



State of Mississippi



FEDERALLY ENFORCEABLE AIR POLLUTION CONTROL PERMIT

Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

THIS CERTIFIES

Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility
Hobs Hill Land and Bowling Green Road
Woodville, MS
Wilkinson County

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with the Federal Clean Air Act and the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. set., Mississippi Code of 1972), the regulations and standards adopted and promulgated thereunder, and the State Implementation Plan for operating permits for synthetic minor sources.

Mississippi Environmental Quality Permit Board

Mississippi Department of Environmental Quality

Issued/Modified: MAR 26 2013

Expires: FEB 28 2018

Permit No. 2940-00020

Agency Interest # 55429

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Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Subject Item Inventory

Permit Number:2940-00020

Activity ID No.: PER20110002

Subject Item Inventory:

ID	Designation	Description
AI55429	55429	Oil & Gas Production
EQPT1	AA-002	0.35 MMBTU/hr Heater Treater (V-103)
CONT1	AA-003	Vapor Combustor-Flare (FL-702)
EQPT11	AA-004	Flare-Utility (FL-701)
EQPT12	AA-005	0.125 MMBTU/hr Dehydrator Reboiler (DehyReb)
EQPT13	AA-006	Dehydrator Still Vent (DEHY-1) equipped with a condenser with emissions routed to the BTEX condenser
EQPT3	AA-008	Two Phase Separator
EQPT6	AA-011	12,600 Gallon Slop Oil Storage Tank (S-503) with emissions controlled by the flare (AA-004)
EQPT9	AA-014	12,600 Gallon Produced Water Storage Tank (S-504)
ACT1	AA-015	Condensate Loading (OilLL)
ACT2	AA-016	Produced Water Loading (PWLL)
AREA1	AA-017	Fugitive Emissions (FUG)
EQPT14	AA-018	80 HP Field Gas Pump Jack Engine (PumpEng)

Subject Item Groups:

ID	Description	Components
GRPT1	Oil Storage Tanks	EQPT4 12,600 Gallon Crude Oil Storage Tank (S-501) with emissions controlled by the vapor combustor (AA-003)

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Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Subject Item Inventory

Permit Number:2940-00020

Activity ID No.: PER20110002

ID	Description	Components
GRPT1	Oil Storage Tanks	EQPT5 12,600 Gallon Crude Oil Storage Tank (S-502) with emissions controlled by the vapor combustor (AA-003)

KEY

ACT = Activity

AREA = Area

CONT = Control Device

IA = Insignificant Activity

RPNT = Release Point

AI = Agency Interest

CAFO = Concentrated Animal Feeding Operation

EQPT = Equipment

MAFO = Animal Feeding Operation

TRMT = Treatment

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Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Facility Requirements

Permit Number:2940-00020

Activity ID No.: PER20110002

AI0000055429 (55429) Oil & Gas Production:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Fuel Combusted	Fuel Combusted: For all combustion units operating at this facility, the permittee shall combust only produced natural gas. [APC-S-2 II.B(10)]

Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		The permittee shall conduct a semi-annual natural gas analysis including hydrogen sulfide concentration, sulfur content, methane concentration (volume), gross heating value, molecular weight and specific gravity. [APC-S-2 II.B(11)]

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Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Facility Requirements

Permit Number:2940-00020

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AI0000055429 (continued):

Record-Keeping Requirements:

Condition No.	Condition
R-1	<p>For the facility, the permittee shall keep the following records:</p> <ul style="list-style-type: none">(1) record the tons/year of volatile organic compounds, total hazardous air pollutants and individual hazardous air pollutants in 12-month consecutive months. This record shall demonstrate compliance with the operating limitations utilizing gas flow measurement, gas analysis, calculations and other relevant information.(2) results of semi-annual analysis conducted on produced natural gas including hydrogen sulfide, sulfur content, methane concentration (volume), gross heating value, molecular weight and specific gravity;(3) calculated cubic feet of natural gas burned, as fuel, monthly;(4) barrels of oil produced, monthly;(5) cubic feet of natural gas produced, monthly;(6) cubic feet of natural gas destructed in the flare unit, monthly;(7) log/record of weekly visible emission observation on the flare and heater treater. <p>The permittee shall maintain a copy of this record on site for at least five years and shall make them available upon request by the Mississippi Department of Environmental Quality (MDEQ) personnel. [APC-S-2 II.B(11)]</p>

