

**RAILROAD COMMISSION OF TEXAS  
HEARINGS DIVISION**

**SURFACE MINING DOCKET NO. C20-0009-SC-48-F  
APPLICATION BY LUMINANT MINING COMPANY LLC  
FOR PHASES II AND III RELEASE OF RECLAMATION OBLIGATIONS  
FOR 225.8 ACRES, PERMIT NO. 48C, THREE OAKS MINE  
LEE AND BASTROP COUNTIES, TEXAS**

**ORDER APPROVING PHASES II AND III RELEASE OF  
RECLAMATION OBLIGATIONS ON 225.8 ACRES**

**STATEMENT OF THE CASE**

Luminant Mining Company LLC ("Luminant"), 6555 Sierra Drive, Irving, Texas 75039, applied to the Railroad Commission of Texas ("Commission"), Surface Mining and Reclamation Division, for the release of Phase II and III reclamation obligations on 225.8 acres within Permit No. 48C, Three Oaks Mine, Lee and Bastrop Counties, Texas. The application is made pursuant to the Texas Surface Coal Mining and Reclamation Act, Tex. Nat. Res. Code Ann. Ch. 134 (Vernon Supp. 2020), and the "Coal Mining Regulations," Tex. R.R. Comm'n, 16 Tex. Admin. Code Ch. 12 (Thomson West 2020). No new bond instrument has been filed, and Luminant does not request reduction of the bond at this time.

Permit No. 48C currently authorizes surface coal mining operations at the Three Oaks Mine within an approximate 15,809-acre permit area. Copies of the application for release were filed in the required county and Commission offices, and notice was mailed to landowners of the area requested for release and to adjoining landowners. After public notice, one written comment from a person was received, but no requests for hearing were filed. The only parties to the proceeding are Luminant and the Commission's Surface Mining and Reclamation Division ("Staff"). Based on the information provided by the Application, Staff's technical analysis, and the field inspection report for the proposed areas of release, Staff recommends the approval of release of reclamation obligations for the requested release phases on the subject 225.8 acres. The parties have filed waivers of preparation and circulation of a proposal for decision.

Based upon the evidence in the record, reclamation requirements have been met for the acreage requested for release. The Commission approves the request as set out in this Order. Luminant is eligible to reduce the bond by an amount attributable to released phases on the 225.8 acres when a future adjustment to the bond is requested.

DATE	ACTION
October 23, 2019	Luminant submits Application for Phase II and III release of reclamation obligations on 225.8 acres
October 29, 2019	Copy of Application provided to Hearings Division for review of public notice
December 20, 2019	Assigned Administrative Law Judge (“ALJ”) approves Luminant’s proposed public notice
January 27, 2020	Staff notifies Judges of Lee and Bastrop Counties of the proposed release

DATE	ACTION
<i>Lexington Leader</i> : January 16, 23, 30, and February 6, 2020; <i>The Elgin Courier</i> : January 15, 22, 29, and February 5, 2020	Luminant publishes Notice of Application in newspapers of general circulation in the locality of the surface coal mining operation
February 21, 2020	Staff files comment letter received from area resident on February 20, 2020, and copy of Staff letter sent to resident referring him to ALJ for further comment
February 24, 2020	Luminant letter transmitting proof of publication and copies of landowner and agency notification letters
February 26, 2020	Luminant files clarification letter regarding comment letter from area resident
February 28, 2020	SMRD Director declares the Application administratively complete
March 4, 2020	Letter from ALJ to Luminant and Staff, directing them to contact area resident regarding issues noted in letter received on 02/21/2020  Letter from ALJ to commenter informing him his letter was timely and that a deadline to request a hearing or informal conference would be set by separate correspondence
April 3, 2020	Letter from Luminant to ALJ, in accordance with ALJ's 03/04/2020 letter, describing its contact with area resident and attempted resolution of issues noted in letter received on 02/20/2020
May 13, 2020	Staff files its TA and Inspection Report
May 14, 2020	Letter from ALJ to Staff again directing Staff to respond to ALJ's 03/04/2020 letter
May 21, 2020	Letter from Staff amending May 13, 2020 TA to include copy of Staff letter sent to commenter providing a copy of its Inspection Report

DATE	ACTION
May 21, 2020	Letter from ALJ to commenter setting a deadline of June 1, 2020 to file a request for hearing or informal conference
May 27, 2020	Letter from ALJ requesting clarification regarding Luminant's current performance bond, the approved reclamation cost estimate for the permit and Staff's eligible bond reduction amount specified in its TA
May 28 and 29, 2020	Luminant and Staff respond to ALJ's May 27, 2020 letter, respectively

4. As identified in Finding of Fact No. 3, *supra*, notice of the Application was published once per week for four consecutive weeks in *The Lexington Leader* on January 16, 23, and 30, and February 6, 2020, and in the *The Elgin Courier* once a week for four consecutive weeks on January 15, 22, and 29, and February 5, 2020, respectively, both of which are newspapers of general circulation in the vicinity of the Three Oaks Mine in Lee and Bastrop Counties, Texas. The notices of application contain all information required by §134.129 of the Act and §12.312(a)(2) of the Regulations for notice of application for release of reclamation obligations. The notices contained a statement that the Applicant does not seek a reduction in the approved bond but that an eligible bond reduction amount may be determined. The published notices are adequate notification of the request for release. The notices included the name of the permittee, the precise location of the land affected, the number of acres, permit number at the time of Application and date approved, the amount of the approved bond, the type of and appropriate dates on which reclamation work was performed, and a description of the results achieved as they related to the approved reclamation plan. The notices also contained information on the availability of the Application for inspection, and the address to which comments should be sent, and a map showing a sufficient delineation of the boundaries of the area requested for release. Luminant submitted affidavits of publication with newspaper clippings by letter dated February 24, 2020.
5. Following publication of the notice of application, one adverse comment was submitted to the SMRD Director by Mr. Bud Soto on February 20, 2020. The comment letter, transmitted to Hearings Division by letter dated February 21, 2020, expresses a general displeasure with the quality of construction of the rerouted highway [Farm-to-Market Road ("FM") 696] adjacent to the requested release area, and what he considered poor reclamation of the requested release area to pastureland rather than a forested land use. Luminant memorialized its position regarding Mr. Soto's comments by letter dated February 26, 2020, stating that reclamation efforts have been conducted in full compliance with the approved permit and noting that FM 696 is owned and operated by the State of

