or authorize Eldorado Biofuels to store and/or use produced water for any other purpose. Eldorado Biofuels must submit a modification request to OCD and obtain approval prior to implementing any changes in operations.

If you have any additional questions regarding this matter, please contact me.

Brad

Brad A. Jones

Environmental Bureau NM Oil Conservation Division 1220 S. St. Francis Drive Santa Fe, New Mexico 87505 E-mail: <u>brad.a.jones@state.nm.us</u>

Office: (505) 476-3487 Fax: (505) 476-3462

Environmental Engineer

From: Paul Laur [mailto:paul@eldoradobiofuels.com]

Sent: Tuesday, April 05, 2011 12:30 PM

To: Jones, Brad A., EMNRD

Subject: raceways

Hi Brad,

We are working away on getting the water treatment system installed in Jal. I have a roll of 60 mil liner on site and we have put down a solid 2-foot thick compacted caliche pad. I want to construct four modest raceways

above grade to grow algae in the treated produced water. Attached is a sketch that Alfonz made detailing the raceways. We will put one layer of 60-mil liner flat on the caliche, then construct the form of the raceway with cinder blocks and rail road ties covered in sand and a second layer of 60-mil liner. If there are any leaks it will be evident by the loss of water in the raceway and wet sand around the perimeter of the liner. Is this sufficient detail for permitting the raceways? As you probably know we are on a tight budget so saving draftsman's fees at this time is very much appreciated.

4

Thanks,

Paul

(505) 670-8490

Susana Martinez Governor

Brett F. Woods, Ph.D. Acting Cabinet Secretary

February 21, 2011

Senator Carroll H. Leavell New Mexico State Senate P.O. Drawer D Jal, New Mexico 88252

Re: PRODUCED WATER CLEAN-UP

Dear Senator Leavell:

Thank you for the opportunity to meet with all parties to discuss a path forward for the treatment and use of produced water. I reviewed with Oil Conservation Division (OCD) staff the issues of using treated produced water in aquaculture facilities, such as those proposed by Eldorado Biofuels and the Center of Excellence for Hazardous Materials Excellence (CEHMM) with Controlled Aqua Systems (CAS).

The Energy, Minerals and Natural Resources Department (EMNRD) recognizes the potential benefit to both the environment and to oil and gas operators if a new method to use produced water is successful, as well as the creation of a new industry in New Mexico-algae farming to generate bio-diesel and other products. Given the large volumes of produced water that must be disposed of in New Mexico, EMNRD believes that operators should generally be encouraged to research methods to use produced water as a resource rather than dispose of it as oil field waste.

The New Mexico Environment Department (NMED) issued the CEHMM algae facility a Water Quality Control Commission (WQCC) discharge permit before the OCD became involved with issuing a "use" permit authorizing the treatment and use of produced water. After legal review, OCD concluded the following:

 OCD and NMED are constituent agencies of WQCC. OCD has generally been assigned to administer applicable WQCC regulations for the oil and gas industry and NMED has generally been assigned to administer WQCC regulations for all other industries.



 The CEHMM algae facility has been issued a discharge permit for "agriculture" by NMED. Originally, CEHMM used fresh water which it treated to marine-like conditions to grow the algae. þ

- Under the Oil and Gas Act, OCD has authority for the disposition of produced water, including both disposal and use of produced water.
- OCD Part 26 Injection Regulations address the requirements for the disposal of produced water by injection. OCD Part 34 Produced Water Regulations specify the "use" of produced water.
- WQCC regulations specify the types of facilities that may be required to obtain a
 discharge permit. WQCC has assigned the responsibility for permitting agriculture,
 as well as other facilities, to NMED. WQCC has assigned the responsibility for
 permitting oil and gas facilities to OCD.
- Algae farms are not oil and gas facilities and NMED has determined that algae farms should be permitted as agriculture.
- OCD solely has the responsibility for authorizing the "use" of treated produced water. Algae farms "use" produced water to grow algae. The purpose of the algae ponds is not to store produced water for disposal or reinjection.
- Given that the purpose of the algae farms is to grow algae, OCD concludes that the
 best path forward is for NMED to continue to issue WQCC discharge permits for
 agriculture to all algae farm operators. OCD will continue to issue a Part 34 "use"
 permit to algae farm operators that wish to use produced water as part of its
 operations.

EMNRD recognizes the potential for entrepreneurs to find new and innovative ways to use treated produced water in New Mexico and is ready to assist these new startups in any way that it can. Thank you again for the opportunity to meet with you and please let me know if you require any additional information.