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AI0000055429 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-1	<p>Except as otherwise specified herein, the permittee shall submit a certified annual report, due by the 31st of January for the preceding calendar year. This report shall address the required monitoring specified in the permit including the following:</p> <ul style="list-style-type: none">(1) the quantity of VOC, individual HAPs and total HAPs in 12 consecutive months;(2) results of semi-annual analysis of natural gas produced including methane concentration (by volume), hydrogen sulfide, sulfur content, gross heating value, molecular weight, and specific gravity;(3) calculated cubic feet of natural gas burned, as fuel, monthly;(4) barrels of oil produced, monthly;(5) cubic feet of natural gas produced, monthly; and,(6) cubic feet of natural gas destructed in the flare, monthly. [APC-S-2 II.B(11)]
S-2	<p>General Condition: Except as otherwise specified herein, the permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken. Said report shall be made within five (5) working days of the time the deviation began. [APC-S-2 II.B(10)]</p>
S-3	<p>Except as otherwise specified herein, the permittee shall Submit a certified annual synthetic minor monitoring report: Due annually, by the 31st of January for preceding calendar year. This report shall address any required monitoring specified in the permit. [APC-S-2 II.B(11)]</p>

Narrative Requirements:

Condition No.	Condition
T-1	<p>General Condition: Any activities not identified in the application are not authorized by this permit. [Miss. Code Ann. 49-17-29 1.b]</p>

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AI0000055429 (continued):

Narrative Requirements:

Condition No.	Condition
T-2	General Condition: The permittee shall at all times maintain in good working order and operate as efficiently as possible all air pollution control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. [APC-S-2 V.A]
T-3	General Condition: Solids removed in the course of control of air emissions shall be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering state waters without the proper environmental permits. [Miss. Code Ann. 49-17-29 1.a(i and ii)]
T-4	General Condition: Any diversion from or bypass of collection and control facilities is prohibited except as provided for in Regulation APC-S-1, "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants", Section 10. [APC-S-1 Section 10]
T-5	General Condition: Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule. [APC-S-2 X]
T-6	General Condition: The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their authorized representatives, upon the presentation of credentials: (a) To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit, and (b) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emission. [Miss. Code Ann. 49-17-21]
T-7	General Condition: After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to: (a) Violation of any terms or conditions of this permit (b) Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or (c) A change in any condition that required either a temporary or permanent reduction or elimination of authorized air emissions. [APC-S-2 II.C]
T-8	General Condition: This permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for this permit to be reopened shall exist when an air emissions stationary source becomes subject to Title V. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of the permit. [APC-S-2 II.B(15)b]

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AI0000055429 (continued):

Narrative Requirements:

Condition No.	Condition
T-9	General Condition: Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality Office of Pollution Control. [Miss. Code Ann. 49-17-39]
T-10	General Condition: The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations. [APC-S-2 II.B(15)c]
T-11	General Condition: Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the air cleaning facility, or from compliance with the applicable statutes of the State, or with local laws, regulations, or ordinances. [APC-S-2 II.B(7)]
T-12	General Condition: This permit may only be transferred upon approval of the Mississippi Environmental Quality Permit Board. [APC-S-2 XVI.B]
T-13	General Condition: This permit is for air pollution control purposes only. [APC-S-2 I.D(1)]
T-14	General Condition: This permit is a Federally-approved permit to operate a synthetic minor source as described in Regulation APC-S-2, Section IV.D. [APC-S-2 IV.D]
T-15	General Condition: The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. [APC-S-2 I.D(7)]
T-16	General Condition: The permittee shall furnish to MDEQ within a reasonable time any information MDEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to MDEQ copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee shall furnish such records to MDEQ along with a claim of confidentiality. [APC-S-2 II.B(15)d]

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AI0000055429 (continued):

Narrative Requirements:

Condition No.	Condition
T-17	<p>General Condition: This permit does not authorize a modification as defined in APC-S-2, "Permit Regulations for the Construction and/or Operation of Air Emissions Equipment". Modification is defined as "Any physical change in or change in the method of operation of a facility which increases actual emissions or potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include:</p> <ul style="list-style-type: none">(a) routine maintenance, repair, and replacement;(b) use of an alternative fuel or raw material by reason of an order under Sections 2(a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;(c) use of an alternative fuel by reason of an order or rule under Section 125 of the Federal Act;(d) use of an alternative fuel or raw material by a stationary source which: (i) the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166; or (ii) the source is approved to use under any permit issued under 40 CFR 52.51 or under regulations approved pursuant to 40 CFR 51.166;(e) an increase in the hours of operation or in the production rate unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.51, or under regulations approved pursuant to Subpart I or 40 CFR 51.166; or(f) any change in ownership of the stationary source" [APC-S-2 I.D(2)]
T-18	<p>General Condition: It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit unless halting or reducing activity would create an imminent and substantial endangerment threatening the public health and safety of the lives and property of the people of this state. [APC-S-2 II.B(15)a]</p>
T-19	<p>General Condition: The permittee shall retain all required records, monitoring data, supported information and reports for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings or other data for continuous monitoring instrumentation, and copies of all reports required by this permit. Copies of such records shall be submitted to MDEQ as required by Applicable Rules and Regulations or this permit upon request. [APC-S-2 IX]</p>
T-20	<p>General Condition: The knowing submittal of a permit application with false information may serve as the basis for the Permit Board to void the permit issued pursuant thereto or subject the applicant to penalties for constructing or operating without a valid permit. [APC-S-2 II.B(5)]</p>

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AI0000055429 (continued):

Narrative Requirements:

Condition No.	Condition
T-21	<p>General Condition: Emergencies</p> <p>(a) Except as otherwise specified herein, an emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.</p> <p>(b) An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in (c) following are met.</p> <p>(c) The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence as follows: (i) an emergency occurred and that the permittee can identify the cause(s) of the emergency; (ii) the permitted facility was at the time being properly operated; (iii) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and (iv) the permittee submitted notice of the emergency to MDEQ within two (2) working days of the time when emission limitations were exceeded due to the emergency which contained a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.</p> <p>(d) In any enforcement proceeding, the permittee seeking to establish the occurrence of any emergency has the burden of proof.</p> <p>(e) This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein [APC-S-2 II.B(10)]</p>
T-22	<p>General Condition: Upsets</p> <p>(a) The occurrence of an upset constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards or other requirements of Applicable Rules and Regulations or any applicable permit if the permittee demonstrates through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows: (i) an upset occurred and that the permittee can identify the cause(s) of the upset; (ii) the source was at the time being properly operated; (iii) during the upset the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit; (iv) the permittee submitted notice of the upset to the DEQ within five (5) working days of the time the upset began which contained a description of the upset, any steps taken to mitigate emissions, and corrective actions taken.</p> <p>(b) In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.</p> <p>(c) This provision is in addition to any upset provision contained in any applicable requirement. [APC-S-1 Section 10]</p>

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AI0000055429 (continued):

Narrative Requirements:

Condition No.	Condition
T-23	<p>General Condition: Startups and Shutdowns</p> <p>(a) Startups and shutdowns are part of normal source operation. Emissions limitations applicable to normal operation apply during startups and shutdowns except as follows: (i) when sudden, unavoidable breakdowns occur during a startup or shutdown, the event may be classified as an upset subject to the requirements above; (ii) when a startup or shutdown is infrequent, the duration of excess emissions is brief in each event, and the design of the source is such that the period of excess emissions cannot be avoided without causing damage to equipment or persons; or (iii) when the emissions standards applicable during a startup or shutdown are defined by other requirements of Applicable Rules and Regulations or any applicable permit.</p> <p>(b) In any enforcement proceeding, the permittee seeking to establish the applicability of any exception during a startup or shutdown has the burden of proof.</p> <p>(c) In the event this startup and shutdown provision conflicts with another applicable requirement, the more stringent requirement shall apply. [APC-S-1 Section 10]</p>
T-24	<p>General Condition: Maintenance</p> <p>(a) Maintenance should be performed during planned shutdown or repair of process equipment such that excess emissions are avoided. Unavoidable maintenance that results in brief periods of excess emissions and that is necessary to prevent or minimize emergency conditions or equipment malfunctions constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards, or other regulatory requirements if the permittee can demonstrate the following: (i) the permittee can identify the need for the maintenance; (ii) the source was at the time being properly operated; (iii) during the maintenance the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit; (iv) the permittee submitted notice of the maintenance to MDEQ within five (5) working days of the time the maintenance began or such other times as allowed by MDEQ, which contained a description of the maintenance, any steps taken to mitigate emissions, and corrective actions taken.</p> <p>(b) In any enforcement proceeding, the permittee seeking to establish the applicability of this section has the burden of proof.</p> <p>(c) In the event this maintenance provision conflicts with another applicable requirement, the more stringent requirement shall apply. [APC-S-1 Section 10]</p>
T-25	<p>General Condition: For renewal of this permit the applicant shall make application not less than one-hundred eighty (180) days prior to the expiration date of the permit substantiated with current emissions data, test results or reports or other data as deemed necessary by the Mississippi Environmental Quality Permit Board. [APC-S-2 VIII]</p>

Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Facility Requirements

Permit Number:2940-00020

Activity ID No.: PER20110002

EQPT0000000001 (AA-002) 0.35 MMBTU/hr Heater Treater (V-103) :

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Particulate Matter	Particulate Matter: The permittee shall not have particulate emissions from fossil fuel burning installations of less than 10 MMBTU/hr heat input that exceeds 0.6 lb/MMBTU. [APC-S-1 3.4.a(1)]
L-2	Opacity	Opacity: The permittee shall not have emissions of opacity greater than or equal to 40 % as determined by EPA Reference Method 9, 40 CFR 60, Appendix A. [APC-S-1 3.1.a]
L-3	Sulfur Dioxide	Sulfur Dioxide: The permittee shall not discharge sulfur oxides from any fuel burning installations in which fuel is burned primarily to produce heat of power by indirect heat transfer in excess of 4.8 lb/MMBTU (measured as sulfur dioxide) heat input. [APC-S-1 4.1.a]
L-4		The permittee shall send the produced gas to the sales line or to the flare (AA-004) for control. [APC-S-2 II.B(10)]

Narrative Requirements:

Condition No.	Condition
T-1	Such air emission equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [APC-S-2 II.B(10)]

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Facility Requirements

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CONT0000000001 (AA-003) Vapor Combustor-Flare (FL-702):

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Hydrogen sulfide	Hydrogen sulfide: The permittee shall not permit the emission of any gas stream which contains hydrogen sulfide in excess of one grain per 100 standard cubic feet. Gas streams containing hydrogen sulfide in excess of one grain per 100 standard cubic feet shall be incinerated at temperatures of not less than 1600 degrees F for a period of not less than 0.5 seconds, or processed in such manner which is equivalent to or more effective for the removal of hydrogen sulfide. [APC-S-1 4.2.b]
L-2	Opacity	Opacity: The permittee shall operate the flare with no visible emissions as determined by EPA Method 22, except for periods not to exceed a total of 5 minutes during any consecutive two (2) hours. [APC-S-2 II.B(10)]
L-3		The permittee shall maintain a flare pilot flame at all times. The permittee shall record anytime the facility is operated without a flame present and the corrective actions taken. [APC-S-2 II.B(10)]

Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		The permittee shall perform weekly visual emission observations using EPA Method 22. If smoking is detected, the permittee shall take corrective action. [APC-S-2 II.B(11)]
M-2		The flare shall operate with a temperature between 1600 and 1800 degrees Fahrenheit and maintain a control efficiency of 98%. The permittee shall keep a record/log of temperature measurements and shall record anytime the vapor combustion unit is operated with the temperature below 1600 degrees Fahrenheit or above 1800 degrees Fahrenheit and anytime the control efficiency is less than 98% including any corrective action taken. [APC-S-2 II.B(11)]

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Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Facility Requirements

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CONT0000000001 (continued):

Record-Keeping Requirements:

Condition No.	Condition
R-1	The permittee shall maintain a record and/or a log documenting all visual observations/test, the nature and cause of any visible emissions, any corrective actions(s) taken to prevent or minimize the emissions, and the date and time when visible observations were conducted. [APC-S-2 II.B(11)]
R-2	The permittee shall keep records of all maintenance performed on the flare in order to operate in a manner consistent with good air pollution control practices to minimize emissions and shall make said records available upon request during an inspection visit by the MDEQ personnel. [APC-S-2 II.B(11)]

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EQPT0000000011 (AA-004) Flare-Utility (FL-701):

