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August 8, 2018
File No. 25218118.00

Mr. Jason Lowery
Wisconsin Department of Natural Resources
101 S. Webster Street
Madison, WI 53707

Subject: Well Inventory Summary
Keck Farm, Town of Watertown, Jefferson County
BRRTS No. 02-28-000945
WDNR Contract No. 37000-0000008175

Dear Mr. Lowery:

SCS Engineers (SCS) is providing the following well inventory summary for the Keck Farm project. The inventory included well inspection and labeling, lock installation, well surveying, preparation of an updated site plan, and this inventory summary report with recommendations for well repairs.

The inventory was performed consistent with the Wisconsin Department of Natural Resources' (WDNR's) March 2018 Statement of Work (SOW) with the following exceptions:

- Top of casing (TOC) and ground elevations for wells INJ-6, INJ-7, MW-35D, MW-36, MW-36D, MW-37D, MW-38D, MW-44D, and MW-45D could not be measured within the required 0.01- and 0.1-foot limits, respectively. The height of the corn surrounding these wells prohibited use of a level (i.e., line of sight) to determine the elevations to the specified accuracy. The elevations were instead acquired using a global positioning system (GPS) with an accuracy of approximately 0.2 foot. SCS plans to complete the surveying work in the fall of 2018 during the second round of groundwater sampling and after the corn has been harvested.

- New well locks were not installed at wells MW-12D, MW-13C, MW-30D, INJ-1, and INJ-4 as the protective casings were damaged, or parts needed to secure the caps were missing.

METHODS

Table 1 from the SOW (attached) shows the list of wells to inventory and survey. Well locations are shown on the updated Site Plan, **Figure 1** (attached).

Well Inspection, Locks, and Labeling

SCS conducted the well inventory from July 10, to July 12, 2018. The depth to water and total well depth were measured, and visual inspections were made for each well. The wells were labeled using a waterproof paint marker, and with the exceptions noted herein, new keyed alike locks were installed on each well. Well condition information is provided on Well Condition Summary Forms and well photos included in **Attachment A**.

Each of the 58 wells identified for inventory in **Table 1** was secured with a new lock as of August 1, 2018, except for:

- MW-12D – Top of protective casing and/or cap damaged
- MW-13C – Top of protective casing and cap damaged
- MW-30D – No locking tab on casing and/or cap (6-inch casing)
- INJ-1 – Well and protective casing loose/broken at ground surface
- INJ-4 – No locking tab on casing

The lock was replaced on the gate in the perimeter fencing at RW-2, and RW-1 is located inside the perimeter fence at the site; thus, these wells are not individually locked but access to the wells is restricted by fencing.

Well Survey

Burse Surveying and Engineering, Inc. (Burse) performed well surveying from July 11, to July 13, 2018. Survey information is provided in **Attachment B**. Burse surveyed well locations to the nearest foot, TOC elevations to the nearest 0.01 foot, and ground surface elevations to the nearest 0.1 foot. As noted above, the height of the corn prohibited surveying some well TOC and ground elevations to the 0.01 and 0.1 limits. All other wells in the inventory were surveyed for elevations and location consistent with the SOW.

Attachment B will be revised and updated by SCS in the fall of 2018, after the elevations are obtained from the wells in the cornfield. A copy of the updated document will be transmitted to WDNR when available.

FINDINGS

General

The monitoring wells (MW) are generally 2-inch-diameter steel or stainless steel. The injection wells (INJ) are generally 2-inch PVC. The recovery wells (RW) are generally 6-inch steel with submersible pumps installed. Well TW-1 is a 6-inch-diameter steel well.

Sections of polyethylene tubing were present in many of the wells. The tubing was apparently utilized in the past for sampling and is generally in good condition. Dedicated bladder pumps

(i.e., QED/Well Wizard) were present in several of the wells. The pumps appeared to be functional, but were not tested.

The protective casings on the monitoring and injection wells generally included slip-on steel caps. In many cases, the caps were corroded so that a hammer was needed to remove them, and in some cases they could not be replaced. The cap was generally secured to the casing by a lock which connects tabs on the two pieces.

Potential Issues

As noted on the Well Condition Summary Forms, there were a number of potential issues identified with the wells. Several wells exhibited discrepancies between the measured well depth and the anticipated (e.g., as-built) depth. Wells with greater than 1-foot depth discrepancies or other issues are note below.

Wells to be Redeveloped and Sampled

- MW-6 – Total depth (TD) approximately 1.5 feet shallower than anticipated
- MW-9 – TD approximately 3 feet deeper than anticipated
- MW-11D – TD approximately 1.5 feet shallower than anticipated
- MW-19C – TD approximately 6 feet shallower than anticipated
- MW-26C – TD approximately 2 feet deeper than anticipated
- MW-35D – TD approximately 2 feet deeper than anticipated
- MW-45D – The concrete surface seal apparently heaved and the soil below is eroded.
- MW-46D – TD approximately 2 feet deeper than anticipated

Wells Which Require Only Depth to Groundwater Measurement

- MW-12D – Obstruction at 20.4 feet below TOC; unable to measure water level. Top of protective casing and/or cap damaged.
- MW-13C – Obstruction at approximately 2 feet below TOC; unable to measure water level. Top of protective casing and cap damaged.
- MW-15 – An animal has apparently burrowed a hole in the soil near the well.
- MW-22C – TD approximately 4.5 feet shallower than anticipated
- MW-25C – TD 20.9 feet shallower than anticipated
- MW-27 – TD 6.3 feet shallower than anticipated
- MW-29 – TD approximately 4 feet shallower than anticipated
- MW-30D – No locking tab on casing and/or cap (6-inch casing)
- MW-33D – TD approximately 26 feet shallower than anticipated
- MW-41D – TD approximately 4.5 feet shallower than anticipated

Wells Not in the Proposed Monitoring Program

- INJ-1 – Both PVC well and steel casing can be moved; TD approximately 21 feet shallower than anticipated
- INJ-2 – Unable to obtain TD or depth to water; obstruction at approximately 6 inches below TOC. Reducing fitting and smaller piping could not be removed from inside the well.
- INJ-3 – TD approximately 18 feet shallower than anticipated
- INJ-4 – Protective casing is dented and has cracks in it. No locking tab on casing.
- INJ-5 – Animal burrow hole next to well

RECOMMENDATIONS

General

All wells which are damaged or determined to be no longer needed should be permanently abandoned in accordance with NR 141. Wells which are not maintained can may become "lost" or destroyed, and may act as a preferential pathway for contaminant migration. An example would be INJ-1 where the well and protective casing move freely inside the metal casing above ground surface indicating that the well and protective casing are not intact. Repairs are possible, but would be difficult in that a section of the casing would have to be removed below the ground surface. It is likely more cost effective to abandon the well, especially if the monitoring location is not necessary and does not need to be replaced.

If requested, SCS will develop a scope of work and cost estimate for well abandonment or other tasks summarized below.

Although the well labeling described herein is expected to be sufficient for the duration of this project, more permanent well identification tags could be created and affixed to the outside of the protective casings of the monitoring wells at the site.

Wells to be Redeveloped and Sampled

- Repair the surface seal at well MW-45D. The repair at MW-45D would be completed by removing the concrete above the ground surface and placing an approximate 6-inch layer of bentonite chips within 4 inches of the outside of the well casing. Any soil removed from the around the outside of the casing would be relocated atop the bentonite chips. There were no significant issues identified at any of the other 19 wells that are proposed to be redeveloped and sampled.

- Further evaluate wells with depth discrepancies as necessary. Although there was some difference in the measured and anticipated well depth at some wells, the variations are not consistent and may not indicate a problem with the well construction. The total depths will be evaluated after redevelopment.

Wells Which Require Only Depth to Groundwater Measurement

- Add caps and locking mechanisms to MW-12D, MW-13C, and MW-30D.
- Fill the animal hole adjacent to well MW-15 with soil as it is a trip hazard.
- Evaluate obstructions at wells MW-12D and MW-13C as necessary. The steel well casing was obstructed at the ground surface at MW-13C and at approximately 20 feet below ground surface (bgs) at MW-12D. While the well with the shallow obstruction may be repairable, the repair of the blockage at 20 feet bgs may not be practical. There are other nested wells at these locations; thus, water level data from these two points may not be critical in compilation of shallow or deep groundwater flow maps.
- Evaluate obstructions or depth discrepancies at other wells as necessary. Although there were some significant differences in the measured and anticipated well depth at some wells (i.e., up to 26 feet at MW-33D), and the variations consistently indicated that the wells were shallower than anticipated, specific actions may not be necessary at this time.

Wells Not in the Proposed Monitoring Program

- Add cap and locking mechanism to well INJ-4
- Fill in animal hole adjacent to well INJ-5
- Evaluate INJ wells with obstruction/depth discrepancies as necessary

Please contact Robert Langdon at (608) 216-7329 if you have any questions concerning this report.

