

**RAILROAD COMMISSION OF TEXAS  
HEARINGS DIVISION**

**SURFACE MINING DOCKET NO. C17-0004-SC-46-F  
APPLICATION BY LUMINANT MINING COMPANY LLC  
FOR RELEASE OF PHASES I, II, AND III RECLAMATION OBLIGATIONS ON  
VARIOUS ACREAGES OF AN AGGREGATE 274.5 ACRES, PERMIT NO. 46C,  
OAK HILL MINE, RUSK COUNTY, TEXAS**

**ORDER APPROVING APPLICATION FOR RELEASE OF PHASE I RECLAMATION  
OBLIGATIONS ON 71.0 ACRES, RELEASE OF PHASE II  
AND III RECLAMATION OBLIGATIONS ON 165.9 ACRES,  
AND RELEASE OF PHASE I, II, AND III RECLAMATION  
OBLIGATIONS ON 37.6 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 ("Staff"), for various releases of reclamation obligations for an aggregate 274.5 acres within Permit No. 46C, Oak Hill Mine, in Rusk County, Texas. The permit area, located approximately three miles northeast of Henderson, Texas, contains approximately 26,014 acres. Specifically, Luminant requested Phase I release of reclamation liability on 71.0 acres, Phases II and III release on 165.9 acres, and Phases I, II, and III release on 37.6 acres. The application is made pursuant to the Texas Surface Coal Mining and Reclamation Act, Tex. Nat. Res. Code Ann. Ch. 134 (Vernon Supp. 2020) ("Act"), and the "Coal Mining Regulations," Tex. R.R. Comm'n, 16 Tex. Admin. Code Ch. 12 (Thomson West 2020) ("Regulations").

Copies of the application were filed in required county and Commission offices, and notices were mailed to landowners and adjoining landowners of the area requested for release and required federal and state agencies. No written comments were made following public notice and mailed notice, and no public hearing was requested. The only parties to the proceeding are Luminant and Staff. The parties have filed waivers of the preparation and circulation of a proposal for decision.

Based on the record in this docket including the application and supplements, Staff's Technical Analysis, its inspection report, and the Act and Regulations, the Commission finds that the application for release should be approved as set out in the Findings of Fact and Conclusions of Law.

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### **FINDINGS OF FACT**

Based on the evidence in the record, the following Findings of Fact are made:

1. By letter dated October 5, 2016, Luminant Mining Company LLC ("Luminant") filed an application with the Railroad Commission of Texas ("Commission"), Surface Mining and Reclamation Division ("SMRD" or "Staff"), for release on an aggregate 274.5 acres (6 parcels) within the 26,014-acre permit area of Permit No. 46C, Oak Hill Mine, located in Rusk County, Texas. Specifically, Luminant requested Phase I release of reclamation requirements on 71.0 acres (Parcel Nos. 3 and 6), Phase II and III release of reclamation requirements on 165.9 acres (Parcel No. 5), and Phase I, II, and III release of reclamation requirements on 37.6 acres (Parcel Nos. 1, 2 and 4). Requirements for Phase I release entail the completion of backfilling, regrading, and establishment of drainage control, Phase II release requires completion of revegetation and sedimentation control requirements, and Phase III release requires the completion of the five-year extended responsibility period ("ERP") and demonstration of surface-water and groundwater protection.
2. The application is made pursuant to Texas Surface Coal Mining and Reclamation Act, Tex. Nat. Res. Code Ann. Ch. 134 (Vernon Supp. 2020) ("Act"), and the "Coal Mining Regulations," Tex. R.R. Comm'n, 16 Tex. Admin. Code Ch. 12 (Thomson West 2020) ("Regulations"). No filing fee is required for a release application. The application was properly certified in accordance with §12.312(a)(3) of the Regulations.
3. Luminant currently bonds all of its operations in Texas with a blanket collateral bond in the amount of \$975,000,000 approved by Order dated September 27, 2016 (Docket No. C16-0021-SC-00-E). No changes to the accepted bond are proposed in the subject application.
4. Prior to filing with the Commission's Hearings Division as administratively complete, the application was revised to include pages II.A-2 (draft public notice), pages II.B-2, 3, 4, and 8, (list of landowners and lessees to be notified), page II.C-1 (list of agencies, authorities, and utility companies), pages II.C-2 and 3 (draft landowner/agency notification letters), and revised Plate II.BJ-1, *274.5-Acre Proposed Bond Release, Property Ownership Map*.
5. Copies of the application were filed for public review in compliance with notice requirements, at the main office of the Railroad Commission of Texas at 1701 North Congress, William B. Travis Building, Austin, Texas, and in the office of the Rusk County Clerk, Henderson, Texas.
6. SMRD's Inspection and Enforcement Section mailed letters dated October 13, 2016, to landowners, leasehold interests, utilities, and the Office of Surface Mining Reclamation and Enforcement ("OSM") Tulsa Field Office, notifying them of the date scheduled for

