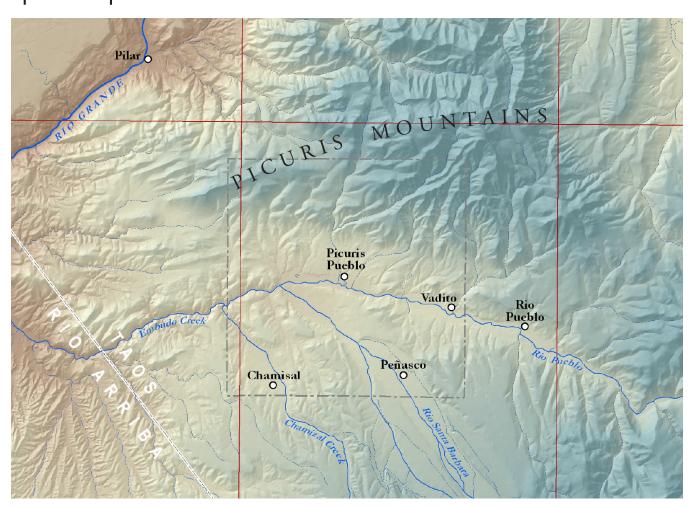
Hydrogeology and Water Resource Assessment of the Pueblo of Picuris, Taos County, New Mexico

Peggy Johnson, Paul Bauer, Stacy Timmons, and Brigitte Felix

March 2018 Open-File Report 596





New Mexico Bureau of Geology and Mineral Resources

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View southeast across the Rio Pueblo valley (foreground) and up the Rio Santa Barbara valley (upper right) with the Sangre de Cristo Mountains in the background. The Picuris Pueblo wastewater pond is in the lower left. The roadcut near the center of the photo exposes the upper volcaniclastic member of the Picuris Formation (Tpu), overlain by Quaternary river gravel deposits. Photo by Paul Bauer.

EXECUTIVE SUMMARY

alluvial deposits (Qa) form thin, shallow aquifers beneath the active floodplains of major streams and are at greatest risk for degradation from land-use and waste management activities. The Dixon Member of the Tesuque Formation (Ttd) forms the primary aquifer along the southern edge of the Pueblo, near Chamisal and south and east of Peñasco. The upper volcaniclastic member of the Picuris Formation (Tpu) forms a major aquifer in and between the Rio Pueblo and Rio Santa Barbara valleys, but productivity is variable and greater well depths may be required. The middle tuffaceous member of the Picuris Formation (Tpm) forms a relatively minor aquifer in the Rio Pueblo Valley, and contains fine-grained, volcanic-rich sediments with low permeability. The Peñasco horst, an up-thrown block of Precambrian crystalline rock within the Picuris-Pecos fault system, contains heavily mineralized and uranium-bearing rocks and influences both groundwater and surface water flow and groundwater quality.

Groundwater in thin alluvial aquifers exists under unconfined conditions and is in direct hydraulic connection with deeper aquifers. Vertically downward hydraulic gradients drive circulation of oxygen-rich shallow groundwater down to deeper aquifers over much of the Pueblo. Vertically upward hydraulic gradients adjacent to the Peñasco horst provide a mechanism for localized upward movement of deep circulating groundwater that degrades water quality in shallow aquifers adjacent to and downstream of the horst. Regionally high concentrations of dissolved solids, chloride, and silica are observed adjacent to the horst.

Perennial streams on the Pueblo are generally gaining streams, collecting a portion of their flow from the shallow alluvial aquifers. However, flows in the Rio Santa Barbara and Chamizal Creek appear to change from gaining to losing as they cross the downstream edge of the Peñasco horst, where thickness and transmissivity of the aquifer increase.

Infiltration of oxygen-rich surface water near Chamisal may contribute to chemical conditions favorable for mobilizing naturally occurring uranium to concentrations reaching the health-based drinking water standard (30 μ g/L). Elevated concentrations of naturally occurring arsenic and fluoride are attributed to groundwater originating deep within mineralized crystal-line rocks of the Peñasco horst or circulating through volcanic-rich sediments in the Picuris Formation. Both arsenic and fluoride exceed maximum contaminant levels for drinking water, and together with uranium present a significant public health concern.

Shallow aquifer contamination from waste related contaminants does not presently pose a significant health concern. Excess iron and manganese in one well (PW-65) accompanied by an extremely low nitrate concentration indicate conditions that may be associated with septic tank effluent or merely reflects natural, local chemical conditions in the aquifer. Chemical testing for additional constituents would be required to further clarify the source. Based on

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observations of naturally occurring contaminants in excess of EPA drinking water standards, several recommendations are presented:

- 1) Additional Testing. The sporadic occurrence of elevated levels of uranium, fluoride, and arsenic pose a significant health concern. Sampling of additional wells is recommended to further define groundwater quality and identify problems within the Pueblo boundary.
- 2) Long-Term Monitoring. A long-term monitoring program is recommended to track water-quality trends and contaminant migration in response to pumping of large community supply wells.
- 3) Public Education. Rural residents, particularly in the communities of Chamisal and Vadito, should be advised of potential health concerns and methods of addressing water quality problems.
- 4) Water Treatment. In instances of significant drinking water impairment, installation of on-site water treatment units or alternative water sources should be considered.

I. INTRODUCTION

Background

rom October 2000 through June 2002, the New Mexico Bureau of Geology and Mineral Resources (the "Bureau") conducted geologic mapping on the Pueblo of Picuris (the "Pueblo") as part of a threephase hydrogeologic project for the Pueblo. This work produced a geologic map of the Picuris reservation, and results were summarized in a Phase 1 Final Technical Report dated June 2002. From June 2003 through December 2004, the Bureau continued work on the hydrologic and water quality aspects of the project, which comprised phases 2 and 3 of the study. These phases of work included a well and spring inventory, water level measurements, assessment of the quality of groundwater and surface water, evaluations of the subsurface hydrogeology of aquifers and the interaction between groundwater, surface water and potential sources of contamination in the vicinity of the confluence of the Rio Pueblo de Picuris, Rio Santa Barbara, Rio Chiquito, and Chamizal Creek. This report summarizes the data collected and findings of these final two phases of the hydrogeologic assessment of groundwater and surface water resources on the Pueblo of Picuris.

Significance

The tribal lands of the Pueblo of Picuris, located in Taos County, New Mexico (Figure 1), encompass the Pueblo and a number of adjoining communities, including Peñasco, Vadito, Chamisal, and Rio Lucio. Land uses within the watershed include recreation, farming and ranching, silviculture and rural-community-related activities. Residents of the Pueblo of Picuris and adjunctive rural areas use groundwater produced from private domestic wells, the depths of which range from approximately 15 to 300 ft. The communities of Chamisal, Peñasco, Rio Lucio, Rodarte and Vadito supply domestic water to village residents from groundwater pumped by mutual domestic water consumer associations (MDWCAs) operating under oversight of the New Mexico Environment Department (NMED). The

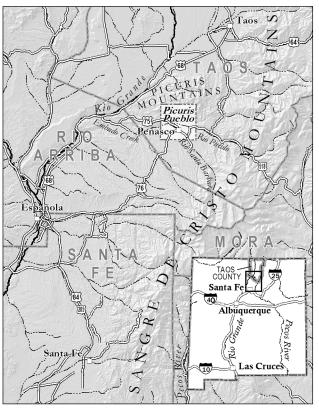


Figure 1. Location Map for Picuris Pueblo

region's population depends largely on on-site septic systems or pit latrines to dispense of household waste and waste water. Systems of special concern include those older than 20 years, not on a regular cleaning schedule, situated on smaller lots or serving multiple homes, and located adjacent to streams or ditches, on thin or excessively permeable soils, or close to bedrock or the water table. A community waste water and sewage collection and treatment system servicing approximately 55 dwellings at Picuris Pueblo (Tanimoto and Good, 1982) is located adjacent to the banks of the Rio Pueblo.

Because of the general lack of water and waste treatment facilities and the local geologic and hydrologic conditions, the potential exists for waste water to contaminate shallow groundwater and affect the quality of domestic drinking water. A close hydrologic connection between surface water and groundwater



could also potentially facilitate the movement of wasterelated or naturally occurring contaminants between streams and shallow aguifers. No previous hydrogeologic evaluations or water quality assessments have addressed these environmental concerns on tribal lands.