Sincerely,

Robert Langdon
Senior Project Manager
SCS ENGINEERS

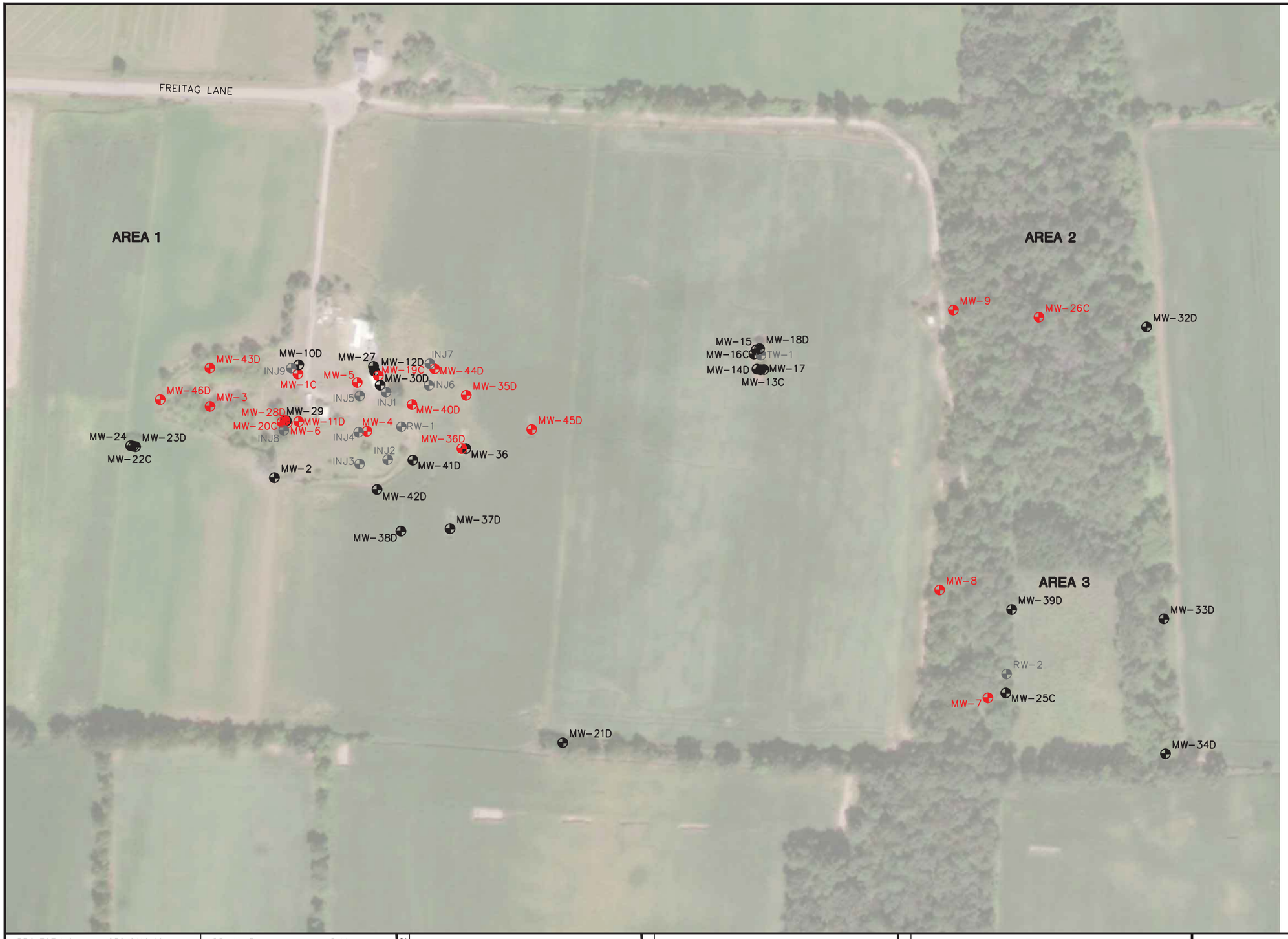
Mike Prattke
Senior Project Manager
SCS ENGINEERS

REL/lmh/MP

Attachments: Table 1 – Keck Farm Monitoring Well Tasks
Figure 1 – Site Plan
Attachment A – Well Condition Summary Forms and Photos
Attachment B – Survey Information

Table 1 - Keck Farm Monitoring Well Tasks

Well Name	Inventory	GW Elevations	Redevelopment and VOC Sampling
MW-1C	x	x	x
MW-2	x	x	
MW-3	x	x	x
MW-4	x	x	x
MW-5	x	x	x
MW-6	x	x	x
MW-7	x	x	x
MW-8	x	x	x
MW-9	x	x	x
MW-10D	x	x	
MW-11D	x	x	x
MW-12D	x	x	
MW-13C	x	x	
MW-14D	x	x	
MW-15	x	x	
MW-16C	x	x	
MW-17	x	x	
MW-18D	x	x	
MW-19C	x	x	x
MW-20C	x	x	x
MW-21D	x	x	
MW-22C	x	x	
MW-23D	x	x	
MW-24	x	x	
MW-25C	x	x	
MW-26C	x	x	x
MW-27	x	x	
MW-28D	x	x	x
MW-29	x	x	
MW-30D	x	x	
MW-31D	monitoring well MW-31D abandoned		
MW-32D	x	x	
MW-33D	x	x	
MW-34D	x	x	
MW-35D	x	x	x
MW-36	x	x	
MW-36D	x	x	x
MW-37D	x	x	
MW-38D	x	x	
MW-39D	x	x	
MW-40D	x	x	x
MW-41D	x	x	
MW-42D	x	x	
MW-43D	x	x	x
MW-44D	x	x	x
MW-45D	x	x	x
MW-46D	x	x	x
TW-1	x		
RW-1	x		
RW-2	x		
INJ-1	x		
INJ-2	x		
INJ-3	x		
INJ-4	x		
INJ-5	x		
INJ-6	x		
INJ-7	x		
INJ-8	x		
INJ-9	x		
Potable Well PW-16, N8957 West Rd.			x
TOTAL	58	46	21



LEGEND

- INVENTORY ONLY MONITORING WELL
- GROUNDWATER ELEVATION MONITORING WELL
- REDEVELOPMENT AND VOC SAMPLING MONITORING WELL

NOTES

1. BASE PHOTO FROM WORLD IMAGERY MAP IN ARCMAP 10.4, SOURCES: ESRI, DIGITALGLOBE, GEOEYE, I-CUBED, USDA, USGS, AEX, GETMAPPING, AEROGRID, IGN, IGP, SWISSTOPO, AND THE GIS USER COMMUNITY.
2. WELL LOCATIONS AND ELEVATIONS SURVEYED BY BURSE SURVEYING AND ENGINEERING, INC. IN JULY 2018.
3. WELLS SHOWN ARE THOSE INCLUDED IN THE JULY 2018 INVENTORY.
4. PRIVATE WATER SUPPLY WELL IS LOCATED AT N8957 WEST ROAD, APPROXIMATELY 0.6 MILES NORTHWEST OF THE SITE.

N

200 0 200

SCALE: 1" = 200'

PROJECT NO.	25218118.00	DRAWN BY:	BJM
DRAWN:	07/19/18	CHECKED BY:	RL
REVISED:	07/31/18	APPROVED BY:	RL, 08/01/18

ENGINEER

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2830 DAIRY DRIVE MADISON, WI 53718-6751
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CLIENT

DNR – CENTRAL OFFICE
101 SOUTH WEBSTER ST.
MADISON, WI 53707

SITE

KECK FARM
WATERTOWN, WI
BRRTS#02-28-000945

SITE PLAN

FIGURE
1

I:\25218118.00\Drawings\Site Plan.dwg, 8/1/2018 9:05:03 AM

ATTACHMENT A

Well Condition Summary Forms and Photos

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-1C

Evaluator: Charlie Bills Evaluation Date: 7-10-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?	/	X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-1C

Well Type: Stainless Steel Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 49.35

Total Depth: 112.2 Expected Well Depth*: 112.0

Purge Volume (Gal): 1x: 11 4x: 44 10x: 110

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4" tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
1C

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-2

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-2

Well Type: Stainless Steel Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 39.11

Total Depth: 69.00 Expected Well Depth*: 67.5

Purge Volume (Gal): 1x: 5 4x: 20 10x: 50

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
2

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-3

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?		X	X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)	X		
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-3

Well Type: Stainless Steel Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 19.96

Total Depth: ~~42~~ 42.10 Expected Well Depth*: 41.8

Purge Volume (Gal): 1x: 4 4x: 16 10x: 40

Dedicated sampling equipment: (Y) N Type / Diameter: WW

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
3

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-4

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?			X
Is the well elevation information inscribed at or on the well correct?	X		X
Is the well: ☐ flush with surface? ☑ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?			
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-4