Texas, making the road and right-of-way irrelevant to the subject application. Luminant further asserted that Mr. Soto's current address is more than nine miles from the subject release area and is not included in or adjacent to any portion of Permit No. 48C. After the application was declared administratively complete and transferred to the Hearings Division by the SMRD Director on February 28, 2020, the ALJ requested by letter dated March 4, 2020 that Luminant and Staff contact Mr. Soto regarding his concerns and file a copy of any relevant correspondence in the docket. In the same letter, Staff was instructed to send Mr. Soto a copy of its Inspection Report of the subject area and file a copy of its letter transmitting the report. The parties were also informed that a deadline would be set for Mr. Soto to file a request for informal conference or hearing after he received the report, given that deadlines for either proceeding are not specifically addressed in the regulations governing bond release applications. By separate correspondence dated March 4, 2020, the ALJ notified Mr. Soto that his comments were timely, had been accepted into the record, would be considered prior to final action on the application, and that a deadline would be set for him to request a hearing or informal conference in the matter following receipt of Staff's Inspection Report. By letter dated April 3, 2020, Luminant documented the substance of a 45-minute phone conversation it had with Mr. Soto on March 12, 2020. Following the receipt of Staff's TA recommending approval of the application absent any indication in the record that Mr. Soto had been contacted or provided the Inspection Report as requested, Staff was ordered by the ALJ to file a copy of its letter transmitting the Inspection Report to Mr. Soto by letter dated May 14, 2020. By letter dated May 21, 2020, Staff revised its TA by filing Attachment IV that consists of a copy of its letter dated March 6, 2020 that documents its Inspection Report had been sent to Mr. Soto on March 6. On May 21, 2020, the ALJ sent Mr. Soto a letter referencing Staff's March 6 transmittal letter and setting a deadline of June 1, 2020 to request an informal conference or hearing while specifying that any such request may be made by efile addressed to the Docket Services Section of the Hearings Division. A timely request for hearing or informal conference was not received from Mr. Soto or any other person in this matter. A public hearing is not warranted.

6. Copies of the Application were filed for public review in the Offices of the County Clerk of Lee and Bastrop Counties, Texas, and in the offices of the Surface Mining and Reclamation Division, Railroad Commission of Texas at 1701 North Congress Avenue, William B. Travis Building, Austin, Texas.
7. Luminant sent notice of the Application to owners of interests within and adjacent to the areas requested for release. Luminant also sent notice to local governmental bodies, planning agencies, sewage and water treatment authorities and water companies in the locality as required by §12.312(a)(2) of the Regulations. The notice was provided via first-class letter mailings dated January 20, 2020. Luminant mailed notice to the U.S. Army Corps of Engineers, Natural Resources Conservation Service (Temple Office), Texas Commission on Environmental Quality, Bastrop County, Bastrop County Judge/County

Commissioners Court, Lee County Judge/County Commissioners Court, U.S. Environmental Protection Agency, Texas Department of Transportation, Texas General Land Office, Brazos River Authority, Texas State Soil and Water Conservation Board, Lee County Soil and Water Conservation District, the Bastrop County Soil and Water Conservation District, and Aqua Water Supply Corporation. Copies of notification letters were filed by Luminant with the Commission by letter dated February 24, 2020.

8. SMRD notified Judge Paul Fischer of Lee County, and Judge Paul Pape of Bastrop County, of receipt of the Application, as required by §134.133 of the Act, by certified letters dated January 27, 2020. The areas requested for release are not located within the boundary of any municipality that would be notified pursuant to §12.313(c) of the Regulations. Mailing of notification was provided at least 31 days prior to the date of consideration of the docket by the Commission in accordance with §134.133 of the Act. Copies of the letters to the County Judges were provided in Attachment II of Staff's TA.
9. Pursuant to §12.312(b) of the Regulations, Staff notified owners of interests in lands within and adjacent to the requested release area of the Application and the Office of Surface Mining Reclamation and Enforcement ("OSM"), Tulsa Field Office by letters dated October 29, 2019, of the date and time of Staff's field inspection scheduled for November 18, 2019. The notification stated that the subject release had been requested and, pursuant to §12.312, advised recipients of their opportunity to participate in the on-site inspection. Staff provided copies of the letters in its TA in Appendix II of Attachment III (Inspection Report). Luminant indicates that no leased tracts are present within the requested release area and, therefore, no landowner consultations are needed.
10. The inspection occurred on the scheduled date of November 18, 2019. SMRD Inspection and Enforcement ("I&E") Staff Inspector Cade Harris and I&E Manager Jason Corley, accompanied by OSM Inspector Robin Lynch, and by Luminant representative Chad Clark, conducted an inspection of the areas requested for release. Mr. Harris' inspection report dated October 8, 2019, is included as Attachment III to Staff's TA. Based on his inspection, Mr. Harris concluded that, subject to further review of the Application by SMRD's Application and Permits Section, the acres requested for Phase II and III release of reclamation performance obligations are in compliance with the performance standards of Permit No. 48C and the Texas Coal Mining Regulations.
11. The permit area is comprised of approximately 15,809 acres located approximately 5 miles east of Elgin, Texas, and 3 miles north of McDade, Texas. A general location map of the permit area, with the 225.8 acres proposed for release is found in Appendix IV of Staff's Inspection Report. The area is depicted in photographs taken during Staff's inspection as provided in Appendix IV of the Inspection Report. The Application, photographic evidence, Staff's Inspection Report, and Staff's TA, as amended, provide support for the Phases II and III release of reclamation obligations for the requested release area.

