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 Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

| Incident ID    |  |
|----------------|--|
| District RP    |  |
| Facility ID    |  |
| Application ID |  |

## **Release Notification**

## **Responsible Party**

| Responsible Party Dugan Production Corp.   |   |
|--|---|
| and a superior of the superior | OGRID 006515  |
| Contact Name Kevin Smaka   | Contact Telephone 505-325-1821 x1049  |
| Contact email Kevin.Smaka@duganproduction.com  | Incident # (assigned by OCD) nAPP2211737422   |
| Contact mailing address PO Box 420, Farmington, NM   | 1 87499   |
| Locat  | tion of Release Source  |
| Latitude <u>36.7460747</u>   | Longitude108.2825623  |
| (NAD 8   | 3 in decimal degrees to 5 decimal places)   |
| Site Name Federal I #8   | Site Type Gas Well  |
| Date Release Discovered 4/26/22  | API# (if applicable) 30-045-30178   |
| Unit Letter Section Township Range   | County  |
| C 11 29N 14W   |   |
|  | and Volume of Release  dattach calculations or specific justification for the volumes provided below) |
| Crude Oil Volume Released (bbls)   | Volume Recovered (bbls)   |
| ☑ Produced Water Volume Released (bbls) 11   | Volume Recovered (bbls) 0   |
| Is the concentration of dissol produced water >10,000 mg/  |   |
| Condensate Volume Released (bbls)  | Volume Recovered (bbls)   |
| ☐ Natural Gas Volume Released (Mcf)  | Volume Recovered (Mcf)  |
| Other (describe) Volume/Weight Released (pr  | rovide units) Volume/Weight Recovered (provide units)   |
| Cause of Release   |   |
| Stuffing box leak  |   |

Received by OCD: 8/15/2023 3:24:27 PM Form C-141 State of New Mexico Page 2 Oil Conservation Division

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|-----|----|---|---|-----|-----|-----|
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| 1 L |    |   | 4 | v,  |     | J   |
|     |    |   |   |     |     |     |

| Incident ID    |  |
|----------------|--|
| District RP    |  |
| Facility ID    |  |
| Application ID |  |

| Was this a major release as defined by 19.15.29.7(A) NMAC?  ☐ Yes ☑ No                            | If YES, for what reason(s) does the respo   | nsible party consider this a major release?   |
|---|---|---|
|   | otice given to the OCD? By whom? To we submitted in NMOCD Permitting 4/27/22 (  | nom? When and by what means (phone, email, etc)? Action ID 101891)  |
|   | Initial R   | esponse   |
| The responsible p   | party must undertake the following actions immediate  | ly unless they could create a safety hazard that would result in injury   |
|   | ease has been stopped.  as been secured to protect human health and   | the environment.  |
|   | -   | dikes, absorbent pads, or other containment devices.  |
|   | ecoverable materials have been removed ar   | -   |
|   |   |   |
| has begun, please attach  | a narrative of actions to date. If remedial   | remediation immediately after discovery of a release. If remediation efforts have been successfully completed or if the release occurred blease attach all information needed for closure evaluation.   |
| regulations all operators are<br>public health or the environing<br>failed to adequately investig | required to report and/or file certain release not<br>ment. The acceptance of a C-141 report by the<br>tate and remediate contamination that pose a thr | best of my knowledge and understand that pursuant to OCD rules and fications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In responsibility for compliance with any other federal, state, or local laws |
| Printed Name: <u>Kevin Sn</u>   | maka  | Title: Regulatory Engineer  |
| Signature:  |   | Date:   |
| email: <u>Kevin.Smaka@d</u>   | uganproduction.com_   | Telephone: _505-325-1821 x1049  |
| OCD Only  |   |   |
| Received by:  |   | Date:   |

Received by OCD: 8/15/2023 3:24:27 PM Form C-141 State of New Mexico Page 3 Oil Conservation Division

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|----------------|--------------|
| Incident ID    |              |
| District RP    |              |
| Facility ID    |              |
| Application ID |              |

## Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

| What is the shallowest depth to groundwater beneath the area affected by the release?  | (ft bgs)              |  |
|--|-----------------------|--|
| Did this release impact groundwater or surface water?  | ☐ Yes ☐ No            |  |
| Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?   | ☐ Yes ☐ No            |  |
| Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?   | ☐ Yes ☐ No            |  |
| Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?   | ☐ Yes ☐ No            |  |
| Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?  | ☐ Yes ☐ No            |  |
| Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?   | ☐ Yes ☐ No            |  |
| Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?  | ☐ Yes ☐ No            |  |
| Are the lateral extents of the release within 300 feet of a wetland?   | ☐ Yes ☐ No            |  |
| Are the lateral extents of the release overlying a subsurface mine?  | ☐ Yes ☐ No            |  |
| Are the lateral extents of the release overlying an unstable area such as karst geology?   | ☐ Yes ☐ No            |  |
| Are the lateral extents of the release within a 100-year floodplain?   | ☐ Yes ☐ No            |  |
| Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?   | ☐ Yes ☐ No            |  |
| Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.  | tical extents of soil |  |
| Characterization Report Checklist: Each of the following items must be included in the report.   |                       |  |
| Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.  Field data  Data table of soil contaminant concentration data  Depth to water determination  Determination of water sources and significant watercourses within ⅓-mile of the lateral extents of the release  Boring or excavation logs  Photographs including date and GIS information |                       |  |
| ☐ Topographic/Aerial maps ☐ Laboratory data including chain of custody   |                       |  |

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Received by OCD: 8/15/2023 3:24:27 PM Form C-141 State of New Mexico Page 4 Oil Conservation Division

Page 4 of 15

Incident ID

District RP

Facility ID

Application ID

| I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. |                                |  |  |
|--|--------------------------------|--|--|
| Printed Name:  | Title: Engineer                |  |  |
| Signature:   | Date:                          |  |  |
| email: <u>Kevin.Smaka@duganproduction.com</u>  | Telephone: _505-325-1821 x1049 |  |  |
|  |                                |  |  |
| OCD Only   |                                |  |  |
| Received by:   | Date:                          |  |  |
|  |                                |  |  |

Received by OCD: 8/15/2023 3:24:27 PM Form C-141 State of New Mexico Page 5 Oil Conservation Division

Page 5 of 15

| Incident ID    | NAPP2211737422 |
|----------------|----------------|
| District RP    |                |
| Facility ID    |                |
| Application ID |                |

# **Remediation Plan**

| Remediation Plan Checklist: Each of the following items must be included   | led in the plan.                                    |  |  |
|--|---|--|--|
| Detailed description of proposed remediation technique  Scaled sitemap with GPS coordinates showing delineation points  Estimated volume of material to be remediated  Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4)  Proposed schedule for remediation (note if remediation plan timeline is   |   |  |  |
| Deferral Requests Only: Each of the following items must be confirmed  | as part of any request for deferral of remediation. |  |  |
| Contamination must be in areas immediately under or around production deconstruction.  |   |  |  |
| Extents of contamination must be fully delineated.   |   |  |  |
| Contamination does not cause an imminent risk to human health, the en  | nvironment, or groundwater.                         |  |  |
| I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.  Printed Name: Kevin Smaka@duganproduction.com  Title: Engineer  Date: 8-/5-2023  Telephone: 505-325-1821 x1049 |   |  |  |
| OCD Only   |   |  |  |
| Received by: Shelly Wells Date   | : 8/16/2023   |  |  |
| ☐ Approved   | val Denied Deferral Approved                        |  |  |
| Signature: Date:   |   |  |  |

Received by OCD: 8/15/2023 3:24:27 PM Form C-141 State of New Mexico Page 6 Oil Conservation Division

Incident ID
District RP
Facility ID

Application ID

## **Closure**

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

| Closure Report Attach  | ment Checklist: Each of the following   | items must be inclu   | ded in the closure report.  |
|--|---|---|---|
| ☐ A scaled site and sar  | mpling diagram as described in 19.15.29.  | 11 NMAC   |   |
| Photographs of the must be notified 2 days p   |   | of the liner integri  | ty if applicable (Note: appropriate OCD District office   |
| ☐ Laboratory analyses  | of final sampling (Note: appropriate OD   | C District office mu  | ast be notified 2 days prior to final sampling)   |
| Description of remed   | diation activities  |   |   |
|  |   |   |   |
| and regulations all operate<br>may endanger public heal<br>should their operations ha<br>human health or the envir-<br>compliance with any othe<br>restore, reclaim, and re-ve | ors are required to report and/or file certain<br>the or the environment. The acceptance of<br>ve failed to adequately investigate and re-<br>conment. In addition, OCD acceptance of<br>r federal, state, or local laws and/or regular | in release notification of a C-141 report by mediate contaminate a C-141 report does ations. The responsion of the transport of the transport of the responsion of the transport of transport of the transport of transport of the transport of the transport of transport of the transport of transport | whowledge and understand that pursuant to OCD rules ons and perform corrective actions for releases which the OCD does not relieve the operator of liability into that pose a threat to groundwater, surface water, is not relieve the operator of responsibility for sible party acknowledges they must substantially diprior to the release or their final land use in the tion and re-vegetation are complete. |
| Printed Name:  |   | Title:  |   |
| Signature:   |   | Date:   |   |
| email:   |   | Telephone:  |   |
|  |   |   |   |
| OCD Only   |   |   |   |
| Received by:   |   | Date:   |   |
| remediate contamination t  |   | water, human healt  | their operations have failed to adequately investigate and h, or the environment nor does not relieve the responsible   |
| Closure Approved by:   | INFORMATION ONLY  | Date:   | 02/06/2024  |
| Printed Name:  | Nelson Velez  | Title: _  | Environmental Specialist – Adv  |
|  |   |   |   |

