Attachment C3

- Provide a detailed facility process description that identifies all unit operations at the facility. The process description should include an explanation of each process unit and any emissions from that component (i.e., how the equipment operated, what is the vessel's purpose in the operation of this facility, and a step-by- step explanation of how material is transferred through the process tanks), including the characterization of material being processed or stored (i.e., condensate, produced water, vapors vented or returned to gas line). Include all auxiliary equipment descriptions such as heaters, sump pumps, Ambitrol and Methanol usage, etc.

The Los Mestenios Compressor Station is located in northwestern New Mexico, within the boundaries of the Jicarilla Apache Reservation, and therefore falls within the jurisdiction of United States Environmental Protection Agency, Region 6. The facility compresses natural gas for pipeline transmission. The natural gas is received from pipelines that are fed by upstream natural gas wells.

Once at the facility, the natural gas passes through the liquids receiver (VR-1013) and then through the inlet suction scrubber (VSC-1022). There are no emissions from these vessels. Their purpose is to separate liquids from the natural gas stream. Liquids are separated from the gas stream in both vessels and sent to the facility condensate tank (T-1023), which can then overflow into the second facility condensate tank (T-1024), if needed. Flash emissions will occur in the first tank where the liquid is discharged and working and breathing emissions will occur from both tanks. All tank emissions are vented to atmosphere, as there are currently no applicable requirements to control tank emissions at the facility. Water is separated off the condensate and drained into the facility's produced water tank. Liquids are removed from the facility via truck. There are loadout emissions associated with this action. During the winter months, a small tank heater is used to prevent the liquids in the tanks from freezing. There are a small amount of combustion emissions associated with this unit.

After the natural gas passes through the inlet suction scrubber (VSC-1022), it is compressed by the Solar Turbine (GT-1031) from approximately 95 psi to 210 psi (this is the primary purpose of the turbine). The turbine fires natural gas that is heated with a fuel gas heater during the winter months to prevent any condensables from freezing. There are a small amount of combustion emissions associated with the fuel gas heater. The turbine does not have any emission controls and emits to atmosphere. After compression, the gas passes through the facility discharge cooler (AC-1021) before exiting the facility and being discharged to Harvest's Dogie Compressor Station. There are no emissions associated with the discharge cooler.

There is also a pig launcher (VR-1014) and pig receiver (VR-1011) located within a quarter mile of the facility. Pigs are launched in pipelines to clean out any buildups of liquid and other material in the pipe. There are small amounts of emissions when a pig is launched and when a pig is received. Emissions are dependent on the volume of the launcher/receiver. Multiple pigs can be caught in a receiver before it is opened and vents emissions to atmosphere, so not every pig receiving event results in emissions. For the pigs that are received at Los Mestenios, smaller diameter pigs are used in one pipeline and drop into a different larger pipeline. The pig used in this larger pipeline then pushes the smaller pigs into the facility receiver. So multiple pigs are caught in the receiver simultaneously, resulting in the receiver only being opened once for

multiple pigs. This common industry practice reduces emissions by limiting how many times the receiver is opened.

An emergency diesel powered generator engine provides electricity to the site if the facility loses power.

Methanol is injected into the natural gas stream to prevent pipeline freezes in the winter. Methanol works as an anti-freeze by joining with the natural gas and water vapor to lower the freezing point of the vapor. The Ambitrol (antifreeze) tank is for the engine that is no longer in service but was still included in the application.

- Provide a process flow diagram that represents current facility operations and matches the process description provided in the text. All inputs and outputs and equipment should be labeled and direction of flow indicated appropriately. Also, it should be clear where emission occur and should match emission units presented in the application. Indicate both line pressure and process unit pressure and any changes in pressure as part of normal operations. Please provide pictures of the existing and any new equipment (tanks, heaters, turbines, compressor engines, emergency generator) that clearly delineate nameplates for the permit record. Please provide manufacturer spec sheet, design information or data and serial numbers of new and old equipment.

