

WELL DRILLER'S REPORT

Log No. 87679

Permit No. 101

Basin 101

Page 1 of 3

Please complete this form in its entirety in accordance with NRS 534.170 and NAC 534.010

NOTICE OF INTENT NO. **50813**

PRINT OR TYPE ONLY  
 DO NOT WRITE ON BACK

OWNER **United States Geological Survey, WRD**  
 MAILING ADDRESS **333 West Nye Lane, Room 203**  
**Carson City, NV 89706**

ADDRESS AT WELL LOCATION **2840 Enterprise Way,**  
**Fallon, NV**

2. LOCATION NE 1/4 NE 1/4 Sec. 21 T 19N N/S R 29E E Churchill County  
 PERMIT NO. M/O-1255 007-311-42 N/A  
Issued by Water Resources Parcel No. Subdivision Name

3. WORK PERFORMED  
 New Well  Replace  Recondition  
 Deepen  Abandon  Other \_\_\_\_\_  
 4. PROPOSED USE  
 Domestic  Irrigation  Test  
 Municipal/Industrial  Monitor  Stock  
 5. WELL TYPE  
 Cable  Rotary  RVC  
 Air  Other **Flooded**

6. LITHOLOGIC LOG

| Material                    | Water Strata | From | To  | Thick-ness |
|-----------------------------|--------------|------|-----|------------|
| Asphalt and gravel          |              | 0    | 3   | 3          |
| Fine sand                   |              | 3    | 30  | 27         |
| Soft black clay             |              | 30   | 70  | 40         |
| Sand                        |              | 70   | 80  | 10         |
| Gray clay                   |              | 80   | 85  | 5          |
| Brown clay                  |              | 85   | 100 | 15         |
| Sand and gravel             |              | 100  | 115 | 15         |
| Brown clay                  |              | 115  | 130 | 15         |
| Green clay                  |              | 130  | 155 | 25         |
| Soft black clay             |              | 155  | 160 | 5          |
| Sand                        |              | 160  | 170 | 10         |
| Green and black clay        |              | 170  | 180 | 10         |
| Sand and clay               |              | 180  | 200 | 20         |
| Gray clay and sand          |              | 200  | 211 | 11         |
| Green stiff clay and sand   |              | 211  | 235 | 24         |
| Black clay                  |              | 235  | 238 | 3          |
| Coarse sand and gravel      |              | 238  | 255 | 17         |
| Clay                        |              | 255  | 258 | 3          |
| Coarse sand                 |              | 258  | 268 | 10         |
| Clay and sand               |              | 268  | 274 | 6          |
| Coarse sand                 |              | 274  | 288 | 14         |
| Green clay and sand         |              | 288  | 313 | 25         |
| Sand with some clay         |              | 313  | 325 | 12         |
| Clay with some sand         |              | 325  | 340 | 15         |
| Basaltic gravel and cobbles |              | 340  | 343 | 3          |
| Massive to vesicular basalt |              | 343  | 638 | 295        |
| Black cinders               |              | 638  | 649 | 11         |
| Vesicular to massive basalt |              | 649  | 754 | 105        |
| Fine sand                   |              | 754  | 764 | 10         |

Continued on next page

8. WELL CONSTRUCTION

Depth Drilled 949 Feet Depth Cased 880 Feet

HOLE DIAMETER (BIT SIZE)

|            | From | To  |
|------------|------|-----|
| 120 Inches | 0    | 11  |
| 34 Inches  | 11   | 80  |
| 19 Inches  | 80   | 345 |

CASING SCHEDULE

| Size O.D. (Inches) | Weight/Ft. (Pounds) | Wall Thickness (Inches) | From (Feet) | To (Feet) |
|--------------------|---------------------|-------------------------|-------------|-----------|
| 50                 | 264.33              | 0.500                   | 0           | 11        |
| 34                 | 178.9               | 0.500                   | 0           | 80        |
| 12.75              | 33.38               | 0.250                   | 0           | 345       |

Perforations:  
 Type perforation **Slot**  
 Size perforation **0.020"**

| From    | To      | From | To   |
|---------|---------|------|------|
| #1: 840 | feet to | 870  | feet |
| #2: 750 | feet to | 770  | feet |
| #3: 770 | feet to | 585  | feet |

Surface Seal:  Yes  No Seal Type:  
 Neat Cement  
 Cement Grout  
 Concrete Grout  
 Depth of Seal **See Detail**  
 Placement Method:  Pumped  Poured  
 Gravel Packed:  Yes  No  
 From \_\_\_\_\_ feet to \_\_\_\_\_ feet

9. WATER LEVEL  
 Static water level **#1: 43.66 (see p. 2)** feet below land surface  
 Artesian flow **N/A** G.P.M. \_\_\_\_\_ P.S.I. \_\_\_\_\_  
 Water temperature **Cool** °F Quality **Fair**

