



TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1	OGCC Operator Number: 100322	API Number: 05-123-36293
2	Name of Operator: Noble Energy, Inc.	OGCC Facility ID #: 43D785
3	Well/Facility Name: Rohn LB	Well/Facility Number: 22-62HN
4	Location (QtrQtr, Sec, Twp, Rng, Meridian): SESE Sec. 21, T9N, R60W, 6PM	

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5 DESCRIBE PROPOSED OR COMPLETED OPERATIONS

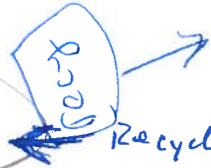
Noble Energy Inc proposes to reuse/recycle E&P flowback/produced water waste at the Rohn LB22-62HN oil and gas well for downhole frac operations on 2/28/2013.

The recycled flowback is going to come from Noble Energy's Oil and Gas wells:

7  
 -Castor Federal LC23-62HN  
 API#05-123-36392  
 SWSW Sec. 23, T9N, R59W  
 Location#431062

7  
 -Plasnik Federal LC 19-74HN  
 API#05-123-33475  
 NWNE Sec 19, T9N, R59W  
 Location#422956

7  
 -Castor Federal LC 19-74HN  
 05-123-33080  
 NWNW Sec 22, T9N, R59W  
 Location#421847



Recycle setup pad. # 421847

All recycling of E&P waste will be conducted on the Castor Federal LC 19-74HN well pad and be utilized on the Rohn LB22-62HN well pad for downhole frac operations

See attached E&P recycled/reuse plan, COGCC anyalyte list, stormwater inspection/site figure, and footprint figure.

~~Site approval on pad~~  
 - on site plan.  
 - Map w/ locate ! brand route

1625 Broadway  
Suite 2200.  
Denver, CO 80202



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Fax: 303.228.4286  
www.nobleenergyinc.com

North America Division

February 11, 2013

Mr. Alex Fischer and Mr. Steve Lindblom  
Department Of Natural Resources  
Oil & Gas Conservation Commission  
1120 Lincoln St., Suite 801  
Denver CO 80203-2136

RE: Form 4 Sundry Water Recycling  
Rohn LB22-62HN  
API 05-123-36293  
Location ID#430742  
SESE Sec. 21, T9N, R60W  
Weld County, Colorado

Dear Mr. Fischer and Mr. Lindblom:

Please find attached a completed Form 4 Sundry and attachments addressing the water recycling for the Rohn LB22-62HN oil and gas well. Please contact the Noble Energy Environmental Department at (720) 587-2026 if you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jacob Evans', with a horizontal line extending to the right.

Jacob Evans  
Senior Environmental Specialist

Attachments

## On Site Recycling

### Noble Energy, Inc.

*= Duration*

Noble Energy, Inc. proposes to recycle and reuse flowback and produced water waste per Colorado Oil and Gas Conservation Commission (COGCC) Rule 907 a (3) for E&P waste recycling from oil and gas wells Castor Federal LC22-78HM, Castor Federal LC23-62HN, and Ptasnik Federal LC19-74HN. The recycling process will take place on the Castor Federal LC22-78HM well pad on February 20, 2013 through February 26, 2013 and trucked to Noble oil and gas well Rohn LB22-62HN to be used for downhole frac operations on February 28, 2013, pending COGCC approval. Prior to transport and recycling a sample of the combined produced water will be sampled and analyzed per the COGCC approved list and submitted when available (see attached analyte list).

*= 80%*

The onsite recycling process will be performed by Water Rescue Services (WRS), a Noble contractor, who will receive produced and flow back water from the above mentioned wells and then run it through their proprietary Electrocoagulation Trailer System. The water is then transferred to a series of proprietary weir and frac tanks for settling purposes. The weir tank is an open air 500 barrel frac-tank that will have netting covering it while recycling procedures are being conducted (see attached photo): *See Renal Diagram*

The reason why it is an open tank is to visually assess the settling processes. The amount of water that Noble will reuse after recycling ranges from 92-97 percent of each barrel treated. The estimated ratio of fresh water to recycled water is 7:1 (70,000 barrels fresh water to 10,000 barrels recycled water).