Scope and Objectives

This study was designed to provide a hydrogeologic framework for the Picuris Pueblo and to assess the general quality of waters in streams, springs, and the interconnected shallow groundwater system. The Pueblo is situated along the Rio Pueblo de Picuris just upstream of its confluence with the Rio Santa Barbara in southern Taos County, and lies almost entirely within the Peñasco 7.5-minute quadrangle. The study area comprises all lands of the Pueblo of Picuris, which incorporates the Pueblo and adjacent rural communities of Chamisal, Peñasco, Rio Lucio, and Vadito. Areas outside of tribal lands and communities immediately upstream of the Pueblo (Llano, Rodarte, and Sipapu) are not included in the project area. The primary objectives of this study are: (1) establish the hydrogeologic framework for the area based on previous geologic mapping, new water level measurements and subsurface geologic interpretation; (2) conduct a water quality assessment of groundwater, surface water, and springs; and (3) evaluate the interconnection between shallow groundwater, surface water, and potential sources of contamination. Specific tasks included:

- 1) Compilation of existing well, water level, and water quality data.
- 2) Field-check of well locations and measurement of water levels.
- 3) Construction of a water-table (potentiometric) surface map and assessment of groundwater flow direction, particularly in the vicinity of perennial streams and water courses.
- 4) Collection of water samples from streams, springs, and shallow groundwater wells and evaluation of general water quality including ion chemistry, trace element chemistry and microbiological contaminants.
- 5) Interpretation of the interconnection between shallow groundwater, surface water, and potential sources of contamination.

6) Provide conclusions and recommendations regarding the status of the Pueblo's water quality and long-term needs for resource management.

The following deliverables are included in this report: (1) a generalized geologic map, cross sections and hydrostratigraphic unit descriptions, (2) an inventory of water wells in the study area with well information and well records, (3) a record of water level measurements, a water-table (potentiometric) surface map showing elevation of the water-table surface and groundwater flow direction, and a depthto-water map, (4) a catalog of water chemistry data from wells, streams and springs, chemical concentration maps, and relative abundance diagrams, (5) a synthesis and interpretation of geologic, hydrologic and water quality data, and (6) this summary report that provides general discussion, conclusions, and recommendations.

Previous Work and Existing Data

Previous geologic studies conducted in the area were summarized in Bauer and Kelson (2002) as part of the phase one final technical report, and a detailed geologic map of the Peñasco 7.5-minute quadrangle was produced as part of that work. A surface water assessment of the Embudo watershed, completed in 1998 as part of a county-wide study completed for the New Mexico Interstate Stream Commission (Johnson, 1998), provides a quantitative assessment of the surface water supply in the Rio Embudo drainage, including the Rio Pueblo de Picuris and the Rio Santa Barbara. A special water quality survey of the Rio Pueblo, Rio Santa Barbara and Embudo Creek, completed in 1994 by the New Mexico Environment Department Surface Water Quality Bureau, provides baseline water quality data for the three major stream reaches evaluated during this study (Smolka, 1996). Data and information from various other small-scale, reconnaissance studies and surveys concerning community water supply systems and well inventories have been incorporated into this report, including: (1) Tanimoto and Good, June 1982, Annual survey, community water supply system #3500113 for Picuris Pueblo water system, Albuquerque Area Indian Health Service, USPHS, unpublished agency report, and (2) Taos Soil and Water Conservation District, 2002, unpublished well inventory data from Chamisal and Peñasco.

II. METHODS

multi-disciplinary approach integrating geologic, Ahydrologic, and geochemical data was adopted for this study. Major controls on the movement of groundwater in the subsurface include the nature of the rock material comprising geologic formations and aquifers and the geologic structures such as faults and folds that break, bend, and displace those formations. The geologic framework for this study is provided by Bauer and Kelson (2002) and their 1:24,000 geologic map and cross sections of the Peñasco 7.5-minute quadrangle. A generalized version of the Peñasco geologic map showing the major rock units that form shallow aguifers is attached as Plate 1. Geologic cross sections showing the vertical dimension of the subsurface are shown on Plate 2a-c. Detailed descriptions of the generalized map units are included in Appendix A. All interpretations regarding subsurface geology and aguifers were derived from a combination of surface geologic mapping (Bauer and Kelson, 2002; Bauer et al., 2005; Aby et al., 2004; Aby and Koning, 2004; Steinpress, 1980) and lithologic information noted on well records obtained as part of the well inventory.

Well and Spring Inventory

Much basic information concerning wells, aquifers and subsurface geology is available from well records on file with the New Mexico Office of the State Engineer (NMOSE). A well survey was conducted recovering approximately 62 NMOSE well records that were matched to sites in the study area. Springs, which are sites where groundwater intersects the land surface, were also located in the field. The resulting well and data inventory and existing NMOSE well records are included in Appendix B. The well and spring database (Table B-1) includes fields for site identification numbers (referenced on maps and in text), site type (well, spring or stream), site name, NMOSE file number (for wells only), UTM coordinates in North American datum (NAD) 83, site elevation, well depth, depth to water, date of water level measurement, and geologic formation where the well is completed. UTM coordinates for each location were obtained with a hand-held GPS unit and elevations at

land surface were derived from a 10-meter digital elevation model (DEM). The locations of wells, springs and stream sites that were field checked, measured or sampled as part of this study are shown on Plate 3.

Groundwater Level Measurements and the Water-Table Surface Map

A water-table map, also referred to as a potentiometric surface map, depicts the distribution of hydraulic head in an aquifer system. To construct a watertable surface map, measurements of hydraulic head, obtained by measuring the depth at which water stands in wells and the location of springs, are converted to elevation and lines or contours are drawn that connect points of equal hydraulic head. These lines, called equipotential lines, produce a map of the altitude, slope, and shape of the groundwater surface and illustrate flow conditions and stresses on the aquifer. The depth to water in the Picuris study area was measured at 29 domestic well sites using a graduated steel tape or a Solinst electric water level tape. Additional static water levels reported by well owners or noted on well records were screened for accuracy and included in the database. The location and elevation of springs and stream-channel elevations, which represent points on the water-table surface, were also used to constrain the water-table surface. A total of 78 water level elevations (Appendix B, Table B-1) were used to manually contour the water-table surface, which represents shallow groundwater flow conditions in the Picuris area in summer and fall 2002 (Plate 4). In the final step of analysis, the watertable surface was subtracted from the 10-m DEM surface using ArcGIS, generating a derivative surface that illustrates depth to groundwater in the study area and defines environmentally sensitive areas where the depth to water is less than 20 ft (Plate 5).

Water Chemistry Sampling and Analysis

Thirty water samples were collected from domestic wells selected on the basis of depth, owner



participation and access, and uniform sample coverage across the study area. Because of the health-based objectives of this study and the need to characterize groundwater in the shallow aquifer, wells were sampled from a tap or line that did not pass through a filter or treatment system. The line was flushed with water for 3 to 5 minutes before the sample was taken in accordance with sample collection protocols of the New Mexico Department of Health Scientific Laboratory Division (NMDH SLD) for water microbiology. The well locations were representative of the variety of geologic and anthropogenic conditions in the study area (in all geologic formations, in densely to sparsely populated areas adjacent to stream courses, in floodplains, and in interstream uplands). Well water sampling occurred from December 2003 to May 2004.

Nine surface water grab samples were collected in February 2004 from various locations on the Rio Pueblo, the Rio Santa Barbara, the Rio Chiquito, and Chamizal Creek (see Plate 3). Water samples were collected from the Rio Pueblo above Telephone Canyon, above and below the Pueblo waste water treatment plant, and above the Rio Embudo confluence. Samples

were col lected from the Rio Santa Barbara above the Rio Chiquito and above the Rio Embudo confluence. Additional samples were collected from the Rio Embudo, Rio Chiquito and Chamizal Creek. Hydrographs for the Rio Pueblo and the Rio Santa Barbara (Figure 2) indicate baseflow conditions existed at the time of sampling; that is, water in the stream at the time of sampling was sustained only by discharge of shallow alluvial groundwater as opposed to snowmelt or surface runoff. Four springs with active discharge (Sun Canyon Spring, Dogwater Spring, Aspen Spring, and an unnamed spring in township 23 north, range 11 east, section 36) were also sampled in May 2004.

All water samples were analyzed for major anions, cations, and trace metals by the New Mexico Bureau of Geology and Mineral Resources water chemistry lab in Socorro, New Mexico. Samples were tested for the presence or absence of total coliform and a fecal coliform level (number of bacteria per 100 ml) by the NMDH SLD, Albuquerque, New Mexico. One field duplicate was also collected and reproducible results (within 5%) were obtained.

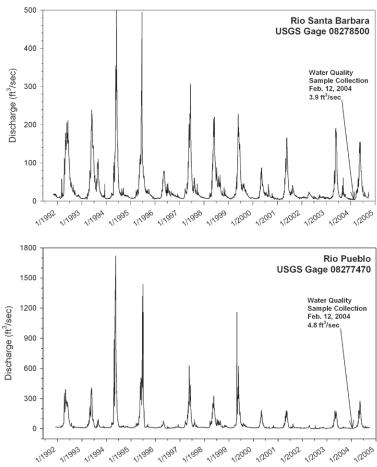


Figure 2. Hydrographs for Rio Santa Barbara and Rio Pueblo.