Date started 8/22/2002, 19\_\_\_\_  
 Date completed 9/6/2002, 19\_\_\_\_

7. WELL TEST DATA

TEST METHOD:  Bailer  Pump  Air Lift

|    | G.P.M. | Draw Down (Feet Below Static) | Time (Hours) |
|----|--------|-------------------------------|--------------|
| #1 | 0.6    | Not Meas.                     | 5 Hours      |
| #2 | 15     | Not Meas.                     | 1 Hour       |
| #3 | 19     | Not Meas.                     | 1 Hour       |

10. DRILLER'S CERTIFICATION  
 This well was drilled under my supervision and the report is true to the best of my knowledge.  
 Name **Lang Exploratory Drilling** Contractor  
 Address **P.O. Box 5279** Contractor  
**Elko, NV 89802-5279**  
 Nevada contractor's license number issued by the State Contractor's Board **0021976**  
 Nevada driller's license number issued by the Division of Water Resources, the on-site driller **2204**  
 Signed **Caleb Roberts**  
 By driller performing actual drilling on-site or contractor  
 Date **9/11/02**

B. ST. L.

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

OFFICE USE ONLY  
 Log No. \_\_\_\_\_  
 Permit No. \_\_\_\_\_  
 Basin 101

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. 50813

OWNER United States Geological Survey, WRD DB-4  
 MAILING ADDRESS Page -2-

ADDRESS AT WELL LOCATION 501 Hamilton Street, Carlin, NV, 2840 Enterprise Way Fallon NV

2. LOCATION NE 1/4 NE 1/4 Sec. 21 T 19 R 25 E Churchill County  
 PERMIT NO. M/0 1255 07-311-42  
Issued by Water Resources Parcel No. Subdivision Name

3. WORK PERFORMED  
 New Well  Replace  Recondition  Deepen  Abandon  Other \_\_\_\_\_  
 4. PROPOSED USE  
 Domestic  Municipal/Industrial  Irrigation  Monitor  Test  Stock  
 5. WELL TYPE  
 Cable  Rotary  RVC  Air  Other **Flooded**

6. LITHOLOGIC LOG

| Material                                | Water Strata | From | To  | Thick-ness |
|---|--------------|------|-----|------------|
| Black cinders                           |              | 764  | 777 | 13         |
| Gray clay                               |              | 777  | 784 | 7          |
| Gray cinders, clay, sand and gravel     |              | 784  | 825 | 41         |
| Massive basalt, some fractures and clay |              | 825  | 949 | 124        |

Note: When 19" hole had advanced to 350', the fluid level dropped, causing a collapse that extended to surface. The collapse at surface was some 11' deep and in diameter. 50" casing was installed and concrete grouted. 34" casing was vibrated down to 80', and the upper 11' cemented. Hole was cleaned, 12" casing set, and cemented to surface.

8. WELL CONSTRUCTION  
 Depth Drilled \_\_\_\_\_ Feet Depth Cased \_\_\_\_\_ Feet  
 HOLE DIAMETER (BIT SIZE)  
9.875 Inches From 345 Feet To 949 Feet  
 \_\_\_\_\_ Inches \_\_\_\_\_ Feet \_\_\_\_\_ Feet  
 \_\_\_\_\_ Inches \_\_\_\_\_ Feet \_\_\_\_\_ Feet

CASING SCHEDULE

| Size O.D. (Inches) | Weight/Ft. (Pounds) | Wall Thickness (Inches) | From (Feet) | To (Feet) |
|--------------------|---------------------|-------------------------|-------------|-----------|
| #1: 2.375          | 0.958               | Sch. 80                 | +2          | 880       |
| #2: 2.375          | 0.958               | Sch. 80                 | +2          | 780       |
| #3: 2.375          | 0.958               | Sch. 80                 | +2          | 595       |

Perforations:  
 Type perforation \_\_\_\_\_  
 Size perforation \_\_\_\_\_  
 From \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 From \_\_\_\_\_ feet to \_\_\_\_\_ feet

Surface Seal:  Yes  No Seal Type: \_\_\_\_\_  
 Depth of Seal \_\_\_\_\_  Neat Cement  
 Placement Method:  Pumped  Cement Grout  
 Poured  Concrete Grout  
 Gravel Packed:  Yes  No  
 From \_\_\_\_\_ feet to \_\_\_\_\_ feet

9. WATER LEVEL  
 Static water level #2: 40.83 #3: 40.56 feet below land surface  
 Artesian flow \_\_\_\_\_ G.P.M. \_\_\_\_\_ P.S.I.  
 Water temperature \_\_\_\_\_ °F Quality \_\_\_\_\_

10. DRILLER'S CERTIFICATION  
 This well was drilled under my supervision and the report is true to the best of my knowledge.  
 Name Lang Exploratory Drilling Contractor  
 Address P.O. Box 5279 Contractor  
Eiko, NV 89802-5279  
 Nevada contractor's license number issued by the State Contractor's Board 0021976  
 Nevada driller's license number issued by the Division of Water Resources, the on-site driller \_\_\_\_\_  
 Signed \_\_\_\_\_  
By driller performing actual drilling on-site or contractor  
 Date 9/11/02

