ATTACHMENT III.E.1

HYDROLOGIC MONITORING PLAN

COMPANY NAME Ridgeholm Energy Partners, LLC. PERMIT NO.: _____

MINE NAME John Poe Mine COUNTY Dekalb

* A MAP SHOWING ALL MONITORING POINTS MUST ACCOMPANY THIS PLAN -- **Figure III.E.1-1 included in Appendix III.E.1 shows all monitoring points discussed in this section.**

I. Surface Water Monitoring Program: (Discharge Points)

Surface water from within the active mining areas will be monitored at the Permit Boundary prior to exiting the Permit Area. Surface water will be monitored at the four locations indicated on Figure III.E.1-1 located in Appendix III.E.1.

List each discharge point to be monitored and indicate type or source of discharge	List parameters to be sampled for each discharge point	List frequency of sampling for each discharge point	Duration of Monitoring
Outfall 001 Outfall 002 Outfall 003 Outfall 004	**Parameters required by ADEM NPDES Permit -- Pending**	**As required by ADEM NPDES Permit -- Pending**	**From the time areas in each Increment are disturbed to end of Phase II Bond Release**

A. Reporting and Recording Specifications

(a) NPDES outfalls:
Reporting as required for NPDES permit to Alabama Department of Environmental Management plus a simultaneous Notice of Filing to ASMC containing the following:

1. Name of Company
2. Name of Mine
3. ASMC permit number
4. NPDES number
5. Sampling period covered by report
6. List of the discharge points sampled
7. Date the report was filed with ADEM

Ridgeholm will perform the recording and reporting in accordance with this section of the regulations.

(b) Other

B. Non-Compliant Discharge Reporting:

Reporting as required by the NPDES permit to Alabama Department of Environmental Management plus simultaneous copy (indicating ASMC permit number) to ASMC.

Ridgeholm will perform the reporting in accordance with this section of the regulations.

II. Other Surface Water Monitoring. Bodies of water receiving discharges from the mine.

All surface water leaving Increment 1 flows to an unnamed tributary to Town Creek. All surface water leaving Increment 2 area and the south-western portion of Increment 3 area flows in to an unnamed tributary to Biddle Spring Branch. All surface water leaving the north eastern area of Increment 3 area flows directly to Biddle Spring Branch. Biddle Spring Branch flows into Town Creek.

List Monitoring Points and indicate type or describe location	List Parameters to be Sampled	Frequency	Duration of Monitoring
TC-UP (Upstream)	**pH**	**Quarterly**	**Until Phase III Release**
TC-DN (Downstream)	**Total Iron (Fe)**	**Quarterly**	
	Total Manganese (Mn)	**Quarterly**	
	Total Suspended Solids (TSS)	**Quarterly**	
	Flow	**Quarterly**	

A. Reporting and Recording Specifications:

1) Frequency of Reporting: **Quarterly**

2) Contents of Report: **The Report of Sampling will include the name of the company, name of the mine, the ASMC permit number, and for all monitoring locations, the dates samples were taken and the sample results for each parameter. The Report of Sampling will be submitted to ASMC.**

III. Monitoring Requirements for removal of sediment ponds and other treatment facilities:

Prior to applying for approval to remove sedimentation basins or other treatment facilities, monitoring will be performed monthly for 6 months. Monitoring data will be submitted to ASMC along with the application to remove the

sedimentation basin or treatment facility. Monitoring sites shall be located to sample water entering the facility (i.e., untreated drainage). Show proposed locations on the monitoring location map. Parameters to be sampled shall be those required by the NPDES permit.

After reclamation in an Increment is completed, Ridgeholm will monitor that Increment's sedimentation basin monthly for a period of 6 months at locations where surface water enters the sedimentation basin prior to any treatment. The parameters monitored will be those required by the Pending NPDES permit. Ridgeholm will then transmit that information along with a request to remove that sedimentation pond. Proposed monitoring locations are shown on Figure III.E.1-1 in Appendix III.E.1

IV. A. Monitoring Requirements for Phase II bond release:

List Monitoring Sites	NPDES Parameters	Sample Frequency	Duration of Monitoring
Inflow into the following sedimentation basins: **001** **002** **003** **004**	**pH** **Total Iron (Fe)** **Total Manganese (Mn)** **Total Suspended Solids (TSS)** **(at a minimum, other parameters as may be required)**	**Monthly**	**No less than monthly for the previous 6 months prior to application for Phase II Bond release****

** **For the increment within which the respective basin is bonded, or the respective basin's drainage is located**

B. Reporting:

Reports shall be submitted with application for Phase II Bond Release indicating: sample location number, monitoring period and analysis results and date for each sample, plus sampling and analytical data. A map showing location of the sample sites should be included.

V. Groundwater Monitoring:

List Monitoring Points and indicate type or describe location	List Parameters to be Sampled	Frequency	Duration of Monitoring
Monitor Wells: **Upgradient:** **X-1** **Downgradient:** **X-9R, X-10**	**Water Level** **pH** **Total Iron (Fe)** **Total Manganese (Mn)**	**Quarterly**	**Until Phase III Release**

If, according to the results of the PHC, it is determined that groundwater monitoring may not be necessary, the applicant shall submit with the permit application sufficient documentation, including geologic and hydrologic relations, to enable the Commission to make a decision regarding a waiver of the monitoring of the groundwater.

No waiver for groundwater monitoring is requested.

A. Reporting and Recording:

Reports to be filed with ASMC quarterly supplying the following information: company name, mine name, permit number, and for each monitoring site, the date and sample results for each parameter. Include sampling and analytical information for all samples.

Ridgeholm will perform the recording and reporting in accordance with this section of the regulations.

VI. Maintenance of records and Availability for Inspection:

A. Active Mining - copies of all monitoring records shall be maintained at the mine office.

Records will be maintained at the mine office and will be available for inspection by the appropriate regulatory agencies.

B. During periods of temporary cessation of operations and after active mining, all monitoring records will be kept at:

Ridgeholm Energy Partners, LLC _____(Office)

100 Oxmoore Road, Suite 110 _____(Address)

Birmingham, AL 35209 (City, State, Zip)

Sam Magruder, Managing Partner (Custodian of Records)

C. All monitoring records will be made available upon request to ASMC Personnel for inspection.

Ridgeholm will make all monitoring records available to ASMC personnel for inspection upon request.

VII. Describe how the data obtained from the performance monitoring may be used to determine the impacts of the operation upon the hydrologic balance. Describe how parameters to be monitored relate to the suitability of the surface and groundwater for current and approved post-mining land use.

Both surface water and groundwater monitoring will provide the means to determine if any impacts have occurred due to the mining operations.

Surface water from within the active mining areas will be monitored at the Increment Boundary prior to exiting the Permit Area. All surface water flows via unnamed tributaries to Town Creek or via Biddle Spring Branch to Town Creek. On Town Creek, an upstream monitor point (TC-UP) and a downstream monitor point (TC-DN) will provide an indication of impact, if any, to Town Creek from the mining activities.

The groundwater will be monitored by an upgradient monitor well (X-1) and two downgradient monitor wells (X-9R and X-10).

The baseline data from the surface water monitoring and groundwater monitoring will be used for comparison to data obtained during active mining operations and post-mining conditions to determine if any impacts from the mining operations is occurring.

VIII. PLEASE NOTE: ALL PERFORMANCE MONITORING REPORTS should be submitted in duplicate. For companies with multiple permits, each permit should have a corresponding monitoring report. Sites serving multiple permits should be included in all pertinent monitoring reports.

All monitoring reports will be submitted to ASMC in duplicate.

IX. If a waiver is requested for a particular water-bearing stratum, give details.

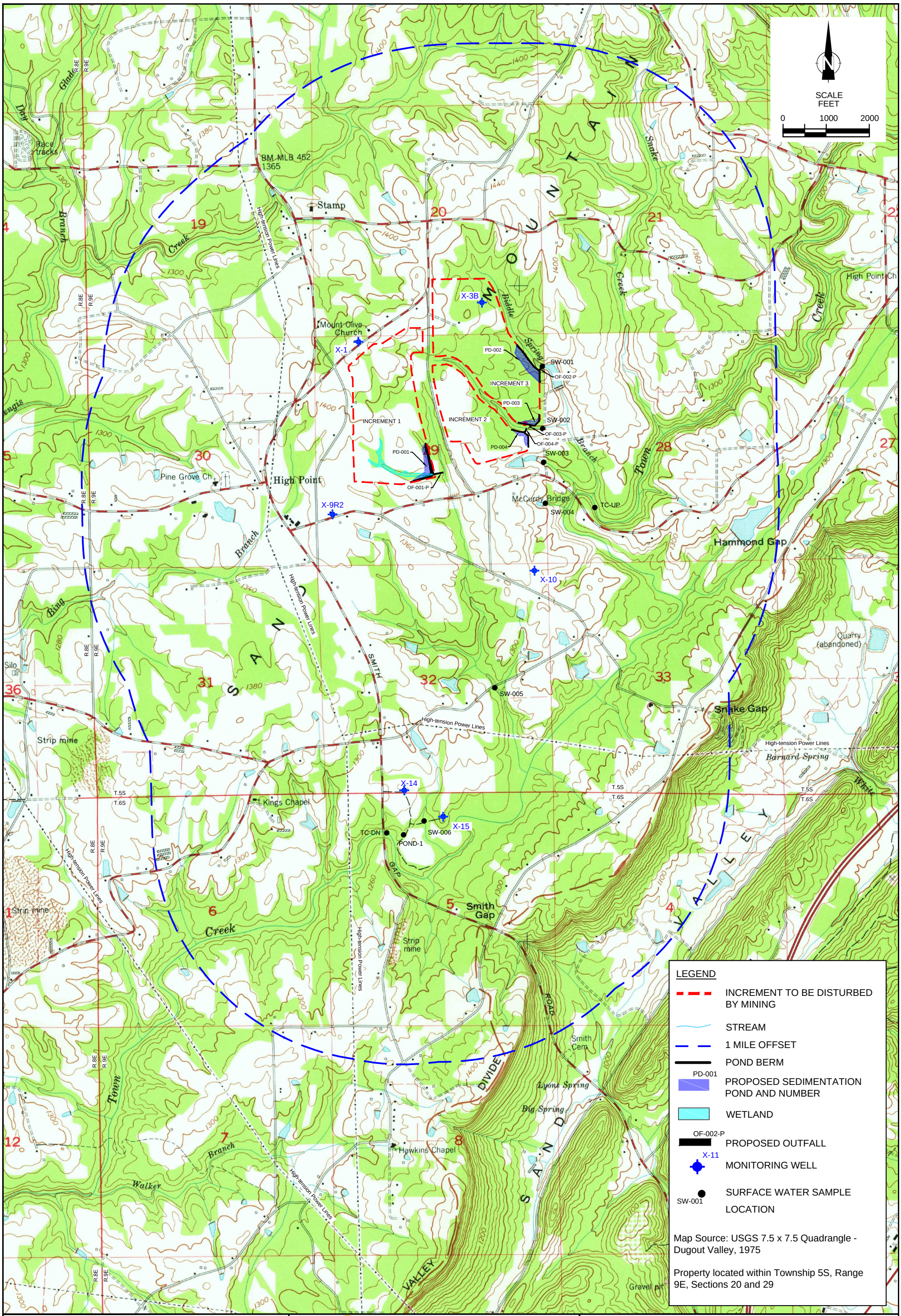
No waivers are requested.

X. Plans for Recording and Reporting Data:

Describe how surface and groundwater quantity and quality data will be collected, recorded, and reported to the Regulatory Authority.

The same methodology indicated in Part II of this application will be used to collect surface water and groundwater quantity and quality data. Chemical analyses will be performed at a laboratory, and all field and laboratory results will be recorded and filed at the site, and will be reported to the ASMC.

APPENDIX III.E.1



Ridgeholm Energy Partners, LLC
100 Oxmoore Road, Suite 110
Birmingham, Alabama 35209

PROJ. NO: 02.20120195.00

EARTHCON®
EarthCon Consultants Inc.
14405 Walters Rd, Suite 700
Houston, TX 77014

MONITORING POINTS
John Poe Mine
Dekalb County, Alabama

DRAWN:	CHECKED:	DATE:	FIGURE:
JMT	RAD	05/14/14	III.E.1.-1

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PART III.F

SURFACE AND GROUND WATER DRAINAGE CONTROL

PART III.F

SURFACE AND GROUNDWATER DRAINAGE CONTROL PLAN.

F. Surface and Groundwater Drainage Control Plan.

The permit application shall contain plan describing how the applicant intends to control surface and groundwater drainage into, through and from the proposed permit area in accordance with the required plans.

Surface water run-on from adjacent areas will be prevented from entering the active mining areas by diversion berms and diversion ditches. These berms and ditches will direct water to existing streams. Erosion control and sediment control measures including silt fencing, hay bale berms, vegetation, and rock check dams may be used to limit sediment from these limited disturbed areas.

Surface water run-off from the active mining areas will be prevented by diversion berms and ditches that will direct water from the active mining areas to the sedimentation basins for each increment of mining. Surface water and groundwater that enters the mining excavation will be pumped to the sedimentation basin constructed to manage this water prior to discharge.

PART III.G

SURFACE WATER TREATMENT PLAN

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G. Surface Water Treatment Plan.

When the PHC determination indicates the need for the treatment of surface water leaving the proposed permitted area, the applicant shall submit a plan for such treatment with the permit application which describes how such treatment will be accomplished to meet applicable State and Federal effluent limitation standards.

The initial PHC determination did not indicate the need for treatment of water prior to discharge. If the need is determined a treatment plan will be developed and submitted to ASMC for approval. This plan may include treatment with aqueous sodium hydroxide, sodium permanganate, alum, or other compounds as appropriate.

PART III.H

RESTORATION OF RECHARGE PLAN

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H. Restoration of Recharge Plan.

Attach the plan describing how the approximate recharge capacity of the disturbed area will be restored according to the requirements.

After reclamation is completed and the ground surface returned to its approximate original contours, the groundwater within the permit area should return to the approximate elevations for the pre-mining conditions.

PART III. I

PLANS FOR RECORDING AND REPORTING DATA

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I. Plans for Recording and Reporting Data.

Describe how surface and groundwater quantity and quality data will be collected, recorded, and reported to the regulatory authority.

As required by ADEM and ASMC, surface water and ground water will be collected, chemically analyzed, the results will be evaluated, and the results will be reported to the appropriate agencies.

PART III. J

PERMANENT ENTRY SEALS AND DOWN SLOPE BARRIERS

PART III. J

PERMANENT ENTRY SEALS AND DOWN SLOPE BARRIERS

J. Permanent Entry Seals and Down Slope Barriers.

Describe in detail, with appropriate maps, plans, and cross sections, permanent entry seals and down slope barriers used to ensure hydraulic stability after mining has ceased.

No entries or down slope barriers are anticipated as part of this mining activity. If permanent entry seals of down slope barriers are required, they will be constructed as indicated on Figure III.A.6-4 included in Appendix III.A.6.