Accepted for the record. Operator will submit a remediation closure report in the near future. Remediation has met 19.15.29 NMAC requirements. Soil impacts exceeding the reclamation standards have been left in place and are required to meet 19.15.29.13D (1) NMAC once the site is no longer reasonably needed for production or subsequent drilling ops.

### Federal I 8

## Updated Site Characterization and Remediation Plan

30-045-30178

C-11-29N-14W

790 FNL 1530 FWL

### **Spill Background**

There was a produced water spill at the Federal I 8 on April 26<sup>th</sup>, 2022. The spill area was most nearly 1000 feet square. In response to the spill, the well was shut in, a vacuum truck was dispatched to collect free standing water. A fence was erected to prevent wildlife from drinking the water. No injuries, deaths or fires occurred in consequence of this spill.

#### **Site Characterization and Remediation Plan**

On 10/14/22 Dugan submitted a C-141 site characterization and remediation plan to NMOCD which was subsequently approved.

#### Field Data

As noted above the spill was found on April 26<sup>th</sup>. The spill was mapped, and test holes were dug with a shovel to determine the depth the water soaked to. It was found that the average depth of wet soil was found was 1 foot. Dugan erected a fence to prevent additional access to the spill site. No further excavation or boring took place and in consequence no boring/excavation logs are available. The total affected volume of soil is most nearly 1000 cubic feet.

Dugan collected soil samples on August 30th, 2022. A tabulation of those results is here:

**Table 1: Soil Sample Results** 

| Sample ID | Chlorides | TPH | BTEX |
|-----------|-----------|-----|------|
| Fed I8-1  | 82.1      | 0   | 0    |
| Fed 18-2  | 18400     | 0   | 0    |
| Fed 18-3  | 4600      | 81  | 0    |
| Fed 18-4  | 58        | 0   | 0    |
| Fed 18-5  | 2630      | 0   | 0    |

Results indicated that 3 sample areas did not have the standards for closure. Work will continue to ensure the site is remediated and that the spill is delineated laterally and horizontally.

No boring or excavation took place and as a result those logs are not available.

On November 4<sup>th</sup>, 2022 Dugan collected soil samples for closure purposes. Dugan sampled for chlorides, total petroleum hydrocarbons, benzene, toluene, ethylbenzene and xylene. A copy of the lab report is included with this report as well as a tabulation of the results here:

|        |        | BTEX    | BTEX     |     | TPH     | TPH      | Chlorides | Chlorides |  |
|--------|--------|---------|----------|-----|---------|----------|-----------|-----------|--|
| Sample |        | Result  | Standard |     | Result  | Standard | Result    | Standard  |  |
| Name   | Map ID | (mg/kg) | (mg/     | kg) | (mg/kg) | (mg/kg)  | (mg/kg)   | (mg/kg)   |  |
| FI 1   | 179    | 0       |          | 50  | 0       | 2500     | 44.2      | 600       |  |
| FI 2   | 186    | 0       |          | 50  | 0       | 2500     | 27.5      | 600       |  |
| FI 3   | 181    | 0       |          | 50  | 0       | 2500     | 80.2      | 600       |  |
| FI 4   | 182    | 0       |          | 50  | 0       | 2500     | 26.9      | 600       |  |
| FI 5   | 183    | 0       |          | 50  | 0       | 2500     | 73.8      | 600       |  |
| FI 6   | 184    | 0       |          | 50  | 0       | 2500     | 151       | 600       |  |
| FI 7   | 185    | 0       |          | 50  | 0       | 2500     | 138       | 600       |  |
| FI 8   | 180    | 0       |          | 50  | 0       | 2500     | 101       | 600       |  |

These lab results were collected as 5-point composite samples at 2' BGS

The soil sampling locations are found on Map 1: Spill site map.

