

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.
Santa Fe, NM 87505

Form C-144
June 1, 2004
For drilling and production facilities, submit to
appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☐

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

NOV 06 2007

OCD-ARTESIA

Operator: **Marshall & Winston, Inc.**

Telephone: **432-684-6373**

e-mail address: **tbrandt@mar-win.com**

Address: **PO Box 50880, Midland, Texas 79710-0880**

Facility or well name: **Dublin Federal 23 No. 4** Lease No. **LC-069157** API #: **30:015.35730** U/L: **I S23 T22S R28E 1980' FSL, 660' FEL**

County: **Eddy** Latitude **N** Longitude **W** NAD: 1927 ☐ 1983 ☐

Surface Owner: Federal ☒ State Private ☐ Indian ☐

Pit

Type: Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type: Synthetic ☒ Thickness: 12ml HDPE liner Clay ☐

Pit Volume: 1500 bbl. (Approximately)

Below-grade tank N/A

Volume: N/A bbl Type of fluid: N/A

Construction material: N/A

Double-walled, with leak detection? ☐ If not, explain why not.

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of groundwater.) Depth to groundwater pursuant to NM State Engineer's data and OCD map shows range between 50' and 75' with strong potential depth to extend to approximately 100'. The Dublin Federal 23 No. 1 located adjacent to this location was deep buried and no indication of water was found.

Less than 50 feet	(20 points)
50 feet or more, but less than 100 feet	(10 points)
100 feet or more	(0 points) 0 pts.

Wellhead protection area. (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)

Yes	(20 points)
No <input checked="" type="checkbox"/>	(0 points) 0 pts.

Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet	(20 points)
200 feet or more, but less than 1000 feet	(10 points)
1000 feet or more	(0 points) 0 pts.

Ranking Score (Total Points) 0 pts.

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks (see final report). Digital photos shall be submitted (final report) for before and after remediation activity. (2) Indicate disposal location: Insitu onsite approximately 8 miles east of Otis off US Refinery road. If offsite, name of facility. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☒ Yes ☐ If yes, show depth below ground surface ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: **Please refer to the attached letter for detailed "Closure Plan" information.**

TRENCH BLAY

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: **2 November 2007**

Printed Name/Title: **Tom Brandt, Vice President - Operations** Signature Tom Brandt

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Signature

Signed By Mike Brandt

Date:

NOV 06 2007

NOTIFY OCD 24 HOURS PRIOR to beginning closure and 24 HOURS PRIOR to obtaining samples. Samples are to be obtained from pit area and analyses submitted to OCD prior to back-filling.

If burial trench is to be constructed in pit area, samples are to be obtained and analyses submitted to OCD PRIOR to lining trench.

Mr. Tom Brandt
Vice President - Operations
MARSHALL & WINSTON, INC.
PO Box 50880
Midland, TX 79710-0880

NOV 06 2007
OCD-ARTESIA

November 2, 2007

Mr. Mike Bratcher
OIL CONSERVATION DIVISION
1301 West Grand Avenue
Artesia, NM 88210

Re: Dublin Federal 23 No. 4 Pit Closure Documents

Dear Mr. Bratcher:

Pursuant to the New Mexico State, Oil Conservation Division's (OCD), Rule 50 regulatory requirements for permanent closure of drilling pits, enclosed herewith is the completed Form C-144 and pertinent additional data constituting the "Closure Plan" for permanent closure of the Marshall & Winston, Inc., hereinafter "Marshall & Winston", Dublin Federal 23 No. 4, hereinafter "Dublin No. 4", drilling pit (API No. 30-015-35730 / Lease No. LC-069157) located in U/L I S23 T22S, R28E, 1980 FSL and 660 FEL of Eddy County, New Mexico. Please note, digital photos of the existing pit which photographically also demonstrate physical relationships on location will be presented as a part of the final report.