Sincerely,

Brett F. Woods, Ph.D. Acting Cabinet Secretary

Copy: Oil Conservation Division

Jones, Brad A., EMNRD

From: Paul Laur [paul@eldoradobiofuels.com]
Sent: Paul Laur [paul@eldoradobiofuels.com]
Tuesday, April 05, 2011 12:30 PM

To: Jones, Brad A., EMNRD

Subject: raceways

Attachments: Raceways sketch.pdf

Hi Brad,

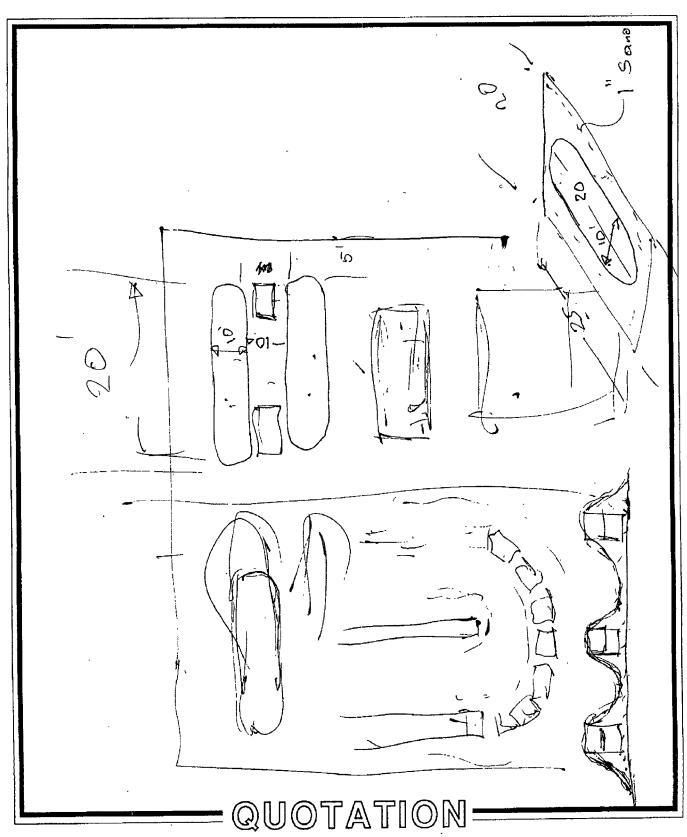
We are working away on getting the water treatment system installed in Jal. I have a roll of 60 mil liner on site and we have put down a solid 2-foot thick compacted caliche pad. I want to construct four modest raceways above grade to grow algae in the treated produced water. Attached is a sketch that Alfonz made detailing the raceways. We will put one layer of 60-mil liner flat on the caliche, then construct the form of the raceway with cinder blocks and rail road ties covered in sand and a second layer of 60-mil liner. If there are any leaks it will be evident by the loss of water in the raceway and wet sand around the perimeter of the liner. Is this sufficient detail for permitting the raceways? As you probably know we are on a tight budget so saving draftsman's fees at this time is very much appreciated.

Thanks,

Paul

(505) 670-8490





Jones, Brad A., EMNRD

From:

VonGonten, Glenn, EMNRD

Sent:

Thursday, December 16, 2010 3:02 PM

To:

paul@eldoradobiofuels.com

Cc:

Sanchez, Daniel J., EMNRD; Jones, Brad A., EMNRD

Subject:

Tempory Authorization EPWM-007

Attachments:

2010_1216 EPWM-007.pdf

Mr. Laur,

OCD hereby conditionally approves Eldorado's request for a temporary authorization to store and use produced water. I am attaching your conditional approval. The hard copy will follow in the mail. Please contact me if you have any questions.

Glenn von Gonten

Senior Hydrologist
Environmental Bureau
Oil Conservation Division
Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3488
Fax-476-3462
glenn.vongonten@state.nm.us

http://www.emnrd.state.nm.us/ocd/

Bill Richardson

Governor

Jim Noel
Cabinet Secretary

Karen W. Garcia Deputy Cabinet Secretary Mark Fesmire Division Director Oil Conservation Division



DECEMBER 16, 2010

Mr. Paul M. Laur, CEO Eldorado Biofuels 7 Ave. Vista Grande, #454 Santa Fe, NM 87508

Re: Application For Temporary Approval To Store And Use Produced Water For Research And Development Of Eldorado Biofuels Produced Water Treatment System (VM Technology UVOXTM Water Treatment System EPWM-007