12. As set forth in the Application (page IV.A.5-1), the approved postmine land use within the proposed release area is pastureland.
13. The subject acreage requested for release was mined and/or disturbed by mining-related activities from 2003 to 2010. Final grading took place between 2004 and 2011, and planting of permanent vegetation occurred from 2005 to 2012. Staff conducted routine monthly inspections of the proposed release area during this time. All requested 225.8 acres proposed for Phase II and III release have been in the extended responsibility period ("ERP") for a minimum of five consecutive years.
14. The 225.8 acres requested for release of reclamation liability were previously released from Phase I reclamation obligations by Commission Order dated July 15, 2015 (Docket No. C14-0004-SC-48-F). The Commission found in this Order that requirements for backfilling, regrading, and drainage control had been met for the requested area.
15. The 225.8 acres proposed for release of reclamation liability contain four permanent diversions (Finding of Fact No. 20, *infra*). These four structures were approved as permanent by the SMRD Director on February 16, 2012. Approval letters for the structures have been provided in the Application (Section VI). I&E Staff observed that the structures appeared to be stable and structurally intact during its field inspection of the acreage. Staff provided photographs of the structures in Appendix IV of Attachment III of the TA, showing the surrounding areas are well vegetated. The structures are consistent with the approved postmine land use of pastureland (See Finding of Fact No. 22, *infra*).
16. Luminant has successfully completed all activities related to revegetation of the 225.8 acres proposed for release of Phase II and III reclamation obligations in accordance with the approved reclamation plan, and §12.313(a)(2)-(3) and §12.395 of the Regulations. Areas requested for Phase II release have met Phase II requirements for the establishment of vegetation. Luminant submitted ground cover and productivity data for this pastureland acreage. Additionally, a random 10% resampling of required soils within the proposed release area indicates the subject acreage may be granted Phase III release, having satisfied the soil suitability requirements of §12.335 and §12.386 of the Regulations and the requirements of the approved postmine soil-testing plan.
  - a. Permanent vegetation was planted from 2005 through 2012. The areas proposed for release have an approved postmine land use of pastureland. Based upon the inspection conducted, Staff has determined that the land has been reclaimed to the appropriate postmine land use as required by §12.147 and §12.399 of the Regulations.
  - b. The 225.8 acres of pastureland postmine land use have been revegetated primarily with Hybrid and Common bermudagrass consistent with general revegetation

requirements at §12.390. As noted by Luminant, indigenous plants and native bunchgrasses also occur due to seed and root stock present in the postmining soils. The requested release acreage is comprised of one land management unit ("LMU"), designated as LMU A-2013-P. In accordance with the approved postmine soil-testing plan, Luminant submitted soil-fertility data for this pastureland LMU for years 2014, 2015 and 2016, approved by the SMRD Director by letters dated May 28, 2015, May 9, 2016, and April 26, 2017, respectively, which samples did not indicate that augmented fertilization occurred within the LMU.

- c. For pastureland to be eligible for Phase III release, vegetation parameters must equal or exceed the approved standards during the growing seasons of any two years of the ERP, except the first year [§12.395(c)(2)]. LMU A-2013-P was placed in the ERP on September 3, 2013. Luminant submitted ground-cover and productivity data for the 2015 growing season by letter dated September 26, 2016, and SMRD approved the data by letter dated December 15, 2016. Ground-cover and productivity data for 2016 was submitted by letter dated May 26, 2017, and SMRD approved the data by letter dated July 7, 2017, indicating that the ground-cover/productivity data met or exceeded the approved standards for the land use of pastureland for this LMU. Luminant has met Phase III requirements for revegetation of pastureland in accordance with §12.395.
  - d. Completion of the five-year period of extended responsibility applicable to this permit area, having at least 26 inches of rainfall annually, has been met for the postmine pastureland acreage within the proposed release area. [§12.395(c)(2)].
  - e. No portion of the area proposed for release of reclamation liability has soils classified as prime farmland prior to mining for which specific reclamation standards would apply. [§§12.624 - 12.625].
17. The 225.8 acres proposed for release from Phase II requirements are not contributing suspended solids to streamflow or runoff outside the permit area in excess of established effluent limitations pursuant to §12.313(a)(2). An examination of water discharged from sedimentation ponds to receiving streams shows that the water-quality requirements of §12.349 have been met. As described by Staff, the two parcels proposed for release of Phase II and III reclamation liability drain to several separate watersheds in both the Brazos and Colorado River Basins. Luminant depicts the parcels and the topography of the area on Plate III.B.3-1, *Wells/Ponds/Watersheds Location Map*. Parcel No. 1 and the western half of Parcel No. 2 drain to an unnamed tributary of Big Sandy Creek, thence to Big Sandy Creek, thence to the Colorado River above La Grange (TCEQ Stream Segment No. 1434). The eastern portion of Parcel No. 2 drains to Willow Creek, thence to Middle Yegua Creek, thence to Yegua Creek, thence to Somerville Lake (TCEQ Stream Segment No. 1212).



- a. During the period of record, runoff from the area proposed for release from reclamation obligations was controlled by Ponds SP-1 (Outfall 001) and SP-2 (Outfall 002). Pond discharges at the Three Oaks Mine are currently monitored under TPDES Permit No. 4348. Luminant indicates (Section VI, page 7) that TCEQ removed TDS as a required TPDES permit parameter in 2014. The watershed of Ponds SP-1 and SP-2 are delineated on Plate III.B.3-1, *Wells/Ponds/Watersheds Location Map*.
- b. Sample data for Ponds SP-1 and SP-2 were submitted with the application. Luminant provides a summary and discussion of the long-term pond data in Appendix I (page 7) of the application. Data were reported in Appendix C for Ponds SP-1 and SP-2 for the period of record. A data summary is provided in Table III.B.3-1 of the application. Discharge samples were analyzed for pH, total iron (Fe), total suspended solids (TSS) and settleable solids (TSM). TPDES Permit No. 4348 requires Luminant to report concentrations for pH, total Fe and TSS as well as flow in million gallons per day (MGD). The minimum, maximum and average concentrations for the analyzed parameters and measurements for flow are summarized below along with their respective TPDES permit standards:

<b>Pond (Period of Record)</b>	<b>Flow, mgd Range (average)</b>	<b>pH, s.u. Range (median)</b>	<b>TSS, mg/L Range (average)</b>	<b>Fe, mg/L Range (average)</b>	<b>TSM, ml/L Range (average)</b>
SP-1 (Outfall 001) (November 2004 - July 2019)	0-917.1 (10.34)	6.1-8.9 (7.8)	1-55 (9.0)	0.02-1.81 (0.17)	<0.1
SP-2 (Outfall 002) (November 2004 - May 2019)	0.04-71.0 (6.13)	6.5-9.0 (7.3)	3-32 (13.0)	0.10-1.90 (0.24)	<0.1-0.2 (--)
Effluent Limits	None	6.0-9.0	35/70*	3.0/6.0	0.5

\* allowable daily average/allowable daily maximum

- c. The discharge data for Ponds SP-1 and SP-2 demonstrate that pH, Fe, TSS, and TSM concentrations fall within effluent standards for Luminant's discharge permit (TPDES Permit No. 4348).
- d. There are no permanent impoundments located within the area proposed for Phase II release from reclamation obligations.
- e. Mining activities were conducted to minimize the formation of acidic or toxic drainage and to prevent additional contributions of suspended solids to streamflow outside the permit area and to otherwise prevent water pollution. Staff recommends Phase II release from reclamation obligations for the proposed 225.8 acres because all discharges reported for the period of record indicate compliance with the discharge permit and the areas proposed for Phase II release from reclamation obligations are

18. Luminant has addressed the requirements of §12.348 (relating to *Hydrologic Balance: Groundwater Protection*) via submission and evaluation of groundwater-monitoring data for the overburden, spoil and underburden aquifers within and adjacent to the Three Oaks Mine. Within the mine area, the general ground-water hydrologic system consisted of premine overburden aquifers (shallow systems within 100-175 feet from the surface) in the reclaimed area that have been destroyed by the mining process; however, these constituted only minor aquifers. The underburden aquifers in the Three Oaks Mine area are separated from the overlying mined spoil by clays five feet or more in thickness. Immediately below this underclay are the shallowest water-bearing underburden units, which are relatively thin, silty sand lenses interbedded with clay units and lignite stringers but have only limited lateral hydrologic extent. The shallowest significant aquifer within the mine area is the Simsboro Formation, which immediately underlies the lignite-bearing unit, the Calvert Bluff Formation. This sandier unit lies a few feet to hundreds of feet below the underclay and is well developed in Bastrop and Lee Counties. According to Staff, Luminant indicated in a previous application that included the 225.8-acre release area that no boreholes or monitoring wells exist within the proposed area of Phase III release. Nevertheless, data from Luminant's approved long-term groundwater monitoring (LTGM) well network were used to assess whether Luminant has met regulatory requirements for protection of groundwater resources.

a. In its analysis, Staff summarizes and concurs with the groundwater evaluation provided by Luminant for the proposed 225.8-acre release area. This evaluation was prepared, signed, and sealed by a professional geologist licensed in the State of Texas (Texas License No. 1052). Groundwater-monitoring data provided by Luminant for the release area consists of general chemistry and water levels for overburden LTGM well K2254P1; underburden LTGM wells EIS-1A, K1943A, K2254P2, K3917, K2334, and spoil LTGM wells SPW1 and SPW2. The water-level data for these LTGM wells are contained in Appendix A, and chemistry data are contained in Appendix B. Luminant depicted the locations of these LTGM wells on Plate III.B.3-1 in the Application.

b. Overburden LTGM Well K2254P1 is completed in overburden hydrologic units lateral to and slightly downgradient of and approximately 4,800 ft south of the requested Phase-III release area. This overburden well has yielded waters with an acidic pH throughout the period of record ("POR"), ranging from an initial value of 5.5 s.u.

(December 2003) to as low as 3.7 s.u. in June 2012, to 4.0 s.u. when last sampled in May 2017. TDS and sulfate concentrations in this well began increasing in 2016 through 2017; however, the water level in Well K2254P1 experienced a steady drop beginning in 2010, and has been dry since September 2017. Staff notes that well K2254P1 is located adjacent to the southern edge of the C Area, which is the most recently mined area (2018) of the mine, and that the groundwater in the vicinity of the well will likely not be a used groundwater resource because significantly better quality water is available in the underlying Simsboro Formation. The zone monitored in well K2254P1 is one of several water-bearing overburden strata within the Calvert Bluff that are not used significantly as an area water source. This well merits further monitoring, but the water-quality trends do not at this time represent an impairment to the hydrologic balance that would preclude release of the 225.8 acres for use as pastureland.

- c. As evaluated by Staff, data were also provided for the five underburden LTGM wells located either upgradient or lateral to the proposed Phase III release area. These wells, well K2254P2 (~4,800 ft south of proposed Phase-III release area), well K1943A (~1,200 ft west), well K3917 (~6,300 ft northeast), well K2334 (~940 ft west) and well EIS-1A (~5,400 ft northwest), are the nearest underburden LTGM-plan wells to the requested release area. The data show that water levels in these five underburden wells have all declined since mining began in 2005, reflecting the approved underburden depressurization plan, and indicating that the underburden has not as yet recovered. Depressurization activities are ongoing to support reclamation activities in the remaining open pits. The water level in well K2254P2 measured in the 2<sup>nd</sup> Quarter of 2019 has declined by 10.3 feet from the initial measurement obtained in the 2<sup>nd</sup> Quarter of 2004, as this well is located in the vicinity of the most recent mining in the Three Oaks Mine. Water-quality data from well K2254P2 has not changed significantly throughout the POR.
- d. As described by Staff, Luminant indicates in its approved probable hydrologic consequences ("PHC") determination that water levels in the underburden will not begin to recover until depressurization ceases and the pits are backfilled and reclaimed. The approved PHC determination (Permit Application Appendix 146, page 146-10) states that after life-of-mine operations *and reclamation* are completed, pumping for mining purposes will terminate, and upon the cessation of pumping for mining and reclamation purposes, the underburden Simsboro Formation aquifer potentiometric surface will recover in the mine area to the extent that drawdown is not maintained by continued *nonmining* pumping in the region.
- e. Based on the data provided for two spoil LTGM wells, Staff and Luminant further indicate that the spoil is resaturating, as also expected from the PHC determination.