Once the water leaves the settling tanks it is then processed through another propriety designed filter system for final polishing and preparation for storage and reuse. The recycling process will be monitored and maintained by at least 2 field technicians from WRS at all times through the recycling process. Liquid and soild waste that settle on the bottom of the weir tank will be sent to a permitted waste facility for disposal. A two foot muscle wall will be employed around the open steel 500bbl weir tank for added spill protection.

All recycled water will be stored in sealed 500 barrel steel frac tanks and the fresh water will be stored in a 40,000 barrel Poseidon tank on the Rohn LB22-62HN well pad location during frac operations.

Prior to utilizing the recycled produced water for frac operations, a sample will be pulled and analyzed per the COGCC approved list and submitted when available.

Best Practice Management (BMP) stormwater controls will be implemented during all recycling and loading operations per Noble's approved stormwater permit (see attached inspection and site map).

Noble Energy, Inc.

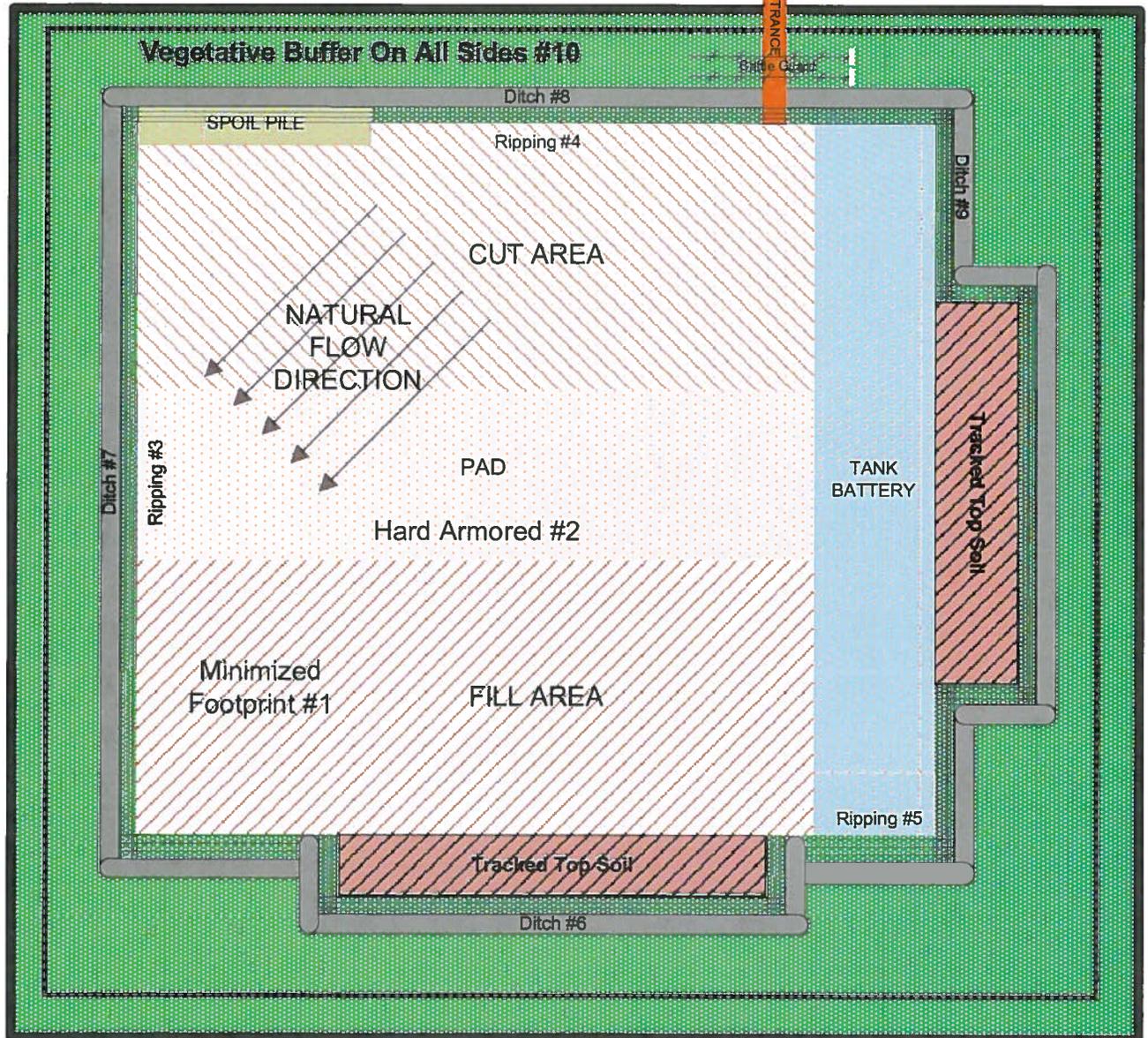
Colorado Oil and Gas Conservation Commission