Location: Fulfer Oil & Cattle Co. Brown No. 5 SWD (API 30-025-09807) Unit N, Section 24, Township 25 South, Range 36 East

The Oil Conservation Division (OCD) has reviewed Eldorado Biofuels' application, dated December 16, 2010, for a Temporary Approval to Store and Use Produced Water for Research and Development at the Fulfer Oil & Cattle Co. Brown No. 5 SWD (API 30-025-09807) located in Unit N, Section 24, Township 25 South, Range 36 East, Lea County, New Mexico. OCD understands that Eldorado Biofuels will take produced water from the Fulfer SWD, test and treat it onsite, and send it for further testing at the National Alliance for Advanced Biofuels and Bioproducts (NAABB), Texas AgriLife, Pecos, Texas facility.

Eldorado's application is hereby approved pursuant to Subsection B of 19.15.34.12 NMAC with the following conditions:

- 1. Eldorado shall comply with all applicable requirements of the Produced Water Rule (19.15.34 NMAC), the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), and all conditions specified in this Temporary Approval.
- 2. Eldorado shall store, test, and treat produced water only as proposed in its December 16, 2010 application.
- 3. Eldorado may only store, test, and treat produced water from the Fulfer SWD.



- 4. Eldorado shall store, test, and treat produced water on a bermed, lined containment area using 20-mil string reinforced LLDPE or equivalent geomembrane liner to prevent unauthorized releases.
- 5. Eldorado shall not manage any oilfield wastes at the produced water treatment facility site on the ground in pits, ponds, below-grade tanks or land application units without an OCD approved permit.
- 6. Eldorado shall not discharge any treated or untreated produced water on the ground, to ground water, or into any surface water body.
- 7. Eldorado shall report all unauthorized discharges, spills, leaks, and releases of produced water or other oilfield waste pursuant to 19.15.29 NMAC.
- 8. Eldorado shall ensure that its treated produced water is transported to the National Alliance for Advanced Biofuels and Bioproducts (NAABB), Texas AgriLife, Pecos, Texas facility using an OCD permitted (C-133) water hauler.
- 9. Eldorado shall ensure all oilfield waste is transported by a hauler that has a form C-133, Authorization to Move Produced Water, approved by OCD.
- 10. Eldorado shall dispose of its oilfield waste (i.e.; "the small amount of non-toxic solid waste," including, but not limited to, treatment filters, membranes etc.) at the Sundance Parabo Surface Waste Management Facility (NM1-003).
- 11. Eldorado shall dispose of any unused, treated or untreated produced water at the Fulfer SWD.
- 12. Eldorado shall submit a modification request and obtain OCD's approval prior to initiating any changes in the storage or use of the treated produced water or the disposition of any unused produced water.
- 13. Eldorado shall submit a report to OCD within 30 days of the conclusion of its approved activities and shall document the volumes of the produced water that was obtained from the Fulfer SWD, the volumes that were treated, the volumes that were sent to the Pecos Texas facility, and the volumes that were finally disposed of at the Fulfer SWD. Eldorado shall also provide OCD with a site diagram depicting the location of the SWD, the location and details of the containment area, and the locations and details of the above grade tanks and equipment. Eldorado shall propose how it will dispose of the geomembrane liner material and any other waste.

This Temporary Approval is valid for six months. This temporary approval begins December 16, 2010 and expires June 16, 2011. Renewal requests for temporary approvals shall be submitted 45 days prior to the expiration date. Temporary approval may be revoked or suspended for violation of any applicable provisions and/or conditions. OCD may administratively modify this temporary approval at any time, by incorporating additional conditions, if it determines that

EPWM - 007 Page 3 of 3

such conditions are necessary and proper for the protection of fresh water, public health, and the environment.

Please be advised that approval of this request does not relieve Eldorado of liability if its operations result in pollution of surface water, ground water or the environment. Nor does OCD's temporary approval relieve Eldorado of its responsibility to comply with any other applicable governmental authority's rules and regulations.

Please refer to OCD Permit EPWM-007 in all future correspondence. If there are any questions regarding this matter, please do not hesitate to contact Brad Jones at (505) 476-3487 or brad.a.jones@state.nm.us.

