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1912-1985

FRANK W. YATES  
1936-1986

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August 4, 2015

Mr. Mike Bratcher  
NMOCD District II  
1301 West Grand  
Artesia, NM 88210

Re: State CO SWD System (at the Foster FF #2 Battery)  
2RP-2479  
30-015-21705  
Section 1, T20S-R24E  
Eddy County, New Mexico

Dear Mr. Bratcher:

Yates Petroleum Corporation is submitting the enclosed work plan for the above captioned well. The plan is being submitted in response to the C-141 report dated 9/8/2014.

**If there are no objections with the scope of work described in the plan, Yates will have a contractor begin work on or after August 5, 2015.**

If you have any questions call me at (575) 748-4217

Thank you.

YATES PETROLEUM CORPORATION

Robert Asher  
NM Environmental Regulatory Supervisor

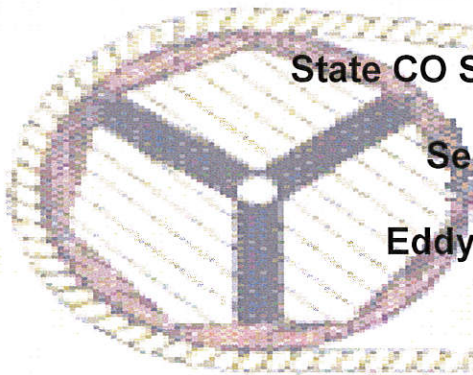
**Yates Petroleum Corporation**

**State CO SWD System Work Plan (D)**

**Section 1, T20S-R24E**

**Eddy County, New Mexico**

**August 4, 2015**



## **State CO SWD System Work Plan (D)**

### **I. Location**

The well is located approximately 25 miles south of Artesia, NM. Highway 285 (17 miles south), Rock Daisy Road (approximately 8 miles west) and 0.25 miles east off of Sawbuck Road, as represented by the attached Foster Ranch, NM, USGS Quadrangle Map.

### **II. Background**

On August 25, 2014, Yates submitted to the NMOCD District II office a Form C-141 for a release of approximately 400 B/PW with 200 B/PW recovered. The total affected area is approximately 500 feet by 1500 feet area (off of the east side of the battery). The release was from a 12" main line at a series of three tin horns. The impacted area from the oil skim in being excavated and hauled to an NMOCD approved facility. Initial delineation samples were taken (9/4/2014) and sent to an NMOCD approved laboratory (9/12/2014, results enclosed). After the impacted soils were excavated, the NMOCD requested further delineation sampling that was conducted on May 27, 2015.

### **III. Surface and Ground Water**

Area surface geology ranges from Cenozoic to Paleozoic. The groundwater of record is listed on the ChevronTexaco Trend and shows depth to groundwater approximately 175 feet making the site ranking for this site a zero (0). Watercourses in the area are dry except for infrequent flows in response to major precipitation events.

The ranking for this site is zero (0) based on the as following:

Depth to ground water	>100'
Wellhead Protection Area	> 1000'
Distance to surface water body	> 1000'

By request of the NMOCD II personnel, June 30, 2015 the Oil City Well (Section 35, T19S-R24E) was sound tested and elevations for the well and excavation were plotted by David Boyer, Safety & Environmental Solutions.

### **IV. Soils**

The area consists of soils that are of a loamy top soil and are interspersed with clay seams providing a low permeability barrier to retard vertical percolation of contaminants into the subsurface (approximately twenty (20) feet below the surface based on attached analyticals).

### **V. Scope of Work**

Based on the 5/27/2015 analytical results, (see attached diagrams), Yates Petroleum Corporation will excavate one (1) foot of impacted soils within release area A#1, those soils will be taken to an approved NMOCD facility and no further actions taken based on the June 16, 2015 on-site meeting with NMOCD and YPC. A ten (10) foot perimeter will be excavated from sample points A#2, A#3, B#1, B#3, C#2, C#3, D#2, D#3, E#2, F#2 & G#2 at a depth of three (3) feet, those soils will be taken to an approved NMOCD facility; area G#1 will have 3 feet of soils excavated/stockpiled). Sidewall samples will then be obtained and field titrator test strips for Chlorides will be used to determine chloride levels, if test strips record chlorides 2000ppm or below (indicating a decreasing trend in chlorides based on the 5/27/2015 analytical results), no further excavating will be conducted. If chlorides are above 2000ppm, further impacted perimeter soils will be removed until test strips show chlorides 2000ppm or below (indicating a decreasing trend in chlorides based on the 5/27/2015 analytical results). Based on the 5/27/2015 analytical results, no further analytical testing of TPH, BTEX and chlorides will be conducted outside the excavation. Yates will then line the excavated areas (A#2, A#3, B#1, B#3, C#2, C#3, D#2, D#3, E#2, F#2, G#1 & G#2) with a 20 millimeter liner and backfill with two (2) feet of caliche and three (3) feet of clean, like topsoil's to grade and contour. No excavation or delineation actions will be taken in the following areas (B#2, C#1, D#1, E#1, E#3, F#1, F#3 & G#3). Yates will excavate, line and backfill each area separately so there will be no open excavations with livestock in the area. When work is completed a C-141, Final Report, will be submitted to the NMOCD and request closure of the site. The area will be reseeded per the surface owners preferred seed mixture.