Well Type: Stainless Steel Diameter: 2 in

Notes: _____

Protective Casing Type: Steel Diameter: 4 inch

Notes: ~~Needs lock~~ locked on 8/2/2018

Depth to Liquid: 33.09

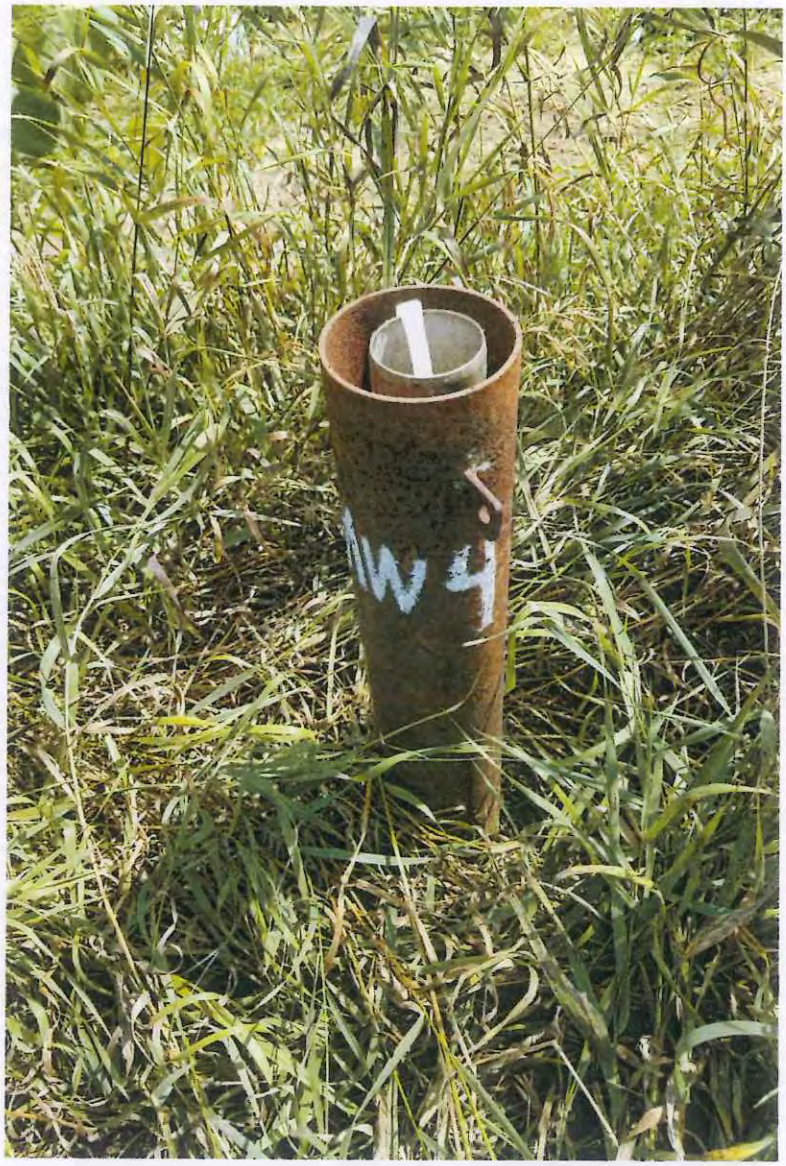
Total Depth: 67.5 Expected Well Depth*: 67.2

Purge Volume (Gal): 1x: 6 4x: 24 10x: 60

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4 " tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW 4

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-5

Evaluator: Charlie Bills Evaluation Date: 7/11/18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-5

Well Type: Stainless Steel Diameter: 2 in

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 in

Notes: _____

_____

Depth to Liquid: 34.09

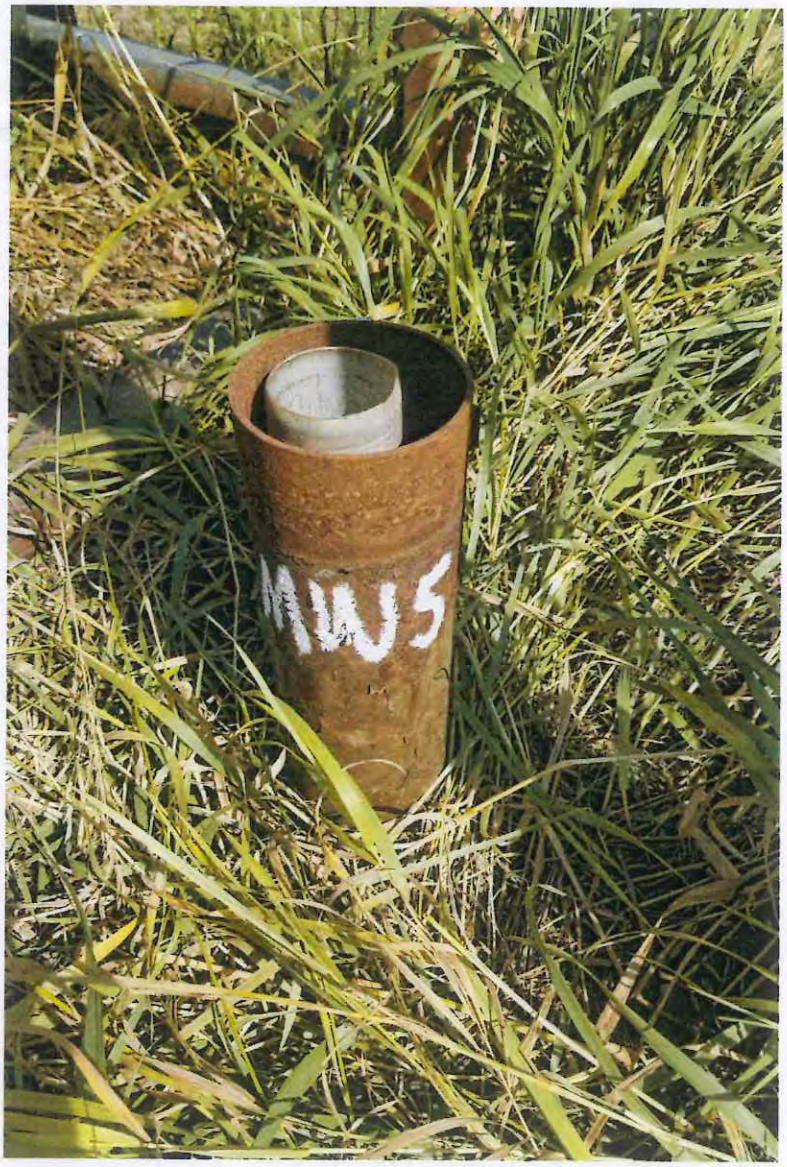
Total Depth: 62.1 Expected Well Depth*: 61.8

Purge Volume (Gal): 1x: 5 4x: 20 10x: 50

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW5

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-6

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)	X		
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-6

Well Type: Stainless Steel Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Metal Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 41.97

Total Depth: 65.40 Expected Well Depth*: 66.8

Purge Volume (Gal): 1x: 4 4x: 16 10x: 40

Dedicated sampling equipment: (Y) N Type / Diameter: Well Wizard
WW Needs air fitting

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW6

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-7

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-7

Well Type: Stainless Steel Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 39.38

Total Depth: 57.7 Expected Well Depth*: 56.8

Purge Volume (Gal): 1x: 3 4x: 12 10x: 30

Dedicated sampling equipment: **Y** **N** Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-8

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		X
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-8

Well Type: Stainless steel Diameter: 2 in

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 in

Notes: _____

_____

Depth to Liquid: 60.42

Total Depth: 72.2 Expected Well Depth*: 71.7

Purge Volume (Gal): 1x: 2 4x: 8 10x: 20

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
8

Well Condition Summary Form

Facility: Keck farm Well/Piezometer Name: MW-9

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?	X		X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-9

Well Type: Stainless Steel Diameter: 2 inch

Notes: _____

Protective Casing Type: Steel Diameter: 4 inch

Notes: ~~7000~~ Total Depth ~~Reported~~. Checked again on 7-12-18. Confirmed depth.

Depth to Liquid: 64.75

Total Depth: 89.7 Expected Well Depth*: 86.8

Purge Volume (Gal): 1x: 4 4x: 16 10x: 40

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4" tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
9

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-10D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-10D

Well Type: Stainless Steel Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 49.52

Total Depth: 143.7 Expected Well Depth*: 143.2

Purge Volume (Gal): 1x: 16 4x: 64 10x: 160

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
100

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-11D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

47.43

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-11D

Well Type: Steel Stainless Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 47.43

Total Depth: 140.4 Expected Well Depth*: 142.1

Purge Volume (Gal): 1x: 16 4x: 64 10x: 160

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4 inch

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
115

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-12D

Evaluator: Charlie Bills Evaluation Date: 7/11/18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?			
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?		X	

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-12D

Well Type: Stainless Steel Diameter: 2in

Notes: Blocked at 20.4 feet, unable to get well tape past

Protective Casing Type: Steel Diameter: 4.in

Notes: unable to put on cover, Needs lock

Depth to Liquid: _____

Total Depth: _____ Expected Well Depth*: 142.0

Purge Volume (Gal): 1x:_____ 4x: _____ 10x: _____

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


13D

Well Condition Summary Form

Facility: Koch Farm Well/Piezometer Name: MW-13C

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?		X	
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?		X	
Is the protective casing cap void of large gaps which would breach security?		X	
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?		X	

COMMENTS: well was shot, kinked 2 feet below top of well.

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-13C

Well Type: Steel Diameter: 2 inch

Notes: pinched two feet from top.
cap was shot

Protective Casing Type: Steel Diameter: 4 inch

Notes: casing cap was shot, casing is bent in where bullet hit

Depth to Liquid: _____

Total Depth: _____ Expected Well Depth*: 138.3

Purge Volume (Gal): 1x:_____ 4x: _____ 10x: _____

Dedicated sampling equipment: **Y** **N** Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
13C

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-14D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)	X		
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-14D

Well Type: Steel Diameter: 2 in

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 64.20

Total Depth: 175.0 Expected Well Depth*: 175.3

Purge Volume (Gal): 1x: 19 4x: 76 10x: 190

Dedicated sampling equipment: (Y) N Type / Diameter: LDW

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-15

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-15

Well Type: ~~Stainless~~ Steel Diameter: 2 in

Notes: _____

Protective Casing Type: Steel Diameter: 4 in

Notes: Gopher hole next to it

Depth to Liquid: 56.56

Total Depth: 79.1 Expected Well Depth*: 78.1

Purge Volume (Gal): 1x: 4 4x: 16 10x: 40

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
13

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-16C

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-16C

Well Type: ~~Stainless~~ Steel Diameter: 2 inch

Notes: _____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

Depth to Liquid: 64.12

Total Depth: 140.3 Expected Well Depth*: 139.6

Purge Volume (Gal): 1x: 13 4x: 52 10x: 130

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
16C

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-17

Evaluator: Charlie Bills Evaluation Date: 7/11/18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?	X		X
Is the well: ☐ flush with surface? ☑ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?			
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?		X	X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-17