Sincerely,

Glenn von Gonten

Acting Environmental Bureau Chief

GVG/BAJ

cc: OCD District I, Hobbs

Susana Martinez

Governor

Brett F. Woods, Ph.D. Acting Cabinet Secretary

February 21, 2011

Senator Carroll H. Leavell New Mexico State Senate P.O. Drawer D Jal, New Mexico 88252

Re: PRODUCED WATER CLEAN-UP

Dear Senator Leavell:

Thank you for the opportunity to meet with all parties to discuss a path forward for the treatment and use of produced water. I reviewed with Oil Conservation Division (OCD) staff the issues of using treated produced water in aquaculture facilities, such as those proposed by Eldorado Biofuels and the Center of Excellence for Hazardous Materials Excellence (CEHMM) with Controlled Aqua Systems (CAS).

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 OCD and NMED are constituent agencies of WQCC. OCD has generally been assigned to administer applicable WQCC regulations for the oil and gas industry and NMED has generally been assigned to administer WQCC regulations for all other industries.



- The CEHMM algae facility has been issued a discharge permit for "agriculture" by NMED. Originally, CEHMM used fresh water which it treated to marine-like conditions to grow the algae.
- Under the Oil and Gas Act, OCD has authority for the disposition of produced water, including both disposal and use of produced water.
- OCD Part 26 Injection Regulations address the requirements for the disposal of produced water by injection. OCD Part 34 Produced Water Regulations specify the "use" of produced water.
- WQCC regulations specify the types of facilities that may be required to obtain a
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 operations.

EMNRD recognizes the potential for entrepreneurs to find new and innovative ways to use treated produced water in New Mexico and is ready to assist these new startups in any way that it can. Thank you again for the opportunity to meet with you and please let me know if you require any additional information.

Sincerely,

Brett F. Woods, Ph.D. Acting Cabinet Secretary

Copy: Oil Conservation Division

From: Chavez, Carl J. EMNRD

Sent: Wednesday, December 15, 2010 8:06 AM

To: GFulfer@aol.com

Cc: Jones, Brad A., EMNRD; Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD Subject: FW: Elderado Biofuels & OCD Temporary Permit for Produced Water Treatment Project

Greg:

Based on Brad's message below, have Paul send in the application for Elderado Biofuels to me today.

Check the EPWM-004 at http://ocdimage.emnrd.state.nm.us/imaging/AEOrderFileView.aspx?appNo=pBAJ0801553121 Follow the example format in the link provided above, and we should be ok.

Info. OCD needs:

- 1) Need location of produced water treatment facility or project where water will be treated (Santa Fe location);
- 2) Need summary description of treatment system (general one paragraph) and identify waste streams and how and where these waste streams will be disposed? Down SWD Well?
- 3) Where sample is going and how and where water will disposed.
- 4) Protective measures, i.e., secondary containment, i.e., is it in design of treatment skid? Please describe.
- 5) Based on what you submit to the OCD, we could possibly write up a temporary permit within a day.
- 6) Who, what, where and when information.....

Elderado needs to include a letter from the well operator (Greg Fulfer) identifying that Elderado Biofuels has permission the well operator to obtain produced water and include API# of the well in this letter. Need to identify C-133 hauler to make sure approval is current. The OCD's list is available at http://www.emnrd.state.nm.us/ocd/Statistics.htm (see OCD C-133 list of approved haulers).

We'll see what OCD can do to approve it and get moving. Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/ index.htm (Pollution Prevention Guidance is under "Publications")

From: Jones, Brad A., EMNRD

Sent: Tuesday, December 14, 2010 5:19 PM

To: Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD

Cc: 'GFulfer@aol.com'

Subject: RE: Elderado Biofuels & OCD Temporary Permit for Produced Water Treatment Project

I met with Paul yesterday and he informed me that they plan to run more than one sample in order to determine the level of treatment needed to keep the algae alive. I showed him a copy of a temporary permission renewal request from Altela regarding similar R&D activities, which OCD has been approving for the last 3-4 years, at Altela's manufacturing facility. Paul made a copy of the 1-2 page request, per my recommendation, in order to utilize the same format. This is something that we can approve and issued in one day. I did forward Glenn a copy of OCD's last approval letter to Altela yesterday so that OCD can expedite this approval.

Brad

From: Chavez, Carl J, EMNRD

Sent: Tuesday, December 14, 2010 4:40 PM

To: VonGonten, Glenn, EMNRD

Cc: Jones, Brad A., EMNRD; GFulfer@aol.com

Subject: Elderado Biofuels & OCD Temporary Permit for Produced Water Treatment Project

Importance: High

Glenn:

Today I received a forwarded call from Florene Davidson from Senator Carrol Levell with Greg Fulfer standing by. Senator Levell indicated that he needed to speak to somebody from the OCD about the above project. He indicated that Brad Jones was working on it, but when they call, the phone message indicates that he will be out of the office until after the new year. He then said a detailed e-mail msg. was sent to you.

