District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party **BP Production Co.**	OGRID **778**	**Final Report**
Contact Name **Steve Moskal**	Contact Telephone **(505) 330-9179**	
Contact email **Steven.Moskal@bpx.com**	Incident # *(assigned by OCD)* **NRM200694136**	
Contact mailing address **1199 Main Ave., Suite 101, Durango, CO 81301**		

Location of Release Source

Latitude **36.73612** Longitude **-108.04797**
(NAD 83 in decimal degrees to 5 decimal places)

Site Name **CORNELL D 001**	Site Type **Natural Gas Well**
Date Release Discovered **02/20/2020**	API# *(if applicable)* **30-045-08476**

Unit Letter	Section	Township	Range	County
O	**12**	**29N**	**12W**	**San Juan**

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) **Unknown**	Volume Recovered (bbls) **None**
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls) **Unknown**	Volume Recovered (bbls) **None**
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release **Most likely from minor overflow of below-grade tank (BGT) at southern quadrant only.**

Approximately 10-15 cubic yards of potential impacted soils with an overall dimensions of 12 x 8 x 6 ft. depth removed via excavation and transported to IEI facility in Crouch Mesa, NM. Benzene, BTEX, & chloride all below 19.15.29 NMAC closure standards. Supporting documentation attached.

State of New Mexico
Oil Conservation Division

Incident ID	
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Not required.

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	175 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☒ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
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Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: N/A Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

☒ Detailed description of proposed remediation technique
☒ Scaled sitemap with GPS coordinates showing delineation points
☒ Estimated volume of material to be remediated
☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: N/A Title: _____

Signature: _____ Date: _____

email: _____ Telephone:

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Steve Moskal Steven Moskal Title: Environmental Coordinator

Signature: 2020.04.15 12:56:43 -06'00' Date: 4/15/2020

email: Steve.Moskal@bpx.com Telephone: (505) 330-9179

OCD Only

Received by: OCD Date: 4/16/2020

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Date: 8/3/2020

Printed Name: Cory Smith Title: Environmental Specialist

This is a final reclamation site where equipment has been removed and reclamation monitoring is underway.

Cornell D 001 - BGT Remediation Sampling Notification - 3/10/20

From: Steven Moskal (steven.moskal@bpx.com)

To: cory.smith@state.nm.us; aadeloye@blm.gov

Cc: blagg_njv@yahoo.com; jeffcblagg@aol.com; erin.dunman@bpx.com; sabre.beebe@bpx.com; kenneth.canterbury@crossfire-llc.com

Date: Thursday, March 5, 2020, 09:43 AM MST

Cory and Emmanuel,

During the BGT closure sampling of the Cornell D 001 P&A location, impacts were noted on 2/19/2020. The area was further investigated with impacts confirmed on 2/20/2020. I will be submitting a C-141 to each agency later today.

Currently, the plan is to excavate and sample on Tuesday, 3/10/2020. We anticipate the excavation to be ready for sampling at 1:00 PM.

Thank you,

Steve Moskal

Environmental Coordinator

BP America Production Co.

bpx energy - WBU

1199 Main Ave. | Suite 101

Durango | CO | 81301

Direct: 505.330.9179

steven.moskal@bpx.com

RE: [EXT] Cornell D 001

Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Tue 3/10/2020 1:05 PM

To: Nelson Velez <nelsonvelez4519@msn.com>
Cc: Steve Moskal <Steven.Moskal@bp.com>; Erin Dunman <Erin.Dunman@bpx.com>; Sabre Beebe <sabre.beebe@bpx.com>; Emmanuel Adeloye <aadeloye@blm.gov>; Blagg, Jefferey <jeffcblagg@aol.com>

Steve,

OCD approves BP sampling Request. Please include this approval in your final C-141

Thanks,

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

-----Original Message-----
From: Nelson Velez <nelsonvelez4519@msn.com>
Sent: Tuesday, March 10, 2020 11:29 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Steve Moskal <Steven.Moskal@bp.com>; Erin Dunman <Erin.Dunman@bpx.com>; Sabre Beebe <sabre.beebe@bpx.com>; Emmanuel Adeloye <aadeloye@blm.gov>; Blagg, Jefferey <jeffcblagg@aol.com>
Subject: [EXT] Cornell D 001

Cory,

The final excavation dimensions of the 95 bgt release remediation (tank ID: A) is approximately 8′ x 12′ x 6′ deep.

Sampling proposal is as follows:
1) 3 pt. composite off the bottom and
2) 4 pt. composite from individual grab samples of each sidewalls.

Photos have already been collected of the excavation and additional will be after sampling is completed.

Please let us know if this meets your approval or you wish to modify.

Thank you,

Nelson Velez
Blagg Engr.

Sent from my iPhone

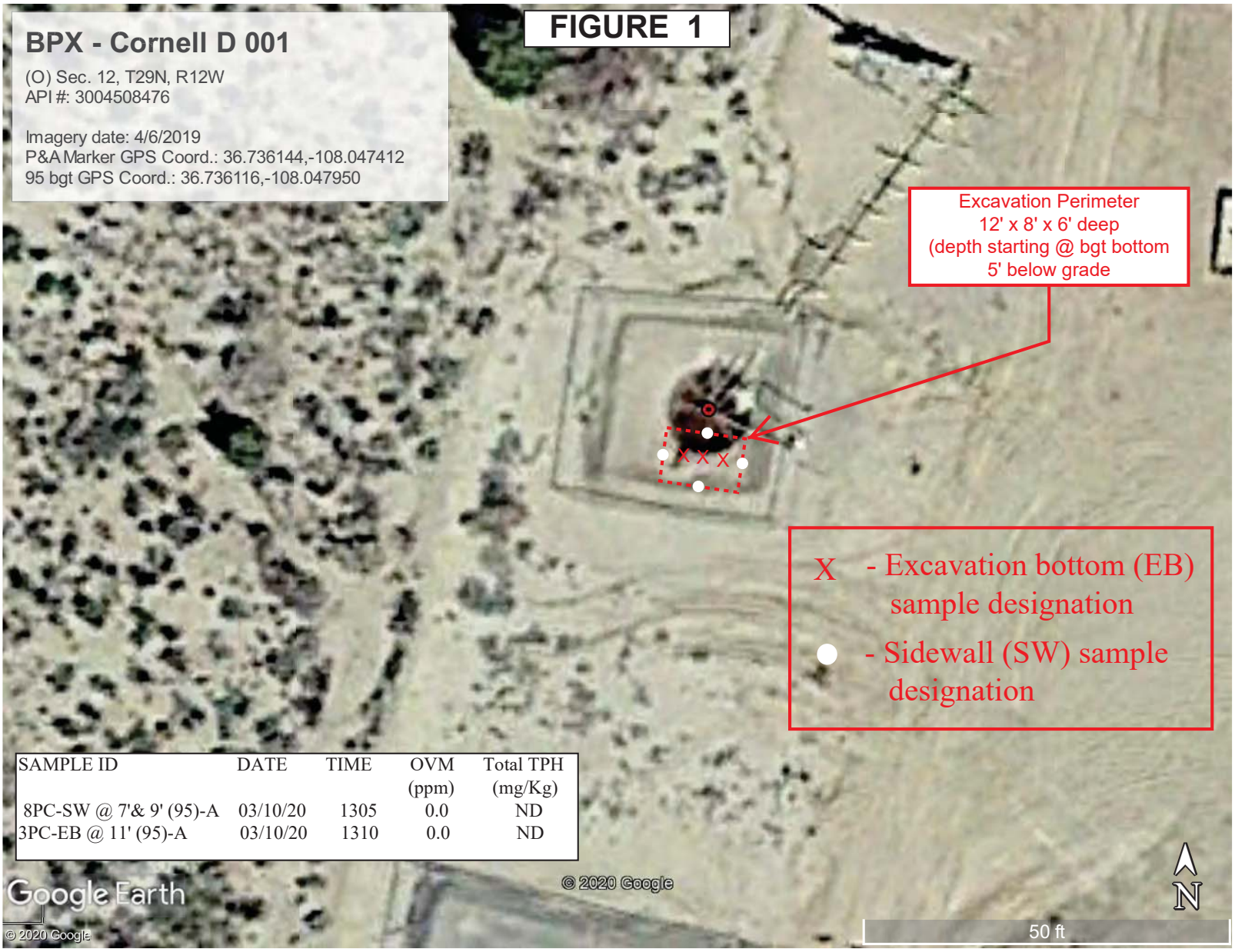
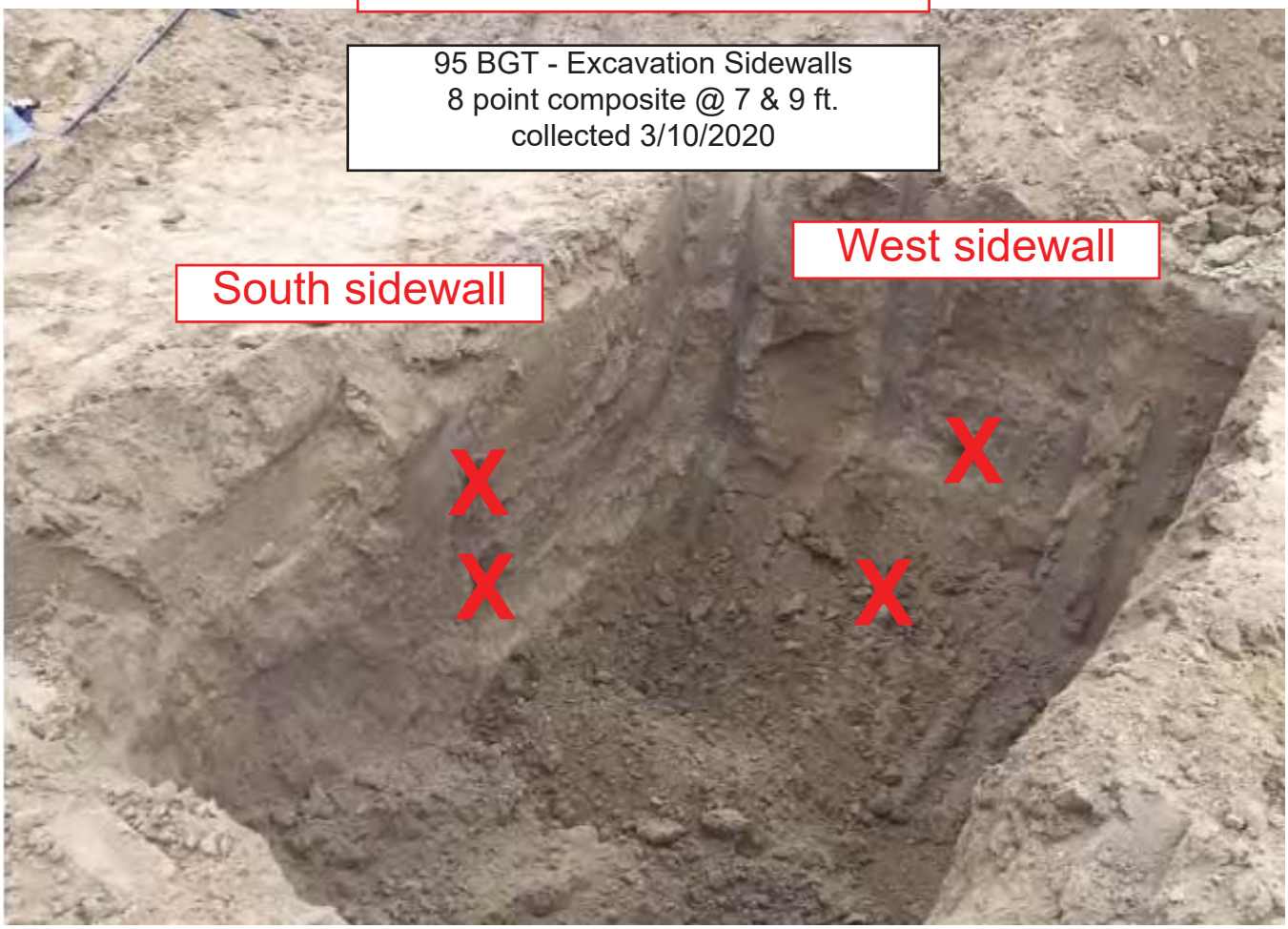


FIGURE 1
BPX - Cornell D 001
(O) Sec. 12, T29N, R12W
API #: 3004508476
Imagery date: 4/6/2019
P&A Marker GPS Coord.: 36.736144,-108.047412
95 bgt GPS Coord.: 36.736116,-108.047950
Excavation Perimeter
12' x 8' x 6' deep
(depth starting @ bgt bottom
5' below grade
X - Excavation bottom (EB) sample designation
- Sidewall (SW) sample designation
SAMPLE ID | DATE | TIME | OVM (ppm) | Total TPH (mg/Kg)
8PC-SW @ 7'& 9' (95)-A | 03/10/20 | 1305 | 0.0 | ND
3PC-EB @ 11' (95)-A | 03/10/20 | 1310 | 0.0 | ND
Google Earth
© 2020 Google
© 2020 Google
N
50 ft

CORNELL D 001



CORNELL D 001

Analytical Report
Lab Order **2003446**
Date Reported: **3/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Cornell D 1
Lab ID: 2003446-001 **Matrix:** SOIL

Client Sample ID: 8PC-SW @7' & 9' (95)-A
Collection Date: 3/10/2020 1:05:00 PM
Received Date: 3/11/2020 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	3/11/2020 11:23:33 AM	51019
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/11/2020 10:15:32 AM	51016
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/11/2020 10:15:32 AM	51016
Surr: DNOP	96.0	55.1-146		%Rec	1	3/11/2020 10:15:32 AM	51016
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	3/11/2020 10:21:03 AM	G67183
Surr: BFB	81.0	66.6-105		%Rec	1	3/11/2020 10:21:03 AM	G67183
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	3/11/2020 10:21:03 AM	B67183
Toluene	ND	0.038		mg/Kg	1	3/11/2020 10:21:03 AM	B67183
Ethylbenzene	ND	0.038		mg/Kg	1	3/11/2020 10:21:03 AM	B67183
Xylenes, Total	ND	0.075		mg/Kg	1	3/11/2020 10:21:03 AM	B67183
Surr: 4-Bromofluorobenzene	89.0	80-120		%Rec	1	3/11/2020 10:21:03 AM	B67183

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003446**
Date Reported: **3/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Cornell D 1
Lab ID: 2003446-002 **Matrix:** SOIL

Client Sample ID: 3PC-EB@11' (95)-A
Collection Date: 3/10/2020 1:10:00 PM
Received Date: 3/11/2020 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	3/11/2020 11:35:54 AM	51019
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/11/2020 10:24:42 AM	51016
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/11/2020 10:24:42 AM	51016
Surr: DNOP	99.1	55.1-146		%Rec	1	3/11/2020 10:24:42 AM	51016
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	3/11/2020 10:44:28 AM	G67183
Surr: BFB	87.3	66.6-105		%Rec	1	3/11/2020 10:44:28 AM	G67183
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	3/11/2020 10:44:28 AM	B67183
Toluene	ND	0.038		mg/Kg	1	3/11/2020 10:44:28 AM	B67183
Ethylbenzene	ND	0.038		mg/Kg	1	3/11/2020 10:44:28 AM	B67183
Xylenes, Total	ND	0.077		mg/Kg	1	3/11/2020 10:44:28 AM	B67183
Surr: 4-Bromofluorobenzene	94.5	80-120		%Rec	1	3/11/2020 10:44:28 AM	B67183

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Chain-of-Custody Record

Client: BLAGG ENGR. / BPX ENERGY

Mailing Address: P.O. BOX 87
BLOOMFIELD, NM 87413

Phone #: (505) 632-1199

email or Fax#:

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush SAME DAY

Project Name: CORNELL D #1

Project #:

Project Manager: SABRE BEEBE

Sampler: NELSON VELEZ

On Ice: ☑ Yes ☐ No

Sample Temperature: 3.7-0(CF)=3.7°C 1.9-0(CF)=1.9°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 2003446	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	# pt. composite sample	Air Bubbles (Y or N)
3/10/20	1305	SOIL	8PC - SW @ 7' & 9' (95) - A	4 oz. - 1	Cool	-001	✓		✓									✓			✓	
3/10/20	1310	SOIL	3PC - EB @ 11' (95) - A	4 oz. - 1	Cool	-002	✓		✓									✓			✓	

Date	Time	Relinquished by:	Received by:	Date	Time
3/10/20	1435		Christy Waele	3/10/20	1435
3/10/20	1810	Christy Waele	Courier	3/11/20	0805

Remarks: BILL DIRECTLY TO BPX USING THE CONTACT(S) BELOW.

CONTACT: SABRE BEEBE / STEVE MOSKAL / ERIN DUNMAN
PO #: 4301158226

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2003446**

13-Mar-20

Client: Blagg Engineering
Project: Cornell D 1

Sample ID: **MB-51019**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **51019**	RunNo: **67189**							
Prep Date: **3/11/2020**	Analysis Date: **3/11/2020**	SeqNo: **2316257**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-51019**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **51019**	RunNo: **67189**							
Prep Date: **3/11/2020**	Analysis Date: **3/11/2020**	SeqNo: **2316258**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2003446**

13-Mar-20

Client: Blagg Engineering
Project: Cornell D 1

Sample ID: **LCS-51016**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **51016**	RunNo: **67179**
Prep Date: **3/11/2020**	Analysis Date: **3/11/2020**	SeqNo: **2314621** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	70	130			
Surr: DNOP	4.5		5.000		90.8	55.1	146			

Sample ID: **MB-51016**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **51016**	RunNo: **67179**
Prep Date: **3/11/2020**	Analysis Date: **3/11/2020**	SeqNo: **2314623** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	55.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2003446**

13-Mar-20

Client: Blagg Engineering
Project: Cornell D 1

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G67183**	RunNo: **67183**
Prep Date:	Analysis Date: **3/11/2020**	SeqNo: **2314718** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.6	80	120			
Surr: BFB	930		1000		93.2	66.6	105			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **G67183**	RunNo: **67183**
Prep Date:	Analysis Date: **3/11/2020**	SeqNo: **2314721** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	900		1000		89.6	66.6	105			

Sample ID: **2003446-001a ms**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **8PC-SW @7' & 9' (9**	Batch ID: **G67183**	RunNo: **67183**
Prep Date:	Analysis Date: **3/11/2020**	SeqNo: **2315332** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.8	18.77	0	95.8	69.1	142			
Surr: BFB	700		750.8		92.9	66.6	105			

Sample ID: **2003446-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **8PC-SW @7' & 9' (9**	Batch ID: **G67183**	RunNo: **67183**
Prep Date:	Analysis Date: **3/11/2020**	SeqNo: **2315333** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.8	18.77	0	95.7	69.1	142	0.0418	20	
Surr: BFB	710		750.8		94.0	66.6	105	0	0	

Sample ID: **mb-51002**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **51002**	RunNo: **67183**
Prep Date: **3/10/2020**	Analysis Date: **3/11/2020**	SeqNo: **2315344** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	880		1000		87.8	66.6	105			

Sample ID: **lcs-51002**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **51002**	RunNo: **67183**
Prep Date: **3/10/2020**	Analysis Date: **3/11/2020**	SeqNo: **2315345** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	930		1000		93.5	66.6	105			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2003446**

13-Mar-20

Client: Blagg Engineering
Project: Cornell D 1

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B67183**	RunNo: **67183**
Prep Date:	Analysis Date: **3/11/2020**	SeqNo: **2314724** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	90.7	80	120			
Toluene	0.93	0.050	1.000	0	93.3	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.6	80	120			
Surr: 4-Bromofluorobenzene	0.92		1.000		92.2	80	120			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B67183**	RunNo: **67183**
Prep Date:	Analysis Date: **3/11/2020**	SeqNo: **2314727** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		97.9	80	120			

Sample ID: **mb-51002**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **51002**	RunNo: **67183**
Prep Date: **3/10/2020**	Analysis Date: **3/11/2020**	SeqNo: **2315396** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.96		1.000		96.0	80	120			

Sample ID: **LCS-51002**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **51002**	RunNo: **67183**
Prep Date: **3/10/2020**	Analysis Date: **3/11/2020**	SeqNo: **2315397** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **BLAGG** Work Order Number: **2003446** RcptNo: **1**

Received By: **Erin Melendrez** **3/11/2020 8:05:00 AM**

Completed By: **Leah Baca** **3/11/2020 8:16:37 AM** Leah SBaca

Reviewed By: DAD 3/11/20

Chain of Custody

1. Is Chain of Custody sufficiently complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: YG 3/11/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.7	Good	Yes			
2	1.9	Good	Yes			

SITING CRITERIA

19.15.29 NMAC
Section 12, Subsection C, Paragraph 4

(4) If a release occurs within the following areas, the responsible party must treat the release as if it occurred less than 50 feet to ground water in Table I of 19.15.29.12 NMAC:

(a) within

(i) 300 feet of any continuously flowing watercourse or any other significant watercourse, or

(ii) 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);

(b) within 300 feet from an occupied permanent residence, school, hospital, institution or church;

(c) within

(i) 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or

(ii) 1000 feet of any fresh water well or spring;

(d) within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves;

(e) within 300 feet of a wetland;

(f) within the area overlying a subsurface mine;

(g) within an unstable area; or

(h) within a 100-year floodplain.

(5) The division has 60 days from receipt of the proposed remediation plan to review and approve, approve with conditions or deny the remediation plan. If 60 days have lapsed without response from the division, then the plan is deemed denied. If the plan is approved with conditions or affirmatively denied, the division shall provide a written summary of deficiencies on which the decision is based. If the responsible party disagrees with any conditions of approval or denial of the plan, it shall consult with the division or file an application for hearing pursuant to 19.15.4 NMAC within 30 days of the denial or issuance of the conditions.

D. Closure requirements. The responsible party must take the following action for any major or minor release containing liquids.

(1) The responsible party must test the remediated areas for contamination with representative five-point composite samples from the walls and base, and individual grab samples from any wet or discolored areas. The samples must be analyzed for the constituents listed in Table I of 19.15.29.12 NMAC or constituents from other applicable remediation standards.

(a) The responsible party must verbally notify the appropriate division district office two business days prior to conducting final sampling. If the division district office does not respond to the notice within the two business days, the responsible party may proceed with final sampling. The responsible party may request a variance from this requirement upon a showing of good cause as determined by the division.

(b) The responsible party may submit a composite and grab sample plan for the division's review and approval separately or with the remediation plan.

(c) Alternately, without division approval, the responsible party may elect to perform a composite and grab sample plan of the remediated area where each composite sample is not representative of more than 200 square feet.

(2) If all composite and grab sample concentrations are less than or equal to the parameters listed in Table I of 19.15.29.12 NMAC or any conditions of approval, then the responsible party may proceed to backfill any excavated areas.

E. Closure reporting. The responsible party must take the following action for any major or minor release containing liquids.

(1) The responsible party must submit to the division a closure report on form C-141, including required attachments, to document all closure activities including sampling results and the details on any backfilling, capping or covering, where applicable. The responsible party must certify that all information in the closure report and attachments is correct and that the responsible party has complied with all applicable closure requirements and conditions specified in division rules or directives. The

responsible party must submit closure report along with form C-141 to the division within 90 days of the remediation plan approval. The responsible party may apply for additional time to submit the final closure report upon a showing of good cause as determined by the division. The final report must include:

(a) a scaled site and sampling diagram;
(b) photographs of the remediated site prior to backfill;
(c) laboratory analyses of final sampling; and
(d) a description of all remedial activities.

(2) The division district office has 60 days to review and approve or deny the closure report. If 60 days have lapsed without response from the division, then the report is deemed denied. If the report is affirmatively denied, the division shall provide a written summary of deficiencies on which the decision is based. If the responsible party disagrees with denial of the closure report, it may consult with the division or file an application for hearing pursuant to 19.15.4 NMAC within 30 days of the denial.

Table I
Closure Criteria for Soils Impacted by a Release

Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤ 50 feet	Chloride***	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
51 feet-100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
>100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

*Or other test methods approved by the division.
**Numerical limits or natural background level, whichever is greater.
***This applies to releases of produced water or other fluids, which may contain chloride.
[19.15.29.12 NMAC - N, 8/14/2018]

SITING AND HYDRO-GEOLOGICAL REPORT CORNELL D 001

SITING CRITERIA 19.15.17.10 NMAC

Depth to groundwater at the site is estimated to be above 100 feet (**ft.**) below ground surface (**bgs**). This estimation is based on data from Stone and others (1983), and depth to groundwater data obtained from a water well permitted by the New Mexico State Engineer's Office (**NMOSE**). Local topography and proximity to adjacent water features are also considered.

There are no water wells permitted by NMOSE within 200 ft. from the below-grade tank (**BGT**) (Figure 1). A topographic map (Figure 2) demonstrates that the BGT is not within 100 feet of any continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland, or playa lake as measured from the ordinary high water mark.

The BGT subject to the attached application for closure only under 19.15.17 NMAC (New Mexico Administrative Code) was in existence prior to promulgation of 19.15.17 NMAC. A review of the best available data and a visual inspection of the siting criteria of 19.15.17 NMAC specific to the BGT in question demonstrate that the BGT does not appear to pose an imminent threat to public health and the environment.

LOCAL GEOLOGY AND HYDROLOGY

Groundwater is estimated to be greater than 175 ft. bgs. This estimation is based on Google Earth's aerial photography (Imagery date: 4/6/2019) elevation difference between the site's ground level (5,669 ft.) and water well SJ03786 POD1 (attached) depth to water (5,492 ft.), located approximately 2 miles, S11W from the BGT.

This particular site is located on Nacimiento Formation outcrops forming Crouch Mesa between the Animas and San Juan rivers. The site is located on a gentle slope draining to an arroyo. The arroyo extends to the San Juan River hundreds of feet away and approximately 200 feet lower in elevation.

REGIONAL GEOLOGY AND HYDROLOGY

The San Juan Basin is situated in the Navajo section of the Colorado Plateau and is characterized by broad open valleys, mesas, buttes and hogbacks. Away from major valleys and canyons topographic relief is generally low. Native vegetation is sparse and shrubby. Drainage is mainly by the San Juan River, the only permanent stream in the Navajo Section of the Colorado Plateau. The San Juan River is a tributary of the Colorado River. Major tributaries include the Animas, Chaco and La Plata Rivers. Flow of the San Juan River across the basin is regulated by the Navajo Dam, located about 30 miles northeast of Farmington, New Mexico. The climate is arid to semiarid with an average annual precipitation of 8 to 10 inches. Soils within the basin consist of weathered parent rock derived from predominantly physical means mostly from eolian depositional system with fluvial having a lesser impact.

Cretaceous and Tertiary sandstones, as well as Quaternary Alluvial deposits, serve as the primary aquifers in the San Juan Basin (Stone et al., 1983). In most of the proposed area, the Nacimiento Formation lies at the surface and grades into the Animas Formation to the west. The lower part of the Nacimiento Formation is composed of interbedded black, carbonaceous mudstones and white coarse-grained sandstones. The upper part is comprised of mudstone and sandstone. It is generally slope-forming, even within the sandstone units. Thickness of the Nacimiento ranges from 418 to 2,232 feet (Stone et al., 1983). Aquifers within the coarser and continuous sandstone bodies of the Nacimiento Formation are between 0 and 1,000 feet deep in this section of the basin. Wells within these bodies flow from 16 to 100 gallons per minute (gpm), and transmissivities are expected to be 100 ft^2/d (Stone et al,1983). Groundwater within these aquifers flows toward the San Juan River.

REFERENCES

Circular 154—Guidebook to coal geology of northwest New Mexico By E. C. Beaumont, J. W. Shomaker, W. J. Stone, and others, 1976

Stone, et al., 1983, Hydrogeology and Water Resources of the San Juan Basin, New Mexico, Socorro, New Mexico Bureau of Mines and Mineral Resources Hydrologic Report 6, 70 p

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum) (R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q 6416	q 4	q 3	Sec	Tws	Rng	X	Y
SJ 03786	SJM2	DOL	3	MARTIN SALAZAR	SJ	SJ 03786 POD1				Shallow	1	4	3	24	29N	12W	227128	4066819

Record Count: 1

POD Search:

POD Number: SJ 03786 POD1

Sorted by: File Number

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	SJ 03786 POD1	1	4	3	24	29N	12W	227128	4066819

Driller License:	1357	**Driller Company:**	BAILEY DRILLING COMPANY		
Driller Name:	BAILEY, MARK				
Drill Start Date:	05/29/2007	**Drill Finish Date:**	06/01/2007	**Plug Date:**	
Log File Date:	06/15/2007	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	15 GPM
Casing Size:	5.00	**Depth Well:**	35 feet	**Depth Water:**	11 feet

Water Bearing Stratifications:	Top	Bottom	Description
	20	35	Sandstone/Gravel/Conglomerate

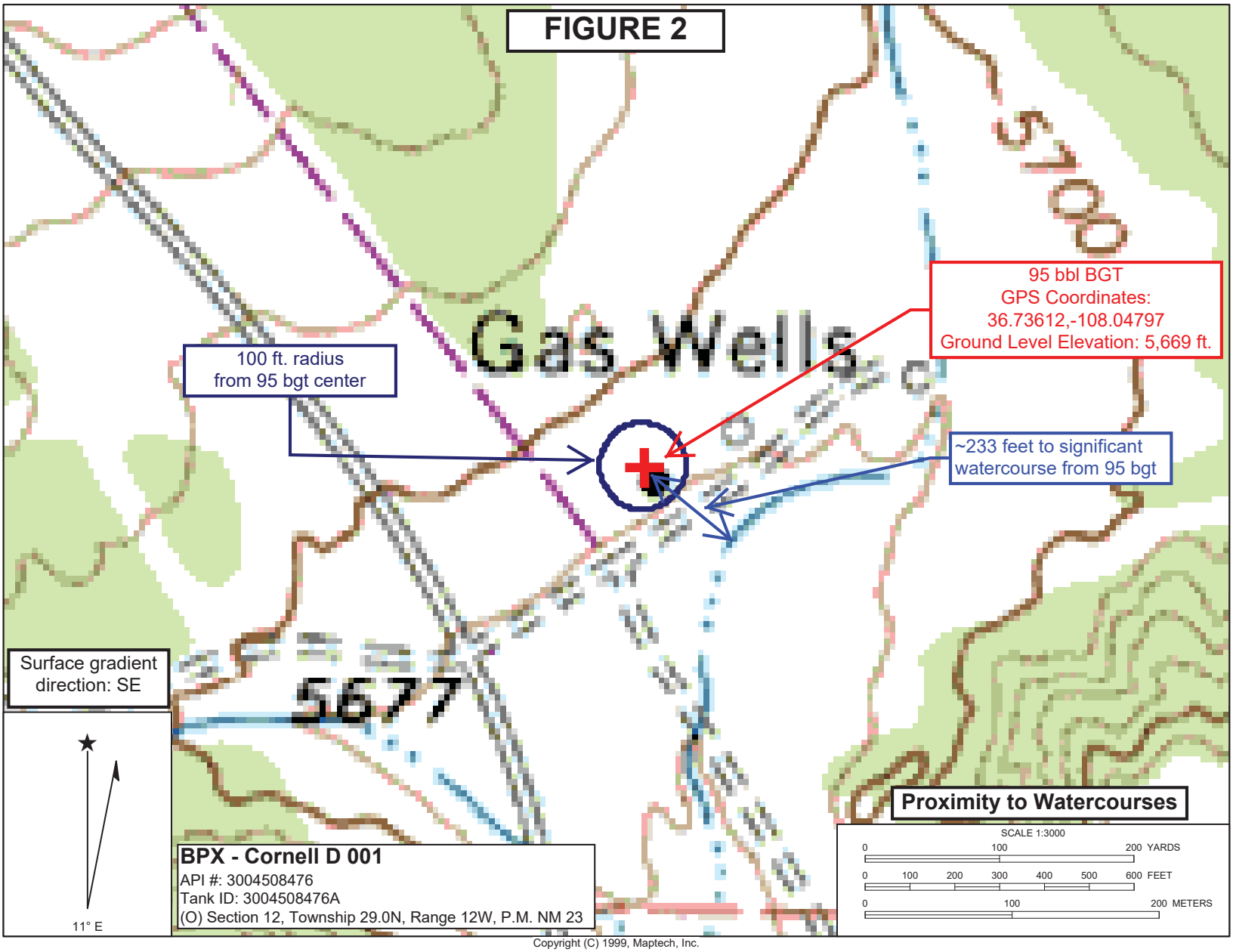
Casing Perforations:	Top	Bottom
	15	35

SJ03786 POD1 located 36.707895,-108.054735 or 1.98 miles, S11W from 95 bgt.

Cornell D 001 ground level elevation - 5,669 ft.
SJ03786 POD1 ground level elevation - 5,503 ft.
Groundwater elevation @ SJ03786 POD1 - 5,492 ft.

See Figure 3 - (Google Earth aerial photography; Imagery date: 4/6/2019).

FIGURE 2



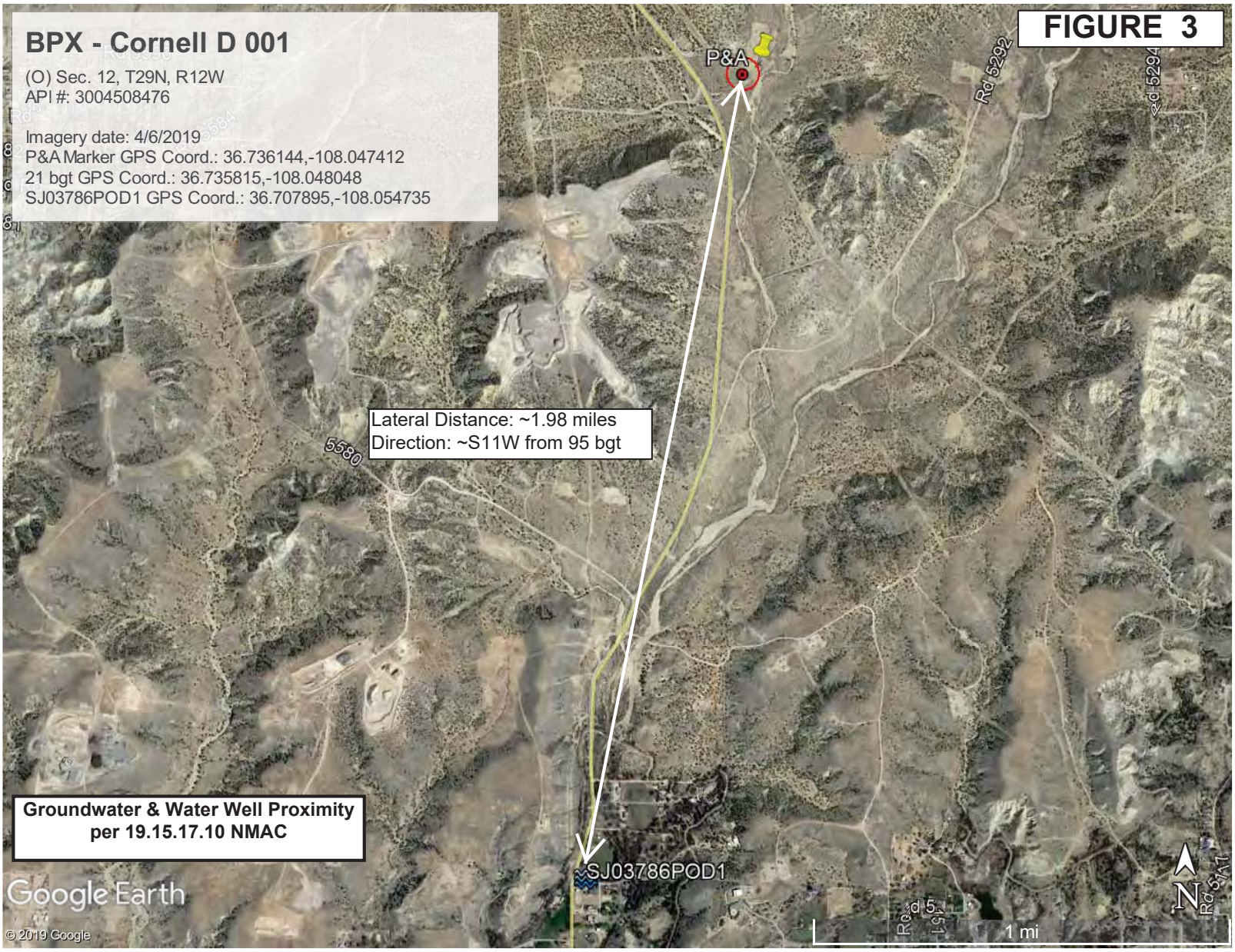
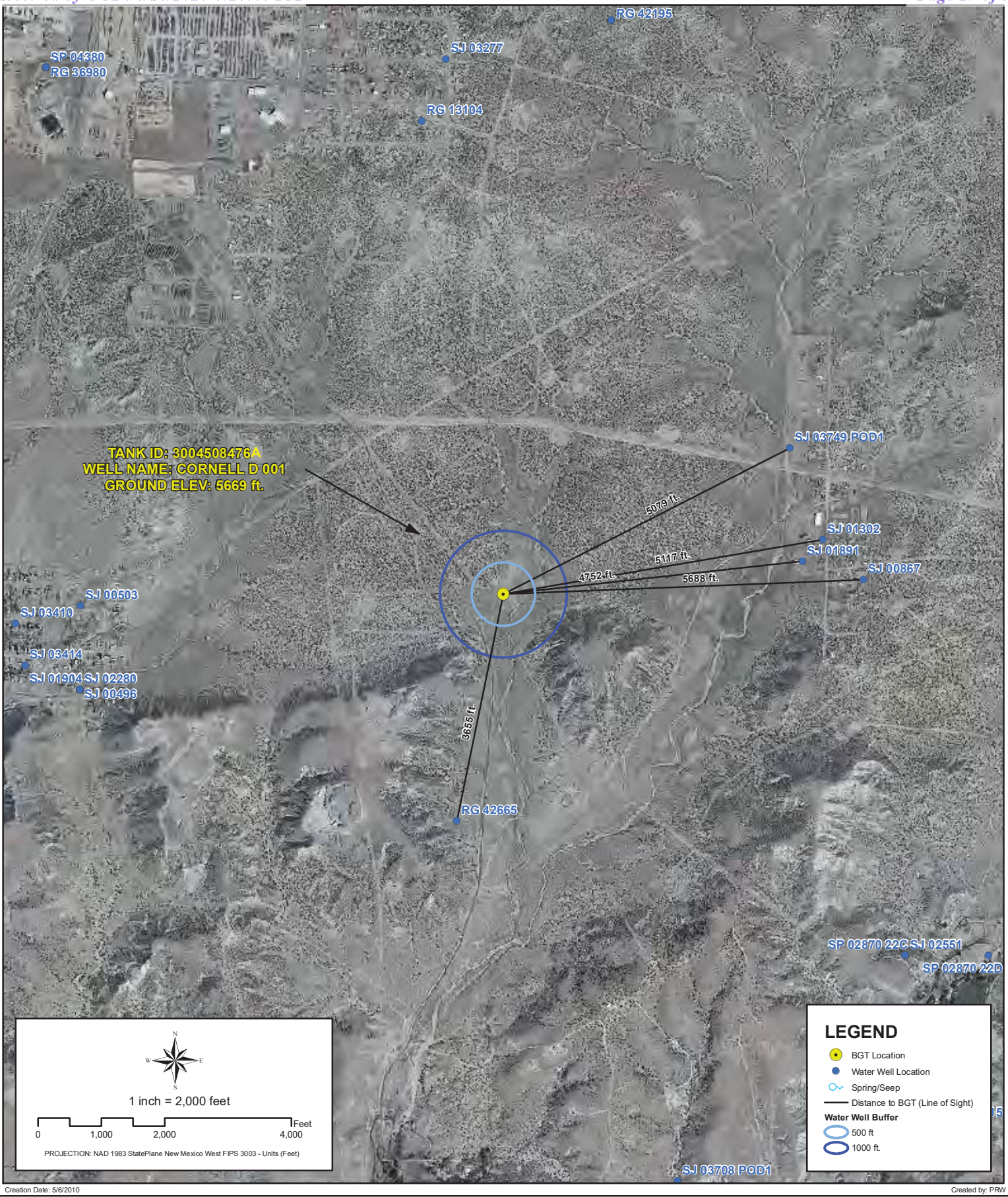


FIGURE 3
BPX - Cornell D 001
(O) Sec. 12, T29N, R12W
API #: 3004508476
Imagery date: 4/6/2019
P&A Marker GPS Coord.: 36.736144,-108.047412
21 bgt GPS Coord.: 36.735815,-108.048048
SJ03786POD1 GPS Coord.: 36.707895,-108.054735
P&A
Rd 5292
Rd 5294
Lateral Distance: ~1.98 miles
Direction: ~S11W from 95 bgt
5580
Groundwater & Water Well Proximity
per 19.15.17.10 NMAC
SJ03786POD1
Google Earth
© 2019 Google
1 mi
N



Creation Date: 5/6/2010 Created by: PRW

File Path: X:\BP\PASS\Sector_8\Sector_8A\MXDs\3004508476A.mxd Reviewed by: AGH

PROXIMITY TO WATER WELLS

WELL NAME: CORNELL D 001

API NUMBER: 3004508476 TANK ID: 3004508476A

SECTION 12, TOWNSHIP 29.0N, RANGE 12W, P.M. NM23

FIGURE 4

Creation Date: 5/6/2010 Created by: PRW

File Path:X:\BP\PASS\Sector_8\Sector_8A\MXDs\3004508476A.mxd Reviewed by: AGH

PROXIMITY TO WETLANDS

WELL NAME: CORNELL D 001

API NUMBER: 3004508476 TANK ID: 3004508476A

SECTION 12, TOWNSHIP 29.0N, RANGE 12W, P.M. NM23

FIGURE 5

Creation Date: 5/6/2010 Created by: PRW

File Path: X:\BP\PASS\Sector_8\Sector_8A\MXDs\3004508476A.mxd Reviewed by: AGH

PROXIMITY TO FLOODPLAIN

WELL NAME: CORNELL D 001

API NUMBER: 3004508476 TANK ID: 3004508476A

SECTION 12, TOWNSHIP 29.0N, RANGE 12W, P.M. NM23

FIGURE 6

SOUTHERN SAN JUAN BASIN (SSJB) Figure Citation List March 2010

Figure 4: Proximity to Water Wells

Layers: Water Wells: iWaters Database: **NMOSE/ISC (Dec. 2009)**

New Mexico Office of the State Engineer (OSE) /ISC iWaters database. (Data updated: 12/2009. Data received: 03/09/2010). Data available from: http://www.ose.state.nm.us/waters_db_index.html.

Springs/Seeps: **NHD, USGS (2010)**

National Hydrography Dataset (NHD). U.S. Geological Survey. (Data last updated: 02/19/2010. Data received: 03/09/2010). High-resolution: 1:24,000. Digital representation of USGS 24k Topographic map series with field updates as required. Data available from: http://nhd.usgs.gov/.

Aerial Imagery: **Conoco (Summer 2009)**

ConocoPhillips Company. (Flown: Summer 2009). 12 in. High Resolution Orthoimagery. Projected coordinate system name: NAD_1983_StatePlane_New_Mexico_West_FIPS_3003_Feet.

Provided as tiled .tiff images and indexed using polygon index layer.

Figure 5: Proximity to Wetlands

Layers: Wetlands: **NWI (2010)**

National Wetlands Inventory (NWI). U.S Fish and Wildlife Service. (Data last updated: 09/25/2009. Data received: 03/21/2010). Data available from: http://www.fws.gov/wetlands/.

Aerial Imagery: **Conoco (Summer 2009)**

ConocoPhillips Company. (Flown: Summer 2009). 12 in. High Resolution Orthoimagery. Projected coordinate system name: NAD_1983_StatePlane_New_Mexico_West_FIPS_3003_Feet.
Provided as tiled .tiff images and indexed using polygon index layer.

Figure 6: Proximity to FEMA Floodplain

Layers: FEMA Floodplain: **FEMA (varying years)**

Data digitized and rectified by Wright Water Engineers, Inc. (Data digitized: August 2008). Digitized from hard copy Flood Insurance Rate Maps (FIRMs) (varying years) of San Juan County.

Aerial Imagery: **Conoco (Summer 2009)**

ConocoPhillips Company. (Flown: Summer 2009). 12 in. High Resolution Orthoimagery. Projected coordinate system name: NAD_1983_StatePlane_New_Mexico_West_FIPS_3003_Feet.

Provided as tiled .tiff images and indexed using polygon index layer.