- f. The data from the five underburden LTGM wells evaluated indicate that underburden water quality has not been affected by the mining activities. Although the underburden potentiometric surface has not started to recover due to ongoing depressurization of the Simsboro Formation, nothing indicates that the mining activities have materially damaged the water quantity of this important aquifer. The postmine reclaimed spoil shows indications of ongoing resaturation, supporting a finding that the postmine recharge capacity of the area has been protected. Staff notes that the LTGM wells evaluated remain in the approved LTGM plan for the Three Oaks Mine and will continue to be monitored. Staff concludes from its assessment that Luminant has demonstrated that the groundwater hydrologic balance has been restored or preserved and that water quality in the overburden and underburden units is similar to that documented during the baseline periods in the native sediments. The data provided by Luminant for the 225.8 acres requested for Phase III release demonstrate that the ground-water protection requirements have been satisfied. [§12.348].
19. Luminant has demonstrated that surface-water quantity and quality have been protected as required for Phase III release of the subject 225.8 acres. Surface mining activities were conducted in accordance with Luminant's reclamation plan, which was designed to conduct operations in a manner meeting the requirements of §12.349. Soils and overburden materials were handled, and surface-water runoff controlled, in a manner to prevent acidic, toxic, or other harmful deterioration of surface-water systems. Surface-water quantity has been protected by re-establishment of appropriate vegetation and topography of the reclaimed area. Likewise, appropriate monitoring has occurred in accordance with the approved plan, and water-quality monitoring results indicate that surface-water resources have been protected. Staff provided a summary of the LTSM plan and its evaluation of the data.
- a. The following long-term surface-water monitoring (LTSM) stations monitor upstream and downstream discharges for the parcels proposed for release from reclamation liability:

LTSM Plan Stream-Monitoring Stations			
Creek Name	Station ID	Description	Watershed Area, acres
Middle Yegua Creek	UMY	Undisturbed upstream	20,032
	LMY	Disturbed downstream	33,472
Big Sandy Creek	UBS	Undisturbed upstream	1,727
	LBS	Disturbed downstream	20,117
Little Sandy Creek	LLS	Undisturbed Upstream	14,003

- b. LTSM Stations UBS (Big Sandy Creek) and LLS (Little Sandy Creek, a tributary of Big Sandy Creek) monitor undisturbed runoff and are located upstream of the outfall at

Pond SP-2. LTSM Station LBS (Big Sandy Creek) monitors disturbed runoff and is located outside of the permit boundary and downstream of the Pond SP-2 outfall. Discharges from the requested Phase III release areas at the Three Oaks Mine drain to either the Colorado River or the Brazos River. Little Sandy Creek and Big Sandy Creek both drain to the Colorado River above La Grange, Texas (TCEQ Stream Segment No. 1434). Middle Yegua Creek drains to the Brazos River to Somerville Lake (TCEQ Stream Segment No. 1212). Average annual maximum water-quality limitations are established by the TCEQ for these stream segments. Water quality and quantity data for the LTSM plan stream-monitoring stations are provided in Appendix D of the Application for the period 1999-2019. Luminant provided summary statistics for these data in Tables 3 and 4 in the Application.

- c. The approved LTSM plan requires that upstream LTSM stations UMY, UBS, and LLS, and downstream stations LMY and LBS, be sampled for flow and for water-quality parameters pH, TDS, TSS, TSM, Total Fe, Total Mn, Se, and acidity. The ranges and average values of these data parameters for these five LTSM stations are summarized in Staff's TA, with an assessment comparing the data to applicable stream segment criteria, as summarized in the following tables:

Upstream LTSM Stations - Colorado River Watershed				Annual Average Criteria for TCEQ Stream Segment No. 1434
Station ID Period of Record		<i>Little Sandy Creek</i> <b>LLS</b> 04/99-06/19	<i>Big Sandy Creek</i> <b>UBS</b> 09/99-06/19	
<b>pH</b>	Range, s.u. (median)	6.1 - 8.1 (6.7)	6.3 - 8.1 (6.9)	6.5 - 9.0
<b>TDS</b>	Range, mg/L (average)	274 - 1,060 (453)	170 - 916 (355)	500 mg/L *
<b>TSS</b>	Range, mg/L (average)	1 - 143 (12)	2 - 318 (22)	N/A
<b>Total Fe</b>	Range, mg/L (average)	0.1 - 4.5 (1.6)	0.1 - 8.8 (1.6)	N/A
<b>Total Mn</b>	Range, mg/L (average)	0.1 - 1.3 (0.4)	0.1 - 2.8 (0.7)	N/A
<b>Se</b>	Range, mg/L (average)	<0.01	<0.01	N/A
<b>Acidity</b>	Range, mg/L (average)	<2.0 - 39.0 (11.1)	<2.0 - 26.7 (9.0)	N/A

\* Maximum average annual concentration for Stream Segment No. 1434

Docket No. C20-0009-SC-48-F  
Luminant Mining Company LLC  
Permit No. 48C, Three Oaks Mine

Page 14

Downstream LTSM Stations - Colorado River Watershed				Annual Average Criteria for TCEQ Stream Segment No. 1434
Station ID Period of Record		<i>Big Sandy Creek (Premining) LBS 04/99-10/04</i>	<i>Big Sandy Creek (Post/During-Mining) LBS 01/05-06/19</i>	
pH	Range, s.u. (median)	6.3 - 8.2 (7.4)	6.2 - 8.2 (7.3)	6.5 - 9.0
TDS	Range, mg/L (average)	230 - 970 (499)	192 - 1,498 (567)	500 mg/L *
TSS	Range, mg/L (average)	7 - 137 (39)	6 - 137 (36)	N/A
Total Fe	Range, mg/L (average)	0.5 - 5.4 (1.8)	0.2 - 6.1 (1.4)	N/A
Total Mn	Range, mg/L (average)	0.1 - 1.9 (0.5)	0.1 - 1.9 (0.4)	N/A
Se	Range, mg/L (average)	N/A	<0.01	N/A
Acidity	Range, mg/L (average)	N/A	<2.0 - 18.6 (6.0)	N/A

