Well Installation Report

West Pearl Queen

Unit B of Section 32, Township 19 South, Range 35 East NMPM

NMOCD reference: NOY1816446096

Resubmitted August 13, 2025, to the New Mexico Energy, Minerals and Natural Resources Department - Oil Conservation Division on behalf of Armstrong Energy Corporation

Atkins ENGINEERING ASSOCIATES INC.
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1 Introduction

Atkins Engineering Associates, Inc. (AEA), on behalf of Armstrong Energy Corporation, is pleased to provide this Well Installation Report, pursuant to the July 2, 2024 workplan submitted to the New Mexico Energy, Minerals and Natural Resources Department - Oil Conservation Division (NMOCD), for the Armstrong Energy Corporation West Pearl Queen Site (WPQ), for activities preceding the design of a full Stage 1 Abatement Plan (reference number NOY1816446096).

1.1. Background

The WPQ site is in the NE/4NW/4NE/4 Section 32, Township 19S, Range 35 East, NMPM at approximately 32.62295554°, -103.4757431°, at a general altitude of 3,736 feet above mean sea level (ft-amsl), from the USGS Topographic Map, in Lea County New Mexico.

In accordance with the approved workplan, AEA plugged and abandoned eight (8) wells, SB-4, SB-5, SB-7, SB-13, and SB-20 through SB-23. Additionally, two (2) temporary wells, SB-2 and SB-14 were recompleted as permanent groundwater monitoring wells. Subsequent to the excavation activities completed by PIMA, AEA installed three (3) replacement wells, MW-5R, MW-7R, and MW-24. A site map showing the location of the existing and new wells is provided in Figure A1, Appendix A.

1.2. Deviations from the Approved Workplan

There were no deviation from the approved plan.

2 Monitor Well Installation Activities

2.1. Access Agreements

Prior to well installation, AEA secured an easement from the State Land Offices (WM-672). See Appendix B.

2.3. New Mexico Office of the State Engineer Permitting and Reporting

On January 14, 2025, AEA prepared and filed an Application for Permit to Drill a Well with No Water Right with the District II New Mexico Office of the State Engineers (OSE) for the installation of three (3) groundwater monitor wells, MW-5R, MW-7R, and MW-24. The permit was issued on February 10, 2025. Table 1 lists the OSE points of diversion (POD) designation for all site wells.

Table 1. Site Groundwater Wells v. NMOSE POD File Numbers

Monitor Well	NMOSE File	NMOSE Well POD Number
MW-2	L-14876	L-14876 POD-2
MW-14	L-14876	L-14876 POD-14
MW-5R*	L-15833	L-15833 POD-1
MW-7R*	L-15833	L-15833 POD-2
MW-24*	L-15833	L-15833 POD-3

* New well

Well records and logs for the newly installed wells were submitted to OSE on March 19, 2025. Copies of the installation permit and well records are provided in Attachment B.

2.5. Monitor Well Installation

Between February 24 and February 27, 2025, AEA staff installed three (3) new monitor wells. See drilling information in Appendix D.

Each borehole was logged using the Universal Soil Classification System (USCS) method. Subsurface soil layers consisted of poorly-graded sand to approximately sixteen (16) to twenty (20) feet below ground level (bgl), ending with clay to total depth. Groundwater was encountered at approximately twenty-three (23) feet bgl in soil boring SB-5R, and twenty-four (24) feet bgl in SB-7R and SB-24. Soil borings were advanced to approximately one (1) feet below the water table, which is the top of the red bed. Each well was completed with 2-inch schedule 40 PVC as shown on the well records.

3 Monitor Well Professional Survey

On March 14, 2025, an AEA conducted a survey to determine the horizontal and vertical positions of the site's existing and new monitor wells. Horizontal positions were established using a Topcon GR-5 base and receiver. Horizontal coordinates are in US Survey Feet NAD 83 (2011) New Mexico State Plane East Grid Coordinates, scaled to ground with a combined scale factor 1.0001865347887380997. Elevations were determined using Orthometric Heights established RTK GPS observations tied to a newly-installed Temporary Benchmark (TBM). The TBM is the top pf a corner of a 2-inch pipe fence, with an established Orthometric Height of 3737.61 feet NAVD88, determined using GPS observations tied to NGS Benchmark "R 97" with a published Orthometric Height of 3894.17 feet NAVD88.

Table 2 summarizes the survey data for all site wells. A surveyor-stamped data table for all monitor wells is included in Appendix C.

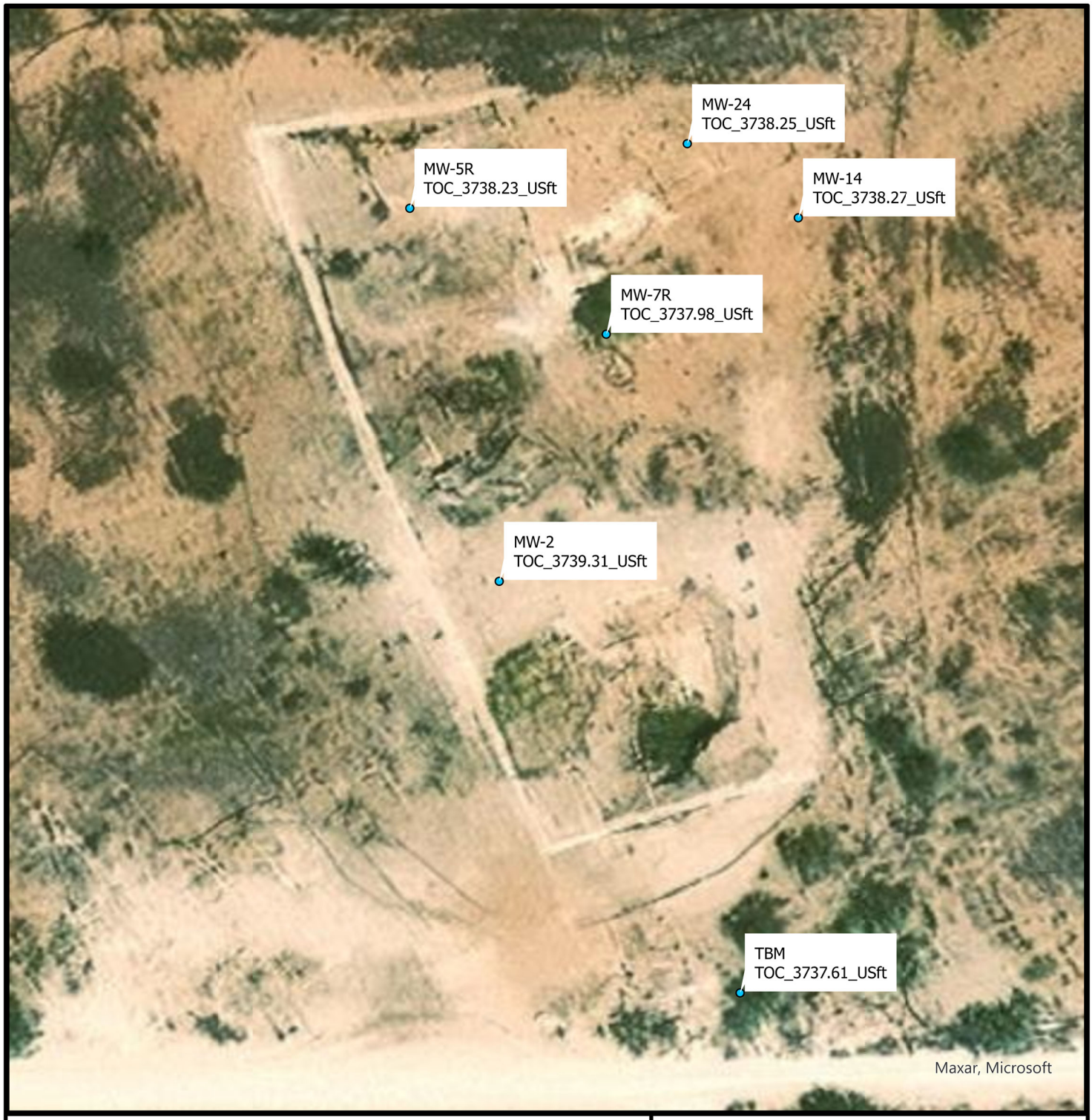
Table 2. Monitor Well Survey Data

Site Well	Northing (USft)	Easting (USft)	Latitude (DD)	Longitude (DD)	TOC Elevation (USft)
MW-2	591323.20	805345.85	32.62266980	-103.47582846	3739.31
MW-5R	591475.32	805313.52	32.62308861	-103.47592947	3738.23
MW-7R	591424.53	805381.95	32.62294750	-103.47570856	3737.98
MW-14	591472.52	805447.81	32.62307794	-103.47549341	3738.27
MW-24	591502.42	805409.27	32.62316097	-103.47561779	3738.25

4 Conclusion

The installation of replacement wells SB-05R, SB-07R, and SB-24 was completed in February 2025. AEA will conduct groundwater sampling of all the site wells in April-May 2025. A report including sampling results and recommendations will be submitted to NMOCD as indicated in the approved workplan.

Appendix A – Figures



Monitor Well Location

N

0 50

US Feet

1:500

Figure A1. West Pearl Queen Site Map and Well Locations

FIELD: 2/24 - 2/27/2025

DRAWN: 4/7/2025

Atkins ENGINEERING ASSOCIATES INC.

Appendix B – District II NMOSE Permitting and Reporting

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01/14/2025

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Application to Drill a Well with No Water Right for West Peral Queen Site

To whom it may concern:

Atkins Engineering Associates, Inc. (AEA) has been contracted to install three (3) Soil boring/monitoring wells at West Pearl Queen Site, Lea County, New Mexico. Please find, in triplication, an *Application to Drill a Well with No Water Right.* A check for $15.00 to process the application.

If you, have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

Lucas Middleton

Enclosures: As noted above.

File No.

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable boxes):

For fees, see State Engineer website: https://www.ose.nm.gov/

Purpose:	☐ Pollution Control And/Or Recovery	☐ Ground Source Heat Pump
☐ Exploratory Well*(Pump test)	☐ Construction Site/Public Works Dewatering	☐ Other(Describe):
☒ Monitoring Well	☐ Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

*New Mexico Environment Department-Drinking Water Bureau (NMED-DWB) will be notified if a proposed exploratory well is used for public water supply.

☐ Yes ☑ No Angled/Directional borehole - include schematic and azimuth, inclination, measured depth and true vertical depth.

☐ Temporary Request - Requested Start Date: Requested End Date:

Plugging Plan of Operations Submitted? ☐ Yes ☒ No

Note: if there is known artesian conditions, contamination or high mineral content at the drilling location, include the borehole log or a well log from an existing well at that location. If this information is not submitted, check box and attach form WD-09 to this form. ☐

1. APPLICANT(S)

Name: Armstrong Energy	Name:
Contact or Agent: check here if Agent ☐ Kye Alpers	Contact or Agent: check here if Agent ☐
Mailing Address: P.O. Box 1973	Mailing Address:
City: Roswell	City:
State: Zip Code: New Mexico 88201	State: Zip Code:
Phone: (575) 626-2727 ☐ Home ☐ Cell Phone (Work):	Phone: ☐ Home ☐ Cell Phone (Work):
E-mail (optional): kalpers@aecnm.com	E-mail (optional):

FOR OSE INTERNAL USE

Application for Permit, Form WR-07, Rev 10/02/2024

File No.:	Trn. No.:	Receipt No.:
Trans Description (optional):		
Sub-Basin:	PCW/LOG Due Date:	

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell), District V (Aztec) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

■ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	-Public Land Survey System (PLSS) (QQQSection, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name	Well Depth in feet	Casing Diameter (OD)
SB-5R	103°28'33.4	32°37'23.1	NE NW NE Sec. 32 T19S R35E	32	2"
SB-7R	103°28'32.6	32°37'22.6	NE NW NE Sec. 32 T19S R35E	32	2"
SB-24	103°28'32.3	32°37'23.7	NE NW NE Sec. 32 T19S R35E	32	2"

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ☐ **Yes** ■ **No** **If yes, how many**

Other description relating well to common landmarks, streets, or other:

Well is on land owned by: New Mexico State Land Office

Well Information: NOTE: If casings telescope or involve nested casing, please provide diagram. Attached? ☐ **Yes** ■ **No**

Approximate depth to water (feet): 18	Outside diameter of well casing (inches): 2.375
Driller Name: Jackie D. Atkins (Atkins Engineering Associates Inc.)	Driller License Number: 1249

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

See attached approval Monitoring Well Easement from the New Mexico State Land Office. If more information is needed please contact Faith Crosby -505.827.5849

FOR OSE INTERNAL USE Application for Permit, Form WR-07 Version 10/02/2024

File No.:	Trn No.:

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory*:	**Pollution Control and/or Recovery:**	**Construction De-Watering:**	**Mine De-Watering:**
Is proposed well a future public water supply well? ☐ Yes ☐ NO If Yes, an application must be filed with NMED-DWB, concurrently. ☐ Include a description of any proposed pump test, if applicable.	☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for the pollution control or recovery operation. ☐ The estimated maximum period of time for completion of the operation. ☐ The annual diversion amount. ☐ The annual consumptive use amount. ☐ The maximum amount of water to be diverted and injected for the duration of the operation. ☐ The method and place of discharge. ☐ The method of measurement of water produced and discharged. ☐ The source of water to be injected. ☐ The method of measurement of water injected. ☐ The characteristics of the aquifer. ☐ The method of determining the resulting annual consumptive use of water and depletion from any related stream system. ☐ Proof of any permit required from the New Mexico Environment Department. ☐ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	☐ Include a description of the proposed dewatering operation, ☐ The estimated duration of the operation, ☐ The maximum amount of water to be diverted, ☐ A description of the need for the dewatering operation, and, ☐ A description of how the diverted water will be disposed of.	☐ Include a plan for Mine De-Watering, that includes the following: ☐ A description of the need for mine dewatering. ☐ The estimated maximum period of time for completion of the operation. ☐ The source(s) of the water to be diverted. ☐ The geohydrologic characteristics of the aquifer(s). ☐ The maximum amount of water to be diverted per annum. ☐ The maximum amount of water to be diverted for the duration of the operation. ☐ The quality of the water. ☐ The method of measurement of water diverted. ☐ The recharge of water to the aquifer. ☐ Description of the estimated area of hydrologic effect of the project. ☐ The method and place of discharge. ☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. ☐ A description of the methods employed to estimate effects on surface water rights and underground water rights. ☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring*: ☒ Include the reason for the monitoring well, and, ☐ The duration of the planned monitoring.		**Ground Source Heat Pump:** ☐ Include a description of the geothermal heat exchange project, ☐ The number of boreholes for the completed project and required depths. ☐ The time frame for constructing the geothermal heat exchange project, and, ☐ The duration of the project. ☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	

(* if exploration or monitoring drilling activity is required by NMED, then you must also submit the NMED Work Plan)

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Kye Alpers on behalf of Armstrong Energy Corp.

Print Name(s)

affirm that the foregoing statements are true to the best of (my,our) knowledge and belief.

Kyle Alpers

Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☐ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this _____ day of _____ 20 _____ , for the State Engineer,

_____, State Engineer

By: _____ _____

Signature Print

Title: _____

Print

FOR OSE INTERNAL USE Application for Permit, Form WR-07 Version 10/02/2024

File No.:	Trn No.:

WR-07-forsign -

Final Audit Report 2025-01-13

Created:	2025-01-10
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAVLMWoDh1Ho6dzKdAWyXe2B7Rb2M5CjJe

"WR-07-forsign -" History

Document created by Lucas Middleton (lucas@atkinseng.com)
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Document e-signed by Kyle Alpers (kalpers@aecnm.com)
Signature Date: 2025-01-13 - 9:49:17 PM GMT - Time Source: server

Agreement completed.
2025-01-13 - 9:49:17 PM GMT

Adobe Acrobat Sign

NEW MEXICO STATE LAND OFFICE

WATER MONITORING EASEMENT

NO. WM-672
New-Issue

THIS AGREEMENT, effective on March 11, 2021 and dated this 26 day of July, 2021, made and entered into between the State of New Mexico Commissioner of Public Lands, acting trustee pursuant to the Act of June 21, 1910, 36 Stat. 557, ch. 310, § 10, (Commissioner), and **Armstrong Energy Corporation**, whose address is **P.O. Box 1973, Roswell, NM 88202**, (Grantee). This Water Monitoring Easement ("Easement") is not effective until signed by the Commissioner.

1. **Grant of Easement**

For good and valuable consideration, including the covenants herein, the Commissioner grants to Grantee a Water Easement for **four (4)** well-sites as herein defined, to be located within the following described area in **Lea** County ("Easement Land"):

Quarter-Quarter	*Section*	*Township*	*Range*	*Number of Easement Acres*
NW4NE4, NE4NE4	**32**	**19S**	**35E**	**80**

The monitoring wells permitted under this Easement are as follows:

SLO Well-Site Name	*Lat Long in decimal degrees*	*OSE Well POD Number*	*Volume of Use*
WPQSB20	**32.623785, -103.475704**	**L-15106 POD1**	**<600gpy Per Well**
WPQSB21	**32.622871, -103.474462**	**L-15106 POD2**	
WPQSB22	**32.622958, -103.477066**	**L-15106 POD3**	
WPQSB23	**32.621827, -103.475712**	**L-15106 POD4**	

A well-site is one half (0.5) acre with the denominated well in the center. Depending on their proximity, well-sites may overlap. The area of this granted easement is calculated based on 0.5 acres multiplied by the total number of well sites shown above.

2. **Purpose and Approved Use**

This Easement is for the purpose of allowing Grantee's placement of monitoring well(s) for the benefit of the trust and for the following specific purpose: pursuant to the requirements of Corrective Action **1RP-5090** issued by NMOCD on June 13, 2018 to monitor groundwater. This grant of Easement entitles Grantee to the exclusive use of the easement for the permitted purposes, and to install such improvements as are necessary to those purposes for the term of this easement.

This Easement does not entitle Grantee to divert water, or to develop or put to beneficial use any water rights. The Commissioner may permit other uses on or within this Easement to the extent that they do not impair Grantee's permitted purposes.

3. Term of Easement

A. Term

This Water Easement is for a term of five (5) years, commencing on **March 11, 2021** ("Anniversary Date"), and expiring **March 10, 2026**, unless terminated earlier as provided herein.

B. Renewal

Upon Grantee's written request submitted to the Commissioner at least sixty (60) days prior to the expiration of this Easement, the parties may renew this Easement if the Commissioner, in the Commissioner's sole discretion, determines such renewal to be in the best interests of the trust.

C. Reversion to Commissioner

At such time that this Water Easement expires, is not renewed, or is otherwise terminated, or if Grantee has failed to use the Easement Land for the permitted purposes for a period of one (1) year, the Easement Land shall *ipso facto* revert to the Commissioner who may, in the Commissioner's sole discretion, thereafter make this Water Easement, with improvements, if any, available for further use. The Commissioner shall give Grantee notice of this said non-renewal by registered mail and no further notice or action on the Commissioner's part shall be required. Any loss of any kind, arising from the non-renewal of this Easement is acknowledged and accepted by Grantee as a business risk and Grantee's acknowledgement and acceptance shall be considered an inducement by Grantee to the Commissioner to enter into this Water Easement, shall not be considered a "taking" of any rights or property of Grantee, and shall not be the basis of any action at law or in equity to recover damages of any kind.

4. Grantee Standard of Care

Grantee shall act prudently in drilling wells and performing water monitoring. "Prudent" within the context of this provision means that standard of care, operating and action of a reasonable water user acting pursuant to provisions of New Mexico water law and any other applicable laws, rules, and regulations. When Grantee has completed monitoring use of the well, Grantee will plug the well and provide Commissioner written evidence of having done so.

5. Permits and Reporting

A. Permit to Drill and Copies

Prior to drilling, Grantee shall obtain a permit to drill a well with no water right (Permit) for each well included in this Easement from the New Mexico Office of the State Engineer (OSE). The Permit application must name the Commissioner of Public Lands as co-applicant and indicate that the well is to be located on land owned by the New Mexico State Land Office. Grantee shall send the Commissioner a copy of all applications for a Permit or correspondence related to the applications contemporaneously with any OSE filing, and shall send to the Commissioner a copy of any and all OSE response(s), Permits, or other communication(s) regarding Permit within ten (10) days of receipt. Grantee shall comply with all applicable laws pertaining to, and with all rules and regulations and procedures of, any other state agency having proper jurisdiction over the water.

B. Monitoring Reports

Grantee shall provide to the Commissioner copies of all interim and final reports created using data collected from the wells permitted under this Easement.

C. Commissioner Participation in Filing

The Commissioner, in the Commissioner's discretion, may assist Grantee in any filings or proceedings before the OSE. However, the Commissioner may withhold approval of any filings with the OSE, may withdraw participation or approval of any joint filing with the OSE, and may contest or challenge any filing (even if the Commissioner was previously a joint applicant or party to the filing), if the Commissioner determines that a filing is not or is no longer in the best interest of the trust. At the written request of the Commissioner, Grantee shall withdraw any filing with the OSE.

6. Documentation

As soon as practicable, Grantee shall furnish to the Commissioner copies of records, reports and plats of its operation, produced during the term of this Easement, including but not limited to water quality tests, well logs, drill cores, meter readings, and any data relating to hydrology and geological formations.

7. Amendment

This Easement shall not be altered, changed, or amended except by a written instrument executed by both the Commissioner and Grantee. An amendment is required to add wells to or remove wells from this Easement, or to establish rights-of-way or install improvements outside of the Easement Land. Each such amendment application shall be accompanied by the filing fee set forth in the Commissioner's current schedule of fees, and an annual rental payment per well, to be calculated and due as described in Paragraph 11.

8. Rights-of-way

Grantee shall have the right, without further consideration, to establish such rights-of-way upon the Easement Land as are reasonably necessary to the Purpose and Approved Use of the Easement, to install or maintain any necessary equipment or facilities on the Easement Land. Grantee shall not establish any rights-of-way or install any improvements outside of the Easement Land without an amendment to this Easement. It is Grantee's sole responsibility to notify and obtain in advance the approval of any surface lessee for any right-of-way. The Commissioner reserves the right to require such rights-of-way to be moved when the development or other use of the surrounding trust lands require this. Rights of way outside the Easement Land will be granted by the Commissioner, in the Commissioner's discretion. No right-of-way, or other access across, or use of any lands other than those expressly granted in this Easement is implied or expressed.

9. Surveys

Grantee shall survey each well site as soon as practicable after drilling, and submit a copy of the survey plat when completed to the Commissioner.

10. Improvements

A. Authorized Improvements

Grantee may make or place such improvements and equipment upon or under the Easement Lands as are reasonably necessary to the purpose of the Easement, subject to the requirements for removal of improvements and equipment set forth in Paragraph C below. No pipelines shall be installed, and no water right shall be developed or used under this Easement. All Grantee improvements such as well housing, piping, casing, and related equipment installed or obtained by Grantee on the granted Easement shall remain Grantee's sole property and liability. All such improvements shall be subject to the lien described in NMSA 1978 § 19-7-34. Grantee shall submit a written request for approval from the Commissioner prior to making any changes or additions to Authorized Improvements on the Easement Land. At the request of the Commissioner, Grantee shall submit updated survey plats showing such changes or additions.

B. Unauthorized Improvements

In the event that improvements not authorized by the Commissioner are placed on or under the Easement Land, at the Commissioner's discretion, such improvements may thereafter be deemed forfeited to the Commissioner and for purposes of Sections 19-7-14 and 19-10-28 NMSA 1978, no payments shall be due pursuant to those sections for such remaining improvements, or the Commissioner may order the removal, at Grantee's expense, of such improvements and the restoration of the Easement Land to its condition existing prior to the placement of said improvements.

C. Removal of Improvements or Equipment

Upon the termination, expiration or assignment of Grantee's interest in this Easement, Grantee may remove all such improvements, but only to the extent that such removal will not cause material injury to the Easement Land, and provided that all sums due to the Commissioner have been paid and that such removal is accomplished within sixty (60) days of the date of termination, expiration or assignment; or, Grantee may sell its interest in such physical improvements to a subsequent grantee or assignee. Any such sale or removal shall be subject to the Commissioner's paramount statutory lien. The Commissioner may, in writing, consent to Grantee leaving designated improvements upon the Easement Land, and such improvements shall thereafter be deemed forfeited to the Commissioner, and no payments for such remaining improvements shall be due under Sections 19-7-14 and 19-10-28 NMSA 1978. Any other improvements not removed or sold by Grantee shall continue to be Grantee's sole property and liability, shall be deemed in trespass, and shall give rise to such remedies for trespass and waste as may be available to the Commissioner at law or in equity. The Commissioner may extend the 60-day period upon good cause shown.

11. Payment of Rental

A. Annual Rental

Grantee shall pay annual rental in the amount of **$2,000.00** (**$500.00** per monitoring well) to be due on or before the Anniversary Date **March 11th** of each year. If this Easement is relinquished, cancelled or otherwise terminated prior to the end of the term set forth above, the annual rental shall not be prorated, reduce or refunded for any part of any year during which the Easement is in effect.

B. Payment Submittal

Payment of all sums due hereunder shall be made payable to "Commissioner of Public Lands" and shall include the State Land Office Water Easement number **WM-672**, and shall be submitted to the Director of Oil Gas Minerals Division, New Mexico State Land Office, 310 Old Santa Fe Trail, P.O. Box 1148, Santa Fe, New Mexico 87504-1148.

12. Receipt of Monies:

A. Receipt of Monies

No receipt of monies, including rental, by the Commissioner from Grantee, or any other person acting for or on Grantee's behalf, after termination or expiration of this Easement shall reinstate, continue, or extend the Term; affect any notice previously given to Grantee; operate as a waiver of the Commissioner's right to enforce payment of any rent or other monies due or thereafter falling due; or, operate as waiver of the right of the Commissioner to recover possession of the Easement Land by legal action.

B. Acceptance of Payment

Grantee understands that the Commissioner's receipt of any monies is governed by the New Mexico State Land Office Rules. Grantee agrees that the Commissioner's negotiation of Grantee's

check or other means of payment, and crediting the proceeds of such instrument to a suspense account, does not constitute acceptance of Grantee's payment.

C. Application of Payments

The Commissioner shall have the right to apply any payments made by Grantee to satisfy Grantee's obligations to the Commissioner in any order at the Commissioner's sole discretion, and without regard to Grantee's instructions as to the application of any such payment or part thereof, whether such instructions are endorsed on Grantee's check or otherwise, unless the Commissioner and Grantee otherwise agree, in writing, before the Commissioner accepts such payment. The Commissioner's acceptance of a check or payment by Grantee or others on Grantee's behalf shall not, in any way, affect Grantee's obligations hereunder nor shall it be deemed an approval of any assignment or subletting of this Water Easement.

13. Signage

Grantee shall post on each well a sign with Grantee's name, Easement number, State Land Office well number, OSE permit number and location by legal description.

14. Site Security and Fencing

Any and all site security of any kind for Grantee, Grantee's agents, employees or invitees, the Easement Land, or any personal property thereon shall be the sole responsibility and obligation of Grantee, and shall be provided by Grantee at Grantee's sole cost and expense. Grantee agrees to provide reasonable security for the Easement Land and all construction areas within the Easement Land consistent with standard industry practices and in conformity with Grantee's duty to prevent waste and trespass. If the Commissioner requires or approves in advance in writing, Grantee will furnish proof to the Commissioner that required or approved fencing is completed and in good repair.

15. Reclamation

Grantee agrees to reclaim by grading, levelling or terracing all areas disturbed by its activities on the Easement Land, and to landscape such areas at its own cost and expense. A Reclamation Plan must be submitted to and approved by Grantor prior to implementation. Grantor will not release Grantee from its responsibility for reclamation and revegetation until all work described in the Reclamation Plan has been completed and Grantor has performed an inspection on the Easement Land. The goal of the Reclamation Plan shall be to achieve native plant cover and diversity levels equal to or exceeding the natural potential levels in undisturbed soils adjacent to the project area. The Reclamation Plan shall include the following:

A. Narrative

The Reclamation Plan shall include a narrative describing all reclamation activities including removal of debris and equipment.

B. Re-Vegetation Requirements

A detailed description of the seed mix (native seed only), seeding rate/acre, method of dispersal, timing of dispersal, follow up monitoring plan, a re-seeding plan if initial efforts are unsuccessful, and a plan for addressing noxious weeds shall all be included in the Reclamation Plan. All seed mixtures submitted for approval shall specify pounds of pure live seed per acre. The seed shall contain no primary or secondary noxious weeds. Commercially sold seed shall be either certified or registered seed. The Noxious Weed component of the Reclamation Plan should include identification of the species of concern and the methods used to eradicate those species from the site. Eradication techniques may include mechanical treatment, chemical treatment, follow-up and monitoring. A Final Report is required on implementation and completion of the Reclamation that includes a brief narrative of the seeding and monitoring efforts and photos of the

reclaimed area. Once Grantee has submitted the Final Report and the Grantor has approved the work, Grantor will provide acknowledgment that reclamation requirements have been met.

16. Compliance with State Land Office Rules and Other Laws

Grantee shall comply with all applicable laws pertaining to, and with all rules and regulations and procedures of, the OSE where the State Engineer has jurisdiction over the monitoring wells. Grantee shall fully comply with all federal, state and local laws, rules, regulations, ordinances and requirements applicable to the Easement Land or to Grantee's operations thereon, including but not limited to all applicable laws governing water; endangered or threatened species; hazardous materials; environmental protection; land use; health and safety; cultural, historic or archeological / paleontological properties; waste; trespass, and the New Mexico Cultural Properties Act, NMSA 1978, 18-6-1 et seq. Such agencies are not to be deemed third party beneficiaries hereunder; however, this clause is enforceable by the Commissioner as herein provided or as otherwise permitted by law. Grantee shall comply with all New Mexico State Land Office Rules and Regulations, 19.2 NMAC, including those that may be hereafter promulgated. Grantee's obligations under this paragraph include but are not limited to compliance with NMSA 1978 Section 19-6-5, requiring a lessee of State Trust Land to protect the Easement Land from waste or trespass. Grantee's compliance with all laws, regulations and policy shall be at its own expense.

17. Relinquishment

A. Relinquishment

Grantee may, with the Commissioner's approval, relinquish this Easement provided that Grantee is in compliance with all terms of this Easement, including the payment of all rentals due, and if all improvements made pursuant to the Easement on, for, or appurtenant to the Easement Land have been approved by the Commissioner and arrangements satisfactory to the Commissioner have been made for either their removal or retention. Grantee may request relinquishment of all or any part of the Easement Land by filing relinquishment forms prescribed by the Commissioner and paying the relinquishment fee in the Commissioner's schedule of fees. Granting the request is at the discretion of the Commissioner.

C. No Release of Liability or Obligations

Grantee shall not, by relinquishment, avoid or be released from any liability for known or unknown waste or damage to the Easement Land, including environmental damage arising from, or in connection with, Grantee's use or occupancy thereof. Likewise, by relinquishment Grantee shall not be relieved of or discharged of obligations accrued by Grantee as of the date of relinquishment, including the obligation to reclaim the surface, revegetate the surface, pay the rentals required under Paragraph 11 and indemnify the Commissioner in accordance with the terms of this Easement.

D. No Refunds for Relinquishment

Upon any relinquishment, Grantee shall not be entitled to the refund of any rental previously paid.

18. Assignment or Sublease

Grantee shall not assign or sublease any rights granted hereunder, any part thereof, any portion of the Easement Land or any improvements located on the Easement Land without the prior amendment of this Water Easement pursuant to Paragraph 7 to permit such sublease or assignment, payment of the fee provided in the Commissioner's schedule of fees, and completion of required forms indicating the Commissioner's consent. Grantee may assign this Water Easement in whole only. The assignee shall succeed to all of the rights and privileges of Grantee

hereunder and shall be held to have assumed all of the duties and obligations of Grantee to the Commissioner (including payments of rentals up to and after the date of the assignment), except that the Commissioner reserves the right to increase the annual rental and percent rental to be payable by the assigned under Paragraph 11. No such assignment or sublease shall attempt to convey any permanent interest in Water Rights. Any sublease or assignment without Water Easement amendment shall be null and void.

19. Collateral Assignment

Grantee shall obtain approval of the Commissioner before making any collateral assignment or mortgage of its interest in this Easement or its improvements, and any such collateral assignment or mortgage shall be subject to the conditions, limitations and requirements set forth in the State Land Office rules. The Commissioner's approval of a collateral assignment or mortgage shall not release Grantee from any of its obligations under this Easement, except as agreed to in writing by the Commissioner. If the Commissioner gives Grantee a notice of default, the Commissioner shall simultaneously provide a copy of the notice to an approved collateral assignee or mortgagee, which shall have the right to cure the default within the time provided, subject to the requirements of State Land Office rules. An approved collateral assignee or mortgagee may succeed to the rights and duties of Grantee, and it may assign the Water Easement in accordance with Paragraph 18, and State Land Office Rules governing assignments.

20. Grantee Breach and Cancellation

The Commissioner may terminate this Water Easement for breach of any term or covenant of this Easement. Any substantial deviation in water quantity or water quality, if reasonably attributable to Grantee, or any change in the purpose of the Easement from that stated herein, shall constitute grounds for the Commissioner, in the Commissioner's sole discretion, to terminate, amend, modify, renegotiate, cancel or otherwise change this Easement; provided, however, that the Commissioner shall mail to Grantee, by certified mail, addressed to the mailing address of Grantee shown in the Commissioner's current records, a thirty (30) day notice of intention to alter or terminate, specifying the reasons for which the notice is given. Proof of mailing, but no proof of receipt of notice, shall be necessary, and thirty (30) days after such mailing this Easement shall terminate *ipso facto* without further notice or proceeding required of the Commissioner; provided, however, there shall be no termination and reversion if Grantee has previously made arrangements satisfactory to the Commissioner to discharge or resolve the breach.

21. Holding Over

Upon termination or expiration of this Easement, any act or conduct of Grantee, including, but not limited to, the unapproved entry upon, occupancy, or use, whether continuous or not, of all or any part of the Easement Land by Grantee, Grantee's agents, or by any unauthorized improvements or other improvements required or ordered to be removed upon termination or expiration shall constitute Holding Over. At the termination or expiration of this Easement, Grantee immediately shall deliver possession to the Commissioner. In the event of Grantee's Holding Over, Grantee shall pay the Commissioner from time to time, upon demand, as rental for the period of any hold over, to be due for each day of such hold over, an amount equal to two hundred percent (200%) of the annual rent. Nothing contained herein shall be construed as a grant to Grantee of the right to hold over or otherwise enter the Easement Land for any purpose after the expiration or termination of this Easement without the prior written approval of the Commissioner. At any time that Grantee is holding over, the Commissioner shall, without requirement of further notice or grace period, have any and all rights to evict or otherwise remove Grantee by force or

otherwise, with all costs and fees incurred in such action to be due and payable by Grantee. This Section shall survive the termination or expiration of this Easement.

22. Bond

Prior to commencement of operations under this Easement. Grantee shall obtain the Commissioner's approval of and file a bond with the Commissioner in the amount of **one thousand dollars ($1,000.00)** to secure payment to the Commissioner of such damage as may occur to livestock, range, water, crops or tangible improvements on the subject lands as may result from Grantee's use and occupation under this Easement. Such bond shall be payable for the term of this Easement, and may be utilized for reclamation of disturbed lands following the operations of Grantee under this Easement. Payment under this paragraph is to be made to the Commissioner and not to any other party. Grantee's bond shall not be liquidated damages, and the Commissioner reserves the right to pursue any other remedy for damages available at law or in equity.

23. Indemnification

Grantee shall hold harmless, indemnify and defend the State of New Mexico, the Commissioner and the Commissioner's employees, agents, and contractors, and beneficiaries, in both their official and individual capacities, from any and all liabilities, claims, losses, damages, or expenses, including but not limited to reasonable attorneys' fees, loss of land value, third party claims, penalties or removal, remedial or restoration costs arising out of, alleged to arise out of or indirectly connected with a) the operations hereunder of Grantee or Grantee's employees, agents, contractors, or invitees, b) any hazardous materials located in, under, or upon or otherwise affecting the Easement Land or adjacent property, or c) the activities of third parties on the Easement Land, whether with or without Grantee's knowledge or consent. In the event that any action, suit or proceeding is brought against Grantee, Grantee shall, as soon as practicable but no later than two (2) days after it receives notice thereof, notify the legal counsel of the Commissioner and the Risk Management Division of the New Mexico General Services Department by certified mail. This paragraph shall survive the termination, cancellation or relinquishment of this Water Easement, and any cause of action of the Commissioner to enforce this provision shall not be deemed to accrue until the Commissioner's actual discovery of said liability, claim, loss, damage, or expense.

24. Insurance

During the Term of this Water Easement, Grantee shall, at Grantee's cost and expense and at no cost to the Commissioner, insure all improvements against liability to third parties and for construction risks, in accordance with industry standards for the estimate probably loss. Grantee's insurance carriers shall be in good standing, adequately underwritten, and duly licensed to issue insurance policies in New Mexico. Grantee shall provide the Commissioner proof of insurance. In addition, Grantee shall obtain at its own expense, insurance coverage adequate to protect its operations, property, employees and agents in amounts Grantee finds sufficient. Grantee shall be solely responsible for obtaining insurance policies that provide coverage for losses of Grantee-owned property, including improvements. The Commissioner shall not be required to provide such insurance coverage or be responsible for payment of Grantee's costs for such insurance.

25. No Waiver by Commissioner

No employee or agent of the Commissioner has the power, right, or authority to orally waive any of the conditions, covenants, or agreements of this Easement; and no waiver by the Commissioner of any of the conditions, covenants, or agreements of this Easement shall be effective unless in writing and executed by the Commissioner. The Commissioner's waiver of Grantee's breach or default of any of the conditions, covenants, or agreements hereof shall not

constitute or be construed as a waiver of any other or subsequent breach or default by Grantee. The failure of the Commissioner to enforce at any time any of the conditions, covenants, or agreements of this Easement, or to exercise any option herein provided, or to require at any time performance by Grantee of any of the conditions, covenants, or agreements of this Easement shall not constitute or be construed to be a waiver of such conditions, covenants, or agreements, nor shall it affect the validity of this Easement or any part thereof, or the Commissioner's right to thereafter enforce each and every such condition, covenant, or agreement.

26. Scope of Agreement

This Easement incorporates all the agreements, covenants, and understandings between the Commissioner and Grantee concerning the subject matter hereof and all such agreements, covenants, and understandings are merged into this Easement. No prior agreement or understanding between the Commissioner and Grantee shall be valid or enforceable unless expressly embodied in this Easement.

27. Non-impairment

Nothing in this Easement is to be construed to allow the impairment of the rights of any lawful holder, present or future, of any geothermal resources, or any mineral, grazing, commercial, easement, or Water Rights on the subject or any other state trust lands.

28. Severability

In the event that any provision of this Easement is held invalid or unenforceable under applicable law, this Easement shall be deemed not to include that provision and all other provisions shall remain in full force and effect.

29. Successors In Interest

All terms, conditions, and covenants of this Easement and all amendments thereto shall extend to and bind the permitted heirs, successors, and assigns of Grantee and the Commissioner. There are no third party beneficiaries of this Easement.

30. Dispute Resolution, Applicable Law and Venue

Any disputes arising under or in connection with this Easement shall be first resolved by mandatory contest pursuant to 19.2.15 NMAC. Subsequent appeal, if any, shall be in the First Judicial District Court of Santa Fe. In all instances, the law of New Mexico shall apply. The laws of the State of New Mexico shall govern this Easement, without giving effect to the conflict of law provisions of the State of New Mexico. Grantee consents to venue and jurisdiction in the District Court in and for the County of Santa Fe, State of New Mexico for purposes of any appeal pursuant to 19.2.15 NMAC, and to service of process under the laws of the State of New Mexico in any action relating to this Easement or its subject matter.

31. Time

Time is of the essence in the performance of each and every provision of this Easement. Grantee's failure to perform any or all of its obligations under this Easement in a timely manner shall be a breach of this Easement.

32. Singular And Plural

Whenever the singular is used herein, the same shall include the plural.

33. Headings And Titles

The use of section or paragraph headings and titles herein is for descriptive purposes only and is independent of the covenants, conditions, and agreements contained herein.

34. No Joint Venture

The Commissioner is not and will not be construed or held to be a partner, joint venturer or associate of Grantee in the conduct of the business of Grantee. The Commissioner will not be liable for any debts incurred by Grantee in the conduct of the business of Grantee. The relationship between the Commissioner and Grantee is, and will remain, solely that of the Commissioner and Grantee.

35. No Commissioner Personal Liability

In the event of a court action, Grantee shall not seek damages from the Commissioner or any employee of SLO or the State of New Mexico in their individual capacity. This Section shall survive termination of this Easement.

36. Stipulations

This easement is being issued with the expectation that all fees, bond(s) and requested data and information has been submitted or will imminently be received by the State Land Office. Should a subsequent audit of this easement reveal any of the above stated items have not been submitted, the New Mexico State Land Office will issue a letter to you requiring that you come into compliance, and the easement holder shall have 30 days to submit the missing item(s) or this easement may be terminated.

- Comply with the DSL CCAA Conservation Measures.
- Consider siting westernmost well location outside of shinnery dune habitat.
- Conduct migratory bird nesting surveys 5-7 days prior to construction during March 1st- August 31st.
- Comply with the relevant NMSLO BMPs whenever possible.

37. Notices

Written notice by registered or certified U.S. Postal Service, return receipt requested, or delivered by reputable overnight courier, return receipt of tracking system, to the addresses of the party hereunder shall constitute sufficient notice to comply with the terms of this Easement. Notice will be deemed effective upon delivery. Either the Commissioner or Grantee may change its respective address as provided in this Section effective three (3) business days after giving written notice of the change to the other. The addresses for notice are:

Notice to the Commissioner:
New Mexico Commissioner of Public Lands
Attn: Oil Gas Minerals Division
P.O. Box 1148
Santa Fe, New Mexico 87504-1148
Tel: (505) 827-5760

With copy to:
New Mexico State Land Office
General Counsel
P.O. Box 1148
Santa Fe, NM 87504-1148
Tel: (505) 827-5756

Notice to Grantee:
Armstrong Energy Corporation
Attn: Ronald D. Hillman
P.O. Box 1973
Roswell, NM 88202
Phone: 575-625-2222
Email: rhillman@aecnm.com

IN WITNESS WHEREOF, the Commissioner of Public Lands and Grantee have signed this Easement to be effective on the date signed by the Commissioner.

GRANTEE:
ARMSTRONG ENERGY CORPORATION

By: _____ Date: 7/12/21

Name: Ronald D. Hillman

Title: Vice President and General Counsel

ACKNOWLEDGMENT IN A REPRESENTATIVE CAPACITY

State of New Mexico

County of Chaves

This instrument was acknowledged before me on July 12, 2021 (date) by

Ronald D. Hillman (name) as

Vice President and General Counsel (title) of Armstrong Energy Corporation

_____ (name of party on behalf of whom instrument is executed).

_____
(Signature of notarial officer)

(seal)

OFFICIAL SEAL
VANESSA SEXTON
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 1-26-24

My commission expires: 1-26-24

OSE DII ROSWELL NM
14 JAN '25 AM11:42

GRANTOR
NEW MEXICO COMMISSIONER OF PUBLIC LANDS

SEAL

_____ /GB
Stephanie Garcia Richard, Commissioner of Public Lands

Dated: 7/26/21

RECEIVED OCD 2025 1:51:33 PM

Elizabeth K. Anderson, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 776659
File Nbr: L 15833

Feb. 10, 2025

KYLE ALPERS
ARMSTRONG ENERGY
P.O. BOX 1973
ROSWELL, NM 88201

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.

* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.

* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.

* You, the permittee, are required to email nm.driller@ose.nm.gov with the following information when the driller is enroute to the drilling site: OSE Permit number, POD number, physical address, driller company and license number, and date/time driller is to be on site.

* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.nm.gov.

Sincerely,

Vanessa Clements
(575)622-6521

Enclosure

File No. L-15833 Pod1-3

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable boxes):

For fees, see State Engineer website: https://www.ose.nm.gov/

Purpose:	☐ Pollution Control And/Or Recovery	☐ Ground Source Heat Pump
☐ Exploratory Well*(Pump test)	☐ Construction Site/Public Works Dewatering	☐ Other(Describe):
☒ Monitoring Well	☐ Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

*New Mexico Environment Department-Drinking Water Bureau (NMED-DWB) will be notified if a proposed exploratory well is used for public water supply.

☐ Yes ☑ No Angled/Directional borehole - include schematic and azimuth, inclination, measured depth and true vertical depth.

☐ Temporary Request - Requested Start Date: Requested End Date:

Plugging Plan of Operations Submitted? ☐ Yes ☒ No

Note: if there is known artesian conditions, contamination or high mineral content at the drilling location, include the borehole log or a well log from an existing well at that location. If this information is not submitted, check box and attach form WD-09 to this form. ☐

1. APPLICANT(S)

Name: Armstrong Energy	Name:
Contact or Agent: Kye Alpers — check here if Agent ☐	Contact or Agent: — check here if Agent ☐
Mailing Address: P.O. Box 1973	Mailing Address:
City: Roswell	City:
State: New Mexico — Zip Code: 88201	State: — Zip Code:
Phone: (575) 626-2727 — ☐ Home ☐ Cell Phone (Work):	Phone: — ☐ Home ☐ Cell Phone (Work):
E-mail (optional): kalpers@aecnm.com	E-mail (optional):

FOR OSE INTERNAL USE — Application for Permit, Form WR-07, Rev 10/02/2024

File No.: L-15833	Trn. No.: 776659	Receipt No.: 2-47615
Trans Description (optional): MON		
Sub-Basin: L	PCW/LOG Due Date: 1-22-2026	

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell), District V (Aztec) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

■ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	-Public Land Survey System (PLSS) (QQQSection, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name	Well Depth in feet	Casing Diameter (OD)
L-15833 Pod 1 SB-5R	103°28'33.4	32°37'23.1	NE NW NE Sec. 32 T19S R35E	32	2"
L-15833 Pod 1 SB-7R	103°28'32.6	32°37'22.6	NE NW NE Sec. 32 T19S R35E	32	2"
L-15833 Pod 1 SB-24	103°28'32.3	32°37'23.7	NE NW NE Sec. 32 T19S R35E	32	2"

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ☐ **Yes** ■ **No** **If yes, how many**

Other description relating well to common landmarks, streets, or other:

Well is on land owned by: New Mexico State Land Office

Well Information: NOTE: If casings telescope or involve nested casing, please provide diagram. Attached? ☐ **Yes** ■ **No**

Approximate depth to water (feet): 18	Outside diameter of well casing (inches): 2.375
Driller Name: Jackie D. Atkins (Atkins Engineering Associates Inc.)	Driller License Number: 1249

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

See attached approval Monitoring Well Easement from the New Mexico State Land Office. If more information is needed please contact Faith Crosby -505.827.5849

FOR OSE INTERNAL USE Application for Permit, Form WR-07 Version 10/02/2024

File No.: L-15833	Trn No.: 7766659

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory*: Is proposed well a future public water supply well? ☐ Yes ☐ NO If Yes, an application must be filed with NMED-DWB, concurrently. ☐ Include a description of any proposed pump test, if applicable.	**Pollution Control and/or Recovery:** ☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for the pollution control or recovery operation. ☐ The estimated maximum period of time for completion of the operation. ☐ The annual diversion amount. ☐ The annual consumptive use amount. ☐ The maximum amount of water to be diverted and injected for the duration of the operation. ☐ The method and place of discharge. ☐ The method of measurement of water produced and discharged. ☐ The source of water to be injected. ☐ The method of measurement of water injected. ☐ The characteristics of the aquifer. ☐ The method of determining the resulting annual consumptive use of water and depletion from any related stream system. ☐ Proof of any permit required from the New Mexico Environment Department. ☐ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	**Construction De-Watering:** ☐ Include a description of the proposed dewatering operation, ☐ The estimated duration of the operation, ☐ The maximum amount of water to be diverted, ☐ A description of the need for the dewatering operation, and, ☐ A description of how the diverted water will be disposed of. **Ground Source Heat Pump:** ☐ Include a description of the geothermal heat exchange project, ☐ The number of boreholes for the completed project and required depths. ☐ The time frame for constructing the geothermal heat exchange project, and, ☐ The duration of the project. ☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	**Mine De-Watering:** ☐ Include a plan for Mine De-Watering, that includes the following: ☐ A description of the need for mine dewatering. ☐ The estimated maximum period of time for completion of the operation. ☐ The source(s) of the water to be diverted. ☐ The geohydrologic characteristics of the aquifer(s). ☐ The maximum amount of water to be diverted per annum. ☐ The maximum amount of water to be diverted for the duration of the operation. ☐ The quality of the water. ☐ The method of measurement of water diverted. ☐ The recharge of water to the aquifer. ☐ Description of the estimated area of hydrologic effect of the project. ☐ The method and place of discharge. ☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. ☐ A description of the methods employed to estimate effects on surface water rights and underground water rights. ☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring*: ☒ Include the reason for the monitoring well, and, ☐ The duration of the planned monitoring.			

(* if exploration or monitoring drilling activity is required by NMED, then you must also submit the NMED Work Plan)

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Kye Alpers on behalf of Armstrong Energy Corp.
Print Name(s)

affirm that the foregoing statements are true to the best of (my,our) knowledge and belief.

Kyle Alpers
Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☑ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water within New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 22nd day of January 20 25, for the State Engineer,

Elizabeth K. Anderson, P.E., State Engineer

By: K. Parekh
Signature

Kashyap Parekh
Print

Title: Water Resources Manager I
Print

FOR OSE INTERNAL USE Application for Permit, Form WR-07 Version 10/02/2024

File No.: L-15833 Trn No.: 776659

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

17-16 Construction of a water well by anyone without a valid New Mexico Well Driller License is illegal, and the landowner shall bear the cost of plugging the well by a licensed New Mexico well driller. This does not apply to driven wells, the casing of which does not exceed two and three-eighths inches outside diameter.

17-1B Depth of the well shall not exceed the thickness of the Ogallala formation.

17-4 No water shall be appropriated and beneficially used under this permit.

17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, .the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

Trn Desc: L 15833 POD1-3 File Number: L 15833
Trn Number: 776659

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.

17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.
The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.

17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.

17-Q The State Engineer retains jurisdiction over this permit.

17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

Trn Desc: L 15833 POD1-3 File Number: L 15833
Trn Number: 776659

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

LOG The Point of Diversion L 15833 POD1 must be completed and the Well Log filed on or before 01/22/2026.

LOG The Point of Diversion L 15833 POD2 must be completed and the Well Log filed on or before 01/22/2026.

LOG The Point of Diversion L 15833 POD3 must be completed and the Well Log filed on or before 01/22/2026.

IT IS THE PERMITTEE'S RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

ACTION OF STATE ENGINEER

Notice of Intention Rcvd: Date Rcvd. Corrected:
Formal Application Rcvd: 01/14/2025 Pub. of Notice Ordered:
Date Returned - Correction: Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 22 day of Jan A.D., 2025

Elizabeth K. Anderson, P.E. , State Engineer

By: K. Parekh
KASHYAP PAREKH

GREAT SEAL OF THE STATE OF NEW MEXICO * 1912 *

Trn Desc: L 15833 POD1-3

File Number: L 15833
Trn Number: 776659

Atkins ENGINEERING ASSOCIATES INC.
2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

02/06/2025

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Addition to Application to Drill a Well with No Water Right for West Peral Queen Site

To whom it may concern:

Atkins Engineering Associates, Inc. (AEA) on January 14th, 2025 submitted Application to Drill a Well with No Water Right witch check # 40104 for West Peral Queen Site. An updated landowner access agreement is attached for the permit. The wells for this permit will be under NMOSE File # L-14876, Starting with POD- 15. Please find, in triplication, a landowner access agreement.

If you, have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

Lucas Middleton

Enclosures: As noted above.

OSE DII ROSWELL NM
6 FEB 25 PM1:33

Stephanie Garcia Richard, Commissioner of Public Lands

State of New Mexico

2025 FEB -4 PM 9:54

NEW MEXICO STATE LAND OFFICE
WATER EASEMENT
AMENDMENT

NO. WM-672

Amendment #1

THIS AMENDMENT, dated this 31st day of January, 2025, is made and entered into between the State of New Mexico Commissioner of Public Lands, acting trustee pursuant to the Act of June 21, 1910, 36 Stat. 557, ch. 310, § 10, (Commissioner), and **Armstrong Energy Corporation**, whose address is **P.O. Box 1973, Roswell, NM 88202** (Grantee). This Amendment is not effective until signed by the Commissioner.

1. Water Easement WM-672 is amended according to the ***West Pearl Queen Stage 1 Abatement Plan Site Investigation (NMOCD reference: NOY181664460946)*** and as follows:

   Four (4) monitoring wells were removed from Easement WM-672 within the following easement location in Lea County:

Quarter-Quarter	*Section*	*Township*	*Range*	*Number of Easement Acres*
N2NE4	32	19S	35E	80

Well ID	*GPS Coordinates*	*OSE Well File*	*OSE Well POD Number*
WPQSB20	32.623785, -103.475704	L-15106	L-15106 POD1
WPQSB21	32.622871, -103.474462	L-15106	L-15106 POD2
WPQSB22	32.622958, -103.477066	L-15106	L-15106 POD3
WPQSB23	32.621827, -103.475712	L-15106	L-15106 POD4

OSE DII ROSWELL NM
6 FEB '25 PM 1:33

Two (2) temporary bores were made permanent as monitoring wells and shall be added to Easement WM-672. The wells are on pad (previously disturbed ground) and within the following easement location in Lea County:

Quarter-Quarter	*Section*	*Township*	*Range*	*Number of Easement Acres*
N2NE4	32	19S	35E	80

Well ID	*GPS Coordinates*	*OSE Well File*	*OSE Well POD Number*
SB-2	32.622669, -103.475828	L-14876	L-14876 POD2
SB-14	32.623078, -103.475494	L-14876	L-14876 POD14

Three (3) monitoring wells shall be installed on Easement WM-672 on pad (previously disturbed ground) within the following easement location in Lea County:

Quarter-Quarter	*Section*	*Township*	*Range*	*Number of Easement Acres*
N2NE4	32	19S	35E	80

Well ID	*GPS Coordinates*	*OSE Well File*	*OSE Well POD Number*
SB-5R	32.623083, -103.475944	L-14876	L-14876 POD15
SB-7R	32.622944, -103.475722	L-14876	L-14876 POD16
SB-24	32.623250, -103.475639	L-14876	L-14876 POD17

2. The annual rent of $2,500.00 for 5 well sites ($500.00 for each monitoring well site), shall be due for this easement on each anniversary date of March 11th.

3. Stipulations
   - All work must be performed on pad and on previously disturbed ground.
   - Grantee shall submit approved NMOSE Well Files and POD Numbers when available.

4. Except as set forth in this Amendment, the Water Easement is unaffected and shall continue in full force and effect in accordance with its terms. If there is conflict between this Amendment and the Water Easement or any earlier amendment, the terms of this Amendment will prevail.

IN WITNESS WHEREOF, the Commissioner of Public Lands and the Grantee have signed this Amendment to be effective on the date signed by the Commissioner.

GRANTEE:
ARMSTRONG ENERGY CORPORATION

By: _____ Date: 1/31/25

ACKNOWLEDGMENT IN A REPRESENTATIVE CAPACITY

State of NEW MEXICO

County of CHAVES

This instrument was acknowledged before me on 1/31/25 (date) by

KYLE ALPERS (name) as

Vice President of Engineering (title) of

Armstrong Energy Corporation
(name of party on behalf of whom instrument is executed).

_____
(Signature of notarial officer)

(seal)

STATE OF NEW MEXICO
NOTARY PUBLIC
RACHAEL CEDERBERG
Commission Number 1139629
My Commission Expires 3rd day of February 2027

My commission expires: 2/3/27

2025 FEB -4 AM 9:54

GRANTOR:

S.G.R./GB

Dated: 2/6/25

Stephanie Garcia Richard, New Mexico Commissioner of Public Lands

OSE OII ROSWELL NM
6 FEB '25 PM1:33

Appendix C – Surveyor-Stamped Data Table

Atkins ENGINEERING ASSOCIATES INC.
2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

West Pearl Queen Injection MW Survey

Atkins Engineering Associates, Inc. (AEA) has completed the survey at the West Pearl Queen Injection Site, 1RP-5090, Lea County, New Mexico. The Site is located approximately at latitude 32.62257 and longitude -103.475628 in Lea County, New Mexico.

The following table summarizes the coordinate and elevation data for the new groundwater sampling wells, top-of-casing (TOC) north side, and adjacent ground.

Description	Northing (USft)	Easting (USft)	Latitude (DD)	Longitude (DD)	Elevation Top of Casing (USft)	Elevation Adjacent Ground (USft)
MW-2	591323.20	805345.85	32.62266980	-103.47582846	3739.31	3736.44
MW-5R	591475.32	805313.52	32.62308861	-103.47592947	3738.23	3735.14
MW-7R	591424.53	805381.95	32.62294750	-103.47570856	3737.98	3734.81
MW-14	591472.52	805447.81	32.62307794	-103.47549341	3738.27	3735.04
MW-24	591502.42	805409.27	32.62316097	-103.47561779	3738.25	3735.23
TBM	591155.83	805430.29	32.62220793	-103.47555861	3737.61	--

Horizontal coordinates are in US Survey Feet NAD 83 (2011) (EPOCH:2010.0000) New Mexico State Plane East Grid Coordinates, scaled to ground with a combined scale factor 1.0001865347887380997.

Elevations (Orthometric Heights) for groundwater sampling wells established using RTK GPS observations tied to TBM. TBM is the top of a corner of a 2" pipe fence that has an established Orthometric Height of 3737.61 feet NAVD88 and was determined using GPS observations tied to NGS Benchmark "R 97" with a published Orthometric Height of 3894.17 feet NAVD88.

Ryan C. Cortez, PS 22761

3/14/2025
Date (Signed)

Appendix D – Monitor Well Records and Field Sheets

Atkins
ENGINEERING ASSOCIATES INC.
2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

3/19/2025

District II
New Mexico Office of State Engineer
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered on the date of this letter to the DII Office of the State Engineer

Re: *Well Records & Log* for monitoring wells; L-15833 POD15-17

To whom it may concern:

Enclosed please find in duplicate, *Well Records* for West Pearl Queen Site L-15833 POD15-17

If you, have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

Lucas Middleton

Enclosures: As noted above.

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD-15 (SB-5R)	N/A	L-15833

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Armstrong Energy	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
P.O. Box 1973	Roswell	NM	88201

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	37	23.12	N
LONGITUDE	103	28	33.35	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

NE NW NE Sec. 32 T17S R35E, NMPM West Pearl Queen

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
2/242025	02/25/2025	26	±26	±23

COMPLETED WELL IS: ☐ ARTESIAN *add Centralizer info below ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 23.5

DATE STATIC MEASURED: 02/27/2025

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☐

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
+3	11	±8.5	2" Sch 40 PVC Riser	Flush Tread 2 TPI	2.067	0.154	--
11	26	±8.5	2" Sch 40 PVC Screen	Flush Tread 2 TPI	2.067	0.154	0.010

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL *(if using Centralizers for Artesian wells- indicate the spacing below)	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	1	±8.5	Quik Crete 5000 PSI	±4.9	from surface
1	6	±8.5	Type I/II Neat Cement	3.8	auger
6	9	±8.5	Bentonite Pellets	±1.0	auger
9	26	±8.5	Silica Sand	±4.7	auger

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	4	4	Sand,fine-grained, poorly graded, unconsolidated, Brown (7.5 yr 5/8)	Y ✓ N	
4	12	8	Sand,med/fine-grained,poorly graded,semi-consolidated,Light Brown (7.5yr 6/4)	Y ✓ N	
12	16	4	Sand,med/fine-grained, poorly graded, semi-consolidated, Pink (7.5 yr 7/4)	Y ✓ N	
16	25	9	Clay, Stiff, High Plastic ,Friable with fine-grained sand, Red Brown(7.5 yr 7/6)	✓ Y N	
25	26	1	Clay, Stiff, waxy, Brown/Purple, (Red Bed)	✓ Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm):

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Completed as above ground completion vaults, no pump test, duration until no longer needed.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Cameron Pruitt

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins (Mar 19, 2025 10:55 MDT) Jackie D. Atkins 03/19/2025

SIGNATURE OF DRILLER / PRINT SIGNEE NAME DATE

FOR OSE INTERNAL USE WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD-16 (SB-7R)	N/A	L-15833

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Armstrong Energy	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
P.O. Box 1973	Roswell	NM	88201

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	37	22.61	N
	LONGITUDE	103	28	32.55	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

NE NW NE Sec. 32 T17S R35E, NMPM West Pearl Queen

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
2/242025	02/25/2025	25	±25	±24

COMPLETED WELL IS: ☐ ARTESIAN *add Centralizer info below ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 24.0

DATE STATIC MEASURED: 02/27/2025

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☐

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
+3	10	±8.5	2" Sch 40 PVC Riser	Flush Tread 2 TPI	2.067	0.154	--
10	25	±8.5	2" Sch 40 PVC Screen	Flush Tread 2 TPI	2.067	0.154	0.010

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL *(if using Centralizers for Artesian wells- indicate the spacing below)	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	1	±8.5	Quik Crete 5000 PSI	±4.9	from surface
1	5	±8.5	Type I/II Neat Cement	±3.8	auger
5	8	±8.5	Bentonite Pellets	±1.0	auger
8	25	±8.5	Silica Sand	±5.8	auger

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	4	4	Sand,fine-grained, poorly graded, unconsolidated, Brown (7.5 yr 5/8)	Y ✓ N	
16	16	12	Sand,med/fine-grained,poorly graded,semi-consolidated,Light Brown (7.5yr 6/4)	Y ✓ N	
16	20	9	Sand,med/fine-grained, poorly graded, semi-consolidated, Pink (7.5 yr 7/4)	Y ✓ N	
20	25	5	Clay, Stiff, High Plastic ,Friable with fine-grained sand, Red/Yellow, moist	✓ Y N	
25	26	1	Clay, Stiff, waxy, Brown/Purple, (Red Bed)	✓ Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm):

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Completed as above ground completion vaults, no pump test, duration until no longer needed.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Cameron Pruitt

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins (Mar 19, 2025 10:55 MDT) Jackie D. Atkins 03/19/2025

SIGNATURE OF DRILLER / PRINT SIGNEE NAME DATE

FOR OSE INTERNAL USE WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD-17 (SB-24)	N/A	L-15833

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Armstrong Energy	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
P.O. Box 1973	Roswell	NM	88201

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	37	23.38	N
	LONGITUDE	103	28	32.23	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

NE NW NE Sec. 32 T17S R35E, NMPM West Pearl Queen

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
2/242025	02/26/2025	26	±26	±24

COMPLETED WELL IS: ☐ ARTESIAN *add Centralizer info below ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 24.7

DATE STATIC MEASURED: 02/27/2025

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☐

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
+3	11	±8.5	2" Sch 40 PVC Riser	Flush Tread 2 TPI	2.067	0.154	--
11	26	±8.5	2" Sch 40 PVC Screen	Flush Tread 2 TPI	2.067	0.154	0.010

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL *(if using Centralizers for Artesian wells- indicate the spacing below)	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	1	±8.5	Quik Crete 5000 PSI	±4.9	from surface
1	6	±8.5	Type I/II Neat Cement	±3.8	auger
6	9	±8.5	Bentonite Pellets	±1.0	auger
9	26	±8.5	Silica Sand	±4.7	auger

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	4	4	Sand,fine-grained, poorly graded, unconsolidated, tan (7.5 yr 5/8)	Y ✓ N	
4	8	4	Sand,med/fine-grained,poorly graded,semi-consolidated,Light Brown (7.5yr 6/4)	Y ✓ N	
8	12	4	Sand,med/fine-grained, poorly graded, semi-consolidated,gravel, Brown (7.5yr 6	Y ✓ N	
12	17	5	Sand,veryfine-grained,poorly graded,semi-consolidated,Reddish Yellow(7.5yr 7/	Y ✓ N	
17	25	8	Clay, Stiff, High Plastic ,Friable with fine-grained sand, Red/Yellow(7.5 yr 7/6)	✓ Y N	
25	26	1	Clay, Stiff, waxy, Brown/Purple, (Red Bed)	✓ Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm):

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Completed as above ground completion vaults, no pump test, duration until no longer needed.

OSE DIT ROSWELL, NM
25 MAR '25 PM4:14

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Cameron Pruitt

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins (Mar 19, 2025 10:55 MDT) — Jackie D. Atkins — 03/19/2025

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

WR-20 Well Record and Log_packet -forsign

Final Audit Report 2025-03-19

Created:	2025-03-19
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAWRDqqIjs8Pw4ExvItF_WynU4C52xYF9X

"WR-20 Well Record and Log_packet -forsign" History

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2/24/25 qecwpea_drl_24

TL - 7:06 - 111346 \ F450
TA - 9:15 - 111455 / F450

9:46 - Rig up on MW-7R to DPT
9:48 (0-4)
9:51 (4-8)
9:54 (8-12)
9:56 (12-16)
10:00 (16-20) Sleeve stuck
(20-24)
cl (24-28)
(28-32)
10:58 - Pull tooling & switch to augers
11:18 (0-4) 11:24 Sand
11:28 (4-9) 11:36 Sand
11:39 (9-14) 12:08 Sand/gravel
12:11 (14-19) 13:00 Sand/gravel/clay
(19-24)
13:29 - Switch back to DPT & sample
13:30 (20-24)
13:42 Pull tooling, Leave augers @ 19'

2/25/25 15:07 - Big rig up on MW-7R
15:15 (19-24) 15:45 Sand/clay/gravel
Run split spoon @ 23'-25', Hit Redbed @ 25'
16:00 (24-25) 16:15
16:21 - Land casing to 25' - 15' of .10 slot
16:24 - Land Sand to 8' ☆ 11 bags ☆
17:05 - Land Hole plug to 5' & Hydrate ☆ 1.5 buckets ☆
Clean augers
TL - 17:47 - 111509 \ F450
TA - 19:07 - 111537 / F450

2/26/25
TL - 6:21 - 111540 \ F450
TA - 7:05 - 111565 / F450

2/26/25
8:11 - Start grout w/ mix
8:55 - End ☆ 3 bags of grout ☆
WL - 23.08 TD - 25.00

13:17 - Start Development ☆ 2 gallons Pumped
16:57 - End, will Return
~~WL~~ cP ~~TD~~ cP
13:28 - Dewatered, Let stand, pulled 1gallon
14:00 - No water, Move to next well
16:25 - Continue
16:28 - Dry, Let sit
15:45 - Start surface completion w/ bollards
16:28 - End ☆ 11 bags of 4000 ☆
☆ 2 bags of sand ☆
☆ 4 bags of fast setting ☆

2/27/25
8:06 - Start development
8:17 - End ☆ 3 total gallons purged ☆
Final WL - 27.00 TD - 28.00
Casing 3' AGS

2/24/25 aecwpea-drl-242

13:59 - Rig up on MW-24 to DPT
14:03 (0-4)
14:08 (4-8)
14:11 (8-12)
14:15 (12-16)
14:23 (16-20) Rejection
14:30 - Pull tooling

2/26/25 7:36 - Rig up w/ Big rig
7:45 (0-4) 7:50 Sand
7:54 (4-9) 7:58 "
8:03 (9-14) 8:05 " / caliche
8:08 (14-19) 8:12 " "
8:15 (19-24) 8:30 Sand / clay Sample @23', Rejection drill to 24 take sample
9:14 (24-26) 9:57 Redbed/gravel
Sample spoon 24'-26' had Redbed from 25'-26'
10:00 - Land Casing to 26'
10:05 - Land Sand to 9' ☆ 9 bags ☆
11:00 - Land Hole plug + 6' ☆ 1.5 buckets ☆
11:13 - End & Hydrate
12:21 - Start grout w/mix ☆ 3 bags of grout ☆
12:55 - End
WL - 23.20 TD - 25.70
14:14 - Start Development
15:10 - End ☆ 3 gallons Purged ☆
WL - 24.82 TD - 25.70
14:27 - Dewatered, Let sit, 2.5 gallons
14:57 - Continue

16:43 - Start Surface completion
17:13 - End ☆ 10 bags of 4000 ☆
Final WL - 26.50 TD - 28.80
Casing 3' AGS
TL - 17:23 - 111565 - F450
TA 18:50 - 111590 -

2/27/25
TL - 6:43 - 111591 - F450
TA - 7:26 - 111615
7:38 - Start bollard install
8:20 - End ☆ 2 bags of sand ☆
☆ 4 bag of fast setting ☆

2/24/25 Decwpea-dol-24

14:40 - Rig up on MW-SR to DPT
14:42 (0-4)
14:44 (4-8)
14:50 (8-12)
14:53 (12-16)
14:56 (16-20)
15:03 (20-24) Rejection
15:11 - Pull Tooling
TL - 16:36 - 111455 ~ F450
TA - 18:13 - 111484 - F450

2/25/25
TL - 6:30 - 111484 ~ F450
TA - 7:15 - 111509 -
7:40 - Rig up on MW-SR to auger
7:43 - Test Kill switches
7:51 (0-4) 7:59 Sand/gravel
8:07 (4-9) 8:26 Sand/gravel
8:29 (9-14) 9:09 " " Switch to Kerry
9:14 (14-19) 9:25 " "
9:29 (19-24) 9:57 clay/sand
9:59 (24-~~29~~ 26) 10:20 Redbed Take spoon sample @ 26'
CP ~~(29-9)~~
10:25 - Land casing to 26' BGS
10:27 - Land sand to 9'
11:39 - Land Hole plug to 6' 5' ↓ Hydrate
12:58 - Bentonite bridge, Pull casing & Redrill
13:49 - Reland casing to 26' - 15' of 0.10 slot
13:51 - Reland sand to ~~26'~~ 9' ☆ 9 bags ☆
14:34 - Reland Hole plug to 6' Hydrate ☆ 1.5 buckets ☆
~~CP~~

2/26/25
7:41 - Start grout w/ mix WL - 23.57
8:58 - End TD - 25.80
☆ ~~13~~ 3 bags of grout ☆

2/26/25
WL - 23.32 TD - 25.80
17:02 - Start development
17:06 - End, will Return ☆ 2 gallons Purged ☆ CP
CP ~~WL~~ CP ~~TD~~
12:21 - Dewatered after 1 gallon, Let recharge to 5' CP
13:02 - Start, No water, Let sit, go to other well
~~13:36~~ CP 15:27 - Continue
15:40 - Dry, Let sit

13:36 - Start surface Completion w/ bollards
15:00 - End ☆ 13 bags of 4000 ☆
*Casing 3' AGS ☆ ☆ 2 bags of sand ☆
CP ☆ 4 bags of fast setting ☆
~~Final WL~~ - CP ~~TD~~

2/27/25
7:37 - Start development
8:00 - End ☆ 35 Total gallons purged
Final WL - 27.70 TD - 28.76

TL - 9:18 - 111615 ~ F450
TA - 11:45 - 111725

Groundwater Sampling Report

Armstrong Energy Corporation – West Pearl Queen Site
Unit B of Section 32, Township 19 South, Range 35 East, NMPM NMOCD
Reference: NOY1816446096

Submitted August 29, 2025 to the New Mexico Energy, Minerals and Natural Resources Department – Oil Conservation Division on Behalf of:

Armstrong Energy Corporation
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Roswell, New Mexico 88202-1973

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Contents

List of Tables and Figures

1 Introduction

Atkins Engineering Associates, Inc. (AEA), on behalf of Armstrong Energy Corporation, is pleased to provide this Groundwater Monitoring Report for the Armstrong Energy Corporation West Pearl Queen Site (WPQ), located in the NE/4NW/4NE/4 Section 32, Township 19 South, Range 35 East, NMPM, in Lea County New Mexico. The site is located at approximately 32.62295554°N, -103.4757431°E, at a general altitude of 3,736 feet above mean sea level, as shown on the USGS Topographic map.

1.1 Scope of Work

On July 2, 2024, AEA submitted a workplan to the New Mexico Energy, Minerals and Natural Resources Department - Oil Conservation Division (NMOCD) for activities preceding the design of a full Stage 1 Abatement Plan (reference number NOY1816446096). The following is a summary of the workplan activities completed by AEA at the site to date:

- August 2024, groundwater monitoring of existing wells, SB-02, SB-04, SB-05, SB-07, SB-13, SB-14, and SB-20 through SB-23.
- October-November 2024, plug and abandonment of eight (8) wells, SB-04, SB-05, SB-07, SB-13, and SB-20 through SB-23. Additionally, existing temporary wells SB-02 and SB-14 were recompleted as permanent groundwater monitoring wells (renumbered MW-2 and MW-14)
- February 2025, installation of three (3) monitor wells, MW-5R, MW-7R, and MW-24.
- Details of the well plugging and well installation are in AEA's report dated April 10, 2025.

This report details the May 2025 groundwater sampling event as proposed in the July 2, 2024 workplan submitted to the NMOCD. The groundwater monitoring event was to consist of obtaining water levels and sampling five (5) wells, MW-2, MW-5R, MW-7R, MW-14, and MW-24 for analysis of chlorides by EPA Method 300.1 and volatile organic compounds (VOC) by EPA Method 8260B.

1.2 Deviations from the Approved Work

Monitor well MW-2 was dry and unable to be sampled. There were no other deviations from the approved scope of work.

2 Groundwater Monitoring Event Activities

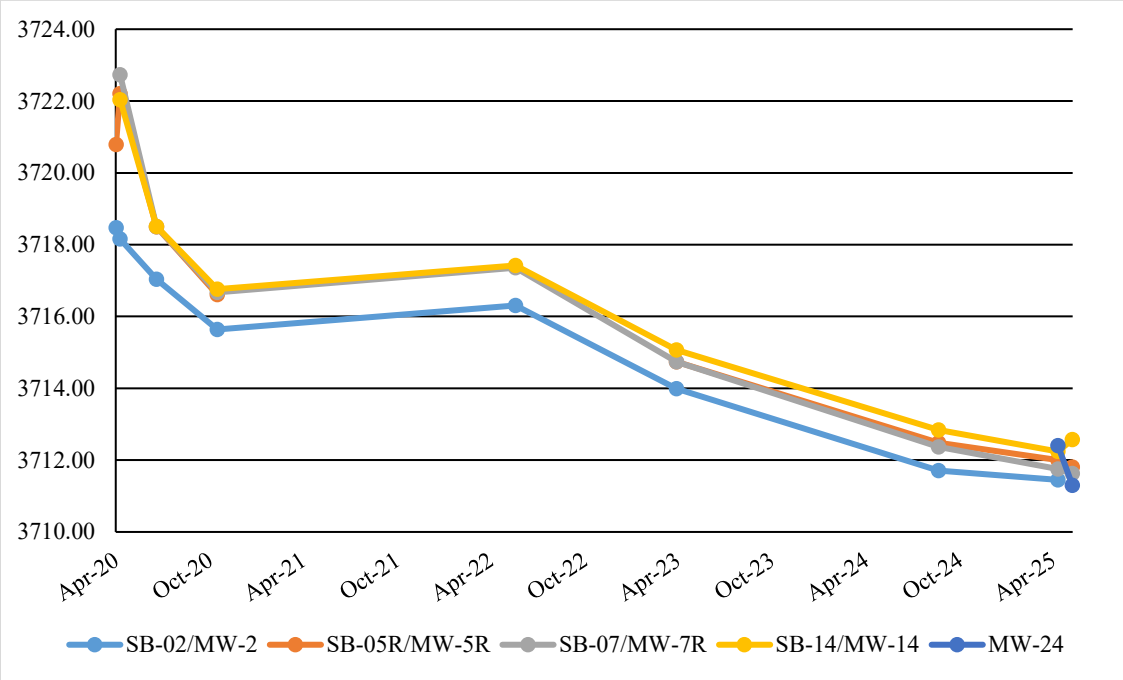
The following section describes the groundwater monitor wells sampling fieldwork.

2.1 Groundwater Elevation Measurements

On April 17 and May 15, 2025, water levels and height of well fluid columns were measured using a decontaminated interface probe in wells MW-2, MW-5R, MW-7R, MW-14, and MW-24 Measuring points for each well were the top of casing (TOC), north edge. The measured depths to water ranged from 25.00 feet below the top of casing (BTC) in well MW-24 to 26.42 ft-BTC in well MW-5R.

TOC elevations were established in March 2025 and are presented in Table A1, Appendix A, along with historic depth to water and groundwater elevations to present. A Hydrograph, Figure 1, was created utilizing historic depth to water data.

Figure 1: Hydrograph (ft AMSL)



The historical and latest data for water level elevations indicate an overall average decrease of 0.27 feet when compared to the August 2024 data. From the initial water level data obtained during April 2020 through August 2024, water levels have declined by an average of 8.29 feet.

A potentiometric surface map (Figure A1) illustrates the water table elevations at the site. The general groundwater flow direction is to the south-southwest, with an estimated gradient of approximately 0.020 ft/ft, based on wells MW-24 and MW-7R.

2.2 Groundwater Sampling Activities

On May 15, 2025, wells MW-5R, MW-7R, MW-14, and MW-24 were purged by removing at least three (3) well volumes using new 2-inch disposable bailers. If sufficient water was present and no NAPL or sheen was evident, water quality parameters were monitored using a submersible YSI

probe. Parameters were recorded after each purged well volume and at the time of sampling. All purged water was disposed of within the property boundaries. Well MW-14 bailed dry and was sampled after recharge.

During this event, conductivity measurements ranged from 2,442 µS/cm to 43,657 µS/cm; pH measurements were recorded between 6.91 and 7.97; dissolved oxygen (DO) between 0.84 mg/L and 1.95 mg/L; and oxidation/reduction potential (ORP) between -70.9 and 27.8 mV. Parameters recorded at the time of sampling are shown on Table A2. Field datasheets are provided in Appendix B.

Following purging, groundwater samples were collected using 2-inch disposable bailers. To minimize volatilization and ensure sample integrity, new dedicated, disposable, polyethylene bottom-emptying devices were used to transfer groundwater samples from the bailers to laboratory-provided containers. The samples were immediately labeled and placed in a cooler on ice. A trip blank accompanied the samples to the field, and a duplicate sample was obtained from well MW-7R and labeled Duplicate 1.

On May 15, 2025, the groundwater samples, duplicate sample and trip blank were packaged and placed into a laboratory-supplied cooler with ice, sealed, and delivered under Chain of Custody procedures to Envirotech Analytical Laboratory (Envirotech) in Farmington, New Mexico. The groundwater samples were analyzed for the full range of VOCs using EPA Method 8260B and chlorides by EPA Method 300.0.

3 Groundwater Analytical Results

The following section details the groundwater sampling results.

3.1 Laboratory and Field Quality Control

Groundwater samples were received by Envirotech within temperature and hold specifications. Trip blank and the duplicate sample results were consistent; AEA has no concerns as to the quality of the analytical results.

3.1.1 EPA Method 8260B and 300.0

During this event, three (3) wells had detectable concentrations of VOCs, with two (2) detections exceeding New Mexico Water Quality Control Commission (NMWQCC) standards. Table 1 below summarizes the VOC and chloride analytical results.

Table 1. May 2025 Analytical Results Summary

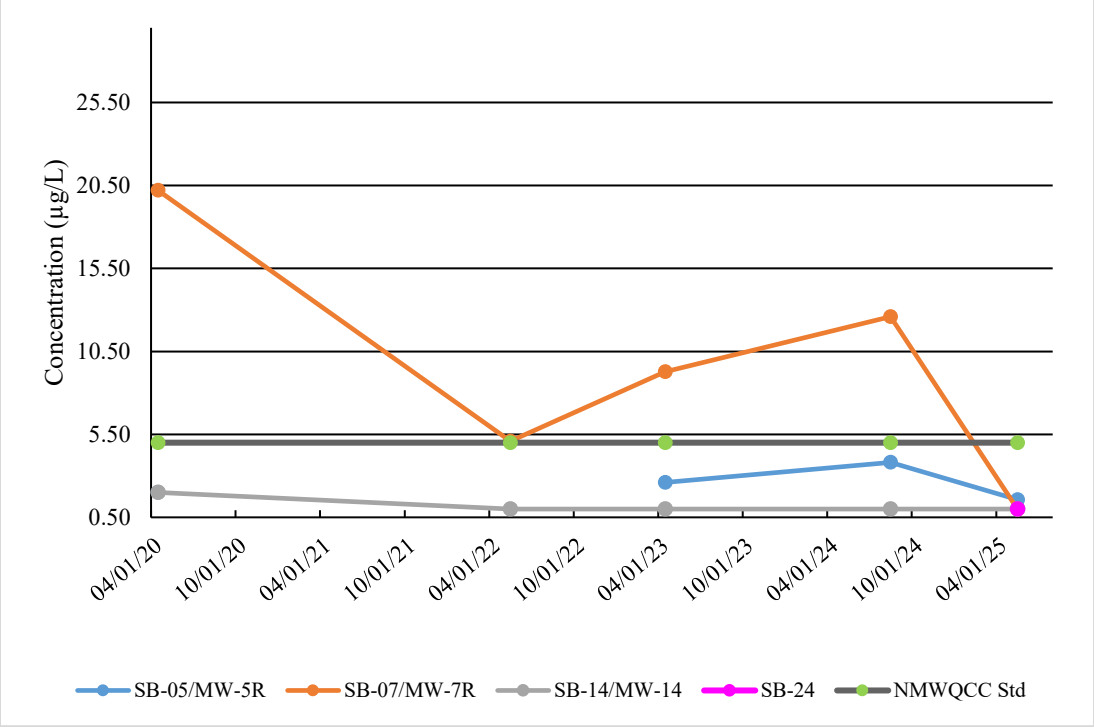
Well ID	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Methylene Chloride (µg/L)	Chlorides (mg/L)
MW-5R	1.57	<1.00	<1.00	<1.00	<2.00	10,600
MW-7R	<1.00	<1.00	<1.00	<1.00	<2.00	320
MW-14	<1.00	<1.00	<1.00	<1.00	9.01	7,850
MW-24	<1.00	<1.00	<1.00	<1.00	26.3	19,100

1. Concentrations exceeding NMWQCC standards indicated by red text.

Benzene was detected in MW-5R by the laboratory method, with a concentration below the 5.0 µg/L NMWQCC. Toluene, ethylbenzene, and total xylenes were not detectable by the analytical methods employed. Methylene chloride was detected above the NNMWQCC standard of 5.0 µg/L in wells MW-14 and MW-24. Historically methylene chloride has been detected in concentrations exceeding the standard in wells with significantly elevated chloride concentrations.

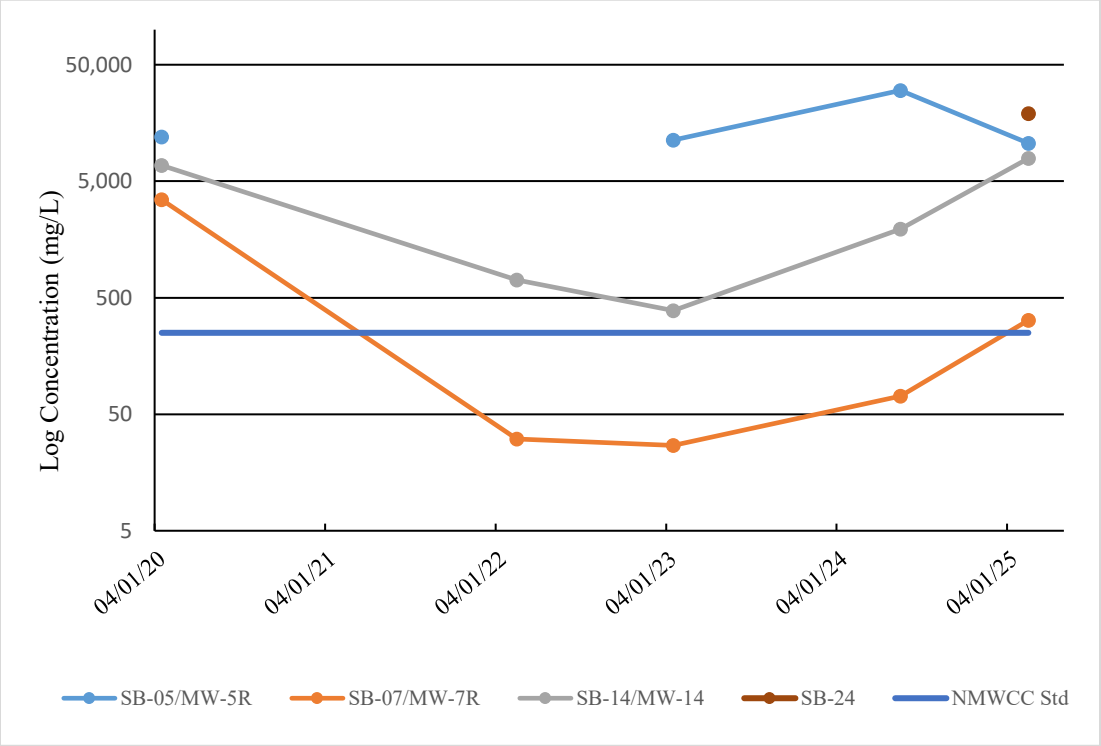
Figure 2 illustrates historical benzene data obtained from older site wells, alongside the most recent data collected from new wells MW-5R, MW-7R, and MW-24, relative to the NMWQCC standard. Non-detect concentrations are graphed with the laboratory RL value.

Figure 1: Benzene Concentration Versus Time



Chloride concentrations exceeded the NMWQCC standard of 250 mg/L for all samples. While chloride concentrations exceeding the standard are not unusual, three (3) of the reported concentrations were more than 30 times the standard with values ranging from 7,850 mg/L (MW-14) to 19,100 mg/L (MW-24). Figure 3 presents historical and recent chlorides concentrations for wells MW-5R, MW-7R, and MW-24.

Figure 2: Logarithmic Chloride Concentration Versus Time



Historic groundwater analytical results have been tabulated for certain contaminants of concern, see Table A3. Figure A2 shows the chloride and methylene chloride detections from this event. Laboratory datasheets and chain of custody documentation are attached in Appendix C.

4 Trends, Conclusions and Recommendations

The following sections discuss site trends, conclusions, and recommendations.

4.1 Trends or Changes in Site Conditions

During this sampling event the following trends or changes were noted:

- Groundwater elevations fell by an average of 0.27 feet when compared to the August 2024 data.
- Between April 2020 and August 2024, there was an overall average decline of 5.84 feet.
- Downgradient well MW-2 was dry and could not be sampled.

- Well MW-5R reported a detectable concentration of benzene at 1.57 µg/L.
- Wells MW-14 and MW-24 reported methylene concentrations exceeding the NMWQCC standard of 5.0 µg/L. Historically methylene chloride concentrations exceeding the standard have been found in conjunction with wells significantly high chloride concentrations.
- Chloride concentrations were exceeded in all of the wells; however, wells MW-5R, MW-14 and MW-24 reported concentration that were greater than 30 times the standard.

4.2 Conclusions

Groundwater sampling was conducted on four of the five site wells. Monitor well MW-2 was not sampled due to an inadequate water column. Laboratory analytical results indicated elevated concentrations of chlorides in the northern section of the site, with measurements of 19,100 mg/L in MW-24 and 10,600 mg/L in MW-5R. Methylene Chloride was detected in concentrations above the reporting limit of 5.0 µg/L in wells MW-14 and MW-24. Benzene, toluene, ethylbenzene, and xylene (BTEX) were not detected above the laboratory reporting limits.

From the initial water level data obtained in April 2020 through August 2024, water levels have declined by an average of 8.29 feet. There is not a significant amount of localized pumping as evidenced by the lack of surrounding permitted wells including livestock wells which would be anticipated if a local aquifer were present. AEA believes the water at this site to be artificial and that there is minimal migration as supported by down-gradient well, MW-2, which has been consistently declining and was dry this event.

AEA recommends a meeting to determine the next steps.

Appendix A: Tables and Figures

Table A1: Groundwater Elevation (ft)

West Pearl Queen Site, Unit B of Section 32, Township 19 South, Range 35 East, NMPM

NMOSE Well POD Number	Well ID	Date	Top Casing Elevation	Total Depth	Depth To Water	Water Level Elevation	▲WLE	Overall ▲WLE	Water Column Length
SB-02		04/08/20	3736.29	--	17.82	3718.47	--	--	--
SB-02		04/16/20	3736.29	--	18.13	3718.16	-0.31	--	--
SB-02		06/26/20	3736.29	--	19.25	3717.04	-1.12	--	--
SB-02		10/22/20	3736.29	--	20.65	3715.64	-1.40	--	--
SB-02		05/26/22	3736.29	25.37	19.98	3716.31	0.67	--	5.39
SB-02		04/05/23	3736.29	25.52	22.30	3713.99	-2.32		3.22
SB-02		08/27/24	3736.29	25.33	24.58	3711.71	-2.28	-6.76	0.75
L-14876 POD-2	MW-2	04/17/25	3739.31	28.45	27.86	3711.45	-2.54	-7.02	0.59
L-14876 POD-2	**MW-2**	**05/15/25**	**3739.31**	**28.50**	**Dry**	**--**	**--**	**--**	**--**
SB-04		04/08/20	3734.71	--	16.85	3717.86	--	--	--
SB-04		06/26/20	3734.71	--	16.30	3718.41	0.55	--	--
SB-04		10/22/20	3734.71	--	18.09	3716.62	-1.79	--	--
SB-04		05/26/22	3734.71	21.90	17.40	3717.31	0.69	--	4.50
SB-04		04/05/23	3734.71	22.40	19.91	3714.80	-2.51	-3.06	2.49
SB-04		08/27/24	3734.71	22.27	21.68	3713.03	-1.77	-4.83	0.59
SB-04		Plugged 10/08/2024							
SB-05		04/08/20	3736.17	--	15.38	3720.79	--	--	--
SB-05		04/16/20	3736.17	--	13.96	3722.21	1.42	--	--
SB-05		06/26/20	3736.17	--	17.67	3718.50	-3.71	--	--
SB-05		10/22/20	3736.17	--	19.56	3716.61	-1.89	--	--
SB-05		05/26/22	3736.17	11.20	Dry	--	--	--	--
SB-05		04/05/23	3736.17	26.64	21.43	3714.74	--	--	5.21
SB-05		08/27/24	3736.17	26.52	23.69	3712.48	-2.26	-8.31	2.83
SB-05		Plugged 10/08 -1/11/2024							
L-15833 POD-1	MW-5R	04/17/25	3738.23	28.65	26.23	3712.00	--	--	--
L-15833 POD-1	**MW-5R**	**05/15/25**	**3738.23**	**28.70**	**26.42**	**3711.81**	**--**	**-0.19**	**2.28**
SB-07		04/16/20	3732.36	--	9.63	3722.73	--	--	--

Table A1: Groundwater Elevation (ft)

West Pearl Queen Site, Unit B of Section 32, Township 19 South, Range 35 East, NMPM

NMOSE Well POD Number	Well ID	Date	Top Casing Elevation	Total Depth	Depth To Water	Water Level Elevation	▲WLE	Overall ▲WLE	Water Column Length
SB-07		06/26/20	3732.36	--	13.86	3718.50	-4.23	--	--
SB-07		10/22/20	3732.36	--	15.69	3716.67	-1.83	--	--
SB-07		05/26/22	3732.36	19.10	15.00	3717.36	0.69	--	4.10
SB-07		04/05/23	3732.36	19.20	17.62	3714.74	-2.62		1.58
SB-07		08/27/24	3732.36	22.13	19.99	3712.37	-2.37	-10.36	2.14
SB-07		Plugged 10/08/2024							
L-15833 POD-2	MW-7R	04/17/25	3737.98	27.84	26.23	3711.75	--	--	--
L-15833 POD-2	**MW-7R**	**05/15/25**	**3737.98**	**27.90**	**26.35**	**3711.63**	**--**	**-0.12**	**1.55**
SB-13		04/16/20	3737.91	--	15.57	3722.34	--	--	--
SB-13		06/26/20	3737.91	--	20.15	3717.76	-4.58	--	--
SB-13		10/22/20	3737.91	--	21.82	3716.09	-1.67	--	--
SB-13		05/26/22	3737.91	27.10	21.05	3716.86	0.77	--	6.05
SB-13		04/05/23	3737.91	27.20	23.62	3714.29	-2.57	--	3.58
SB-13		08/27/24	3737.91	27.03	25.88	3712.03	-2.26	-10.31	1.15
SB-13		Plugged 10/08/2024							
SB-14		04/16/20	3738.27	--	16.23	3722.04	--	--	--
SB-14		06/26/22	3738.27	--	19.76	3718.51	-3.53	--	--
SB-14		10/22/22	3738.27	--	21.51	3716.76	-1.75	--	--
SB-14		05/26/22	3738.27	27.07	20.85	3717.42	0.66	--	6.22
SB-14		04/05/23	3738.27	27.00	23.20	3715.07	-2.35	--	3.80
SB-14		08/27/24	3738.27	27.05	25.43	3712.84	-2.23	-9.20	1.62
L-14876 POD-14	MW-14	04/17/25	3738.27	27.03	26.03	3712.24	-0.60	-9.80	1.00
L-14876 POD-14	**MW-14**	**05/15/25**	**3738.27**	**27.06**	**25.70**	**3712.57**	**0.33**	-9.47	1.36
SB-20		05/26/22	3741.11	60.20	24.70	3716.41	--	--	--
SB-20		04/05/23	3741.11	60.25	25.90	3715.21	-1.20	--	--
SB-20		08/27/24	3741.11	60.22	27.23	3713.88	-1.33	-2.53	32.99
SB-20		Plugged 10/08 -1/11/2024							

Table A1: Groundwater Elevation (ft)

West Pearl Queen Site, Unit B of Section 32, Township 19 South, Range 35 East, NMPM

NMOSE Well POD Number	Well ID	Date	Top Casing Elevation	Total Depth	Depth To Water	Water Level Elevation	▲WLE	Overall ▲WLE	Water Column Length
SB-21		05/26/22	3737.92	60.20	30.02	3707.90	--	--	--
SB-21		04/05/23	3737.92	60.20	30.20	3707.72	-0.18		
SB-21		08/27/24	3737.92	60.18	31.02	3706.90	-0.82	-1.00	29.16
SB-21		Plugged 10/08 -1/11/2024							
SB-22		05/26/22	3740.48	60.18	29.08	3711.40	--	--	--
SB-22		04/05/23	3740.48	60.30	29.43	3711.05	-0.35	--	--
SB-22		08/27/24	3740.48	41.15	31.12	3709.36	-2.04	-2.04	10.03
SB-22		Plugged 10/08 -1/11/2024							
SB-23		05/26/22	3736.30	61.25	23.96	3712.34	--	--	--
SB-23		04/05/23	3736.30	61.20	25.40	3710.90	-1.44	--	--
SB-23		08/27/24	3736.30	61.15	27.24	3709.06	-1.84	-3.28	33.91
SB-23		Plugged 10/08 -1/11/2024							
L-15833 POD-3	MW-24	04/17/25	3738.25	28.80	25.85	3712.40	--	--	--
L-15833 POD-3	**MW-24**	**05/15/25**	**3738.25**	**28.95**	**25.00**	**3713.25**	**--**	**0.85**	**3.95**

Notes:

1. Average change in groundwater elevation compared to 2024 measurements: 0.33 feet.

Table A2: Groundwater Field Parameters

West Pearl Queen Site, Unit B of Section 32, Township 19 South, Range 35 East, NMPM

NMOSE Well POD Number	Well ID	Date	pH	Temperature (C°)	Specific Conductivity (µS/cm)	DO (mg/L)	ORP (mV)
SB-02		08/27/24	NM - Not enough water				
SB-2		04/17/25	NM - Not enough water				
L-14876 POD-02	**MW-2**	**05/15/25**	**NM - Dry well**				
SB-04		08/27/24	NM - Not enough water				
SB-04			Plugged 10/08/2024				
SB-05		08/27/24	NM - Well dewatered before stabilization occurred				
SB-05			Plugged 10/08 -1/11/2024				
L-15833 POD-1	MW-5R	04/17/25	7.30	20.0	22,783	0.53	81.6
L-15833 POD-1	**MW-5R**	**05/15/25**	**7.08**	**18.2**	**25,760**	**1.95**	**-70.9**
SB-07		08/27/24	NM - Well dewatered before stabilization occurred; hydrocarbon odor				
SB-07			Plugged 10/08/2024				
L-15833 POD-2	MW-7R	04/17/25	7.99	19.2	2,277	0.61	-35.9
L-15833 POD-2	**MW-7R**	**05/15/25**	**7.97**	**17.9**	**2,442**	**0.84**	**-59.0**
SB-13		08/27/24	NM - Not enough water				
SB-13			Plugged 10/08/2024				
SB-14		08/27/24	NM - Well dewatered before stabilization occurred				
L-14876 POD-14	**MW-14**	**04/17/25**	**7.50**	**19.4**	**6,540**	**0.83**	**-32.6**
L-14876 POD-14	**MW-14**	**05/15/25**	**NM - Insufficient water column**				
SB-20		08/27/24	9.30	19.9	11,632	0.08	-157.10
SB-20			Plugged 10/08 -1/11/2024				
SB-21		08/27/24	9.56	20.4	78,780	0.08	162.0
SB-21			Plugged 10/08 -1/11/2024				
SB-22		08/27/24	8.81	21.2	112,071	0.07	110.9
SB-22			Plugged 10/08 -1/11/2024				
SB-23		08/27/24	10.21	22.0	25,205	0.09	162.3
SB-23			Plugged 10/08 -1/11/2024				
L-15833 POD-3	MW-24	04/17/25	7.00	19.7	46,826	0.48	-31.2
L-15833 POD-3	**MW-24**	**05/15/25**	**6.91**	**18.0**	**43,657**	**1.51**	**27.8**

Table A2: Groundwater Field Parameters

West Pearl Queen Site, Unit B of Section 32, Township 19 South, Range 35 East, NMPM

NMOSE Well POD Number	Well ID	Date	pH	Temperature (C°)	Specific Conductivity (µS/cm)	DO (mg/L)	ORP (mV)

Notes:

1. NM = Not Measured

Table A3: Groundwater Analytical Results - Contaminants of Concern

West Pearl Queen Site, Unit B of Section 32, Township 19 South, Range 35 East, NMPM

NMOSE Well POD Number	Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)	Methylene Chloride (µg/L)	GRO (mg/L)	DRO (mg/L)	ORO (mg/L)	Chloride (mg/L)	Nitrates (mg/L)	Sampler
NMWQCC Standard			**5.0**	**1,000**	**700**	**620**	**5.0**	**100**	**100**	**100**	**250**	**10**	**--**
SB-02		04/16/20	<2.0	<2.0	<2.0	<2.0	--	<2.50	<2.50	<2.50	1,810	--	HRL
SB-02		05/26/22	<1.00	<1.00	<1.00	<1.00	--	<0.100	<1.00	<2.00	112	--	AEA
SB-02		04/05/23	<1.00	<1.00	<1.00	<1.00	<2.0	--	--	--	81.3	<5.00	AEA
SB-02		08/27/24	NS - Insufficient water column										
L-14876 POD-02	**MW-2**	**05/22/25**	**NS - Insufficient water column**										
SB-04		05/26/22	<1.00	<1.00	<1.00	<1.00	--	<0.100	<1.00	<2.00	29	--	AEA
SB-04		04/05/23	<1.00	<1.00	<1.00	<1.00	<2.0	--	--	--	86.2	<0.250	AEA
SB-04		08/27/24	NS - Not enough water										
SB-04			Plugged 10/08/2024										
SB-05		04/16/20	<2.00	<2.00	<2.00	<2.00	--	<2.50	<2.50	<2.50	12,000	--	HRL
SB-05		04/05/23	2.61	<1.00	<1.00	<1.00	3.21	--	--	--	11,300	6.44	AEA
SB-05		08/27/24	3.81	<1.00	<1.00	<1.00	6.08	--	--	--	30,100	--	AEA
SB-05			Plugged 10/08 -1/11/2024										
L-15833 POD-1	**MW-5R**	**05/15/25**	**1.57**	**<1.00**	**<1.00**	**<1.00**	**<2.00**	**--**	**--**	**--**	**10,600**	**--**	AEA
SB-07		04/16/20	20.2	<2.00	14.3	9.16	--	<2.50	<2.50	<2.50	3,470	--	HRL
SB-07		05/26/22	5.09	<1.00	8.44	<1.00	--	0.136	<1.00	<2.00	30.6	--	AEA
SB-07		04/05/23	9.28	<1.0	5.34	<1.0	<2.0	--	--	--	27.0	<0.500	AEA
SB-07		08/27/24	12.6	<1.00	7.47	<1.00	2.86	--	--	--	71.6	--	AEA
SB-07			Plugged 10/08/2024										
L-15833 POD-2	**MW-7R**	**05/15/25**	**<1.00**	**<1.00**	**<1.0**	**<1.00**	**<2.00**	**--**	**--**	**--**	**320**	**--**	AEA
SB-13		04/16/20	25	<2.0	<2.0	<2.0	--	<2.50	<2.50	<2.50	928	--	HRL
SB-13		05/26/22	<1.00	<1.00	<1.00	<1.00	--	<0.100	<1.00	<2.00	188	--	AEA
SB-13		04/05/23	<1.00	<1.00	<1.00	<1.00	<2.0	--	--	--	424	<2.50	AEA
SB-13		08/27/24	NS - Insufficient water column										
SB-13			Plugged 10/08/2024										
SB-14		04/16/20	<2.00	<2.00	<2.00	<2.00	--	<2.50	<2.50	<2.50	6,840	--	HRL
SB-14		05/26/22	<1.00	<1.00	<1.00	<1.00	--	<0.100	<1.00	<2.00	711	--	AEA

Table A3: Groundwater Analytical Results - Contaminants of Concern

West Pearl Queen Site, Unit B of Section 32, Township 19 South, Range 35 East, NMPM

NMOSE Well POD Number	Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)	Methylene Chloride (µg/L)	GRO (mg/L)	DRO (mg/L)	ORO (mg/L)	Chloride (mg/L)	Nitrates (mg/L)	Sampler
NMWQCC Standard			**5.0**	**1,000**	**700**	**620**	**5.0**	**100**	**100**	**100**	**250**	**10**	**--**
SB-14		04/05/23	<1.00	<1.00	<1.00	<1.00	<2.0	--	--	--	388	<5.00	AEA
SB-14		08/27/24	<1.00	<1.00	<1.00	<1.00	2.63	--	--	--	1,940	--	AEA
L-14876 POD-14	**MW-14**	**05/15/25**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**9.01**	**--**	**--**	**--**	**7,850**	**--**	AEA
SB-17		04/16/20	2.9	<2.0	5.65	13.5	--	<2.50	<2.50	<2.50	17,300	--	HRL
SB-20		05/26/22	1.56	13.0	<1.00	<1.00	--	<0.100	<1.00	<2.00	185,000	--	AEA
SB-20		04/05/23	<5.00	<5.00	<5.00	<5.00	187	--	--	--	61,700	<250	AEA
SB-20		08/27/24	1.72	2.21	<1.00	<1.00	236	--	--	--	61,600	--	AEA
SB-20			Plugged 10/08 -1/11/2024										
SB-21		05/26/22	<1.00	5.77	<1.00	<1.00	--	<0.100	<1.00	<2.00	96,800	--	AEA
SB-21		04/05/23	<5.00	<5.00	<5.00	<5.00	56.6	--	--	--	94,400	<250	AEA
SB-21		08/27/24	<1.00	<1.00	<1.00	<1.00	44	--	--	--	38,200	--	AEA
SB-21			Plugged 10/08 -1/11/2024										
SB-22		05/26/22	<1.00	17.5	<1.00	<1.00	--	<0.100	<1.00	<2.00	170,000	--	AEA
SB-22		04/05/23	<5.00	<5.00	<5.00	<5.00	254	--	--	--	124,000	<250	AEA
SB-22		08/27/24	<1.00	<1.00	<1.00	<1.00	286	--	--	--	148,000	--	AEA
SB-22			Plugged 10/08 -1/11/2024										
SB-23		05/26/22	<1.00	3.09	<1.00	<1.00	--	<0.100	<1.00	<2.00	76,100	--	AEA
SB-23		04/05/23	<5.00	<5.00	<5.00	<5.00	54	--	--	--	25,700	<250	AEA
SB-23		08/27/24	<1.00	<1.00	<1.00	<1.00	45.8	--	--	--	21,300	--	AEA
SB-23			Plugged 10/08 -1/11/2024										
L-15833 POD-3	**MW-24**	**05/15/25**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**26.3**	**--**	**--**	**--**	**19,100**	**--**	AEA

Notes

1. Water Quality Standards for BTEX listed in NMAC 20.6.2.3103, adopted by NMWQCC on August 14, 2018; amended regulations effective date December 21, 2018; groundwater standards effective date July 1, 2020
2. TPH (GRO, DRO, ORO) and Nitrates, not analysed since 2023
3. NS = Not Sampled

Legend

- 2025-05-15 GW Contours (1 ft)
- Uncertain Contour
- WPQ Monitor Wells

N

0 50 Feet

Figure A1
Site and Groundwater Elevation Map
West Pearl Queen
Unit B, S32, T19S, R35E, NMPM
NMOCD: NOY181664460946

Atkins ENGINEERING ASSOCIATES May 2025

Legend

WPQ Monitor Wells

N

0 50 Feet

Figure A2
Chloride and Methylene Chloride Concentration Map
West Pearl Queen
Unit B, S32, T19S, R35E, NMPM
NMOCD: NOY181664460946

Atkins ENGINEERING ASSOCIATES May 2025

Appendix B: Field Datasheets

WELL GAUGING DATA SHEET

Atkins ENGINEERING ASSOCIATES

		Job#:	aecwpea.drl.24
Client:	Armstrong Energy Corp.	Date:	5/15/25
Project:	west pearl queen	Sampler:	RA
Weather		Time In/Out	

WATER LEVEL DATA

Well ID	Sample Time	Depth to Free Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Depth to Well Bottom (feet)	Water Column Height (feet)	Notes/Other Remarks
MW-2	—	—	28.45	—	28.50	.05	Dry
MW-5R	1025	—	26.42	—	28.70	2.28	
MW-7R	1045	—	26.35	—	27.90	1.55	
MW-14	955	—	25.70	—	27.06	1.36	
MW-24	1010	—	25.00	—	28.95	3.95	

WELL MONITORING DATA SHEET

Atkins ENGINEERING ASSOCIATES

Well I.D.	MW-2	Job Number:	aecwpea.drl.24
Client:	WPQ/Armstrong	Date:	5/15/25
Project:	West Pearl Queen	Sampler:	KA
Weather:	Clear	Time In/Out:	9251

WELL DATA

Well Depth:	28.50	Well Diameter:		Water Height	
Depth to Water:	28.45	Screened Interval:	---	x Multiplier	
Water Column Length:		Depth to Free Product:	---	x Casing Volumes	
Purge Volume:		Free Product Thickness:	---	= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.1743	4-inch = 0.6613	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bailer			Pump Intake Depth:						Comments		
Sampling Method:	Grab			Tubing Type:								
Time	Volume Purged (gal)	Cumulative Volume Purged (gal)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks	
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria	
	—	—	—	—						—		
			—	—						—		
			—	—						—		
			—	—						—		

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-2	Sampling Flow Rate	—	Analytical Laboratory:	Hall
Sample Time:		Final Depth to Water:	—	Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
		8260B	yes no			
		300	yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

Dry - Can't Sample no water Column

WELL MONITORING DATA SHEET

Atkins ENGINEERING ASSOCIATES

Well I.D.	MW-5R	Job Number:	aecwpea.drl.24
Client:	Armstrong	Date:	5/15/25
Project:	west Pearl Queen	Sampler:	KA
Weather:		Time In/Out:	

WELL DATA

Well Depth:	28.70	Well Diameter:	2	Water Height	2.28
Depth to Water:	26.42	Screened Interval:	---	x Multiplier	.1743
Water Column Length:	2.28	Depth to Free Product:	---	x Casing Volumes	3X .39
Purge Volume:		Free Product Thickness:	---	= Purge Volume	1.19
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.1743	4-inch = 0.6613	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bailer	Pump Intake Depth:	
Sampling Method:	Grab	Tubing Type:	

Time	Volume Purged (gal)	Cumulative Volume Purged (gal)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Comments: Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1019	–	–	–	–	7.20	18.8	2559	1.64	-41.7	–	VC
1021	.39	.39	–	–	7.16	18.6	25369	2.01	-67.4	–	VC
1023		.78	–	–	7.16	18.4	24007	2.06	-69.4	–	VC
1025	/	1.19	–	–	7.08	18.2	25160	0.95	-70.9	–	VC

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-5R	Sampling Flow Rate	—	Analytical Laboratory:	Hall
Sample Time:	1025	Final Depth to Water:	---	Did Well Dewater?	
# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD / Duplicate ID
		8260B	yes no		
		300	yes no		
			yes no		
			yes no		
			yes no		
			yes no		

COMMENTS

WELL MONITORING DATA SHEET

Atkins ENGINEERING ASSOCIATES

Well I.D.	MW-7R	Job Number:	aecwpea.drl.24
Client:	Armstrong	Date:	5/15/25
Project:	West Pearl Queen	Sampler:	KA
Weather:		Time In/Out:	

WELL DATA

Well Depth:	27.90	Well Diameter:	2	Water Height	1.55
Depth to Water:	26.35	Screened Interval:	—	x Multiplier	.1743
Water Column Length:	1.55	Depth to Free Product:	—	x Casing Volumes	3X .27
Purge Volume:		Free Product Thickness:	—	= Purge Volume	.81
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.1743	4-inch = 0.6613	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bailer	Pump Intake Depth:	
Sampling Method:	Grab	Tubing Type:	

Time	Volume Purged (gal)	Cumulative Volume Purged (gal)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1035	—	—	—	—	7.72	18.2	41666	1.00	-84.0	—	VC
1036	.27	.27	—	—	7.83	18.2	2526	0.80	-81.1	—	VC
1038	/	.54	—	—	7.98	18.0	2470	0.99	-72.2	—	VC
1040	/	.81	—	—	7.97	17.9	2442	8.00	-59.0	—	VC
								0.84			

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-7R	Sampling Flow Rate	—	Analytical Laboratory:	Hall
Sample Time:	1045	Final Depth to Water:	---	Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
		8260B	yes no			
		300	yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

Duplicate performed on MW-7R @ 1045 5/15/25

WELL MONITORING DATA SHEET

Atkins ENGINEERING ASSOCIATES

Well I.D.	MW-14	Job Number:	aecwpea.drl.24
Client:	Armstrong	Date:	5/15/25
Project:	West Pearl Queen	Sampler:	KA
Weather:		Time In/Out:	

WELL DATA

Well Depth:	27.06	Well Diameter:	2	Water Height	1.36
Depth to Water:	25.70	Screened Interval:	—	x Multiplier	.1743
Water Column Length:	1.36	Depth to Free Product:	—	x Casing Volumes	3X.23
Purge Volume:		Free Product Thickness:	—	= Purge Volume	.71
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.1743	4-inch = 0.6613	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:		Pump Intake Depth:		Comments	
Sampling Method:		Tubing Type:			

Time	Volume Purged (gal)	Cumulative Volume Purged (gal)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
	—	—	—	—						—	
	.23	.23	—	—						—	
	1	.46	—	—						—	
	1	.71	—	—						—	

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-14	Sampling Flow Rate	—	Analytical Laboratory:	Hall
Sample Time:	955	Final Depth to Water:	—	Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
		8260B	yes no			
		300	yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

grab Sample no YSI Water Column too low

WELL MONITORING DATA SHEET

Atkins ENGINEERING ASSOCIATES

Well I.D.	MW-24	Job Number:	aecwpea.drl.24
Client:	Armstrong	Date:	5/15/25
Project:	West Pearl Queen	Sampler:	RA
Weather:		Time In/Out:	

WELL DATA

Well Depth:	28.95	Well Diameter:	2	Water Height	3.95
Depth to Water:	25.00	Screened Interval:	---	x Multiplier	.1743
Water Column Length:	3.95	Depth to Free Product:	---	x Casing Volumes	3X .68
Purge Volume:		Free Product Thickness:	---	= Purge Volume	2.05
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.1743	4-inch = 0.6613	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bailer	Pump Intake Depth:	
Sampling Method:	Grab	Tubing Type:	

Time	Volume Purged (gal)	Cumulative Volume Purged (gal)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1004	—	—	—	—	6.88	18.7	4348	2.20	41.6	—	Cl
1006	.68	.68	—	—	6.91	18.3	4098	1.98	28.6	—	Cl
1007	1	1.36	—	—	6.93	18.1	4352	1.87	22.8	—	Cl
1009	1	2.05	—	—	6.91	18.0	4361	1.51	27.8	—	Cl

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-24	Sampling Flow Rate	—	Analytical Laboratory:	Hall		
Sample Time:	1010	Final Depth to Water:	---	Did Well Dewater?			
# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID	
		8260B	yes no				
		300	yes no				
			yes no				
			yes no				
			yes no				
			yes no				

COMMENTS

WELL MONITORING DATA SHEET

Atkins ENGINEERING ASSOCIATES

Well I.D.	MW-24	Job Number:	aecwpea.drl.24
Client:	Armstrong	Date:	5/15/25
Project:	West Pearl Queen	Sampler:	RA
Weather:		Time In/Out:	

WELL DATA

Well Depth:	26.95	Well Diameter:	2	Water Height	3.95
Depth to Water:	25.00	Screened Interval:	---	x Multiplier	.1743
Water Column Length:	3.95	Depth to Free Product:	---	x Casing Volumes	3X .68
Purge Volume:		Free Product Thickness:	---	= Purge Volume	2.05
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.1743	4-inch = 0.6613	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bailer	Pump Intake Depth:	
Sampling Method:	Grab	Tubing Type:	

Time	Volume Purged (gal)	Cumulative Volume Purged (gal)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1004	—	—	—	—	6.88	18.7	4348	2.20	41.6	—	Cl
1006	.68	.68	—	—	6.91	18.3	4098	1.98	28.6	—	Cl
1007	1	1.36	—	—	6.93	18.1	4352	1.87	22.8	—	Cl
1009	1	2.05	—	—	6.91	18.0	4361	1.51	27.8	—	Cl

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-24	Sampling Flow Rate	—	Analytical Laboratory:	Hall		
Sample Time:	1010	Final Depth to Water:	---	Did Well Dewater?			
# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID	
		8260B	yes no				
		300	yes no				
			yes no				
			yes no				
			yes no				
			yes no				

COMMENTS

envirotech
Analytical Laboratory

Chain of Custody

Page _____ of _____

Client Information	Invoice Information	Lab Use Only	TAT	State
Client: Atkins	Company: Atkins eng	Lab WO# E	Job Number	1D 2D 3D Std	NM CO UT TX
Project Name: WPC	Address: 2907 w 2nd			
Project Manager: Kaviza	City, State, Zip: Roswell NM			
Address:	Phone: 575 (626 5414			
City, State, Zip:	Email: Kaviza@atkinseng.com			
Phone:	Miscellaneous:			
Email:				

Sample Information

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	TCEQ 1005 - TX	RCRA 8 Metals		BGDOC - NM	BGDOC - TX	Sample Temp	Remarks
1025	5/14/25	AQ	4	MW-5R						X	X							
1045	"	"	"	MW-7R						"	"							
955	"	"	"	MW-14						"	"							
1010	"	"	"	MW-24						"	"							
1045	"	"	"	Duplicate 1						"	"							

Analysis and Method	EPA Program
	SDWA CWA RCRA
	Compliance Y or N
	PWSID #

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: _____

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	5/15/25	1200			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed on ice at a temp above 0 but less than 6°C on subsequent days.

Lab Use Only

Received on ice: Y / N

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above sam is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

Appendix C: Envirotech Analysis Laboratory Datasheets

Report to:

Kariza

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Atkins Engineering Associates Inc.

Project Name:	WPQ
Work Order:	E505172
Job Number:	20071-0001
Received:	5/16/2025

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/22/25

Date Reported: 5/22/25

Kariza
2904 W. 2nd
Roswell, NM 88201

Project Name: WPQ
Workorder: E505172
Date Received: 5/16/2025 8:30:22AM

Kariza,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/16/2025 8:30:22AM, under the Project Name: WPQ.

The analytical test results summarized in this report with the Project Name: WPQ apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

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Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
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ljarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
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Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

Atkins Engineering Associates Inc.	Project Name:	WPQ	**Reported:**
2904 W. 2nd	Project Number:	20071-0001	
Roswell NM, 88201	Project Manager:	Kariza	05/22/25 15:49

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
MW-5R	E505172-01A	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl
	E505172-01B	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl
	E505172-01C	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl
	E505172-01D	Aqueous	05/15/25	05/16/25	Poly 125mL
MW-7R	E505172-02A	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl
	E505172-02B	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl
	E505172-02C	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl
	E505172-02D	Aqueous	05/15/25	05/16/25	Poly 125mL
MW-14	E505172-03A	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl
	E505172-03B	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl
	E505172-03C	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl
	E505172-03D	Aqueous	05/15/25	05/16/25	Poly 125mL
MW-24	E505172-04A	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl
	E505172-04B	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl
	E505172-04C	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl
	E505172-04D	Aqueous	05/15/25	05/16/25	Poly 125mL
Duplicate 1	E505172-05A	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl
	E505172-05B	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl
	E505172-05C	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl
	E505172-05D	Aqueous	05/15/25	05/16/25	Poly 125mL
Trip Blank	E505172-06A	Aqueous	05/15/25	05/16/25	VOA Vial, 40mL; HCl

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

MW-5R

E505172-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	ug/L	ug/L	Analyst: BA			Batch: 2521099
Acetone	ND	20.0	1	05/21/25	05/21/25	
Benzene	**1.57**	1.00	1	05/21/25	05/21/25	
Bromobenzene	ND	1.00	1	05/21/25	05/21/25	
Bromochloromethane	ND	1.00	1	05/21/25	05/21/25	
Bromodichloromethane	ND	1.00	1	05/21/25	05/21/25	
Bromoform	ND	1.00	1	05/21/25	05/21/25	
Bromomethane	ND	2.00	1	05/21/25	05/21/25	
n-Butyl Benzene	ND	1.00	1	05/21/25	05/21/25	
sec-Butylbenzene	ND	1.00	1	05/21/25	05/21/25	
tert-Butylbenzene	ND	1.00	1	05/21/25	05/21/25	
Carbon Tetrachloride	ND	1.00	1	05/21/25	05/21/25	
Chlorobenzene	ND	1.00	1	05/21/25	05/21/25	
Chloroethane	ND	2.00	1	05/21/25	05/21/25	
Chloroform	ND	5.00	1	05/21/25	05/21/25	
Chloromethane	ND	2.00	1	05/21/25	05/21/25	
2-Chlorotoluene	ND	1.00	1	05/21/25	05/21/25	
4-Chlorotoluene	ND	1.00	1	05/21/25	05/21/25	
Dibromochloromethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.00	1	05/21/25	05/21/25	
1,2-Dibromoethane (EDB)	ND	2.00	1	05/21/25	05/21/25	
Dibromomethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,3-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,4-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
cis-1,2-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
trans-1,2-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
1,3-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
2,2-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
cis-1,3-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
trans-1,3-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
Diisopropyl Ether (DIPE)	ND	1.00	1	05/21/25	05/21/25	
Ethylbenzene	ND	1.00	1	05/21/25	05/21/25	
Ethyl tert-Butyl Ether (ETBE)	ND	1.00	1	05/21/25	05/21/25	
Hexachlorobutadiene	ND	5.00	1	05/21/25	05/21/25	
2-Hexanone	ND	20.0	1	05/21/25	05/21/25	
Isopropylbenzene	ND	1.00	1	05/21/25	05/21/25	
4-Isopropyltoluene	ND	1.00	1	05/21/25	05/21/25	
2-Butanone (MEK)	ND	20.0	1	05/21/25	05/21/25	
Methylene Chloride	ND	2.00	1	05/21/25	05/21/25	
1-Methylnaphthalene	ND	10.0	1	05/21/25	05/21/25	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

MW-5R

E505172-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	ug/L	ug/L	Analyst: BA			Batch: 2521099
2-Methylnaphthalene	ND	10.0	1	05/21/25	05/21/25	
4-Methyl-2-pentanone (MIBK)	ND	20.0	1	05/21/25	05/21/25	
Methyl tert-Butyl Ether (MTBE)	ND	1.00	1	05/21/25	05/21/25	
Naphthalene	ND	5.00	1	05/21/25	05/21/25	
n-Propyl Benzene	ND	1.00	1	05/21/25	05/21/25	
Styrene	ND	1.00	1	05/21/25	05/21/25	
tert-Amyl Methyl ether (TAME)	ND	1.00	1	05/21/25	05/21/25	
1,1,1,2-Tetrachloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1,2,2-Tetrachloroethane	ND	1.00	1	05/21/25	05/21/25	
Tetrachloroethene	ND	1.00	1	05/21/25	05/21/25	
1,2,3-Trichlorobenzene	ND	5.00	1	05/21/25	05/21/25	
1,2,4-Trichlorobenzene	ND	5.00	1	05/21/25	05/21/25	
1,1,1-Trichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1,2-Trichloroethane	ND	1.00	1	05/21/25	05/21/25	
Trichloroethene	ND	1.00	1	05/21/25	05/21/25	
Trichlorofluoromethane (Freon-11)	ND	2.00	1	05/21/25	05/21/25	
1,2,3-Trichloropropane	ND	2.00	1	05/21/25	05/21/25	
1,2,4-Trimethylbenzene	ND	5.00	1	05/21/25	05/21/25	
1,3,5-Trimethylbenzene	ND	1.00	1	05/21/25	05/21/25	
Toluene	ND	1.00	1	05/21/25	05/21/25	
Vinyl chloride	ND	2.00	1	05/21/25	05/21/25	
o-Xylene	ND	1.00	1	05/21/25	05/21/25	
p,m-Xylene	ND	2.00	1	05/21/25	05/21/25	
Total Xylenes	ND	1.00	1	05/21/25	05/21/25	
Surrogate: Bromofluorobenzene	*101 %*	*70-130*		*05/21/25*	*05/21/25*	
Surrogate: 1,2-Dichloroethane-d4	*102 %*	*70-130*		*05/21/25*	*05/21/25*	
Surrogate: Toluene-d8	*102 %*	*70-130*		*05/21/25*	*05/21/25*	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

MW-5R

E505172-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Anions by EPA 300.0/9056A	mg/L	mg/L	Analyst: RAS			Batch: 2521054
Chloride	**10600**	200	100	05/20/25	05/20/25	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

MW-7R

E505172-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	ug/L	ug/L	Analyst: BA			Batch: 2521099
Acetone	ND	20.0	1	05/21/25	05/21/25	
Benzene	ND	1.00	1	05/21/25	05/21/25	
Bromobenzene	ND	1.00	1	05/21/25	05/21/25	
Bromochloromethane	ND	1.00	1	05/21/25	05/21/25	
Bromodichloromethane	ND	1.00	1	05/21/25	05/21/25	
Bromoform	ND	1.00	1	05/21/25	05/21/25	
Bromomethane	ND	2.00	1	05/21/25	05/21/25	
n-Butyl Benzene	ND	1.00	1	05/21/25	05/21/25	
sec-Butylbenzene	ND	1.00	1	05/21/25	05/21/25	
tert-Butylbenzene	ND	1.00	1	05/21/25	05/21/25	
Carbon Tetrachloride	ND	1.00	1	05/21/25	05/21/25	
Chlorobenzene	ND	1.00	1	05/21/25	05/21/25	
Chloroethane	ND	2.00	1	05/21/25	05/21/25	
Chloroform	ND	5.00	1	05/21/25	05/21/25	
Chloromethane	ND	2.00	1	05/21/25	05/21/25	
2-Chlorotoluene	ND	1.00	1	05/21/25	05/21/25	
4-Chlorotoluene	ND	1.00	1	05/21/25	05/21/25	
Dibromochloromethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.00	1	05/21/25	05/21/25	
1,2-Dibromoethane (EDB)	ND	2.00	1	05/21/25	05/21/25	
Dibromomethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,3-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,4-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
cis-1,2-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
trans-1,2-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
1,3-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
2,2-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
cis-1,3-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
trans-1,3-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
Diisopropyl Ether (DIPE)	ND	1.00	1	05/21/25	05/21/25	
Ethylbenzene	ND	1.00	1	05/21/25	05/21/25	
Ethyl tert-Butyl Ether (ETBE)	ND	1.00	1	05/21/25	05/21/25	
Hexachlorobutadiene	ND	5.00	1	05/21/25	05/21/25	
2-Hexanone	ND	20.0	1	05/21/25	05/21/25	
Isopropylbenzene	ND	1.00	1	05/21/25	05/21/25	
4-Isopropyltoluene	ND	1.00	1	05/21/25	05/21/25	
2-Butanone (MEK)	ND	20.0	1	05/21/25	05/21/25	
Methylene Chloride	ND	2.00	1	05/21/25	05/21/25	
1-Methylnaphthalene	ND	10.0	1	05/21/25	05/21/25	
2-Methylnaphthalene	ND	10.0	1	05/21/25	05/21/25	
4-Methyl-2-pentanone (MIBK)	ND	20.0	1	05/21/25	05/21/25	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

MW-7R

E505172-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	ug/L	ug/L	Analyst: BA			Batch: 2521099
Methyl tert-Butyl Ether (MTBE)	ND	1.00	1	05/21/25	05/21/25	
Naphthalene	ND	5.00	1	05/21/25	05/21/25	
n-Propyl Benzene	ND	1.00	1	05/21/25	05/21/25	
Styrene	ND	1.00	1	05/21/25	05/21/25	
tert-Amyl Methyl ether (TAME)	ND	1.00	1	05/21/25	05/21/25	
1,1,1,2-Tetrachloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1,2,2-Tetrachloroethane	ND	1.00	1	05/21/25	05/21/25	
Tetrachloroethene	ND	1.00	1	05/21/25	05/21/25	
1,2,3-Trichlorobenzene	ND	5.00	1	05/21/25	05/21/25	
1,2,4-Trichlorobenzene	ND	5.00	1	05/21/25	05/21/25	
1,1,1-Trichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1,2-Trichloroethane	ND	1.00	1	05/21/25	05/21/25	
Trichloroethene	ND	1.00	1	05/21/25	05/21/25	
Trichlorofluoromethane (Freon-11)	ND	2.00	1	05/21/25	05/21/25	
1,2,3-Trichloropropane	ND	2.00	1	05/21/25	05/21/25	
1,2,4-Trimethylbenzene	ND	5.00	1	05/21/25	05/21/25	
1,3,5-Trimethylbenzene	ND	1.00	1	05/21/25	05/21/25	
Toluene	ND	1.00	1	05/21/25	05/21/25	
Vinyl chloride	ND	2.00	1	05/21/25	05/21/25	
o-Xylene	ND	1.00	1	05/21/25	05/21/25	
p,m-Xylene	ND	2.00	1	05/21/25	05/21/25	
Total Xylenes	ND	1.00	1	05/21/25	05/21/25	
Surrogate: Bromofluorobenzene	*102 %*	*70-130*		*05/21/25*	*05/21/25*	
Surrogate: 1,2-Dichloroethane-d4	*98.8 %*	*70-130*		*05/21/25*	*05/21/25*	
Surrogate: Toluene-d8	*102 %*	*70-130*		*05/21/25*	*05/21/25*	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

MW-7R

E505172-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Anions by EPA 300.0/9056A	mg/L	mg/L	Analyst: RAS			Batch: 2521054
Chloride	**320**	10.0	5	05/20/25	05/20/25	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

MW-14

E505172-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	ug/L	ug/L	Analyst: BA			Batch: 2521099
Acetone	ND	20.0	1	05/21/25	05/21/25	
Benzene	ND	1.00	1	05/21/25	05/21/25	
Bromobenzene	ND	1.00	1	05/21/25	05/21/25	
Bromochloromethane	ND	1.00	1	05/21/25	05/21/25	
Bromodichloromethane	ND	1.00	1	05/21/25	05/21/25	
Bromoform	ND	1.00	1	05/21/25	05/21/25	
Bromomethane	ND	2.00	1	05/21/25	05/21/25	
n-Butyl Benzene	ND	1.00	1	05/21/25	05/21/25	
sec-Butylbenzene	ND	1.00	1	05/21/25	05/21/25	
tert-Butylbenzene	ND	1.00	1	05/21/25	05/21/25	
Carbon Tetrachloride	ND	1.00	1	05/21/25	05/21/25	
Chlorobenzene	ND	1.00	1	05/21/25	05/21/25	
Chloroethane	ND	2.00	1	05/21/25	05/21/25	
Chloroform	ND	5.00	1	05/21/25	05/21/25	
Chloromethane	ND	2.00	1	05/21/25	05/21/25	
2-Chlorotoluene	ND	1.00	1	05/21/25	05/21/25	
4-Chlorotoluene	ND	1.00	1	05/21/25	05/21/25	
Dibromochloromethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.00	1	05/21/25	05/21/25	
1,2-Dibromoethane (EDB)	ND	2.00	1	05/21/25	05/21/25	
Dibromomethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,3-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,4-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
cis-1,2-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
trans-1,2-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
1,3-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
2,2-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
cis-1,3-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
trans-1,3-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
Diisopropyl Ether (DIPE)	ND	1.00	1	05/21/25	05/21/25	
Ethylbenzene	ND	1.00	1	05/21/25	05/21/25	
Ethyl tert-Butyl Ether (ETBE)	ND	1.00	1	05/21/25	05/21/25	
Hexachlorobutadiene	ND	5.00	1	05/21/25	05/21/25	
2-Hexanone	ND	20.0	1	05/21/25	05/21/25	
Isopropylbenzene	ND	1.00	1	05/21/25	05/21/25	
4-Isopropyltoluene	ND	1.00	1	05/21/25	05/21/25	
2-Butanone (MEK)	ND	20.0	1	05/21/25	05/21/25	
Methylene Chloride	**9.01**	2.00	1	05/21/25	05/21/25	
1-Methylnaphthalene	ND	10.0	1	05/21/25	05/21/25	
2-Methylnaphthalene	ND	10.0	1	05/21/25	05/21/25	
4-Methyl-2-pentanone (MIBK)	ND	20.0	1	05/21/25	05/21/25	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

MW-14

E505172-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	ug/L	ug/L	Analyst: BA			Batch: 2521099
Methyl tert-Butyl Ether (MTBE)	ND	1.00	1	05/21/25	05/21/25	
Naphthalene	ND	5.00	1	05/21/25	05/21/25	
n-Propyl Benzene	ND	1.00	1	05/21/25	05/21/25	
Styrene	ND	1.00	1	05/21/25	05/21/25	
tert-Amyl Methyl ether (TAME)	ND	1.00	1	05/21/25	05/21/25	
1,1,1,2-Tetrachloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1,2,2-Tetrachloroethane	ND	1.00	1	05/21/25	05/21/25	
Tetrachloroethene	ND	1.00	1	05/21/25	05/21/25	
1,2,3-Trichlorobenzene	ND	5.00	1	05/21/25	05/21/25	
1,2,4-Trichlorobenzene	ND	5.00	1	05/21/25	05/21/25	
1,1,1-Trichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1,2-Trichloroethane	ND	1.00	1	05/21/25	05/21/25	
Trichloroethene	ND	1.00	1	05/21/25	05/21/25	
Trichlorofluoromethane (Freon-11)	ND	2.00	1	05/21/25	05/21/25	
1,2,3-Trichloropropane	ND	2.00	1	05/21/25	05/21/25	
1,2,4-Trimethylbenzene	ND	5.00	1	05/21/25	05/21/25	
1,3,5-Trimethylbenzene	ND	1.00	1	05/21/25	05/21/25	
Toluene	ND	1.00	1	05/21/25	05/21/25	
Vinyl chloride	ND	2.00	1	05/21/25	05/21/25	
o-Xylene	ND	1.00	1	05/21/25	05/21/25	
p,m-Xylene	ND	2.00	1	05/21/25	05/21/25	
Total Xylenes	ND	1.00	1	05/21/25	05/21/25	
Surrogate: Bromofluorobenzene	*101 %*	*70-130*		*05/21/25*	*05/21/25*	
Surrogate: 1,2-Dichloroethane-d4	*104 %*	*70-130*		*05/21/25*	*05/21/25*	
Surrogate: Toluene-d8	*102 %*	*70-130*		*05/21/25*	*05/21/25*	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

MW-14

E505172-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Anions by EPA 300.0/9056A	mg/L	mg/L	Analyst: RAS			Batch: 2521054
Chloride	**7850**	200	100	05/20/25	05/20/25	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

MW-24

E505172-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	ug/L	ug/L	Analyst: BA			Batch: 2521099
Acetone	ND	20.0	1	05/21/25	05/21/25	
Benzene	ND	1.00	1	05/21/25	05/21/25	
Bromobenzene	ND	1.00	1	05/21/25	05/21/25	
Bromochloromethane	ND	1.00	1	05/21/25	05/21/25	
Bromodichloromethane	ND	1.00	1	05/21/25	05/21/25	
Bromoform	ND	1.00	1	05/21/25	05/21/25	
Bromomethane	ND	2.00	1	05/21/25	05/21/25	
n-Butyl Benzene	ND	1.00	1	05/21/25	05/21/25	
sec-Butylbenzene	ND	1.00	1	05/21/25	05/21/25	
tert-Butylbenzene	ND	1.00	1	05/21/25	05/21/25	
Carbon Tetrachloride	ND	1.00	1	05/21/25	05/21/25	
Chlorobenzene	ND	1.00	1	05/21/25	05/21/25	
Chloroethane	ND	2.00	1	05/21/25	05/21/25	
Chloroform	ND	5.00	1	05/21/25	05/21/25	
Chloromethane	ND	2.00	1	05/21/25	05/21/25	
2-Chlorotoluene	ND	1.00	1	05/21/25	05/21/25	
4-Chlorotoluene	ND	1.00	1	05/21/25	05/21/25	
Dibromochloromethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.00	1	05/21/25	05/21/25	
1,2-Dibromoethane (EDB)	ND	2.00	1	05/21/25	05/21/25	
Dibromomethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,3-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,4-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
cis-1,2-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
trans-1,2-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
1,3-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
2,2-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
cis-1,3-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
trans-1,3-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
Diisopropyl Ether (DIPE)	ND	1.00	1	05/21/25	05/21/25	
Ethylbenzene	ND	1.00	1	05/21/25	05/21/25	
Ethyl tert-Butyl Ether (ETBE)	ND	1.00	1	05/21/25	05/21/25	
Hexachlorobutadiene	ND	5.00	1	05/21/25	05/21/25	
2-Hexanone	ND	20.0	1	05/21/25	05/21/25	
Isopropylbenzene	ND	1.00	1	05/21/25	05/21/25	
4-Isopropyltoluene	ND	1.00	1	05/21/25	05/21/25	
2-Butanone (MEK)	ND	20.0	1	05/21/25	05/21/25	
Methylene Chloride	**26.3**	2.00	1	05/21/25	05/21/25	
1-Methylnaphthalene	ND	10.0	1	05/21/25	05/21/25	
2-Methylnaphthalene	ND	10.0	1	05/21/25	05/21/25	
4-Methyl-2-pentanone (MIBK)	ND	20.0	1	05/21/25	05/21/25	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

MW-24

E505172-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	ug/L	ug/L	Analyst: BA			Batch: 2521099
Methyl tert-Butyl Ether (MTBE)	ND	1.00	1	05/21/25	05/21/25	
Naphthalene	ND	5.00	1	05/21/25	05/21/25	
n-Propyl Benzene	ND	1.00	1	05/21/25	05/21/25	
Styrene	ND	1.00	1	05/21/25	05/21/25	
tert-Amyl Methyl ether (TAME)	ND	1.00	1	05/21/25	05/21/25	
1,1,1,2-Tetrachloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1,2,2-Tetrachloroethane	ND	1.00	1	05/21/25	05/21/25	
Tetrachloroethene	ND	1.00	1	05/21/25	05/21/25	
1,2,3-Trichlorobenzene	ND	5.00	1	05/21/25	05/21/25	
1,2,4-Trichlorobenzene	ND	5.00	1	05/21/25	05/21/25	
1,1,1-Trichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1,2-Trichloroethane	ND	1.00	1	05/21/25	05/21/25	
Trichloroethene	ND	1.00	1	05/21/25	05/21/25	
Trichlorofluoromethane (Freon-11)	ND	2.00	1	05/21/25	05/21/25	
1,2,3-Trichloropropane	ND	2.00	1	05/21/25	05/21/25	
1,2,4-Trimethylbenzene	ND	5.00	1	05/21/25	05/21/25	
1,3,5-Trimethylbenzene	ND	1.00	1	05/21/25	05/21/25	
Toluene	ND	1.00	1	05/21/25	05/21/25	
Vinyl chloride	ND	2.00	1	05/21/25	05/21/25	
o-Xylene	ND	1.00	1	05/21/25	05/21/25	
p,m-Xylene	ND	2.00	1	05/21/25	05/21/25	
Total Xylenes	ND	1.00	1	05/21/25	05/21/25	
Surrogate: Bromofluorobenzene	*102 %*	*70-130*		*05/21/25*	*05/21/25*	
Surrogate: 1,2-Dichloroethane-d4	*103 %*	*70-130*		*05/21/25*	*05/21/25*	
Surrogate: Toluene-d8	*101 %*	*70-130*		*05/21/25*	*05/21/25*	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

MW-24

E505172-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Anions by EPA 300.0/9056A	mg/L	mg/L	Analyst: RAS			Batch: 2521054
Chloride	**19100**	200	100	05/20/25	05/20/25	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

Duplicate 1

E505172-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	ug/L	ug/L	Analyst: BA			Batch: 2521099
Acetone	ND	20.0	1	05/21/25	05/21/25	
Benzene	ND	1.00	1	05/21/25	05/21/25	
Bromobenzene	ND	1.00	1	05/21/25	05/21/25	
Bromochloromethane	ND	1.00	1	05/21/25	05/21/25	
Bromodichloromethane	ND	1.00	1	05/21/25	05/21/25	
Bromoform	ND	1.00	1	05/21/25	05/21/25	
Bromomethane	ND	2.00	1	05/21/25	05/21/25	
n-Butyl Benzene	ND	1.00	1	05/21/25	05/21/25	
sec-Butylbenzene	ND	1.00	1	05/21/25	05/21/25	
tert-Butylbenzene	ND	1.00	1	05/21/25	05/21/25	
Carbon Tetrachloride	ND	1.00	1	05/21/25	05/21/25	
Chlorobenzene	ND	1.00	1	05/21/25	05/21/25	
Chloroethane	ND	2.00	1	05/21/25	05/21/25	
Chloroform	ND	5.00	1	05/21/25	05/21/25	
Chloromethane	ND	2.00	1	05/21/25	05/21/25	
2-Chlorotoluene	ND	1.00	1	05/21/25	05/21/25	
4-Chlorotoluene	ND	1.00	1	05/21/25	05/21/25	
Dibromochloromethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.00	1	05/21/25	05/21/25	
1,2-Dibromoethane (EDB)	ND	2.00	1	05/21/25	05/21/25	
Dibromomethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,3-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,4-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
cis-1,2-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
trans-1,2-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
1,3-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
2,2-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
cis-1,3-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
trans-1,3-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
Diisopropyl Ether (DIPE)	ND	1.00	1	05/21/25	05/21/25	
Ethylbenzene	ND	1.00	1	05/21/25	05/21/25	
Ethyl tert-Butyl Ether (ETBE)	ND	1.00	1	05/21/25	05/21/25	
Hexachlorobutadiene	ND	5.00	1	05/21/25	05/21/25	
2-Hexanone	ND	20.0	1	05/21/25	05/21/25	
Isopropylbenzene	ND	1.00	1	05/21/25	05/21/25	
4-Isopropyltoluene	ND	1.00	1	05/21/25	05/21/25	
2-Butanone (MEK)	ND	20.0	1	05/21/25	05/21/25	
Methylene Chloride	ND	2.00	1	05/21/25	05/21/25	
1-Methylnaphthalene	ND	10.0	1	05/21/25	05/21/25	
2-Methylnaphthalene	ND	10.0	1	05/21/25	05/21/25	
4-Methyl-2-pentanone (MIBK)	ND	20.0	1	05/21/25	05/21/25	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

Duplicate 1

E505172-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	ug/L	ug/L	Analyst: BA			Batch: 2521099
Methyl tert-Butyl Ether (MTBE)	ND	1.00	1	05/21/25	05/21/25	
Naphthalene	ND	5.00	1	05/21/25	05/21/25	
n-Propyl Benzene	ND	1.00	1	05/21/25	05/21/25	
Styrene	ND	1.00	1	05/21/25	05/21/25	
tert-Amyl Methyl ether (TAME)	ND	1.00	1	05/21/25	05/21/25	
1,1,1,2-Tetrachloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1,2,2-Tetrachloroethane	ND	1.00	1	05/21/25	05/21/25	
Tetrachloroethene	ND	1.00	1	05/21/25	05/21/25	
1,2,3-Trichlorobenzene	ND	5.00	1	05/21/25	05/21/25	
1,2,4-Trichlorobenzene	ND	5.00	1	05/21/25	05/21/25	
1,1,1-Trichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1,2-Trichloroethane	ND	1.00	1	05/21/25	05/21/25	
Trichloroethene	ND	1.00	1	05/21/25	05/21/25	
Trichlorofluoromethane (Freon-11)	ND	2.00	1	05/21/25	05/21/25	
1,2,3-Trichloropropane	ND	2.00	1	05/21/25	05/21/25	
1,2,4-Trimethylbenzene	ND	5.00	1	05/21/25	05/21/25	
1,3,5-Trimethylbenzene	ND	1.00	1	05/21/25	05/21/25	
Toluene	ND	1.00	1	05/21/25	05/21/25	
Vinyl chloride	ND	2.00	1	05/21/25	05/21/25	
o-Xylene	ND	1.00	1	05/21/25	05/21/25	
p,m-Xylene	ND	2.00	1	05/21/25	05/21/25	
Total Xylenes	ND	1.00	1	05/21/25	05/21/25	
Surrogate: Bromofluorobenzene	*98.5 %*	*70-130*		*05/21/25*	*05/21/25*	
Surrogate: 1,2-Dichloroethane-d4	*101 %*	*70-130*		*05/21/25*	*05/21/25*	
Surrogate: Toluene-d8	*99.9 %*	*70-130*		*05/21/25*	*05/21/25*	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

Duplicate 1

E505172-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Anions by EPA 300.0/9056A	mg/L	mg/L	Analyst: RAS			Batch: 2521054
Chloride	**335**	20.0	10	05/20/25	05/20/25	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

Trip Blank

E505172-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	ug/L	ug/L	Analyst: BA			Batch: 2521099
Acetone	ND	20.0	1	05/21/25	05/21/25	
Benzene	ND	1.00	1	05/21/25	05/21/25	
Bromobenzene	ND	1.00	1	05/21/25	05/21/25	
Bromochloromethane	ND	1.00	1	05/21/25	05/21/25	
Bromodichloromethane	ND	1.00	1	05/21/25	05/21/25	
Bromoform	ND	1.00	1	05/21/25	05/21/25	
Bromomethane	ND	2.00	1	05/21/25	05/21/25	
n-Butyl Benzene	ND	1.00	1	05/21/25	05/21/25	
sec-Butylbenzene	ND	1.00	1	05/21/25	05/21/25	
tert-Butylbenzene	ND	1.00	1	05/21/25	05/21/25	
Carbon Tetrachloride	ND	1.00	1	05/21/25	05/21/25	
Chlorobenzene	ND	1.00	1	05/21/25	05/21/25	
Chloroethane	ND	2.00	1	05/21/25	05/21/25	
Chloroform	ND	5.00	1	05/21/25	05/21/25	
Chloromethane	ND	2.00	1	05/21/25	05/21/25	
2-Chlorotoluene	ND	1.00	1	05/21/25	05/21/25	
4-Chlorotoluene	ND	1.00	1	05/21/25	05/21/25	
Dibromochloromethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.00	1	05/21/25	05/21/25	
1,2-Dibromoethane (EDB)	ND	2.00	1	05/21/25	05/21/25	
Dibromomethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,3-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,4-Dichlorobenzene	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
cis-1,2-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
trans-1,2-Dichloroethene	ND	1.00	1	05/21/25	05/21/25	
1,2-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
1,3-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
2,2-Dichloropropane	ND	1.00	1	05/21/25	05/21/25	
1,1-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
cis-1,3-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
trans-1,3-Dichloropropene	ND	1.00	1	05/21/25	05/21/25	
Diisopropyl Ether (DIPE)	ND	1.00	1	05/21/25	05/21/25	
Ethylbenzene	ND	1.00	1	05/21/25	05/21/25	
Ethyl tert-Butyl Ether (ETBE)	ND	1.00	1	05/21/25	05/21/25	
Hexachlorobutadiene	ND	5.00	1	05/21/25	05/21/25	
2-Hexanone	ND	20.0	1	05/21/25	05/21/25	
Isopropylbenzene	ND	1.00	1	05/21/25	05/21/25	
4-Isopropyltoluene	ND	1.00	1	05/21/25	05/21/25	
2-Butanone (MEK)	ND	20.0	1	05/21/25	05/21/25	
Methylene Chloride	ND	2.00	1	05/21/25	05/21/25	
1-Methylnaphthalene	ND	10.0	1	05/21/25	05/21/25	
2-Methylnaphthalene	ND	10.0	1	05/21/25	05/21/25	
4-Methyl-2-pentanone (MIBK)	ND	20.0	1	05/21/25	05/21/25	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

Trip Blank

E505172-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	ug/L	ug/L	Analyst: BA			Batch: 2521099
Methyl tert-Butyl Ether (MTBE)	ND	1.00	1	05/21/25	05/21/25	
Naphthalene	ND	5.00	1	05/21/25	05/21/25	
n-Propyl Benzene	ND	1.00	1	05/21/25	05/21/25	
Styrene	ND	1.00	1	05/21/25	05/21/25	
tert-Amyl Methyl ether (TAME)	ND	1.00	1	05/21/25	05/21/25	
1,1,1,2-Tetrachloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1,2,2-Tetrachloroethane	ND	1.00	1	05/21/25	05/21/25	
Tetrachloroethene	ND	1.00	1	05/21/25	05/21/25	
1,2,3-Trichlorobenzene	ND	5.00	1	05/21/25	05/21/25	
1,2,4-Trichlorobenzene	ND	5.00	1	05/21/25	05/21/25	
1,1,1-Trichloroethane	ND	1.00	1	05/21/25	05/21/25	
1,1,2-Trichloroethane	ND	1.00	1	05/21/25	05/21/25	
Trichloroethene	ND	1.00	1	05/21/25	05/21/25	
Trichlorofluoromethane (Freon-11)	ND	2.00	1	05/21/25	05/21/25	
1,2,3-Trichloropropane	ND	2.00	1	05/21/25	05/21/25	
1,2,4-Trimethylbenzene	ND	5.00	1	05/21/25	05/21/25	
1,3,5-Trimethylbenzene	ND	1.00	1	05/21/25	05/21/25	
Toluene	ND	1.00	1	05/21/25	05/21/25	
Vinyl chloride	ND	2.00	1	05/21/25	05/21/25	
o-Xylene	ND	1.00	1	05/21/25	05/21/25	
p,m-Xylene	ND	2.00	1	05/21/25	05/21/25	
Total Xylenes	ND	1.00	1	05/21/25	05/21/25	
Surrogate: Bromofluorobenzene		*103 %*	*70-130*	*05/21/25*	*05/21/25*	
Surrogate: 1,2-Dichloroethane-d4		*98.5 %*	*70-130*	*05/21/25*	*05/21/25*	
Surrogate: Toluene-d8		*99.3 %*	*70-130*	*05/21/25*	*05/21/25*	

QC Summary Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	**Reported:**
2904 W. 2nd	Project Number:	20071-0001	
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

Volatile Organic Compounds by EPA 8260B

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	ug/L	ug/L	ug/L	ug/L	%	%	%	%	
Blank (2521099-BLK1)									Prepared: 05/21/25 Analyzed: 05/21/25
Acetone	ND	20.0							
Benzene	ND	1.00							
Bromobenzene	ND	1.00							
Bromochloromethane	ND	1.00							
Bromodichloromethane	ND	1.00							
Bromoform	ND	1.00							
Bromomethane	ND	2.00							
n-Butyl Benzene	ND	1.00							
sec-Butylbenzene	ND	1.00							
tert-Butylbenzene	ND	1.00							
Carbon Tetrachloride	ND	1.00							
Chlorobenzene	ND	1.00							
Chloroethane	ND	2.00							
Chloroform	ND	5.00							
Chloromethane	ND	2.00							
2-Chlorotoluene	ND	1.00							
4-Chlorotoluene	ND	1.00							
Dibromochloromethane	ND	1.00							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.00							
1,2-Dibromoethane (EDB)	ND	2.00							
Dibromomethane	ND	1.00							
1,2-Dichlorobenzene	ND	1.00							
1,3-Dichlorobenzene	ND	1.00							
1,4-Dichlorobenzene	ND	1.00							
1,1-Dichloroethane	ND	1.00							
1,2-Dichloroethane	ND	1.00							
1,1-Dichloroethene	ND	1.00							
cis-1,2-Dichloroethene	ND	1.00							
trans-1,2-Dichloroethene	ND	1.00							
1,2-Dichloropropane	ND	1.00							
1,3-Dichloropropane	ND	1.00							
2,2-Dichloropropane	ND	1.00							
1,1-Dichloropropene	ND	1.00							
cis-1,3-Dichloropropene	ND	1.00							
trans-1,3-Dichloropropene	ND	1.00							
Diisopropyl Ether (DIPE)	ND	1.00							
Ethylbenzene	ND	1.00							
Ethyl tert-Butyl Ether (ETBE)	ND	1.00							
Hexachlorobutadiene	ND	5.00							
2-Hexanone	ND	20.0							
Isopropylbenzene	ND	1.00							
4-Isopropyltoluene	ND	1.00							
2-Butanone (MEK)	ND	20.0							
Methylene Chloride	ND	2.00							
1-Methylnaphthalene	ND	10.0							
2-Methylnaphthalene	ND	10.0							
4-Methyl-2-pentanone (MIBK)	ND	20.0							
Methyl tert-Butyl Ether (MTBE)	ND	1.00							
Naphthalene	ND	5.00							
n-Propyl Benzene	ND	1.00							
Styrene	ND	1.00							
tert-Amyl Methyl ether (TAME)	ND	1.00							
1,1,1,2-Tetrachloroethane	ND	1.00							
1,1,2,2-Tetrachloroethane	ND	1.00							
Tetrachloroethene	ND	1.00							
1,2,3-Trichlorobenzene	ND	5.00							
1,2,4-Trichlorobenzene	ND	5.00							
1,1,1-Trichloroethane	ND	1.00							
1,1,2-Trichloroethane	ND	1.00							
Trichloroethene	ND	1.00							
Trichlorofluoromethane (Freon-11)	ND	2.00							
1,2,3-Trichloropropane	ND	2.00							
1,2,4-Trimethylbenzene	ND	5.00							
1,3,5-Trimethylbenzene	ND	1.00							

QC Summary Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	**Reported:**
2904 W. 2nd	Project Number:	20071-0001	
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

Volatile Organic Compounds by EPA 8260B

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	ug/L	ug/L	ug/L	ug/L	%	%	%	%	
Blank (2521099-BLK1)									Prepared: 05/21/25 Analyzed: 05/21/25
Toluene	ND	1.00							
Vinyl chloride	ND	2.00							
o-Xylene	ND	1.00							
p,m-Xylene	ND	2.00							
Total Xylenes	ND	1.00							
Surrogate: Bromofluorobenzene	*9.77*		*10.0*		*97.7*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*9.70*		*10.0*		*97.0*	*70-130*			
Surrogate: Toluene-d8	*9.99*		*10.0*		*99.9*	*70-130*			
LCS (2521099-BS1)									Prepared: 05/21/25 Analyzed: 05/21/25
Acetone	54.5	20.0	100		54.5	20-185			
Benzene	48.1	1.00	50.0		96.1	70-130			
Bromoform	41.5	1.00	50.0		83.0	70-131			
Bromomethane	51.3	2.00	50.0		103	22-187			
sec-Butylbenzene	42.4	1.00	50.0		84.7	70-130			
Carbon Tetrachloride	47.2	1.00	50.0		94.5	70-130			
Chlorobenzene	46.5	1.00	50.0		93.1	70-130			
2-Chlorotoluene	45.6	1.00	50.0		91.2	70-130			
Dibromochloromethane	44.2	1.00	50.0		88.4	70-130			
1,2-Dichlorobenzene	44.3	1.00	50.0		88.6	70-130			
1,1-Dichloroethane	51.6	1.00	50.0		103	70-130			
1,1-Dichloroethene	53.5	1.00	50.0		107	80-120			
2,2-Dichloropropane	53.8	1.00	50.0		108	50-160			
cis-1,3-Dichloropropene	48.4	1.00	50.0		96.8	70-130			
Ethylbenzene	47.8	1.00	50.0		95.7	80-120			
Isopropylbenzene	46.6	1.00	50.0		93.3	70-130			
Methyl tert-Butyl Ether (MTBE)	47.4	1.00	50.0		94.8	70-130			
Naphthalene	47.3	5.00	50.0		94.5	70-140			
tert-Amyl Methyl ether (TAME)	46.2	1.00	50.0		92.3	70-130			
Trichloroethene	46.7	1.00	50.0		93.3	70-130			
Toluene	47.1	1.00	50.0		94.1	80-120			
o-Xylene	45.8	1.00	50.0		91.7	70-130			
p,m-Xylene	92.3	2.00	100		92.3	70-130			
Total Xylenes	138	1.00	150		92.1	70-130			
Surrogate: Bromofluorobenzene	*9.84*		*10.0*		*98.4*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*9.74*		*10.0*		*97.4*	*70-130*			
Surrogate: Toluene-d8	*9.90*		*10.0*		*99.0*	*70-130*			
Matrix Spike (2521099-MS1)				**Source: E505188-02**					Prepared: 05/21/25 Analyzed: 05/21/25
Acetone	2880	1000	5000	ND	57.5	10-190			
Benzene	2430	50.0	2500	ND	97.2	59-133			
Bromoform	2110	50.0	2500	ND	84.3	66-140			
Bromomethane	2520	100	2500	ND	101	17-190			
sec-Butylbenzene	2130	50.0	2500	ND	85.2	66-139			
Carbon Tetrachloride	2310	50.0	2500	ND	92.6	61-139			
Chlorobenzene	2350	50.0	2500	ND	94.0	70-130			
2-Chlorotoluene	2310	50.0	2500	ND	92.6	67-134			
Dibromochloromethane	2250	50.0	2500	ND	90.0	70-132			
1,2-Dichlorobenzene	2280	50.0	2500	ND	91.2	70-130			
1,1-Dichloroethane	2600	50.0	2500	ND	104	64-134			
1,1-Dichloroethene	2600	50.0	2500	ND	104	49-144			
2,2-Dichloropropane	2520	50.0	2500	ND	101	45-165			
cis-1,3-Dichloropropene	2410	50.0	2500	ND	96.3	70-130			
Ethylbenzene	2410	50.0	2500	ND	96.2	62-136			
Isopropylbenzene	2350	50.0	2500	ND	94.1	67-136			
Methyl tert-Butyl Ether (MTBE)	2490	50.0	2500	ND	99.4	61-136			
Naphthalene	2570	250	2500	ND	103	60-160			
tert-Amyl Methyl ether (TAME)	2410	50.0	2500	ND	96.2	65-135			
Trichloroethene	2360	50.0	2500	ND	94.3	49-148			
Toluene	2340	50.0	2500	ND	93.6	67-130			
o-Xylene	2310	50.0	2500	ND	92.5	70-130			

QC Summary Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	**Reported:**
2904 W. 2nd	Project Number:	20071-0001	
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

Volatile Organic Compounds by EPA 8260B

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	ug/L	ug/L	ug/L	ug/L	%	%	%	%	
Matrix Spike (2521099-MS1)				**Source: E505188-02**			Prepared: 05/21/25 Analyzed: 05/21/25		
p,m-Xylene	4640	100	5000	ND	92.7	65-135			
Total Xylenes	6950	50.0	7500	ND	92.7	65-135			
Surrogate: Bromofluorobenzene	*495*		*500*		*98.9*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*509*		*500*		*102*	*70-130*			
Surrogate: Toluene-d8	*499*		*500*		*99.8*	*70-130*			
Matrix Spike Dup (2521099-MSD1)				**Source: E505188-02**			Prepared: 05/21/25 Analyzed: 05/21/25		
Acetone	2900	1000	5000	ND	58.0	10-190	0.814	30	
Benzene	2500	50.0	2500	ND	99.8	59-133	2.70	20	
Bromoform	2270	50.0	2500	ND	90.9	66-140	7.51	20	
Bromomethane	2500	100	2500	ND	99.9	17-190	1.04	20	
sec-Butylbenzene	2200	50.0	2500	ND	88.0	66-139	3.21	20	
Carbon Tetrachloride	2410	50.0	2500	ND	96.5	61-139	4.21	20	
Chlorobenzene	2440	50.0	2500	ND	97.7	70-130	3.90	20	
2-Chlorotoluene	2400	50.0	2500	ND	96.1	67-134	3.73	20	
Dibromochloromethane	2380	50.0	2500	ND	95.2	70-132	5.70	20	
1,2-Dichlorobenzene	2360	50.0	2500	ND	94.4	70-130	3.43	20	
1,1-Dichloroethane	2690	50.0	2500	ND	107	64-134	3.33	20	
1,1-Dichloroethene	2650	50.0	2500	ND	106	49-144	2.06	20	
2,2-Dichloropropane	2640	50.0	2500	ND	106	45-165	4.49	20	
cis-1,3-Dichloropropene	2520	50.0	2500	ND	101	70-130	4.55	20	
Ethylbenzene	2490	50.0	2500	ND	99.5	62-136	3.31	20	
Isopropylbenzene	2450	50.0	2500	ND	97.9	67-136	3.96	20	
Methyl tert-Butyl Ether (MTBE)	2570	50.0	2500	ND	103	61-136	3.42	20	
Naphthalene	2710	250	2500	ND	108	60-160	5.12	20	
tert-Amyl Methyl ether (TAME)	2480	50.0	2500	ND	99.3	65-135	3.13	20	
Trichloroethene	2460	50.0	2500	ND	98.4	49-148	4.24	20	
Toluene	2440	50.0	2500	ND	97.6	67-130	4.16	20	
o-Xylene	2420	50.0	2500	ND	97.0	70-130	4.73	20	
p,m-Xylene	4850	100	5000	ND	97.0	65-135	4.49	20	
Total Xylenes	7270	50.0	7500	ND	97.0	65-135	4.57	20	
Surrogate: Bromofluorobenzene	*496*		*500*		*99.2*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*504*		*500*		*101*	*70-130*			
Surrogate: Toluene-d8	*499*		*500*		*99.8*	*70-130*			

QC Summary Data

Atkins Engineering Associates Inc.	Project Name:	WPQ	**Reported:**
2904 W. 2nd	Project Number:	20071-0001	
Roswell NM, 88201	Project Manager:	Kariza	5/22/2025 3:49:42PM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/L	mg/L	mg/L	mg/L	%	%	%	%	
Blank (2521054-BLK1)									Prepared: 05/20/25 Analyzed: 05/20/25
Chloride	ND	2.00							
LCS (2521054-BS1)									Prepared: 05/20/25 Analyzed: 05/20/25
Chloride	25.6	2.00	25.0		102	90-110			
LCS Dup (2521054-BSD1)									Prepared: 05/20/25 Analyzed: 05/20/25
Chloride	25.6	2.00	25.0		102	90-110	0.0773	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

Atkins Engineering Associates Inc.	Project Name:	WPQ	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Kariza	05/22/25 15:49

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

envirotech
Analytical Laboratory

Chain of Custody

Client Information	Invoice Information	Lab Use Only	TAT	State
Client: Atkins	Company: Atkins Eng	Lab WO# E505172	Job Number 20071.0001	1D 2D 3D Std	NM CO UT TX
Project Name: WPX	Address: 3407 W 2nd				
Project Manager: Kaviza	City, State, Zip: Roswell NM				
Address:	Phone: 575 623 6601				
City, State, Zip:	Email: Kaviza@atkinseng.com				
Phone:	Miscellaneous:				
Email:					

Sample Information

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	TCEQ 1005 - TX	RCRA 8 Metals		BGDOC - NM	BGDOC - TX		Sample Temp	Remarks
1025	5/14/25	AQ	4	MW-2SR		1				X	X							2.0	
1045	"	"	"	MW-7R		2				"	"							1.8	
955	"	"	"	MW-14		3				"	"							2.0	
1010	"	"	"	MW-24		4				"	"							1.6	
1045	"	"	"	Duplicate 1		5				"	"							2.1	
	"	"	1	Trip Blank		6				"	"							2.3	

Analysis and Method

EPA Program: SDWA | CWA | RCRA

Compliance Y or N

PWSID #

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: _____

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	5/15/25	1200	Michelle Gonzales	5-15-25	1200
Michelle Gonzales	5-15-25	1600	[signature]	5.15.25	1600
[signature]	5.15.25	2215	Caitlin Mars	5.16.25	830
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed on ice at a temp above 0 but less than 6°C on subsequent days.

Lab Use Only

Received on ice: (Y) / N

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

Envirotech Analytical Laboratory

Printed: 5/16/2025 1:20:54PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Atkins Engineering Associates Inc.	Date Received:	05/16/25 08:30	Work Order ID:	E505172
Phone:	(575) 626-3993	Date Logged In:	05/15/25 14:24	Logged In By:	Caitlin Mars
Email:	kariza@atkinseng.com	Due Date:	05/22/25 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? Note: Thermal preservation is not required, if samples are received within 15 minutes of sampling	Yes	
13. See COC for individual sample temps. Samples outside of 0°C-6°C will be recorded in comments.		

Sample Container

14. Are aqueous VOC samples present?	Yes	
15. Are VOC samples collected in VOA Vials?	Yes	
16. Is the head space less than 6-8 mm (pea sized or less)?	No	
17. Was a trip blank (TB) included for VOC analyses?	Yes	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	No	
Collectors name?	No	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	Yes	
22. Are sample(s) correctly preserved?	No	
24. Is lab filtration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Comments/Resolution

Sampled by not provided on COC.
Headspace greater then pea size.

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator:	OGRID:
ARMSTRONG ENERGY CORP P.O. Box 1973 Roswell, NM 88202	1092
	Action Number: 502027
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
shanna.smith	Pursuant to 19.15.30 NMAC Armstrong Energy must update the Stage 1 Abatement plan no later than December 12, 2025 that meets all of the requirements of 19.15.30.13 NMAC to include: a. A proposed timeline to fully delineate both soil & ground water impacts.	9/12/2025
shanna.smith	Soil Delineation samples will be sampled at a minimum pursuant to 19.15.29.11 NMAC	9/12/2025
shanna.smith	All groundwater samples will be analyzed according to all constituents in 20.6.2.3103 NMAC Pursuant to 19.15.30.9.B(2) NMAC. Operators may request to reduce sampling constituents based upon future results.	9/12/2025
shanna.smith	Pursuant to Paragraph (5) of Subsection C of 19.15.30.13 a schedule for stage 1 abatement plan activities with the submission of summary quarterly progress reports. Armstrong Energy will submit quarterly monitoring and sampling reports.	9/12/2025
shanna.smith	Submit a C-141N for all future monitoring and sampling events.	9/12/2025