Approved Analyte List

Volatile Organic Compounds, Semi-Volatile Organic Compounds, Dissolved Metals (including: Aluminum, Arsenic, Barium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Phosphorous, Silicon, Sodium, Strontium, Vanadium, and Zinc), Silica, Ortho Phosphorus, Dissolved Inorganics (non-metals: Cr, Cl, F, Nitrate/Nitrite, and Sulfate), Extractable Hexane, Specific Conductance, Hardness, Total Dissolved Solids, pH, Alkalinity, Specific Gravity, and Radium 226 and Radium 228 (Total)

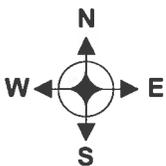
<b>WELL NAME:</b>	CASTOR FEDERAL LC 22-78HN		<b>API#:</b>	05-123-33080
<b>QTR/QTR-SEC/TS/R</b>	NWNW 22 9N 59W			
<b>LAT/LONG:</b>	40.742042/-103.971825			
<b>DIRECTIONS</b>	CR 104 & CR 111, E. 2.0, S. 0.1, E. INTO			
<b>PRE-CONSTRUCTION VEGETATION DESCRIPTION AND COVERAGE PERCENT</b>				
RANGELAND GRASS 45%				
<b>TOPOGRAPHY</b>				
0-6% SLOPES				
<b>TOTAL DISTURBED AREA (sq )</b>				
120,000				
<b>SOIL TYPE</b>				
KIM-MITCHELL COMPLEX				
<b>NEAREST RECEIVING WATERS</b>				
<b>NAME</b>	UN-NAMED CREEK			
<b>DIRECTION</b>	SOUTHWEST			
<b>DISTANCE</b>	469 FT			
<b>NON-STORMWATER DISCHARGE</b>				
<b>NAME</b>				
<b>DIRECTION</b>				
<b>DISTANCE</b>				
<b>POTENTIAL DRAINAGE AREA</b>				
<b>NAME</b>				
<b>DIRECTION</b>				
<b>DISTANCE</b>				
<b>CONSTRUCTION FOREMAN</b>			WADE FIRESTIEN	
<b>SITE CONSTRUCTION COMPANY</b>			RRC HOLDINGS	
<b>COMMENTS</b>				

CLAY AND GRAVEL USED FOR ENTRANCE AND PAD. ENTIRE LOCATION RIPPED WITH DITCH. TANK BATTERY ON EAST SIDE OF SITE. NORTH SIDE CUT AND SOUTH SIDE FILLED TO LEVEL PAD. CATTLE GUARD AT ENTRANCE AND 4 STRAND BARBED FENCE AROUND SITE FOR ANIMAL CONTROL. ALL TOP SOIL PILES TRACKED. PITLESS SYSTEM IN USE.



LIN-NAMED CREEK

Construction site boundaries include all ground surface disturbances and approximately 10-15 feet beyond perimeter erosion control structures. Boundaries are subject to change at any time for pad expansion, maintenance and addition of BMP structures, or new access roads.



