



May 10, 2019

#5E27950-BG7

NMOCD District 1
1625 N. French Drive
Hobbs, New Mexico 88240

SUBJECT: Remediation Plan for the Getty 35 State Com #1 Release (1RP-5386), Lea County, New Mexico

To Whom it May Concern:

On behalf of Marathon Oil Permian LLC (Marathon), Souder, Miller & Associates (SMA) has prepared this Remediation Plan that describes the delineation and proposed remediation for a release of liquids related to oil and gas production activities at the Getty 35 State Com #1 site. The site is in Unit K, Section 35, Township 21S, Range 34E, Lea County, New Mexico, on State land. Figure 1 illustrates the vicinity and site location on an USGS 7.5 minute quadrangle map.

Table 1, summarizes information regarding the release.

Table 1: Release Information and Closure Criteria			
Name	Getty 35 State Com #1	Company	Marathon Oil Permian LLC
API Number	30-025-25824	Location	32.434336° -103.443405°
Incident Number	1RP-5386		
Estimated Date of Release	February 11, 2019	Date Reported to NMOCD	February 11, 2019
Land Owner	State	Reported To	NMOCD
Source of Release	Illegal dump		
Released Volume	Unknown	Released Material	Produced Water
Recovered Volume	0 bbls	Net Release	Unknown
NMOCD Closure Criteria	>100 feet to groundwater		
SMA Response Dates	March 15, 2019		

1.0 Background

On February 11, 2019, a release was discovered at the Getty 35 State Com #1 site due to illegal dumping of produced water. Initial response activities were conducted by Marathon, and included source elimination and site security, including the installation of game cameras. Figure 1 illustrates the vicinity and site location, Figures 2 and 3 illustrate the release location. The C-141 form is included in Appendix A.

2.0 Site Information and Closure Criteria

The Getty 35 State Com #1 is located approximately 16 miles west of Eunice, New Mexico on State land at an elevation of approximately 3,676 feet above mean sea level (amsl).

Based upon NMOSE water well data (Appendix B), depth to groundwater in the area is estimated to be 111 feet below grade surface (bgs). There are no known water sources within ½-mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) online water well database (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 5/2/2019). The nearest significant watercourse is an unnamed draw, located approximately 3,800 feet to the northwest. Figure 2 illustrates the site with 200 and 300-foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for groundwater depth of greater than 100 feet bgs. Unless a deferral is approved by NMOCD per 19.15.29.12.B.(2), the site will be restored to meet the standards of Table I of 19.15.29.12 NMAC. Table 2 demonstrates the Closure Criteria applicable to this location. Pertinent well data is attached in Appendix B.

3.0 Release Characterization Activities and Findings

On March 15, 2019, SMA personnel arrived on site in response to the release associated with Getty 35 State Com #1. SMA mapped the visually impacted area and confirmed that it was contained entirely within the boundary of a legacy pit. Because of the presence of the legacy pit, no soil samples were collected at this time.

During a review of the Getty 35 State Com #1 site history it was discovered that the spud date was March 18, 1978, predating any of the NMOCD pit rules for pit closure regulation.

4.0 Proposed Soil Remediation Work Plan

SMA proposes to remediate this release by performing a pit reclamation. The impacted area will be excavated to approximately one (1) foot bgs across the entire legacy pit. The area will then be covered with two (2) feet of clean soil. The lease road within the pit area will remain intact. Berms will be placed around the impacted area to ensure no further traffic has access to the reclaimed area.

Upon the completion of the reclamation, the release area will be reseeded for site stabilization.

Approximately 2300 cubic yards of contaminated soil is projected to be removed and replaced with 4600 cubic yards of clean backfill material. The contaminated soil will be transported for disposal at an NMOCD permitted disposal facility. Upon approval by NMOCD, the projected timeline for completion of remediation activities is approximately 90 days.

5.0 Scope and Limitations

The scope of our services included: assessment sampling; verifying release stabilization, regulatory liaison, and preparing this remediation plan. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact either Heather Patterson at 575-689-8801 or Shawna Chubbuck at 505-325-7535.

Submitted by:
SOUDER, MILLER & ASSOCIATES

Reviewed by:



Ashley Maxwell
Project Scientist



Shawna Chubbuck
Senior Scientist

ATTACHMENTS:

Figures:

Figure 1: Vicinity and Well Head Protection Map

Figure 2: Surface Water Radius Map

Figure 3: Site Map

Tables:

Table 2: NMOCD Closure Criteria Justification

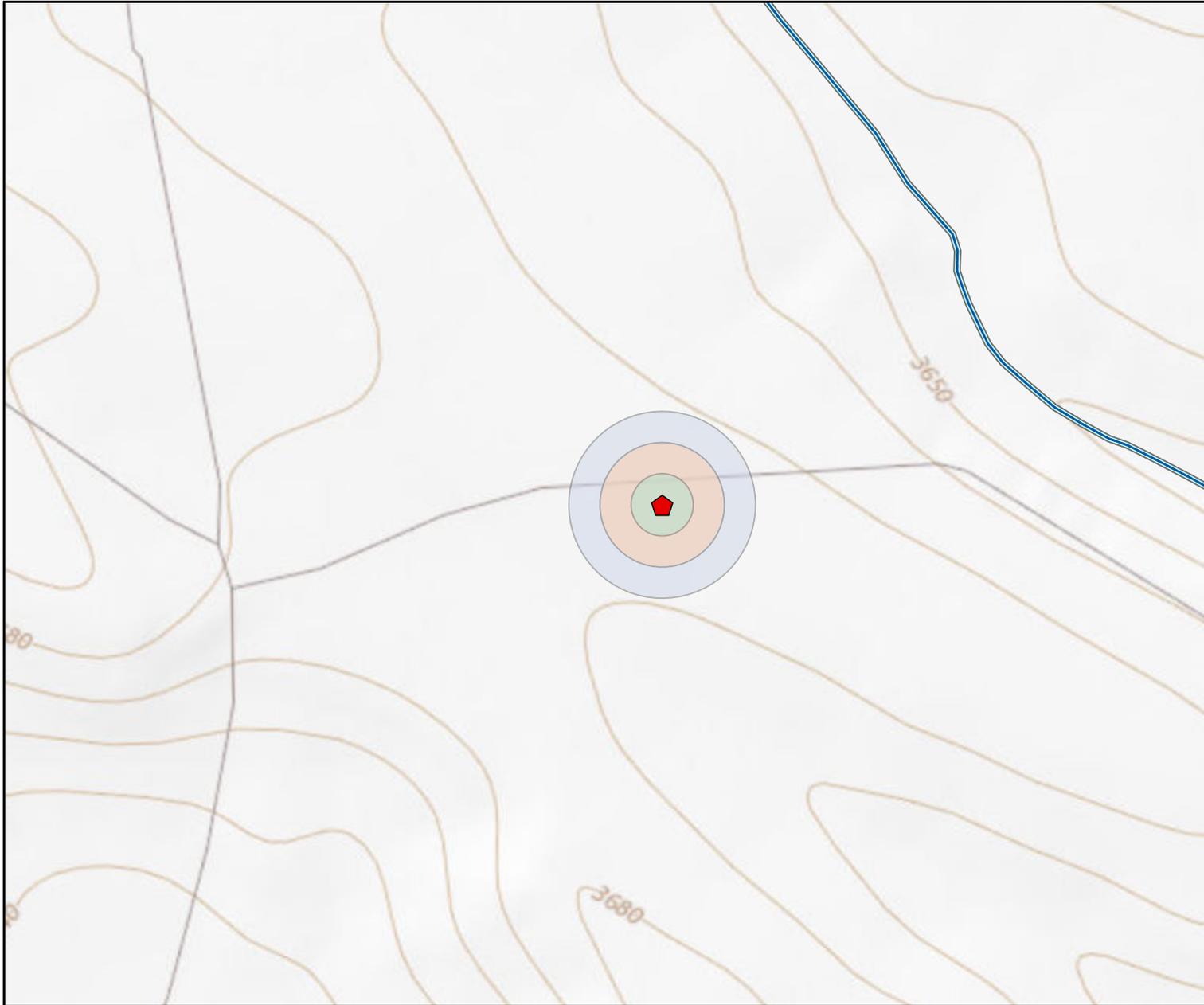
Appendices:

Appendix A: Form C141

Appendix B: NMOSE Wells Report

FIGURES

P:\15-Marathon MSA 2019 (5E27950)\GIS\ARC\GIS\MARATHON_MITL.aprx



Legend

-  Point of Release
 -  Streams Canals
 -  Rivers
 -  NM Wetlands
 -  Lakes Playas
 -  FEMA Flood Zones 2011
- Buffer Distance**
-  100 Feet
 -  200 Feet
 -  300 Feet



Surface Water Protection Map
 Getty 35 State Com #1- Marathon
 Sec 35 T21S R34E, New Mexico

Figure 2

Revisions		
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____

Date Saved: 5/3/2019
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Drawn	<u>Heather Patterson</u>
Date	<u>5/3/2019</u>
Checked	_____
Approved	_____

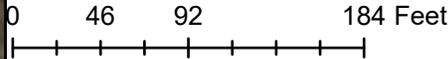


201 South Halaguena Street
 Carlsbad, New Mexico 88221
 (575) 689-7040
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Legend

- Legacy Pit
- Release Area



Site and Sample location Map
 Getty 35 State Com #1- Marathon
 Sec 35 T21S R34E, New Mexico

Figure 3

P:\5-Marathon MSA, 2019 (5E27950)\GIS\ARC\GIS\MARATHON_MIT.aprx

Revisions		
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____

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Drawn	<u>Heather Patterson</u>
Date	<u>5/3/2019</u>
Checked	_____
Approved	_____