Analytical Report-H501366 (Cardinal)	Sample Area	Sample Date	Sample Type	Depth	Chlorides
C#1 - 1.0	Release Area	5/28/2015	Grab/Trackhoe	1' (2' BSL)	608
C#1 - 2.0	Release Area	5/28/2015	Grab/Trackhoe	2 (3' BSL)	160
C#1 - 3.0	Release Area	5/28/2015	Grab/Trackhoe	3' (4' BSL)	64
C#1 - 4.0	Release Area	5/28/2015	Grab/Trackhoe	4' (5' BSL)	320
C#1 - 5.0	Release Area	5/28/2015	Grab/Trackhoe	5' (6' BSL)	752
C#1 - 6.0	Release Area	5/28/2015	Grab/Trackhoe	6' (7' BSL)	544
C#1 - 8.0	Release Area	5/28/2015	Grab/Trackhoe	8' (9' BSL)	3160
C#1 - 10.0	Release Area	5/28/2015	Grab/Trackhoe	10' (11' BSL)	2120
C#1 - 12.0	Release Area	5/28/2015	Grab/Trackhoe	12' (13' BSL)	464
C#1 - 14.0	Release Area	5/28/2015	Grab/Trackhoe	14' (15' BSL)	208
C#1 - 16.0	Release Area	5/28/2015	Grab/Trackhoe	16' (17' BSL)	304
C#1 - 18.0	Release Area	5/28/2015	Grab/Trackhoe	18' (19' BSL)	384
Analytical Report-H501366 (Cardinal)	Sample Area	Sample Date	Sample Type	Depth	Chlorides
C#2 - 1.0	Release Area	5/27/2015	Grab/Trackhoe	1' (3' BSL)	1340
C#2 - 2.0	Release Area	5/27/2015	Grab/Trackhoe	2 (4' BSL)	2360
C#2 - 3.0	Release Area	5/27/2015	Grab/Trackhoe	3' (5' BSL)	5040
C#2 - 4.0	Release Area	5/27/2015	Grab/Trackhoe	4' (6' BSL)	4640
C#2 - 5.0	Release Area	5/27/2015	Grab/Trackhoe	5' (7' BSL)	4240
C#2 - 6.0	Release Area	5/27/2015	Grab/Trackhoe	6' (8' BSL)	3360
C#2 - 8.0	Release Area	5/27/2015	Grab/Trackhoe	8' (10' BSL)	1500
C#2 - 10.0	Release Area	5/27/2015	Grab/Trackhoe	10' (12' BSL)	2040
C#2 - 12.0	Release Area	5/27/2015	Grab/Trackhoe	12' (14' BSL)	1600
C#2 - 14.0	Release Area	5/27/2015	Grab/Trackhoe	14' (16' BSL)	688
C#2 - 16.0	Release Area	5/27/2015	Grab/Trackhoe	16' (18' BSL)	480
C#2 - 18.0	Release Area	5/27/2015	Grab/Trackhoe	18' (20' BSL)	128
Analytical Report-H501367 (Cardinal)	Sample Area	Sample Date	Sample Type	Depth	Chlorides
C#3 - 1.0	Release Area	5/27/2015	Grab/Trackhoe	1' (3' BSL)	2520
C#3 - 2.0	Release Area	5/27/2015	Grab/Trackhoe	2 (4' BSL)	2920
C#3 - 3.0	Release Area	5/27/2015	Grab/Trackhoe	3' (5' BSL)	4720
C#3 - 4.0	Release Area	5/27/2015	Grab/Trackhoe	4' (6' BSL)	7120
C#3 - 5.0	Release Area	5/27/2015	Grab/Trackhoe	5' (7' BSL)	7440
C#3 - 6.0	Release Area	5/27/2015	Grab/Trackhoe	6' (8' BSL)	5520
C#3 - 8.0	Release Area	5/27/2015	Grab/Trackhoe	8' (10' BSL)	2200
C#3 - 10.0	Release Area	5/27/2015	Grab/Trackhoe	10' (12' BSL)	2720
C#3 - 12.0	Release Area	5/27/2015	Grab/Trackhoe	12' (14' BSL)	1710
C#3 - 14.0	Release Area	5/27/2015	Grab/Trackhoe	14' (16' BSL)	1120
C#3 - 16.0	Release Area	5/27/2015	Grab/Trackhoe	16' (18' BSL)	1360
C#3 - 18.0	Release Area	5/27/2015	Grab/Trackhoe	18' (20' BSL)	1730

Site Ranking is Zero (0). DTGW >100' (Approximately 132' - 175', per Chevron/Texaco Trend Map) All results are ppm. BSL-Below Surface Level.  
Chlorides sampled for documentation. Released 400 B/PW, Recovered: 200 B/PW, Release Date: 8/25/2014.