III. RESULTS

Hydrostratigraphic Units and Description of Aquifers

A great variety of geologic formations ranging from Precambrian crystalline rocks and Paleozoic sedimentary strata to much younger Tertiary and Quaternary volcaniclastic and alluvial deposits occur in the study area (Plates 1 and 2; Appendix A). Most shallow groundwater resources are drawn from younger rock units, including the Tertiary Picuris Formation (Tp), Santa Fe Group sediments (Ttd) and Quaternary alluvial deposits (Qa, Qt and Qf). Older crystalline rocks (Xu) and sedimentary strata tend to be well consolidated by pressure and mineral cements, which reduce their permeability (capacity of a porous rock to transmit water) and suitability as aguifers. More information on the rocks of the Picuris Mountains can be found in Bauer (1993). The following paragraphs describe the geologic units that form the major aquifers. Interpretations of the geologic formations where specific wells are completed are included in Table B-1, Appendix B (where sufficient data exist). Subsurface geologic interpretations are based on geologic maps, cross sections, and geologic information from well records.

Quaternary Alluvial Deposits (Qa, Qt, and Qf). Alluvial deposits are comprised of mixtures of gravel, sand, silt and clay deposited by streams along stream courses and floodplains, in stream terraces, and in alluvial fans at the mouths of mountain canyons. In the Picuris Pueblo study area, Quaternary alluvium (Qa) includes both stream channel and valley-floor deposits in active floodplains and young alluvialfan and stream terrace deposits along floodplain margins. The thickness of these young (less than about 2 million years in age) deposits ranges from about 2 to 25 ft. Older stream terrace (Qto) and alluvial fan (Qf) deposits, consisting of poorly sorted mixtures of silt, sand, pebbles, and boulders, also occur outside the margins of the active floodplain and typically range from 5 to 40 ft in thickness. These relatively young, thin, permeable sediments act as local aquifers, primarily along stream courses where water levels are less than about 20 ft. Wells completed in shallow

alluvial deposits typically range from 20 to 30 ft in depth with water levels of 3 to 13 ft below land surface and reported yields of 10 to 20 gallons per minute (gpm). Many deeper wells intersect these shallow alluvial aquifers and extract a portion of their yield from the shallow (less than 20 ft) zone. Shallow alluvial aquifers are at greatest risk for degradation from land-use and waste management activities, and microbiological contaminants.

Tertiary Dixon Member of Tesuque Formation (Ttd). South of the Rio Santa Barbara and Rio Pueblo in the southern part of the Peñasco quadrangle, the relatively thin Quaternary deposits are underlain by thick Miocene Santa Fe Group sand and gravel deposits, specifically the Dixon Member of the Tesuque Formation (Ttd). These alluvial fan and braided stream deposits consist of 55% sandstone, 30% conglomerate, and 15% mudstone (Steinpress, 1980; Bauer and Kelson, 2002) and are approximately 11.8 to 13 million years old (Aby and Koning, 2004). Where exposed, much of this sediment is described as "loose to slightly friable" or "locally cemented", indicating that the original, moderate permeability of the unit has not been significantly reduced. The Dixon Member forms the primary aquifer near the southern corners of the study area, near Chamisal and south and east of Peñasco. Exposed thickness varies from 250 to 330 ft, but could be considerably thinner where the unit has been eroded. Wells completed exclusively in the Dixon Member range from 60 to 170 ft in depth, have water levels of 8 to 70 ft below land surface (depending on location along the mountain front) and reported yields of 5 to 25 gpm.

Tertiary Picuris Formation, Upper Volcaniclastic Member (Tpu). Much of the terrain in the Rio Pueblo and Rio Santa Barbara valleys is underlain by the Picuris Formation, which lies stratigraphically below the Dixon Member of the Tesuque Formation and is divided into lithologically distinct mappable members. South of the Picuris Mountains, the upper volcaniclastic member of the Picuris Formation (Tpu), which has a reported age of 19.8 to <25.9 million



years, consists of red to purple silty, sandy pebble conglomerates, commonly containing more than 50% red to orange, mudstone, siltstone and sandstone (Aby et al., 2004) (Figure 3). The total thickness of the upper volcaniclastic member is estimated to range from 400 to 1100 ft, but is much thinner where the unit is eroded. Near Chamisal, the base of the upper member is a thick (35 ft or greater), well-cemented bed of cobble conglomerate. The upper contact is also placed at the top of the highest conglomerate bed that is dominated by volcanic clasts. The volcaniclastic member generally consists of either fine-grained sediments with relatively low permeability or coarsegrained gravels with primary permeability dramatically reduced by the presence of heavy cements.

Because of its wide extent below and between the river valleys and its accessibility, the volcaniclastic member forms a major aquifer. Productivity, however, is variable and reflects the variability and heterogeneity of the sediments themselves. Wells completed in the upper member (Tpu) typically range from 80 to 185 ft in depth, although depths up to at least 265 ft are reported. Water levels range from 20 to 80 ft below land surface and the average yield is 14 gpm. In Peñasco, large production wells completed in this aquifer unit have reported yields up to 100 gpm, considerably larger than reported for the average domestic well.

Tertiary Picuris Formation, Middle Tuffaceous Member (Tpm and Tpmc). The middle tuffaceous member of the Picuris Formation (Tpm) is estimated to range in age from about 23 to 28 million years (Aby et al., 2004) and to be up to 400 ft thick. It primarily consists of light buff to yellowish colored silts, sands, and clays that have a significant component of primary volcanic ash and pumice. These fine-grained volcanic sediments are interbedded



Figure 3. Photograph of the top of Hill 7551' on western Picuris Pueblo, showing the contact between the white-togray middle tuffaceous member (Tpm) and the reddish upper volcaniclastic member (Tpu) of the Picuris Formation.

with buffand black-colored, channel-fill conglomerates and pebbly, gravelly sandstone. The uppermost part of the middle tuffaceous member contains a 30to 115-foot-thick, heavily cemented, light-colored bed of sandstone to fine cobble or cobble-boulder conglomerate (Tpmc in Plates 1 and 2) (Figure 4). The middle tuffaceous member mantles the foothills of the Picuris Mountains north of the Rio Pueblo, and extends south and west of Vadito across the drainage divide to the Rio Santa Barbara. Because it is exposed across less developed areas than other aquifer units, the middle tuffaceous member constitutes a relatively minor aquifer in the Rio Pueblo Valley. Even more than the upper volcaniclastic member of the Picuris Formation, this middle member is extremely variable and heterogeneous in the nature of its sediments and aquifer properties. The fine-grained, volcanic-rich portions of the unit (Figure 5) often exhibit relatively high porosities and storage

capacities, but do not necessarily yield water readily to wells (low permeability). Wells completed in the tuffaceous member (Tpm) range from 35 to nearly 300 ft in depth, with water levels reported at 10 to 160 ft below land surface. Well yields are also highly variable, ranging from less than 2 gpm in the clay-rich zones to 30 gpm or more in fractured portions of the cemented conglomerates.

Hydrologic Effects of Faults and Structural Features. Faults exert significant control on the occurrence and movement of water in the study area. Faults can act as barriers, non-barriers, or conduits to groundwater flow depending on whether the fault zones are less permeable, similarly permeable, or more permeable than the adjacent aquifers. Faults with significant offset can also affect cross-fault permeability by truncating or locally reducing the thickness of permeable aquifers, or by juxtaposing formations with



Figure 4. Photograph of the middle tuffaceous member of the Picuris Formation on the southern slope of Vadito Hill. The ledge-forming beds (Tpmc) are silicified sandstone. The underlying, less-resistant rocks (Tpm) are sandstones with volcanic clasts.



dramatically different permeability. Faults can also influence if and where streams gain or lose a portion of their flow from or to underlying aquifers. Three major and several minor faults, including the Picuris-Pecos fault system, have been mapped in the vicinity of the Picuris Pueblo (Plates 1 and 2). The Picuris-Pecos fault system, a large fault zone with a complex history, has been traced for more than 50 miles across the state, from the northern Picuris Mountains south of Taos, to near the village of Canoncito east of Santa Fe, and southward into the Estancia Basin (Bauer and Kelson, 2004). This north-south trending fault system and a number of its subsidiary faults cut through Precambrian crystalline rocks and Paleozoic sedimentary strata in the Picuris Mountains then continue southward across the Rio Pueblo and Rio Santa Barbara through younger Tertiary Picuris and Tesuque Formations. Parallel to sub parallel sets of northeastsouthwest faults associated with the Picuris-Pecos

fault system bound adjoining up-thrown (horst) and down-dropped (graben) blocks that are oriented perpendicular to directions of regional groundwater and surface water flow. The Peñasco horst, a major up-thrown block of Precambrian crystalline rock, trends northeast from Chamisal across the Rio Santa Barbara and Rio Pueblo and into the Picuris Mountains between Vadito and the Pueblo de Picuris. Geologic cross sections A-A' and B-B' (Plate 2a-b) best illustrate the structure of the Peñasco horst and it's location in the subsurface. At Chamisal, the surface of the Peñasco horst is estimated to lie between 250 and 300 ft below land surface and at the Rio Santa Barbara southeast of Rio Lucia the horst lies just below the modern floodplain deposits, a depth of about 30 or 40 ft. The Peñasco horst influences both groundwater and surface water flow and groundwater quality in the study area. Effects of this geologic structure are discussed further in following sections.

