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1912-1985

FRANK W. YATES
1936-1986

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August 25, 2016

Mr. Mike Bratcher or Ms. Heather Patterson
NMOCD District II
811 South First
Artesia, NM 88210

RE: Satchmo SWD State #1
30-015-42492
Section 36, T25S-R31E
Eddy County, New Mexico

Mr. Bratcher or Ms. Patterson,

Yates Petroleum Corporation would like to re-submit the following plan of work to you regarding the release that occurred at the above mentioned facility on June 3, 2016 (2RP-3736). The release was 15 barrels of produced water with 10 barrels of produced water recovered.

The original work plan was submitted to NMOCD and NMSLO on July 14, 2016. NMSLO asked for amendments to the work plan and they are included in this version. Since the analytical data and site maps were included in the original work plan and have not changed, I have not included them with this amended work plan.

With NMOCD and NMSLO approval of this work plan, Yates will hold a bid meeting allowing several contractors the opportunity to submit bids on this remediation project. Bids that are received will be forwarded to Yates Management for review. Once Yates Management reviews the bids and gives approval, the remediation project will be awarded to a contractor for work to commence.

If you have any questions or concerns, I can be reached at (575) 748-4111 or by email at agriffin@yatespetroleum.com.

Thank You,

Amber Griffin
Environmental Regulatory Agent
Yates Petroleum Corporation



Yates Petroleum Corporation

Satchmo SWD State #1

Section 36, T25S-R31E

Eddy County, New Mexico

August 25, 2016

I. Location

Travel east out of Carlsbad on Highway 62-180 for 17 miles to Highway 31 and turn south. Travel 14.5 to Highway 128 and turn east. Travel 22.5 to Lea County Road 1 (Orla Road) and turn south. Travel 10.4 miles to a pipeline lease road and turn west. Travel 4.9 miles and turn north. Travel 1.9 miles and turn east. Travel 1 mile and turn north. Travel 0.1 miles and turn east. Travel 0.6 miles to location.

II. Background

On June 3, 2016, Yates had a release of 15 barrels produced water with 10 barrels produced water recovered. The area affected from this release was within a lined/bermed battery, along parts of the production pad to the east and south sides of the battery, and an area 18' x 10' off of the production pad. An initial Form C-141 was submitted, via e-mail, to the NMOCD District II on June 10, 2016.

During initial clean-up of the release, approximately 1' of soils were excavated from the Off Pad area. The production pad areas were scraped to remove all visible contamination. All initially excavated soils were hauled to a NMOCD approved disposal facility.

On June 9, 2016 Yates visited the site and collected soil samples from the release area using a hand auger or shovel. The release area was split into four sections – Off Pad, Pad 1, Pad 2, and Pad 3. The soil samples were sent to an approved NMOCD laboratory and tested for BTEX 8021B, TPH 8015M, and Chlorides 300.0. Yates received the analytical results on June 21, 2016 (Report 1606764 attached to this work plan). Analytical results showed that both TPH and BTEX were below NMOCD RRAL's. Chloride levels were shown to be at elevated levels in the Off Pad, Pad 2 and Pad 3 areas.

On June 15, 2016 Yates visited the site and collected further soil samples from the Off Pad, Pad 2 and Pad 3 areas with a backhoe. These soils samples were sent to an approved NMOCD laboratory and tested for Chlorides 300.0. Yates received the analytical results on June 27, 2016, June 28, 2016, July 14, 2016 (Reports 1606A44, 1606A45, and 1607217 attached to this work plan). Analytical results show that chlorides were fully delineated to acceptable levels.

III. Surface and Ground Water

Area surface geology is Cenozoic. The ChevronTexaco depth to ground water map shows the depth to groundwater to be approximately 300' 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 following:

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

IV. Soils

The area consists of soils that are sand and caliche.

V. Scope of Work

Based on the enclosed analytical reports, Yates proposes the following excavation work:

- Excavate 6" from Pad 1, Pad 2 and Pad 3 areas. These three areas will then be backfilled with clean caliche.
- Excavate an additional 3' from the Off Pad area (an area approximately 18' x 10'). The total excavation will then be to a depth of 4' below the surface level and will remove all soils with chloride concentrations greater than 1,000 ppm. The excavation will be backfilled with caliche up to 2' below the surface level. The backfill process will be completed with 2' of clean, like topsoil.
 - The area off pad will be re-seeded with BLM LPC Seed Mix. The area will be re-seeded once excavation and backfill work are completed.
 - The seed will be broadcast and the area will be raked or chained in order to cover the seed. Since the seed will be broadcast, the pounds of live seed per acre will be doubled as recommended by BLM.
 - The area to be re-seeded is approximately 180 ft² or 0.004132231 acres (for simplification 0.005 acres was used to calculate the amount of seed needed for the release area).
 - Based off of BLM's recommended pounds of live seed per acre, the following seed mixture and pounds will be used to re-seed the impacted area.
 - Plains Bristlegrass
 - The BLM recommended seeding rate is 5lbs/acre.
 - 5lbs x 0.005 acres = 0.025 x 2 = 0.05 lbs/acre.
 - Sand Bluestem
 - The BLM recommended seeding rate is 5 lbs/acre.
 - 5lbs x 0.005 acres = 0.025 x 2 = 0.05 lbs/acre.
 - Little Bluestem
 - The BLM recommended seeding rate is 3 lbs/acre.
 - 3 lbs x 0.005 acres = 0.015 x 2 = 0.03 lbs/acre.
 - Big Bluestem
 - The BLM recommended seeding rate is 6 lbs/acre.
 - 6 lbs x 0.005 acres = 0.03 x 2 = 0.06 lbs/acre.
 - Plains Coreopsis
 - The BLM recommended seeding rate is 2 lbs/acre.
 - 2 lbs x 0.005 acres = 0.01 x 2 = 0.02 lbs/acre

- Sand Dropseed
 - The BLM recommended seeding rate is 1 lb/acre.
 - $1 \text{ lb} \times 0.005 \text{ acres} = 0.005 \times 2 = 0.01 \text{ lbs/acre}$
- After seeding, the site will be monitored and re-evaluated at the end of the 2017 summer season to ensure that new vegetative growth is established. If initial re-seeding efforts are unsuccessful, the area will again be re-seeded and monitored. However, if the site does not vegetate as a result of not receiving sufficient moisture, Yates will continue to monitor until such a time that the area does receive sufficient moisture to aid in the re-vegetation process. If the area does receive sufficient moisture, but does not show new vegetative growth after being re-seeded the second time, further investigation will be conducted at the site to determine why vegetative growth is not occurring.
- The area will be monitored for noxious weeds. If noxious weeds are encountered they will be eradicated by chemical treatment and monitored until all plants have been successfully eradicated.
- Contaminated soils that are excavated will be hauled to a NMOCD approved disposal facility.
- Once all excavation and backfill work is complete, Yates will submit a Final Form C-141 to NMOCD requesting closure of this release.