STATE OF NEVADA
DIVISION OF WATER RESOURCES
# WELL DRILLER'S REPORT

OFFICE USE ONLY
Log No. 119512
Permit No.
Basin OS7
Well ID# MK-33

PRINT OR TYPE ONLY
DO NOT WRITE ON BACK

Please complete this form in its entirety in accordance with NRS 534.170 and NAC 534.340

NOTICE OF INTENT NO. 70788

1. OWNER Washoe County
MAILING ADDRESS 4930 Energy Way
Reno, NV 89502

ADDRESS AT WELL LOCATION Mill St and Kietzke
City of Reno ROW / NDOT ROW
Subdivision Name: County: Washoe

2. LOCATION SW ¼ SW ¼ Sec 7 T 19 N S R 20 E
PERMIT/WAIVER No. CTMRD
Issued by Water Resources Parcel No

Latitude 39.522767
Longitude 119.787996
UTM E ~~39.523770~~ ☐ NAD 27
N ~~119.789006~~ ☒ NAD 83/WGS 84

3. WORKED PERFORMED
☒ New Well ☐ Replace ☐ Recondition
☐ Deepen ☐ Other

4. PROPOSED USE
☐ Domestic ☐ Irrigation ☐ Test
☐ Municipal/Industrial ☒ Monitor ☐ Stock

5. WELL TYPE
☐ Cable ☐ Rotary ☐ RVC
☐ Air ☒ Other Sonic

6. LITHOLOGIC LOG

| Material | Water Strata | From | To | Thickness |
|---|---|---|---|---|
| See Attached form | | | | |

Nad 27
39.522856°N
119.786952°W

Date started: 11-4, 20 13
Date completed: 11-5, 20 13

7. Water Level
Static water level: N/A feet below land surface
Artesian Flow: G.P.M. P.S.I.
Water Temperature: °F
Quality:

8. WELL TEST DATA
TEST METHOD: ☐ Bailer ☐ Pump ☐ Air Lift

| G.P.M. | Draw Down (Feet Below Static) | Time (Hours) |
|---|---|---|
| | | |

9. WELL CONSTRUCTION
Depth Drilled 36' Feet Depth Cased 35' Feet

HOLE DIAMETER (BIT SIZE)

| | | From | | To | |
|---|---|---|---|---|---|
| 10" | Inches | 0 | Feet | 36' | Feet |
| | Inches | | Feet | | Feet |
| | Inches | | Feet | | Feet |

CASING SCHEDULE

| Size O.D. (Inches) | Weight/Ft. (Pounds) | Wall Thickness (Inches) | From (Feet) | To (Feet) |
|---|---|---|---|---|
| 2" | Sch 80 | PVC | 0 | 35' |
| 2" | Sch 80 | PVC | 0 | 25' |

Perforations:
Type of perforation Factory Cut
Size of perforation 0.20
From 30' feet to 35' feet
From 20 feet to 25' feet
From feet to feet
From feet to feet
From feet to feet

Annular Seal: ☒ Yes ☐ No

| | | | | |
|---|---|---|---|---|
| ☐ Neat Cement | to | | ☐ Pumped | ☐ Poured |
| ☒ Cement Grout | 0 to 15 | | ☒ Pumped | ☐ Poured |
| ☐ Concrete Grout | to | | ☐ Pumped | ☐ Poured |
| ☐ ≥30% Bentonite Grout | to | | ☐ Pumped | ☐ Poured |

Gravel Pack: ☒ Yes ☐ No 18 to 36 ☐ Pumped ☒ Poured
Type: #3
Bentonite Chips: ☒ Yes ☐ No 15 to 18 ☐ Pumped ☒ Poured
Type: Medium chips 3/8

10. DRILLER'S CERTIFICATION
This well was drilled under my supervision and the report is true to the best of my knowledge.
Name Cascade Drilling LP (Contractor)
Address 1333 W 9th St (Contractor)
Upland, CA 91786
Nevada contractor's license number issued by the State Contractor's Board 73966
Nevada driller's license number issued by the Division of Water Resources, the on-site driller 2475
Signed (By driller performing actual drilling on-site or contractor)
Date 11-5-13

USE ADDITIONAL SHEETS IF NECESSARY

(Rev. 05-06)