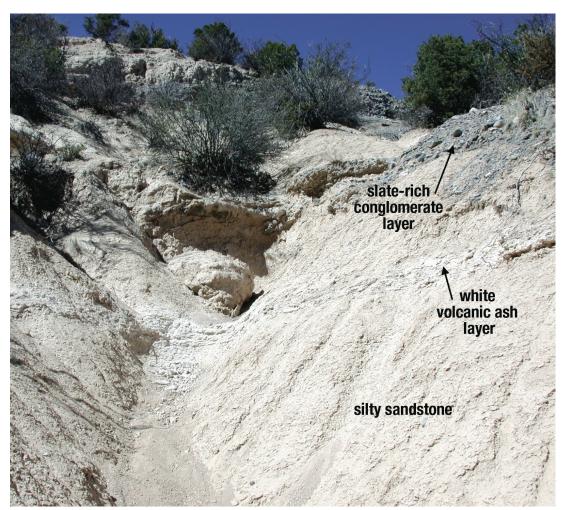


Figure 5. Photograph of the middle tuffaceous member (Tpm) of the Picuris Formation exposed on the southeastern slope of Hill 7551' in the western Picuris Pueblo. Although most of Tpm is volcaniclastic silty sandstone, the unit contains interbeds of conglomerate and volcanic ash.

Groundwater and Surface Water Conditions

The water-table surface map (Plate 4) illustrates the elevation, slope, and shape of the water table and denotes flow conditions, groundwater and surface water interactions, and stresses on the aquifer. Shallow, horizontal groundwater flow is driven by the gradient of the water-table surface, and it generally moves in the direction of maximum hydraulic gradient, which is the direction perpendicular to the contours (lines of equal hydraulic head) in Plate 4. (The hydraulic gradient corresponds to the drop in hydraulic head per unit horizontal distance, and is expressed as a dimensionless number, for example feet per feet.) Arrows showing direction of horizontal groundwater movement have been added to help the reader interpret the water-table map.

Groundwater exists under shallow, unconfined conditions in thin Quaternary alluvial deposits beneath the active floodplains of the Rio Pueblo, Rio Santa Barbara, Rio Chiquito and Chamizal Creek. Depth to groundwater in the valleys is often less than 20 ft (Plate 5), causing these aquifers to be susceptible to degradation by pollutants associated with land use and waste management. These shallow, saturated zones are in direct hydraulic connection with deeper zones of saturation found within older Tertiary sedimentary units (Dixon Member of the Tesuque Formation and upper and middle members of the Picuris Formation). Deeper aquifers display both unconfined and semi-confined conditions. Evidence also indicates that vertically downward hydraulic gradients are prevalent. Water level (hydraulic head) data from adjacent shallow and deep wells generally indicate lower water levels at greater depths, supporting the concept that a very strong vertically downward gradient prevails, specifically in the vicinity of Peñasco (see PW-11b and PW-42; PW-28 and PW-32), northeast of Chamisal (see PW-8 and PW-7), and near the confluence at Picuris Pueblo (see PW-4 and PW-5). The prevalence of downward gradients in the area indicates that shallow groundwater and connected surface water are actively moving to deeper saturated horizons. An exception is observed in the vicinity of the Peñasco horst south of Rio Lucio where water level data from adjacent wells PW-13b and PW-23 suggest that a vertically upward gradient exists. This localized upward flow of groundwater is likely caused by impermeable crystalline rocks in the Peñasco horst located at a very shallow depth and dramatic thinning of the overlying Picuris Formation. In addition, faults bounding the Peñasco horst may impede the flow of

groundwater. Both conditions have the effect of forcing deep groundwater up toward the surface.

In general, shallow groundwater flows southsouthwest from the Picuris Mountains and northwest through the Rio Santa Barbara and Chamizal drainages into the Rio Pueblo valley. Shallow groundwater also flows parallel or subparallel to the major stream channels. Horizontal hydraulic gradients are relatively uniform over much of the area, although small variations do exist. Changes in the hydraulic gradient reflect changes in topography and in aquifer properties, specifically the permeability of the aquifer materials. Generally speaking, the gradient of the watertable surface is about .01 to .02 in the Rio Pueblo valley and .03 to .04 in the Rio Santa Barbara and Chamizal valleys. A higher hydraulic gradient (larger drop in hydraulic head per unit distance) exists in the foothills of the Picuris Mountains (.085) and across the northwestern edge of the Peñasco horst (0.3). The ten-fold increase in the water-table gradient in the vicinity of the Peñasco horst between Chamisal and Rio Lucio must correspond (according to Darcy's law of groundwater flow) with a ten-fold decrease in aguifer permeability at that location, suggesting that the fault bounding the northwest edge of the bedrock block has a reduced permeability and is attenuating the movement of groundwater at that location.

The shape of the water-table surface in the vicinity of streams also provides evidence of the interchange between surface water and groundwater and the gaining or losing nature of flow in the stream channel. Contours of water-table elevation (Plate 4) in the immediate vicinity of a stream indicate a gaining stream by pointing in an upstream direction, and indicate a losing stream by pointing in a downstream direction where they cross a stream channel. In a gaining stream, groundwater discharges into the stream channel, sustaining stream flow. This is the case along the Rio Pueblo within the study area, and along the Rio Santa Barbara and Chamizal Creek in the southern part of the study area. In a losing stream, water moves out of the stream channel and into the aquifer, thus providing recharge to the aguifer at the expense of flow in the stream channel. This is the case along Chamizal Creek downstream from the village of Chamisal, and along the Rio Santa Barbara southeast of the village of Rio Lucio. Flow in the Rio Santa Barbara and Chamizal Creek changes from gaining to losing across the downstream edge of the Peñasco horst, as the thickness and transmissivity of the aquifer increase dramatically (see geologic cross sections A-A' and B-B', Plate 2),



the water table drops, and stream flow seeps into the underlying aquifer.

The shape of the water-table surface is fairly uniform and no pumping depressions appear in the vicinity of MDWCA pumping wells. This suggests that groundwater development has not depleted the aquifers and does not appear to have significantly altered the water table from predevelopment conditions.

Water Quality

Results of water quality sampling from streams, springs, and shallow groundwater indicate that the quality of surface water and groundwater in the study area is generally good to excellent. Water samples were analyzed for ion chemistry, trace element chemistry and microbiological contaminants. The chemical and microbiological characteristics of surface water and groundwater provide information on the movement of water through the aquifer, the interconnection between surface water and groundwater, and whether the surface and shallow water resources may be affected by waste management or land-use activities or by naturally occurring contaminants. Results of chemical analyses are shown in Appendix C, Tables C-1, C-2, C-3, and C-4. Laboratory sheets from the New Mexico Bureau of Geology and Mineral Resources water quality lab for ion and trace element chemistry and from the New Mexico Department of Health Sientific Laboratory Division for total coliform and fecal coliform are also included in Appendix C.

Water Quality Standards. Water quality standards are established by various federal, state and tribal agencies with the objective of protecting public health and maintaining the quality of surface water and/or groundwater for designated uses. Standards applicable to surface waters in the Rio Pueblo and Rio Santa Barbara have been established by the New Mexico Water Quality Control Commission (NMWQCC, 2002a, 2002b). Water quality standards adopted by the Pueblo in May 1995 and revised in 2000 (Picuris Pueblo, 2000) apply to all waters within the boundaries of the Pueblo and consist of numeric standards specific to designated uses and an antidegradation policy. Designated uses are recharge of domestic water supply, fish culture, high quality coldwater fishery, irrigation, livestock and wildlife watering, municipal and industrial water supply and primary recreation (Picuris Pueblo, 2000; Smolka, 1996). Drinking water standards in the form of maximum contaminant levels (MCLs) established by U.S. Environmental Protection

Agency (USEPA) also apply to the study area. The Pueblo of Picuris has authorization for the purposes of the federal Clean Water Act, along with USEPA, to apply water quality standards. Water quality results for groundwater (Appendix C) are compared to USEPA MCLs, results for surface water are compared to Picuris Pueblo designated-use standards (Picuris Pueblo, 2000), and results for spring water are compared to Picuris Pueblo general standards (Picuris Pueblo, 2000) and, for the sake of discussion, to New Mexico State standards (NMSS) for groundwater (NMWQCC, 2002b).