The crux of the issue is Mr. Fulfer wants to treat about 2-3 bbls.. of produced water and collect a water sample to send to the lab for analytical data results and this needs to be accomplished within the next couple of days in order to get the lab results back before the end of December to satisfy a DOE contract deadline. They want a temporary permit (i.e., EPWM) so they accomplish this task. In a discussion with Mr. Fulfer I asked if Elderado Biofuels could request a "Minor Modification" to the DOE Contract in order to work on this after the new year, since Brad's phone msg. indicates that he will not return to the office until the end of the new year.

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The callers contact information is as follows:

Mr. Paul Laur of Elderado Biofuels (575) 390-5705. Mr. Greg Fulfer (575) 631-0522 Senator Levell (575) 390-5705

Thank you.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/index.htm (Pollution Prevention Guidance is under "Publications")

From:

Chavez, Carl J, EMNRD

Sent:

Wednesday, December 15, 2010 6:04 AM

To:

Jones, Brad A., EMNRD

Subject:

RE: Elderado Biofuels & OCD Temporary Permit for Produced Water Treatment Project

Thanks Brad. Hope you have Happy Holidays!!! ③

Be safe!

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

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From: Jones, Brad A., EMNRD

Sent: Tuesday, December 14, 2010 5:19 PM

To: Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD

Cc: 'GFulfer@aol.com'

Subject: RE: Elderado Biofuels & OCD Temporary Permit for Produced Water Treatment Project

I met with Paul yesterday and he informed me that they plan to run more than one sample in order to determine the level of treatment needed to keep the algae alive. I showed him a copy of a temporary permission renewal request from Altela regarding similar R&D activities, which OCD has been approving for the last 3-4 years, at Altela's manufacturing facility. Paul made a copy of the 1-2 page request, per my recommendation, in order to utilize the same format. This is something that we can approve and issued in one day. I did forward Glenn a copy of OCD's last approval letter to Altela yesterday so that OCD can expedite this approval.

Brad

From: Chavez, Carl J, EMNRD

Sent: Tuesday, December 14, 2010 4:40 PM

To: VonGonten, Glenn, EMNRD

Cc: Jones, Brad A., EMNRD; GFulfer@aol.com

Subject: Elderado Biofuels & OCD Temporary Permit for Produced Water Treatment Project

Importance: High

Glenn:

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Chavez, Carl J, EMNRD

Sent:

Tuesday, December 14, 2010 4:40 PM

To:

VonGonten, Glenn, EMNRD

Cc:

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Subject:

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From:

paul@santafecider.com on behalf of Paul Laur [paul@eldoradobiofuels.com]

Sent:

Friday, December 10, 2010 12:32 PM

To: Subject: Jones, Brad A., EMNRD algae cultivation project

Attachments:

OCD Request_Jal.docx

Hello Brad,

We have come to a solution for a location for our project. Please see attached letter. If you wish to see the equipment it is located at Alfonz' place. Let me know and I can make arrangements for a tour.

Thank you,

Paul

--Paul Laur

(505) 670-8490

paul@eldoradobiofuels.com



Eldorado Biofuels

April 5, 2011

Mr. Brad Jones New Mexico Oil Conservation Division Santa Fe, NM

Dear Brad:

We are happy to announce that we have secured a location for our produced water treatment system and wish to obtain OCD approval for installing and operating the equipment. The location of the site is just outside of the city of Jal, New Mexico, which is in Lea County. The coordinates for the site are Latitude 32-06.5N and Longitude 103-13.3 W.

The proposed activities that are planned at the site are to treat produced water so that it is suitable for growing algae and deliver samples of treated water to our National Alliance for Advanced Biofuels and Bioproducts partners for algae cultivation tests. We plan to divert water from Brown 003 and Joyner 001 wells owned and operated by Fulfer Oil for treatment. The water treatment system will be set in a concrete containment area complete with sump pump.

We will also run our own growth tests in above grade tanks also contained in a burmed lined containment area.

We request an email stating that all activities described above may be conducted without a permit subject to periodic (monthly) reporting and accounting for all water diverted. We wish to commence this operation in mid-January 2011. We understand that no produced water, treated or otherwise, will be disposed of other than at a permitted disposal.