Plan Phase

DATE 1/9/2013

API # 05-123-33080

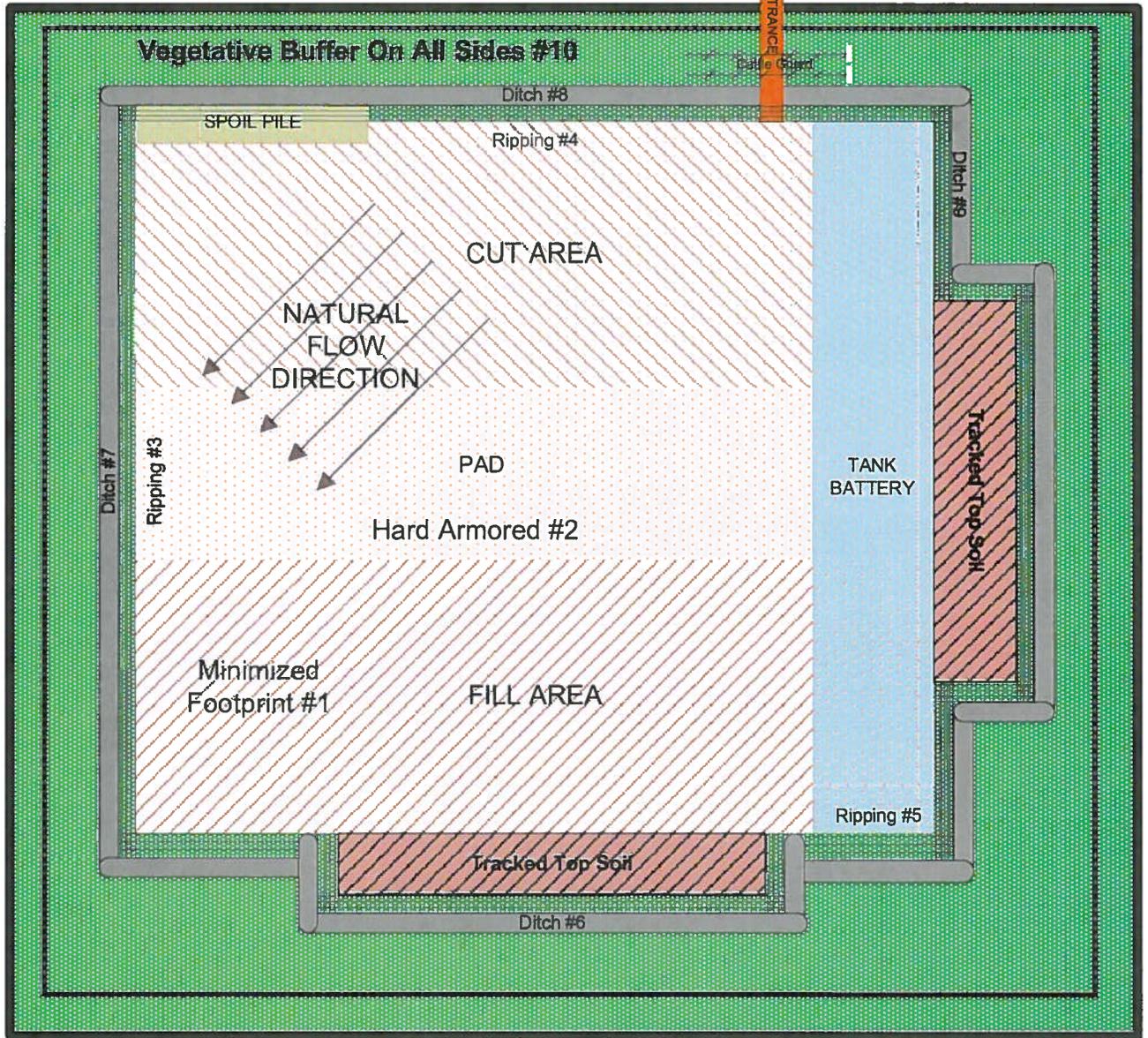
WELL NAME CASTOR FEDERAL LC #22-78HN

**COMMENTS**

CLAY AND GRAVEL USED FOR ENTRANCE AND PAD. ENTIRE LOCATION RIPPED WITH DITCH. TANK BATTERY ON EAST SIDE OF SITE. NORTH SIDE CUT AND SOUTH SIDE FILLED TO LEVEL PAD. CATTLE GUARD AT ENTRANCE AND 4 STRAND BARBED FENCE AROUND SITE FOR ANIMAL CONTROL. ALL TOP SOIL PILES TRACKED. PITLESS SYSTEM IN USE.

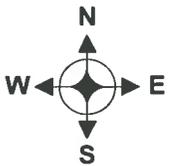


NOT TO SCALE



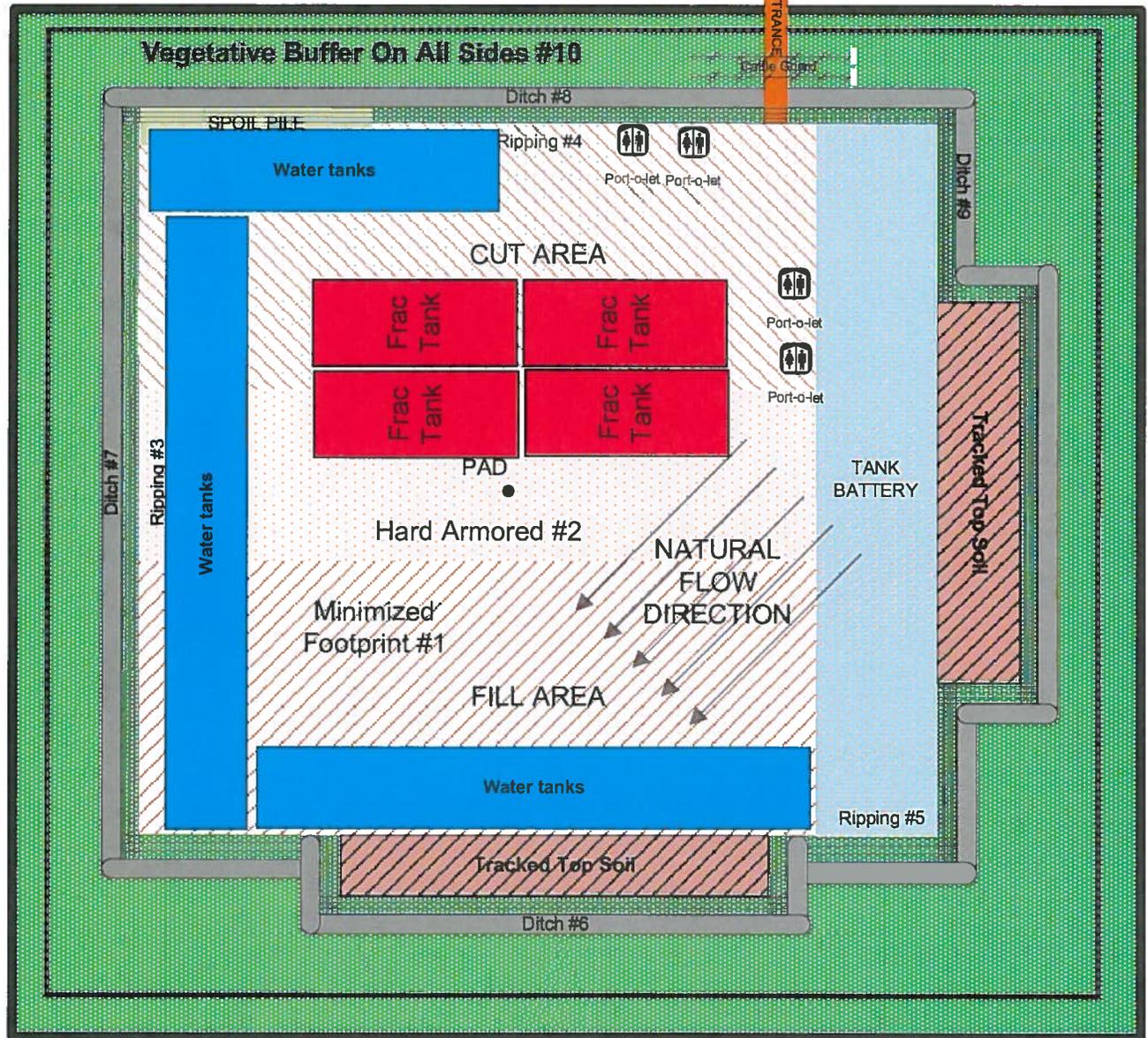
UN-NAMED CREEK

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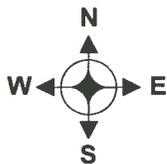
NOT TO SCALE

<b>Plan Phase</b>	
<b>DATE</b>	1/9/2013
<b>API #</b>	05-123-33080
<b>WELL NAME</b>	CASTOR FEDERAL LC #22-78HN
<b>COMMENTS</b>	CLAY AND GRAVEL USED FOR ENTRANCE AND PAD. ENTIRE LOCATION RIPPED WITH DITCH. TANK BATTERY ON EAST SIDE OF SITE. NORTH SIDE CUT AND SOUTH SIDE FILLED TO LEVEL PAD. CATTLE GUARD AT ENTRANCE AND 4 STRAND BARBED FENCE AROUND SITE FOR ANIMAL CONTROL. ALL TOP SOIL PILES TRACKED. PITLESS SYSTEM IN USE.



UN-NAMED CREEK

Construction site boundaries include all ground surface disturbances and approximately 10-15 feet beyond perimeter erosion control structures. Boundaries are subject to change at any time for pad expansion, maintenance and addition of BMP structures, or new access roads.



NOT TO SCALE

<b>Plan Phase</b>	
<b>DATE</b>	1/9/2013
<b>API #</b>	05-123-33080
<b>WELL NAME</b>	CASTOR FEDERAL LC #22-78HN
<b>COMMENTS</b>	CLAY AND GRAVEL USED FOR ENTRANCE AND PAD. ENTIRE LOCATION RIPPED WITH DITCH. TANK BATTERY ON EAST SIDE OF SITE. NORTH SIDE CUT AND SOUTH SIDE FILLED TO LEVEL PAD. CATTLE GUARD AT ENTRANCE AND 4 STRAND BARBED FENCE AROUND SITE FOR ANIMAL CONTROL. ALL TOP SOIL PILES TRACKED. PITLESS SYSTEM IN USE.

*= Location for Recycle set up*

**Noble Energy - DJ Basin (NE15) - SWMP Site Inspection Report - 05-123-33080**

Site ID	05-123-33080	Site Type	New Drill	Site Phase	Construction	Est. Build Date	1/9/2013
Site Name	CASTOR FEDERAL LC 22-78HN						
Directions	CR 104 & CR 111, E. 2.0, S. 0.1, E. INTO						
Quarter	NWNW	Section	22	Township	9N	Range	59W
Latitude	40.742042	Longitude	-103.971825	Disturbed Area	2.75	Due Date	2/20/2013
Inspection Date	2/6/2013			Initial Result	This site is in compliance with the permit		
Site Phase	Construction			Final Result	In Compliance		
Inspection Type	Scheduled			Inspection Notes	This site is in compliance with the permit. Construction activity is ongoing. Frac tanks on-site. No sediment off-site.		
Inspected by	Gentry Muniz Environmental Specialist			Signature			

**LOCATION OF DISCHARGE - NONE**

**LOCATION WHERE ADDITIONAL BMPs ARE NEEDED - NONE**

**LOCATION OF BMPs THAT NEED TO BE MAINTAINED**

BMP ID	BMP Type	Notes
01	Minimize Footprint	BMP Effective
02	hard armor	BMP Effective
03	Ripping	BMP Effective
04	Ripping	BMP Effective
05	Ripping	BMP Effective
06	Ditch	BMP Effective
07	Ditch	BMP Effective
08	Ditch	BMP Effective
09	Ditch	BMP Effective
10	Vegetative Buffer	BMP Effective

**LOCATION OF BMPs THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE - NONE**

**DEVIATIONS FROM MINIMUM INSPECTION SCHEDULE**

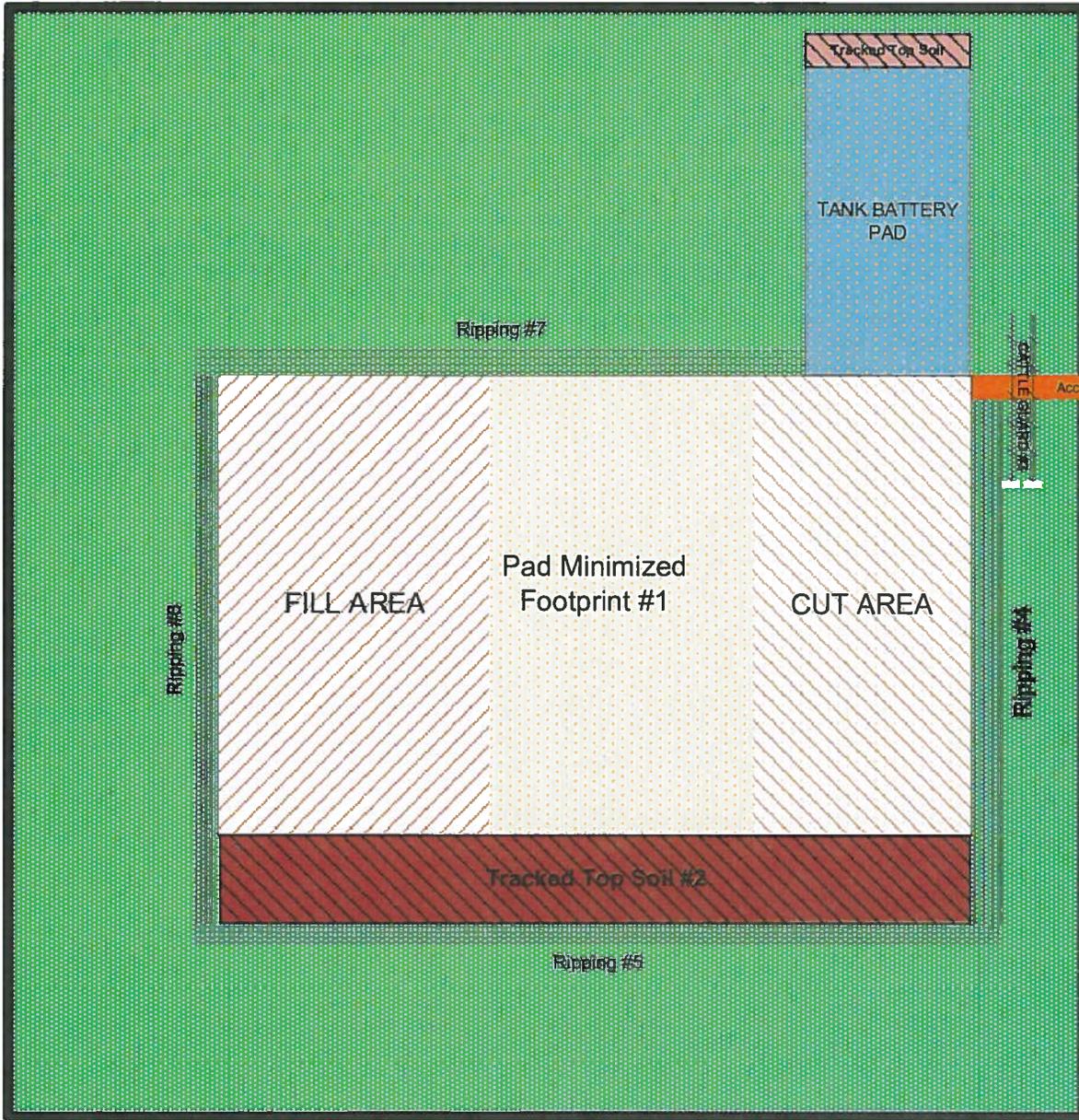
ALL CONSTRUCTION ACTIVITY THAT WILL RESULT IN SURFACE GROUND DISTURBANCE IS COMPLETED?	No
ALL ACTIVITIES FOR FINAL STABILIZATION HAVE BEEN COMPLETED EXCEPT THE APPLICATION OF SEED?	No
ALL ACTIVITIES FOR FINAL STABILIZATION HAVE BEEN COMPLETED INCLUDING THE APPLICATION OF SEED?	No
ALL ACTIVITIES FOR FINAL STABILIZATION HAVE BEEN COMPLETED INCLUDING 70% REVEGETATION?	No
THE SITE HAS BEEN RETURNED TO THE LAND OWNER FOR AGRICULTURAL PURPOSES?	No