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TABLES

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	111	NMOSE
Horizontal Distance From All Water Sources Within 1/2 Mile (ft)	>1/2 mile	Figure 1
Horizontal Distance to Nearest Significant Watercourse (ft)	3,800	Figure 1

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Depth to Groundwater		Closure Criteria (units in mg/kg)				
		Chloride <small>*numerical limit or background, whichever is greater</small>	TPH	GRO + DRO	BTEX	Benzene
< 50' BGS		600	100		50	10
51' to 100'		10000	2500	1000	50	10
>100'		20000	2500	1000	50	10
Surface Water		yes or no	if yes, then			
<300' from continuously flowing watercourse or other significant watercourse?		No	600	100	50	10
<200' from lakebed, sinkhole or playa lake?		No				
Water Well or Water Source						
<500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?		No				
<1000' from fresh water well or spring?		No				
Human and Other Areas						
<300' from an occupied permanent residence, school, hospital, institution or church?		No				
within incorporated municipal boundaries or within a defined municipal fresh water well field?		No				
<100' from wetland?		No				
within area overlying a subsurface mine		No				
within an unstable area?		No				
within a 100-year floodplain?		No				



APPENDIX A

FORM C141

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

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input type="checkbox"/> 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)?	

Initial Response

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

<input type="checkbox"/> The source of the release has been stopped. <input type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> 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: <i>Callie Karrigan</i> _____ Date: _____ email: _____ Telephone: _____
<u>OCD Only</u> Received by: <i>Analia P. Ramirez</i> _____ Date: _____

Incident ID	nAB1906557741
District RP	1RP-5386
Facility ID	
Application ID	pAB1906557512

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?	<u>111</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.

<p><u>Characterization Report Checklist:</u> Each of the following items must be included in the report.</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. <input type="checkbox"/> Field data <input type="checkbox"/> Data table of soil contaminant concentration data <input checked="" type="checkbox"/> Depth to water determination <input checked="" type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release <input type="checkbox"/> Boring or excavation logs <input type="checkbox"/> Photographs including date and GIS information <input checked="" type="checkbox"/> Topographic/Aerial maps <input type="checkbox"/> Laboratory data including chain of custody
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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.

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District RP	1RP-5386
Facility ID	
Application ID	pAB1906557512

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: Callie Karrigan Title: HES Professional

Signature: Callie Karrigan Date: 5/9/2019

email: cnkarrigan@marathonoil.com Telephone: 575-297-0956

OCD Only

Received by: _____ Date: _____

Incident ID	nAB1906557741
District RP	1RP-5386
Facility ID	
Application ID	pAB1906557512

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: Callie Karrigan Title: HES Professional

Signature: Callie Karrigan Date: 5/9/2019

email: cnkarrigan@marathonoil.com Telephone: 575-297-0956

OCD Only

Received by: _____ Date: _____

- Approved
 Approved with Attached Conditions of Approval
 Denied
 Deferral Approved

Signature: _____ Date: _____

APPENDIX B

NMOSE WELLS REPORT



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00944 POD1	CP	LE		3	1	03	22S	34E		644531	3588351	2224	109	70	39
CP 00092 POD1	CP	LE		1	3	1	25	21S	34E	647479	3591694*	2343	196		
CP 00934	CP	LE		2	1	2	01	22S	34E	648682	3588822	2483	60	42	18
CP 00933	CP	LE		1	1	1	12	22S	34E	647541	3587246*	2684	60		
CP 00588 POD1	CP	LE		3	2	33	21S	34E		643583	3589918*	2769	89		
CP 00589 POD1	CP	LE		3	2	33	21S	34E		643583	3589918*	2769	84		
CP 00599 POD1	CP	LE		1	1	12	22S	34E		647642	3587147*	2818	62	50	12
CP 01069 POD1	CP	LE		2	1	4	28	21S	34E	643738	3591191	3025	210	140	70
CP 00380	CP	LE		4	2	11	22S	34E		647245	3586739*	3045	45	30	15
CP 00596 POD1	CP	LE		4	2	11	22S	34E		647245	3586739*	3045	50		
CP 00751	CP	LE		4	2	11	22S	34E		647245	3586739*	3045		45	
CP 01068 POD1	CP	LE		4	1	4	28	21S	34E	643610	3591005	3048	180	140	40
CP 01066 POD1	CP	LE		4	3	2	28	21S	34E	643735	3591345	3109	210	140	70
CP 00604	CP	LE		1	4	4	01	22S	34E	648743	3587666*	3114	135		
CP 00571 POD1	CP	LE		3	4	28	21S	34E		643500	3591063	3173	170	135	35

Average Depth to Water: **88 feet**

Minimum Depth: **30 feet**

Maximum Depth: **140 feet**

Record Count: 15

UTMNAD83 Radius Search (in meters):

Easting (X): 646339.1

Northing (Y): 3589646.52

Radius: 3216

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.