Surface Water Quality. During the period of May 2, 1994 through February 22, 1995, NMED conducted a special water quality survey of the Rio Pueblo, Rio Santa Barbara and Embudo Creek (Smolka, 1996). Nine sampling stations from the headwaters to the confluence with the Rio Grande were visited on five occasions for water quality and biological assessments; five of those stations are located within or immediately upstream of the study area and provide valuable baseline data. Results from Smolka (1996) indicated that water quality on the Rio Pueblo and the Rio Santa Barbara was "quite good", based on their comparison of results to water quality standards for interstate and intrastate streams in New Mexico. Both streams were clear, highly oxygenated and slightly alkaline. On average, each contained low levels of nutrients, metals and dissolved inorganic chemicals. The concentrations of total dissolved solids increased slightly in a downstream direction, independent of the sampling season. Concentrations at each site during the summer and fall seasons were double those taken during winter-spring low-flow conditions. Ten water quality standards were exceeded on the Rio Pueblo and eight standards were exceeded on the Rio Santa Barbara. The type and number of deviations (from state standards) on the Rio Pueblo included:

- Site 3, Rio Pueblo below Sipapu and above Placitas phosphorus (1), turbidity (1), chronic aluminum (1), and fecal coliform (1);
- Site 4, Rio Pueblo at Highway 75 bridge above confluence with Rio Santa Barbara temperature (1 marginal), phosphorus (1), chronic aluminum (1), and fecal coliform (1).

The type and number of deviations on the Rio Santa Barbara included:

• Site 5, Rio Santa Barbara at upper Santa Barbara campground – phosphorus (1 marginal), chronic aluminum (1);

• Site 6, Rio Santa Barbara upstream of confluence with Rio Pueblo – temperature (2), conductivity (2), chronic aluminum (1), and fecal coliform (1).

The February 2004 sampling event conducted during this study did not duplicate the entire list of analyses performed by NMED in the 1994 special water quality survey (Smolka, 1996); specifically, no tests of turbidity, temperature, dissolved oxygen (DO), ammonia, total nitrogen, or tin were conducted in 2004. For the remaining analyses, two minor deviations from Picuris Pueblo designated-use standards were noted.

The location and type of surface water quality deviation include:

- PSW-4, Rio Pueblo above the waste water treatment plant, specific conductance; the result (312 micro Siemens per centimeter (μS/cm)) exceeded the standard (300 μS/cm) established for high quality coldwater fishery (Table C-1);
- PSW-7, Rio Pueblo below the waste water treatment plant, zinc; the result (320 μg/L) exceeded the calculated standard under acute fishery criteria (187 μg/L) (Table C-3).

The quality of spring water on the Pueblo showed minor deviations from groundwater and drinking water standards. Relatively high iron (Fe) concentrations were noted for Suncorner Spring (PS-76) and Dogwater Spring (PS-77), which exceeded either the EPA's MCL and/or the NMSS for groundwater (Table C-2). In addition, three of four springs sampled indicated a presence of total coliform, but did not exceed the count limit for fecal coliform. In general, the quality of surface waters in the Picuris Pueblo remains good to excellent and is suitable for their designated uses.

Groundwater Quality. Results of major and minor ion chemistry, trace element chemistry, and microbiological tests on water from shallow domestic wells and springs indicate that the quality of groundwater in the Pueblo is generally quite good, although several individual incidents of elevated concentrations of naturally occurring contaminants are noted. Results of major ion chemistry (Table C-1), minor ion chemistry (Table C-2), trace element chemistry (Table C-3), and microbiologic sampling (Table C-4) are tabulated in Appendix C, followed by laboratory sheets for each sample.

Major Ion Chemistry and Regional Conditions. The groundwater on Picuris Pueblo is dominated

by calcium and bicarbonate ions. However, a small number of wells produce either sodium-rich (calcium depleted) bicarbonate water or calcium-rich bicarbonate-sulfate water. One well produced sodium bicarbonate-sulfate water. The various water quality types occurring on Picuris Pueblo are illustrated in Stiff diagrams on Plate 6. Bicarbonate-sulfate groundwater is concentrated in and around Peñasco and is believed to originate from the upper Rio Santa Barbara, which drains Pennsylvanian shale and limestone containing sulfate-rich sediments. Stream water sampling by Smolka (1996) indicate that water in the Rio Santa Barbara at the upper Santa Barbara campground (station 5) is bicarbonate-sulfate in composition. Water from the Rio Santa Barbara below Peñasco (PSW-9) and the Rio Pueblo above Telephone Canyon (PSW-5) also contains a significant proportion of sulfate. Two wells with sodium-rich (calcium depleted) water (PW-4 and PW-69) are located in the Rio Pueblo valley and are completed in the middle tuffaceous member of the Picuris Formation (Tpm), which is composed of silts, sands, and clays that have a significant component of volcanic ash and pumice.

The ion chemistry of water samples is also illustrated in a Piper diagram (Figure 6), which shows three general groups of chemically similar water and a small degree of mixing. Again, the major water type is calcium bicarbonate water, which generally occurs throughout the Dixon Member and upper member of the Picuris Formation in the valleys of the Rio Santa Barbara, Rio Pueblo, and Chamizal Creek. This water type is represented by the dense cluster of data in the left-hand quadrant of the diagram. A limited group of samples plot toward the sulfate (SO₄²⁻) end of the Piper diagram and define the sulfate-rich water. This chemical zone is represented by two domestic wells (PW-31 and PW-45) near Peñasco and headwaters of the Rio Santa Barbara and Rio Pueblo (PSW-9 and PSW- 5). Groundwater in shallow wells near the Rio Santa Barbara upstream of Peñasco is expected to contain a significant portion of sulfate. A third group of sodium-rich (calcium-depleted) water is represented by two domestic well samples (PW-4 and PW-69) taken from the middle tuffaceous member of the Picuris Formation and a spring sample from Precambrian crystalline rocks in the foothills of the Picuris Mountains (PS-81) that falls midway between the sodium-rich well water and the bulk of the calcium bicarbonate samples. Extension of the main body of calcium bicarbonate samples toward the sulfaterich and sodiumrich end members indicates a small amount of mixing between these two outlying water types and the primary calcium bicarbonate zone.



The occurrence of major and minor ions and trace elements varies systematically across the study area. The distribution of various chemical components is shown in a series of contour plots of chemical concentrations (Figures 7a through 7l), which allow interpretation of the origin and evolution of groundwater. When combined with other hydrologic and geologic data, we can also make some deduction about the origin of the dissolved chemicals. High and low anomalies in chemical distribution patterns reflect the different chemistry of different aquifers

(for example, the middle member of the Picuris Formation (Tpm)), the effects of geologic structures such as the Peñasco horst or faults associated with the Picuris-Pecos fault system, or local chemical conditions. Similar patterns are repeated in the contours of several chemical ions and elements and will be discussed throughout this section.

The overall chemical evolution of ground-water along its westward flow path is expressed plainly in contours of total dissolved solids (TDS) (Figure 7a). The concentration of TDS increases in

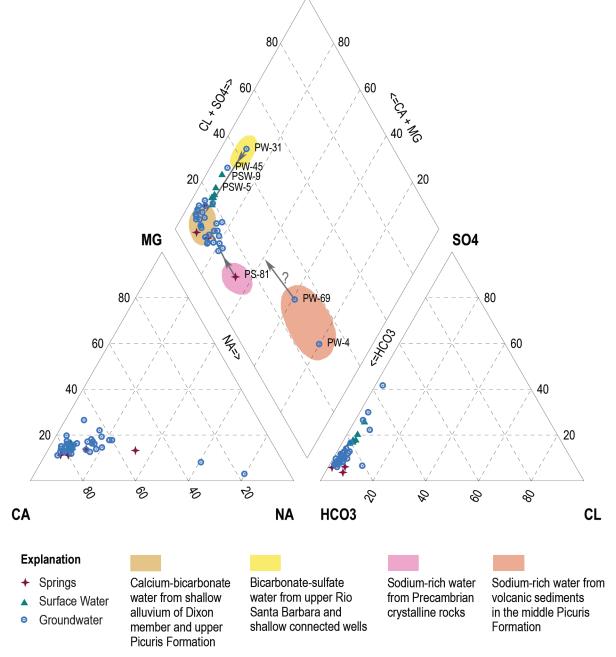


Figure 6. Piper diagram showing major ion composition and hydrochemical zones in groundwater and surface water on Picuris Pueblo

a down-gradient direction, from 164 to 485 mg/L, indicating that increasing amounts of minerals are dissolved in or added to groundwater along its flow path. The lowest concentrations of TDS in groundwater are in the upper Rio Santa Barbara valley above Peñasco. The highest concentrations occur in the Chamizal valley downstream of the village. The distribution pattern for TDS is imitated by specific conductance (Figure 7b), which is an indirect measure of dissolved mineral content or salinity. In general, groundwater in the study area ranges from low ($<250 \mu S/cm$) to medium ($250 \text{ to } 750 \mu S/cm$) salinity. Contours of sulfate concentration (Figure 7c) indicate that the highest sulfate (SO₄²⁻) ion concentrations occur near Peñasco and overlap the area of lowest dissolved solids. Again, this high sulfate, low TDS water originates from the Rio Santa Barbara drainage. The two domestic wells with sodium-rich water (PW-4 and PW-69) completed in the middle tuffaceous member of the Picuris Formation also exhibit a relatively high sulfate concentration that is likely characteristic of water from that formation. Chloride (Cl-) ion concentration ranges from 2 to 24 mg/L and concentration contours (Figure 7d) generally mimic those for dissolved solids, increasing in a downstream direction. Relatively high concentrations of both TDS and chloride coexist in several wells near and northeast of Chamisal (for example PW-38), which are situated near faults associated with the Peñasco horst, the northeast-trending shallow Precambrian bedrock structure. Chloride ion concentrations in groundwater near Picuris Pueblo are well below levels demonstrated by McQuillan (2004) to be associated with septic system contamination in New Mexico (approximately 50 to 200 mg/L), and appear to originate from natural sources.