RECEIVED 2013 NOV 19 AM 11:33 STATE ENGINEER'S OFFICE

# CTMRD PROGRAM MONITORING WELL STRATIGRAPHIC LOG

**Drilling Specifications:**

Drilling Contractor: Cascade
Drilling Method: Sonic
Rig: Spider SPR6
Driller: Alex Patricio
Boring Diam.: 10 in TD: 36.5 ft
Development Method: N/A
Date Start: 11/4/13 End: 11/5/13

**Well Specifications:**

Location Description: West side Sunshine N. of Zinc
Coordinates: _____ ft N _____ ft E
Elevation: _____ ft Survey Method: _____
Reference Pt. Description: _____
Well TD: 25, 35 ft bgs Well Diameter: 2, 2 in
Screen Interval (20-25) (30-35) ft bgs
First Water: N/A ft bgs Static Water at completion: N/A ft bgs

WELL ID: MK 33
Project: Mill/Kietzke BSA
Page 1 of 2
LOGGED BY: B. Kearney

| Depth | Density/ Consistency | Moisture | Plasticity | Cohesiveness | Transmissivity | Color | Boulder % | Cobble % | Gravel % | Sand % | Silt % | Clay % | USCS Classification | Weathering/ Oxidization | Grading | Angularity | Matrix/Clast-Supported | Clast Lithology | Sedimentary Structure | Depositional Environment | Stratigraphic Contact | PID/Samples | Lithology | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | target depth 36' |
| 0 | | | | | | | | | | | | | | | | | | | | | | | | 5" concrete at land surface |
| | L | D | NP | NC | M | 7.5 YR 3/3 | tr | 10 | 20 | 30 | 30 | 10 | GW | | WG | SR | MX | A-20 B-50 G-30 | M | GOW | G | | | dk brn. well graded gravel w/sand |
| | | | | | | | | | | | | | | | | | | | | | | | | hand cleared to 5' bgs |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | brown |
| 11:23 | L | D | NP | NC | H | 7.5 YR 4/3 | 10 | 20 | 20 | 20 | 20 | 10 | GW | | WG | SR | MX | A-30 B-50 G-10 R4Y-10 | M | GOW | G | | | well graded gravel w/sand, gravel vf-vc including cobbles & boulders (12"+), sand vf-vc, esp. c |
| 10 | | | | | | 7.5 YR 5/1 | | | | | | | | | | | | | | | | 4.1 | | |
| 15 | | | | | | | | | | | | | | | | | | | | | | 3.3 | | |
| | L | M | NP | NC | H | 7.5 YR 5/1 | 10 | 20 | 20 | 30 | 15 | 5 | GR | | WG | SR | MX | A-30 B-50 G-10 R4Y-10 | M | GOW | G | | | grey well graded gravel w/sand, gravel vf-vc including cobbles & boulders, sand vf-vc, esp. c |
| 20 | | | | | | | | | | | | | | | | | | | | | | 10.5 | | |
| 25 | | | | | | | | | | | | | | | | | | | | | | 1.6 | | |
| 13:00 30 | VL | M | NP | NC | H | 7.5 YR 4/3 | | tr | 20 | 50 | 20 | 10 | SM | | PG u | SR | MX | A-40 B-50 R4Y-10 | M | FLUV | G | 0.0 | | brown silty sand w/gravel, gravel vf-m, sand vf-vc esp. c, slighly cemented 28'-29' |

log 11/5/13

# CTMRD PROGRAM MONITORING WELL STRATIGRAPHIC LOG

WELL LOCATION: West Side Sunshine North of Zinc

LOGGED BY: B. Kearney

Well ID: MK-33

Project: Mill Kietzke PSA

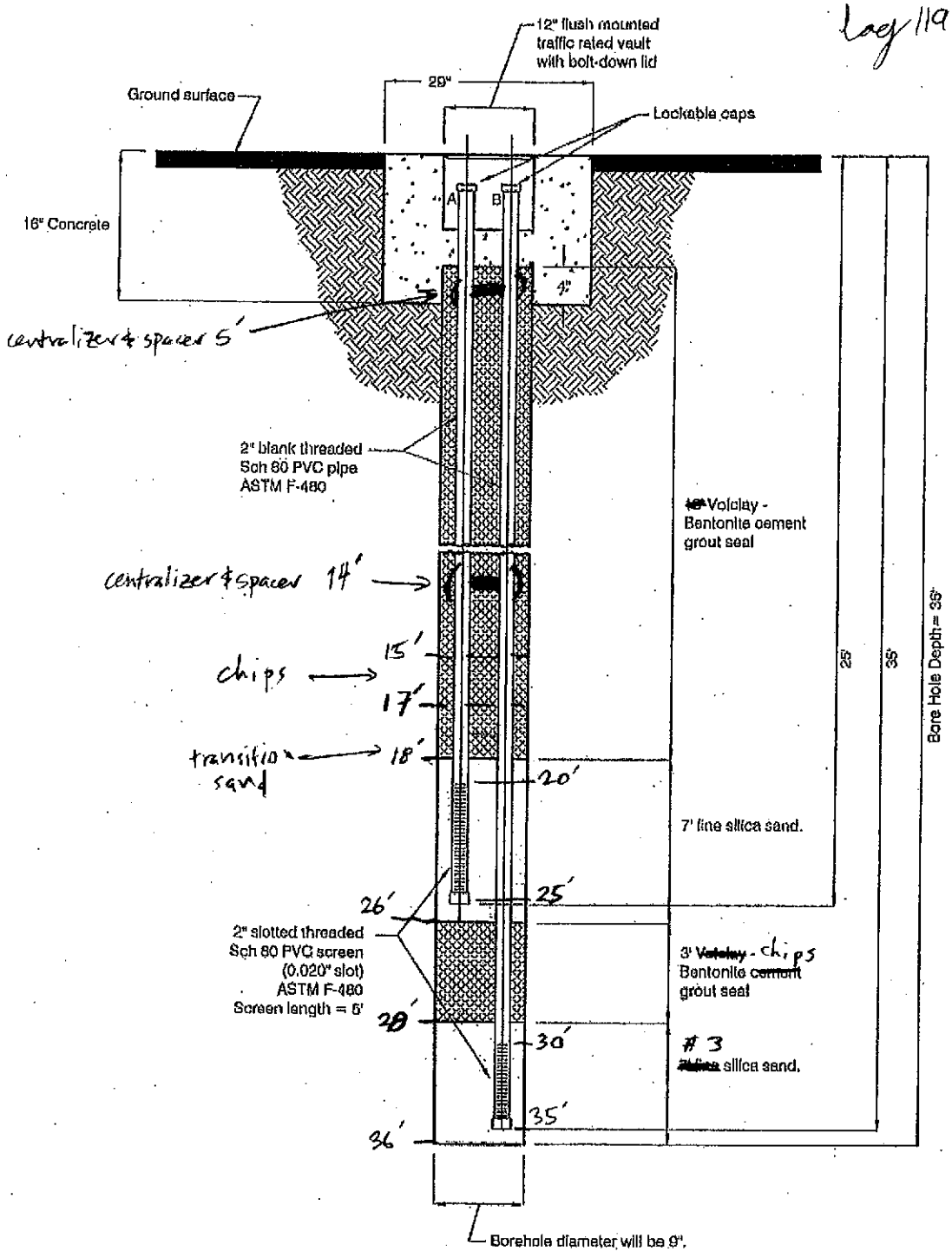


| Depth | Engineering Properties: Density/ Consistency | Moisture | Plasticity | Cohesiveness | Transmissivity | 1° Description: Color | Boulder % | Cobble % | Gravel % | Sand % | Silt % | Clay % | USCS Classification | 2° Effects: Weathering/ Oxidization | Depositional Properties: Grading | Angularity | Matrix/Clast-Supported | Clast Lithology | Sedimentary Structure | Depositional Environment | Stratigraphic Contact | Graphics: PID/Samples | Lithology | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | VL | M | NP | NC | H | 7.5 YR 4/3 | H | 10 | 30 | 50 | 10 | | SW-SM | | WG | SR | MX | A-50 B-30 G-20 | M | GOW | G | | | brown well graded sand w/ silt & gravel, cobbles to 6", gravel vf-vc, sand vf-vc, esp. c |
| 35 | | | | | | | | | | | | | | | | | | | | | | 2.1 | | TD at 36.5' |

Note: Description section to be used to complement and provide additional information to supplement column descriptors to the left. identify any samples collected, and describe any particulars associated with drilling behavior.

Log 119513

Log 11952




# Monitoring Well
# ASG-MK[redacted]

C:\Users\bjeach\appdata\local\temp\Acl'ublish_1472\well diagrams_20130806.dwg Plotted: 07 Aug 13 – 4:10pm, Layout:mk-29

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