\* Maximum average annual concentration for Stream Segment No. 1434

Upstream LTSM Stations - Brazos River Watershed			Annual Average Criteria for TCEQ Stream Segment No. 1212
Station ID Period of Record		<i>Middle Yegua Creek UMY 09/01-06/19</i>	
pH	Range, s.u. (median)	6.3 - 7.9 (6.9)	6.5 - 9.0
TDS	Range, mg/L (average)	120 - 1,072 (491)	400 mg/L *
TSS	Range, mg/L (average)	2 - 82 (19)	N/A
Total Fe	Range, mg/L (average)	0.1 - 7.3 (2.3)	N/A
Total Mn	Range, mg/L (average)	0.0 - 1.7 (0.7)	N/A
Se	Range, mg/L (average)	<0.01	N/A
Acidity	Range, mg/L (average)	1.0 - 28.6 (9.7)	N/A

\* Maximum average annual concentration for Stream Segment No. 1212

Downstream LTSM Stations - Brazos River Watershed				Annual Average Criteria for TCEQ Stream Segment No. 1212
Station ID Period of Record		Middle Yegua Creek (Premining) LMY 04/99-10/04	Middle Yegua Creek (Post/During-Mining) LMY 01/05-06/19	
pH	Range, s.u. (average)	6.1 - 8.8 (7.2)	6.3 - 8.7 (7.5)	6.5 - 9.0
TDS	Range, mg/L (average)	170 - 1,230 (595)	218 - 830 (419)	400 mg/L *
TSS	Range, mg/L (average)	4 - 259 (46)	2 - 105 (19)	N/A
Total Fe	Range, mg/L (average)	0.9 - 7.8 (2.7)	0.2 - 2.3 (0.6)	N/A
Total Mn	Range, mg/L (average)	0.1 - 2.0 (0.7)	0.02 - 0.97 (0.1)	N/A
Se**	Range, mg/L (average)	N/A	<0.01	N/A
Acidity**	Range, mg/L (average)	N/A	1.0 - 11.6 (5.47)	N/A

\* Maximum average annual concentration for Stream Segment No. 1212

\*\* Se and Acidity were added to the LTSM Plan in 2014

- e. Comparisons of downstream station data to premining baseline data show that the data summarized in Application demonstrate that the pH and concentrations for analyzed parameters are comparable.
  - i. For the Colorado River, the data summarized in the tables demonstrate that the pH levels and concentrations for total Fe and Mn at LTSM Station LBS (Big Sandy Creek, downstream) are similar to or better than baseline data. The average TDS concentration (567 mg/L) is slightly higher than the baseline average TDS concentration (499 mg/L), and the range (192 mg/L to 1,498 mg/L) is somewhat greater than the baseline range (230 mg/L to 970 mg/L). However, for the recent period of record (2014 through 2019), the TDS range of concentrations (192 mg/L to 988 mg/L) and average concentration (502 mg/L) show essentially no change from the premining baseline concentrations.
  - ii. For the Brazos River, the data summarized in the tables demonstrate that the pH levels and concentrations for TSS, TDS, total Fe, and total Mn at disturbed LTSM Station LMY (Middle Yegua Creek) are similar to or better than baseline.
- f. LTSM station water-quality and water-quantity data are summarized, respectively, in Tables 3 and 4 of the Application. Luminant also provides the data collected from the stream monitoring stations in Appendix D, as well as the minimum, maximum, mean,

and median for each of the monitoring parameters. Staff compared these data to the applicable TCEQ stream-segment criteria as a component of its assessment for both the Colorado River and Brazos River Basins.

- i. For Colorado River Stream Segment No. 1434, Staff indicates that monitored parameters are considered to be within stream-segment criteria. Staff notes that exceedances in pH and in TDS concentrations have occurred, but in both the upstream and downstream LTSM stations, and are likely due to low-flow events (<1.0 cfs) or other factors originating upstream of the permit boundary.
- A. Data for pH from upstream and downstream stations on two watercourses were compared for the Colorado River component, comprised of two upstream stations monitoring flows which converge through a single downstream LTSM station.
- a) A comparison of pH data for downstream LTSM station LBS (Big Sandy Creek) to stream segment criteria indicates that the pH range for the station (6.2 s.u. - 8.2 s.u.) is shifted downward from the stream segment criterion range for pH (6.5 - 9.0 s.u.), but the median pH (7.3 s.u.) is within the stream segment criterion range. The lowest pH (6.2 s.u.) for downstream LTSM station LBS occurred on January 6, 2016; since that time, the pH has remained within the stream segment criterion range.
  - b) A comparison of pH data for upstream LTSM station UBS (Big Sandy Creek) to stream segment criteria indicates the pH range for the station (6.3 s.u. - 8.1 s.u.) is shifted downward from the stream segment criterion for pH (6.5 s.u. - 9.0 s.u.), although the median pH (6.9 s.u.) falls within the stream segment range criterion. The lowest pH (6.1 s.u.) for upstream LTSM station UBS occurred on June 8, 2016.
  - c) Trends for pH are similar for the other upstream station. A comparison of pH data for upstream LTSM station LLS (Little Sandy Creek) to stream segment criteria indicates that the pH range for the station (6.1 s.u. - 8.1 s.u.) is shifted downward from the stream segment criterion range for pH (6.5 s.u. - 9.0 s.u.), but the median pH (6.7 s.u.) falls within the stream segment criterion range. The lowest pH (6.1 s.u.) for undisturbed LTSM station LLS occurred recently, on December 17, 2018.
- B. Data for TDS concentration were also compared for the two upstream stations and single downstream station of the Colorado River component.