Well Type: ~~[illegible]~~ Steel Diameter: 2 inch

Notes: ______

Protective Casing Type: Steel Diameter: 2 inch

Notes: ~~[illegible]~~

Depth to Liquid: ~~[illegible]~~ 57.23

Total Depth: ~~[illegible]~~ 80.1 Expected Well Depth*: 78.4

Purge Volume (Gal): 1x: 3.9 4x: 15.6 10x: 39

Dedicated sampling equipment: Y (N) Type / Diameter: ______

Photo:

* - From Table 4 RFP

** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
17

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-18D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-18D

Well Type: ~~Stainless~~ Steel Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 64.29

Total Depth: 178.8 Expected Well Depth*: 176.2

Purge Volume (Gal): 1x: 20 4x: 80 10x: 200

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW 19D

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-19C

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-19C

Well Type: Steel Diameter: 2 in

Notes: _____

Protective Casing Type: Steel Diameter: 4 in

Notes: Total depth remeasured + confirmed on 7-12-18

Depth to Liquid: 41.02

Total Depth: 108.4 Expected Well Depth*: 114.3

Purge Volume (Gal): 1x: 12 4x: 48 10x: 120

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4" Tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


N19C

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-20C

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-20C

Well Type: ~~Stainless~~ Steel Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 48.62

Total Depth: 114.9 Expected Well Depth*: 115.5

Purge Volume (Gal): 1x: 11 4x: 44 10x: 110

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
20C

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-21D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-21D

Well Type: Steel Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 43.28

Total Depth: 124.4 Expected Well Depth*: 127.0

Purge Volume (Gal): 1x: 14 4x: 56 10x: 140

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
21

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-22C

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)	X		
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-22C

Well Type: Steel Diameter: 2 in

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 in

Notes: _____

_____

Depth to Liquid: 14.65

Total Depth: 84.0 Expected Well Depth*: 88.5

Purge Volume (Gal): 1x: 12 4x: 48 10x: 120

Dedicated sampling equipment: (Y) N Type / Diameter: LDW

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-23D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?		X	
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?	X		X
Is the surface seal free of cracks that might affect the integrity of the seal?		X	X
Is the surface seal sloped to prevent ponding around the well?		X	X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-23D

Well Type: Steel Diameter: 2.0

Notes: _____

_____

Protective Casing Type: Steel Diameter: 6.0

Notes: _____

_____

Depth to Liquid: 11.1

Total Depth: 128.0 Expected Well Depth*: 126.8

Purge Volume (Gal): 1x: 20 4x: 80 10x: 200

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
24
MW-23D

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-24

Evaluator: Charlie Bliss Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	/	X	
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-24

Well Type: Steel Diameter: 2 in

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 in

Notes: _____

_____

Depth to Liquid: 6.58

Total Depth: 33.4 Expected Well Depth*: 32.4

Purge Volume (Gal): 1x: 5 4x: 20 10x: 50

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
24

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-25C

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS:

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-25C

Well Type: Stainless Steel Diameter: 2 in

Notes: _____

Protective Casing Type: Steel Diameter: 4 in

Notes: Remeasured and confirmed total Depth on 8/1/18

Depth to Liquid: 34.22

Total Depth: 110.0 Expected Well Depth*: 130.9

Purge Volume (Gal): 1x: 13 4x: 52 10x: 130

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4'

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
Q5C

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-26C

Evaluator: Charlie Bills Evaluation Date: 8-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-26C

Well Type: Steel Diameter: 2 in

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 29.16

Total Depth: 124.2 Expected Well Depth*: 122.1

Purge Volume (Gal): 1x: 16 4x: 64 10x: 160

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4 ' tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
2

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-27

Evaluator: Charlie Bills Evaluation Date: 7/11/18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?			
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)	X		
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-27

Well Type: Steel Diameter: 2 in

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 in

Notes: _____

_____

Depth to Liquid: 41.05

Total Depth: 85.7 Expected Well Depth*: 92.0

Purge Volume (Gal): 1x: 8 4x: 32 10x: 80

Dedicated sampling equipment: (Y) N Type / Diameter: (W4)

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


27

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-28D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-28D

Well Type: ~~Stainless~~ Steel Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 6-inch

Notes: _____

_____

Depth to Liquid: 49.56

Total Depth: 195.5 Expected Well Depth*: 195.6

Purge Volume (Gal): 1x: 25 4x: 100 10x: 250

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4 inch tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


28
MW
28D

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-29

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)	X		
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-29

Well Type: ~~Stainless~~ Steel Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 44.76

Total Depth: 83.05 Expected Well Depth*: 87.3

Purge Volume (Gal): 1x: .7 4x: 28 10x: 70

Dedicated sampling equipment: (Y) N Type / Diameter: WW
B Bladder pump

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-30D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?		X	
Is the protective casing cap void of large gaps which would breach security?			X
Is the locking cap free of rust?			X
Is there a survey mark on the riser/wellhead assembly cap?			X
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-30D

Well Type: Steel Diameter: 2in

Notes: _____

_____

Protective Casing Type: Steel Diameter: 6in

Notes: No cap or place to lock cap

_____

Depth to Liquid: 45.78

Total Depth: >200 Expected Well Depth*: 212.2

206.9 (8/1/18)

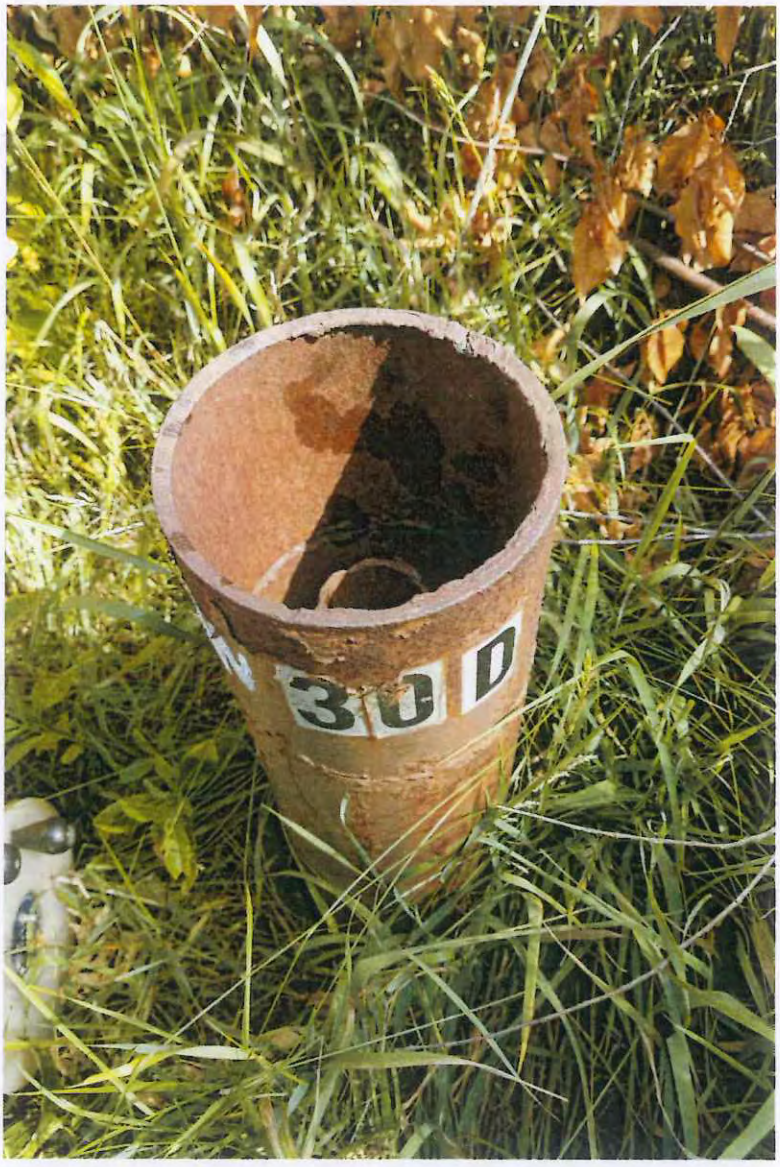
Purge Volume (Gal): 1x:_____ 4x: _____ 10x: _____

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP

** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


30D

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-32D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-32D

Well Type: ~~Stainless~~ Steel Diameter: 2 in

Notes: _____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

Depth to Liquid: 0.75

Total Depth: 108.0 Expected Well Depth*: 107.6

Purge Volume (Gal): 1x: 18 4x: 72 10x: 180

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4" tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
330

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-33D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?		X	
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-33D

Well Type: Steel Diameter: 2 in

Notes: Artisan well

Protective Casing Type: Steel Diameter: 4 in

Notes: Remeasured + confirmed total depth

Depth to Liquid: 0.0.