<input type="checkbox"/> <b>TEMPORARILY IDLE SITES (post storm events)</b>	Comments
ORIGINAL INSPECTION DUE DATE	
ESTIMATED NEXT INSPECTION DATE	
ACTUAL NEXT INSPECTION DATE	
CONSTRUCTION ACTIVITY CONTINUED BEFORE INSPECTION?	No
CONSTRUCTION ACTIVITY TEMPORARILY HAULTED?	No

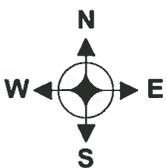
<input type="checkbox"/> <b>WINTER CONDITIONS</b>	Comments
DATE WHEN SNOW COVER OCCURED	
DATE WHEN CONSTRUCTION ACTIVITY CEASED	
DATE WHEN MELTING CONDITIONS BEGAN	
ESTIMATED DATE WHEN MELTING CONDITIONS WILL BEGIN	
CONSTRUCTION ACTIVITY TEMPORARILY HAULTED?	

**BLANK**

<b>WELL NAME:</b>	ROHN LB22-62HN	<b>API#:</b>	05-123-36293
<b>QTR/QTR-SEC/TS/R</b>	SESE 21 9N 60W		
<b>LAT/LONG:</b>	40.729003 / -104.089019		
<b>DIRECTIONS</b>	390 & 103 N 3/10 west into		
<b>PRE-CONSTRUCTION VEGETATION DESCRIPTION AND COVERAGE PERCENT</b>			
45% GRASSLAND			
<b>TOPOGRAPHY</b>	3 % ON AND OFF PAD		
<b>TOTAL DISTURBED AREA (sq )</b>	120000 SQ FT		
<b>SOIL TYPE</b>			
<b>NEAREST RECEIVING WATERS</b>			
NAME			
DIRECTION			
DISTANCE			
<b>NON-STORMWATER DISCHARGE</b>			
NAME			
DIRECTION			
DISTANCE			
<b>POTENTIAL DRAINAGE AREA</b>			
NAME			
DIRECTION			
DISTANCE			
<b>CONSTRUCTION FOREMAN</b>	WADE FIRESTIEN		
<b>SITE CONSTRUCTION COMPANY</b>	WELLS TRUCKING		
<b>COMMENTS</b>	PLATING PAD WITH GRAVEL. TRACKED TOP SOIL ON SOUTH SIDE, RIPPED AROUND ENTIRE PAD. TANK BATTERY PAD IN NORTH EAST CORNER OF PAD. CATTLE GUARD AT ENTRANCE FROM COUNTY ROAD 103. PITLESS SYSTEM IN USE.		



Construction site boundaries include all ground surface disturbances and approximately 10-15 feet beyond perimeter erosion control structures. Boundaries are subject to change at any time for pad expansion, maintenance and addition of BMP structures, or new access roads.



NOT TO SCALE

Plan Phase		
DATE	1/31/2013	API# 05-123-36293
WELL NAME	ROHN #LB22-62HN	
COMMENTS	PLATING PAD WITH GRAVEL. TRACKED TOP SOIL ON SOUTH SIDE, RIPPED AROUND ENTIRE PAD. TANK BATTERY PAD IN NORTH EAST CORNER OF PAD. CATTLE GUARD AT ENTRANCE FROM COUNTY ROAD 103. PITLESS SYSTEM IN USE. <i>= location recycled water to be used</i>	



## Typical EcoRenew™ Equipment Footprint For Water Recycling