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inspection, November 2, 2016, and offering opportunity to participate in the inspection in accordance with §12.312(a)(2). Staff sent a letter of notification of the application as required by the Act, §134.133, and provided a copy of the approved public notice by certified letter to the Rusk County Judge by letter dated September 30, 2015 (Attachment II to Staff's Technical Analysis). The inspection occurred on the date scheduled. Two Luminant representatives and one representative of leasehold interest XTO Energy were present at the pre-inspection meeting and the inspection, which were conducted by SMRD Inspectors Brad Martin and Michael Gay. No others attended the inspection. The area was inspected with the use of a GPS device; the areas were marked in the field at the time of the inspection, and the accuracy of the boundary markers was confirmed. Field conditions were moist at the time of the inspection, allowing access to the entire proposed release area.

7. Publication of notice of application occurred once each week for four consecutive weeks in the *Henderson Daily News*, a newspaper of general circulation in the vicinity of the Oak Hill Mine, on February 2, 9, 16, and 23, 2017. The notice of application contains all information required by §134.129 of the Act and §12.312(a) of the Regulations for notice of application for release of reclamation obligations. Luminant submitted an affidavit of publication with news clippings by letter dated April 11, 2017. The notice is adequate notification of the request for release. The notice included the name of the permittee, the location of land affected, the approximate number of acres, the permit number at the time of the application and date approved, the amount of the approved bond, the type of and appropriate dates when reclamation work was performed, and a description of results achieved as they relate to the approved reclamation plan. The notice contained information concerning the applicant, the location and boundaries of the permit area, the availability of the application for inspection, the address to which comments should be sent, and a map with sufficient delineation of the boundaries of the areas requested for release.
8. By letter dated April 11, 2017, Luminant submitted to the Commission copies of the letters to landowners and/or adjoining landowners, and lessees and holders of other property interest, and to the following: Rusk County Judge and Commissioners Court, the Texas Commission on Environmental Quality (TCEQ), the United States Army Corps of Engineers (USACE), the Natural Resources Conservation Service (NRCS), Texas State Soil and Water Conservation Board, the City of Henderson, Texas, Eastex Telephone Cooperative, Inc., the State of Texas c/o State Department of Transportation, Southwestern Bell Telephone Company, New Prospect Water Supply Corp., Crims Chapel Water Supply Corp., Rusk County Electric Co-op, and Atmos Energy Corporation, as required by §12.312(a)(2) of the Regulations and §134.129 of the Act. The areas requested for release are not located within the territorial boundaries of any municipality that would be notified pursuant to §12.313(c).
9. SMRD determined the application to be administratively complete on April 17, 2017.

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Staff's Technical Analysis ("TA") and inspection report were filed with the Hearings Division by letter dated October 25, 2017. The TA and inspection report indicated that Staff recommended Phase I release of Parcel Nos. 1, 2, 3, 4 and 6, and Phase II release of Parcel Nos. 1, 2, and 4. For reasons that were ultimately resolved, as discussed *infra*, the TA did not recommend Phase II release for Parcel No. 5 and did not recommend Phase III release of any parcels. Luminant requested and was granted several extensions to respond to Staff's TA prior to filing supplemental information to address Staff's concerns by letter dated March 12, 2020. Staff's TA Addendum addressing the supplement was filed by letter dated July 27, 2020, recommending approval of the releases sought in the docket based on the application, as supplemented.

10. The permit area is comprised of approximately 26,014 acres located northeast of Henderson, Texas in Rusk County. A general location map of the permit area, with the subject 274.5 acres is found in Appendix IV of Staff's Inspection Report. The six parcels proposed for release are located in the DI and DIII Mine Areas and are identified with SMRD-designated parcel numbers on Figures 1 through 4 in Attachment I of Staff's TA. 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 various phases of release of reclamation obligations sought for the subject areas.
11. No adverse comments or written objections were filed regarding the request for release pursuant to the notification. No requests for hearing or informal conference were filed pursuant to §12.313(d) of the Regulations.
12. The subject acreage requested for release was mined and/or disturbed by mining-related activities from 1993 to 2009. Final grading took place between 1993 and 2010, and planting of permanent vegetation occurred from 1993 to 2015. Staff conducted routine monthly inspections of the proposed release area during this time. All requested 203.5 acres proposed for Phase II and III release have been in the extended responsibility period ("ERP") for a minimum of five consecutive years.
13. The areas requested for Phase I release have been backfilled and graded to approximate original contour [§12.385(a)]. Final grading occurred from 1993 to 2009, and vegetation was planted through 2010. All highwalls were eliminated in accordance with §12.384(b)(1) of the Regulations, and suitable substitute material was placed over the regraded spoil. Backfilled material has been placed to minimize erosion, to minimize water pollution both on and off the site, and to support the approved postmining land uses [§12.384(b)(2)]. Drainage patterns similar to premine drainage have been established. All areas requested for Phase I release have been stabilized to control drainage and attendant potential erosion [§12.389]. The areas requested for release contain 75 full or partial soil-testing grids, and applicable soil data was provided by Luminant on various dates in years 2004 through 2007, 2009 and 2011. By letter dated October 12, 2015, SMRD determined that