Total Depth: 61.0 Expected Well Depth*: 87.0

Purge Volume (Gal): 1x: 10 4x: 40 10x: 100

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4' tube

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
33C

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-340

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?		X	
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-34D

Well Type: ~~Stainless~~ Steel Diameter: 2 in

Notes: _____

_____

Protective Casing Type: Steel Diameter: 2 in

Notes: _____

_____

Depth to Liquid: 4.42

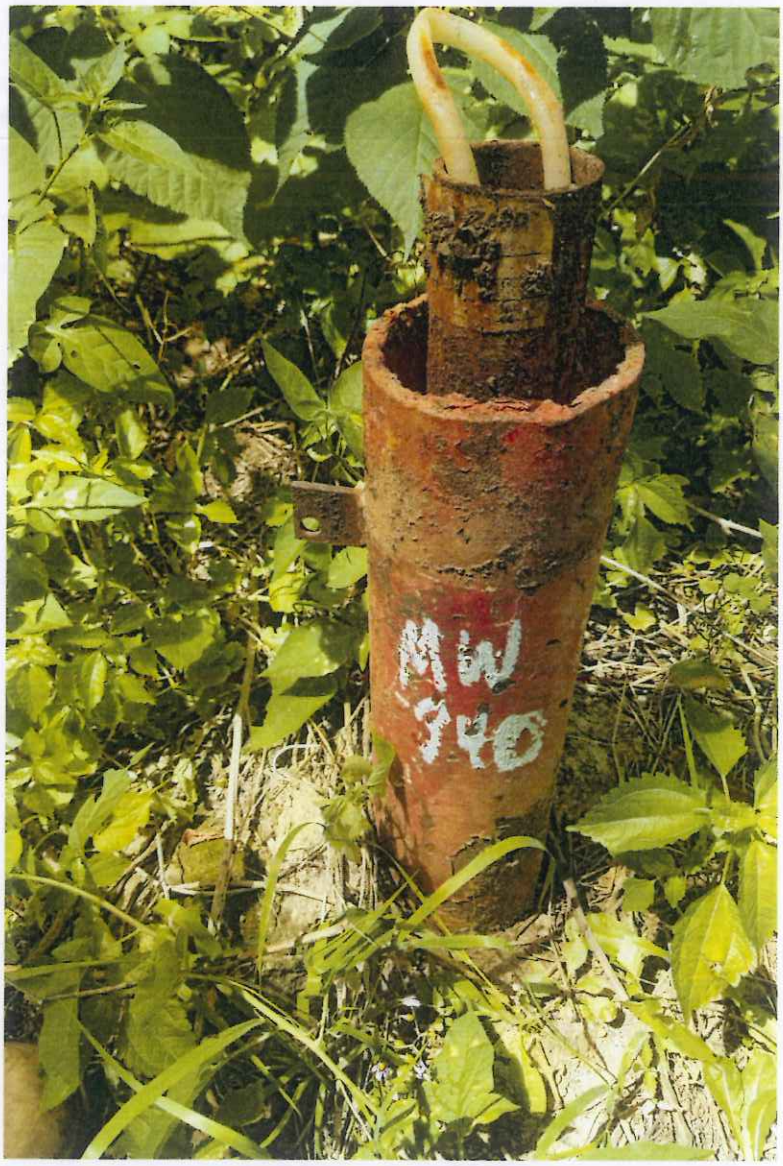
Total Depth: 93.5 Expected Well Depth*: 94.0

Purge Volume (Gal): 1x: 15 4x: 60 10x: 150

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4" tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
240

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-35D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-35D

Well Type: PVC Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 30.45

Total Depth: 153.3 Expected Well Depth*: 151.5

Purge Volume (Gal): 1x: 21 4x: 84 10x: 210

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
35D

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-36

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-36

Well Type: PVC Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 26.15

Total Depth: 47.20 Expected Well Depth*: 47.4

Purge Volume (Gal): 1x: 4 4x: 16 10x: 40

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW-36

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-36D

Evaluator: Charlie Bills Evaluation Date: 9-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-360

Well Type: PVC Diameter: 2 inch

Notes: JJ927 → unique well number

Protective Casing Type: Steel Diameter: 4 inch

Notes:

Depth to Liquid: 3932

Total Depth: 142.6 Expected Well Depth*: 142.1

Purge Volume (Gal): 1x: 18 4x: 72 10x: 180

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4' tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
36D

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-37D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?	X		
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?	X		X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-37D

Well Type: PVC Diameter: 2 inch

Notes: JJ928 DNR#

Protective Casing Type: Steel Diameter: 4 inch

Notes:

Depth to Liquid: 37.44

Total Depth: 141.1 Expected Well Depth*: 142.4

Purge Volume (Gal): 1x: 18 4x: 72 10x: 180

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4' tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


37D
MW
37D

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-38D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?	X		
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-38D

Well Type: PVC Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4-inch

Notes: _____

_____

Depth to Liquid: 38.18

Total Depth: 144.8 Expected Well Depth*: 142.4

Purge Volume (Gal): 1x: 18 4x: 72 10x: 180

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4' tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
38D

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-39D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?		X	
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: Barrel directly next to well

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-39D

Well Type: PVC Diameter: 2 in

Notes: _____

Protective Casing Type: Steel Diameter: 4 in

Notes: Barrel directly next to well

Depth to Liquid: 33.55

Total Depth: 130.0 Expected Well Depth*: 131.9

Purge Volume (Gal): 1x: 16 4x: 64 10x: 160

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
39D

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-40D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?	X	X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-40D

Well Type: PVC Diameter: 2 inch

Notes: PQ061 Wisconsin Unique Well #

Protective Casing Type: Steel Diameter: 4 inch

Notes:

Depth to Liquid: 42.50

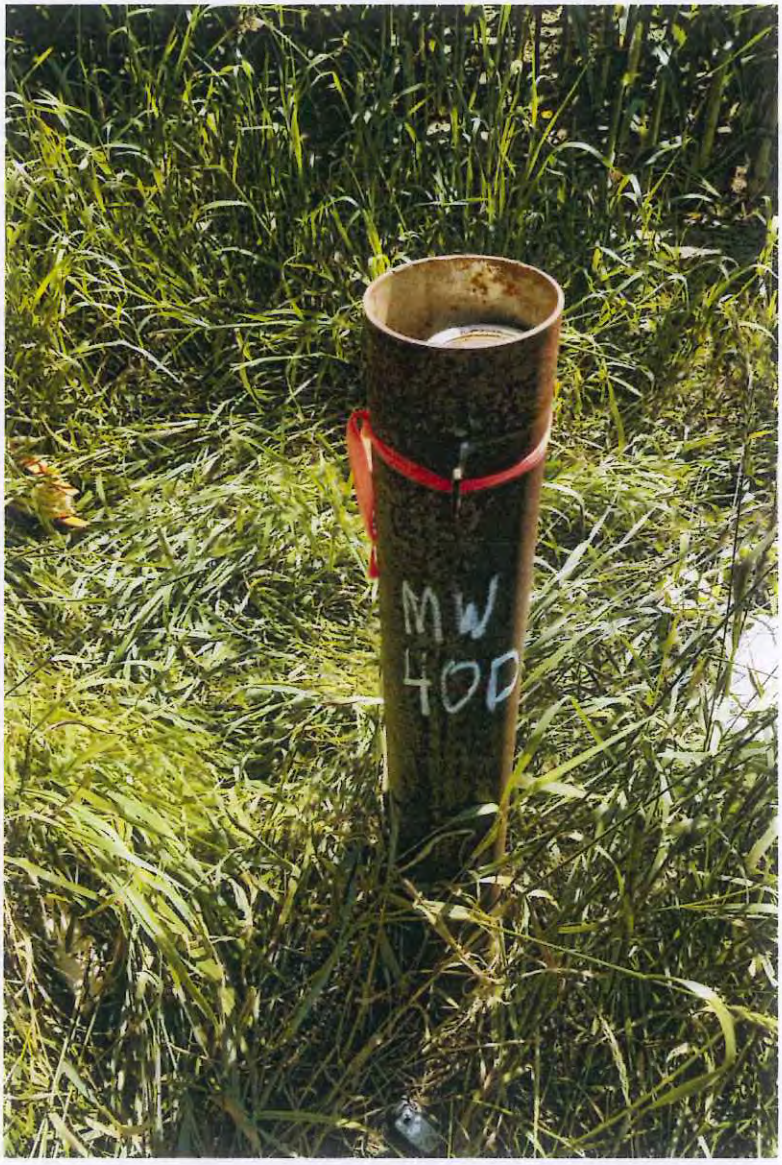
Total Depth: 139.55 Expected Well Depth*: 139.5

Purge Volume (Gal): 1x: 16 4x: 64 10x: 160

Dedicated sampling equipment: Y (N) Type / Diameter:

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
40D

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-41D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-41D

Well Type: PVC Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: Remeasured & confirmed total depth

_____

Depth to Liquid: 39.42

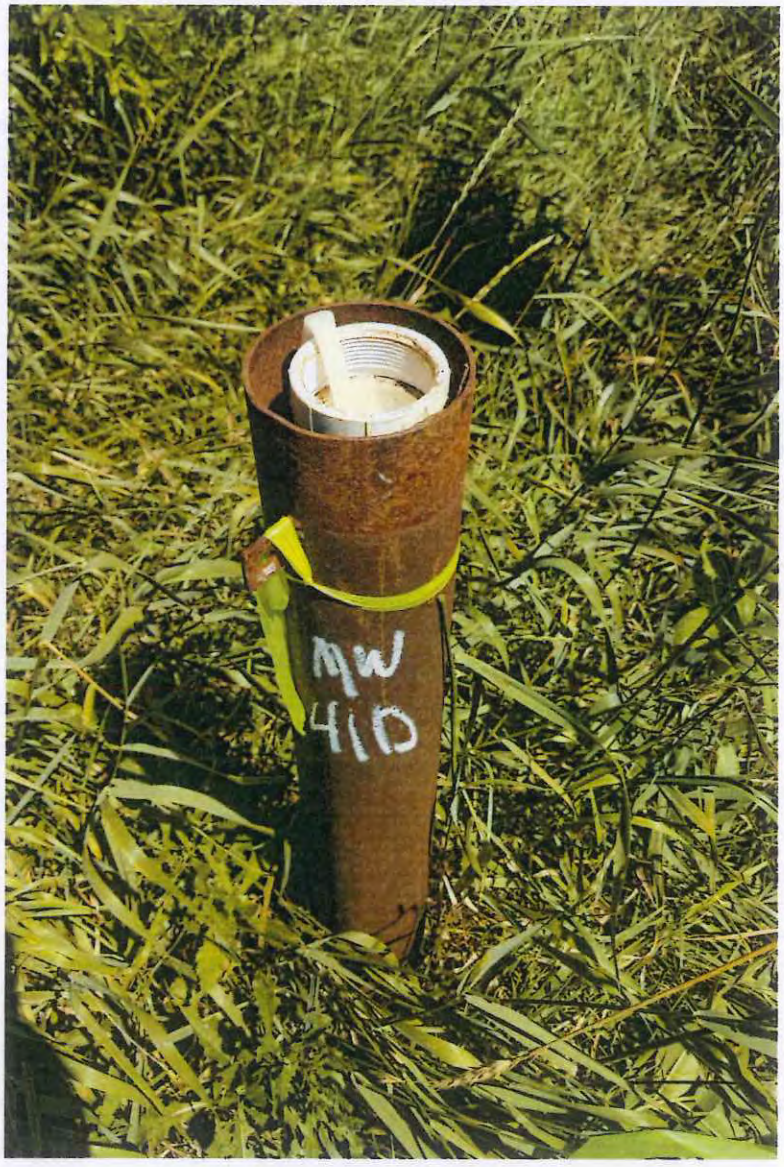
Total Depth: 136.1 Expected Well Depth*: 140.7

Purge Volume (Gal): 1x: 16 4x: 64 10x: 160

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4" tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
41D

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-42D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-42D

Well Type: PVC Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 40.73

Total Depth: 148.3 Expected Well Depth*: 147.5

Purge Volume (Gal): 1x: 18 4x: 72 10x: 180

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4" tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
42D

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-43D

Evaluator: Charlie B. IIS Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?	X		X
Is the surface seal free of cracks that might affect the integrity of the seal?	X		X
Is the surface seal sloped to prevent ponding around the well?	X		X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?	X		X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-43D

Well Type: PVC Diameter: 2 in

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 in

Notes: _____

_____

Depth to Liquid: 27.80

Total Depth: 158.8 Expected Well Depth*: 159.3

Purge Volume (Gal): 1x: 22 4x: 88 10x: 220

Dedicated sampling equipment: (Y) N Type / Diameter: ~~3/8~~ 1/4" tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
43

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-44D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-44D

Well Type: PVC Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 43.11

Total Depth: 145.8 Expected Well Depth*: 145.0

Purge Volume (Gal): 1x: 18 4x: 72 10x: 180

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4 inch tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
44D

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-45D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?		X	
Is the surface seal free of cracks that might affect the integrity of the seal?	X		
Is the surface seal sloped to prevent ponding around the well?		X	
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: Surface Seal has been eroded under

Well Condition Summary Form
Page 2

Well/Piezometer Name: MW-45D

Well Type: PVC Diameter: 2 inch

Notes: PH463 WDNR #

Protective Casing Type: Steel Diameter: 4 inch

Notes: Cement surface seal needs to be removed or replaced.

Depth to Liquid: 39.30

Total Depth: 137.7 Expected Well Depth*: 138.0

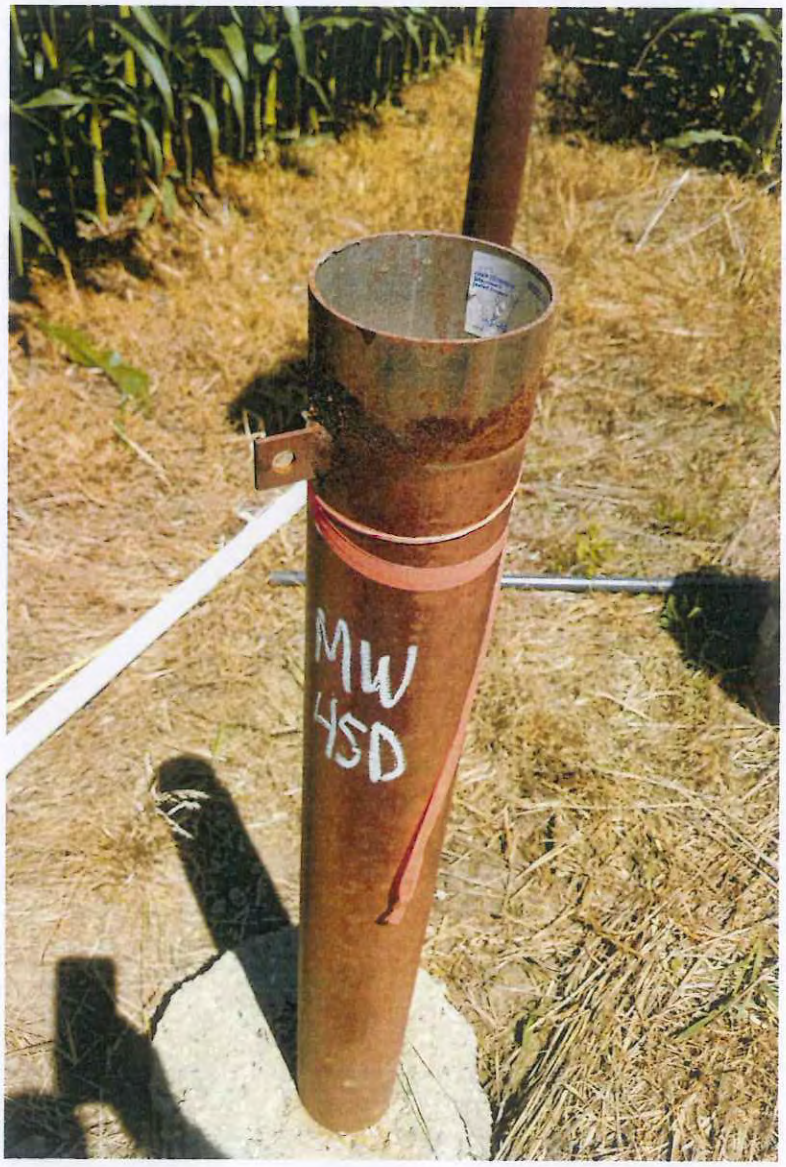
Purge Volume (Gal): 1x: 17 4x: 68 10x: 170

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4" tubing

Photo:

1

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW
45D

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: MW-46D

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		X
Is the surface seal void of differential erosion around and under the base?	X		X
Is the surface seal free of cracks that might affect the integrity of the seal?	X		X
Is the surface seal sloped to prevent ponding around the well?		X	X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?		X	X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: ~~[illegible]~~ MW-46D

Well Type: PVC Diameter: 2 in

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 in

Notes: _____

_____

Depth to Liquid: 15.12

Total Depth: 128.90 Expected Well Depth*: 127.0

Purge Volume (Gal): 1x: 19 4x: 76 10x: 190

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4 in tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


146D

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: TW-1

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: TW-1

Well Type: Steel Diameter: 6 in

Notes: _____

_____

Protective Casing Type: PVC Diameter: 8 in

Notes: _____

_____

Depth to Liquid: 64.66

Total Depth: 175.8 Expected Well Depth*: 176.4

Purge Volume (Gal): 1x: 19 4x: 76 10x: 190

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: RW-1

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	X
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?			X
Is the surface seal void of differential erosion around and under the base?	X		X
Is the surface seal free of cracks that might affect the integrity of the seal?	X		
Is the surface seal sloped to prevent ponding around the well?		X	
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		X
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: RW-1

Well Type: Steel Diameter: 6in

Notes: Remeasured + confirmed Total Depth on 7-12-18

Protective Casing Type: NA Diameter: _____

Notes: white mark on South side of well where we measure DTL, TD + where Surveyors took measurements

Depth to Liquid: 40.40

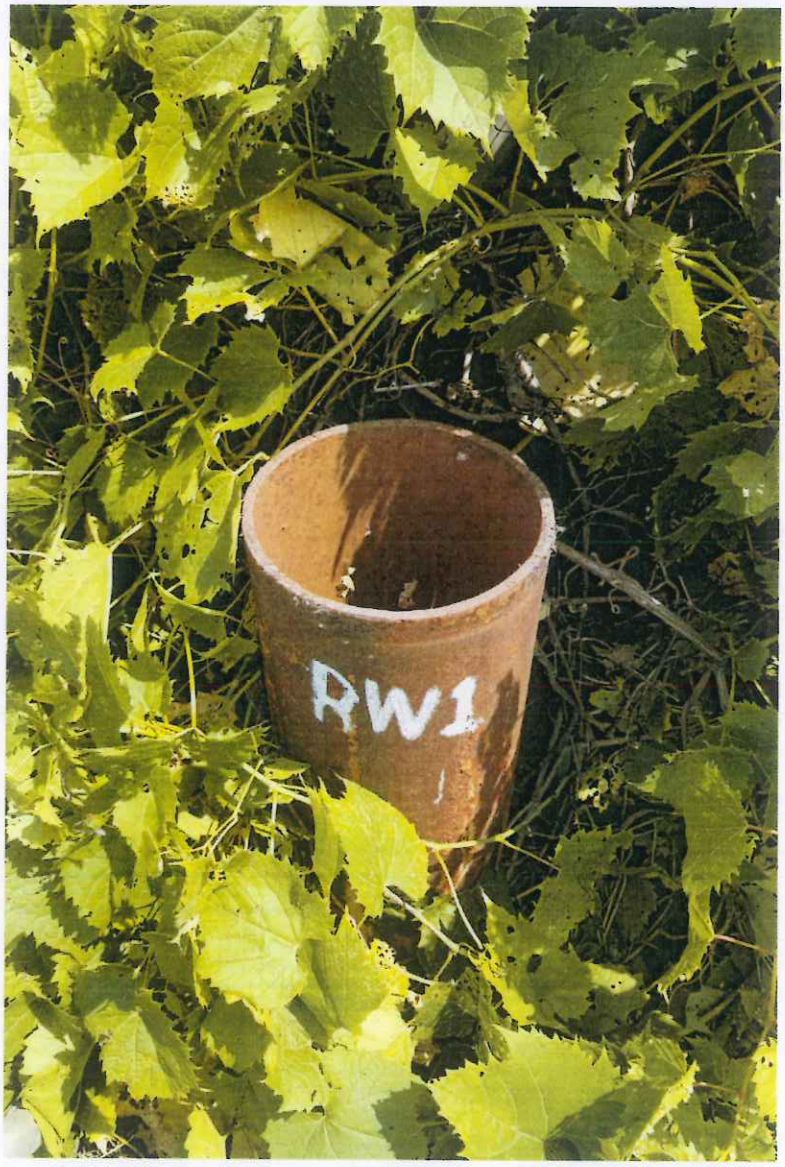
Total Depth: 147.60 Expected Well Depth*: 172.0

Purge Volume (Gal): 1x: 18 4x: 72 10x: 180

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


RW1

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: RW-2

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		N/A	X
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?			X
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?			X
Is the locking cap free of rust?			X
Is there a survey mark on the riser/wellhead assembly cap?			X
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?			X
Is the annular space appropriately filled with filtering material?			X
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?			

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: RW-2

Well Type: Steel Diameter: 6 in

Notes: white mark on south side on top of well. where surveyers measured for elevation

Protective Casing Type: NA Diameter: _____

Notes: unable to obtain DTL or TD due to wires within the well

Depth to Liquid: _____

Total Depth: _____ Expected Well Depth*: 168.0

Purge Volume (Gal): 1x:_____ 4x: _____ 10x: _____

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


RW
2

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: INJ-1

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?		X	
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?		X	
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X	X	X
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?		X	

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: INJ-1

Well Type: PVC Diameter: 2.in

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4.inch + 6.inch

Notes: ~~Both casing~~ Both PVC + 4.inch casing can be moved easily inside 6.inch casing

Depth to Liquid: 43.58

Total Depth: 173.8 Expected Well Depth*: 191.0

Purge Volume (Gal): 1x: 22 4x: 88 10x: 220

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


MW-1

Well Condition Summary Form

Facility: Keck farm Well/Piezometer Name: INJ-2

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?		X	
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?		X	

COMMENTS:

Well Condition Summary Form
Page 2

Well/Piezometer Name: INJ-2

Well Type: Steel + PVC Diameter: ± 3/4 inch + 2 inch

Notes: 3/4 inch steel in 2 inch PVC. Unable to pass well tape down. Blocked ± 6 inches down

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: _____

Total Depth: _____ Expected Well Depth*: 188.1

Purge Volume (Gal): 1x:_____ 4x:_____ 10x:_____

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


J2

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: INJ-3

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: INJ-3

Well Type: PVC Diameter: 2,n

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4,inch

Notes: Remeasured + confirmed Total depth on 6/12/18

Depth to Liquid: 43,17

Total Depth: 167.3 Expected Well Depth*: 185.9

Purge Volume (Gal): 1x: 21 4x: 84 10x: 210

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4' tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


NJ3

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: INJ-4

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?			X
Is the well elevation information inscribed at or on the well correct?			
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?		X	
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?			
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?			
Is the protective casing cap void of large gaps which would breach security?	X	X	
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?		X	X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: INJ-4

Well Type: PVC Diameter: 2-inch

Notes: _____

Protective Casing Type: Steel Diameter: 4inch

Notes: Casing is dented with some cracks

Depth to Liquid: 42.23

Total Depth: 168.0 Expected Well Depth*: 189.0

Purge Volume (Gal): 1x: 21 4x: 84 10x: 210

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4" tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: INJ-5

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?			X
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS:

Well Condition Summary Form
Page 2

Well/Piezometer Name: INJ-5

Well Type: Steel Diameter: 2in

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4inch

Notes: hole next to casing

_____

Depth to Liquid: 46.67

Total Depth: 170.9 Expected Well Depth*: 193.3

Purge Volume (Gal): 1x: 21 4x: 84 10x: 210

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4' tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


NJ5

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: INJ-6

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: INJ-6

Well Type: PVC Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 42.63

Total Depth: 181.70 Expected Well Depth*: _____

Purge Volume (Gal): 1x: 24 4x: 96 10x: 240

Dedicated sampling equipment: (Y) N Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


INJ6

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: INJ-7

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?	X		
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: INJ-7

Well Type: PVC Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 42.95

Total Depth: 183.6 Expected Well Depth*: _____

Purge Volume (Gal): 1x: 24 4x: 96 10x: 240

Dedicated sampling equipment: Y (N) Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


INJ

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: INJ-8

Evaluator: Charlie Bills Evaluation Date: _____

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?	X		
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: labeled incorrectly inside casing on well

Well Condition Summary Form
Page 2

Well/Piezometer Name: INJ-8

Well Type: PVC Diameter: 2 inch

Notes: Labeled as INJ-9 on PVC. Map says INJ-8

Protective Casing Type: Steel Diameter: 4 inch

Notes:

Depth to Liquid: 48.22

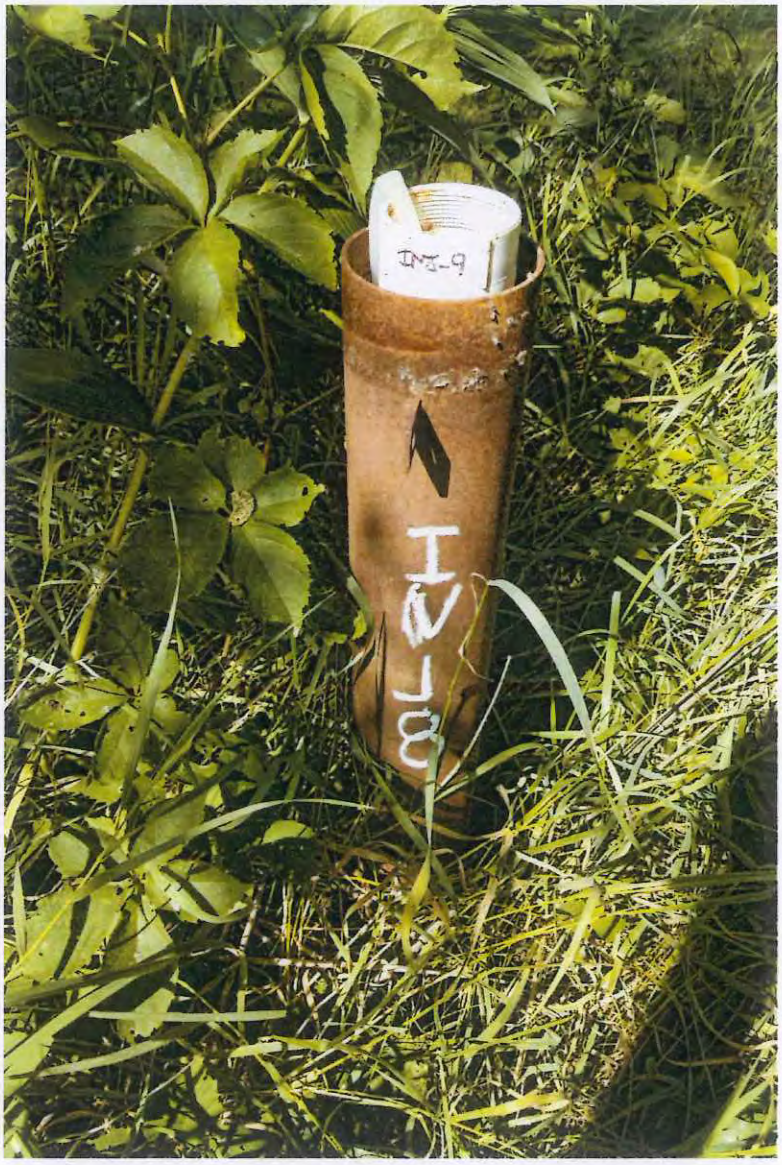
Total Depth: 152.60 Expected Well Depth*:

Purge Volume (Gal): 1x: 18 4x: 72 10x: 180

Dedicated sampling equipment: (Y) N Type / Diameter: 1/4' tubing

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS


IMS-9
IV 18

Well Condition Summary Form

Facility: Keck Farm Well/Piezometer Name: INJ-9

Evaluator: Charlie Bills Evaluation Date: 7-11-18

	Y	N	N/A
Is the well's location appropriately shown on a facility map?	X		
Is the well adequately flagged if hard to find?	X		
Is the well elevation information inscribed at or on the well correct?			X
Is the well: ☐ flush with surface? ☒ above ground?			
Is the well free of physical damage?	X		
Is the well labeled on the inside?		X	
Is the well labeled on the outside?	X		
Does the well have protective posts, if necessary?	X		
Do above ground wells have weep holes at the base of the protective casing?		X	
Does the area around the well appear clean?	X		
Is the casing secure (attempt to move along two perpendicular axes)?	X		
Is the surface seal void of differential erosion around and under the base?			X
Is the surface seal free of cracks that might affect the integrity of the seal?			X
Is the surface seal sloped to prevent ponding around the well?			X
Is the well free from standing or ponded water?	X		
Is the well locked to prevent unauthorized access?	X		
Is the protective casing cap void of large gaps which would breach security?	X		
Is the locking cap free of rust?		X	
Is there a survey mark on the riser/wellhead assembly cap?		X	
Is the riser cap vented?			X
Is the annular space free of animal/insect nests?	X		
Is the annular space appropriately filled with filtering material?	X		
If a pump, can it be lifted a few inches? (do not test prior to sampling)			X
Is the well free of kinks or bends?	X		