Chloride/bromide ratios (Cl-/Br-) in groundwater also help to reconstruct the history of groundwater systems and to identify sources of pollution (Davis et al., 1998). In the study area, Cl-/Br- ratios range from 22 to 185. These values are generally within the range reported for atmospheric precipitation (between 50 and 150) and shallow groundwater (between 100 and 200), and well below the values associated with domestic sewage (between 300 and 600) (Davis et al., 1998). Groundwater from many volcanic rocks has significantly higher ratios, specifically pumice and tuff, which range from 500 to 545 (Davis et al., 1998). Near Picuris Pueblo Cl-/Brratios are significantly higher in wells coincident with horstbounding faults and the middle tuffaceous member of the Picuris Formation (Tpm) (PW-38 at 185 and PW-21 at 120).

In summary, the major ion chemistry of ground-water near Picuris Pueblo indicates that high quality, low TDS, calcium-bicarbonate and bicarbonate-sulfate water is generated in the upper watersheds and dominates shallow groundwater from the Dixon Member and the upper member of the Picuris Formation. This high quality groundwater is slightly degraded with added dissolved minerals, sulfate, and chloride originating from deeper sources in the vicinity of the Peñasco horst and by movement through the middle tuffaceous member of the Picuris Formation and older Precambrian crystalline rocks. Based on major ion chemistry, there is no indication of degradation of shallow groundwater by domestic sewage.

Minor Ion Chemistry and Regional Conditions. The distribution of minor ions nitrate (NO₃-), iron $(Fe^{2+/3+})$, manganese (Mn^{2+}) , strontium (Sr^{2+}) , and silica (SiO₂) (Figures 7e through 7i) varies systematically across the study area and exhibits local anomalies that augment general interpretation of regional chemical conditions. Elevated concentrations of nitrate, iron, and manganese are often associated with contamination from septic systems. Nitrate ion concentrations (expressed as nitrogen, N) in groundwater on Picuris Pueblo are well below the EPA MCL of 10 mg/L, but are sufficiently high to indicate oxygen-rich conditions. In anoxic conditions, nitrogen originating from septic systems exists as ammonium (NH₄⁺) or nitrite (NO₂⁻). Observed nitrate concentrations are well below those associated with septic or wastewater contamination in oxygenated conditions (McQuillan, 2004) and within the range associated with igneous rocks (Hem, 1985). The distribution of nitrate reflected in concentration contours (Figure 7e) shows a regional pattern of very low concentrations with relatively higher concentrations at specific locations near Chamisal (PW-17 and PW-51) and south of Vadito (PW-46 and PW-67), locations contiguous with the Peñasco horst and the Picuris-Pecos fault system.

Several water samples from wells and springs 19 on Picuris Pueblo contain elevated concentrations of iron and manganese, which exceed EPA's secondary or aesthetic MCL. The well identification and type of deviation are:

- PW-8, iron concentration of 0.41 mg/L exceeds the MCL of 0.3 mg/L.
- PW-28, iron concentration of 0.89 mg/L exceeds the MCL of 0.3 mg/L.



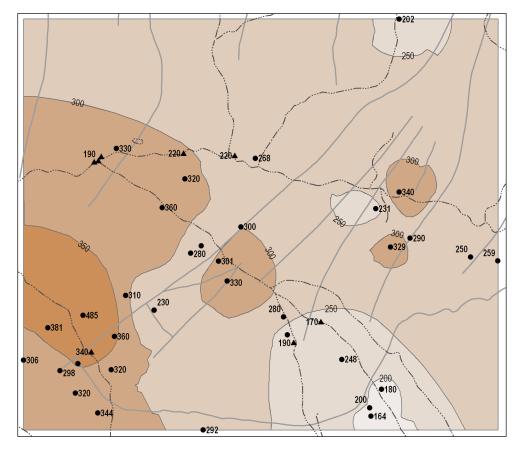


Figure 7. Chemistry concentration contours for groundwater of the Picuris Pueblo.



TDS concentration in mg/L secondary MCL = 500 mg/L

<200

200 - 250

250 - 300

300 - 350

>350

Line of equal TDS concentration 20

Well sample with TDS concentration 200

Stream sample with TDS concentration ▲ 200

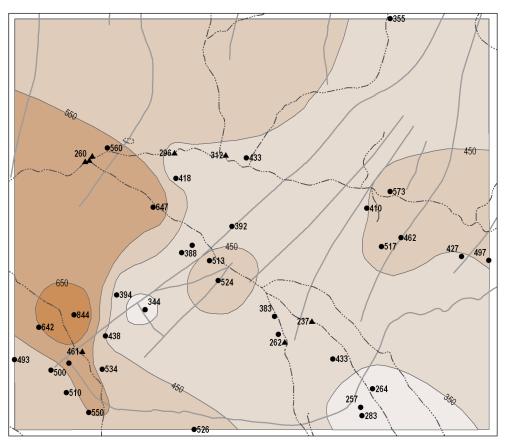


Figure 7b **Specific Conductance** (Sp.Cond)

Sp.Cond in microSiemens per centimeter (US/cm)

<350

350 - 450

450 - 550

550 - 650

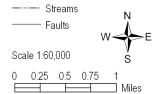
>650

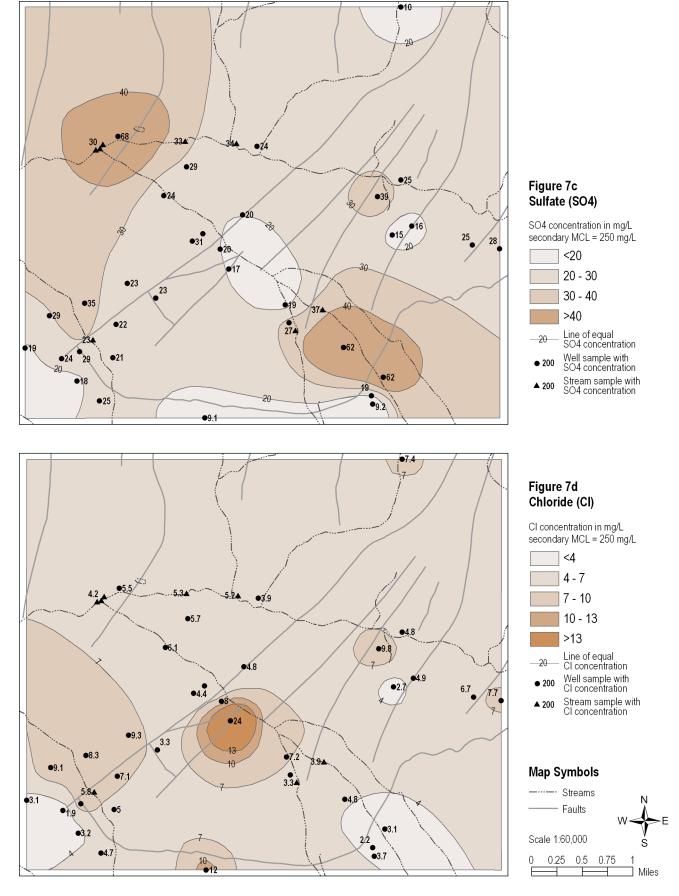
Line of equal Sp.Cond measurement

Well sample with Sp.Cond measurement

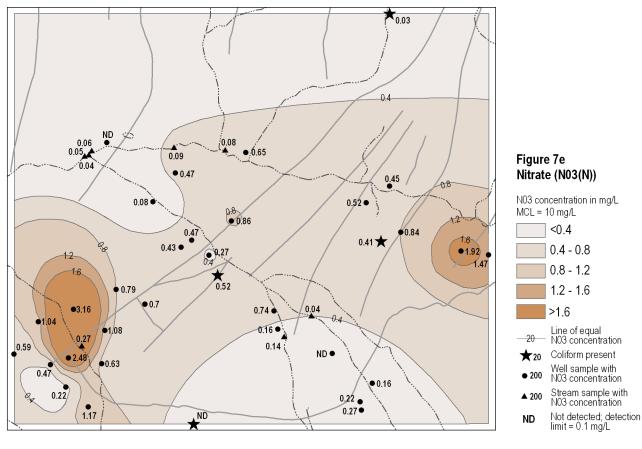
Stream sample with Sp.Cond measurement

Map Symbols









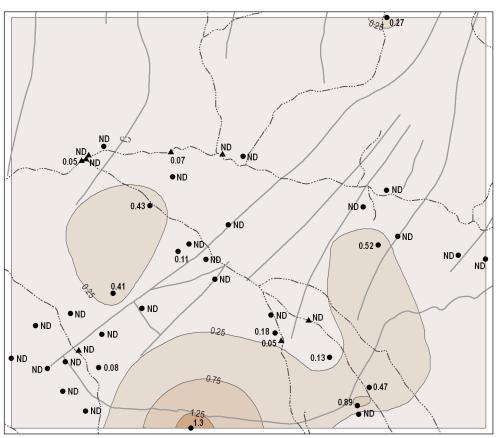


Figure 7f Iron (Fe)