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the soil-testing data for all grids submitted to date, meets the applicable physicochemical postmine soil performance standards, which includes the soil-testing grids within the proposed release area. Based on SMRD's findings, no areas within the acreage proposed for Phase I release contain acid- and/or toxic-forming materials in the top four-foot postmine soils. Copies of letters approving the postmine soil data are included in Section VI of the application. No postmine cropland or pastureland is present in the areas proposed for release; therefore, soil-fertility sampling is not required for the subject parcels.

14. No coal-processing waste or associated structures exist within the areas proposed for release. [§12.375].
15. There is no prime farmland located in the areas proposed for Phase I release for which specific soil reconstruction standards would apply. [§12.624].
16. The areas approved for Phase I release meet drainage control requirements. The areas drain to approved Sedimentation Ponds DI-40, DIII-1, DIII-5, DIII-6, DIII-8, and DIII-15.
17. No cut-and-fill terraces have been constructed for which other requirements apply. [§12.385].
18. Based upon the application and Staff review, Phase I requirements for backfilling, regrading, and drainage control as required by §12.313(a)(1) of the Regulations have been met for all acreage requested for Phase I release.
19. The parcels proposed for Phases II and III release were previously released from Phase I backfilling, regrading, and drainage control reclamation requirements required by §12.313(a)(1) of the Regulations by Order dated September 10, 2013 (Docket No. C12-0005-SC-46-F).
20. The areas requested for Phases II and III release have met the Phase II revegetation requirements of §12.313(a)(2) of the Regulations. These areas have postmine land uses of forestry (99.6 acres), fish and wildlife habitat (90.45 acres), industrial/commercial (11.77 acres), and developed water resources (1.69 acres). These lands have been reclaimed to the postmine land uses, managed accordingly, and have been inspected monthly since 1993. Vegetation observed appears healthy and self-sustaining. Additionally, soil resampling data submitted during the fourth or later year of the applicable ERPs establishes compliance the approved soil-testing plan as required for Phase III release.
  - (a). The 99.6 acres of forestry area are included in three land management units (LMUs): DIII-2005F (3/29/2005 ERA), DIII-2009F (12/21/2009 ERA) and DIII-2010F (3/16/2010 ERA). Forestry areas were primarily planted with loblolly pine. Luminant submitted 2009 ground cover and stem count data for LMU DIII-2005F

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by letter dated February 5, 2010, and SMRD approved the data by letter dated August 4, 2010. Luminant submitted 2014 ground cover and stem count data for LMUs DIII-2009F and DIII-2010F by letter dated August 26, 2015, and SMRD approved the data by letter dated January 21, 2016. The data submitted satisfies the performance standards of §12.395(c)(2).

- (b). The 90.45 acres of fish and wildlife habitat are located within four LMUs: DIII-2005H (3/29/2005 ERA), DI-2006H (05/11/06 ERA), DIII-2009H (12/21/2009 ERA) and DIII-2010H (3/16/2010 ERA). Fish and wildlife habitat areas were planted with a variety of trees including several varieties of oaks, loblolly pine, sumac, hickory, persimmon and plums. Several varieties of shrubs, forbs, vines and herbaceous species are also planted throughout these areas, as were several varieties of native grasses. Luminant submitted 2009 ground cover and stem count data for LMU DIII-2005H by letter dated February 5, 2010, and SMRD approved the data by letter dated August 4, 2010. Luminant submitted 2014 ground cover and stem count data for LMUs DIII-2009H and DIII-2010H by letter dated August 26, 2015, and SMRD approved the data by letter dated January 21, 2016. Luminant submitted 2015 ground cover and stem count data for LMU DI-2006H by letter dated January 8, 2015, and SMRD approved the data by letter dated May 25, 2016. These LMUs have met the requirements for revegetation for fish and wildlife habitat in accordance with §12.395(c)(2).
- (c). For developed water resources and industrial/commercial land uses, vegetation must be sufficient for erosion control. Inspection and photographs taken of these areas indicate that the vegetation meets this requirement. Industrial/commercial land use proposed for Phases II and III release comprise 11.77 acres were planted with Common bermudagrass and native grasses and are sufficient to control erosion. Developed water resources comprise 1.69 acres and those areas that are not covered with water are sufficiently vegetated to control erosion and are sufficient for the postmine land use.
- (d). During the fourth or subsequent year of the ERP, a random 10% of the soil grids are to be resampled and analyzed according to the methodology used in the initial minesoil-monitoring program. SMRD has previously determined that all resampled soil grids within Parcel Nos. 1, 2, 4 and 5 have received approval as free of acid-forming and toxic-forming materials. All required resampling soil data within the applicable acreage requested for Phase III release were approved by SMRD on various dates (most recently by letter dated February 10, 2015).