- a) A comparison of TDS concentrations for downstream LTSM station LBS to stream segment criteria indicates that the upper bound of the TDS concentration range (192 mg/L - 1,498 mg/L) exceeds the stream segment criterion for TDS concentration (500 mg/L), and, in fact, the average TDS concentration (567 mg/L) also exceeds the stream segment criterion for TDS concentration (500 mg/L). The highest TDS concentration (1,498 mg/L) for downstream LTSM station LBS occurred on October 27, 2011. TDS concentrations have fluctuated above and below stream segment criteria (500 mg/L) since that time.
  - b) A comparison of TDS concentrations for upstream LTSM station LLS (Little Sandy Creek) to stream segment criteria indicates that the upper bound of the TDS concentration range (274 mg/L - 1,060 mg/L) exceeds the stream segment criterion for TDS concentration (500 mg/L), but that the average TDS concentration (453 mg/L) remains below the stream segment criterion for TDS concentration (500 mg/L). The upper bound of the TDS concentration range (274 mg/L to 748 mg/L) for the recent period of record (2014 - 2019) also exceeds the applicable stream-segment criterion (500 mg/L).
  - c) A comparison of TDS data for upstream LTSM station UBS (Big Sandy Creek) to stream segment criteria indicates that the upper bound of the TDS concentration range (170 mg/L - 916 mg/L) also exceeds the stream segment criterion for TDS concentration (500 mg/L), but that the average TDS concentration (355 mg/L) remains below the stream segment criterion for TDS concentration (500 mg/L). The upper bound of the TDS concentration range (170 mg/L to 916 mg/L) for the period of record from 2014 through 2019 is somewhat higher than the applicable stream-segment criteria (500 mg/L); however, for the recent period of record from 2014 through 2019, the range of TDS concentrations (218 mg/L - 488 mg/L) have not exceeded the stream segment criterion (500 mg/L).
- C. As described in the foregoing evaluation, exceedances in pH and in TDS concentrations have occurred in the upstream and downstream LTSM stations. Staff notes that pH and TDS concentrations in the upstream (undisturbed) LTSM stations are comparable to the downstream (disturbed) LTSM stations, suggesting that where exceedances in TCEQ stream segment standards have occurred, they are likely attributable to low flow events (<1.0 cfs) or other factors upstream of the permit boundary.
- ii. For Brazos River Stream Segment No. 1212, Staff indicates that the monitored parameters are also considered to be within the stream-segment criteria.

- A. Data for pH for TCEQ Stream Segment No. 1212 demonstrate that the pH levels and concentrations for TDS, TSS, total Fe and Mn, Se, and Acidity and at disturbed LTSM Station LMY are similar to or better than at undisturbed LTSM station UMY. Given the similarity to upstream and baseline conditions, runoff from the parcels proposed for release should not have a negative impact on the water quality at LTSM Station LMY.
- a) A comparison of pH data for disturbed LTSM station LMY (Middle Yegua Creek) to stream segment criteria indicates the pH range for the station (6.3 s.u. - 7.9 s.u.) is shifted slightly lower than the stream segment criterion range for pH (6.5 s.u. - 9.0 s.u.); however, the median pH (6.9 s.u.) is within the stream segment range (6.5 s.u. - 9.0 s.u.). The lowest pH (6.3 s.u.) for disturbed LTSM station LMY occurred on July 8, 2015; since that time, pH has remained within the stream segment criterion range.
  - b) A comparison of pH data for upstream LTSM station UMY (Middle Yegua Creek) to stream segment criteria indicates that the pH range for the station (6.3 s.u. - 7.9 s.u.) has shifted downward from the stream segment criterion range for pH (6.5 s.u. - 9.0 s.u.), but that the median pH (6.9 s.u.) is within the stream segment criterion range (6.5 s.u. - 9.0 s.u.). The lowest pH (6.3 s.u.) for upstream LTSM station LLS occurred on November 29, 2005; however, since that time, pH has remained within the stream segment criterion range.
- B. Staff also compared LTSM station data for the Brazos River drainage.
- a) A comparison of TDS data for downstream LTSM station LMY to stream segment criteria indicates that the upper bound of the TDS concentration range (218 mg/L - 830 mg/L) is higher than the stream segment criterion for TDS concentration (400 mg/L), and that the average TDS concentration (419 mg/L) is slightly higher than the stream segment criterion for TDS concentration (400 mg/L). The highest TDS concentration (1,498 mg/L) for disturbed LTSM station LMY occurred on March 7, 2018. Since that time, TDS concentrations have remained in exceedance of the stream segment criterion.
  - b) A comparison of TDS data for undisturbed LTSM station UMY (Middle Yegua Creek) to stream segment criteria indicates that the upper bound of the range of TDS concentration (120 mg/L - 1,070 mg/L) is higher than the stream segment criterion for TDS concentration (400 mg/L), and also that

the average TDS concentration (491 mg/L) exceeds somewhat this stream segment TDS criterion.

- C. As described in the foregoing evaluation, exceedances in pH and TDS concentrations have occurred in the upstream and downstream LTSM stations. Staff notes that pH and TDS concentrations in the downstream LTSM station are comparable to or better than at the upstream LTSM station, which suggests that exceedances in TCEQ stream segment standards are likely attributable to frequent low flow events (<1.0 cfs) or other factors upstream of the permit boundary.
- iii. Staff also evaluated the approved probable hydrologic consequences ("PHC") determination as it compared to the LTSM data results. Data provided as a part of the approved PHC determination in Permit No. 48C indicate that runoff volumes will increase from premine to postmine conditions as a result of decreased vegetation density. This increase is expected to be mitigated somewhat by the increase in surface-water impoundments, which will act to retain and detain surface-water runoff. By detaining runoff, peak flows from precipitation events will be attenuated, as will evapotranspiration. Thus, longer sustained flows are expected because of the controlled discharge through the pond's outlet and increased ground-water contributions to stream baseflow. As summarized by Staff, the median flow for LTSM Station LBS during the baseline period is 1.1 cfs and is slightly larger than the median flow of 0.9 cfs for the long-term monitoring period. The median flow for LTSM Station LMY during the baseline period is 1.0 cfs and is less than the median flow of 7.0 cfs for the long-term monitoring period. Based on this comparison of the median flows, Staff concurs with Luminant's conclusion that the water being discharged from Permit No. 48C has not been sufficiently diminished or increased by activities so as to cause material damage to downstream surface-water users.
- iv. Surface-water quality was evaluated by comparing the water quality of disturbed and undisturbed LTSM stations from the areas requested for Phase III release from reclamation liability obligations on the requested area of release, through an evaluation of: (1) baseline surface-water data, (2) applicable stream segment criteria plus Federal and State effluent standards, and (3) the PHC determination. The data summarized as described in the foregoing demonstrate that the pH and the concentrations for TDS, TSS, total Fe and Mn, Se, and acidity at downstream LTSM stations are similar to or better than that at upstream LTSM stations. As determined from the similarity of surface-water quality and quantity between upstream and downstream conditions, runoff from the area requested for release has not had a negative impact on the water quality and quantity.