Fe concentration in mg/L Secondary MCL = 0.3 mg/L

<0.25

0.25 - 0.75

0.75 - 1.25

>1.25

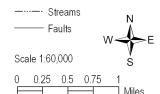
_____Line of equal Fe concentration

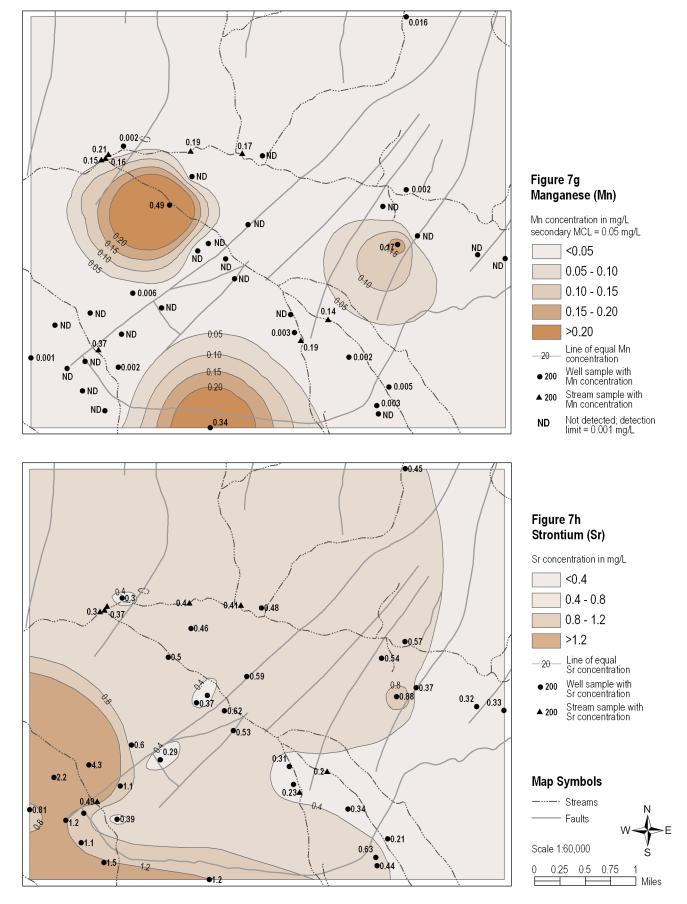
● 200 Well sample with Fe concentration

▲ 200 Stream sample with Fe concentration

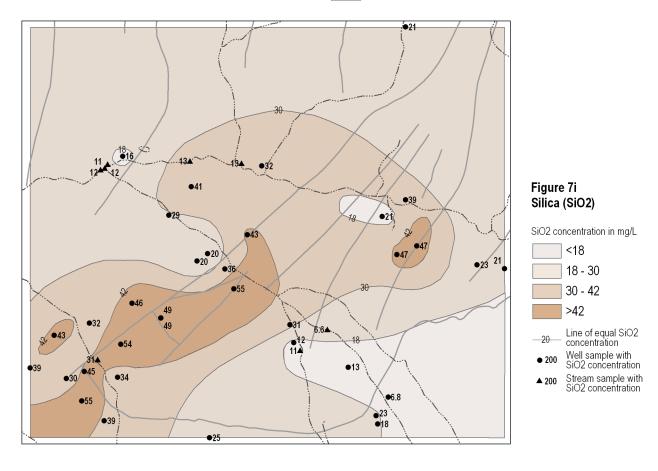
ND Not detected; detection limit = 0.05 mg/L

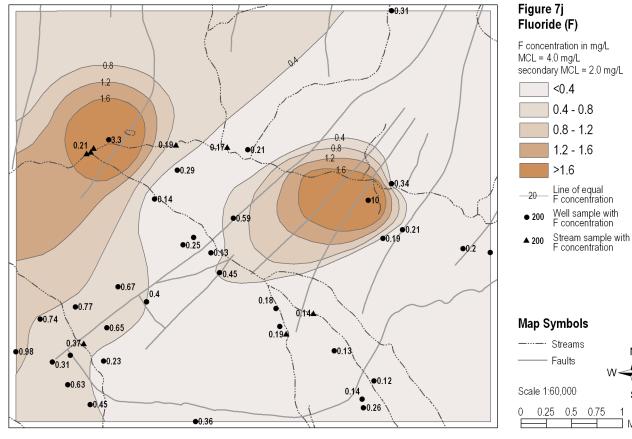
Map Symbols

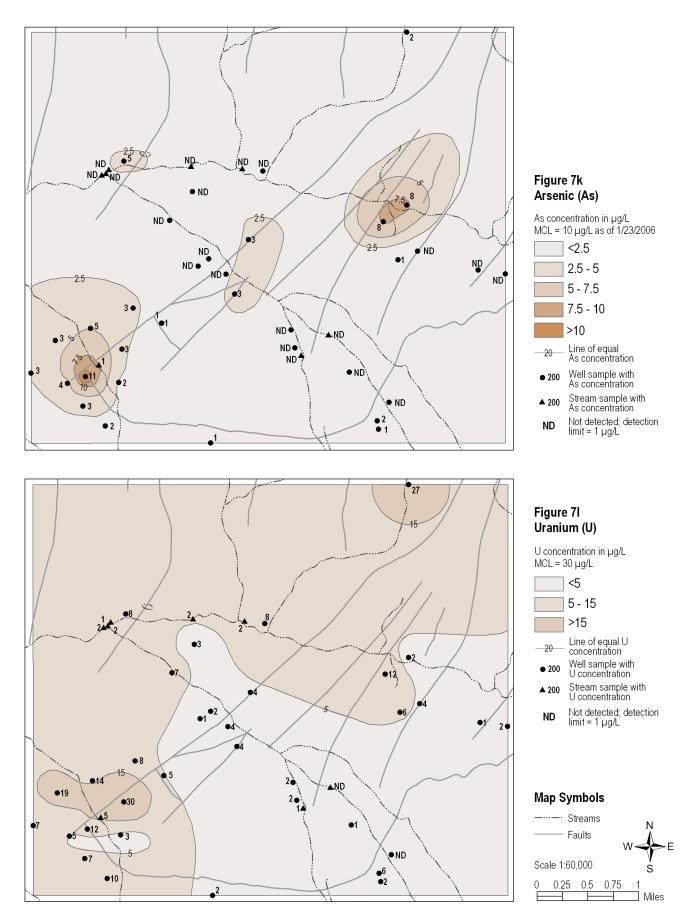














- PW-31, iron concentration of 0.47 mg/L exceeds the MCL of 0.3 mg/L.
- PW-65, iron concentration of 0.43 mg/L exceeds the MCL of 0.3 mg/L; manganese concentration of 0.49 mg/L exceeds the MCL of 0.05 mg/L.

Concentrations of iron and manganese in groundwater (Figures 7f and 7g) are also dependent on the amount of oxygen dissolved in the system. Fully aerated, oxygen-rich water should not contain more than a few micrograms per liter iron or manganese. In oxygen-poor (reducing) conditions, concentrations may increase to several milligrams per liter of iron and more than 1.0 mg/L manganese (Hem, 1985). The presence of septic-tank effluent can make groundwater even more reducing, causing elevated levels of iron and manganese (McQuillan, 2004), which often co-exist (Hem, 1985). On Picuris Pueblo, iron concentrations in groundwater are generally at or below detection (<0.05 mg/L) with limited occurrence in excess of the secondary groundwater standard of 0.3 mg/L at two springs (PS-76 and PS-77) and four wells (PW-08, PW-28, PW-31 and PW-65). Similarly, manganese concentrations are below detection (<0.001 mg/L), except at the same two springs and PW-65 where they exceed the secondary groundwater standard of 0.05 mg/L. Excess iron and manganese in PW-65 accompanied by an extremely low nitrate concentration is consistent with increased dissolution of iron and manganese from minerals in the rocks and soils under reducing or anoxic conditions. Based on current information, it is not clear whether this condition is associated with septic tank effluent or merely reflects natural, local chemical conditions in the aguifer. Chemical testing for additional constituents would be required to further identify the source.