- 21. Appendix IV of Staff's Inspection Report depicts the area requested for release and the locations of photographs taken during the Staff inspection. Appendix V of Staff's Inspection Report contains photographs taken during the Staff inspection of permanent

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structures located within the area requested for release, as well as location maps. Structures proposed within Phases II and III areas are approved as permanent and are stable. In addition to the permanent impoundment proposed solely for Phase I release [Finding of Fact No. 24(b), *infra*], the following roads and structures are approved as permanent: Phases II and III - Permanent Impoundment DIII-89R; Phases I, II, and III – Roads (2): DI-40 Pond South Access Road Modification No. 1, and DIII-5A Pond Access Road; Diversions (5): DI-40 Diversion Modification No. 1, DIII-1D Diversion Modification No. 1, DIII-1E Diversion, DIII-2C Diversion Modification, and DIII-5A Diversion No. 2; and Drop Structures (2): DIII-5A Drop Structure No. 3, and DIII-5A Drop Structure No. 4. Staff indicates that all structures located within the areas proposed for Phase III release are structurally intact and the surrounding areas are well vegetated, and that all structures have been approved as permanent postmine features by the Commission.

22. One (1) small depression, DIII-SD-7, is located within the requested Phase III release area. This depression was approved as permanent on May 16, 2014.
23. The areas requested for release have met the Phase III requirements for protection of the groundwater hydrologic balance. Luminant addressed the requirements of §12.348 (relating to Hydrologic Balance: Ground-Water Protection) through the submission of groundwater information on the overburden and underburden aquifers in the Oak Hill Mine, and an evaluation thereof.
  - (a). The data evaluated included sampling results from five long-term groundwater monitoring (LTGM) wells completed in the overburden, three LTGM wells completed in the underburden, and four LTGM wells completed in reclaimed areas near or within the requested 203.5-acre Phase III release area. Groundwater monitoring data for the proposed release areas consist of general chemistry and water levels for ten monitoring wells [overburden wells D-2-OB(Alluv), D-III-12-OB, DIII-13-OB-98 and DIII-15-(Alluv)-04; underburden wells 89-3-UB-R-99 and DIII-I-UB-R-99; and spoil wells R-18(S), 89-3-OB-R-99, DIII-1-OB2-R-99 and DIII5-OB-R-03]. Overburden well DIII-4-OB-06 and underburden well 5-UB are listed as wells located in the area of the proposed bond release, but are both dry wells. Luminant shows the locations of all twelve wells reported on a map titled "Wells, Ponds and Watersheds Location Map," Plate III.B.3-1. The data for these wells are contained in Tables III.A.9-1 and 2, and Appendices III.A.9-A and B.
  - (b). The premine overburden aquifers (shallow systems to the depth of approximately 100 ft) in the reclaimed area have been destroyed but constituted only minor aquifers that were little used. Silty sands underlying the deepest recoverable lignite seam in the Oak Hill Mine area yield small amounts of groundwater. These underburden silty sands are interbedded with silts, clays, and minor lignite seams to a depth of 50 to 100 ft below the base of the spoil, and are typically separated

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from the base of the spoil by alternating beds of less permeable silts and clays. These thin, silty sand lenses interbedded with clay units and thin lignite seams have only limited lateral extent both physically and hydrologically.