20. Staff notes that there four permanent diversions located within the area proposed for Phase III release of reclamation liability. No drop structures or permanent impoundments are located within the requested release area. The four diversions and their corresponding approval dates are listed as follows:

Structure Name	Structure Type	Approval Date
MFD-9AR	Diversion	February 16, 2012
MFD-9BR	Diversion	February 16, 2012
MFD-10AR	Diversion	February 16, 2012
MFD-10BR	Diversion	February 16, 2012

21. The structures and the surrounding areas were observed to be structurally stable and well vegetated, and copies of the approval letters are included in Section VI of the Application. Luminant and Staff both note that no small depressions, permanent impoundments, or drop structures were identified as present within the areas proposed for Phase III release.
22. The area requested for release of reclamation obligations is capable of sustaining the approved postmine land use of pastureland. Monthly inspections, the release inspection on November 18, 2019, and Staff's evaluation in its May 13, 2020, TA, as amended on May 29, 2020, demonstrate that the land has been reclaimed to and managed in accordance with the requirements for the approved postmine land use.
23. Pursuant to §12.313(a)(3), the Commission may release the requested portion of the bond attributable to the subject 225.8 acres upon a determination that reclamation has been successfully completed in accordance with the terms of the approved permit and the requirements of the Act and the Regulations. As a result of being granted Phases II and III release of reclamation obligations on this area, Luminant is eligible to reduce the bond amount for Permit No. 48C. The last bond-map update and reclamation cost estimate ("RCE") were approved administratively by letter dated February 28, 2019 (Revision No. 37). No reduction of the \$975,000,000 blanket collateral bond approved by Order dated September 27, 2016, is requested by Luminant in the Application [Finding of Fact No. 4, *supra*]. If the Application is approved by the Commission as proposed, then Luminant will be eligible to reduce its performance bond obligations by \$1,270,215.00, as determined by Staff, based on the RCE and bond map approved in Revision No. 37. The Commission considers this specified reduction amount to only be an estimate provided for illustration purposes. The actual amount of any eligible reduction would be calculated based on the costs for reclamation at the time that Luminant requests an actual bond reduction, thereby ensuring that the proposed bond amount always remains sufficient to cover the cost of outstanding reclamation work. Additionally, since the Commission is not required under the Act or the Regulations to determine an eligible bond reduction amount when approving an application for release, this Order only prescribes that Luminant is eligible to reduce

1. Proper notice of application and notice of consideration by the Commission has been provided for this request for release of reclamation obligations.
2. A public hearing on the request for release is not warranted.
3. Luminant has complied with all applicable provisions of the Act and the Regulations regarding notice for Commission jurisdiction to allow consideration of the matter.
4. Luminant has complied with all applicable provisions of the Act and the Regulations for the release of Phase II and III reclamation obligations for 225.8 acres within the Three Oaks Mine permit area.
5. The Commission may approve a release of Phase II and III reclamation obligations for 225.8 acres, as set out in the above Findings of Fact and Conclusions of Law.
6. Luminant is eligible to reduce the bond for the permit by the amount that is attributable to the subject 225.8 acres in future bond adjustments.

Docket No. C20-0009-SC-48-F  
Luminant Mining Company LLC  
Permit No. 48C, Three Oaks Mine

Page 22

**IT IS THEREFORE ORDERED** that the above Findings of Fact and Conclusions of Law are adopted;

**IT IS FURTHER ORDERED** that release of Phase II and III reclamation obligations for 225.8 acres as set forth in the above Findings of Fact are hereby approved;

**IT IS FURTHER ORDERED** Luminant is eligible to reduce the amount of bond for the permit by the amount that is attributable to the 225.8 acres granted release in this Order;

**IT IS FURTHER ORDERED** that all areas released from reclamation obligations shall remain clearly marked in the field with permanent boundary markers to distinguish these areas from other reclamation areas in accordance with this Order;

**IT IS FURTHER ORDERED** that the current bond remains in effect according to its terms until otherwise ordered by the Commission;

**IT IS FURTHER ORDERED** that the Commission may vary the total amount of bond required from time to time as affected land acreages are increased or decreased or where the cost of reclamation changes; and

Docket No. C20-0009-SC-48-F  
Luminant Mining Company LLC  
Permit No. 48C, Three Oaks Mine

Page 23

**IT IS FURTHER ORDERED** by the Commission that this order shall not be final and effective until 25 days after the Commission's Order is signed, unless the time for filing a motion for rehearing has been extended under Tex. Gov't Code §2001.142, by agreement under Tex. Gov't Code §2001.147, or by written Commission Order issued pursuant to Tex. Gov't Code §2001.146(e). If a timely motion for rehearing is filed by any party at interest, then this order shall not become final and effective until such motion is overruled, or if such motion is granted, this order shall be subject to further action by the Commission. Pursuant to Tex. Gov't Code §2001.146(e), the time allotted for Commission action on a motion for rehearing in this case is 100 days from the date the Commission Order is signed.

**SIGNED** on June 16, 2020.

**RAILROAD COMMISSION OF TEXAS**

DocuSigned by:



C1C746B4E446422

**CHAIRMAN WAYNE CHRISTIAN**

DocuSigned by:



15494B7DE4CC424

**COMMISSIONER CHRISTI CRADDICK**

DocuSigned by:



7D1B6C36A37443C

**COMMISSIONER RYAN SITTON**

**ATTEST:**

DocuSigned by:



3581CA0DEDF0476

**Deputy Secretary  
Railroad Commission of Texas**