Prior to receiving OCD approval for closure, it was noted that delineation efforts were inadequate. To correct this additional testing was ordered for areas outside of the known spill area.

On July 6<sup>th</sup>, 2023, Dugan gathered additional soil samples only testing for chlorides since sampling always indicated no contaminants present were above the values in table 1 of NMAC 19.15.29

#### A tabulation of the results is given here:

|             | Chlorides Results |
|-------------|-------------------|
| Federal I 8 | (mg/kg)           |
| BH 1 @1'    | 2000              |
| BH 1 @2'    | 2300              |
| BH 2 @1'    | 3200              |
| BH 2 @2'    | 1800              |
| BH 3 @ 6"   | 320               |
| BH 3 @ 1'   | 0                 |
| BH 4 @6"    | 0                 |
| BH4 @ 1'    | 0                 |
| BH5 @6"     | 0                 |
| BH 5 @1'    | 67                |
| BH 6 @6"    | 78                |
| BH 6 @ 1'   | 69                |

The samples were collected with a hand auger. Initial bore holes were sampled at 1' and 2' below grade surface (BGS) but due to the rocky soil it became impractical to continue sampling at 1' and 2' BGS. The decision was made to sample at 6" and 1' BGS. These results indicate that the areas surrounding bore holes 1 and 2 are not successfully remediated and further work is required. A map showing each bore hole location and the lab results have been included.

#### **Updated Remediation Plan**

Dugan is proposing the following actions be taken:

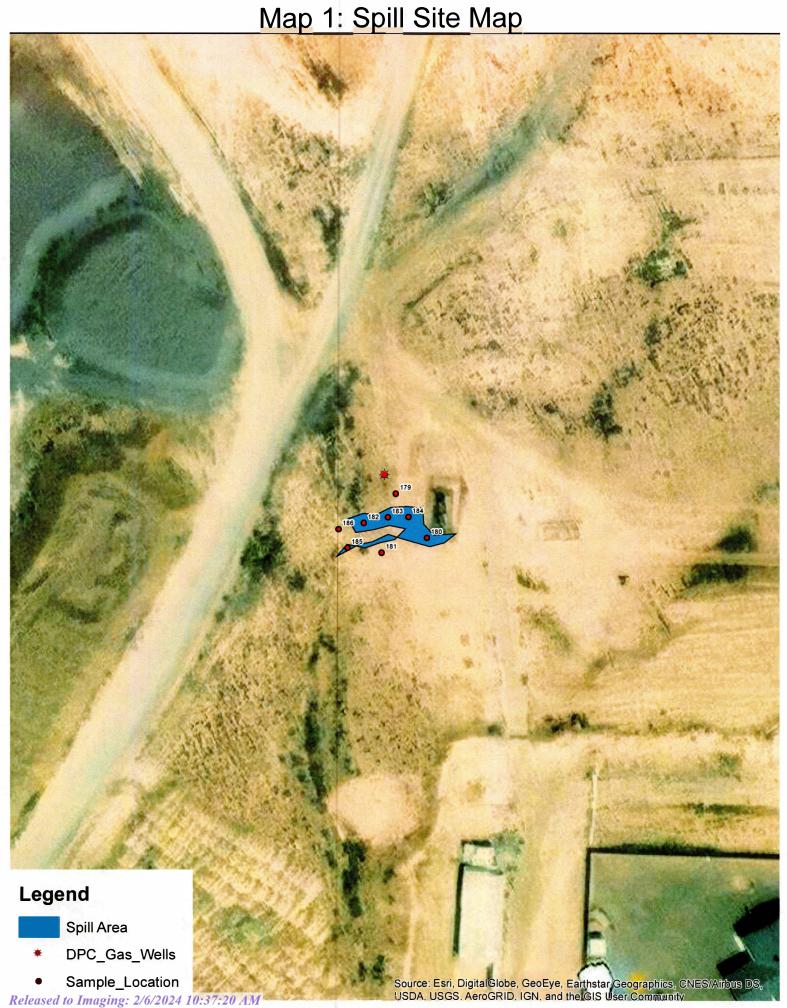
- 1. The site will be delineated laterally and vertically on the eastern portion of the site located near boreholes 1 and 2 prior to resuming remedial activities. At the boreholes it is proposed samples be collected at 3 and 4 feet to determine if there is additional contamination under the spill site. To laterally delineate it is proposed that samples be collected at grade and 1' BGS. Dugan will collect 3 delineation samples approximately 5' east of borehole 1 and 2 more delineation samples 5' south of bore hole 2.
- 2. Dugan will apply gypsum and water to area surrounding boreholes 1 and 2. No remedial actions will be taken in the areas surrounding boreholes 3,4,5 or 6 since these areas meet the standards for closure in NMAC 19.15.29.
- 3. Dugan will collect soil samples every 6 months until successful remediation has been achieved. Dugan will sample chlorides only. Prior lab results have not shown

contamination for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene and xylene (BTEX). The standard for closure will be 600 mg/kg since the remaining contaminants are found in the top 4' of the spill site. Dugan anticipates closure will be achieved by August 15<sup>th</sup>, 2024.