INTRODUCTION

Remediation of the Marshall & Winston Dublin No. 4 drilling pit is targeted to begin November 2, 2007 with completion expected by November 14, 2007 permitting contractor availability, weather and the occurrence of unexpected conditions not within the Operator's control do not create delays or exacerbate the proposed schedule in any way. Marshall & Winston intends to maintain its commitment to environmental health and safety and fully comply with the Regulatory Performa of the State of New Mexico, Oil Conservation Division (OCD) regarding this disposal action and permanent closure of the Dublin No. 4 drilling pit.

Potential, temporary contamination from the Dublin No. 4 drilling pit site, should any exist, resulted solely from oil and gas production activities. Potential contaminates of concern are typical mid to high-level concentrations of brines, polymers (such as xanthium gum and starch) and in general, drilling mud and fluids remaining upon completion of said drilling operations.

Area land use is primarily ranching with domestic pasturage and oil and gas production activities. The Marshall & Winston Dublin No. 4 drilling pit is physically located in an area wherein the State of New Mexico and the Operator can obtain reliable analytical data for groundwater table depths sufficient enough to ensure *insitu* disposal is definitively an option compliant with New Mexico, OCD, Regulatory Performa. Pursuant to the New Mexico State Engineer's Office database, 2 separate water wells drilled in adjacent proximities, (1) Section 32, GL 39', (2) Section 31, GL 42', document less than 50' levels of seasonal high groundwater elevation, which would restrict closure actions to water sensitive mandates. Included in this search was also evidence that apparently no wells exist in Section 23 which lies much closer in proximity and

unfortunately, wells drilled in Section 29, the next closest in proximity to the Dublin No. 4 location, do not report groundwater elevations resultant of water well drilling activities. However, the Dublin No. 1 was deep buried without any indication of groundwater present.

Likewise, the National Oceanic and Atmospheric Administration's groundwater development data roughly concurs with the "Eddy County Depth to Groundwater" map in substantiating the presence of a moderately aggressive, undulating geologic infrastructure traversing Section 23 showing levels of seasonal high groundwater elevation ranging from approximately 50' in the southwest corner of the section to over 100 feet in the northeast corner. However, it is the opinion of Marshall & Winston predicated upon the above presentments that water is literally "where you find it" in this area. For example, very nearby and directly to the southeast Marbob has recently successfully deep buried the drilling pit for their Irish Whiskey Federal No. 1 location.

Consequently, *insitu* disposal shall be engaged pursuant to Form C-144 as a non-water sensitive designation. It is the belief of Marshall & Winston that compliant environmental performance and reduction of liability in this area pursuant to New Mexico, OCD regulations can be achieved with *insitu* disposal substantiated by the evidentiary data heretofore detailed. Further, should future Regulatory Performa mandate additional action or should the Operator choose to take additional action, the *insitu* option, in this case, (1) limits the environmental impact in general, (2) allows the Operator/government immediate access to said liability, (3) contains said material within the Operator's lease boundary and (4) in the event evidence of water is discovered during the digging of the *insitu* pit, all actions would cease, the OCD would immediately be notified that either a haul off was now prescribed substantiated by new data and/or a test hole would be drilled to ascertain if perhaps a water free area could still be located within the lease boundary, if not within the existing pit itself.

Marshall & Winston shall strictly apply the State of New Mexico, OCD standards, i.e. clean-up level for the Dublin No. 4 drilling pit shall meet the less than 100ppm of TPH, ND for BTEX and the less than 250ppm of chlorides unless otherwise approved and substantiated by background sampling information documented to be higher than the above cited indices. At which juncture, Marshall & Winston shall engage the New Mexico, OCD in discussions to remediate at higher levels commensurate with background.

CLOSURE PLAN

Prior to commencement of closure activities, the Marshall & Winston contractor will contact One-Call for line spot clearance and confirm the State of New Mexico, OCD is in agreement with the proposed "Closure Plan" for removal of approximately 1500 bbl. of liquid followed by the removal of all fines (drill cuttings) providing said fines have either (1) sufficiently dried allowing for maneuverability of heavy equipment in the pit area or that (2) designated mixing shall occur in order to attain sufficient dryness of said fines prior to depositing into the *insitu* 20 ml HDPE liner, enabling *insitu* burial application to take place.