- (c). Luminant provided a summary of the data collected from 2005 through the present for overburden LTGM well DIII-15(Alluv)-04, which was completed in 2004 to a depth of 15.0 ft in undisturbed alluvial sediments in the Mill Creek area immediately adjacent to the mining disturbance boundary. The field pH measurements from the water in this well has ranged from 3.1 to 6.6 s.u., with an average of 4.1 s.u. Total dissolved solids ("TDS") concentrations have ranged from 40 to 790 mg/L, with an average of 205 mg/L. Sulfate concentrations have ranged from 1 to 280 mg/L, averaging 34 mg/L, and chlorides have ranged from 4 to 205 mg/L, with an average of 61 mg/L. Staff indicates that the water-table elevation has remained constant since installation. Luminant provided a time-series graph of TDS, sulfate, and chloride concentrations from 2005 through the present, indicating that the more recent TDS, sulfate and chloride concentrations have exhibited values higher than those in the earlier monitoring years. Luminant believes that this increase is temporal and due to influences from the immediately adjacent mining operations on the overburden sediments in the vicinity of this well. Staff observed that the increases seen in LTGM well DIII-15-(Alluv)-04 are similar to those observed previously in other long-term monitoring wells immediately adjacent to mined out areas at the Oak Hill Mine, as discussed in the approved probable hydrologic consequences ("PHC") determination. Other than that observed in overburden well DIII-15(Alluv)-04, Staff notes, the long-term quarterly monitoring of the overburden and underburden systems in areas adjacent to the proposed release area has not indicated that any significant impacts to water level and water quality in adjacent areas have occurred. The approved PHC determination concludes that these types of increases are not likely to cause discernable offsite water-quality impacts.
- (d). Staff indicates that the water quality in LTGM wells has followed trends expected from the approved PHC determination and that predicted in Staff's cumulative hydrologic impact assessment (CHIA) for the mine. The TDS concentrations in water from the six spoil LTGM wells applicable to the requested release areas have generally decreased over the period of record. As expected, groundwater in the spoil LTGM wells is typically more mineralized and more variable than those of the undisturbed overburden or underburden areas. As an example, the TDS concentrations of water in spoil LTGM well DIII-5-OB2-R-03 rose to a high of approximately 1,868 mg/L in 2012, but has since decreased to approximately 21 mg/L when sampled on June 9, 2016. The field pH of water from this well have ranged from 1.7 to 8.0, but are typically around 3.2.

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- (e). Staff noted in its initial TA that SMRD Inspector Michael Gay had identified an unplugged or incompletely plugged PVC-cased well within the requested release area that was not an approved LTGM well. Staff concluded that proper disposition of this well was required prior to final release. Luminant indicated in Supplement No. 1 that it had determined that the well had been plugged with bentonite at some undetermined previous date, but apparently had not been plugged per the requirements of the approved plugging plan in Permit No. 46C. On April 27, 2018, Luminant re-plugged the well in accordance with permit requirements. In June 2019, the plugging status was confirmed by a SMRD inspector and found to be satisfactory.
  - (f). In summary, the groundwater quantity (as represented by water levels) and the groundwater quality (represented by TDS concentrations) in the mine-spoil water have generally stabilized. Localized mining-related effects to underburden and overburden water quantity are seen at this time to be temporary. The groundwater systems adjacent to the proposed release area have not been impacted by material deterioration in water quality or quantity as a result of the mining or reclamation activities. With respect to groundwater systems, Luminant has complied with the requirements of the applicable regulations for the subject 203.5 acres requested for Phase III release.
24. The areas requested for Phase II release have met the requirement that the areas not contribute suspended solids to streamflow outside the permit area in excess of the requirements set by the Act, §134.092(a)(10) and Subchapter K of 16 Tex. Admin. Code Ch. 12. The areas requested for Phase II and III release drains through or to ponds and ultimately to Mill Creek that discharges to Lake Cherokee, thence to the Cherokee Bayou, and finally to the Sabine River. Luminant submitted surface-water monitoring data for sedimentation ponds, permanent impoundments, and area streams. Luminant analyzed data from one permanent sedimentation pond, six temporary sedimentation ponds, two permanent impoundments, and four long-term surface-water monitoring (LTSM) stations that receive runoff from the areas proposed for Phase II/Phase III release. These data have been compared to the effluent limitations of the Texas Pollutant Discharge Elimination System ("TPDES") Permit No. 02644 for the Oak Hill Mine and stream segment criteria for Stream Segment No. 0505 (Sabine River above Toledo Bend Reservoir). A professional geoscientist licensed in Texas prepared a summary of the data for Luminant, and Staff evaluated the data, summary, and other information provided.
- (a). Luminant provided individual pond long-term monitoring data from six temporary sedimentation ponds capturing runoff from the areas proposed for Phase II release, including DI-40, DIII-1, DIII-5, DIII-6, DIII-8, and DIII-15, as depicted on Plate III.B.3-1 in the Application. Data were provided for flow (Q), pH, total dissolved solids ("TDS"), total suspended solids ("TSS"), total iron (Fe), total