    - Please see *Los Mestenios Updated Process Flow Diagram* and pictures uploaded to ftp

- Include the custody transfer point on the facility diagram or process flow diagram, whether upstream of or at the facility property boundary (e.g., upstream of pigging unit?) and provide copies of current contracts for amount of material transferred to the facility for processing (i.e., should coincide with representative throughputs provided in the permit application, with contingencies identified for possible future increase in throughput).

    - Custody transfer occurs upstream of the facility at individual natural gas wells. No custody transfer occurs at the facility. Natural gas from this facility is discharged to another Harvest compressor station.

    - There are no contracts for the amount of material that can be transferred to the facility. The facility is limited on how much material it can process by the compression capability of the site, which is limited to the single Solar turbine. With the current facility configuration, it can compress approximately 20 MMscf/day (see *Los Mestenios Maximum Facility Throughput)*. Harvest cannot increase this capacity without construction that would need to be approved through the NSR program.

- Harvest has put together the facility condensate throughput data from 2017 – 2022. The maximum 12-month rolling total at the facility over the last 5 years occurred in 2017 and was 9,109 bbls. The most recent 12-month rolling total was 4,181 bbls. The emissions model was run at a worst-case emissions scenario of 22,141 bbls. There are no plans to make any changes to the site that would increase the facility throughput above what the model was ran at. Any increase in throughput above the model inputs presented in the application would need to be approved by the EPA through the NSR program.

Example of Missing Info for Emission Units and Control Devices

{Please complete filling in missing information and confirm information provided from current application below:}

Emission Unit No.	Type of Unit Serial No.	Manufacturer Model No. Design Heat Input	Operating Range or Size of Unit	Date of Installation and Construction	Primary Use	Control Equipment
T-1	Condensate Storage Tank Serial Number? 2874	American Tank & Steel	~~490~~ 400 bbl	Install – Unknown Constructed – 06/1965	Condensate Storage	None
T-2	Condensate Storage Tank Serial Number? 831-2918	American Tank & Steel	400 bbl	Installed – 2014 Constructed – 10/1965	Overflow Condensate Storage	None
F-1	Valves, Flanges, Seals, etc. Unknown	N/A	N/A	N/A	N/A	None
MSS	Maintenance, Startup, and Shutdown Emissions	N/A	N/A	N/A	Pressure relief	None

Insignificant Emissions

{Please complete filling in missing information and confirm information provided from current application below:}

Emission Unit ID No.	Unit Description	Size	Exemptions to Federal Requirements
Unit 4	Fuel Gas Heater	0.3 MMBtu/hr	• < 2 tpy regulated pollutants and < 0.5 tpy HAPs • Provide what method, simulation, etc. used to

Emission Unit ID No.	Unit Description	Size	Exemptions to Federal Requirements
			calculate emissions, e.g., VMGSym, etc. • Emission factors from AP-42 and GRI HapCalc (pg. 62-66 of the application) • Provide Federal citation for exemption • 40 CFR 71.5(c)(11)(ii)
Unit 5	Tank Heater	~~0.3~~0.012 MM Btu/hr	Emission factors from AP-42 and GRI HAPCalc Insignificant emission unit (71.5(c)(11)(ii)
L1	Truck Loading Condensate	XX bbl or # of events 22,141 bbls	Emissions calculated using AP-42 and EPA TANKS 4.0 Insignificant emission unit (71.5(c)(11)(ii))
L2	Truck Loading Produced Water	840 bbls	Emissions calculated using AP-42 and EPA TANKS 4.0 Insignificant emission unit (71.5(c)(11)(ii))
T3	Produced Water StorageTank	70 bbl	Emissions calculated using emission factors developed for produced water by Colorado Department of Public Health and Environment (CDPHE) and the Texas Commission on Environmental Quality (TCEQ) Insignificant emission unit 40 CFR 71.5(c)(11)(ii)
T4	Lube Oil Storage Tank	500 gal	Emissions calculated using EPA TANKS 4.0 Insignificant emission unit 40 CFR 71.5(c)(11)(ii)
T5	Lube Oil Storage Tank	500 gal	Emissions calculated using EPA TANKS 4.0 Insignificant emission unit 40 CFR 71.5(c)(11)(ii)
T6	Ambitrol Storage Tank	350 gal	Emissions calculated using EPA TANKS 4.0 Insignificant emission unit 40 CFR 71.5(c)(11)(ii)