Environmental health and safety regulations mandate control of pit volumes at all times. Thus, the liquid material was pumped off as needed and properly disposed of during active drilling. All water accumulated since this time is either due to liquid material not completely hauled from actual drilling operations or rain. This water will be or has subsequently been hauled from the location and properly disposed of pursuant to OCD Regulatory Performa.

- ❖ Contractor shall mobilize to Dublin No. 4 drilling pit site located approximately 8 miles east of Otis, New Mexico (see Form C-144). Personnel necessary to provide for the initiation and completion of said remediation activities presented above shall be engaged as is appropriate to the mandated exercise.
- ❖ No remediation activity shall occur off the existing pad or already disturbed areas as authorized by the APD and approved Best Management Practices (BMP's). Marshall & Winston shall consider weather conditions and necessary equipment positioning to provide a clear area for adequate staging for site control and safety compliance, ensuring operations shall be compliant with New Mexico, OCD Regulatory Performa.
- ❖ The Dublin No. 4 drilling pit is currently lined with a 12ml HDPE liner, which shall be removed by heavy equipment and disposed of with the drilling fines *insitu* pursuant to New Mexico, OCD requirements. *Insitu* actions provide for the encasement of all drilling pit contents in a 20 ml liner basically comprising a rectangular box shape and placed vertically with sufficient depth below ground to ensure surficial placement of a minimum of three feet of topsoil. Should the bottom of the *insitu* pit be composed of extremely hard, sharp caliche or similar material, it shall first be lined with 4 ounce Geotextile Felt placing the 20ml HDPE liner on top of it with the sides of the "container" married to previously undisturbed ground ensuring no objects such as sharp rocks, etc. shall be in the contact area to reduce the potential of puncturing a pressured "container" resulting from (1) the placement of soil during the burying process and (2) the composition of the pit material contained within it, which over time will, to some degree, exude gaseous buildup.
- ❖ Once the burial trench/pit has been dug to sufficient dimensions to ensure proper placement of the pit contents and lined as above, the track hoe shall begin to deposit pit materials within the secured "container" until all pit material has been placed within it. This 20ml HDPE liner "container" shall not be permanently sealed with its 20ml HDPE cap sewn closed until after the drilling pit bottom has been sampled and approved for closure by the State of New Mexico, OCD. In the event more material must be harvested to achieve compliance, and said harvest shall increase the volume of the *insitu* material to such a degree that it will threaten the integrity of the "container" or potentially cause leakage to occur by reason of increased volume, an additional *insitu* 20ml HDPE liner "container" shall be placed adjacent (when space and terrain permits) to the existing "container". Such action will provide for reasonable assurance that no leakage will occur and maintain all contaminates within a specific geographic location within the lease boundary.
- ❖ Prior to initiation of backfilling, the Operator shall take appropriate samples of the pit area to ensure compliance with OCD Standards for remediation of possible soil chloride levels greater than 250ppm. However if levels at the bottom of the drilling pit test too high, a background set of samples shall be obtained for testing from the immediate vicinity and compared to those of the pit bottom. Simultaneously, more soil shall be removed from the "hot spots". Once completed, new data acquisition shall occur and sample results determine whether or not compliance has been reached in order to begin backfilling. No backfilling shall begin without authorization by and prior verbal notification to the State of New Mexico, OCD.
- ❖ Backfilling of the Dublin No. 4 drilling pit shall be commensurate with existing topography and terrain relief features (contouring) so as to return it to its "near-as"

previous condition, including a contour for moisture accumulation which prevents abnormal or unsustainable water impoundment resulting in erosive actions. Pursuant to the APD, the Dublin No. 4 site shall be seeded in compliance with BLM approved seed mixtures.

- ❖ The "Closure Plan" shall include a final report providing lab analysis of the backfill material, digital project photos and evidentiary narrative to support the completed disposition of the reclaimed Dublin No. 4 drilling pit site.

Should you have questions, please call 432-684-6373 (office) or 432-553-9747 (cell).

Sincerely,

A handwritten signature in black ink, appearing to read "Tom Brandt", written in a cursive style.

Tom Brandt

Vice President - Operations

Enclosures: State of New Mexico, OCD, Form C-144