COMMENTS: _____

Well Condition Summary Form
Page 2

Well/Piezometer Name: INJ-9

Well Type: PVC Diameter: 2 inch

Notes: _____

_____

Protective Casing Type: Steel Diameter: 4 inch

Notes: _____

_____

Depth to Liquid: 48.52

Total Depth: 152.7 Expected Well Depth*: _____

Purge Volume (Gal): 1x: 18 4x: 72 10x: 180

Dedicated sampling equipment: **Y** **N** Type / Diameter: _____

Photo:

* - From Table 4 RFP
** - 2 Foot Length (min.) of 1.66 in. bailer passes to ten feet BGS

ATTACHMENT B

Survey Information

Well	Latitude	Longitude	Northing	Easting	Casing Elevation Leveled	Ground Elevation
INJ1	43−09'44.51062"N	88−49'03.07142"W	615968.0148	852654.5961	864.72	862.0
INJ2	43−09'43.14931"N	88−49'03.02504"W	615830.1806	852657.9639	861.83	858.9
INJ3	43−09'43.05978"N	88−49'03.79894"W	615821.1449	852600.5989	864.37	861.6
INJ4	43−09'43.70231"N	88−49'03.82763"W	615886.2028	852598.5055	863.38	861.8
INJ5	43−09'44.43490"N	88−49'03.79687"W	615960.376	852600.8231	867.80	862.7
INJ8	43−09'43.74032"N	88−49'05.88934"W	615890.1291	852445.6966	869.48	867.1
INJ9	43−09'44.99299"N	88−49'05.68010"W	616016.9542	852461.2702	869.90	867.7
MW10D	43−09'45.05810"N	88−49'05.47735"W	616023.5388	852476.3016	870.89	868.7
MW11D	43−09'43.91599"N	88−49'06.08401"W	615907.9235	852431.2769	868.84	866.3
MW12D	43−09'44.93290"N	88−49'03.38652"W	616010.7828	852631.2634	865.99	863.9
MW13C	43−09'44.96575"N	88−48'52.75611"W	616013.7217	853419.1719	884.12	881.7
MW14D	43−09'44.97875"N	88−48'52.85760"W	616015.0422	853411.6504	883.49	881.8
MW15	43−09'45.36740"N	88−48'52.87762"W	616054.3929	853410.1854	884.09	882.0
MW16C	43−09'45.28477"N	88−48'52.94141"W	616046.0288	853405.4536	884.21	881.6
MW17	43−09'44.96976"N	88−48'52.66339"W	616014.1247	853426.0442	884.36	882.2
MW18D	43−09'45.38999"N	88−48'52.78566"W	616056.6776	853417.0019	884.37	881.8
MW19C	43−09'44.84399"N	88−49'03.28575"W	616001.7773	852638.7278	865.71	863.6
MW1C	43−09'44.87677"N	88−49'05.50145"W	616005.1799	852474.5054	870.79	868.8
MW2	43−09'42.78357"N	88−49'06.14537"W	615793.2682	852426.6694	868.85	867.0
MW20C	43−09'43.90190"N	88−49'05.93828"W	615906.4913	852442.0773	869.96	867.6
MW21D	43−09'37.44776"N	88−48'58.20038"W	615252.7204	853015.2785	863.51	861.9
MW22C	43−09'43.40880"N	88−49'09.97283"W	615856.722	852143.016	832.34	831.2
MW23D	43−09'43.41848"N	88−49'10.03312"W	615857.7045	852138.5478	832.75	830.7
MW24	43−09'43.42722"N	88−49'10.10628"W	615858.5919	852133.1258	832.50	830.4
MW25C	43−09'38.45226"N	88−48'45.99841"W	615354	853919.7431	854.83	853.3
MW26C	43−09'46.02629"N	88−48'45.09369"W	616120.8401	853987.1449	848.10	846.1
MW27	43−09'45.03019"N	88−49'03.42142"W	616020.6351	852628.682	866.00	864.2
MW28D	43−09'43.93626"N	88−49'05.85490"W	615909.9672	852448.2591	870.41	867.9
MW29	43−09'43.93148"N	88−49'05.81896"W	615909.4811	852450.923	870.07	868.1
MW3	43−09'44.22149"N	88−49'07.92047"W	615938.926	852295.1772	847.06	845.5
MW30D	43−09'44.65295"N	88−49'03.23629"W	615982.4324	852642.3837	865.14	862.8
MW32D	43−09'45.83061"N	88−48'42.12625"W	616100.9304	854207.0763	819.53	817.2
MW33D	43−09'39.94804"N	88−48'41.64812"W	615505.3046	854242.2544	817.09	815.6

Well	Latitude	Longitude	Northing	Easting	Casing Elevation Leveled	Ground Elevation
MW34D	43−09'37.22776"N	88−48'41.60276"W	615229.8748	854245.4965	822.57	821.2
MW39D	43−09'40.13513"N	88−48'45.83809"W	615524.3851	853931.703	852.75	850.3
MW4	43−09'43.72243"N	88−49'03.59806"W	615888.2309	852615.522	863.42	861.6
MW40D	43−09'44.26076"N	88−49'02.35947"W	615942.6898	852707.3523	863.82	861.3
MW40D	43−09'44.26186"N	88−49'02.35905"W	615942.8019	852707.3836	863.82	861.3
MW41D	43−09'43.14106"N	88−49'02.33366"W	615829.3195	852709.2077	860.63	858.1
MW42D	43−09'42.54744"N	88−49'03.32000"W	615769.2524	852636.0713	861.81	859.1
MW43D	43−09'44.99115"N	88−49'07.92453"W	616016.8542	852294.9171	848.99	846.6
MW46D	43−09'44.35802"N	88−49'09.29151"W	615952.8033	852193.5656	836.24	834.4
MW5	43−09'44.70483"N	88−49'03.86542"W	615987.7088	852595.7567	865.21	864.0
MW6	43−09'43.88559"N	88−49'05.79115"W	615904.8344	852452.982	869.75	868.0
MW7	43−09'38.35479"N	88−48'46.49214"W	615344.1481	853883.1433	861.03	859.3
MW8	43−09'40.52803"N	88−48'47.82277"W	615564.2332	853784.6172	883.01	881.2*
MW9	43−09'46.17470"N	88−48'47.45379"W	616135.9454	853812.2262	886.57	885.6
RW1	43−09'43.81276"N	88−49'02.65065"W	615897.3413	852685.7476	861.60	859.6
RW2	43−09'38.83816"N	88−48'45.97867"W	615393.0718	853921.224	854.24	852.4
TW1	43−09'45.26114"N	88−48'52.74808"W	616043.6301	853419.7812	884.70	882.6

Data from survey by Burse Survey and Engineering, Inc. (July 2018) except where indicated.

* - determined by measurement (1.80 feet) from casing elevation by SCS (8/1/18)

I:\25218118.00\Deliverables\Monitoring Well Inventory Summary\Attachment B - Survey Information\[Survey_All Wells Except Those in Cornfield.xlsx]Sheet1

	Latitude	Longitude	Jefferson County Coords		Casing Elevation Leveled	(GPS Shot)Casing Elevation	Ground Elevation
INJ6	43−09'44.65000"N	88−49'01.89146"W	615982.0836	852742.0601	***CORN FIELD***	863.97	861.3
MW44D	43−09'44.97830"N	88−49'01.73253"W	616015.3177	852753.8569	***CORN FIELD***	864.41	861.8
INJ7	43−09'45.08744"N	88−49'01.86853"W	616026.3732	852743.7822	***CORN FIELD***	864.36	861.6
MW35D	43−09'44.44745"N	88−49'00.86542"W	615961.5372	852818.0982	***CORN FIELD***	861.74	858.9
MW45D	43−09'43.76074"N	88−48'59.06162"W	615891.9407	852951.7586	***CORN FIELD***	860.69	857.1
MW36	43−09'43.37242"N	88−49'00.87393"W	615852.6906	852817.4133	***CORN FIELD***	860.52	857.9
MW36D	43−09'43.37664"N	88−49'00.98472"W	615853.1217	852809.2015	***CORN FIELD***	860.12*	858.1
MW37D	43−09'41.75675"N	88−49'01.30982"W	615689.1206	852785.0231	***CORN FIELD***	858.36	855.5
MW38D	43−09'41.70871"N	88−49'02.66208"W	615684.3064	852684.7925	***CORN FIELD***	859.47	856.7

Data from survey by Burse Survey and Engineering, Inc. (July 2018) except where indicated.

* - determined by measurement (2.05 feet) from ground surface by SCS (8/1/18)

I:\25218118.00\Deliverables\Monitoring Well Inventory Summary\Attachment B - Survey Information\[Survey_Wells In Cornfield.xlsx]Sheet1