Emission Unit ID No.	Unit Description	Size	Exemptions to Federal Requirements
T7	Methanol Storage Tank	500 gal	Emissions calculated using EPA TANKS 4.0 Insignificant emission unit 40 CFR 71.5(c)(11)(ii)

- What is the pressure relief valve settings for the condensate tanks? Where does the gas go after flashing? Is it routed back to the process or gas line, if so, where? Please indicate all atmospheric vents on the process flow diagram appropriately.
  - Pressure relief setting – 0.4 oz
  - Flash gas vents to atmosphere

- Is the Equipment Leaks an actual and recent count of components?
  - Component counts are conservatively estimated. Harvest has evaluated some of its more complex sites and developed a component count per equipment type. This is used to estimate component counts for its facilities. In addition, Harvest adds the following to make its estimated count more conservative:
    - 1 valve for each open ended line
    - 2 connectors for each flow meter
    - 2 valves, 2 connectors, and 1 open-end line for each level gauge
    - 1 connector for each pressure gauge

- Provide an applicability discussion for the turbine, new compressor engine and emergency generator. Provide performance testing requirements for the new engine. Also, provide the following information for the engines.
  - Applicability discussions are included in the permit renewal application on pages 153-157. Harvest is withdrawing its request to add the Waukesha L7042GL unit to the facility.
  - The existing turbine was constructed in 1979 and installed at the facility in 1989. It has not been modified or reconstructed since. It is subject to 40 CFR Part 60, Subpart GG as it is a stationary gas turbine with a heat input equal to or greater than 10 MMBtu/hr and was constructed after 10/3/1977.
  - The turbine was manufactured prior to 2/18/2005 and has not been reconstructed or modified since. Therefore, the turbine is not subject to 40 CFR part 60, Subpart KKKK.
  - The facility is not a major source of HAP as defined in 63.6175. Therefore, the turbine is not subject to 40 CFR Part 63, Subpart YYYY.
  - The emergency generator engine is subject to 40 CFR Part 63, Subpart ZZZZ, as it is an existing emergency generator engine located at an area source of HAP.
  - The emergency generator engine was constructed prior to 7/11/2005. Therefore, the unit is not subject to 40 CFR Part 60, Subpart IIII.

{Please complete filling in missing information and confirm information provided from current application below:}

Unit	Make /Model	Serial Number	Date of construction and installation	Operating Range or Size HP (Also include: 2 or 4 stroke, rich or lean burn?)	Fuel Type	Engine use	Pollution Control
Unit 1	Solar Saturn Turbine T1200	OHC18-S4468	Constructed – 1979 Installed – 1989	1200 HP NA for turbines	Natural gas	Natural gas compression	None
~~Unit 2~~	~~Waukeska L7042 GL~~	Harvest has no plans on installing this unit. It will be removed from the application and facility PTE					
Unit 3	Scania F674DSU-DS11A06	951674	Constructed – 1970-1995 Installed – 2019	250 HP N/A; Compression Ignition	Diesel	Emergency power generation	None

- Harvest has stated that the concentration of the condensate has changed, and these specific changes have decreased the flash emissions from the condensate tanks that would result in an overall emission limit decrease. However, substantiation of such changes to throughput and complete characterization *changes* need to be a part of the permit application. Data that is provided should match up to contracts currently in place vs historically in place, or onsite characterization efforts need to match up with historical vs current data analyses for all streams coming into the facility at specified throughput rates.
    - Harvest did not change the modeled throughput from the previous Title V permit renewal application. Emission models for both renewal applications were run assuming 22,141 barrels of annual condensate throughput. Using the PTE calculation methodology specified in EPA's OOOOa guidance and at 60.5365a, PTE for the tank would be determined using the maximum daily average throughput. Going back over 5 years of condensate throughput data (found in the *Los Mestenios Historic Condensate Throughputs 2017-2022* document), the highest monthly sum of condensate at the facility is 1,362.04 barrels, in February of 2017. This equates to 48.64 barrels per day (1,362.04/28) and 17,755.16 barrels per year (48.64*365). The maximum average daily throughput over the last 5 years is 4,385.84 barrels less than what the model was ran at, making the model output an extra conservative figure.
    - Condensate compositions from 2017, 2018, 2019, and 2021 can be found in the *Los Mestenios Compressor Station Condensate Compositions 2017-2021* document. As the document and the supporting analyses show, C3 and C4 concentrations, the main drivers of VOC flash emissions, have decreased from

year to year. Again, Harvest has no contracts that specify the amounts or constituents of material that can be sent to the facility. It has an operational design limit of approximately 20 MMscf/day based on its current configuration. There are no plans on changing anything at the site that would result in an increase in throughputs. Any such changes that would result in an emissions increase or that would result in an increase above the model inputs in the application would be required to be approved by EPA through the NSR program prior to construction.

- Harvest stated that it is common for the concentrations of the condensate transferred from a well to change over time. Provide information on other Harvest facilities or same type facilities that can be used to support the assertions that have been made for this project if site-specific data is not available (e.g., contracts with upstream facilities providing the material processed at Los Mestenios facility)

    - Please see the *Los Mestenios Compressor Station Condensate Compositions 2017-2021* for site-specific data related to condensate composition over the last five years. This document shows how the condensate has changed at the facility since 2017.

- Harvest has stated that sampling only occurs "as needed" and no more frequently than once per year. Is this condensate sample retrieved at the same time of year? Are there seasonal changes in material coming into the site? Would the constituents in the sample that is collected in Nov/Dec be different than a sample collected in June/July? Would the sample profile be different? Is there a seasonal effect on flash emissions from the condensate tanks? Is there more flashing in the condensate tanks in the summertime?

    - There is some variability with the amount of material that comes into the site during the different seasons. The sample constituents are the same regardless of the time of year. A condensate sample profile has the potential to change from month to month and year to year, but with sampling occurring on an annual basis, we get a good picture of what material is being collected at the facility. Harvest typically has condensate samples taken during the winter months when liquid flows are higher. With the higher flows, Harvest feels that these samples give us the most conservative estimate for emission modeling, as they also contain the highest amount of C3 and C4 constituents.

    - There are higher flash emissions from the tanks during the summer months with the higher temperatures and lower flash emissions from the tanks during the winter months with the lower temperatures. This is accounted for in the emission model by using average annual temperatures for the local geographic area.

- Are the changes to the condensate concentration permanent changes and indicative of current operations?

    - The 2021 Los Mestenios condensate sample has a higher concentration of heavier components than the sample used in the previous Title V permit renewal

application. The available data shows that condensate at the facility has become increasingly heavier from year to year, which will result in lower amounts of flash emissions. In addition, the amount of condensate that is received at the facility has also decreased over the years, going from 8,622.64 barrels in 2017 to 3,667.8 barrels in 2021. This also significantly reduces the amount of actual flash emissions. The most recent condensate data included in this additional information request are indicative of current operations.

- Indicate pipeline pressures on the process flow diagram
  - Please see *Los Mestenios Updated Process Flow Diagram*

- Verify sample location of condensate and indicate on process flow diagram
  - Condensate samples are taken from the facility liquids receiver (VR-1013 on the process flow diagram)