We will also be applying for a permit from OCD that upon issuance will allow us to expand the cultivation of algae in treated produced water in open raceways. We are currently in the process of assembling the data required for that application.

Sincerely,

Paul M. Laur CEO/ Eldorado Biofuels

Chavez, Carl J, EMNRD

From:

paul@santafecider.com on behalf of Paul Laur [paul@eldoradobiofuels.com]

Sent:

Wednesday, December 15, 2010 11:44 AM

To:

Chavez, Carl J, EMNRD

Cc:

Greg Fulfer; Jones, Brad A., EMNRD; Michelle Henrie; Sanchez, Daniel J., EMNRD;

VonGonten, Glenn, EMNRD; brian wood

Subject:

temporary request

Attachments:

20101215 Ltr Fulfer Permission.docx; OCD_Eldorado_Request Temporary Permit rev1.docx

Dear Mr. Chavez:

I have modified the letter that I sent to Mr. Von Gonten yesterday to include the name of the trucking company we will use and a brief description of our process and waste stream disposal method. Also attached is a letter from Gregg Fulfer regarding permission to use the produced water from Brown #5 SWD at his ranch. Please call me if you need additional information.

Sincerely,

Paul Laur

(505) 670-8490

Paul Laur (505) 670-8490 paul@eldoradobiofuels.com

Wednesday, December 15, 2010

New Mexico Energy, Minerals & Natural Resources Department Oil Conservation Division, Environmental Bureau 1220 South St. Francis Drive Santa Fe, New Mexico 87505

To Whom It May Concern:

Please accept this letter as documentation that Fulfer Oil & Cattle Company, LLC., gives Eldorado Biofuels permission to setup operations on our ranch and to use our produced water from the oil & gas wells production that goes to the Brown #5-SWD and to put back into our Brown #5-SWD.

If you have any questions or concerns, please call me at (575) 631--0522.

Sincerely,

Gregory H. Fulfer

Greg Fuller

Owner, Fulfer Oil & Cattle Company, LLC.

GHF/sjs



December 15, 2010

Mr. Carl Chavez New Mexico Energy, Minerals & Natural Resources Department Oil Conservation Division, Environmental Bureau 1220 South St. Francis Drive Santa Fe, New Mexico 87505

RE: Eldorado Biofuels Temporary Approval to Store and Use Produced Water for R&D of the Eldorado Biofuels Produced Water Treatment System.

Dear Mr. Chavez:

This letter serves as a written request for temporary approval to store and use produced water for R&D of Eldorado Biofuels Produced Water Treatment System. Eldorado Biofuels requests a six month permit to process real oilfield produced water for testing and development of our VM Technology UVOXTM water treatment system at our site located in Lea County at Unit N, Section 24, Township 25 South, Range 36 East ("Premises"). Eldorado Biofuels agrees to the following conditions with respect to use of the produced water at the Premises:

- 1. The produced water, from Brown #5 SWD, API # 3002509807 owned and operated by Fulfer Oil & Cattle Company, LLC, will be stored, tested, and treated to grow algae at the Premises in above grade tanks and equipment located in lined, burmed containment areas;
- 2. The treatment system uses several processes: Sand and carbon filtration, rapid oxidation with ozone, pH adjustment and polymer flocculation. A small amount of non-toxic solid waste is generated that will be properly disposed of at Sundance Disposal in Eunice, NM;
- 3. Treated produced water samples will be delivered to our partner in the National Alliance for Advanced Biofuels and Bioproducts (NAABB), Texas AgriLife, at their Pecos, Texas, facility for additional algae growth tests. All tests will be conducted in above grade tanks and subject to the Texas Railroad Commission's authorization and regulations;
- 4. Only haulers authorized (OCD approved C-133) to move produced water may provide transport of produced water to or from the Premises. We plan to use Fulco Trucking Company, LLC;
- 5. No produced water shall be disposed at the Premises but will be disposed at Brown #5 SWD;
- 6. Eldorado Biofuels must retain records documenting all produced water received and removed from the Premises:
- 7. Eldorado Biofuels must report all unauthorized discharges of produced water pursuant to OCD Rule 116 to the OCD within 24 hours of determining a release; and
- 8. Eldorado Biofuels will provide the OCD copies of the water quality test results received from third party water quality laboratories with respect to tests using the produced water at the Premises.

Thank you in advance for your assistance and support of Eldorado Biofuels, NAABB, and the US Department of Energy funded research and development of this technology.

Sincerely,
Paul M. Laur
Paul M. Laur
CEO, Eldorado Biofuels