#### **Attachments**

Three new maps are included as part of this submittal. Their details are provided below:

- 1. Map 1 shows the sampling locations for the sampling event on 11/4/2022.
- 2. Map 2 shows the proposed delineation points to fully delineate the site.
- 3. Map 3 shows the delineation points relative to the spill area.
- 4. Map 4 is the contractors site map for the sampling event on 7/6/2023.

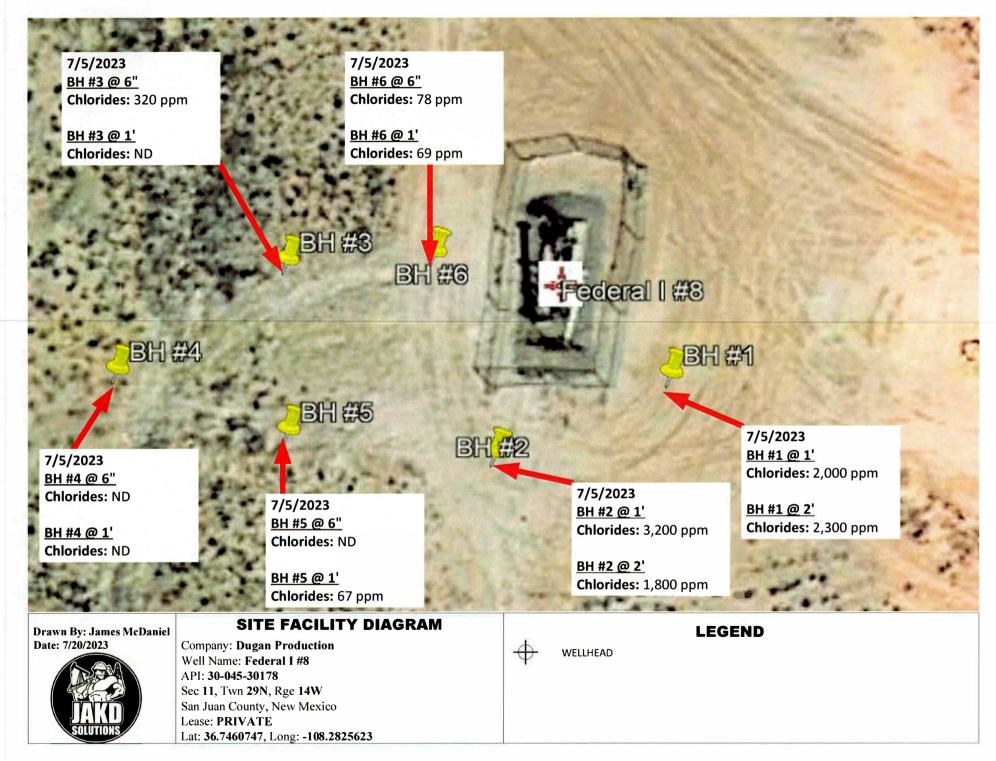


Map 2: Proposed Delineation Locations



Map 3: Delineation Locations





District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505** 

CONDITIONS

Action 252463

#### **CONDITIONS**

| Operator:             | OGRID:                                    |
|-----------------------|---|
| DUGAN PRODUCTION CORP | 6515                                      |
| PO Box 420            | Action Number:                            |
| Farmington, NM 87499  | 252463                                    |
|                       | Action Type:                              |
|                       | [C-141] Release Corrective Action (C-141) |

#### CONDITIONS

| Created<br>By | Condition  | Condition<br>Date |
|---------------|--|-------------------|
| nvelez        | Accepted for the record. Operator will submit a remediation closure report in the near future. Remediation has met 19.15.29 NMAC requirements. Soil impacts exceeding the reclamation standards have been left in place and are required to meet 19.15.29.13D (1) NMAC once the site is no longer reasonably needed for production or subsequent drilling ops. | 2/6/2024          |