Date started \_\_\_\_\_, 19\_\_\_\_  
 Date completed \_\_\_\_\_, 19\_\_\_\_

7. WELL TEST DATA

| TEST METHOD: | Draw Down (Feet Below Static) |   | Time (Hours) |
|--------------|-------------------------------|---|--------------|
|              | G.P.M.                        | <input type="checkbox"/> Bailer <input type="checkbox"/> Pump <input type="checkbox"/> Air Lift |              |
|              |                               |   |              |
|              |                               |   |              |
|              |                               |   |              |

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

OFFICE USE ONLY  
 Log No. \_\_\_\_\_  
 Permit No. \_\_\_\_\_  
 Basin 101

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. **50813+**

OWNER **United States Geological Survey, WRD DB-4**  
 MAILING ADDRESS **Page -3-**

ADDRESS AT WELL LOCATION **2840 Enterprise Way, Fallon, NV.**

2. LOCATION **NE** 1/4 **NE** 1/4 Sec. **21** T **19N** N/S R **29E** E **Churchill** County  
 PERMIT NO. **M/O-1255** **007-311-42**  
Issued by Water Resources Parcel No. Subdivision Name

3. **WORK PERFORMED**  
 New Well  Replace  Recondition  
 Deepen  Abandon  Other \_\_\_\_\_

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

5. **WELL TYPE**  
 Cable  Rotary  RVC  
 Air  Other \_\_\_\_\_

6. **LITHOLOGIC LOG**

| Material                         | Water Strata | From  | To    | Thickness |
|----------------------------------|--------------|-------|-------|-----------|
| <b>Well Construction Detail:</b> |              |       |       |           |
| <b>Hole plug</b>                 |              | 0     | 559.5 | 559.5     |
| <b>Sand</b>                      |              | 559.5 | 596   | 36.5      |
| <b>Hole plug</b>                 |              | 596   | 733   | 137       |
| <b>Sand</b>                      |              | 733   | 781   | 48        |
| <b>Hole plug</b>                 |              | 781   | 830   | 49        |
| <b>Sand</b>                      |              | 830   | 877.5 | 47.5      |
| <b>Hole plug</b>                 |              | 877.5 | 949   | 71.5      |

8. **WELL CONSTRUCTION**  
 Depth Drilled \_\_\_\_\_ Feet Depth Cased \_\_\_\_\_ Feet

**HOLE DIAMETER (BIT SIZE)**

| Inches | From  | To    | Feet  | Feet  |
|--------|-------|-------|-------|-------|
| _____  | _____ | _____ | _____ | _____ |
| _____  | _____ | _____ | _____ | _____ |
| _____  | _____ | _____ | _____ | _____ |

**CASING SCHEDULE**

| Size O.D. (Inches) | Weight/Ft. (Pounds) | Wall Thickness (Inches) | From (Feet) | To (Feet) |
|--------------------|---------------------|-------------------------|-------------|-----------|
|                    |                     |                         |             |           |
|                    |                     |                         |             |           |
|                    |                     |                         |             |           |

**Perforations:**  
 Type perforation \_\_\_\_\_  
 Size perforation \_\_\_\_\_

| From  | feet to | feet  |
|-------|---------|-------|
| _____ | _____   | _____ |
| _____ | _____   | _____ |
| _____ | _____   | _____ |
| _____ | _____   | _____ |
| _____ | _____   | _____ |

Surface Seal:  Yes  No  
 Depth of Seal \_\_\_\_\_  
 Placement Method:  Pumped  Poured  
 Seal Type:  Neat Cement  Cement Grout  Concrete Grout

Gravel Packed:  Yes  No  
 From \_\_\_\_\_ feet to \_\_\_\_\_ feet

9. **WATER LEVEL**  
 Static water level \_\_\_\_\_ feet below land surface  
 Artesian flow \_\_\_\_\_ G.P.M. \_\_\_\_\_ P.S.I.  
 Water temperature \_\_\_\_\_ °F Quality \_\_\_\_\_

10. **DRILLER'S CERTIFICATION**  
 This well was drilled under my supervision and the report is true to the best of my knowledge.  
 Name **Lang Exploratory Drilling** Contractor  
 Address **P.O. Box 5279** Contractor  
**Elko, NV 89802-5279**  
 Nevada contractor's license number issued by the State Contractor's Board **0021976**  
 Nevada driller's license number issued by the Division of Water Resources, the on-site driller \_\_\_\_\_  
 Signed \_\_\_\_\_  
By driller performing actual drilling on-site or contractor  
 Date **9/11/02**

Date started \_\_\_\_\_, 19\_\_\_\_  
 Date completed \_\_\_\_\_, 19\_\_\_\_

7. **WELL TEST DATA**

TEST METHOD:  Bailer  Pump  Air Lift

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

RECEIVED  
 DIVISION OF WATER RESOURCES  
 SEP 11 2002  
 FIELD OFFICE