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Hydrogen sulfide	Hydrogen sulfide: The permittee shall not permit the emission of any gas stream which contains hydrogen sulfide in excess of one grain per 100 standard cubic feet. [APC-S-1 4.2.b]
L-2	Opacity	Opacity: The permittee shall not have emissions of opacity greater than or equal to 40 % as determined by EPA Reference Method 9, 40 CFR 60, Appendix A. [APC-S-1 3.1.a]
L-3		The permittee shall maintain a flare pilot flame at all times. The flare shall operate with a control efficiency of 98%. The permittee shall record anytime the facility is operated without a flame present and the corrective actions taken. [APC-S-2 II.B(10)]

Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		The permittee shall perform weekly visual emission observations using EPA Method 22 to ensure any smoke detected does not exceed 40 % opacity. If smoking exceeds 40 % opacity, the permittee shall take corrective action. [APC-S-2 II.B(11)]

Record-Keeping Requirements:

Condition No.	Condition
R-1	The permittee shall maintain a record and/or a log documenting all visual observations/test, the nature and cause of exceeding 40% opacity, any corrective actions(s) taken to prevent or minimize the emissions, and the date and time when visible observations were conducted. [APC-S-2 II.B(11)]
R-2	The permittee shall keep records of all maintenance performed on the flare in order to operate in a manner consistent with good air pollution control practices to minimize emissions and shall make said records available upon request during an inspection visit by the MDEQ personnel. [APC-S-2 II.B(11)]

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Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Facility Requirements

Permit Number:2940-00020

Activity ID No.: PER20110002

EQPT0000000012 (AA-005) 0.125 MMBTU/hr Dehydrator Reboiler (DehyReb):

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Particulate Matter	Particulate Matter: The permittee shall not have particulate emissions from fossil fuel burning installations of less than 10 MMBTU/hr heat input that exceeds 0.6 lb/MMBTU. [APC-S-1 3.4.a(1)]
L-2	Opacity	Opacity: The permittee shall not have emissions of opacity greater than or equal to 40 % as determined by EPA Reference Method 9, 40 CFR 60, Appendix A. [APC-S-1 3.1.a]
L-3	Sulfur Dioxide	Sulfur Dioxide: The permittee shall not discharge sulfur oxides from any fuel burning installations in which fuel is burned primarily to produce heat of power by indirect heat transfer in excess of 4.8 lb/MMBTU (measured as sulfur dioxide) heat input. [APC-S-1 4.1.a]

Narrative Requirements:

Condition No.	Condition
T-1	Such air emission equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [APC-S-2 II.B(10)]

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Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Facility Requirements

Permit Number:2940-00020

Activity ID No.: PER20110002

EQPT0000000013 (AA-006) Dehydrator Still Vent (DEHY-1) equipped with a condenser with emissions routed to the BTEX condenser:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1		The permittee shall operate the glycol dehydrator with emissions routed to the BTEX condenser. [APC-S-2 II.B(10)]

Narrative Requirements:

Condition No.	Condition
T-1	Such air emission equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [APC-S-2 II.B(10)]

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Facility Requirements

Permit Number:2940-00020

Activity ID No.: PER20110002

EQPT0000000003 (AA-008) Two Phase Separator :

Limitation Requirements:

Condition No.	Parameter	Condition
L-1		The permittee shall send the produced gas to the sales line or to the flare (AA-004) for control. [APC-S-2 II.B(10)]

Narrative Requirements:

Condition No.	Condition
T-1	Such air emission equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [APC-S-2 II.B(10)]

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Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Facility Requirements

Permit Number:2940-00020

Activity ID No.: PER20110002

EQPT0000000006 (AA-011) 12,600 Gallon Slop Oil Storage Tank (S-503) with emissions controlled by the flare (AA-004):

Limitation Requirements:

Condition No.	Parameter	Condition
L-1		The permittee shall only operate with the emissions routed to and controlled by the utility flare (AA-004). [APC-S-2 II.B(10)]

Narrative Requirements:

Condition No.	Condition
T-1	Such air emission equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [APC-S-2 II.B(10)]

Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Facility Requirements

Permit Number:2940-00020

Activity ID No.: PER20110002

EQPT0000000009 (AA-014) 12,600 Gallon Produced Water Storage Tank (S-504):

Narrative Requirements:

Condition

No. Condition

T-1 Such air emission equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [APC-S-2 II.B(10)]

Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Facility Requirements

Permit Number:2940-00020

Activity ID No.: PER20110002

ACT0000000001 (AA-015) Condensate Loading (OilLL):

Narrative Requirements:

Condition No.	Condition
T-1	Such air emission equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [APC-S-2 II.B(10)]

Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Facility Requirements

Permit Number:2940-00020

Activity ID No.: PER20110002

ACT0000000002 (AA-016) Produced Water Loading (PWLL):

Narrative Requirements:

Condition

No. Condition

T-1 Such air emission equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [APC-S-2 II.B(10)]

Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Facility Requirements

Permit Number:2940-00020

Activity ID No.: PER20110002

AREA0000000001 (AA-017) Fugitive Emissions (FUG):

Narrative Requirements:

Condition No.	Condition
T-1	Such air emission equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [APC-S-2 II.B(10)]

Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Facility Requirements

Permit Number:2940-00020

Activity ID No.: PER20110002

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EQPT000000014 (AA-018) 80 HP Field Gas Pump Jack Engine (PumpEng):

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Carbon Monoxide	Carbon Monoxide: The permittee shall have exhaust emissions of CO less than 4.8 g/HP-hr. [40 CFR 60_SUBPART JJJJ.60.4233]
L-2	Particulate Matter	Particulate Matter: The permittee shall not have particulate emissions from fossil fuel burning installations of less than 10 MMBTU/hr heat input that exceeds 0.6 lb/MMBTU. [APC-S-1 3.4.a]
L-3	Nitrogen oxides	Nitrogen oxides: The permittee shall have exhaust emissions of HC + NOx less than 2.8 g/HP-hr. [40 CFR 60_SUBPART JJJJ.60.4233]
L-4	Opacity	Opacity: The permittee shall not have emissions of opacity greater than or equal to 40 % as determined by EPA Reference Method 9, 40 CFR 60, Appendix A. [APC-S-1 3.1.a]
L-5	Sulfur Dioxide	Sulfur Dioxide: The permittee shall not discharge sulfur oxides from any fuel burning installations in which fuel is burned primarily to produce heat of power by indirect heat transfer in excess of 4.8 lb/MMBTU (measured as sulfur dioxide) heat input. [APC-S-1 4.1.a]
L-6		The permittee is subject to the New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ. [40 CFR 60_SUBPART JJJJ]

Record-Keeping Requirements:

Condition No.	Condition
R-1	The permittee must demonstrate compliance by purchasing a certified engine to the emission standards specified in 40 CFR 60.4233 Table 1. The permittee shall keep records of maintenance performed on the engine and must keep a maintenance plan. The permittee shall operate and maintain the stationary engine according to the manufacturer's emission-related written instructions. [40 CFR 60_SUBPART JJJJ.60.4243]

Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Facility Requirements

Permit Number:2940-00020

Activity ID No.: PER20110002

EQPT0000000014 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-1	The permittee shall demonstrate compliance with 40 CFR 60.4233 by conducting an initial performance test within one (1) year of engine startup. The permittee shall maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 60_SUBPART JJJ.60.4243]

Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility

Facility Requirements

Permit Number:2940-00020

Activity ID No.: PER20110002

GRPT0000000001 (AT-001) Oil Storage Tanks:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1		The permittee shall only operate with the emissions routed to and controlled by the vapor combustor (AA-003). [APC-S-2 II.B(10)]

Narrative Requirements:

Condition No.	Condition
T-1	Such air emission equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [APC-S-2 II.B(10)]

GENERAL INFORMATION

Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility
Hobs Hill Land and Bowling Green Road
Woodville, MS
Wilkinson County

Alternate/Historic Identifiers

ID	Alternate/Historic Name	User Group	Start Date	End Date
55429	Encana Oil and Gas (USA), Inc.	Official Site Name	10/11/2011	
294000020	Encana Oil and Gas USA Inc, Horseshoe Hill 10H 1 Production Facility	Air-Construction	2/16/2012	
2815700020	Encana Oil and Gas (USA), Inc.	Air-AIRS AFS	10/11/2011	
294000020	Encana Oil and Gas USA Inc, Horseshoe Hill 10H-1 Production Facility	Air-Synthetic Minor Operating	3/26/2013	2/28/2018

Basin: South Independent Streams Basin

Location Description: