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ENERGY

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May 24, 2011

Via Overnight Mail and Email

Ms. Jacqueline Morrison (3LC00)
Land and Chemicals Division
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103

Re: Response to Request for Information on Marcellus Shale Flowback Water

Dear Ms. Morrison:

This letter is in response to the United States Environmental Protection Agency's ("EPA") request for information dated May 12, 2011 ("RFI") regarding Gas Extraction Wastewater in the Marcellus Shale of Pennsylvania. More specifically, our reply is solely and directly related to that wastewater generated by gas extraction operations owned or operated by Talisman Energy USA Inc. ("Talisman").

Talisman respects the mission of the EPA and is committed to conducting its business safely, as well as in a manner which is environmentally, socially and ethically responsible -- values which are upheld by our employees. Talisman supports all Pennsylvania state regulatory efforts to ensure that wastewater, from any source related to our operations, is properly managed and disposed of in accordance with the governing regulations.

As a company, we are in full support of these public concerns and we appreciate the EPA's interest in the issues related to wastewater disposal. Talisman takes regulatory compliance very seriously and continues to work cooperatively with the Pennsylvania Department of Environmental Protection ("DEP") on various gas extraction issues and concerns. We encourage continued cooperation between DEP and the EPA in their respective efforts to protect human health and the environment, to streamline regulations, and to deliver a vital source of energy to Pennsylvania and the Nation.

We look forward to our continued work with the DEP, the EPA, industry, environmental organizations, and policy makers as, together, we strive to ensure that wastewater disposal practices are managed appropriately throughout the Marcellus Shale in Pennsylvania.

General Objections

Talisman asserts the following general privileges, protections, and objections with respect to the RFI and each information request therein.

1. Talisman asserts that nine business days is an unrealistically short amount of time to respond to the RFI and does not reasonably reflect the volume of responsive information that EPA has requested. Therefore, Talisman objects to the deadline and reserves the right to supplement this response with any materials that it was unable to submit by the requested deadline.

2. Talisman asserts all privileges and protections it has in regard to the documents and other information sought by EPA, including the attorney-client privilege, the attorney work product doctrine, all privileges and protections related to materials generated in anticipation of litigation, the settlement communication protection, the confidential business information ("CBI") and trade secret protections, and any other privilege or protection available to it under law.

3. In the event that a document containing CBI or trade secrets has been inadvertently included among the documents provided in response to the RFI, Talisman asks that any such documents be returned to Talisman immediately so that Talisman may resubmit the document in accordance with the applicable requirements for the submission of confidential information. Talisman states for the record that it is not thereby waiving any available privilege or protection as to any such document.

4. Talisman objects to any requirement to produce documents or information already in the possession of a government agency, including the DEP or already in the public domain. Notwithstanding this objection, and without waiving it, Talisman is producing information that is otherwise available to EPA.

5. Talisman objects to Instruction 3 on the ground that EPA has no authority to impose a continuing obligation of Talisman to supplement these responses. Talisman will, of course, comply with any lawful requests that are within EPA's authority.

6. Talisman objects to the definition of "you" contained in Enclosure 2 because the term is overbroad and purports to require Talisman to seek and collect information and documents in the possession, custody, or control of individuals not within the custody or control of Talisman. Notwithstanding this objection, and without waiving it, Talisman has undertaken a diligent and good faith effort to locate and furnish documents and information in its possession, custody, and control that are responsive to the RFI.

Responses to the Request for Information

1. *Provide a list identifying each state permitted Well that you own or operate in EPA Region III and include the latitude and longitude for each Well and identify whether each well is actively being drilled, is completed, or is producing natural gas.*

RESPONSE:

Talisman is providing information regarding Wells that it owns or operates in Pennsylvania that are permitted by the state and are actively being drilled, are complete, or are producing gas. Although not within the scope of the RFI, Talisman is also providing EPA information on wells that Talisman has obtained permits for, but has not yet drilled.

Talisman's Wells fall under four main classifications:

(a) Wells in which Talisman holds a 100% ownership interest and has drilled, completed and produced to date - See Appendix 1(a);

(b) Wells in which Talisman holds a 100% ownership interest and has obtained permits but has not yet drilled - See Appendix 1(b);

(c) Wells in which Talisman holds a 50% ownership interest that were drilled and completed by a third party entity and have been transferred to Talisman to manage production operations - See Appendix 1(c); and

(d) Wells that have been, or are presently in process of being drilled, completed and produced by a third party and where Talisman retains an ownership interest without an operating interest - See Appendix 1(d).

2. *Provide all Pennsylvania "26R" forms completed and submitted to the Commonwealth of Pennsylvania for all Gas Extraction Wastewaters associated with your Wells for the calendar year 2010, including complete Chemical Analysis Attachments associated with each.*

RESPONSE:

Talisman has attached copies of its 26R forms that were submitted to the DEP in 2010 for all Gas Extraction Wastewaters (See Appendix 2). By letter dated May 13, 2011 and received on May 20, 2011, the DEP notified Talisman that a portion of its submitted 26R forms that were filed under the 802 waste code should have been classified under the 804 code. The substance of the identified 26R forms will not change – only the waste code noted on the form. Talisman will forward a copy of the revised 26Rs to EPA when the revisions are completed. Talisman files 26R Forms with DEP for four types of Gas Extraction Wastewater and solid sources. Although not within the defined scope of the RFI, Talisman has included 26R forms for Waste Codes 804 and 810 filed for 2010.

(a) Appendix 2(a) Wastewater reported under residual waste code 802 (brine and wastewater) (which as noted above, some will be recoded to waste code 804) represents "Produced Water and Flowback Fluids" which is wastewater that is generated as a result of the well completion or fracturing process and during the gas production phase of operations.

Chemical Analysis: DEP does not require that an individual chemical analysis be submitted with each 26R under this waste code. Rather, at the direction of the DEP, Talisman calculated a statistical 95% upper confidence level (UCL) average to represent the constituents of Talisman's Produced Water and Flowback Fluid. The most recent Produced Water and Flowback Fluid sampling that comprise the current 95% UCL was conducted on August 18, 2010. Talisman continues to work cooperatively with DEP and to refine the statistical analysis on a periodic basis to ensure that the 95% UCL represents our Produced Water and Flowback Fluid. Talisman's 95% UCL analysis is included in the Appendix 2(a) Part 1 which is attached to the 26R Forms.

(b) Appendix 2(b) Waste solids reported under residual code 804 (fracking fluid waste) represents "Waste Flowback Sand" which is sand that was pumped down the well during the fracturing process and has returned to surface with flowback water. This sand is separated from the flowback fluid at the well site and is sent to a permitted landfill for disposal.

(c) Appendix 2(c) Wastewater and solids reported under residual waste code 808 (servicing fluid, oil/water emulsion) represents "Oily Wastewater and Solids" which are removed from the gas stream at compressor stations through the process of free-water knock-out, scrubbing, filtration, condensation and dehydration.

(d) Appendix 2(d) Waste solids reported under residual waste code 810 (oil and gas drill cuttings) represents "Drill Cuttings" that are generated as the drilling process encounters formation rock cuttings, natural water formations and includes water used for dust suppression. Solids are stabilized with sawdust and disposed at permitted landfills.

3. *For the Period of April 19, 2011 to present, identify your Gas Extraction Wastewater management activities, including disposal, reuse, treatment, recycling, and reclamation for your Wells. In so doing, provide the following:*

a. *For each Well, the actual or estimated amount of Gas Extraction Wastewater generated;*

b. *For each facility that has received your Gas Extraction Wastewater, including but not limited to, underground injection wells, wastewater treatment plants, and recycling facilities, provide the name and address for each such facility, the name and address of any entity that transported your Gas Extraction Wastewater to*

each facility, and the volume (in gallons) of such Gas Extraction Wastewater sent to each such facility;

c. *The total volume (in gallons) of Gas Extraction wastewater that you treated and recycled or caused to be treated or recycled for all your Well sites;*

d. *A description of the method or methods by which you or any third party recyclers recycled such Gas Extraction Wastewater; and*

e. *All modified disposal plans that you submitted after April 19, 2011 to the Commonwealth pursuant to the Pennsylvania Code Title 52 Section 78.55.*

f. *Describe your use of pits, lagoons, impoundments or other land-based units for the storage or disposal of such Gas Extraction Wastewater associated with your gas extraction activities.*

g. *Provide the latitude and longitude for all pits, lagoons, impoundments or other land based units used for the storage of Gas Extraction Wastewater associated with your gas extraction activities.*

RESPONSE:

For the period April 19, 2011 through May 12, 2011 ("RFI period"), Talisman recycled all of its Gas Extraction Wastewater. Wastewater is either (1) pretreated before recycling (i.e. Gas Extraction Wastewater fluid is transported from an originating well to an approved treatment facility before transportation to a receiving well for recycling in a subsequent fracturing operations), or (2) not pretreated before recycling, (i.e., Gas Extraction Wastewater fluid is taken directly from the well of generation to the receiving well for a subsequent fracturing operations).

(a) The total amount of Gas Extraction Wastewater generated at Talisman owned and operated wells (See Response to Question 1(a) and 1(c) for the Wells included in this Response) is identified in the attached Appendix 3(a). There is no volumetric measurement of Gas Extraction Wastewater at the well pads. Therefore, the wastewater volumes are estimated based on the following: Talisman well pads have one or two interconnected above ground storage tanks ("AGST") with a range of 100-800 bbl total AGST capacity. Gas Extraction Wastewater is collected in the storage tanks and then transported for treatment and/or recycling when the volume is sufficient to fill trucking capacity. Talisman calculates an estimated total volumetric amount of Talisman's Gas Extraction Wastewater using the volumes reported by the transportation company or the treatment facility. Talisman then allocates the total volume of Gas Extraction Wastewater to individual wells by dividing the total volume by the number of days collected prior to transportation to determine the estimated pad production per day. Then the pad production volume is allocated to each well as a percentage of total volume.

b) Talisman did not dispose of any Gas Extraction Wastewater at underground injection wells or wastewater treatment facilities during the RFI period. Talisman utilized the treatment recycling facility, TerrAqua Resource Management (TARM), located at Suite 201, 1000 Commerce Park Drive, Williamsport, PA 17701. The total volume of Gas Extraction Wastewater fluid treated at TARM (based on the volume received as reported by TARM) over the RFI period was 2,155,921 gallons. All fluid was transported by Gas Field Specialists, Inc. which is located at 1171 SR 44, Shinglehouse, PA 16748.

c) The total volume of untreated Gas Extraction Wastewater fluid recycled during the RFI period was 2,959,992 gallons. The total volume of Gas Extraction Wastewater fluid treated for recycle at TARM (see Response 3(b) above) during the RFI period was 2,155,921 gallons. Therefore, the total volume of Gas Extraction Wastewater that Talisman treated and/or recycled during the RFI period was 5,115,913 gallons.

d) Talisman first performs a field test to evaluate the quality of the wastewater to determine whether the fluid is suitable for untreated recycling or whether treatment is necessary. Untreated Gas Extraction Wastewater fluid is transported by Gas Field Specialists, Inc. directly from the well site of origination to receiving well locations for recycling in subsequent fracturing operations without any form of pre-treatment. Recycled Gas Extraction Wastewater fluid requiring treatment is taken to TARM and is treated for the selected removal of scaling constituents. TARM utilizes a chemical pre-treatment process whereby heavy metals and hardness are removed. The treated wastewater is a high chloride brine which is transported via trucking back to subsequent fracturing locations for recycling. TARM also manages the disposal of a solid byproduct (non-hazardous dry filter cake) which is properly disposed of at certified landfills.

e) Talisman has not been requested to submit a modified disposal plan pursuant to 25 Pa. Code §78.55 since April 19, 2011.

f) Talisman's Marcellus operations have not used pits, lagoons, impoundments, or other land-based units for the storage or disposal of any Gas Extraction Wastewater fluids.

g) Not applicable.

4. *Identify your intentions for disposal, reuse, treatment, recycling, and reclamation of Gas Extraction Wastewater after May 19, 2011, including your expected methods and location for disposal, treatment, or recycling during calendar year 2011. Provide the expected percentage of your Gas Extraction Wastewater by disposal, treatment, or recycling method.*

RESPONSE:

After May 19, 2011, Talisman intends to continue its recycling practices described in response to Question 3 above. Talisman's goal has been, and will continue to be, to recycle 100% of its Gas Extraction Wastewater, with no fluid disposal under standard operating conditions. However, in the event there is an operational disruption (i.e. there is no available well to receive and use recycled wastewater), Talisman has sufficient storage capacity to bridge an isolated shutdown of our recycle program until normal operations are restored.

Talisman will manage untreated Gas Extraction Wastewater through its recycling program including the utilization of TARM for treatment of recycled Gas Extraction Wastewater fluid as necessary. To prepare for the possibility that operational disruptions (i.e. there is no available Well available to receive and use recycled wastewater) could exceed our short term storage capacity, Talisman has the option of using disposal facilities that are permitted to meet the updated DEP Chapter 95 discharge regulations. Talisman expects that it will achieve greater than a 90% recycle rate in 2011.

5. *Submit quarterly reports to EPA on your waste disposal and recycling practices commencing on July 1, 2011 and continuing on a quarterly basis thereafter until June 30, 2012, for a total of four (4) reports. Such quarterly reports shall include the following information for the prior quarter:*

   a. *For each Well, the actual or estimated volume (in gallons) of Gas Extraction Wastewater generated;*

   b. *For each facility that has received your Gas Extraction Wastewater, including but not limited to, underground injection wells, wastewater treatment plants, and recycling facilities, provide the name and address for each such facility, the name and address of any entity that transported your Gas Extraction Wastewater to each facility, and the volume (in gallons) of such Gas Extraction Wastewater sent to each such facility;*

   c. *The total volume (in gallons) of Gas Extraction wastewater that you or any third parties treated and recycled or caused to be treated or recycled for all your Well sites;*

   d. *A description of the method or methods by which you or any third party recyclers recycled such Gas Extraction Wastewater; and*

   e. *Describe your use of pits, lagoons, impoundments or other land-based units for the storage or disposal of such Gas Extraction Wastewater for your gas extraction activities.*

f. *Provide the latitude and longitude for all pits, lagoons, impoundments, or other land based units used for the storage of Gas Extraction Wastewater associated with your gas extraction activities.*

RESPONSE:

In addition to the objections set forth above, Talisman objects to EPA's imposition of new reporting requirements absent any demonstration that Talisman has discharged or released or is likely to discharge or release a regulated substance that would subject Talisman to reporting requirements under the Clean Water Act, the Comprehensive Environmental Response, Compensation and Liability Act, or the Resource Conservation and Recovery Act.

Talisman strongly objects to the imposition of any duplicative regulatory reporting requirements that in whole, or in part overlap with existing state regulations/programs. This will lead to confusion and the expenditure of unnecessary resources to reconcile differences in reporting format or scope. Talisman proposes that EPA and DEP meet and confer on this issue and develop a single source of reporting requirements using existing DEP reporting requirements as a foundation.

Notwithstanding these objections, Talisman is willing to work with EPA to assist it to better understand Talisman's Marcellus Shale operations and its wastewater management practices. Therefore, Talisman will submit the requested reports subject to the following clarification. Talisman contends that it is impractical to request reporting to be submitted quarterly starting on July 1 for the preceding quarter (April, May and June) without sufficient time to compile the required information. Talisman will submit the quarterly reports within 60 days after the close of the quarter, (i.e. August 30th, November 30th, February 28th and May 30th) for the period of time requested in the RFI.

6. *Identify any and all discharges or releases of any substances, wastes, and/or Gas Extraction Wastewater from facilities that contain Wells that you own or operate and all media (air, water, or land) that were affected by such discharges or releases and the estimated quantities of all substances discharged or released for the past five (5) years.*

RESPONSE:

In addition to the General Objections set forth above, Talisman objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. The request to provide information related to "all discharges or releases of any substances," "all media that were affected," and their "estimated quantities" for "the past five years" is beyond the scope of EPA's stated purpose and authority to collect information regarding wastewater generated by Talisman's Marcellus Shale operations. In particular, the term "substances" is undefined and ambiguous and as such, is overly broad and beyond the scope of EPA's regulatory authority to seek information related to the actual and/or threatened discharge of pollutants or hazardous substances. For the purposes of this Response, Talisman will identify any regulated substances or fluids that were released beyond secondary containment.

Notwithstanding this objection, in Appendix 6, Talisman is providing a list of all releases of regulated substances or fluids at Wells that Talisman has owned or operated as set forth in the Response to Question 1(a) and 1(c) and which all were reported to DEP.

All of the above referenced appendices have been saved in Adobe PDF format and are included in the attached cd-rom.

Sincerely,

Todd L. Normane
Associate General Counsel

cc: Robert A. Broen, President, Talisman Energy USA Inc.
Nels Tabor, Director, PADEP (w/o attachments)
Geoff Ayers, Regional Counsel, PADEP (w/o attachments)

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through nine, and based on my inquiry of those individuals responsible for the obtaining the information, I believe that the submitted information is true, accurate and complete.

Talisman Energy USA Inc.

By: _____ Date: May 24, 2011
Todd L. Normane
Associate General Counsel

Well Name	Status	Wellcode	Lat	Long
85802 - [redacted] (01-023-08) R 8H	Completion	(01-023-08)	41° 41' 42.44" N	76° 46' 43.06" W
85887 - [redacted] (03-036-02) J 2H	Completion	(03-036-02)	41° 57' 1.48" N	76° 53' 58.42" W
85915 - [redacted] (03-035-01) D 1H	Completion	(03-035-01)	41° 54' 49.74" N	76° 53' 26.87" W
85994 - [redacted] 058-06) M 6H	Completion	(03-058-06)	41° 58' 12.74" N	76° 53' 28.2" W
85999 - [redacted] 03-067-01) O 1H	Completion	(03-067-01)	41° 48' 59.81" N	76° 53' 44.27" W
86000 - [redacted] 03-067-02) O 2H	Completion	(03-067-02)	41° 48' 59.59" N	76° 53' 44.4" W
86001 - [redacted] 03-067-03) O 3H	Completion	(03-067-03)	41° 48' 59.36" N	76° 53' 44.55" W
86002 - [redacted] 03-067-04) O 4H	Completion	(03-067-04)	41° 48' 59.4" N	76° 53' 43.54" W
86062 - [redacted] (03-054-01) J 1H	Completion	(03-054-01)	41° 52' 8.58" N	76° 51' 30.79" W
86063 - [redacted] (03-054-03) J 3H	Completion	(03-054-03)	41° 52' 9.07" N	76° 51' 30.73" W
86064 - [redacted] (03-054-02) J 2H	Completion	(03-054-02)	41° 52' 8.82" N	76° 51' 30.76" W
86065 - [redacted] (03-054-04) J 4H	Completion	(03-054-04)	41° 52' 9.32" N	76° 51' 30.7" W
86092 - [redacted] 046-08) B 8H	Completion	(03-046-08)	41° 54' 14.75" N	76° 51' 59.28" W
86173 - [redacted] (03-014-04) J 4H	Completion	(03-014-04)	41° 51' 46.61" N	76° 52' 55.49" W
86394 - [redacted] (05-006-06) L 6H	Completion	(05-006-06)	41° 49' 36.3" N	76° 12' 1.41" W
85493 - FEI DCNR 587 (02-004-04)	Drilling	(02-004-04)	41° 42' 19.25" N	76° 59' 30.71" W
85587 - DCNR 587 (02-006-04) 4H	Drilling	(02-006-04)	41° 41' 15.55" N	76° 59' 43.93" W
85588 - DCNR 587 (02-005-01) 1H	Drilling	(02-005-01)	41° 41' 38.42" N	76° 59' 40.17" W
85589 - DCNR 587 (02-005-02) 2H	Drilling	(02-005-02)	41° 41' 38.24" N	76° 59' 40.49" W
85590 - DCNR 587 (02-005-03) 3H	Drilling	(02-005-03)	41° 41' 38.07" N	76° 59' 40.8" W
85591 - DCNR 587 (02-005-04) 4H	Drilling	(02-005-04)	41° 41' 37.89" N	76° 59' 41.12" W
85592 - DCNR 587 (02-005-05) 5H	Drilling	(02-005-05)	41° 41' 37.71" N	76° 59' 41.43" W
85593 - DCNR 587 (02-005-06) 6H	Drilling	(02-005-06)	41° 41' 37.53" N	76° 59' 41.75" W
85655 - [redacted] (03-001-01) E 1H	Drilling	(03-001-01)	41° 50' 20.6" N	76° 50' 46.22" W
85683 - [redacted] 01-032-02) G 2H	Drilling	(01-032-02)	41° 42' 39.94" N	76° 50' 17.69" W
85684 - [redacted] 01-032-03) G 3H	Drilling	(01-032-03)	41° 42' 40.19" N	76° 50' 17.63" W
85685 - [redacted] 01-032-04) G 4H	Drilling	(01-032-04)	41° 42' 40.43" N	76° 50' 17.56" W
85778 - [redacted] (03-006-03) A 3H	Drilling	(03-006-03)	41° 49' 16.96" N	76° 52' 29.69" W
85779 - [redacted] (03-006-04) A 4H	Drilling	(03-006-04)	41° 49' 17.21" N	76° 52' 29.89" W
85923 - [redacted] (03-029-01) S 1H	Drilling	(03-029-01)	41° 56' 11.45" N	76° 52' 3.98" E
85924 - [redacted] (03-029-03) S 3H	Drilling	(03-029-03)	41° 56' 11.28" N	76° 52' 3.36" W
85925 - [redacted] (03-029-02) S 2H	Drilling	(03-029-02)	41° 56' 11.45" N	76° 52' 3.98" E
85926 - [redacted] (03-029-04) S 4H	Drilling	(03-029-04)	41° 56' 11.19" N	76° 52' 0.05" W
85970 - [redacted] (03-065-01) W 1H	Drilling	(03-065-01)	41° 53' 54.91" N	76° 53' 42.22" W
85971 - [redacted] 03-065-02) W 2H	Drilling	(03-065-02)	41° 53' 54.88" N	76° 53' 42.68" W
85972 - [redacted] (03-065-03) W 3H	Drilling	(03-065-03)	41° 53' 54.84" N	76° 53' 43.14" W

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85973 - [redacted](03-065-04) W 4H	Drilling	(03-065-04)	41° 53' 54.8" N	76° 53' 43.6" W
86040 - [redacted](01-003-02) J 2H	Drilling	(01-003-02)	41° 43' 29.32" N	76° 46' 58.12" W
86049 - [redacted](01-003-03) J 3H	Drilling	(01-003-03)	41° 43' 29.33" N	76° 46' 58.45" W
86125 - [redacted]-066-01) J 1H	Drilling	(01-066-01)	41° 42' 9.26" N	76° 48' 20.05" W
86131 - TEUSA [redacted] (01-075-03) L 3H	Drilling	(01-075-03)	41° 41' 50.53" N	76° 44' 50.8" W
86132 - TEUSA [redacted] (01-075-04) L 4H	Drilling	(01-075-04)	41° 41' 50.87" N	76° 44' 50.83" W
86144 - [redacted] J 6H	Drilling	(03-053-06)	41° 49' 34.47" N	76° 51' 24.29" W
86145 - [redacted] J 7H	Drilling	(03-053-07)	41° 49' 34.96" N	76° 51' 24.27" W
86147 - [redacted]08) J 8H	Drilling	(03-053-08)	41° 49' 34.96" N	76° 51' 24.27" W
86158 - [redacted](03-040-04) B 4H	Drilling	(03-040-04)	41° 54' 8.77" N	76° 51' 20.24" W
86183 - TEUSA [redacted] (03-025-01) E 1H	Drilling	(03-025-01)	41° 52' 59.17" N	76° 49' 10.86" W
86253 - TEUSA CUMMINGS LUMBER (01-081-01) 1H	Drilling	(01-081-01)	41° 48' 36.65" N	76° 46' 22.7" W
86255 - TEUSA CUMMINGS LUMBER (01-081-03) 3H	Drilling	(01-081-03)	41° 48' 36.17" N	76° 46' 22.56" W
86256 - TEUSA CUMMINGS LUMBER (01-081-04) 4H	Drilling	(01-081-04)	41° 48' 35.92" N	76° 46' 22.5" W
86257 - TEUSA CUMMINGS LUMBER (01-081-05) 5H	Drilling	(01-081-05)	41° 48' 35.68" N	76° 46' 22.43" W
86373 - [redacted](05-004-01) P 1H	Drilling	(05-004-01)	41° 50' 11.85" N	76° 14' 18.43" W
86382 - [redacted]05-001-01) J 1H	Drilling	(05-001-01)	41° 49' 0.03" N	76° 13' 26.083" W
86387 - [redacted]5-005-01) K 1H	Drilling	(05-005-01)	41° 50' 13.61" N	76° 13' 32.13" W
86395 - [redacted] (05-009-01) V 1H	Drilling	(05-009-01)	41° 49' 52.046" N	76° 7' 52.273" W
86411 - [redacted]05-026-01) G 1H	Drilling	(05-026-01)	41° 57' 38.88" N	76° 15' 23.21" W
86420 - [redacted]05-080-01) R 1H	Drilling	(05-080-01)	41° 56' 4.33" N	76° 11' 41.25" W
86542 - [redacted] (05-074-01) D 1H	Drilling	(05-074-01)	41° 55' 8.18" N	76° 16' 57.94" W
86565 - [redacted](05-031-01) M 1H	Drilling	(05-031-01)	41° 52' 19.16" N	76° 12' 27.21" W
86570 - [redacted]05-034-01) H 1H	Drilling	(05-034-01)	41° 53' 15.63" N	76° 9' 39.24" W
86586 - [redacted]5-040-01) C 1H	Drilling	(05-040-01)	41° 54' 1.39" N	76° 15' 41.31" W
86592 - [redacted](05-082-01) 1H	Drilling	(05-082-01)	41° 57' 24.2" N	76° 9' 55.42" W
86665 - [redacted]05-180-01) 1H	Drilling	(05-180-01)	41° 56' 32.96" N	76° 18' 53.9" W
86726 - [redacted] (05-165-01) R 1H	Drilling	(05-165-01)	41° 59' 7.75" N	76° 15' 0.22" W
86732 - [redacted]-223-01) W 1H	Drilling	(05-223-01)	41° 57' 53.99" N	76° 16' 47.98" W
86852 - [redacted]5-046-01) W 1H	Drilling	(05-046-01)	41° 54' 38.15" N	76° 10' 59.2" W
86953 - [redacted]03-049-01) D 1H	Drilling	(03-049-01)	41° 57' 7.07" N	76° 51' 6.76" W
86154 - [redacted]3-040-03) B 3H	Drilling	(03-040-03)	41° 54' 8.68" N	76° 51' 20.54" W
84356 - [redacted]T (01-003-01) J 1H	Production	(01-003-01)	41° 43' 29.561" N	76° 47' 0.017" W
84358 - [redacted]Z (01-007-01) T2H	Production	(01-007-01)	41° 43' 28.2" N	76° 48' 20.72" W
84359 - [redacted]OMAS (01-001-01) FT1H	Production	(01-001-01)	41° 43' 26.96" N	76° 48' 41.34" W
84360 - [redacted]S (01-002-01) FT2H	Production	(01-002-01)	41° 43' 28.43" N	76° 49' 11.32" W
84778 - [redacted](01-004-01) M 1H	Production	(01-004-01)	41° 43' 5.28" N	76° 51' 20.68" W

84830 - [redacted] (01-008-01) R2H	Production	(01-008-01)	41° 44' 49.14" N	76° 48' 47.62" W
85117 - [redacted] EN D 1H (01-026-01)	Production	(01-026-01)	41° 44' 5.78" N	76° 47' 33.98" W
85125 - [redacted] (01-004-02) M 3H	Production	(01-004-02)	41° 43' 5.57" N	76° 51' 20.41" W
85163 - [redacted] (01-012-01) A1H	Production	(01-012-01)	41° 43' 44.55" N	76° 50' 12.41" W
85165 - [redacted] (01-012-02) A2H	Production	(01-012-02)	41° 43' 44.59" N	76° 50' 12.08" W
85166 - [redacted] D 2H (01-026-02)	Production	(01-026-02)	41° 44' 5.8" N	76° 47' 34.31" W
85167 - [redacted] (01-027-01) D 3H	Production	(01-027-01)	41° 44' 5.82" N	76° 47' 34.64" W
85168 - [redacted] 1-038-01) FT3H	Production	(01-038-01)	41° 43' 18.4" N	76° 49' 31.8" W
85169 - [redacted] 1-038-02) FT4H	Production	(01-038-02)	41° 43' 18.43" N	76° 49' 31.28" W
85170 - [redacted] S (01-044-02) L 2H	Production	(01-044-02)	41° 45' 46.22" N	76° 48' 8" W
85171 - [redacted] S (01-044-01) L 1H	Production	(01-044-01)	41° 45' 46.25" N	76° 48' 7.67" W
85172 - [redacted] (01-005-02) R3H	Production	(01-005-02)	41° 44' 49.09" N	76° 48' 47.3" W
85182 - [redacted] B 1H (01-025-01)	Production	(01-025-01)	41° 46' 24.76" N	76° 48' 12.08" W
85183 - [redacted] B 2H (01-025-02)	Production	(01-025-02)	41° 46' 24.79" N	76° 48' 11.75" W
85184 - [redacted] B 4H (01-070-02)	Production	(01-070-02)	41° 46' 24.9" N	76° 48' 10.11" W
85185 - [redacted] B 3H (01-070-01)	Production	(01-070-01)	41° 46' 24.88" N	76° 48' 10.44" W
85220 - [redacted] 01-041-01) R 1H	Production	(01-041-01)	41° 44' 56.56" N	76° 48' 23.76" W
85222 - [redacted] (01-005-01) R1H	Production	(01-005-01)	41° 44' 49.20" N	76° 48' 47.94" W
85232 - [redacted] R 1H (01-014-01)	Production	(01-014-01)	41° 45' 1.13" N	76° 51' 0.36" W
85248 - [redacted] 1H (01-006-01)	Production	(01-006-01)	41° 43' 57.46" N	76° 49' 6.18" W
85249 - [redacted] 2H (01-006-02)	Production	(01-006-02)	41° 43' 57.46" N	76° 49' 4.7" W
85250 - [redacted] 3H (01-006-03)	Production	(01-006-03)	41° 43' 57.46" N	76° 49' 4.37" W
85251 - [redacted] (01-006-04)	Production	(01-006-04)	41° 43' 57.45" N	76° 49' 4.04" W
85252 - TWL ASSOCIATES (01-016-02) 2H	Production	(01-016-02)	41° 46' 13.76" N	76° 50' 26.88" W
85253 - TWL ASSOCIATES (01-016-01) 1H	Production	(01-016-01)	41° 46' 13.04" N	76° 50' 25.31" W
85254 - TWL ASSOCIATES (01-016-03) 3H	Production	(01-016-03)	41° 46' 13.75" N	76° 50' 26.55" W
85255 - TWL ASSOCIATES (01-016-04) 4H	Production	(01-016-04)	41° 46' 13.74" N	76° 50' 26" W
85256 - [redacted] 4H (01-043-01)	Production	(01-043-01)	41° 44' 45.46" N	76° 47' 12.08" W
85257 - [redacted] 5H (01-043-02)	Production	(01-043-02)	41° 44' 45.26" N	76° 47' 11.88" W
85258 - [redacted] D 6H (01-013-01)	Production	(01-013-01)	41° 44' 45.07" N	76° 47' 11.68" W
85259 - [redacted] D 7H (01-013-02)	Production	(01-013-02)	41° 44' 44.87" N	76° 47' 11.48" W
85260 - [redacted] D 8H (01-013-03)	Production	(01-013-03)	41° 44' 44.67" N	76° 47' 11.27" W
85278 - [redacted] 017-05) G 5H	Production	(01-017-05)	41° 41' 41.32" N	76° 50' 34.8" W
85349 - [redacted] 01-041-02) R 3H	Production	(01-041-02)	41° 44' 56.24" N	76° 48' 23.1" W
85350 - [redacted] 01-042-01) R 2H	Production	(01-042-01)	41° 44' 56.55" N	76° 48' 23.43" W
85377 - [redacted] (01-004-03) M 5H	Production	(01-004-03)	41° 43' 5.68" N	76° 51' 20.11" W
85440 - [redacted] 01-014-03) R 3H	Production	(01-014-03)	41° 45' 1.16" N	76° 51' 1.68" W

85441 - [redacted](01-014-04) R 4H	Production	(01-014-04)	41° 45' 1.17" N	76° 51' 2.34" W
85454 - [redacted](01-014-02) R 2H	Production	(01-014-02)	41° 45' 1.14" N	76° 51' 1.03" W
85477 - FEI DCNR 587 (02-001-04)	Production	(02-001-04)	41° 42' 6.54" N	76° 58' 21.07" W
85478 - FEI DCNR 587 (02-001-06)	Production	(02-001-06)	41° 42' 6.63" N	76° 58' 20.42" W
85479 - FEI DCNR 587 (02-001-05)	Production	(02-001-05)	41° 42' 6.58" N	76° 58' 20.75" W
85482 - FEI DCNR 587 (02-017-01)	Production	(02-017-01)	41° 42' 37.54" N	76° 59' 9.63" W
85483 - FEI DCNR 587 (02-017-02)	Production	(02-017-02)	41° 42' 37.57" N	76° 59' 9.3" W
85484 - FEI DCNR 587 (02-017-03)	Production	(02-017-03)	41° 42' 37.61" N	76° 59' 8.98" W
85485 - FEI DCNR 587 (02-017-04)	Production	(02-017-04)	41° 42' 37.65" N	76° 59' 8.65" W
85492 - FEI DCNR 587 (02-004-06)	Production	(02-004-06)	41° 42' 19.16" N	76° 59' 31.02" W
85494 - FEI DCNR 587 (02-004-02)	Production	(02-004-02)	41° 42' 19.35" N	76° 59' 30.41" W
85525 - [redacted]N D 9H (01-043-03)	Production	(01-043-03)	41° 44' 44.28" N	76° 47' 10.88" W
85528 - FEI DCNR 587 (02-002-04)	Production	(02-002-04)	41° 41' 52.91" N	76° 57' 54.76" W
85529 - FEI DCNR 587 (02-002-03)	Production	(02-002-03)	41° 41' 53.01" N	76° 57' 54.12" W
85530 - [redacted](01-042-02) R 4H	Production	(01-042-02)	41° 41' 56.54" N	76° 48' 23.1" W
85531 - [redacted](01-042-03) R 6H	Production	(01-042-03)	41° 44' 56.51" N	76° 48' 22.44" W
85532 - [redacted](01-041-03) R 5H	Production	(01-041-03)	41° 44' 56.52" N	76° 48' 22.77" W
85536 - FEI DCNR 587 (02-009-01)	Production	(02-009-01)	41° 40' 22.49" N	76° 58' 10.73" W
85537 - FEI DCNR 587 (02-009-02)	Production	(02-009-02)	41° 40' 22.46" N	76° 58' 11.06" W
85538 - FEI DCNR 587 (02-009-03)	Production	(02-009-03)	41° 40' 22.44" N	76° 58' 11.39" W
85539 - FEI DCNR 587 (02-009-04)	Production	(02-009-04)	41° 40' 21.41" N	76° 58' 11.74" W
85540 - FEI DCNR 587 (02-009-05)	Production	(02-009-05)	41° 40' 21.44" N	76° 58' 11.41" W
85541 - FEI DCNR 587 (02-009-06)	Production	(02-009-06)	41° 40' 21.46" N	76° 58' 11.09" W
85548 - [redacted]01-015-01) T 3H	Production	(01-015-01)	41° 43' 22.68" N	76° 47' 57.72" W
85549 - [redacted]01-015-02) T 4H	Production	(01-015-02)	41° 43' 22.61" N	76° 47' 58.04" W
85550 - [redacted]01-015-03) T 5H	Production	(01-015-03)	41° 43' 22.54" N	76° 47' 58.35" W
85577 - DCNR 587 (02-018-01) 1H	Production	(02-018-01)	41° 41' 34.3" N	76° 58' 53.22" W
85578 - DCNR 587 (02-018-02) 2H	Production	(02-018-02)	41° 41' 34.35" N	76° 58' 52.9" W
85579 - DCNR 587 (02-018-03) 3H	Production	(02-018-03)	41° 41' 34.4" N	76° 58' 52.57" W
85580 - DCNR 587 (02-018-04) 4H	Production	(02-018-04)	41° 41' 35.95" N	76° 58' 52.29" W
85581 - DCNR 587 (02-018-05) 5H	Production	(02-018-05)	41° 41' 35.9" N	76° 58' 52.62" W
85583 - DCNR 587 (02-018-06) 6H	Production	(02-018-06)	41° 41' 35.85" N	76° 58' 52.94" W
85596 - DCNR 587 (02-008-03) 3H	Production	(02-008-03)	41° 40' 32.12" N	76° 58' 42.05" W
85597 - DCNR 587 (02-008-04) 4H	Production	(02-008-04)	41° 40' 31.12" N	76° 58' 41.64" W
85598 - DCNR 587 (02-008-05) 5H	Production	(02-008-05)	41° 40' 31.13" N	76° 58' 41.97" W
85599 - DCNR 587 (02-008-06) 6H	Production	(02-008-06)	41° 40' 31.15" N	76° 58' 42.3" W
85600 - DCNR 587 (02-013-01) 1H	Production	(02-013-01)	41° 40' 55.96" N	76° 57' 30.96" W

85601 - DCNR 587 (02-013-02) 2H	Production	(02-013-02)	41° 40' 55.96" N	76° 57' 30.96" W
85602 - DCNR 587 (02-013-03) 3H	Production	(02-013-03)	41° 40' 55.93" N	76° 57' 31.29" W
85603 - DCNR 587 (02-013-04) 4H	Production	(02-013-04)	41° 40' 55.91" N	76° 57' 31.62" W
85604 - DCNR 587 (02-014-01) 1H	Production	(02-014-01)	41° 40' 56.92" N	76° 57' 55.39" W
85605 - DCNR 587 (02-014-02) 2H	Production	(02-014-02)	41° 40' 56.88" N	76° 57' 55.71" W
85606 - DCNR 587 (02-014-03) 3H	Production	(02-014-03)	41° 40' 56.83" N	76° 57' 56.03" W
85623 - [redacted](03-009-05) L 5H	Production	(03-009-05)	41° 50' 12.72" N	76° 53' 34.32" W
85624 - [redacted](03-009-06) L 6H	Production	(03-009-06)	41° 50' 12.79" N	76° 53' 34" W
85625 - [redacted](03-009-07) L 7H	Production	(03-009-07)	41° 50' 12.85" N	76° 53' 33.68" W
85626 - [redacted](03-009-08) L 8H	Production	(03-009-08)	41° 50' 12.92" N	76° 53' 33.36" W
85627 - [redacted] (03-008-01) G 1H	Production	(03-008-01)	41° 52' 55.53" N	76° 51' 55.53" W
85628 - [redacted] (03-008-02) G 2H	Production	(03-008-02)	41° 52' 46.3" N	76° 51' 55.86" W
85629 - [redacted] (03-008-03) G 3H	Production	(03-008-03)	41° 52' 46.29" N	76° 51' 56.19" W
85630 - [redacted] (03-008-04) G 4H	Production	(03-008-04)	41° 52' 46.29" N	76° 51' 56.52" W
85631 - [redacted] (03-008-05) G 5H	Production	(03-008-05)	41° 52' 55.27" N	76° 51' 55.27" W
85632 - [redacted] (03-008-06) G 6H	Production	(03-008-06)	41° 52' 45.05" N	76° 51' 55.6" W
85633 - [redacted] (03-008-07) G 7H	Production	(03-008-07)	41° 52' 45.04" N	76° 51' 55.93" W
85634 - [redacted] (03-008-08) G 8H	Production	(03-008-08)	41° 52' 45.04" N	76° 51' 56.26" W
85635 - [redacted]013-01) W 1H	Production	(03-013-01)	41° 51' 42.99" N	76° 50' 51.78" W
85636 - [redacted]013-02) W 2H	Production	(03-013-02)	41° 51' 42.93" N	76° 50' 51.46" W
85637 - [redacted]013-03) W 3H	Production	(03-013-03)	41° 51' 42.88" N	76° 50' 51.14" W
85638 - [redacted]013-04) W 4H	Production	(03-013-04)	41° 51' 42.82" N	76° 50' 50.81" W
85639 - [redacted]013-05) W 5H	Production	(03-013-05)	41° 51' 41.75" N	76° 50' 51.93" W
85640 - [redacted]013-06) W 6H	Production	(03-013-06)	41° 51' 41.69" N	76° 50' 51.61" W
85641 - [redacted]013-07) W 7H	Production	(03-013-07)	41° 51' 41.63" N	76° 50' 51.29" W
85642 - [redacted]013-08) W 8H	Production	(03-013-08)	41° 51' 41.58" N	76° 50' 50.97" W
85648 - [redacted]M (03-004-01) R 1H	Production	(03-004-01)	41° 51' 27.66" N	76° 50' 4.12" W
85649 - [redacted]M (03-004-02) R 2H	Production	(03-004-02)	41° 51' 27.68" N	76° 50' 3.79" W
85650 - [redacted]M (03-004-03) R 3H	Production	(03-004-03)	41° 51' 27.7" N	76° 50' 3.46" W
85651 - [redacted]M (03-004-04) R 4H	Production	(03-004-04)	41° 51' 27.71" N	76° 50' 3.13" W
85652 - [redacted]M (03-004-05) R 5H	Production	(03-004-05)	41° 51' 26.46" N	76° 50' 4.64" W
85656 - [redacted]3-001-02) E 2H	Production	(03-001-02)	41° 50' 20.58" N	76° 50' 46.55" W
85657 - [redacted](03-001-03) E 3H	Production	(03-001-03)	41° 50' 20.56" N	76° 50' 46.88" W
85658 - [redacted]03-001-04) E 4H	Production	(03-001-04)	41° 50' 20.55" N	76° 50' 47.21" W
85665 - [redacted](01-024-03) L 8H	Production	(01-024-03)	41° 45' 43.72" N	76° 48' 32.39" W
85666 - [redacted] (01-024-04) L 9H	Production	(01-024-04)	41° 45' 43.63" N	76° 48' 32.7" W
85667 - [redacted]01-047-01) J 1H	Production	(01-047-01)	41° 44' 58.21" N	76° 50' 0.27" W

85668 - [redacted]-047-02) J 2H	Production	(01-047-02)	41° 44' 58.27" N	76° 49' 59.94" W
85669 - [redacted]-047-03) J 3H	Production	(01-047-03)	41° 44' 58.33" N	76° 49' 59.63" W
85670 - [redacted]-047-04) J 4H	Production	(01-047-04)	41° 44' 58.71" N	76° 50' 0.27" W
85671 - [redacted]-047-05) J 5H	Production	(01-047-05)	41° 44' 58.77" N	76° 49' 59.95" W
85672 - [redacted]-047-06) J 6H	Production	(01-047-06)	41° 44' 58.83" N	76° 49' 59.63" W
85691 - [redacted]1-074-01) W 1H	Production	(01-074-01)	41° 46' 9.87" N	76° 51' 35.68" W
85693 - [redacted]1-074-02) W 2H	Production	(01-074-02)	41° 46' 9.89" N	76° 51' 35.35" W
85694 - [redacted]1-074-03) W 3H	Production	(01-074-03)	41° 46' 9.91" N	76° 51' 35.02" W
85695 - [redacted]1-074-04) W 4H	Production	(01-074-04)	41° 46' 9.92" N	76° 51' 34.69" W
85700 - [redacted](01-071-01) D 1H	Production	(01-071-01)	41° 45' 55.06" N	76° 48' 48.6" W
85701 - [redacted](01-071-02) D 2H	Production	(01-071-02)	41° 45' 55.06" N	76° 48' 48.6" W
85702 - [redacted](01-071-03) D 3H	Production	(01-071-03)	41° 45' 55.4" N	76° 48' 47.79" W
85725 - HARVEST HOLDINGS (01-036-01) 1H	Production	(01-036-01)	41° 41' 23.83" N	76° 51' 9.7" W
85726 - HARVEST HOLDINGS (01-036-03) 3H	Production	(01-036-03)	41° 41' 24.51" N	76° 51' 9.56" W
85729 - HARVEST HOLDINGS (01-036-02) 2H	Production	(01-036-02)	41° 41' 24.17" N	76° 51' 9.63" W
85730 - HARVEST HOLDINGS (01-036-04) 4H	Production	(01-036-04)	41° 41' 24.85" N	76° 51' 9.49" W
85733 - [redacted](01-077-01) L 1H	Production	(01-077-01)	41° 45' 0.33" N	76° 50' 19.62" W
85735 - [redacted](01-077-05) L 5H	Production	(01-077-05)	41° 45' 0.92" N	76° 50' 19.07" W
85736 - [redacted](01-077-02) L 2H	Production	(01-077-02)	41° 45' 0.4" N	76° 50' 19.16" W
85737 - [redacted](01-077-04) L 4H	Production	(01-077-04)	41° 45' 0.85" N	76° 50' 19.52" W
85738 - [redacted](01-077-06) L 6H	Production	(01-077-06)	41° 45' 0.99" N	76° 50' 18.62" W
85744 - FEI DCNR 587 (02-002-01)	Production	(02-002-01)	41° 41' 53.05" N	76° 57' 53.79" W
85745 - FEI DCNR 587 (02-002-02)	Production	(02-002-02)	41° 41' 53.01" N	76° 57' 54.12" W
85747 - [redacted](01-038-03) FT5H	Production	(01-038-03)	41° 43' 18.55" N	76° 49' 31.54" W
85751 - [redacted]01-038-05) FT7H	Production	(01-038-05)	41° 43' 18.26" N	76° 49' 32.07" W
85784 - [redacted]01-076-01) L 7H	Production	(01-076-01)	41° 45' 21.26" N	76° 49' 36.81" W
85785 - [redacted]01-076-03) L 9H	Production	(01-076-03)	41° 45' 21.59" N	76° 49' 36.32" W
85786 - [redacted]01-076-05) L 11H	Production	(01-076-05)	41° 45' 21.71" N	76° 49' 37.13" W
85787 - [redacted]01-076-07) L 13H	Production	(01-076-07)	41° 45' 22.04" N	76° 49' 36.65" W
85788 - [redacted]01-076-02) L 8H	Production	(01-076-02)	41° 45' 21.42" N	76° 49' 36.57" W
85789 - [redacted]01-076-04) L 10H	Production	(01-076-04)	41° 45' 21.76" N	76° 49' 36.08" W
85790 - [redacted]01-076-06) L 12H	Production	(01-076-06)	41° 45' 21.87" N	76° 49' 36.89" W
85845 - [redacted]01-017-06) G 6H	Production	(01-017-06)	41° 41' 40.65" N	76° 50' 33.81" W
85846 - [redacted]01-017-07) G 7H	Production	(01-017-07)	41° 41' 40.94" N	76° 50' 33.55" W
85847 - [redacted]01-017-08) G 8H	Production	(01-017-08)	41° 41' 41.23" N	76° 50' 33.29" W
85867 - [redacted]015-01) J 1H	Production	(03-015-01)	41° 52' 36.11" N	76° 52' 44.04" W
85868 - [redacted]015-02) J 2H	Production	(03-015-02)	41° 52' 36.36" N	76° 52' 43.82" W

85869 - [redacted] (03-015-03) J 3H	Production	(03-015-03)	41° 52' 36.6" N	76° 52' 43.59" W
85870 - [redacted] (03-015-04) J 4H	Production	(03-015-04)	41° 52' 36.84" N	76° 52' 43.37" W
86172 - [redacted] (03-045-01) J 1H	Production	(03-045-01)	41° 48' 55.35" N	76° 49' 52.09" W
86174 - [redacted] (03-045-02) J 2H	Production	(03-045-02)	41° 48' 55.6" N	76° 49' 52.05" W
[redacted] (AREA S24V1)	Production	LUTZ	41° 43' 43.53" N	76° 49' 4.86" W
[redacted] (01-044-03) L 3H	Stopped Durin	(01-044-03)	41° 45' 46.18" N	76° 48' 8.32" W
[redacted] (01-024-02) L 7H	Stopped Durin	(01-024-02)	41° 45' 43.82" N	76° 48' 32.09" W
[redacted] (01-024-01) L 6H	Stopped Durin	(01-024-01)	41° 45' 43.92" N	76° 48' 31.78" W
[redacted] (02-006-01)	Completion	(02-006-01)	41° 41' 15.13" N	76° 59' 42.66" W

API#	Well Name	Status	Wellcode	Lat	Long
37-015-20596-00	[redacted] 01 032 05 G 5H OG WELL	Permitted	(01-032-05)	41° 42' 39.98" N	76° 50' 18.35" W
37-015-20597-00	[redacted] 01 032 06 G 6H OG WELL	Permitted	(01-032-06)	41° 42' 40.22" N	76° 50' 18.29" W
37-015-20599-00	[redacted] 01 032 08 G 8H OG WELL	Permitted	(01-032-08)	41° 42' 40.70" N	76° 50' 18.17" W
37-015-20598-00	[redacted] 01 032 07 G 7H OG WELL	Permitted	(01-032-07)	41° 42' 40.46" N	76° 50' 18.23" W
37-015-20874-00	[redacted] 01 002 02 FT 8H OG WELL	Permitted	(01-002-02)	41° 43' 28.71" N	76° 49' 11.69" W
37-015-20950-00	[redacted] 01 075 01 L 1H OG WELL	Permitted	(01-075-01)	41° 41' 49.84" N	76° 44' 50.75" W
37-015-20947-00	[redacted] 01 075 02 L 2H OG WELL	Permitted	(01-075-02)	41° 41' 50.19" N	76° 44' 50.78" W
37-015-20972-00	[redacted] 03 051 01 B 1H OG WELL	Permitted	(03-051-01)	41° 52' 18.82" N	76° 48' 8.97" W
37-015-20973-00	[redacted] 03 051 02 B 2H OG WELL	Permitted	(03-051-02)	41° 52' 19.04" N	76° 48' 8.81" W
37-015-20974-00	[redacted] 03 051 03 B 3H OG WELL	Permitted	(03-051-03)	41° 52' 19.25" N	76° 48' 8.64" W
37-015-20975-00	[redacted] 03 051 04 B 4H OG WELL	Permitted	(03-051-04)	41° 52' 19.47" N	76° 48' 8.48" W
37-015-20976-00	[redacted] 03 051 05 B 5H OG WELL	Permitted	(03-051-05)	41° 52' 18.25" N	76° 48' 7.88" W
37-015-20977-00	[redacted] 03 051 06 B 6H OG WELL	Permitted	(03-051-06)	41° 52' 18.46" N	76° 48' 7.72" W
37-015-20978-00	[redacted] 03 051 07 B 7H OG WELL	Permitted	(03-051-07)	41° 52' 18.68" N	76° 48' 7.56" W
37-015-20979-00	[redacted] N 03 051 08 B 8H OG WELL	Permitted	(03-051-08)	41° 52' 18.89" N	76° 48' 7.39" W
37-015-20615-00	[redacted] 01 077 03 L 3H OG WELL	Permitted	(01-077-03)	41° 45' 0.47" N	76° 50' 18.71" W
37-015-20658-00	[redacted] 03 015 05 J 5H OG WELL	Permitted	(03-015-05)	41° 52' 36.44" N	76° 52' 42.94" W
37-015-20659-00	[redacted] 03 015 06 J 6H OG WELL	Permitted	(03-015-06)	41° 52' 36.20" N	76° 52' 43.16" W
37-015-20660-00	[redacted] 03 015 07 J 7H OG WELL	Permitted	(03-015-07)	41° 52' 35.95" N	76° 52' 43.39" W
37-015-20669-00	[redacted] 03 036 01 J 1H OG WELL	Permitted	(03-036-01)	41° 57' 1.45" N	76° 53' 58.88" W
37-015-20671-00	[redacted] 03 036 03 J 3H OG WELL	Permitted	(03-036-03)	41° 57' 1.52" N	76° 53' 57.96" W
37-015-20672-00	[redacted] 03 036 04 J 4H OG WELL	Permitted	(03-036-04)	41° 57' 1.56" N	76° 53' 57.50" W
37-015-20744-00	[redacted] 03 035 03 D 3H OG WELL	Permitted	(03-035-03)	41° 54' 49.89" N	76° 53' 26.10" W
37-015-20745-00	[redacted] 03 035 04 D 4H OG WELL	Permitted	(03-035-04)	41° 54' 49.96" N	76° 53' 25.72" W
37-015-20746-00	[redacted] 03 035 05 D 5H OG WELL	Permitted	(03-035-05)	41° 54' 50.86" N	76° 53' 26.75" W
37-015-20747-00	[redacted] 03 035 06 D 6H OG WELL	Permitted	(03-035-06)	41° 54' 50.80" N	76° 53' 27.07" W
37-015-20748-00	[redacted] 03 035 07 D 7H OG WELL	Permitted	(03-035-07)	41° 54' 50.73" N	76° 53' 27.39" W
37-015-20749-00	[redacted] 03 035 08 D 8H OG WELL	Permitted	(03-035-08)	41° 54' 50.67" N	76° 53' 27.71" W
37-015-20955-00	[redacted] 01 082 01 S 1H OG WELL	Permitted	(01-082-01)	41° 40' 49.45" N	76° 46' 48.45" W
37-015-20956-00	[redacted] 01 082 02 S 2H OG WELL	Permitted	(01-082-02)	41° 40' 49.44" N	76° 46' 48.92" W
37-015-20957-00	[redacted] 01 082 03 S 3H OG WELL	Permitted	(01-082-03)	41° 40' 49.42" N	76° 46' 49.38" W
37-015-21055-00	[redacted] 01 066 02 J 2H OG WELL	Permitted	(01-066-02)	41° 42' 9.22" N	76° 48' 20.37" W

37-015-21056-00	[redacted] I 01 066 03 J 3H OG WELL	Permitted	(01-066-03)	41° 42' 9.19" N	76° 48' 20.70" W
37-015-21053-00	[redacted] 01 066 04 J 4H OG WELL	Permitted	(01-066-04)	41° 42' 9.15" N	76° 48' 21.03" W
37-015-20592-00	[redacted] 01 032 01 G 1H OG WELL	Permitted	(01-032-01)	41° 42' 39.70" N	76° 50' 17.75" W
37-015-20743-00	[redacted] 03 035 02 D 2H OG WELL	Permitted	(03-035-02)	41° 54' 49.81" N	76° 53' 26.48" W
37-117-20197-00	[redacted] 1 OG WELL	Permitted		41° 59' 2.88" N	77° 1' 34.79" W
37-117-20330-00	[redacted] 264 1H OG WELL	Permitted		41° 59' 28.22" N	76° 57' 22.96" W
37-015-20524-00	[redacted] 03 009 01 L 1H OG WELL	Permitted	(03-009-01)	41° 50' 13.87" N	76° 53' 34.96" W
37-015-20525-00	[redacted] 03 009 02 L 2H OG WELL	Permitted	(03-009-02)	41° 50' 13.94" N	76° 53' 34.64" W
37-015-20526-00	[redacted] 03 009 03 L 3H OG WELL	Permitted	(03-009-03)	41° 50' 14.00" N	76° 53' 34.32" W
37-015-20527-00	[redacted] 03 009 04 L 4H OG WELL	Permitted	(03-009-04)	41° 50' 14.07" N	76° 53' 34.00" W
37-117-20391-00	[redacted] 410 5H OG WELL	Permitted		41° 57' 8.48" N	76° 57' 14.66" W
37-117-20327-00	[redacted] 404 1H OG WELL	Permitted		41° 56' 10.34" N	77° 1' 9.88" W
37-015-20433-00	[redacted] 03 002 01 R 1H OG WELL	Permitted	(03-002-01)	41° 50' 28.59" N	76° 49' 30.64" W
37-015-20434-00	[redacted] 03 002 02 R 2H OG WELL	Permitted	(03-002-02)	41° 50' 28.50" N	76° 49' 30.33" W
37-015-20435-00	[redacted] 03 002 03 R 3H OG WELL	Permitted	(03-002-03)	41° 50' 28.40" N	76° 49' 30.03" W
37-015-20465-00	[redacted] 03 002 04 R 4H OG WELL	Permitted	(03-002-04)	41° 50' 28.99" N	76° 49' 30.20" W
37-015-20466-00	[redacted] 03 002 05 R 5H OG WELL	Permitted	(03-002-05)	41° 50' 28.90" N	76° 49' 29.89" W
37-015-20532-00	[redacted] 03 010 01 J 1H OG WELL	Permitted	(03-010-01)	41° 50' 46.06" N	76° 52' 19.66" W
37-015-20533-00	[redacted] 03 010 02 J 2H OG WELL	Permitted	(03-010-02)	41° 50' 46.13" N	76° 52' 19.34" W
37-015-20534-00	[redacted] 03 010 03 J 3H OG WELL	Permitted	(03-010-03)	41° 50' 46.20" N	76° 52' 19.03" W
37-015-20535-00	[redacted] 03 010 04 J 4H OG WELL	Permitted	(03-010-04)	41° 50' 46.27" N	76° 52' 18.71" W
37-015-20536-00	[redacted] 03 010 05 J 5H OG WELL	Permitted	(03-010-05)	41° 50' 44.92" N	76° 52' 18.98" W
37-015-20537-00	[redacted] 03 010 06 J 6H OG WELL	Permitted	(03-010-06)	41° 50' 44.99" N	76° 52' 18.66" W
37-015-20538-00	[redacted] 03 010 07 J 7H OG WELL	Permitted	(03-010-07)	41° 50' 45.06" N	76° 52' 18.34" W
37-015-20539-00	[redacted] 03 010 08 J 8H OG WELL	Permitted	(03-010-08)	41° 50' 45.13" N	76° 52' 18.03" W
37-117-20325-00	[redacted] 408 1H OG WELL	Permitted		41° 56' 49.28" N	76° 58' 38.16" W
37-117-20324-00	[redacted] 406 1H OG WELL	Permitted		41° 55' 53.24" N	76° 59' 34.64" W
37-117-20328-00	[redacted] 402 1H OG WELL	Permitted		41° 55' 47.71" N	77° 2' 28.74" W
37-117-20285-00	DCNR 587 02 001 01 1H OG WELL	Permitted	(02-001-01)	41° 42' 7.27" N	76° 58' 21.24" W
37-117-20286-00	DCNR 587 02 001 02 2H OG WELL	Permitted	(02-001-02)	41° 42' 7.31" N	76° 58' 20.91" W
37-117-20287-00	DCNR 587 02 001 03 3H OG WELL	Permitted	(02-001-03)	41° 42' 7.36" N	76° 58' 20.59" W
37-117-20448-00	DCNR 587 02 006 02 OG WELL	Permitted	(02-006-02)	41° 41' 15.27" N	76° 59' 43.09" W
37-117-20449-00	DCNR 587 02 006 03 OG WELL	Permitted	(02-006-03)	41° 41' 15.41" N	76° 59' 43.51" W
37-117-20369-00	DCNR 587 02 008 01 OG WELL	Permitted	(02-008-01)	41° 40' 32.09" N	76° 58' 41.39" W
37-117-20370-00	DCNR 587 02 008 02 OG WELL	Permitted	(02-008-02)	41° 40' 32.11" N	76° 58' 41.72" W

37-117-20419-00	DCNR 587 02 014 04 OG WELL	Permitted	(02-014-04)	41° 40' 56.79" N	76° 57' 56.36" W
37-117-20418-00	DCNR 587 02 014 05 OG WELL	Permitted	(02-014-05)	41° 40' 55.92" N	76° 57' 55.32" W
37-117-20420-00	DCNR 587 02 014 06 OG WELL	Permitted	(02-014-06)	41° 40' 55.88" N	76° 57' 55.64" W
37-117-20421-00	DCNR 587 02 014 07 OG WELL	Permitted	(02-014-07)	41° 40' 55.84" N	76° 57' 55.97" W
37-015-20545-00	[redacted] 01 023 01 R 1H OG WELL	Permitted	(01-023-01)	41° 41' 42.04" N	76° 46' 44.72" W
37-015-20546-00	[redacted] 01 023 02 R 2H OG WELL	Permitted	(01-023-02)	41° 41' 42.01" N	76° 46' 44.26" W
37-015-20547-00	[redacted] 01 023 03 R 3H OG WELL	Permitted	(01-023-03)	41° 41' 41.98" N	76° 46' 43.80" W
37-015-20548-00	[redacted] 01 023 04 R 4H OG WELL	Permitted	(01-023-04)	41° 41' 41.96" N	76° 46' 43.34" W
37-015-20549-00	[redacted] 01 023 05 R 5H OG WELL	Permitted	(01-023-05)	41° 41' 43.01" N	76° 46' 44.39" W
37-015-20550-00	[redacted] 01 023 06 R 6H OG WELL	Permitted	(01-023-06)	41° 41' 42.98" N	76° 46' 43.93" W
37-015-20551-00	[redacted] 01 023 07 R 7H OG WELL	Permitted	(01-023-07)	41° 41' 42.96" N	76° 46' 43.47" W
37-015-20166-00	[redacted] M 2H OG WELL	Permitted		41° 43' 5.54" N	76° 51' 20.5" W
37-015-20512-00	[redacted] 01 017 01 G 1H OG WELL	Permitted	(01-017-01)	41° 41' 40.23" N	76° 50' 33.39" W
37-015-20513-00	[redacted] 01 017 02 G 2H OG WELL	Permitted	(01-017-02)	41° 41' 40.52" N	76° 50' 33.13" W
37-015-20514-00	[redacted] 01 017 03 G 3H OG WELL	Permitted	(01-017-03)	41° 41' 40.80" N	76° 50' 32.87" W
37-015-20515-00	[redacted] 01 017 04 G 4H OG WELL	Permitted	(01-017-04)	41° 41' 41.09" N	76° 50' 32.62" W
37-117-20304-00	[redacted] 1 OG WELL	Permitted		41° 59' 16.66" N	77° 3' 5.68" W
37-117-20297-00	[redacted] L 261 1H OG WELL	Permitted		41° 59' 18.32" N	76° 59' 26.85" W
37-117-20406-00	[redacted] 261 2H OG WELL	Permitted		41° 59' 18.32" N	76° 59' 27.05" W
37-117-20407-00	[redacted] 261 3H OG WELL	Permitted		41° 59' 18.32" N	76° 59' 26.66" W
37-117-20408-00	[redacted] 261 4H OG WELL	Permitted		41° 59' 18.17" N	76° 59' 26.86" W
37-117-20409-00	[redacted] 261 5H OG WELL	Permitted		41° 59' 18.17" N	76° 59' 27.05" W
37-117-20410-00	[redacted] 261 6H OG WELL	Permitted		41° 59' 18.17" N	76° 59' 26.66" W
37-117-20296-00	[redacted] 271 1H OG WELL	Permitted		41° 57' 48.51" N	77° 0' 0.22" W
37-015-20390-00	[redacted] 01 44 04 L 4H OG WELL	Permitted		41° 45' 46.14" N	76° 48' 8.65" W
37-015-20391-00	[redacted] 01 44 05 L 5H OG WELL	Permitted		41° 45' 46.10" N	76° 48' 8.97" W
37-015-20584-00	[redacted] 01 073 01 K 1H OG WELL	Permitted	(01-073-01)	41° 46' 26.28" N	76° 52' 24.30" W
37-015-20585-00	[redacted] 01 073 02 K 2H OG WELL	Permitted	(01-073-02)	41° 46' 26.23" N	76° 52' 24.63" W
37-015-20586-00	[redacted] 01 073 03 K 3H OG WELL	Permitted	(01-073-03)	41° 46' 26.19" N	76° 52' 24.95" W
37-015-20587-00	[redacted] 01 073 04 K 4H OG WELL	Permitted	(01-073-04)	41° 46' 26.14" N	76° 52' 25.28" W

37-015-20588-00	[redacted] 01 073 05 K 5H OG WELL	Permitted	(01-073-05)	41° 46' 25.39" N	76° 52' 25.25" W
37-015-20589-00	[redacted] 01 073 06 K 6H OG WELL	Permitted	(01-073-06)	41° 46' 25.44" N	76° 52' 24.93" W
37-015-20590-00	[redacted] 01 073 07 K 7H OG WELL	Permitted	(01-073-07)	41° 46' 25.48" N	76° 52' 24.61" W
37-015-20591-00	[redacted] 01 073 08 K 8H OG WELL	Permitted	(01-073-08)	41° 46' 25.53" N	76° 52' 24.28" W
37-015-20577-00	[redacted] 01 074 05 W 5H OG WELL	Permitted	(01-074-05)	41° 46' 10.84" N	76° 51' 36.02" W
37-015-20578-00	[redacted] 01 074 06 W 6H OG WELL	Permitted	(01-074-06)	41° 46' 10.86" N	76° 51' 35.69" W
37-015-20579-00	[redacted] 01 074 07 W 7H OG WELL	Permitted	(01-074-07)	41° 46' 10.88" N	76° 51' 35.36" W
37-015-20580-00	[redacted] 01 074 08 W 8H OG WELL	Permitted	(01-074-08)	41° 46' 10.89" N	76° 51' 35.03" W
37-117-20298-00	[redacted] 259 1H OG WELL	Permitted		41° 59' 18.09" N	77° 0' 54.64" W
37-015-20565-00	[redacted] 03 006 01 A 1H OG WELL	Permitted	(03-006-01)	41° 49' 16.45" N	76° 52' 29.29" W
37-015-20566-00	[redacted] 03 006 02 A 2H OG WELL	Permitted	(03-006-02)	41° 49' 16.70" N	76° 52' 29.49" W
37-015-20569-00	[redacted] 03 006 05 A 5H OG WELL	Permitted	(03-006-05)	41° 49' 16.33" N	76° 52' 29.96" W
37-015-20570-00	[redacted] 03 006 06 A 6H OG WELL	Permitted	(03-006-06)	41° 49' 16.58" N	76° 52' 30.16" W
37-015-20571-00	[redacted] 03 006 07 A 7H OG WELL	Permitted	(03-006-07)	41° 49' 16.84" N	76° 52' 30.36" W
37-015-20572-00	[redacted] 03 006 08 A 8H OG WELL	Permitted	(03-006-08)	41° 49' 17.09" N	76° 52' 30.56" W
37-117-20299-00	[redacted] 269 1H OG WELL	Permitted		41° 58' 6.17" N	77° 1' 34.38" W
37-015-20468-00	[redacted] 03 004 06 R 6H OG WELL	Permitted	(03-004-06)	41° 51' 26.74" N	76° 50' 3.15" W
37-015-20469-00	[redacted] 03 004 07 R 7H OG WELL	Permitted	(03-004-07)	41° 51' 26.76" N	76° 50' 2.82" W
37-117-20301-00	[redacted] 268 1H OG WELL	Permitted		41° 58' 0.06" N	77° 2' 17.74" W
37-117-20295-00	[redacted] 262 1H OG WELL	Permitted		41° 59' 21.29" N	76° 58' 46.42" W
37-015-20500-00	[redacted] 03 001 05 E 5H OG WELL	Permitted	(03-001-05)	41° 50' 19.43" N	76° 50' 46.28" W
37-015-20501-00	[redacted] 03 001 06 E 6H OG WELL	Permitted	(03-001-06)	41° 50' 19.43" N	76° 50' 46.61" W
37-015-20502-00	[redacted] 03 001 07 E 7H OG WELL	Permitted	(03-001-07)	41° 50' 19.42" N	76° 50' 46.94" W
37-015-20503-00	[redacted] 03 001 08 E 8H OG WELL	Permitted	(03-001-08)	41° 50' 19.41" N	76° 50' 47.27" W

37-015-20606-00	HARVEST HOLDINGS 01 036 05 5H OG WELL	Permitted	(01-036-05)	41° 41' 24.08" N	76° 51' 10.32" W
37-015-20607-00	HARVEST HOLDINGS 01 036 06 6H OG WELL	Permitted	(01-036-06)	41° 41' 24.42" N	76° 51' 10.25" W
37-015-20608-00	HARVEST HOLDINGS 01 036 07 7H OG WELL	Permitted	(01-036-07)	41° 41' 24.76" N	76° 51' 10.17" W
37-015-20609-00	HARVEST HOLDINGS 01 036 08 8H OG WELL	Permitted	(01-036-08)	41° 41' 25.10" N	76° 51' 17.43" W
37-015-20780-00	[redacted] 03 016 01 T 1H OG WELL	Permitted	(03-016-01)	41° 52' 50.87" N	76° 51' 10.10" W
37-015-20781-00	[redacted] 03 016 02 T 2H OG WELL	Permitted	(03-016-02)	41° 52' 50.86" N	76° 51' 16.97" W
37-015-20782-00	[redacted] 03 016 03 T 3H OG WELL	Permitted	(03-016-03)	41° 52' 50.85" N	76° 51' 16.50" W
37-015-20783-00	[redacted] 03 016 04 T 4H OG WELL	Permitted	(03-016-04)	41° 52' 50.84" N	76° 51' 16.04" W
37-015-20775-00	[redacted] 01 003 05 J 5H OG WELL	Permitted	(01-003-05)	41° 43' 29.34" N	76° 46' 59.21" W
37-015-20776-00	[redacted] T 01 003 06 J 6H OG WELL	Permitted	(01-003-06)	41° 43' 29.35" N	76° 46' 59.54" W
37-015-20804-00	[redacted] 03 065 05 W 5H OG WELL	Permitted	(03-065-05)	41° 53' 55.42" N	76° 53' 42.06" W
37-015-20805-00	[redacted] 03 065 06 W 6H OG WELL	Permitted	(03-065-06)	41° 53' 55.39" N	76° 53' 42.52" W
37-015-20806-00	[redacted] 03 065 07 W 7H OG WELL	Permitted	(03-065-07)	41° 53' 55.35" N	76° 53' 42.98" W
37-015-20807-00	[redacted] 03 065 08 W 8H OG WELL	Permitted	(03-065-08)	41° 53' 55.32" N	76° 53' 43.44" W
37-015-20826-00	[redacted] 03 067 05 O 5H OG WELL	Permitted	(03-067-05)	41° 48' 59.97" N	76° 53' 42.47" W
37-015-20827-00	[redacted] 03 067 06 Q 6H OG WELL	Permitted	(03-067-06)	41° 48' 59.74" N	76° 53' 42.61" W
37-015-20828-00	[redacted] 03 067 07 O 7H OG WELL	Permitted	(03-067-07)	41° 48' 59.52" N	76° 53' 42.75" W
37-015-20829-00	[redacted] 03 067 08 O 8H OG WELL	Permitted	(03-067-08)	41° 48' 59.29" N	76° 53' 42.88" W
37-015-20831-00	[redacted] 03 058 01 M 1H OG WELL	Permitted	(03-058-01)	41° 58' 12.60" N	76° 53' 46.56" W
37-015-20832-00	[redacted] 03 058 02 M 2H OG WELL	Permitted	(03-058-02)	41° 58' 12.81" N	76° 53' 46.72" W
37-015-20833-00	[redacted] 03 058 03 M 3H OG WELL	Permitted	(03-058-03)	41° 58' 13.03" N	76° 53' 46.88" W
37-015-20834-00	[redacted] 03 058 04 M 4H OG WELL	Permitted	(03-058-04)	41° 58' 12.31" N	76° 53' 47.10" W
37-015-20835-00	[redacted] 03 058 05 M 5H OG WELL	Permitted	(03-058-05)	41° 58' 12.53" N	76° 53' 47.26" W
37-015-20875-00	[redacted] 01 002 03 FT 9H OG WELL	Permitted	(01-002-03)	41° 43' 28.50" N	76° 49' 11.85" W
37-015-20876-00	[redacted] 01 002 04 FT 10H OG WELL	Permitted	(01-002-04)	41° 43' 28.28" N	76° 49' 12.01" W
37-015-20877-00	[redacted] 01 002 05 FT 11H OG WELL	Permitted	(01-002-05)	41° 43' 28.06" N	76° 49' 12.16" W
37-015-20878-00	[redacted] 01 002 06 FT 12H OG WELL	Permitted	(01-002-06)	41° 43' 27.85" N	76° 49' 12.32" W
37-015-20891-00	[redacted] 03 039 01 J 1H OG WELL	Permitted	(03-039-01)	41° 54' 54.14" N	76° 50' 11.62" W
37-015-20892-00	[redacted] 03 039 02 J 2H OG WELL	Permitted	(03-039-02)	41° 54' 54.22" N	76° 50' 11.31" W

37-015-20893-00	03 039 03 J 3H OG WELL	Permitted	(03-039-03)	41° 54' 54.31" N	76° 50' 10.99" W
37-015-20894-00	03 039 04 J 4H OG WELL	Permitted	(03-039-04)	41° 54' 54.39" N	76° 50' 10.68" W
37-015-20895-00	03 039 05 J 5H OG WELL	Permitted	(03-039-05)	41° 54' 55.11" N	76° 50' 11.93" W
37-015-20896-00	03 039 06 J 6H OG WELL	Permitted	(03-039-06)	41° 54' 55.19" N	76° 50' 11.62" W
37-015-20898-00	03 039 08 J 8H OG WELL	Permitted	(03-039-08)	41° 54' 55.35" N	76° 50' 11.00" W
37-015-20899-00	03 046 01 B 1H OG WELL	Permitted	(03-046-01)	41° 54' 15.68" N	76° 52' 0.24" W
37-015-20900-00	03 046 02 B 2H OG WELL	Permitted	(03-046-02)	41° 54' 15.70" N	76° 51' 59.91" W
37-015-20901-00	03 046 03 B 3H OG WELL	Permitted	(03-046-03)	41° 54' 15.72" N	76° 51' 59.58" W
37-015-20902-00	03 046 04 B 4H OG WELL	Permitted	(03-046-04)	41° 54' 15.74" N	76° 51' 59.25" W
37-015-20907-00	03 040 01 B 1H OG WELL	Permitted	(03-040-01)	41° 54' 8.49" N	76° 51' 21.16" W
37-015-20908-00	03 040 02 B 2H OG WELL	Permitted	(03-040-02)	41° 54' 8.58" N	76° 51' 20.85" W
37-015-20911-00	03 040 05 N 5H OG WELL	Permitted	(03-040-05)	41° 54' 9.45" N	76° 51' 21.52" W
37-015-20912-00	03 040 06 B 6H OG WELL	Permitted	(03-040-06)	41° 54' 9.54" N	76° 51' 21.21" W
37-015-20913-00	03 040 07 B 7H OG WELL	Permitted	(03-040-07)	41° 54' 9.63" N	76° 51' 20.90" W
37-015-20914-00	03 040 08 B 8H OG WELL	Permitted	(03-040-08)	41° 54' 9.72" N	76° 51' 20.60" W
37-015-20903-00	03 046 05 B 5H OG WELL	Permitted	(03-046-05)	41° 54' 14.69" N	76° 52' 0.27" W
37-015-20904-00	03 046 06 B 6H OG WELL	Permitted	(03-046-06)	41° 54' 14.71" N	76° 51' 59.94" W
37-015-20905-00	03 046 07 B 7H OG WELL	Permitted	(03-046-07)	41° 54' 14.73" N	76° 51' 59.61" W
37-015-20897-00	03 039 07 J 7H OG WELL	Permitted	(03-039-07)	41° 54' 55.27" N	76° 50' 11.31" W
37-015-21017-00	03 025 02 E 2H OG WELL	Permitted	(03-025-02)	41° 52' 59.17" N	76° 49' 11.19" W
37-015-21018-00	03 025 03 E 3H OG WELL	Permitted	(03-025-03)	41° 52' 59.17" N	76° 49' 11.52" W
37-015-21019-00	03 025 04 E 4H OG WELL	Permitted	(03-025-04)	41° 52' 59.16" N	76° 49' 11.85" W
37-015-21020-00	03 025 05 E 5H OG WELL	Permitted	(03-025-05)	41° 52' 58.18" N	76° 49' 10.72" W
37-015-21021-00	03 025 06 E 6H OG WELL	Permitted	(03-025-06)	41° 52' 58.18" N	76° 49' 11.05" W
37-015-21022-00	03 025 07 E 7H OG WELL	Permitted	(03-025-07)	41° 52' 58.18" N	76° 49' 11.38" W
37-015-21023-00	03 025 08 E 8H OG WELL	Permitted	(03-025-08)	41° 52' 58.18" N	76° 49' 11.71" W
37-117-20799-00	DCNR 587 02 016 01 OG WELL	Permitted	(02-016-01)	41° 42' 31.66" N	76° 57' 41.86" W
37-117-20800-00	DCNR 587 02 016 02 OG WELL	Permitted	(02-016-02)	41° 42' 31.60" N	76° 57' 42.25" W
37-117-20801-00	DCNR 587 02 016 03 OG WELL	Permitted	(02-016-03)	41° 42' 31.55" N	76° 57' 42.64" W
37-117-20824-00	DCNR 587 02 012 01 OG WELL	Permitted	(02-012-01)	41° 41' 3.26" N	76° 56' 48.53" W
37-117-20826-00	DCNR 587 02 012 03 OG WELL	Permitted	(02-012-03)	41° 41' 3.49" N	76° 56' 47.66" W
37-117-20827-00	DCNR 587 02 012 04 OG WELL	Permitted	(02-012-04)	41° 41' 3.60" N	76° 56' 47.23" W
37-117-20828-00	DCNR 587 02 012 05 OG WELL	Permitted	(02-012-05)	41° 41' 3.71" N	76° 56' 46.79" W
37-117-20825-00	DCNR 587 02 012 02 OG WELL	Permitted	(02-012-02)	41° 41' 3.37" N	76° 56' 48.10" W
37-015-21135-00	03 062 01 L 1H OG WELL	Permitted	(03-062-01)	41° 54' 20.97" N	76° 49' 58.28" W
37-015-21136-00	03 062 02 L 2H OG WELL	Permitted	(03-062-02)	41° 54' 20.87" N	76° 49' 58.58" W
37-015-21137-00	03 062 03 L 3H OG WELL	Permitted	(03-062-03)	41° 54' 20.77" N	76° 49' 58.88" W

37-015-21138-00	ROY 03 062 04 L 4H OG WELL	Permitted	(03-062-04)	41° 54' 20.67" N	76° 49' 59.18" W
37-015-21154-00	[redacted]5 001 02 J 2H OG WELL	Permitted	(05-001-02)	41° 48' 59.66" N	76° 13' 24.60" W
37-015-21155-00	[redacted] 05 001 03 J 3H OG WELL	Permitted	(05-001-03)	41° 48' 59.69" N	76° 13' 24.14" W
37-015-21156-00	[redacted] 05 001 04 J 4H OG WELL	Permitted	(05-001-04)	41° 49' 0.56" N	76° 13' 25.59" W
37-015-21157-00	[redacted]S 05 001 05 J 5H OG WELL	Permitted	(05-001-05)	41° 49' 0.59" N	76° 13' 25.13" W
37-015-21158-00	[redacted]S 05 001 06 J 6H OG WELL	Permitted	(05-001-06)	41° 49' 0.63" N	76° 13' 24.67" W
37-015-21168-00	[redacted]05 003 01 C 1H OG WELL	Permitted	(05-003-01)	41° 48' 3.12" N	76° 11' 22.80" W
37-015-21169-00	[redacted]05 003 02 C 2H OG WELL	Permitted	(05-003-02)	41° 48' 4.12" N	76° 11' 22.71" W
37-015-21170-00	[redacted]05 003 03 C 3H OG WELL	[redacted]	(05-003-03)	41° 48' 4.18" N	76° 11' 23.03" W
37-015-21171-00	[redacted]05 003 04 C 4H OG WELL	Permitted	(05-003-04)	41° 48' 4.23" N	76° 11' 23.36" W
37-015-21172-00	[redacted]05 003 05 C 5H OG WELL	Permitted	(05-003-05)	41° 48' 4.29" N	76° 11' 23.68" W
37-015-21173-00	[redacted]05 003 06 C 6H OG WELL	Permitted	(05-003-06)	41° 48' 4.35" N	76° 11' 24.00" W
37-015-21192-00	[redacted]05 004 02 P 2H OG WELL	Permitted	(05-004-02)	41° 50' 12.03" N	76° 14' 19.78" W
37-015-21193-00	[redacted]05 004 03 P 3H OG WELL	Permitted	(05-004-03)	41° 50' 11.77" N	76° 14' 19.96" W
37-015-21194-00	[redacted]05 004 04 P 4H OG WELL	Permitted	(05-004-04)	41° 50' 11.50" N	76° 14' 20.14" W
37-015-21195-00	[redacted]05 004 05 P 5H OG WELL	Permitted	(05-004-05)	41° 50' 11.24" N	76° 14' 20.32" W
37-015-21196-00	[redacted]05 004 06 P 6H OG WELL	Permitted	(05-004-06)	41° 50' 10.97" N	76° 14' 20.49" W
37-015-21197-00	[redacted]05 006 01 L 1H OG WELL	Permitted	(05-006-01)	41° 49' 36.11" N	76° 12' 3.80" W
37-015-21198-00	[redacted]05 006 02 L 2H OG WELL	Permitted	(05-006-02)	41° 49' 35.97" N	76° 12' 3.45" W
37-015-21199-00	[redacted]05 006 03 L 3H OG WELL	Permitted	(05-006-03)	41° 49' 35.84" N	76° 12' 3.09" W
37-015-21200-00	[redacted]05 006 04 L 4H OG WELL	Permitted	(05-006-04)	41° 49' 35.71" N	76° 12' 2.74" W
37-015-21201-00	[redacted]05 006 05 L 5H OG WELL	Permitted	(05-006-05)	41° 49' 35.58" N	76° 12' 2.38" W
37-015-21217-00	[redacted]011 01 F 1H OG WELL	Permitted	(03-011-01)	41° 52' 50.04" N	76° 50' 52.60" W
37-015-21218-00	[redacted]011 02 F 2H OG WELL	Permitted	(03-011-02)	41° 52' 50.04" N	76° 50' 53.00" W
37-015-21219-00	[redacted]011 03 F 3H OG WELL	Permitted	(03-011-03)	41° 52' 50.03" N	76° 50' 53.39" W
37-015-21220-00	[redacted]011 04 F 4H OG WELL	Permitted	(03-011-04)	41° 52' 49.05" N	76° 50' 52.39" W
37-015-21221-00	[redacted]011 05 F 5H OG WELL	Permitted	(03-011-05)	41° 52' 49.05" N	76° 50' 52.79" W
37-015-21222-00	[redacted]011 06 F 6H OG WELL	Permitted	(03-011-06)	41° 52' 49.05" N	76° 50' 53.18" W
37-015-21227-00	[redacted]03 023 01 K 1H OG WELL	Permitted	(03-023-01)	41° 52' 37.39" N	76° 50' 9.57" W
37-015-21228-00	[redacted]03 023 02 K 2H OG WELL	Permitted	(03-023-02)	41° 52' 37.26" N	76° 50' 9.85" W

37-015-21229-00	[redacted]	Permitted	(03-023-03)	41° 52' 37.13" N	76° 50' 10.13" W
37-015-21230-00		Permitted	(03-023-04)	41° 52' 37.00" N	76° 50' 10.41" W
37-015-21231-00		Permitted	(03-023-05)	41° 52' 36.87" N	76° 50' 10.69" W
37-015-21248-00	05 005 02 K 2H OG WELL	Permitted	(05-005-02)	41° 50' 14.11" N	76° 13' 33.34" W
37-015-21249-00	05 005 03 K 3H OG WELL	Permitted	(05-005-03)	41° 50' 13.90" N	76° 13' 33.62" W
37-015-21250-00	05 005 04 K 4H OG WELL	Permitted	(05-005-04)	41° 50' 13.69" N	76° 13' 33.90" W
37-015-21251-00	05 005 05 K 5H OG WELL	Permitted	(05-005-05)	41° 50' 13.48" N	76° 13' 34.18" W
37-015-21252-00	05 005 06 K 6H OG WELL	Permitted	(05-005-06)	41° 50' 13.28" N	76° 13' 34.47" W
37-117-20917-00	DCNR 587 02 019 01 OG WELL	Permitted	(02-019-01)	41° 40' 53.64" N	77° 0' 0.92" W
37-117-20918-00	DCNR 587 02 019 02 OG WELL	Permitted	(02-019-02)	41° 40' 53.36" N	77° 0' 1.19" W
37-117-20919-00	DCNR 587 02 019 03 OG WELL	Permitted	(02-019-03)	41° 40' 53.08" N	77° 0' 1.46" W
37-117-20920-00	DCNR 587 02 019 04 OG WELL	Permitted	(02-019-04)	41° 40' 52.80" N	77° 0' 1.74" W
37-015-21270-00	[redacted] 03 014 01 J 1H OG WELL	Permitted	(03-014-01)	41° 51' 47.48" N	76° 52' 55.75" W
37-015-21271-00	03 014 02 J 2H OG WELL	Permitted	(03-014-02)	41° 51' 47.19" N	76° 52' 55.66" W
37-015-21272-00	03 014 03 J 3H OG WELL	Permitted	(03-014-03)	41° 51' 46.90" N	76° 52' 55.58" W
37-015-21274-00	03 014 05 J 5H OG WELL	Permitted	(03-014-05)	41° 51' 47.86" N	76° 52' 53.42" W
37-015-21275-00	03 014 06 J 6H OG WELL	Permitted	(03-014-06)	41° 51' 47.57" N	76° 52' 53.34" W
37-015-21276-00	03 014 07 J 7H OG WELL	Permitted	(03-014-07)	41° 51' 47.28" N	76° 52' 53.25" W
37-015-21277-00	03 014 08 J 8H OG WELL	Permitted	(03-014-08)	41° 51' 46.99" N	76° 52' 53.17" W
37-015-21377-00	031 02 M 2H OG WELL	Permitted	(05-031-02)	41° 52' 18.40" N	76° 12' 28.51" W
37-015-21378-00	031 03 M 3H OG WELL	Permitted	(05-031-03)	41° 52' 18.32" N	76° 12' 28.13" W
37-015-21346-00	5 074 02 D 2H OG WELL	Permitted	(05-074-02)	41° 55' 8.64" N	76° 16' 56.06" W
37-015-21347-00	05 074 03 D 3H OG WELL	Permitted	(05-074-03)	41° 55' 8.92" N	76° 16' 56.18" W
37-015-21348-00	05 074 04 D 4H OG WELL	Permitted	(05-074-04)	41° 55' 9.21" N	76° 16' 56.30" W

37-015-21459-00	[redacted] 05 097 04 R 4H OG WELL	Permitted	(05-097-04)	41° 54' 11.76" N	76° 13' 38.48" W
37-015-21460-00	[redacted] 05 097 05 R 5H OG WELL	Permitted	(05-097-05)	41° 54' 11.76" N	76° 13' 38.88" W
37-015-21461-00	[redacted] T 05 097 06 R 6H OG WELL	Permitted	(05-097-06)	41° 54' 11.75" N	76° 13' 39.28" W
37-015-21318-00	[redacted] 026 02 G 2H OG WELL	Permitted	(05-026-02)	41° 57' 37.91" N	76° 15' 23.65" W
37-015-21319-00	[redacted] 26 03 G 3H OG WELL	Permitted	(05-026-03)	41° 57' 37.74" N	76° 15' 23.32" W
37-015-21320-00	[redacted] 26 04 G 4H OG WELL	Permitted	(05-026-04)	41° 57' 37.57" N	76° 15' 23.00" W
37-015-21321-00	[redacted] 026 05 G 5H OG WELL	Permitted	(05-026-05)	41° 57' 37.40" N	76° 15' 22.67" W
37-015-21381-00	[redacted] 05 092 01 R 1H OG WELL	Permitted	(05-092-01)	41° 52' 19.22" N	76° 8' 14.47" W
37-015-21382-00	[redacted] 05 092 02 R 2H OG WELL	Permitted	(05-092-02)	41° 52' 19.27" N	76° 8' 13.11" W
37-015-21383-00	[redacted] 05 092 03 R 3H OG WELL	Permitted	(05-092-03)	41° 52' 19.61" N	76° 8' 13.02" W
37-015-21384-00	[redacted] 05 092 04 R 4H OG WELL	Permitted	(05-092-04)	41° 52' 19.95" N	76° 8' 12.93" W
37-015-21466-00	[redacted] 05 129 01 R 1H WELL	Permitted	(05-129-01)	41° 51' 42.29" N	76° 9' 2.56" W
37-015-21467-00	[redacted] 05 129 02 R 2H WELL	Permitted	(05-129-02)	41° 51' 43.49" N	76° 9' 3.27" W
37-015-21468-00	[redacted] 05 129 03 R 3H WELL	Permitted	(05-129-03)	41° 51' 43.20" N	76° 9' 3.34" W
37-015-21469-00	[redacted] 05 129 04 R 4H WELL	Permitted	(05-129-04)	41° 51' 42.91" N	76° 9' 3.41" W
37-015-21470-00	[redacted] 05 129 05 R 5H WELL	Permitted	(05-129-05)	41° 51' 42.62" N	76° 9' 3.48" W
37-015-21473-00	[redacted] T 05 082 02 2H OG WELL	Permitted	(05-082-02)	41° 57' 23.27" N	76° 9' 54.84" W
37-015-21474-00	[redacted] T 05 082 03 3H OG WELL	Permitted	(05-082-03)	41° 57' 23.33" N	76° 9' 54.45" W
37-015-21475-00	[redacted] T 05 082 04 4H OG WELL	Permitted	(05-082-04)	41° 57' 23.38" N	76° 9' 54.06" W
37-015-21476-00	[redacted] T 05 082 05 5H OG WELL	Permitted	(05-082-05)	41° 57' 23.44" N	76° 9' 53.67" W
37-015-21497-00	[redacted] 03 053 01 J 1H OG WELL	Permitted	(03-053-01)	41° 49' 34.50" N	76° 51' 22.44" W
37-015-21498-00	[redacted] 03 053 02 J 2H OG WELL	Permitted	(03-053-02)	41° 49' 34.75" N	76° 51' 22.43" W
37-015-21499-00	[redacted] 03 053 03 J 3H OG WELL	Permitted	(03-053-03)	41° 49' 35.00" N	76° 51' 22.43" W
37-015-21500-00	[redacted] 03 053 04 J 4H OG WELL	Permitted	(03-053-04)	41° 49' 35.24" N	76° 51' 22.42" W
37-015-21501-00	[redacted] 03 053 05 J 5H OG WELL	Permitted	(03-053-05)	41° 49' 34.22" N	76° 51' 24.30" W

37-015-21459-00	[redacted] 05 097 04 R 4H OG WELL	Permitted	(05-097-04)	41° 54' 11.76" N	76° 13' 38.48" W
37-015-21460-00	[redacted] 05 097 05 R 5H OG WELL	Permitted	(05-097-05)	41° 54' 11.76" N	76° 13' 38.88" W
37-015-21461-00	[redacted] T 05 097 06 R 6H OG WELL	Permitted	(05-097-06)	41° 54' 11.75" N	76° 13' 39.28" W
37-015-21318-00	[redacted] 026 02 G 2H OG WELL	Permitted	(05-026-02)	41° 57' 37.91" N	76° 15' 23.65" W
37-015-21319-00	[redacted] 26 03 G 3H OG WELL	Permitted	(05-026-03)	41° 57' 37.74" N	76° 15' 23.32" W
37-015-21320-00	[redacted] 26 04 G 4H OG WELL	Permitted	(05-026-04)	41° 57' 37.57" N	76° 15' 23.00" W
37-015-21321-00	[redacted] 026 05 G 5H OG WELL	Permitted	(05-026-05)	41° 57' 37.40" N	76° 15' 22.67" W
37-015-21381-00	[redacted] 05 092 01 R 1H OG WELL	Permitted	(05-092-01)	41° 52' 19.22" N	76° 8' 14.47" W
37-015-21382-00	[redacted] 05 092 02 R 2H OG WELL	Permitted	(05-092-02)	41° 52' 19.27" N	76° 8' 13.11" W
37-015-21383-00	[redacted] 05 092 03 R 3H OG WELL	Permitted	(05-092-03)	41° 52' 19.61" N	76° 8' 13.02" W
37-015-21384-00	[redacted] 05 092 04 R 4H OG WELL	Permitted	(05-092-04)	41° 52' 19.95" N	76° 8' 12.93" W
37-015-21466-00	[redacted] 05 129 01 R 1H WELL	Permitted	(05-129-01)	41° 51' 42.29" N	76° 9' 2.56" W
37-015-21467-00	[redacted] 05 129 02 R 2H WELL	Permitted	(05-129-02)	41° 51' 43.49" N	76° 9' 3.27" W
37-015-21468-00	[redacted] 05 129 03 R 3H WELL	Permitted	(05-129-03)	41° 51' 43.20" N	76° 9' 3.34" W
37-015-21469-00	[redacted] 05 129 04 R 4H WELL	Permitted	(05-129-04)	41° 51' 42.91" N	76° 9' 3.41" W
37-015-21470-00	[redacted] 05 129 05 R 5H WELL	Permitted	(05-129-05)	41° 51' 42.62" N	76° 9' 3.48" W
37-015-21473-00	[redacted] T 05 082 02 2H OG WELL	Permitted	(05-082-02)	41° 57' 23.27" N	76° 9' 54.84" W
37-015-21474-00	[redacted] T 05 082 03 3H OG WELL	Permitted	(05-082-03)	41° 57' 23.33" N	76° 9' 54.45" W
37-015-21475-00	[redacted] T 05 082 04 4H OG WELL	Permitted	(05-082-04)	41° 57' 23.38" N	76° 9' 54.06" W
37-015-21476-00	[redacted] T 05 082 05 5H OG WELL	Permitted	(05-082-05)	41° 57' 23.44" N	76° 9' 53.67" W
37-015-21497-00	[redacted] 03 053 01 J 1H OG WELL	Permitted	(03-053-01)	41° 49' 34.50" N	76° 51' 22.44" W
37-015-21498-00	[redacted] 03 053 02 J 2H OG WELL	Permitted	(03-053-02)	41° 49' 34.75" N	76° 51' 22.43" W
37-015-21499-00	[redacted] 03 053 03 J 3H OG WELL	Permitted	(03-053-03)	41° 49' 35.00" N	76° 51' 22.43" W
37-015-21500-00	[redacted] 03 053 04 J 4H OG WELL	Permitted	(03-053-04)	41° 49' 35.24" N	76° 51' 22.42" W
37-015-21501-00	[redacted] 03 053 05 J 5H OG WELL	Permitted	(03-053-05)	41° 49' 34.22" N	76° 51' 24.30" W

37-015-21506-00	[redacted] 165 02 R 2H OG WELL	Permitted	(05-165-02)	41° 59' 7.30" N	76° 15' 1.40" W
37-015-21507-00	[redacted] 05 165 03 R 3H OG WELL	Permitted	(05-165-03)	41° 59' 7.57" N	76° 15' 1.58" W
37-015-21508-00	[redacted] 165 04 R 4H OG WELL	Permitted	(05-165-04)	41° 59' 7.83" N	76° 15' 1.76" W
37-015-21509-00	[redacted] 05 165 05 R 5H OG WELL	Permitted	(05-165-05)	41° 59' 8.10" N	76° 15' 1.94" W
37-015-21510-00	[redacted] N 05 165 06 R 6H OG	Permitted	(05-165-06)	41° 59' 8.36" N	76° 15' 2.12" W
37-015-21515-00	[redacted] 05 080 02 R OG WELL	Permitted	(05-080-02)	41° 56' 3.28" N	76° 11' 41.52" W
37-015-21516-00	[redacted] 05 080 03 R OG WELL	Permitted	(05-080-03)	41° 56' 3.22" N	76° 11' 41.91" W
37-015-21517-00	[redacted] 05 080 04 R OG WELL	Permitted	(05-080-04)	41° 56' 3.16" N	76° 11' 42.30" W
37-015-21518-00	[redacted] 05 080 05 R OG WELL	Permitted	(05-080-05)	41° 56' 3.10" N	76° 11' 42.69" W
37-015-21519-00	[redacted] 05 080 06 R OG WELL	Permitted	(05-080-06)	41° 56' 3.03" N	76° 11' 43.08" W
37-015-21186-00	[redacted] N 05 009 02 V 2H OG WELL - REPERMITTED	Permitted	(05-009-02)	41° 49' 51.08" N	76° 7' 51.80" W
37-015-21187-00	[redacted] 5 009 03 V 3H OG WELL - REPERMITTED	Permitted	(05-009-03)	41° 49' 51.10" N	76° 7' 51.40" W
37-015-21188-00	[redacted] N 05 009 04 V 4H OG WELL - REPERMITTED	Permitted	(05-009-04)	41° 49' 51.11" N	76° 7' 51.01" W
37-015-21189-00	[redacted] N 05 009 05 V 5H OG WELL - REPERMITTED	Permitted	(05-009-05)	41° 49' 51.13" N	76° 7' 50.61" W
37-015-21190-00	[redacted] 5 009 06 V 6H OG WELL - REPERMITTED	Permitted	(05-009-06)	41° 49' 51.15" N	76° 7' 50.22" W
37-015-21485-00	[redacted] 05 180 02 2H OG WELL	Permitted	(05-180-02)	41° 56' 33.73" N	76° 18' 52.19" W
37-015-21486-00	[redacted] 180 03 3H OG WELL	Permitted	(05-180-03)	41° 56' 33.47" N	76° 18' 51.99" W
37-015-21487-00	[redacted] 5 180 04 4H OG WELL	Permitted	(05-180-04)	41° 56' 33.22" N	76° 18' 51.78" W
37-015-21488-00	[redacted] 180 05 5H OG WELL	Permitted	(05-180-05)	41° 56' 32.96" N	76° 18' 51.58" W
37-015-21489-00	[redacted] 05 180 06 6H OG WELL	Permitted	(05-180-06)	41° 56' 32.71" N	76° 18' 51.38" W
37-015-21542-00	[redacted] 049 02 D 2H OG WELL	Permitted	(03-049-02)	41° 57' 6.83" N	76° 51' 6.87" W
37-015-21543-00	[redacted] 03 049 03 D 3H OG WELL	Permitted	(03-049-03)	41° 57' 6.60" N	76° 51' 6.98" W

37-015-21544-00	[redacted] 3 049 04 D 4H OG WELL	Permitted	(03-049-04)	41° 57' 6.37" N	76° 51' 7.09" W
37-015-21545-00	[redacted] 3 049 05 D 5H OG WELL	Permitted	(03-049-05)	41° 57' 6.14" N	76° 51' 7.21" W
37-015-21546-00	[redacted] 3 049 06 D 6H OG WELL	Permitted	(03-049-06)	41° 57' 5.90" N	76° 51' 7.32" W
37-015-21567-00	[redacted] 05 223 02 W 2H OG WELL	Permitted	(05-223-02)	41° 57' 55.14" N	76° 16' 47.82" W
37-015-21568-00	[redacted] 223 03 W 3H OG WELL	Permitted	(05-223-03)	41° 57' 55.31" N	76° 16' 48.13" W
37-015-21569-00	[redacted] 5 223 04 W 4H OG WELL	Permitted	(05-223-04)	41° 57' 55.49" N	76° 16' 48.45" W
37-015-21595-00	[redacted] 5 046 02 W 2H OG WELL	Permitted	(05-046-02)	41° 54' 37.88" N	76° 10' 59.38" W
37-015-21596-00	[redacted] 5 046 03 W 3H OG WELL	Permitted	(05-046-03)	41° 54' 37.62" N	76° 10' 59.56" W
37-015-21597-00	[redacted] 046 04W 4H OG WELL	Permitted	(05-046-04)	41° 54' 37.36" N	76° 10' 59.74" W
37-015-21598-00	[redacted] 05 046 05 W 5H OG WELL	Permitted	(05-046-05)	41° 54' 37.09" N	76° 10' 59.92" W
37-015-21599-00	[redacted] 05 046 06 W 6H OG WELL	Permitted	(05-046-06)	41° 54' 36.83" N	76° 11' 0.11" W
37-117-20811-00	DCNR 587 02 003 01 OG WELL - REPERMITTED	Permitted	(02-003-01)	41° 42' 11.30" N	76° 56' 52.16" W
37-117-20812-00	DCNR 587 02 003 02 OG WELL - REPERMITTED	Permitted	(02-003-02)	41° 42' 11.60" N	76° 56' 52.09" W
37-117-20813-00	DCNR 587 02 003 03 OG WELL - REPERMITTED	Permitted	(02-003-03)	41° 42' 11.89" N	76° 56' 52.02" W
37-117-20814-00	DCNR 587 02 003 04 OG WELL - REPERMITTED	Permitted	(02-003-04)	41° 42' 12.18" N	76° 56' 51.95" W
37-117-20815-00	DCNR 587 02 003 05 OG WELL - REPERMITTED	Permitted	(02-003-05)	41° 42' 12.20" N	76° 56' 53.95" W
37-117-20816-00	DCNR 587 02 003 06 OG WELL - REPERMITTED	Permitted	(02-003-06)	41° 42' 11.91" N	76° 56' 54.02" W
37-117-21204-00	DCNR 587 02 003 07 OG WELL	Permitted	(02-003-07)	41° 42' 11.33" N	76° 56' 54.16" W
37-117-21205-00	DCNR 587 02 003 08 OG WELL	Permitted	(02-003-08)	41° 42' 11.62" N	76° 56' 54.09" W
37-117-21206-00	DCNR 587 02 015 01 OG WELL	Permitted	(02-015-01)	41° 41' 28.11" N	76° 57' 20.92" W
37-117-21207-00	DCNR 587 02 015 02 OG WELL	Permitted	(02-015-02)	41° 41' 28.18" N	76° 57' 21.37" W
37-117-21208-00	DCNR 587 02 015 03 OG WELL	Permitted	(02-015-03)	41° 41' 28.24" N	76° 57' 21.83" W
37-117-21209-00	DCNR 587 02 015 04 OG WELL	Permitted	(02-015-04)	41° 41' 28.31" N	76° 57' 22.28" W

37-117-21210-00	DCNR 587 02 015 05 OG WELL	Permitted	(02-015-05)	41° 41' 28.37" N	76° 57' 22.73" W
37-015-21614-00	[redacted] 05 178 01 1H OG WELL	Permitted	(05-178-01)	41° 56' 45.05" N	76° 20' 4.28" W
37-015-21615-00	[redacted] 05 178 02 2H OG WELL	Permitted	(05-178-02)	41° 56' 46.30" N	76° 20' 3.22" W
37-015-21616-00	[redacted] 05 178 03 3H OG WELL	Permitted	(05-178-03)	41° 56' 46.14" N	76° 20' 2.88" W
37-015-21617-00	[redacted] 05 178 04 4H OG WELL	Permitted	(05-178-04)	41° 56' 45.98" N	76° 20' 2.55" W
37-015-21618-00	[redacted] 05 178 05 5H OG WELL	Permitted	(05-178-05)	41° 56' 45.82" N	76° 20' 2.21" W
37-015-21619-00	[redacted] 05 178 06 6H OG WELL	Permitted	(05-178-06)	41° 56' 45.67" N	76° 20' 1.88" W
37-015-21624-00	[redacted] 03 073 01 G 1H OG WELL	Permitted	(03-073-01)	41° 49' 2.87" N	76° 48' 34.39" W
37-015-21625-00	[redacted] 03 073 02 G 2H OG WELL	Permitted	[redacted]	[redacted]	76° 48' 34.35" W
37-015-21626-00	[redacted] 03 073 03 G 3H OG WELL	Permitted	(03-073-03)	41° 49' 2.38" N	76° 48' 34.31" W
37-015-21627-00	[redacted] 03 073 04 G 4H OG WELL	Permitted	(03-073-04)	41° 49' 2.13" N	76° 48' 34.26" W
37-015-21628-00	[redacted] 03 073 05 G 5H OG WELL	Permitted	(03-073-05)	41° 49' 1.89" N	76° 48' 34.22" W
37-015-21629-00	[redacted] 03 073 06 G 6H OG WELL	Permitted	(03-073-06)	41° 49' 1.64" N	76° 48' 34.18" W
37-015-21630-00	[redacted] 03 073 07 G 7H OG WELL	Permitted	(03-073-07)	41° 49' 1.40" N	76° 48' 34.13" W
37-015-21611-00	[redacted] 05 167 01 R 1H OG WELL	Permitted	(05-167-01)	41° 59' 27.35" N	76° 14' 55.32" W
37-015-21612-00	[redacted] 05 167 02 R 2H OG WELL	Permitted	(05-167-02)	41° 59' 27.11" N	76° 14' 55.54" W
37-015-21613-00	[redacted] 05 167 03 R 3H OG WELL	Permitted	(05-167-03)	41° 59' 26.86" N	76° 14' 55.76" W
37-015-21631-00	[redacted] 05 102 01 E 1H OG WELL	Permitted	(05-102-01)	41° 54' 55.80" N	76° 9' 33.44" W
37-015-21632-00	[redacted] 05 102 02 E 2H OG WELL	Permitted	(05-102-02)	41° 54' 54.59" N	76° 9' 32.29" W
37-015-21633-00	[redacted] 05 102 03 E 3H OG WELL	Permitted	(05-102-03)	41° 54' 54.42" N	76° 9' 32.61" W
37-015-21634-00	[redacted] 102 04 E 4H OG WELL	Permitted	(05-102-04)	41° 54' 54.25" N	76° 9' 32.93" W
37-015-21640-00	[redacted] 05 081 01 D 1H OG WELL	Permitted	(05-081-01)	41° 55' 5.58" N	76° 16' 5.22" W
37-015-21641-00	[redacted] 05 081 02 D 2H OG WELL	Permitted	(05-081-02)	41° 55' 5.29" N	76° 16' 5.31" W
37-015-21642-00	[redacted] 05 081 03 D 3H OG WELL	Permitted	(05-081-03)	41° 55' 5.00" N	76° 16' 5.39" W

37-015-21643-00	[redacted] 05 081 04 D 4H OG WELL	Permitted	(05-081-04)	41° 55' 4.71" N	76° 16' 5.48" W
37-015-21644-00	[redacted] 081 05 D 5H OG WELL	Permitted	(05-081-05)	41° 55' 4.42" N	76° 16' 5.56" W
37-015-21638-00	[redacted] 058 03 J 3H OG WELL	Permitted	(05-058-03)	41° 53' 8.66" N	76° 14' 6.81" W
37-015-21639-00	[redacted] 058 04 J 4H OG WELL	Permitted	(05-058-04)	41° 53' 8.69" N	76° 14' 7.20" W
37-015-21636-00	[redacted] 058-01 J 1H OG WELL	Permitted	(05-058-01)	41° 53' 9.62" N	76° 14' 6.28" W
37-015-21637-00	[redacted] 58-02 J 2H OG WELL	Permitted	(05-058-02)	41° 53' 8.63" N	76° 14' 6.41" W
37-117-21091-00	[redacted] 02 100 01 R 1H OG WELL	Permitted	(02-100-01)	41° 43' 53.15" N	77° 3' 2.99" W
37-117-21092-00	[redacted] 02 100 02 R 2H OG WELL	Permitted	(02-100-02)	41° 43' 52.87" N	77° 3' 2.86" W
37-117-21093-00	[redacted] 02 100 03 R 3H OG WELL	Permitted	(02-100-03)	41° 43' 52.59" N	77° 3' 2.74" W
37-117-21094-00	[redacted] 02 100 04 R 4H OG WELL	Permitted	(02-100-04)	41° 43' 52.31" N	77° 3' 2.62" W
37-117-21095-00	[redacted] 02 100 05 R 5H OG WELL	Permitted	(02-100-05)	41° 43' 52.03" N	77° 3' 2.50" W
37-117-21096-00	[redacted] R 02 100 06 R 6H OG WELL	Permitted	(02-100-06)	41° 43' 51.74" N	77° 3' 2.38" W
37-015-21606-00	[redacted] 100 01 R 1H OG WELL	Permitted	(05-100-01)	41° 55' 15.53" N	76° 10' 18.25" W
37-015-21607-00	[redacted] 100 02 R 2H OG WELL	Permitted	(05-100-02)	41° 55' 15.27" N	76° 10' 18.05" W
37-015-21608-00	[redacted] 100 03 R 3H OG WELL	Permitted	(05-100-03)	41° 55' 15.01" N	76° 10' 17.85" W
37-015-21609-00	[redacted] 100 04 R 4H OG WELL	Permitted	(05-100-04)	41° 55' 14.75" N	76° 10' 17.66" W
37-015-21610-00	[redacted] 100 05 R 5H OG WELL	Permitted	(05-100-05)	41° 55' 14.50" N	76° 10' 17.46" W

[redacted]

Valid Permits 234

Well Transfer Status

Transferred to Talisman USA				
Transferred to TEUSA	Permit #	Date of Transfer	Town	County
[redacted] 264 1H	37-117-20330-00	1/8/2010	Jackson	Tioga
[redacted] 10 5H	37-117-20391-00	6/22/2010	Jackson	Tioga
[redacted] 04 1H	37-117-20327-00	3/1/2010	Jackson	Tioga
[redacted] 08 1H	37-117-20325-00	3/1/2010	Jackson	Tioga
[redacted] 6 1H	37-117-20324-00	6/22/2010	Jackson	Tioga
[redacted] 02 1H	37-117-20328-00	6/22/2010	Jackson	Tioga
[redacted] 7 1H	37-117-20304-00	3/1/2010	Jackson	Tioga
[redacted] 61 1H	37-117-20297-00	1/7/2010	Jackson	Tioga
[redacted] 71-1H	37-117-20296-00	1/8/2010	Jackson	Tioga
[redacted]	37-117-20197-00	?	Jackson	Tioga
[redacted] 59 1H	37-117-20298-00	1/7/2010	Jackson	Tioga
[redacted] h 269 1H	37-117-20299-00	1/8/2010	Jackson	Tioga
[redacted] 268 1H	37-117-20301-00	1/7/2010	Jackson	Tioga
[redacted] 2 1H	37-117-20295-00	1/8/2010	Jackson	Tioga

WELL 911 STREET ADDRESS	STATE	County (location of well)	Town (location of well)	Latitude North	Longitude West
[redacted]	PA	Tioga	Jackson	41.991175	-76.956719
[redacted]	PA	Tioga	Jackson	41.954631	-76.954706
[redacted]	PA	Tioga	Jackson	41.936206	-77.01975
[redacted]	PA	Tioga	Jackson	41.947025	-76.977608
[redacted]	PA	Tioga	Jackson	41.931456	-76.993294
[redacted]	PA	Tioga	Jackson	41.92622	-77.045198
[redacted]	PA	Tioga	Jackson	41.987964	-77.051917
[redacted]	PA	Tioga	Jackson	41.988425	-76.991133
[redacted]	PA	Tioga	Jackson	41.963478	-77.0004
[redacted]	PA	Tioga	Jackson	41.984136	77.026672
[redacted] ve	PA	Tioga	Jackson	41.989	-77.014
[redacted]	PA	Tioga	Jackson	41.958998	-77.022233
[redacted]	PA	Tioga	Jackson	41.966686	-77.0386
[redacted]	PA	Tioga	Jackson	41.98925	-76.979903

Talisman App 16

Talisman App 1(d)

NON-OPERATED
Talisman

Well Name	Operator	Town	County	State
[redacted]	Alta Resources, L.L.C.	Liberty	Susquehanna	PA
[redacted] 1H	Alta Resources, L.L.C.	Liberty	Susquehanna	PA
[redacted] 5H	Chesapeake Appalachia, L.L.C.	West Burlington	Bradford	PA
[redacted] H	Chesapeake Appalachia, L.L.C.	Terry/Albany	Bradford	PA
[redacted] H	Chesapeake Appalachia, L.L.C.	Terry/Albany	Bradford	PA
[redacted] 2H	Chesapeake Appalachia, L.L.C.	Standing Stone	Bradford	PA
[redacted] H	Chesapeake Appalachia, L.L.C.	Orwell	Bradford	PA
[redacted] 5H	Chesapeake Appalachia, L.L.C.	Standing Stone	Bradford	PA
[redacted] 2H	Chesapeake Appalachia, L.L.C.	Smithfield	Bradford	PA
[redacted] 2H	Chesapeake Appalachia, L.L.C.	Terry	Bradford	PA
[redacted] 2H	Chesapeake Appalachia, L.L.C.	Herrick	Bradford	PA
[redacted] 5H	Chesapeake Appalachia, L.L.C.	Smithfield	Bradford	PA
[redacted] H	Chesapeake Appalachia, L.L.C.	Orwell	Bradford	PA
[redacted] 5H	Chesapeake Appalachia, L.L.C.	Tuscarora	Bradford	PA
[redacted] 2H	East Resources, Inc.	Jackson	Tioga	PA
[redacted] 3H	East Resources, Inc.	Jackson	Tioga	PA
[redacted] 4H	East Resources, Inc.	Jackson	Tioga	PA
[redacted] 5H	East Resources, Inc.	Jackson	Tioga	PA
[redacted] 6H	East Resources, Inc.	Jackson	Tioga	PA
[redacted] 1H	East Resources, Inc.	Jackson	Tioga	PA
[redacted] 3H	East Resources, Inc.	Jackson	Tioga	PA
[redacted] 4H	East Resources, Inc.	Jackson	Tioga	PA
[redacted] 5H	East Resources, Inc.	Jackson	Tioga	PA
[redacted] 6H	East Resources, Inc.	Jackson	Tioga	PA
[redacted] rd 1H	Chesapeake Appalachia, L.L.C.	Standing Stone	Bradford	PA
[redacted] H	Chesapeake Appalachia, L.L.C.	Herrick	Bradford	PA
[redacted]	Chesapeake Appalachia, L.L.C.	Wyalusing	Bradford	PA
[redacted] H	Chesapeake Appalachia, L.L.C.	Rome	Bradford	PA
[redacted]	Chesapeake Appalachia, L.L.C.	Wyalusing	Bradford	PA
[redacted] 2H	Chesapeake Appalachia, L.L.C.	Orwell	Bradford	PA
[redacted] 5H	Chesapeake Appalachia, L.L.C.	Orwell	Bradford	PA
[redacted] H	Chesapeake Appalachia, L.L.C.	Smithfield	Bradford	PA
[redacted] 2H	Chesapeake Appalachia, L.L.C.	Litchfield	Bradford	PA
[redacted] 2H	Chesapeake Appalachia, L.L.C.	Litchfield	Bradford	PA
[redacted] i 5H	Chesapeake Appalachia, L.L.C.	Wyalusing	Bradford	PA
[redacted] 5H	Chesapeake Appalachia, L.L.C.	Litchfield	Bradford	PA
[redacted] 2H	Chesapeake Appalachia, L.L.C.	Litchfield	Bradford	PA
[redacted] 2H	Chesapeake Appalachia, L.L.C.	Rome	Bradford	PA
[redacted] H	Chesapeake Appalachia, L.L.C.	Rome	Bradford	PA
[redacted] r 4H	Carrizo Oil & Gas, Inc.	Forest Lake	Susquehanna	PA
[redacted] H	Chesapeake Appalachia, L.L.C.	Rome	Bradford	PA
[redacted]	Chesapeake Appalachia, L.L.C.	Smithfield	Bradford	PA
[redacted] 5H	Chesapeake Appalachia, L.L.C.	Ulster	Bradford	PA
[redacted]	Chesapeake Appalachia, L.L.C.	Herrick	Bradford	PA
[redacted] H	Chesapeake Appalachia, L.L.C.	Wysox	Bradford	PA
[redacted] an 2H	Chesapeake Appalachia, L.L.C.	Litchfield	Bradford	PA
[redacted] 2H	Chesapeake Appalachia, L.L.C.	Rome	Bradford	PA
[redacted] 5H	Chesapeake Appalachia, L.L.C.	Rome	Bradford	PA
[redacted] H	Chesapeake Appalachia, L.L.C.	Rome	Bradford	PA
[redacted] 2H	Chesapeake Appalachia, L.L.C.	Standing Stone	Bradford	PA
EDF 1H	Chesapeake Appalachia, L.L.C.	Meshoppen	Wyoming	PA

NON-OPERATED
Talisman

[redacted]/5H	Chesapeake Appalachia, L.L.C.	Wysox	Bradford	PA
[redacted]n 2H	Chesapeake Appalachia, L.L.C.	Leroy	Bradford	PA
[redacted]5H	Chesapeake Appalachia, L.L.C.	Athens	Bradford	PA
[redacted]i 2H	Chesapeake Appalachia, L.L.C.	Wyalusing	Bradford	PA
[redacted]2H	Chesapeake Appalachia, L.L.C.	Herrick	Bradford	PA
[redacted]H	Chesapeake Appalachia, L.L.C.	Litchfield	Bradford	PA
[redacted]ee 2H	EOG Resources, Inc.	Springfield	Bradford	PA
[redacted]ollow 2H	Chesapeake Appalachia, L.L.C.	Smithfield	Bradford	PA
[redacted]2H	Chesapeake Appalachia, L.L.C.	Ulster	Bradford	PA
[redacted]n 2H	Chesapeake Appalachia, L.L.C.	Orwell	Bradford	PA
[redacted] 4H	Chesapeake Appalachia, L.L.C.	Wyalusing	Bradford	PA
[redacted]	Chesapeake Appalachia, L.L.C.	Albany	Bradford	PA
[redacted]iew Farms 3	Chesapeake Appalachia, L.L.C.	Leroy	Bradford	PA
[redacted]H	Chesapeake Appalachia, L.L.C.	Overton	Bradford	PA
[redacted]r North 4H	Chesapeake Appalachia, L.L.C.	Rome	Bradford	PA
[redacted]5H	Chesapeake Appalachia, L.L.C.	Asylum	Bradford	PA
[redacted]5H	Chesapeake Appalachia, L.L.C.	Rome	Bradford	PA
[redacted]H	Chesapeake Appalachia, L.L.C.	Litchfield	Bradford	PA
[redacted]d 4H	Chesapeake Appalachia, L.L.C.	Sheshequin	Bradford	PA
[redacted]H	Chesapeake Appalachia, L.L.C.	Liberty	Tioga	PA
[redacted]North 5H	Chesapeake Appalachia, L.L.C.	Rome	Bradford	PA
[redacted]n 5H	Chesapeake Appalachia, L.L.C.	Ulster	Bradford	PA
[redacted]NE 1H	Chesapeake Appalachia, L.L.C.	Sheshequin	Bradford	PA
[redacted]ck 3H	Chesapeake Appalachia, L.L.C.	Rome	Bradford	PA
[redacted] 5H	Chesapeake Appalachia, L.L.C.	Sheshequin	Bradford	Pa
[redacted]k 2H	Chesapeake Appalachia, L.L.C.	Fox	Sullivan	PA
[redacted]2H	Chesapeake Appalachia, L.L.C.	Smithfield	Bradford	PA
[redacted]ss 4H	Chesapeake Appalachia, L.L.C.	Rush	Susquehanna	PA
[redacted]ss 5H	Chesapeake Appalachia, L.L.C.	Rush	Susquehanna	PA
[redacted]ss 6H	Chesapeake Appalachia, L.L.C.	Rush	Susquehanna	PA
[redacted] 3H	Chesapeake Appalachia, L.L.C.	Wyalusing	Bradford	PA
[redacted]e 5H	Chesapeake Appalachia, L.L.C.	Auburn Township	Susquehanna	PA
[redacted]H	Chesapeake Appalachia, L.L.C.	Smithfield	Bradford	PA
[redacted]5H	Chesapeake Appalachia, L.L.C.	Smithfield	Bradford	PA
[redacted]n 2H	Chesapeake Appalachia, L.L.C.	Orwell Rome	Bradford	PA
[redacted]H	Chesapeake Appalachia, L.L.C.	Litchfield	Bradford	PA
[redacted] 5H	Chesapeake Appalachia, L.L.C.	Litchfield	Bradford	PA
[redacted]5H	Chesapeake Appalachia, L.L.C.	Litchfield	Bradford	PA
[redacted]57 2H	SWEPI	Jackson&Lawrence	Tioga	PA
[redacted]57 3H	SWEPI	Jackson&Lawrence	Tioga	PA
[redacted]57 4H	SWEPI	Jackson&Lawrence	Tioga	PA
[redacted]57 5H	SWEPI	Jackson&Lawrence	Tioga	PA
[redacted]57 6H	SWEPI	Jackson&Lawrence	Tioga	PA
[redacted]H	Chesapeake Appalachia, L.L.C.	Ulster Township	Bradford	PA
[redacted]T 258 1H	SWEPI	Jackson Township	Tioga	PA
[redacted]5H	Chesapeake Appalachia, L.L.C.	Smithfield	Bradford	PA
[redacted]1H	Chief	Lenox	Susquehanna	PA
[redacted]5H	Chesapeake Appalachia, L.L.C.	Litchfield	Bradford	PA
[redacted]n 5H	Chesapeake Appalachia, L.L.C.	Litchfield	Bradford	PA
[redacted]BRA 2H	Chesapeake Appalachia, L.L.C.	Sringfield/Smithfiel	Bradford	PA
[redacted]	Talisman Energy USA Inc.	Litchfield	Bradford	PA

NON-OPERATED
Talisman

[redacted]	Chesapeake Appalachia, L.L.C.	Athens	Bradford	PA
[redacted]	Talisman Energy USA Inc.	Litchfield	Bradford	PA
[redacted]1-A	Talisman Energy USA Inc.	Nelson	Tioga	PA
[redacted]#1	Shell - SWEPI	Jackson	Tioga	PA
[redacted] 261#1H	Shell - SWEPI	Jackson	Tioga	PA
[redacted] 259#1H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]r 268 #1H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]271 #1H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]262-1H	Shell - SWEPI	Jackson	Tioga	PA
[redacted] 269 #1H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]406-1H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]408-1H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]404-1H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]264-1H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]412-1H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]e 257-1H	Shell - SWEPI		Tioga	PA
[redacted]a 457-1H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]8-1H	Shell - SWEPI	Jackson	Tioga	PA
[redacted] 410-5H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]402-1H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]259 5H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]259 4H	Shell - SWEPI	Jackson	Tioga	PA
[redacted] 259 2H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]259 3H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]261 3H	Shell - SWEPI	Jackson	Tioga	PA
[redacted] 259 6H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]261 2H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]261 5H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]261 6H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]261 4H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]400-1H	Shell - SWEPI	Jackson	Tioga	PA
[redacted]ll 456-2H	Shell - SWEPI	Jackson	Tioga	PA

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name Talisman Energy USA Inc.				
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				**EPA Generator ID#** N/A
Company Mailing Address Line 1 50 Pennwood Place		**Company Mailing Address Line 2**		
Company Address Last Line – City Warrendale	**State** PA	**Zip+4** 15086	**Phone** (724) 814-5300	**Ext**
Company Contact Last Name Brown	**First Name** Dina	**MI**	**Suffix**	
Municipality Warrendale		**County** Allegheny		
Contact Phone (724) 814-5321	**Ext**	**Contact Email Address** dybrown@talismanusa.com		

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted]264 1 H well pad site located at 2501 Skyline Drive, Jackson Township, Tioga County, PA. The waste is temporarily stored in tanks onsite.

Municipality Jackson **County** Tioga **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	1,159	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a.	**pH Range**	6 to 7 (based on analyses or knowledge)
b.	**Physical State**	☒ Liquid Waste (EPA Method 9095) ☐ Solid (EPA Method 9095) ☐ Gas (ambient temperature & pressure)
c.	**Physical Appearance**	**Color** translucent yellow/brown **Odor** hydrocarbon **Number of Solid or Liquid Phases of Separation** One **Describe each phase of separation.** Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
MDD980555189

b.

Facility Name	Clean Harbors of Baltimore		
Address Line 1	1910 Russell St		
Address Line 1			
Address City State ZIP	Baltimore	MD	21230
Municipality	Baltimore	**County**	

c.

Facility Contact Name			
Title			
Phone	410-244-8200	**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
446 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road		
Address Line 1	P.O. Box 517		
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	**County**	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1235	**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
259 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	County	Venango

c.

Facility Contact Name	Elton DeLong		
Title	Plant Manager		
Phone	(814) 437-3593	Email Address	info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
229 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
010278

b.

Facility Name	Waste Treatment Corp. Warren County		
Address Line 1			
Address Line 1			
Address City State ZIP	Warren	PA	16365
Municipality	Warren	County	Warren

c.

Facility Contact Name	Rich Gorton		
Title			
Phone	814-726-1500	Email Address	info@waste-treatment.net

d. Volume of waste shipped to processing or disposal facility in the previous year.
225 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature Dina Brown **Date** 2/25/14

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] (03- 009) well pad site located at 1528 Sanitarium Hill Road, Columbia Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Columbia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	1,606	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
MDD980555189

b. Facility Name: Clean Harbors
Address Line 1: 1910 Russell St
Address Line 1:
Address City State ZIP: Baltimore MD 21230
Municipality: Baltimore County:

c. Facility Contact Name:
Title:
Phone: 410-244-8200 Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
1,563 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b. Facility Name: PA Brine
Address Line 1: 5148 US 322
Address Line 1:
Address City State ZIP: Franklin PA 16323
Municipality: Franklin County: Venango

c. Facility Contact Name: Elton DeLong
Title: Plant Manager
Phone: (814) 437-3593 Email Address: info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
42 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/11

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] (01-025) B well pad site located at 6130 Fallbrook Road, Troy Township, Bradford County, PA. Waste is temporarily stored in tanks on site.

Municipality Troy **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	378	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
MDD980555189

b.

Facility Name	Clean Harbors of Baltimore		
Address Line 1	1910 Russell St		
Address Line 1			
Address City State ZIP	Baltimore	MD	21230
Municipality	Baltimore	**County**	

c.

Facility Contact Name			
Title			
Phone	410-244-8200	**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
22 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road		
Address Line 1	P.O. Box 517		
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	**County**	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1250	**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
283 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.	Facility Name	PA Brine		
	Address Line 1	5148 US 322		
	Address Line 1			
	Address City State ZIP	Franklin	PA	16323
	Municipality	Franklin	County	Venango
c.	Facility Contact Name	Elton DeLong		
	Title	Plant Manager		
	Phone	(814) 437-3593	Email Address	info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
25 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
010278

b.	Facility Name	Waste Treatment Corp. Warren County		
	Address Line 1			
	Address Line 1			
	Address City State ZIP	Warren	PA	16365
	Municipality	Warren	County	Warren
c.	Facility Contact Name	Rich Gorton		
	Title			
	Phone	814-726-1500	Email Address	info@waste-treatment.net

d. Volume of waste shipped to processing or disposal facility in the previous year.
47 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/11

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
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ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted]03-015) J well pad site located at 368 Beaman Road, Columbia Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Columbia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	1,729	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	**County**	Venango

c.

Facility Contact Name	Elton DeLong		
Title	Plant Manager		
Phone	(814) 437-3593	**Email Address**	info@pabrine.com

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
992 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0102784

b.

Facility Name	Waste Treatment Corp. Warren County		
Address Line 1	341 West Harmar Street		
Address Line 1			
Address City State ZIP	Warren	PA	16365
Municipality	Warren	**County**	Warren

c.

Facility Contact Name	Rich Gorton		
Title			
Phone	814-726-1500	**Email Address**	info@waste-treatment.net

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
738 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature Dina S Brown **Date** 2/25/14

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] (01-047) J well pad site loacted at 2196 Fallbrook Road, Armenia Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Armenia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	1,304	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	**County**	Venango

c.

Facility Contact Name	Elton DeLong		
Title	Plant Manager		
Phone	(814) 437-3593	**Email Address**	info@pabrine.com

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
444 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0102784

b.

Facility Name	Waste Treatment Corp. Warren County		
Address Line 1	341 West Harmar Street		
Address Line 1			
Address City State ZIP	Warren	PA	16365
Municipality	Warren	**County**	Warren

c.

Facility Contact Name	Rich Gorton		
Title			
Phone	814-726-1500	**Email Address**	info@waste-treatment.net

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
143 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road		
Address Line 1	P.O. Box 517		
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	County	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1235	Email Address	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
718 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**

b.

Facility Name			
Address Line 1			
Address Line 1			
Address City State ZIP			
Municipality		County	

c.

Facility Contact Name			
Title			
Phone		Email Address	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.	☐ Yes	☒ No

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/14

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] (01-005) R well pad site located at 1051 Cease Drive, Troy Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Troy **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	391	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	County	Venango

c.

Facility Contact Name	Elton DeLong		
Title	Plant Manager		
Phone	(814) 437-3593	Email Address	info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
69 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road		
Address Line 1	P.O. Box 517		
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	County	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1235	Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
44 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. Process Description & Schematic Attachments

a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
MDD980555189

b.
Facility Name: Clean Harbors of Baltimore
Address Line 1: 1910 Russell St
Address Line 1:
Address City State ZIP: Baltimore MD 21230
Municipality: Baltimore County:

c.
Facility Contact Name:
Title:
Phone: 410-244-8200 Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
278 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b.
Facility Name:
Address Line 1:
Address Line 1:
Address City State ZIP:
Municipality: County:

c.
Facility Contact Name:
Title:
Phone: Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/14

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name Talisman Energy USA Inc.				
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				**EPA Generator ID#** N/A
Company Mailing Address Line 1 50 Pennwood Place		**Company Mailing Address Line 2**		
Company Address Last Line – City Warrendale	**State** PA	**Zip+4** 15086	**Phone** (724) 814-5300	**Ext**
Company Contact Last Name Brown	**First Name** Dina	**MI**	**Suffix**	
Municipality Warrendale		**County** Allegheny		
Contact Phone (724) 814-5321	**Ext**	**Contact Email Address** dybrown@talismanusa.com		

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] (03-067) O well pad site located at 945 Hulslander Road, Columbia Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Columbia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	1,058	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a.	**pH Range**	6 to 7 (based on analyses or knowledge)
b.	**Physical State**	☒ Liquid Waste (EPA Method 9095) ☐ Solid (EPA Method 9095) ☐ Gas (ambient temperature & pressure)
c.	**Physical Appearance**	**Color** Translucent yellow/brown **Odor** Hydrocarbon **Number of Solid or Liquid Phases of Separation** One **Describe each phase of separation.** Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
MDD980555189

b. Facility Name: Clean Harbors of Baltimore
Address Line 1: 1910 Russell St
Address Line 1:
Address City State ZIP: Baltimore MD 21230
Municipality: Baltimore County:

c. Facility Contact Name:
Title:
Phone: 410-244-8200 Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
1,058 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b. Facility Name:
Address Line 1:
Address Line 1:
Address City State ZIP:
Municipality: County:

c. Facility Contact Name:
Title:
Phone: Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/11

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name Talisman Energy USA Inc.				
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				**EPA Generator ID#** N/A
Company Mailing Address Line 1 50 Pennwood Place		**Company Mailing Address Line 2**		
Company Address Last Line – City Warrendale	**State** PA	**Zip+4** 15086	**Phone** (724) 814-5300	**Ext**
Company Contact Last Name Brown	**First Name** Dina	**MI**	**Suffix**	
Municipality Warrendale		**County** Allegheny		
Contact Phone (724) 814-5321	**Ext**	**Contact Email Address** dybrown@talismanusa.com		

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the DCNR 587 02-001 well pad site located at 273 Fellows Creek Road, Ward Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Ward **County** Tioga **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	2,131	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	**County**	Venango

c.

Facility Contact Name	Elton DeLong		
Title	Plant Manager		
Phone	(814) 437-3593	**Email Address**	info@pabrine.com

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
327 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road		
Address Line 1	P.O. Box 517		
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	**County**	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1235	**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
1,669 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a.	**Has the waste been approved for beneficial use?**	☐ Yes	☒ No	
	If "Yes", list the general permit number or approval number.			
b.	**Volume of waste beneficially used in the previous year.** ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)			

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
MDD980555189

b.	Facility Name	Clean Harbors of Baltimore		
	Address Line 1	1910 Russell St		
	Address Line 1			
	Address City State ZIP	Baltimore	MD	21230
	Municipality	Baltimore	County	
c.	Facility Contact Name			
	Title			
	Phone	410-244-8200	Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
113 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0102784

b.	Facility Name	Waste Treatment Corp. Warren County		
	Address Line 1	341 West Harmar Street		
	Address Line 1			
	Address City State ZIP	Warren	PA	16365
	Municipality	Warren	County	Warren
c.	Facility Contact Name	Rich Gorton		
	Title			
	Phone	814-726-1500	Email Address	info@waste-treatment.net

d. Volume of waste shipped to processing or disposal facility in the previous year.
22 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/14

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated from the drilling, completion, and production of natural gas at the DCNR 587 02-002 well pad site located at 374 Fellows Creek Road, Ward Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Ward **County** Tioga **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	85	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0102784

b.
Facility Name	Waste Treatment Corp. Warren County		
Address Line 1	341 West Harmar Street		
Address Line 1			
Address City State ZIP	Warren	PA	
Municipality	Warren	**County**	Warren

c.
Facility Contact Name	Rich Gorton		
Title			
Phone	814-726-1500	**Email Address**	infor@waste-treatment.net

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
85 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**

b.
Facility Name			
Address Line 1			
Address Line 1			
Address City State ZIP			
Municipality		**County**	

c.
Facility Contact Name			
Title			
Phone		**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a.	**Has the waste been approved for beneficial use?**	☐ Yes	☒ No	
	If "Yes", list the general permit number or approval number.			
b.	**Volume of waste beneficially used in the previous year.** ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)			

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown

Title Environmental Specialist

Signature _____

Date 2/25/11

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the DCNR 587 02-005 well pad site located at 151 Carey Road, Ward Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Ward **County** Tioga **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	259	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. pH Range 6 to 7 (based on analyses or knowledge)

b. Physical State
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. Physical Appearance
Color Translucent yellow/brown Odor Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
MDD980555189

b.

Facility Name	Clean Harbors of Baltimore		
Address Line 1	1910 Russell St		
Address Line 1			
Address City State ZIP	Baltimore	MD	21230
Municipality	Baltimore	County	

c.

Facility Contact Name			
Title			
Phone	(410) 244-8200	Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
259 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b.

Facility Name			
Address Line 1			
Address Line 1			
Address City State ZIP			
Municipality		County	

c.

Facility Contact Name			
Title			
Phone		Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/14

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name Talisman Energy USA Inc.				
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				**EPA Generator ID#** N/A
Company Mailing Address Line 1 50 Pennwood Place		**Company Mailing Address Line 2**		
Company Address Last Line – City Warrendale	**State** PA	**Zip+4** 15086	**Phone** (724) 814-5300	**Ext**
Company Contact Last Name Brown	**First Name** Dina	**MI**	**Suffix**	
Municipality Warrendale		**County** Allegheny		
Contact Phone (724) 814-5321	**Ext**	**Contact Email Address** dybrown@talismanusa.com		

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the DCNR 587 02-008 well pad site located at 2283 River Road, Ward Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Ward **County** Tioga **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	193	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
MDD980555189

b.

Facility Name	Clean Harbors of Baltimore		
Address Line 1	1910 Russell St		
Address Line 1			
Address City State ZIP	Baltimore	MD	21230
Municipality	Baltimore	County	

c.

Facility Contact Name			
Title			
Phone	(410) 244-8200	Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
103 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	County	Venango

c.

Facility Contact Name	Elton Delong		
Title			
Phone	(814) 437-3593	Email Address	info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
90 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

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☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/11

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the DCNR 587 02-009 well pad site located at 2499 River Road, Ward Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Ward **County** Tioga **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	25	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road		
Address Line 1	P.O. BOX 517		
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	**County**	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1250	**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
25 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**

b.

Facility Name			
Address Line 1			
Address Line 1			
Address City State ZIP			
Municipality		**County**	

c.

Facility Contact Name			
Title			
Phone		**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/14

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name Talisman Energy USA Inc.				
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				**EPA Generator ID#** N/A
Company Mailing Address Line 1 50 Pennwood Place		**Company Mailing Address Line 2**		
Company Address Last Line – City Warrendale	**State** PA	**Zip+4** 15086	**Phone** (724) 814-5300	**Ext**
Company Contact Last Name Brown	**First Name** Dina	**MI**	**Suffix**	
Municipality Warrendale		**County** Allegheny		
Contact Phone (724) 814-5321	**Ext**	**Contact Email Address** dybrown@talismanusa.com		

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the DCNR 587 02-017 well pad site located at 1247 Fallbrook Road, Ward Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Ward **County** Tioga **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	175	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.	Facility Name	PA Brine		
	Address Line 1	5148 US 322		
	Address Line 1			
	Address City State ZIP	Franklin	PA	16323
	Municipality	Franklin	County	Venango
c.	Facility Contact Name	Elton DeLong		
	Title			
	Phone	(814) 437-3593	Email Address	info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
41 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0102784

b.	Facility Name	Waste Treatment Corp. Warren County		
	Address Line 1	341 West Harmar Street		
	Address Line 1			
	Address City State ZIP	Warren	PA	16365
	Municipality	Warren	County	Warren
c.	Facility Contact Name	Rich Gorton		
	Title			
	Phone	(814) 726-1500	Email Address	info@waste-treatment.net

d. Volume of waste shipped to processing or disposal facility in the previous year.
134 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/11

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the DCNR 587 02-018 well site located at 560 Fallbrook Road, Ward Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Ward **County** Tioga **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	72	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. pH Range 6 to 7 (based on analyses or knowledge)

b. Physical State
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. Physical Appearance
Color Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
PA101508

b.
Facility Name: PA Brine
Address Line 1: 5148 US 322
Address Line 1:
Address City State ZIP: Franklin PA 16323
Municipality: Franklin County: Venango

c.
Facility Contact Name: Elton DeLong
Title:
Phone: (814) 437-3593 Email Address: info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
72 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b.
Facility Name
Address Line 1
Address Line 1
Address City State ZIP
Municipality County

c.
Facility Contact Name
Title
Phone Email Address

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown

Title Environmental Specialist

Signature _____

Date 2/25/16

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.

General Reference 287.54

Date Prepared/Revised February 11, 2011

DEP USE ONLY
Date Received & General Notes

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted](01-013) W well pad site located at 1456 Fairbanks Road, Columbia Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Columbia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	75	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0008451

b.
Facility Name: Sunbury Generation Wastewater Treatment Facility
Address Line 1: Old Trail Road
Address Line 1: P.O. BOX 517
Address City State ZIP: Shamokin Dam PA 17876
Municipality: Shamokin Dam County: Snyder

c.
Facility Contact Name: Sheldon Kowaleski
Title:
Phone: (570) 884-1235 Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
75 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b.
Facility Name:
Address Line 1:
Address Line 1:
Address City State ZIP:
Municipality: County:

c.
Facility Contact Name:
Title:
Phone: Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

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Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/14

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name Talisman Energy USA Inc.				
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				**EPA Generator ID#** N/A
Company Mailing Address Line 1 50 Pennwood Place		**Company Mailing Address Line 2**		
Company Address Last Line – City Warrendale	**State** PA	**Zip+4** 15086	**Phone** (724) 814-5300	**Ext**
Company Contact Last Name Brown	**First Name** Dina	**MI**	**Suffix**	
Municipality Warrendale		**County** Allegheny		
Contact Phone (724) 814-5321	**Ext**	**Contact Email Address** dybrown@talismanusa.com		

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] (01-003) J well pad site located at 1349 Buckwheat Road, Granville Township, Bradford County PA. The waste is temporarily stored in tanks onsite.

Municipality Granville **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	106	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road		
Address Line 1	P.O. Box 517		
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	**County**	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1235	**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
42 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	**County**	Venango

c.

Facility Contact Name	Elton DeLong		
Title			
Phone	(814) 437-3593	**Email Address**	info@pabrine.com

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
42 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
MDD980555189

b.
Facility Name: Clean Harbors of Baltimore
Address Line 1: 1910 Russell St
Address Line 1:
Address City State ZIP: Baltimore MD 21230
Municipality: Baltimore County:

c.
Facility Contact Name:
Title:
Phone: 410-244-8200 Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
22 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b.
Facility Name:
Address Line 1:
Address Line 1:
Address City State ZIP:
Municipality: County:

c.
Facility Contact Name:
Title:
Phone: Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.	☐ Yes	☒ No
b.	Volume of waste beneficially used in the previous year. ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)		

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/14

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.

General Reference 287.54

Date Prepared/Revised February 11, 2011

DEP USE ONLY
Date Received & General Notes

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted](01-004) M well pad site located at 3268 Rundell Creek Road, Armenia Township, Bradford County PA. The waste is temporarily stored in tanks onsite.

Municipality Armenia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	258	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road		
Address Line 1	P.O. Box 517		
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	County	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1235	Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
142 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	County	Venango

c.

Facility Contact Name	Elton DeLong		
Title			
Phone	(814) 437-3593	Email Address	info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
21 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. Process Description & Schematic Attachments

a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
MDD980555189

b.
Facility Name: Clean Harbors of Baltimore
Address Line 1: 1910 Russell St
Address Line 1:
Address City State ZIP: Baltimore MD 21230
Municipality: Baltimore County:

c.
Facility Contact Name:
Title:
Phone: 410-244-8200 Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
95 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b.
Facility Name:
Address Line 1:
Address Line 1:
Address City State ZIP:
Municipality: County:

c.
Facility Contact Name:
Title:
Phone: Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown

Title Environmental Specialist

Signature _____

Date 2/25/11

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.

General Reference 287.54

Date Prepared/Revised February 11, 2011

DEP USE ONLY
Date Received & General Notes

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] (01-012) A well pad site located at 676 Sweeney Road, Armenia Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Armenia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	313	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance**
Color Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road		
Address Line 1	P.O. Box 517		
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	County	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1235	Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
167 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	County	Venango

c.

Facility Contact Name	Elton DeLong		
Title			
Phone	(814) 437-3593	Email Address	info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
51 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
MDD980555189

b.

Facility Name	Clean Harbors of Baltimore		
Address Line 1	1910 Russell St		
Address Line 1			
Address City State ZIP	Baltimore	MD	21230
Municipality	Baltimore	**County**	

c.

Facility Contact Name			
Title			
Phone	410-244-8200	**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
53 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0102784

b.

Facility Name	Waste Treatment Corp. Warren County		
Address Line 1	341 West Harmar Street		
Address Line 1			
Address City State ZIP	Warren	PA	
Municipality	Warren	**County**	Warren

c.

Facility Contact Name	Rich Gorton		
Title			
Phone	(814) 726-1500	**Email Address**	info@waste-treatment.net

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
42 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a.	**Has the waste been approved for beneficial use?**	☐ Yes	☒ No
	If "Yes", list the general permit number or approval number.		

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature Dina Brown **Date** 2/25/11

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during drilling, completion, and production of natural gas at the [redacted] (01-017) G well pad site located at 13766 Route 14, Canton Township, Bradford County,PA. The waste is temporarily stored in tanks onsite.

Municipality Canton **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	330	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. pH Range 6 to 7 (based on analyses or knowledge)

b. Physical State
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. Physical Appearance
Color Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road		
Address Line 1	P.O. Box 517		
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	County	Synder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1235	Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
263 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	County	Venango

c.

Facility Contact Name	Elton DeLong		
Title			
Phone	(814) 437-3593	Email Address	info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
67 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/11

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted](257) well pad site located at 1838 East Lawrence Road, Jackson Township, Tioga County, PA. The waste is temporarily stored in tanks onsite.

Municipality Jackson **County** Tioga **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	234	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0102784

b.

Facility Name	Waste Treatment Corp. Warren County		
Address Line 1	341 West Harmar Street		
Address Line 1			
Address City State ZIP	Warren	PA	16365
Municipality	Warren	County	Warren

c.

Facility Contact Name	Rich Gorton		
Title			
Phone	(814) 726-1500	Email Address	info@waste-treatment.net

d. Volume of waste shipped to processing or disposal facility in the previous year.
92 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	County	Venango

c.

Facility Contact Name	Elton DeLong		
Title			
Phone	(814) 437-3593	Email Address	info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
142 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/11

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.

General Reference 287.54

Date Prepared/Revised February 11, 2011

DEP USE ONLY
Date Received & General Notes

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted](261) well pad site located at 1178 Skyline Drive, in Jackson Township, Tioga County PA. The waste is temporarily stored in tanks onsite.

Municipality Jackson **County** Tioga **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	385	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0102784

b.	Facility Name	Waste Treatment Corp. Warren County		
	Address Line 1	341 West Harmar Street		
	Address Line 1			
	Address City State ZIP	Warren	PA	16365
	Municipality	Warren	County	Warren
c.	Facility Contact Name	Rich Gorton		
	Title			
	Phone	(814) 726-1500	Email Address	info@waste-treatment.net

d. Volume of waste shipped to processing or disposal facility in the previous year.
368 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0008451

b.	Facility Name	Sunbury Generation Wastewater Treatment Facility		
	Address Line 1	Old Trail Road		
	Address Line 1	P.O. Box 517		
	Address City State ZIP	Shamokin Dam	PA	17876
	Municipality	Shamokin Dam	County	Snyder
c.	Facility Contact Name	Sheldon Kowaleski		
	Title			
	Phone	(570) 884-1235	Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
17 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/11

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted]01-014) R well pad site located at 2509 Fallbrook Road, Armenia Township, Bradford County PA. The waste is temporarily stored in tanks onsite.

Municipality Armenia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	1,816	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road		
Address Line 1	P.O. Box 517		
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	County	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1235	Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
1,418 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	County	Venango

c.

Facility Contact Name	Elton DeLong		
Title			
Phone	(814) 437-3593	Email Address	info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
164 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
MDD980555189

b.

Facility Name	Clean Harbors of Baltimore		
Address Line 1	1910 Russell St		
Address Line 1			
Address City State ZIP	Baltimore	MD	21230
Municipality	Baltimore	**County**	

c.

Facility Contact Name			
Title			
Phone	410-244-8200	**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
213 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0102784

b.

Facility Name	Waste Treatment Corp. Warren County		
Address Line 1	341 West Harmar Street		
Address Line 1			
Address City State ZIP	Warren	PA	16365
Municipality	Warren	**County**	Warren

c.

Facility Contact Name			
Title	Rich Gorton		
Phone	(814) 726-1500	**Email Address**	info@waste-treatment.net

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
21 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify)

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] 01-024 well pad site located at 720 Knights Road, Troy Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Troy **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	2,001	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road (P.O. BOX 517)		
Address Line 1			
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	County	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1235	Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
638 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	County	Venango

c.

Facility Contact Name	Elton DeLong		
Title			
Phone	(814) 437-3593	Email Address	info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
378 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
MDD980555189

b.

Facility Name	Clean Harbors of Baltimore		
Address Line 1	1910 Russell St		
Address Line 1			
Address City State ZIP	Baltimore	MD	21230
Municipality	Baltimore	**County**	

c.

Facility Contact Name			
Title			
Phone	410-244-8200	**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
796 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0102784

b.

Facility Name	Waste Treatment Corp. Warren County		
Address Line 1	341 West Harmar Street		
Address Line 1			
Address City State ZIP	Warren	PA	16365
Municipality	Warren	**County**	Warren

c.

Facility Contact Name	Rich Gorton		
Title			
Phone	(814) 726-1500	**Email Address**	info@waste-treatment.net

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
190 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/11

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name Talisman Energy USA Inc.				
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				**EPA Generator ID#** N/A
Company Mailing Address Line 1 50 Pennwood Place	**Company Mailing Address Line 2**			
Company Address Last Line – City Warrendale	**State** PA	**Zip+4** 15086	**Phone** (724) 814-5300	**Ext**
Company Contact Last Name Brown	**First Name** Dina	**MI**	**Suffix**	
Municipality Warrendale	**County** Allegheny			
Contact Phone (724) 814-5321	**Ext**	**Contact Email Address** dybrown@talismanusa.com		

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted]01-044 well site located at 720 Knights Drive, Troy Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Troy **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	1041	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a.	**pH Range**	6 to 7 (based on analyses or knowledge)
b.	**Physical State**	☒ Liquid Waste (EPA Method 9095) ☐ Solid (EPA Method 9095) ☐ Gas (ambient temperature & pressure)
c.	**Physical Appearance**	**Color** Translucent yellow/brown **Odor** Hydrocarbon **Number of Solid or Liquid Phases of Separation** One **Describe each phase of separation.** Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0008451

b. Facility Name: Sunbury Generation Wastewater Treatment Facility
Address Line 1: Old Trail Road
Address Line 1: P.O. Box 517
Address City State ZIP: Shamokin Dam PA 17876
Municipality: Shamokin Dam County: Snyder

c. Facility Contact Name: Sheldon Kowaleski
Title:
Phone: (570) 884-1235 Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
753 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b. Facility Name: PA Brine
Address Line 1: 5148 US 322
Address Line 1:
Address City State ZIP: Franklin PA 16323
Municipality: Franklin County: Venango

c. Facility Contact Name: Elton DeLong
Title:
Phone: (814) 437-3593 Email Address: info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
108 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. Process Description & Schematic Attachments

a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
MDD980555189

b.
Facility Name: Clean Harbors of Baltimore
Address Line 1: 1910 Russell St
Address Line 1:
Address City State ZIP: Baltimore MD 21230
Municipality: Baltimore County:

c.
Facility Contact Name:
Title:
Phone: 410-244-8200 Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
180 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b.
Facility Name:
Address Line 1:
Address Line 1:
Address City State ZIP:
Municipality: County:

c.
Facility Contact Name:
Title:
Phone: Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/14

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] (03-008) G well pad site located at 2202 Wolfe Hollow Road, Columbia Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Columbia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	5,903	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road (P.O. BOX 517)		
Address Line 1			
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	**County**	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1235	**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
586 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	**County**	Venango

c.

Facility Contact Name	Elton DeLong		
Title			
Phone	(814) 437-3593	**Email Address**	info@pabrine.com

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
2,614 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a.	**Has the waste been approved for beneficial use?** **If "Yes", list the general permit number or approval number.**	☐ Yes	☒ No
b.	**Volume of waste beneficially used in the previous year.** ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)		

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a.	Solid waste permit number(s) for processing or disposal facility being utilized.	MDD980555189		
b.	Facility Name	Clean Harbors of Baltimore		
	Address Line 1	1910 Russell St		
	Address Line 1			
	Address City State ZIP	Baltimore	MD	21230
	Municipality	Baltimore	County	
c.	Facility Contact Name			
	Title			
	Phone	410-244-8200	Email Address	
d.	Volume of waste shipped to processing or disposal facility in the previous year.	1,638	☐ cu yd ☐ gal ☐ lb ☒ ton (check one)	
a.	Solid waste permit number(s) for processing or disposal facility being utilized.	0102784		
b.	Facility Name	Waste Treatment Corp. Warren County		
	Address Line 1	341 West Harmar Street		
	Address Line 1			
	Address City State ZIP	Warren	PA	16365
	Municipality	Warren	County	Warren
c.	Facility Contact Name	Rich Gorton		
	Title			
	Phone	(814) 726-1500	Email Address	info@waste-treatment.net
d.	Volume of waste shipped to processing or disposal facility in the previous year.	1,064	☐ cu yd ☐ gal ☐ lb ☒ ton (check one)	

2. Beneficial Use

a.	Has the waste been approved for beneficial use?	☐ Yes	☒ No
	If "Yes", list the general permit number or approval number.		
b.	Volume of waste beneficially used in the previous year.	☐ cu yd ☐ gal ☐ lb ☐ ton (check one)	

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature Dina Brown **Date** 2/25/14

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] (01-015) T well pad site located at 225 Buckwheat Road, Troy Township, Bradford County PA. The waste is temporarily stored in tanks onsite.

Municipality Troy **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	228	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance**
Color Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road (P.O. BOX 517)		
Address Line 1			
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	County	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1235	Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
143 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	County	Venango

c.

Facility Contact Name	Elton DeLong		
Title			
Phone	(814) 437-3593	Email Address	info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
42 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0102784

b.
Facility Name	Waste Treatment Corp. Warren County		
Address Line 1	341 Harmar Street		
Address Line 1			
Address City State ZIP	Warren	PA	16365
Municipality	Warren	**County**	Warren

c.
Facility Contact Name	Rich Gorton		
Title			
Phone	(814) 726-1500	**Email Address**	info@waste-treatment.net

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
43 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**

b.
Facility Name			
Address Line 1			
Address Line 1			
Address City State ZIP			
Municipality		**County**	

c.
Facility Contact Name			
Title			
Phone		**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/14

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] (01-074) W well pad site located at 2018 Mountain Avenue, Armenia Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Armenia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	58	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
MDD980555189

b.
Facility Name: Clean Harbors of Baltimore
Address Line 1: 1910 Russell St
Address Line 1:
Address City State ZIP: Baltimore MD 21230
Municipality: Baltimore County:

c.
Facility Contact Name:
Title:
Phone: 410-244-8200 Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
58 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b.
Facility Name:
Address Line 1:
Address Line 1:
Address City State ZIP:
Municipality: County:

c.
Facility Contact Name:
Title:
Phone: Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature Dina Brown **Date** 2/25/14

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] (01-006) J well pad site located at 234 Phinney Drive, Troy Township, Bradford County PA. The waste is temporarily stored in tanks onsite.

Municipality	County	State
Troy	Bradford	PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	504	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. pH Range 6 to 7 (based on analyses or knowledge)

b. Physical State
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. Physical Appearance
Color: Translucent yellow/brown Odor: Hydrocarbon
Number of Solid or Liquid Phases of Separation: One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0008451

b.	Facility Name	Sunbury Generation Wastewater Treatment Facility		
	Address Line 1	Old Trail Road		
	Address Line 1	P.O. Box 517		
	Address City State ZIP	Shamokin Dam	PA	17876
	Municipality	Shamokin Dam	County	Snyder
c.	Facility Contact Name	Sheldon Kowaleski		
	Title			
	Phone	(570) 884-1235	Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
43 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.	Facility Name	PA Brine		
	Address Line 1	5148 US 322		
	Address Line 1			
	Address City State ZIP	Franklin	PA	16323
	Municipality	Franklin	County	Venango
c.	Facility Contact Name	Elton DeLong		
	Title			
	Phone	(814) 437-3593	Email Address	info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
71 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
MDD980555189

b.

Facility Name	Clean Harbors of Baltimore		
Address Line 1	1910 Russell St		
Address Line 1			
Address City State ZIP	Baltimore	MD	21230
Municipality	Baltimore	**County**	

c.

Facility Contact Name			
Title			
Phone	410-244-8200	**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
365 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0102784

b.

Facility Name	Waste Treatment Corp. Warren County		
Address Line 1	341 West Harmar Street		
Address Line 1			
Address City State ZIP	Warren	PA	16365
Municipality	Warren	**County**	Warren

c.

Facility Contact Name	Rich Gorton		
Title			
Phone	(814) 726-15001	**Email Address**	info@waste-treatment.net

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
25 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐

Submitted:

y the information requir ss Description and Sche he Department

year _____ and has no

Submitted: ☐

☐

Submitted:

Responsible Official **Title** Environ

Date

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
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ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality
Warrendale

County
Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted](01-076) L well pad site located at 3637 Fallbrook Road, Armenia Township, Bradford County, PA. The waste is temporarily stored onsite.

Municipality Armenia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	332	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes ☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road (P.O. BOX 517)		
Address Line 1			
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	County	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1235	Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
205 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	County	Venango

c.

Facility Contact Name	Elton DeLong		
Title			
Phone	(814) 437-3593	Email Address	info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
64 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. Process Description & Schematic Attachments

a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
MDD980555189

b.
Facility Name	Clean Harbors of Baltimore		
Address Line 1	1910 Russell St		
Address Line 1			
Address City State ZIP	Baltimore	MD	21230
Municipality	Baltimore	County	

c.
Facility Contact Name			
Title			
Phone	410-244-8200	Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
44 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0102784

b.
Facility Name	Waste Treatment Corp. Warren County		
Address Line 1	341 Harmar Street		
Address Line 1			
Address City State ZIP	Warren	PA	16365
Municipality	Warren	County	Warren

c.
Facility Contact Name	Rich Gorton		
Title			
Phone	(814) 726-1500	Email Address	info@waste-treatment.net

d. Volume of waste shipped to processing or disposal facility in the previous year.
19 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/19

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] (01-077) L well pad site in Armenia Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Armenia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	81	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.
Facility Name: PA Brine
Address Line 1: 5148 US 322
Address Line 1:
Address City State ZIP: Franklin PA 16323
Municipality: Franklin County: Venango

c.
Facility Contact Name: Elton DeLong
Title:
Phone: (814) 437-3593 Email Address: info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
81 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b.
Facility Name:
Address Line 1:
Address Line 1:
Address City State ZIP:
Municipality: County:

c.
Facility Contact Name:
Title:
Phone: Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/14

2540-PM-BWM0347 Rev. 1/2011

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COMMONWEALTH OF PENNSYLVANIA
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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] 01-013/043 D well pad site in Troy Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Troy **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	941	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. General Properties

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. Chemical Analysis Attachments

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
MDD980555189

b. Facility Name: Clean Harbors of Baltimore
Address Line 1: 1910 Russell St
Address Line 1:
Address City State ZIP: Baltimore MD 21230
Municipality: Baltimore County:

c. Facility Contact Name:
Title:
Phone: 410-244-8200 Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
641 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b. Facility Name: PA Brine
Address Line 1: 5148 US 322
Address Line 1:
Address City State ZIP: Franklin PA 16323
Municipality: Franklin County: Venango

c. Facility Contact Name: Elton DeLong
Title:
Phone: (814) 437-3593 Email Address: info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
299 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.	☐ Yes	☒ No
b.	Volume of waste beneficially used in the previous year. ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)		

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/14

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] 01-026/027 D well pad site located at 958 Tennessee Gas Road, Troy Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Troy **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	705	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
MDD980555189

b. **Facility Name** Clean Harbors of Baltimore
Address Line 1 1910 Russell St
Address Line 1
Address City State ZIP Baltimore MD 21230
Municipality Baltimore **County**

c. **Facility Contact Name**
Title
Phone 410-244-8200 **Email Address**

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
84 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0008451

b. **Facility Name** Sunbury Generation Wastewater Treatment Facility
Address Line 1 Old Trail Road (P.O. BOX 517)
Address Line 1
Address City State ZIP Shamokin Dam PA 17876
Municipality Shamokin Dam **County** Snyder

c. **Facility Contact Name** Sheldon Kowaleski
Title
Phone (570) 884-1235 **Email Address**

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
621 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature Dina Brown **Date** 2/25/14

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] well pad site located at 1162 Burrows Hollow Road, Jackson Township, Tioga County, PA. The waste is temporarily stored in tanks onsite.

Municipality Jackson **County** Tioga **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	21	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0102784

b.
Facility Name	Waste Treatment Corp Warren County		
Address Line 1	341 West Harmar Street		
Address Line 1			
Address City State ZIP	Warren	PA	16365
Municipality	Warren	**County**	Warren

c.
Facility Contact Name	Rich Gorton		
Title			
Phone	(814) 726-1500	**Email Address**	info@waste-treatment.net

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
21 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**

b.
Facility Name			
Address Line 1			
Address Line 1			
Address City State ZIP			
Municipality		**County**	

c.
Facility Contact Name			
Title			
Phone		**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a.	**Has the waste been approved for beneficial use?**	☐ Yes	☒ No	
	If "Yes", list the general permit number or approval number.			
b.	**Volume of waste beneficially used in the previous year.** ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)			

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/14

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted]01-002 FT well pad site located at 1021 Kelly Road, Troy Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Troy **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	286	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road, P.O. BOX 517		
Address Line 1			
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	**County**	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1235	**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
261 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	**County**	Venango

c.

Facility Contact Name	Elton DeLong		
Title			
Phone	(814) 437-3593	**Email Address**	info@pabrine.com

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
25 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown

Title Environmental Specialist

Signature _____

Date 2/25/14

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54

Date Prepared/Revised February 11, 2011

DEP USE ONLY
Date Received & General Notes

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City Warrendale
State PA
Zip+4 15086
Phone (724) 814-5300
Ext

Company Contact Last Name Brown
First Name Dina
MI
Suffix

Municipality Warrendale
County Allegheny

Contact Phone (724) 814-5321
Ext
Contact Email Address dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] FT2H well pad site located at 257 Thomas Lane, Troy Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Troy **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	93	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance**
Color Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0008451

b.
Facility Name: Sunbury Generation Wastewater Treatment Facility
Address Line 1: Old Trail Road
Address Line 1: P.O. Box 517
Address City State ZIP: Shamokin Dam PA 17876
Municipality: Shamokin Dam County: Snyder

c.
Facility Contact Name: Sheldon Kowaleski
Title:
Phone: (570) 884-1235 Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
93 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b.
Facility Name:
Address Line 1:
Address Line 1:
Address City State ZIP:
Municipality: County:

c.
Facility Contact Name:
Title:
Phone: Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

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Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

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☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 7/25/14

TALISMAN ENERGY

TALISMAN ENERGY USA INC.
50 Pennwood Place
Warrendale, Pennsylvania 15086
Tel: (724) 814-5300
Fax: (724) 814-5301

February 28, 2011

Pennsylvania Department of Environmental Protection
Northcentral Regional Office
Bureau of Waste Management
208 W. 3rd Street, Suite 101
Williamsport, PA 17701

RE: Submittal of Form 26R Chemical Analysis of Residual Waste Annual Report by the Generator for 2010

To Whom It May Concern:

Please find enclosed Talisman Energy USA Inc.'s Form 26R Chemical Analysis of Residual Waste Annual Report by the Generator for 2010. Should you have any questions or comments concerning our reports please do not hesitate to contact me at (724) 814-5321 or dybrown@talismanusa.com.

Sincerely,

Dina E. Brown
Environmental Specialist

Enclosures

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
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General Reference 287.54	Date Received & General Notes
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SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated from the compressors at the Stateland Compressor Station site located at 374 Fellows Creek Road in Ward Township, Tioga County, PA. The waste is temporarily stored in tanks onsite.

Municipality Ward **County** Tioga **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
808	Servicing Fluid, Oil/water emulsion	93	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. pH Range 6 to 7 (based on analyses or knowledge)

b. Physical State
☒ Liquid Waste (EPA Method 9095)
☒ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. Physical Appearance
Color translucent yellow/brown **Odor** hydrocarbon
Number of Solid or Liquid Phases of Separation 2
Describe each phase of separation. Liquid and Solid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☐ Yes	☒ No	
b.	A detailed description of the waste sampling method is attached.	☐ Yes	☒ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☐ Yes	☒ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☒ Yes	☐ No	☐ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
8-0728-00004/00013

b.

Facility Name	Chemung County Landfill		
Address Line 1	1690 Lake Street		
Address Line 1			
Address City State ZIP	Elmira	NY	14903
Municipality	Elmira City	County	Chemung

c.

Facility Contact Name	Carla Canjar		
Title	Environmental Manager		
Phone	(585) 797-5941	Email Address	carla.canjar@casella.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
24 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
PA301344

b.

Facility Name	Environmental Recovery Corporation of PA		
Address Line 1	1076 Old Manheim Pike		
Address Line 1			
Address City State ZIP	Lancaster	PA	17601
Municipality	City of Lancaster	County	Lancaster

c.

Facility Contact Name	Terry Leatherman		
Title	General Manager		
Phone	(717) 393-2627	Email Address	info@ercofpa.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
69 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/11

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated from the compressors at the [redacted] Compressor Station located at 193 Buckwheat Road, Troy Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Troy **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
808	Servicing Fluid, Oil/water emulsion	327	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. pH Range 6 to 7 (based on analyses or knowledge)

b. Physical State
☒ Liquid Waste (EPA Method 9095)
☒ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. Physical Appearance **Color** translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation 2
Describe each phase of separation. Liquid and Solid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☐ Yes	☒ No	
b.	A detailed description of the waste sampling method is attached.	☐ Yes	☒ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☐ Yes	☒ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☒ Yes	☐ No	☐ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
08-0728-00004/00013

b.

Facility Name	Chemung County Landfill		
Address Line 1	1690 Lake Street		
Address Line 1			
Address City State ZIP	Elmira	NY	14903
Municipality	Elmira	County	Chemung

c.

Facility Contact Name	Carla Canjar		
Title	Environmental Manager		
Phone	585-797-5941	Email Address	carla.canjar@casella.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
165 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
PA301344

b.

Facility Name	Environmental Recovery Corporation of PA		
Address Line 1	10760 Old Manheim Pike		
Address Line 1			
Address City State ZIP	Lancaster	PA	17601
Municipality	City of Lancaster	County	Lancaster

c.

Facility Contact Name	Terry Leatherman		
Title	General Manager		
Phone	717-393-2627	Email Address	info@ercofpa.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
162 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/14

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.

General Reference 287.54

Date Prepared/Revised February 11, 2011

DEP USE ONLY
Date Received & General Notes

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated from the compressors at the [redacted] Compressor Station located at 1614 Watkins Hill Road, Columbia Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Columbia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
808	Servicing Fluid, Oil/water emulsion	31	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. pH Range 6 to 7 (based on analyses or knowledge)

b. Physical State
- ☒ Liquid Waste (EPA Method 9095)
- ☒ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. Physical Appearance
Color translucent yellow/brown Odor hydrocarbon
Number of Solid or Liquid Phases of Separation 2
Describe each phase of separation. Liquid and Solid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☐ Yes	☒ No
b.	A detailed description of the waste sampling method is attached.	☐ Yes	☒ No
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☐ Yes	☒ No
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☒ Yes ☐ No	☐ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
8-0728-00004/00013

b.

Facility Name	Chemung County Landfill		
Address Line 1	1690 Lake Street		
Address Line 1			
Address City State ZIP	Elmira	NY	14903
Municipality	Elmira City	County	Chemung

c.

Facility Contact Name	Carla Canjar		
Title	Environmental Manager		
Phone	585-797-5941	Email Address	carla.canjar@casella.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
9 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
PA301344

b.

Facility Name	Environmental Recovery Corporation of PA		
Address Line 1	1076 Old Manheim Pike		
Address Line 1			
Address City State ZIP	Lancaster	PA	17601
Municipality	City of Lancaster	County	Lancaster

c.

Facility Contact Name	Terry Leatherman		
Title	General Manager		
Phone	717-393-2627	Email Address	info@ercofpa.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
22 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/11

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted]01-016 well pad site located at 1242 Swamp Road, Armenia Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Armenia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	64	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. pH Range 6 to 7 (based on analyses or knowledge)

b. Physical State
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. Physical Appearance
Color Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.
- Facility Name: PA Brine
- Address Line 1: 5148 US 322
- Address Line 1:
- Address City State ZIP: Franklin PA 16323
- Municipality: Franklin County: Venango

c.
- Facility Contact Name: Elton DeLong
- Title:
- Phone: (814) 437-3593 Email Address: info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
64 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b.
- Facility Name
- Address Line 1
- Address Line 1
- Address City State ZIP
- Municipality County

c.
- Facility Contact Name
- Title
- Phone Email Address

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.	☐ Yes	☒ No
b.	Volume of waste beneficially used in the previous year. ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)		

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 7/25/11

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] (03-004) R well pad site located at 1226 Besley Road, Columbia Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Columbia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	23	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. pH Range 6 to 7 (based on analyses or knowledge)

b. Physical State
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. Physical Appearance **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
101508

b.
Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	County	Venango

c.
Facility Contact Name	Elton DeLong		
Title			
Phone	(814) 437-3593	Email Address	info@pabrine.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
23 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b.
Facility Name			
Address Line 1			
Address Line 1			
Address City State ZIP			
Municipality		County	

c.
Facility Contact Name			
Title			
Phone		Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 7/25/14

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] (03-054) J well pad site located at 847 Fairbanks Road, Columbia Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Columbia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	1,884	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. pH Range 6 to 7 (based on analyses or knowledge)

b. Physical State
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. Physical Appearance **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
MDD980555189

b.
Facility Name: Clean Harbors of Baltimore
Address Line 1: 1910 Russell St
Address Line 1:
Address City State ZIP: Baltimore MD 21230
Municipality: Baltimore County:

c.
Facility Contact Name:
Title:
Phone: 410-244-8200 Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
1884 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b.
Facility Name:
Address Line 1:
Address Line 1:
Address City State ZIP:
Municipality: County:

c.
Facility Contact Name:
Title:
Phone: Email Address:

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/14

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
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ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted]1 well pad site located at 831 Burrows Hollow Road, Jackson Township, Tioga County, PA. The waste is temporarily stored in tanks onsite.

Municipality Jackson **County** Tioga **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	25	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 6 to 7 (based on analyses or knowledge)

b. **Physical State**
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No

c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
0102784

b. Facility Name: Waste Treatment Corp. Warren County
Address Line 1: 341 West Harmar Street
Address Line 1:
Address City State ZIP: Warren PA 16365
Municipality: Warren County: Warren

c. Facility Contact Name: Rich Gorton
Title:
Phone: (814) 726-1500 Email Address: info@waste-treatment.net

d. Volume of waste shipped to processing or disposal facility in the previous year.
25 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b. Facility Name
Address Line 1
Address Line 1
Address City State ZIP
Municipality County

c. Facility Contact Name
Title
Phone Email Address

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

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Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 7/25/11

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted](03-025) E well pad site located at 1042 Antler Road, Columbia Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Columbia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	263	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. pH Range 6 to 7 (based on analyses or knowledge)

b. Physical State
☒ Liquid Waste (EPA Method 9095)
☐ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. Physical Appearance
Color Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0008451

b.	**Facility Name**	Sunbury Generation Wastewater Treatment Facility		
	Address Line 1	Old Trail Road (P.O. Box 517)		
	Address Line 1			
	Address City State ZIP	Shamokin Dam	PA	17876
	Municipality	Shamokin Dam	**County**	Snyder
c.	**Facility Contact Name**	Sheldon Kowaleski		
	Title			
	Phone	(570) 884-1235	**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
200 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
101508

b.	**Facility Name**	PA Brine		
	Address Line 1	5148 US 322		
	Address Line 1			
	Address City State ZIP	Franklin	PA	16323
	Municipality	Franklin	**County**	Venango
c.	**Facility Contact Name**	Elton DeLong		
	Title			
	Phone	(814) 437-3593	**Email Address**	info@pabrine.com

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
63 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown

Title Environmental Specialist

Signature _____

Date 2/25/14

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name Talisman Energy USA Inc.				
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				**EPA Generator ID#** N/A
Company Mailing Address Line 1 50 Pennwood Place		**Company Mailing Address Line 2**		
Company Address Last Line – City Warrendale	**State** PA	**Zip+4** 15086	**Phone** (724) 814-5300	**Ext**
Company Contact Last Name Brown	**First Name** Dina	**MI**	**Suffix**	
Municipality Warrendale		**County** Allegheny		
Contact Phone (724) 814-5321	**Ext**	**Contact Email Address** dybrown@talismanusa.com		

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during the drilling, completion, and production of natural gas at the [redacted] (01-41/42) R well pad site in Troy Township, Bradford County, PA. The waste is temporarily stored in tanks onsite.

Municipality Troy **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
802	Brine and Wastewater	425	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. pH Range 6 to 7 (based on analyses or knowledge)

b. Physical State
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. Physical Appearance **Color** Translucent yellow/brown **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0008451

b.

Facility Name	Sunbury Generation Wastewater Treatment Facility		
Address Line 1	Old Trail Road, P.O. BOX 517		
Address Line 1			
Address City State ZIP	Shamokin Dam	PA	17876
Municipality	Shamokin Dam	**County**	Snyder

c.

Facility Contact Name	Sheldon Kowaleski		
Title			
Phone	(570) 884-1235	**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
375 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
101508

b.

Facility Name	PA Brine		
Address Line 1	5148 US 322		
Address Line 1			
Address City State ZIP	Franklin	PA	16323
Municipality	Franklin	**County**	Venango

c.

Facility Contact Name	Elton DeLong		
Title			
Phone	(814) 437-3593	**Email Address**	info@pabrine.com

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
25 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
0102784

b.

Facility Name	Waste Treatment Corp. Warren County		
Address Line 1	341 West Harmar Street		
Address Line 1			
Address City State ZIP	Warren	PA	16365
Municipality	Warren	**County**	Warren

c.

Facility Contact Name	Rich Gorton		
Title			
Phone	814-726-1500	**Email Address**	info@waste-treatment.com

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
25 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**

b.

Facility Name	
Address Line 1	
Address Line 1	
Address City State ZIP	
Municipality	**County**

c.

Facility Contact Name	
Title	
Phone	**Email Address**

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

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Date Submitted: _____

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Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown

Title Environmental Specialist

Signature _____

Date 2/25/11

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
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Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during natural gas completion operations at the [redacted](03- 009) L well pad site located at 1528 Sanitarium Hill Road, Columbia Township, Bradford County, PA. The waste is temporarily stored onsite.

Municipality Columbia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
804	Fracing Fluid Waste (Flow Back Sand)	280	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 7.71 to --- (based on analyses or knowledge)

b. **Physical State**
☐ Liquid Waste (EPA Method 9095)
☒ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Greyish Black **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Sand

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
100361

b.
Facility Name	McKean County Landfill		
Address Line 1	19 Ness Lane		
Address Line 1			
Address City State ZIP	Kane	PA	16735
Municipality	Kane	**County**	McKean

c.
Facility Contact Name	Mike Manderfeld		
Title	General Manager		
Phone	814-778-9931	**Email Address**	manderfeld@gmail.com

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
280 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**

b.
Facility Name			
Address Line 1			
Address Line 1			
Address City State ZIP			
Municipality		**County**	

c.
Facility Contact Name			
Title			
Phone		**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a.	**Has the waste been approved for beneficial use?** **If "Yes", list the general permit number or approval number.**	☐ Yes	☒ No
b.	**Volume of waste beneficially used in the previous year.** 0 ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)		

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature [signature] **Date** 2/25/11

PA ID #: 08-00380
NY ID # 11216

Benchmark Analytics, Inc.
Eastern Division
2566 Pennsylvania Ave.
Sayre, PA 18840
Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10104077

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

PHONE: (607) 731-0145
FAX: (607) 562-4001

WO#: 10104077
PAGE: 1 of 4
PO#:
PWS ID#

TEST REPORT

[redacted]

RECEIVED FOR LAB BY: CMS DATE: 10/27/2010 14:15

SAMPLE: **Flowback Sand** Lab ID: 10104077-001A Composite
SAMPLED BY: SG Sample Time: 10/26/2010 11:30

Test	Result		Method	SLOQ	Analysis Start	Analysis End	Analyst *
Methanol	13 mg/Kg	N	Alcohols by FID	10	11/01/10 9:59	11/01/10	KMG-CV
Ethanol	< 10 mg/Kg	N	Alcohols by FID	10	11/01/10 9:59	11/01/10	KMG-CV
Isopropanol	< 10 mg/Kg	N	Alcohols by FID	10	11/01/10 9:59	11/01/10	KMG-CV
t-Butanol	< 10 mg/Kg	N	Alcohols by FID	10	11/01/10 9:59	11/01/10	KMG-CV
n-Propanol	< 10 mg/Kg	N	Alcohols by FID	10	11/01/10 9:59	11/01/10	KMG-CV
Isobutanol	< 10 mg/Kg	N	Alcohols by FID	10	11/01/10 9:59	11/01/10	KMG-CV
n-Butanol	< 10 mg/Kg	N	Alcohols by FID	10	11/01/10 9:59	11/01/10	KMG-CV
Sodium	583 mg/Kg-dry		EPA 6010B	58.5	10/28/10 14:00	10/28/10	RMD-CV
Bromine	< 0.46 mg/Kg	N	HACH 8167	0.46	11/01/10 14:23	11/01/10	TLB-CV
1,1-Dichloroethene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
Methylene chloride	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
2-Butanone	< 0.209 mg/Kg-dry		EPA 8260B	0.209	10/28/10 9:55	10/28/10	DN-CV
trans-1,2-Dichloroethene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
1,1-Dichloroethane	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
cis-1,2-Dichloroethene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
Chloroform	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
1,1,1-Trichloroethane	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
Carbon tetrachloride	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
Benzene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
1,2-Dichloroethane	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
Trichloroethene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
1,2-Dichloropropane	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
Dibromomethane	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
Bromodichloromethane	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
cis-1,3-Dichloropropene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter is not NELAC certified

U Ammonia sample not distilled

MANAGER Carrie M. Davis DATE: 11/3/2010

PA ID #: 08-00380
NY ID # 11216

Benchmark Analytics, Inc.
Eastern Division
2566 Pennsylvania Ave.
Sayre, PA 18840
Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10104077

SEND DATA TO:

NAME: Steve Gridley
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Horseheads, NY 14845

PHONE: (607) 731-0145
FAX: (607) 562-4001

WO#: 10104077
PAGE: 2 of 4
PO#:
PWS ID#

TEST REPORT

[redacted]

RECEIVED FOR LAB BY: CMS DATE: 10/27/2010 14:15

Toluene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
4-Methyl-2-pentanone (MIBK)	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
trans-1,3-Dichloropropene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
1,1,2-Trichloroethane	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
Tetrachloroethene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
Dibromochloromethane	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
1,2-Dibromoethane	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
Chlorobenzene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
1,1,1,2-Tetrachloroethane	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
Ethylbenzene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
m,p-Xylene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
o-Xylene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
Xylenes, Total	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
Bromoform	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
1,1,2,2-Tetrachloroethane	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
1,2,3-Trichloropropane	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
1,3-Dichlorobenzene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
1,4-Dichlorobenzene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
1,2-Dichlorobenzene	< 0.042 mg/Kg-dry		EPA 8260B	0.042	10/28/10 9:55	10/28/10	DN-CV
Chloride	1030 mg/Kg-dry		EPA 300.0	53.1	10/28/10 15:58	10/29/10	HDP-CV
Formaldehyde	< 1.0 mg/Kg-dry	N	NIOSH 3500	1.0	11/01/10 8:15	11/01/10	LTW-CV
Percent Moisture	4.4 %		SM2540G		10/29/10 10:30	11/01/10	NFM-SA

SAMPLE: **Flowback Sand** Lab ID: 10104077-001B Composite
SAMPLED BY: SG Sample Time: 10/26/2010 11:30

Test	Result		Method	SLOQ	Analysis Start	Analysis End	Analyst *
Moisture	4.37 %		Moisture Calc.	0.01	10/29/10 10:30	11/01/10	NFM-SA
Ammonia as N	33.5 mg/kg-dry	U	Lachat	10.5	10/28/10 8:00	10/28/10	NFM-SA

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter is not NELAC certified

U Ammonia sample not distilled

MANAGER Carrie M. Davis DATE: 11/3/2010

PA ID #: 08-00380
NY ID # 11216

Benchmark Analytics, Inc.
Eastern Division
2566 Pennsylvania Ave.
Sayre, PA 18840
Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10104077

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

PHONE: (607) 731-0145
FAX: (607) 562-4001

WO#: 10104077
PAGE: 3 of 4
PO#:
PWS ID#

TEST REPORT

RECEIVED FOR LAB BY: CMS DATE: 10/27/2010 14:15

Free Liquid	< 0.1 %	EPA 9095A	0.1	10/28/10 11:15	10/28/10	IC-SA
pH	7.71@22.3°C	EPA 9045C		11/01/10 14:00	11/01/10	NFM-SA
Phosphorus	16 mg/kg-dry	EPA 365.3	5	11/01/10 9:30	11/02/10	MED-SA

SAMPLE: **Flowback Sand** Lab ID: 10104077-001C Composite
SAMPLED BY: SG Sample Time: 10/26/2010 11:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Ethylene glycol	< 10.00 mg/Kg	Glycols	10.00	10/29/10 0:00	10/29/10	
Propylene glycol	< 10.00 mg/Kg	Glycols	10.00	10/29/10 0:00	10/29/10	

Sample Note: Analysis performed by Summit Environmental Technologies, Inc.

SAMPLE: **Flowback Sand** Lab ID: 10104077-001D Composite
SAMPLED BY: SG Sample Time: 10/26/2010 11:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Phenolics, Total Recoverable	9.95 mg/Kg DRY	EPA 9065	1.30	10/29/10 9:30	10/29/10	

Sample Note: Analysis performed by QC Laboratories.

SAMPLE: **Flowback Sand** Lab ID: 10104077-001E Composite
SAMPLED BY: SG Sample Time: 10/26/2010 11:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	660 mg/Kg	EPA 9071	170	10/28/10 14:20	10/28/10	

Sample Note: Analysis performed by Microbac Laboratories, Inc.-Erie Division

SAMPLE: **TCLP Lechate of Flowback Sand** Lab ID: 10104077-001G Composite
SAMPLED BY: SG Sample Time: 10/28/2010 8:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	10/30/10 8:45	10/31/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/30/10 13:40	10/31/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	10/30/10 13:40	10/31/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter is not NELAC certified

U Ammonia sample not distilled

MANAGER Carrie M. Davis DATE: 11/3/2010

PA ID #: 08-00380
NY ID # 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10104077

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NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
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Horseheads, NY 14845

PHONE: (607) 731-0145
FAX: (607) 562-4001

WO#: 10104077
PAGE: 4 of 4
PO#:
PWS ID#

TEST REPORT

[redacted]

RECEIVED FOR LAB BY: CMS DATE: 10/27/2010 14:15

Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/30/10 13:40	10/31/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/30/10 13:40	10/31/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/30/10 13:40	10/31/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/30/10 13:40	10/31/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/30/10 13:40	10/31/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/30/10 13:40	10/31/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/30/10 13:40	10/31/10	RMD-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	10/30/10 13:40	10/31/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter is not NELAC certified

U Ammonia sample not distilled

MANAGER Carrie M. Davis DATE: 11/3/2010

CHAIN OF CUSTODY

PAGE 1 OF 1

W/O#: 10104077

REPORT TO:	Talisman / UEG
	geowetlands@aol.com
	twollin@rallysolutions.ca
CONTACT	Steve Gridley
PH#	607-731-0145
FAX#	
BILL TO:	Talisman
PO#	COMPLETIONS
PROJECT DESCRIPTION	[redacted]
SAMPLER SIGNATURE / AFFILIATION	Lee Swan

REFRIGERATE SAMPLES AFTER COLLECTION

TRANSPORT TO LABORATORY IN COOLER WITH ICE

DW DRINKING WATER; GW GROUND WATER; SW SURFACE WATER; WW WASTE WATER; DE DEIONIZED WATER; SL SLUDGE; SO SOIL; HZ HAZARDOUS; OTHER; DI DISTILLED WATER

RESULTS ARE BEING USED FOR: ☐ NYDOH ☑ NYDEC ☑ PADEP ☐ PERSONAL LANDFILL_____ OTHER_____

ARE SPECIAL DETECTION LIMITS NEEDED: ☐ YES / ☑ NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED? ☐ YES ☑ NO

IF YES, PLEASE ATTACH REQUIREMENTS

H HYDROCHLORIC ACID; S SULFURIC ACID; N NITRIC ACID; SO_3 SODIUM SULFITE; Thio SODIUM THIOSULFATE; – NONE; OH SODIUM HYDROXIDE; AS ASCORBIC ACID; AC ACETIC ACID; NH_4 AMMONIUM CHLORIDE; ZN ZINC ACETATE; Hg MERCURIC CHLORIDE

An incomplete chain of custody may delay the processing of your sample(s).

Please fill out all applicable areas completely

		DATE SAMPLED	TIME OF SAMPLING	SAMPLE MATRIX	SAMPLE TYPE - GRAB / COMPOSITE	SAMPLER INITIALS	PRESERVATIVE	ANALYSIS TO BE PERFORMED (PER CONTAINER)	COMPOSITED ON RECEIPT	PRESERVATIVE ADDED ON RECEIPT	LAB USE ONLY
1	Flowback Sand	10/26	11:30	SO	C	LS	N	TPH, pH, Free Liquids, % Moisture			-001 A-G
2	A- metals, anion, chlorine							Chlorides, Sodium, Bromine			
3	8260, Alcohols, formald.							TCLP Metals: Ar, Ba, Cd, Cr, Pb, Hg, Se			
4	B- wet chem							Ag, Cu, Zn, Ni			
5	C- Glycol							Alcohols, Glycols, Formaldehyde			
6	D- Phenols							EPA 8260			
7	E- TPH							Total Phosphorus, Total Phenolics			
8	F - Total Sample							Ammonia - Nitrogen			
9	G - TCLP metals							due 11/1/10			
10								72 HOUR TURNAROUND			
11								____ DAY TURNAROUND			

LAB USE ONLY DELIVERED BY_____ TEMPERATURE UPON RECEIPT 19 °C ARRIVAL ON ICE Y / N

RELINQUISHED BY: Lee Swan	DATE: 10/26/10	TIME: 1:30 PM	RECEIVED BY:	DATE: 10/26/10	TIME: 1330
RELINQUISHED BY:	DATE: 10/27/10	TIME: 1415	RECEIVED BY:	DATE: / /	TIME:
RELINQUISHED BY:	DATE: / /	TIME:	RECEIVED BY:	DATE: 10/27/10	TIME: 10:00

Ad Graphics Printing 570-888-0888

14:15

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.

General Reference 287.54

Date Prepared/Revised February 11, 2011

DEP USE ONLY
Date Received & General Notes

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during natural gas completion operations at the [redacted](03-015) J well pad site located at 368 Beaman Road, Columbia Township, Bradford County, PA. The waste is temporarily stored onsite.

Municipality Columbia **County** Bradford **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
804	Fracing Fluid Waste (Flow Back Sand)	142	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 7.96 to --- (based on analyses or knowledge)

b. **Physical State**
- ☐ Liquid Waste (EPA Method 9095)
- ☒ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Greyish Black **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Sand

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
100361

b.

Facility Name	McKean County Landfill		
Address Line 1	19 Ness Lane		
Address Line 1			
Address City State ZIP	Kane	PA	16735
Municipality	Kane	County	McKean

c.

Facility Contact Name	Mike Manderfeld		
Title	General Manager		
Phone	814-778-9931	Email Address	manderfeld@gmail.com

d. Volume of waste shipped to processing or disposal facility in the previous year.
142 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.

b.

Facility Name			
Address Line 1			
Address Line 1			
Address City State ZIP			
Municipality		County	

c.

Facility Contact Name			
Title			
Phone		Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. Volume of waste beneficially used in the previous year.
0 ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown **Title** Environmental Specialist

Signature _____ **Date** 2/25/11

PA ID #: 08-00380
NY ID # 11216

Benchmark Analytics, Inc.
Eastern Division
2566 Pennsylvania Ave.
Sayre, PA 18840
Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10112518

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

PHONE: (607) 731-0145
FAX: (607) 562-4001

WO#: 10112518
PAGE: 1 of 4
PO#:
PWS ID#

TEST REPORT

[redacted]Pad

RECEIVED FOR LAB BY: SCP DATE: 11/16/2010 16:40

SAMPLE: **Flowback Sand** Lab ID: 10112518-001A Composite
SAMPLED BY: SG Sample Time: 11/16/2010 13:50

Test	Result		Method	SLOQ	Analysis Start	Analysis End	Analyst *
Methanol	< 10 mg/Kg	N	Alcohols by FID	10	11/17/10 13:51	11/17/10	KMG-CV
Ethanol	< 10 mg/Kg	N	Alcohols by FID	10	11/17/10 13:51	11/17/10	KMG-CV
Isopropanol	< 10 mg/Kg	N	Alcohols by FID	10	11/17/10 13:51	11/17/10	KMG-CV
t-Butanol	< 10 mg/Kg	N	Alcohols by FID	10	11/17/10 13:51	11/17/10	KMG-CV
n-Propanol	< 10 mg/Kg	N	Alcohols by FID	10	11/17/10 13:51	11/17/10	KMG-CV
Isobutanol	< 10 mg/Kg	N	Alcohols by FID	10	11/17/10 13:51	11/17/10	KMG-CV
n-Butanol	< 10 mg/Kg	N	Alcohols by FID	10	11/17/10 13:51	11/17/10	KMG-CV
Sodium	1350 mg/Kg-dry		EPA 6010B	70.3	11/18/10 9:00	11/18/10	GSR-CV
Bromine	<0.46 mg/kg	N	HACH 8167	0.05	11/18/10 9:48	11/18/10	SMH-CV
1,1-Dichloroethene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
Methylene chloride	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
2-Butanone	< 0.213 mg/Kg-dry		EPA 8260B	0.213	11/17/10 21:01	11/17/10	DN-CV
trans-1,2-Dichloroethene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
1,1-Dichloroethane	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
cis-1,2-Dichloroethene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
Chloroform	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
1,1,1-Trichloroethane	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
Carbon tetrachloride	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
Benzene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
1,2-Dichloroethane	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
Trichloroethene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
1,2-Dichloropropane	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
Dibromomethane	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
Bromodichloromethane	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
cis-1,3-Dichloropropene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter is not NELAC certified

U Ammonia sample not distilled

MANAGER Carrie M. Davis DATE: 11/23/2010

PA ID #: 08-00380
NY ID # 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10112518

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

PHONE: (607) 731-0145
FAX: (607) 562-4001

WO#: 10112518
PAGE: 2 of 4
PO#:
PWS ID#

TEST REPORT

[redacted] Pad

RECEIVED FOR LAB BY: SCP DATE: 11/16/2010 16:40

Toluene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
4-Methyl-2-pentanone (MIBK)	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
trans-1,3-Dichloropropene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
1,1,2-Trichloroethane	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
Tetrachloroethene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
Dibromochloromethane	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
1,2-Dibromoethane	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
Chlorobenzene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
1,1,1,2-Tetrachloroethane	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
Ethylbenzene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
m,p-Xylene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
o-Xylene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
Xylenes, Total	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
Bromoform	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
1,1,2,2-Tetrachloroethane	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
1,2,3-Trichloropropane	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
1,3-Dichlorobenzene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
1,4-Dichlorobenzene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
1,2-Dichlorobenzene	< 0.043 mg/Kg-dry		EPA 8260B	0.043	11/17/10 21:01	11/17/10	DN-CV
Chloride	2540 mg/Kg-dry		EPA 300.0	53.8	11/18/10 15:13	11/19/10	HDP-CV
Formaldehyde	3.6 mg/Kg-dry	N	NIOSH 3500	1.0	11/19/10 7:45	11/19/10	LTW-CV
Percent Moisture	6.0 %		SM2540G		11/17/10 9:00	11/18/10	IC-SA

SAMPLE: **Flowback Sand** Lab ID: 10112518-001B Composite
SAMPLED BY: SG Sample Time: 10/16/2010 13:50

Test	Result		Method	SLOQ	Analysis Start	Analysis End	Analyst *
Moisture	6.01 %		Moisture Calc.	0.01	11/17/10 9:00	11/18/10	IC-SA
Ammonia as N	12.9 mg/kg-dry	U	Lachat	1.1	11/18/10 12:00	11/18/10	JP-SA

REMARKS:

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* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter is not NELAC certified

U Ammonia sample not distilled

MANAGER Carrie M. Davis DATE: 11/23/2010

PA ID #: 08-00380
NY ID # 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10112518

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

PHONE: (607) 731-0145
FAX: (607) 562-4001

WO#: 10112518
PAGE: 3 of 4
PO#:
PWS ID#

TEST REPORT

[redacted] Pad

RECEIVED FOR LAB BY: SCP DATE: 11/16/2010 16:40

Free Liquid	< 0.1 %	EPA 9095A	0.1	11/16/10 17:00	11/16/10	IC-SA
pH	7.96@24.3°C	EPA 9045C		11/17/10 16:52	11/17/10	SG-SA
Phosphorus	18 mg/kg-dry	EPA 365.3	5	11/17/10 14:30	11/18/10	MED-SA

SAMPLE: **Flowback Sand** Lab ID: 10112518-001C Composite
SAMPLED BY: SG Sample Time: 10/16/2010 13:50

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Ethylene glycol	< 10.00 mg/kg	Glycols by 8015	10.00	11/18/10 0:00	11/18/10	
Propylene glycol	< 10.00 mg/kg	Glycols by 8015	10.00	11/18/10 0:00	11/18/10	

Sample Note: Analysis performed by Summit Environmental Technologies, Inc.

SAMPLE: **Flowback Sand** Lab ID: 10112518-001D Composite
SAMPLED BY: SG Sample Time: 10/16/2010 13:50

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Phenolics, Total Recoverable	11.1 mg/Kg DRY	EPA 9065	1.33	11/19/10 8:45	11/19/10	

Sample Note: Analysis performed by QC Laboratories.

SAMPLE: **Flowback Sand** Lab ID: 10112518-001E Composite
SAMPLED BY: SG Sample Time: 10/16/2010 13:50

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	879 mg/Kg	EPA 9071		11/18/10 14:40	11/18/10	

Sample Note: Analysis performed by Microbac Laboratories, Inc-Erie Division.

SAMPLE: **TCLP Extract of Flowback Sand** Lab ID: 10112518-001G Composite
SAMPLED BY: SG Sample Time: 11/17/2010 8:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	11/17/10 9:00	11/18/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/18/10 13:15	11/18/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	11/18/10 13:15	11/18/10	GSR-CV

REMARKS:

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* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter is not NELAC certified

U Ammonia sample not distilled

MANAGER Carrie M. Davis DATE: 11/23/2010

PA ID #: 08-00380
NY ID # 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10112518

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

PHONE: (607) 731-0145
FAX: (607) 562-4001

WO#: 10112518
PAGE: 4 of 4
PO#:
PWS ID#

TEST REPORT

[redacted] Pad

RECEIVED FOR LAB BY: SCP DATE: 11/16/2010 16:40

Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/18/10 13:15	11/18/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/18/10 13:15	11/18/10	GSR-CV
Copper - TCLP extracted	0.106 mg/L	EPA 6010B	0.100	11/18/10 13:15	11/18/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/18/10 13:15	11/18/10	GSR-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/18/10 13:15	11/18/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/18/10 13:15	11/18/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/18/10 13:15	11/18/10	GSR-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	11/18/10 13:15	11/18/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter is not NELAC certified

U Ammonia sample not distilled

MANAGER Carrie M. Davis DATE: 11/23/2010

CHAIN OF CUSTODY

Be

2566 Per

PAGE 1 OF 1

W/O#: 10112518

REPORT TO:	Talisman / UEG
	geowetlands@aol.com
CONTACT	Steve Gridley
PH#	607-731-0145
FAX#	
BILL TO:	Talisman
PO#	COMPLETIONS
PROJECT DESCRIPTION	[redacted] Pad.
SAMPLER SIGNATURE / AFFILIATION	UEG
CONTAINER / SAMPLING POINT	

REFRIGERATE SAMPLES AFTER COLLECTION

TRANSPORT TO LABORATORY IN COOLER WITH ICE

DW DRINKING WATER; GW GROUND WATER; SW SURFACE WATER; WW WASTE WATER; DE DEIONIZED WATER; SL SLUDGE; SO SOIL; HZ HAZARDOUS; OTHER; DI DISTILLED WATER

RESULTS ARE BEING USED FOR: ☐ NYDOH ☑ NYDEC ☑ PADEP ☐ LANDFILL ☐ PERSONAL OTHER

ARE SPECIAL DETECTION LIMITS NEEDED: ☐ YES / ☑ NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED? ☐ YES ☑ NO

IF YES, PLEASE ATTACH REQUIREMENTS

H HYDROCHLORIC ACID; S SULFURIC ACID; N NITRIC ACID; SO_3 SODIUM SULFITE; Thio SODIUM THIOSULFATE; – NONE; OH SODIUM HYDROXIDE; AS ASCORBIC ACID; AC ACETIC ACID; NH_4 AMMONIUM CHLORIDE; ZN ZINC ACETATE; Hg MERCURIC CHLORIDE

An incomplete chain of custody may delay the processing of your sample(s).

Please fill out all applicable areas completely

		DATE SAMPLED	TIME OF SAMPLING	SAMPLE MATRIX	SAMPLE TYPE - GRAB / COMPOSITE	SAMPLER INITIALS	PRESERVATIVE	ANALYSIS TO BE PERFORMED (PER CONTAINER)	COMPOSITED ON RECEIPT	PRESERVATIVE ADDED ON RECEIPT	LAB USE ONLY
1	Flowback Sand	11/16	1350	SO	C	SG	N	TPH, pH, Free Liquids, % Moisture			001
2	DUP(1)	11/16	per client	comp	11/19/10			Chlorides, Sodium, Bromine			
3	A-TPH							TCLP Metals: Ar, Ba, Cd, Cr, Pb, Hg, Se			
4	B - pH, Free Liquids, % Moisture), Phos, NH3							Ag, Cu, Zn, Ni			
5	A - Cl, Na, Bromine, Alcohol, Formaldehyde							Alcohols, Glycols, Formaldehyde			
6	C - Glycol							EPA 8260			
7	D - Phenols							Total Phosphorus, Total Phenolics			
8	A 8260							Ammonia - Nitrogen			
9	G - T. Sample										
10	E - TCLP Metals a Cu, Ni, Zn							24 HOUR TURNAROUND			
11								____ DAY TURNAROUND			

EBACDAFG

LAB USE ONLY DELIVERED BY: [redacted] TEMPERATURE UPON RECEIPT 13.5 °C ARRIVAL ON ICE Y / N

RELINQUISHED BY:	DATE: 11/16/10	TIME: 1640	RECEIVED BY:	DATE: / /	TIME:
RELINQUISHED BY:	DATE: / /	TIME:	RECEIVED BY:	DATE: / /	TIME:
RELINQUISHED BY:	DATE: / /	TIME:	RECEIVED BY:	DATE: 11/16/10	TIME: 16:40

2540-PM-BWM0347 Rev. 1/2011

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name
Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company
Talisman Energy Inc.

EPA Generator ID#
N/A

Company Mailing Address Line 1
50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City	State	Zip+4	Phone	Ext
Warrendale	PA	15086	(724) 814-5300	

Company Contact Last Name	First Name	MI	Suffix
Brown	Dina		

Municipality	County
Warrendale	Allegheny

Contact Phone	Ext	Contact Email Address
(724) 814-5321		dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste is generated during natural gas completion operations at the [redacted]01-047) J well pad site located at 2196 Fallbrook Road, Armenia Township, Bradford County, PA. The waste is temporarily stored onsite.

Municipality	Armenia	County	Bradford	State	PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
804	Fracing Fluid Waste (Flow Back Sand)	316	☐ cu yd ☐ gal ☐ lb ☒ ton	☐ One Time

1. GENERAL PROPERTIES

a. **pH Range** 7.27 to --- (based on analyses or knowledge)

b. **Physical State**
- ☐ Liquid Waste (EPA Method 9095)
- ☒ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Greyish Black **Odor** Hydrocarbon
Number of Solid or Liquid Phases of Separation One
Describe each phase of separation. Sand

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☒ Yes	☐ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☒ Yes	☐ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
100361

b.
Facility Name	McKean County Landfill		
Address Line 1	19 Ness Lane		
Address Line 1			
Address City State ZIP	Kane	PA	16735
Municipality	Kane	**County**	McKean

c.
Facility Contact Name	Mike Manderfeld		
Title	General Manager		
Phone	814-778-9931	**Email Address**	manderfeld@gmail.com

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
316 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**

b.
Facility Name			
Address Line 1			
Address Line 1			
Address City State ZIP			
Municipality		**County**	

c.
Facility Contact Name			
Title			
Phone		**Email Address**	

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a. **Has the waste been approved for beneficial use?** ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.

b. **Volume of waste beneficially used in the previous year.**
0 ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Dina Brown

Title Environmental Specialist

Signature _____

Date 2/25/11