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manganese (Mn), selenium (Se), and settleable solids ("SS"). Individual ponds were sampled quarterly for all parameters except TDS and Se. Data were collected weekly when discharging. Luminant included a summary of the minimum, maximum, and average pond water quality data in ranges and averages (application, Tables III.B.3-7 through III.B.3-21 containing data for individual-pond monitoring initiated in June 1997). Staff included the summary of this data along with TCEQ TPDES Permit No. 02644 effluent limitations for pH (6.0-9.0 standard units (s.u.)), TSS (35 mg/L allowable daily average; 70 mg/L allowable daily maximum), Fe (3.0 mg/L allowable daily minimum; 6.0 mg/L allowable daily maximum), Mn (1.0 mg/L allowable daily minimum; 2.0 mg/L allowable daily maximum), and SS (0.5 mL/L). There is no minimum or maximum requirement for flow in the TPDES permit. Prior to 1997, the ponds were not sampled individually but were flow-weighted into composite samples. Based upon the summary of the data collected since June 1997, there were no exceedances of the TPDES water quality effluent standards for Ponds DIII-1, DIII-5, DIII-8, and DIII-15; two exceedances occurred, as follows: Pond DI-40 (April 11, 1998: TSS of 74 mg/L) and Pond DIII-6 (May 25, 1996: total Fe of 10.03 mg/L). Staff identified no trends other than generally rising pH in some ponds. All pH data fall within TPDES effluent criteria.

- (b). Luminant indicated that Permanent Ponds DI-89R and DIII-89R were identified to exist within the areas requested for release. Luminant requested Phase I release only for the area in which Permanent Pond DI-89R lies. Staff noted in its initial TA that pond quality data was not required for Phase I release and that it could recommend such release. The area of Pond DIII-89R, however, was requested for Phase II and III release, and pond quality data were needed to demonstrate eligibility for Phase II release (and hence, Phase III release), but was not provided. Because it was not provided, Staff indicated that it could not recommend Phase II release from reclamation obligations for Parcel No. 5, the parcel containing the pond. In Supplement No. 1, Luminant provided the missing water quality data, which was reviewed by Staff in TA Addendum No. 1 and found to be compliant. Staff hence recommended that the area of Pond DIII-89R was eligible for Phase II release.
25. To determine impacts to streams in support of Phase III release from reclamation obligations, Luminant provided data from the approved LTSM plan and evaluations thereof.
- (a). Data from two sets of paired-watershed monitoring stations were evaluated. The upstream undisturbed paired monitoring stations are station HSW-2 on Boggy Creek (replaced with PBW-2 on Sheffield Branch on November 30,

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2015) for the period June 29, 1997, through January 18, 2011, and USGS Station 08020960 (except for runoff treated at Pond DI-24 that has been released from sediment control requirements) on Mill Creek for the period of record June 29, 1997, through March 28, 2016. The downstream disturbed paired monitoring stations are station HSW-1 on Boggy Creek for the period of record June 29, 1997, through March 28, 2016, and USGS Station 08020980 on Mill Creek for the period of record June 29, 1997, through March 28, 2016.

- (b). Quarterly LTSM data from the previously identified six temporary sedimentation ponds (Ponds DIII-1, DIII-5, DIII-6, DIII-8, DIII-15, and DI-40) for pH, TDS, TSS, SS, Fe, and Mn [Finding of Fact No. 24(a), *supra*] were also evaluated. TDS concentrations provided for the quarterly LTSM data were estimated from electrical conductivity (EC) measurements by multiplying the EC value by a factor of 0.65. Outfalls from these six ponds are the identified TPDES discharge points. Discharges from the Oak Hill Mine flow to the Sabine River (Stream Segment No. 0505). Stream segment criteria have been established by TCEQ for Stream Segment No. 0505 (pH, 6.0-8.5; TDS, 400 mg/L, maximum annual average). The approved LTSM plan includes the monitoring of paired watersheds to characterize disturbed and undisturbed water-quality and water-quantity data in order to determine the long-term impacts to streams. Luminant also provided information to demonstrate that the criteria for stream segment are being met. From review of the data from these stations and Luminant's evaluation, Staff ultimately concludes that surface-water quality has been protected in accordance with the approved probable hydrologic consequences ("PHC") determination in Permit No. 46C.
  - i. In its initial TA, Staff recommended that release be denied for those parcels requested for Phase III release (Parcel Nos. 1, 2, 4 and 5) because no explanation was provided for increasing trends and stream-segment exceedances for TDS concentration in discharges from Ponds DIII-6, DIII-8 and DI-40 between 2007 and 2011. Luminant addressed this issue in Supplement No. 1, indicating that the 400 mg/L TDS criterion for Stream Segment No. 0505 was not a maximum limit, but, rather, in accordance with the TCEQ *Procedure to Implement the Texas Surface Water Quality Standards*, is a criterion used by TCEQ in a formula to determine a screening value. For Mill Creek flow into this Sabine River stream segment, the TDS concentration screening is 2,500 mg/L. Discharges from the Oak Hill Mine have not exceeded this stream-segment value. Luminant also demonstrated via its evaluation that the trends of the latter portion of the periods of record for pond discharges, those portions following completion of revegetation, were either flat or decreasing, consistent with the expectation for the mining and reclamation cycle. In some cases, Luminant needed to first remove the values

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obtained that were affected by drought influences. Although Staff did not express agreement with all components of Luminant's assessment, Staff indicated its belief that TDS concentrations in the pond discharges had returned to or near premine levels following completion of reclamation. Staff therefore recommended that Phase III release for Parcel Nos. 1, 2, 4, and 5 be approved.

- ii. In its initial TA, Staff also recommended that Phase III release for Parcel Nos. 1, 2, 4 and 5 not be approved because it could not make a finding that surface-water quality has been protected. Staff provided three reasons for this inability to make such finding: (1) the pH range for upstream USGS Station 08020960 (5.4 s.u. to 7.3 s.u.) was slightly lower than the stream segment criterion for pH (6.0 s.u. to 8.5 s.u.); (2) the range in pH for downstream USGS Station 08020980 (2.7 s.u. to 7.1 s.u.) was lower than both the upstream USGS station and that of the Stream Segment No. 0505 range for pH (6.0 s.u. to 8.5 s.u.); and, (3) a comparison of the pH ranges for the upstream and downstream USGS stations suggests that water draining from the parcels requested for release may be contributing acidic waters to Mill Creek.
  - A. Luminant responded by providing a more detailed analysis of the pH data at the LSTM stations, which was conducted by Luminant's consultant, Golder Associates, Inc. ("Golder"). In its technical memorandum, Golder concluded that over the full period of record, pH in downstream USGS Station 08020980 was slightly lower (by 0.2 s.u.) than that of upstream USGS Station 08020960, but for data for the last five years of the period of record, there was no statistical difference in pH between the upstream and downstream locations. Golder concluded that the 0.2 s.u. difference in pH between the upstream and downstream stations is likely due to runoff from unmined areas, given that premine watersheds and the undisturbed LSTM stations exhibit a lower surface-water pH. Golder concluded that, while there 6 out of 95 sampling events at the downstream USGS station had a recorded pH of less than 5.0, the overall trend of the pH at this station is similar to the upstream station and the premine baseline data. Luminant further indicated that all acidic seeps identified at the Oak Hill Mine are located on the east side of Mill Creek, and that the area requested for release is not on or near the flow path between the identified acidic seeps and Pond DI-40. The specific area requested for release is the service road and associated diversion that create a surface-water control boundary for Pond DI-40 adjacent to Mill Creek, and no seeps have been identified along this service road or diversion. In sum, the areas requested for release have not contributed and do not presently contribute any acidic drainage to Mill Creek.



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different from flow at the undisturbed baseline station (SW-12), and that flow at the downstream Mill Creek station (USGS Station 08020980) was not statistically different from flow at the upstream station (USGS Station 0820960). Golder also indicated that it was not possible to directly compare rainfall data to surface flow because other variables that affect the amount of runoff, such as antecedent soil moisture in the watershed and time of day and frequency of precipitation events, were not known. Nevertheless, Golder compared monthly rainfall to the monthly average flow for Station HSW-1 from 2011 to 2015. From this comparison, Golder noted that through the drought years of 2011-2012 and the following wetter years, flow showed a reasonable response based on rain and season. In 2016, the monitoring of flow became quarterly. Figure 2 of this response show the monthly rainfall along with the quarterly flow data for HSW-1 from 2016 through 2019. Again, the quarterly flow data showed a reasonable response to rainfall when time of year was considered. Staff concurred with Golder's analysis, and also indicated that it believed that Station HSW-1 flows were attenuated by Pond DI-11 located immediately upstream of the station, and by other smaller ponds upstream of Pond DI-11. Staff concludes nevertheless that Luminant had demonstrated that any attenuation of flows due to the construction of Pond DI-11 and its watershed has very little impact to water availability in Mill Creek downstream of the mining operation.

- (c). Staff concludes that Luminant has demonstrated that Parcel Nos. 1, 2, 4 and 5 proposed for Phase III release are not contributing suspended solids to stream flow or runoff outside of the permit area in excess of the performance standards in accordance with §12.313(a)(2). Staff also concludes that Luminant has demonstrated that these parcels meet the reclamation requirements of the Act and the permit in accordance with §12.313(a)(3). Staff recommends that the release application be approved as proposed.
26. The most recent Cumulative Hydrologic Impact Assessment ("CHIA") performed by Staff is contained in Staff's Technical Analysis Addendum No. 3 for the Liberty Mine (Docket No. C11-0020-SC-00-A) dated November 5, 2012, and is applicable to the Liberty Mine (Permit No. 58), Marshall Mine (Permit No. 29), Martin Lake and Martin Lake AIV South Mines (Permit Nos. 4K and 53), South Hallsville No. 1 Mine (Permit No. 33H), Rusk Mine (Permit No. 55), Darco Mine (former Permit No. 29C), Marshall Facility Area Mine (Permit No. 57), and the Oak Hill Mine (Permit No. 46C), all of which are located within the Sabine River Basin in Harrison, Rusk and Panola Counties. In its CHIA, Staff predicted the greatest potential increase in the indicator parameter (TDS concentration) is anticipated at Mass-Balance Point No. 6, which is expected to increase by as much as 384%, from approximately 81 mg/L to 392 mg/L, less than the threshold value of 400 mg/L for Stream Segment No. 0505. For the Oak Hill Mine, Staff predicts a potential

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increase in median TDS concentrations of about 42% for the aquifers within the permit area and in the unit area adjacent to the mine. It represents an increase in median TDS concentrations from just 80 mg/L up to 114 mg/L. Because large portions of the Martin Lake, Oak Hill, and South Hallsville No. 1 Mines are currently in reclamation with no active mining occurring in those areas, TDS concentrations within the discharge of the surface water from these mines are predicted to decrease over time. The TDS concentrations at the LTSM locations evaluated for the requested release area are significantly less than the stream segment criteria.

27. Pursuant to §12.313(a), the Commission may release the requested portions of the bond that are attributable to the subject 274.5 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. The amount of the bond that may be released is dependent on the phase of release that is approved by the Commission, the estimated cost of reclamation applicable to the acreage and the methodology used to derive the approved cost estimate. According to Staff's TA, the last bond-map update and reclamation cost estimate ("RCE") for Permit No. 46C were approved administratively by letter dated July 5, 2017 (Revision No. 95). 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. 3, *supra*]. If the application is approved by the Commission as proposed, then Luminant will be eligible to reduce its performance bond obligations by \$1,139,536.97, as determined by Staff in TA Addendum No. 1, based on the RCE and bond map approved in Revision No. 95. 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 the amount of bond attributable to the 274.5 acres based on the phases of release that are approved by the Commission.
28. All acres requested for release were marked in the field to distinguish them from active mining and reclamation areas for aid in inspection. Clear identification of this area will assist future inspection of this area and adjacent areas.
29. Luminant and Staff, the only parties to the proceeding, filed waivers of the preparation and circulation of a proposal for decision. The proposed order was circulated to the parties with opportunity for comment.
30. Open meeting notice has been posted for Commission consideration of this application.

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### **CONCLUSIONS OF LAW**

Based on the above Findings of Fact, the following Conclusions of Law are made:

1. Proper notice was provided for this request for release of reclamation obligations, and the Commission properly posted the docket for consideration.
2. No public hearing was requested, and none is warranted.
3. Luminant has complied with all applicable provisions of the Act and the Regulations regarding notice for Commission jurisdiction to attach to allow consideration of the matter.
4. Luminant has complied with all applicable provisions of the Act and the Regulations for the various releases requested by the subject application.
5. The Commission may approve a release of reclamation obligations for the acreages requested, as set out in the above Findings of Fact and Conclusions of Law.
6. Luminant is eligible to reduce the amount of bond for Permit No. 46C in accordance with the various releases granted the subject 274.5 acres and applicable provisions of the approved permit and the Regulations in future bond adjustments.
7. Pursuant to the Commission's authority for inspection and evaluation of release applications, the Commission may order that Luminant continue marking the area approved for release so that Staff mapping and tracking will be efficient.

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

**IT IS FURTHER ORDERED** that release of Phase I reclamation obligations for 71.0 acres; Phase II and III reclamation obligations for 165.9 acres; and, Phase I, II, and III reclamation obligations for 37.6 acres is hereby approved;

**IT IS FURTHER ORDERED** that Luminant is eligible to reduce the amount of bond for the permit in accordance the releases granted by this Order and provisions of the approved permit and applicable law;

**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 active mining and 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;

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**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

**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 of interest, 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 September 22, 2020.

**RAILROAD COMMISSION OF TEXAS**

DocuSigned by:  
*Wayne Christian*  
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**CHAIRMAN WAYNE CHRISTIAN**

DocuSigned by:  
*Christi Craddick*  
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**COMMISSIONER CHRISTI CRADDICK**

DocuSigned by:  
*Ryan Sitton*  
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**COMMISSIONER RYAN SITTON**

**ATTEST:**

DocuSigned by:  
*Callie Farnar*  
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Secretary  
Railroad Commission of Texas