The chemistry of the minor ion strontium is similar to that of calcium. It is most common in granitic rocks and to a lesser extent in limestone. Strontium ion concentrations on Picuris Pueblo range from 0.2 to 4.3 mg/L, with highest concentrations occurring in the Dixon Member (Ttd) and the upper member of the Picuris Formation (Tpu) in the Chamizal valley (Figure 7h). The median concentration of strontium in U.S. public water supplies is 0.11 mg/L (Hem, 1985). The relatively high concentrations on Picuris Pueblo, and specifically the Chamizal valley, are derived from weathering of granitic rocks. There are no health effects associated with strontium and no groundwater standards governing its occurrence.

Concentrations of dissolved silica in groundwater on Picuris Pueblo also originate from weathering and breakdown of silicate minerals in rocks, particularly the granitic, silicate-rich Precambrian rocks of the Picuris Mountains. Solubility of silica in natural water is primarily a function of water temperature, with increased solubility attained as water temperatures rise (Hem, 1985). Silica concentrations in groundwater on Picuris Pueblo range from 6.6 to 55 mg/L. An average reported concentration of silica in groundwater is 17 mg/L (Davis, 1964). Higher concentrations are related to rock type and temperature (Hem, 1985). The distribution of silica reflected in concentration contours (Figure 7i) shows a regional pattern of above average concentrations with significantly higher concentrations aligned in a trend contiguous with the Peñasco horst and the Picuris-Pecos fault system, suggesting that groundwater in this silica-rich zone either originated from a deep source within the Precambrian rocks or represents a mixture of deep and shallow sources.

Trace Element Chemistry and Naturally Occurring Contaminants. Several water samples from wells and springs on Picuris Pueblo contain excessive concentrations of trace elements, which are naturally occurring contaminants. Three samples exceeded EPA's primary (health based) MCL for a single contaminant and several others exceeded a secondary (aesthetic) MCL. The well identification and type of deviation are:

- PW-27, uranium concentration of 30 μg/L equals the primary MCL of 30 μg/L.
- PW-51, arsenic concentration of 11 μg/L exceeds the primary MCL of 10 μg/L.
- PW-69, fluoride concentration of 10 mg/L exceeds the primary MCL of 4 mg/L.
- PW-4, fluoride concentration of 3.3 mg/L exceeds the secondary MCL of 2 mg/L.

Events where concentrations of uranium, arsenic, and fluoride exceed or meet an EPA primary MCL, which is a health-based standard, are a significant concern. This occurs in samples PW- 27 and PW-51 near Chamisal and in PW-69 west of Vadito. Ingestion of water with elevated levels of these contaminants is associated with potential health effects. Uranium can cause kidney disease and an increased risk of cancer. Arsenic is associated with several health effects, including skin damage, problems with circulatory systems, and possibly an increased cancer risk. Ingestion of fluoride in excess of 2 mg/L can cause dental fluorosis (mottling of the teeth), and in excess of 4 mg/L can cause bone disease. For more information on drinking water contaminants and their

potential health effects see http://www.epa. gov/safe-water/mcl.html.

Each of these trace contaminants originates from a natural source in the rocks found on Picuris Pueblo. Fluoride and arsenic are detected in wells completed in the middle tuffaceous member of the Picuris Formation (Tpm) and have an origin from the volcanic ash that is abundant in that geologic unit. High fluoride (Figure 7j) is typically found only in sodium-rich, calcium-depleted water such as that observed in PW-69 and PW-4 (see previous section, Major Ion Chemistry and Regional Conditions). High fluoride concentrations are associated with a process called cation exchange, wherein calcium and magnesium dissolved in groundwater are exchanged for sodium and potassium from the alteration products of volcanic ash, which have a high cationexchange potential. When calcium is depleted from the system through cation exchange, it is unavailable to bond with the negatively charged fluoride ion. High fluoride occurs in both sodium-bicarbonate and sodiumbicarbonate- sulfate waters. Arsenic, typically associated with geothermal waters or groundwater circulating through volcanic or mineralized rock, is detected at a concentration exceeding a health standard in PW-51 and at lower concentrations in PW-69 and PW-66. Arsenic concentration contours (Figure 7k) indicate an origin from the middle tuffaceous member of the Picuris Formation (Tpm), the volcanic sediments in the upper volcaniclastic member, and/ or an association with deep groundwater circulating through mineralized Precambrian rocks in the Peñasco horst.

Uranium generally occurs in concentrations between 0.1 and 10 µg/L in natural waters (Hem, 1985), but concentrations up to 30 µg/L are detected in the vicinity of Chamisal and from PS-81, a spring on the northern edge of the study area in the Picuris Mountains (Figure 71). Elevated concentrations of uranium originate from uranium- bearing rocks in Precambrian formations or from secondary deposits in younger sediments of the Tesuque or Picuris Formations. Whatever the original source, uranium migrates in groundwater until it encounters reducing conditions, which cause it to precipitate as a mineral coating on sediments. Subsequent exposure of those sediments to oxygen through erosion or by migration of oxygen-rich groundwater can remobilize the uranium and contaminate shallow aguifers. Similar conditions have been observed in shallow aguifers of the Pueblo of Pojoaque (McQuillan and Montes, 1998).

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES MAPPING PROGRAM



IV. CONCLUSIONS AND RECOMMENDATIONS

our hydrostratigraphic units or aquifers with varying degrees of interconnection are present on the Picuris Pueblo. Quaternary alluvial deposits (Qa) form thin, shallow aquifers beneath the active floodplains of major streams and are at greatest risk for degradation from land-use and waste management activities. The Dixon Member of the Tesuque Formation (Ttd) forms the primary aquifer along the southern edge of the study area, near Chamisal and south and east of Peñasco. The upper volcaniclastic member of the Picuris Formation (Tpu) forms a major aquifer in and between the Rio Pueblo and Rio Santa Barbara valleys, but productivity is variable and greater well depths are often required. The middle tuffaceous member of the Picuris Formation (Tpm) forms a relatively minor aguifer in the Rio Pueblo Valley, and contains fine-grained, volcanicrich sediments with low permeability. The Peñasco horst, an up-thrown block of Precambrian crystalline rock within the Picuris-Pecos fault system, contains heavily mineralized and uranium-bearing rocks and influences both groundwater and surface water flow and groundwater quality.

Groundwater in thin alluvial aquifers exists under unconfined conditions and is in direct hydraulic connection with deeper aquifers. Vertically downward hydraulic gradients drive circulation of oxygen-rich shallow groundwater down to deeper aguifers over much of the Pueblo. Vertically upward hydraulic gradients adjacent to the Peñasco horst provide a mechanism for upward movement of deep circulating groundwater that degrades water quality in shallow aquifers adjacent to and downstream of the horst with regionally high concentrations of dissolved solids, chloride, and silica. Perennial streams on the Pueblo are generally gaining streams, collecting a portion of their flow from the shallow alluvial aquifers. However, flows in the Rio Santa Barbara and Chamizal Creek appear to change from gaining to losing as they cross the downstream edge of the Peñasco horst, where thickness and transmissivity of the aguifer increase.

Infiltration of oxygen-rich surface water near Chamisal may contribute to chemical conditions favorable for mobilizing naturally occurring uranium to concentrations reaching health-based drinking water standards (30 μ g/L). Elevated concentrations of naturally occurring arsenic and fluoride are attributed to groundwater originating deep within mineralized crystalline rocks of the Peñasco horst or circulating through volcanic- rich sediments in the Picuris Formation. Both arsenic and fluoride exceed maximum contaminant levels for drinking water, and together with uranium present a significant public health concern.

Shallow aguifer contamination from waste related contaminants does not presently appear to pose a significant health concern. Chloride and nitrate concentrations are significantly lower than those associated with septic or wastewater contamination in oxygenated conditions and within the range associated with igneous rocks. Chloride/bromide ratios (Cl-/Br-) are also well below values associated with domestic sewage. Excess iron and manganese in one well (PW-65) accompanied by an extremely low nitrate concentration indicate reducing or anoxic conditions that may be associated with septic tank effluent or merely reflects natural, local chemical conditions in the aguifer. Chemical testing for additional constituents would be required to further clarify the source.

Based on observations of naturally occurring contaminants in excess of EPA drinking water standards, several recommendations are presented:

- 1) Additional Testing. While most wells on Picuris Pueblo generally produce water of excellent quality, the sporadic occurrence of elevated levels of uranium, fluoride, and arsenic pose a significant health concern. Sampling of additional wells is recommended to further define groundwater quality and identify problems within the Pueblo boundary.
- 2) Long-Term Monitoring. After existing water quality has been further defined, a long-term monitoring program is recommended to track water-quality trends and contaminant migration. Pumping of large community supply wells can induce migration of contaminants and well-head protection should be considered.



- 3) Public Education. Rural residents, particularly in the communities of Chamisal and Vadito, should be advised of potential health concerns and methods of addressing water quality problems. The New Mexico Environment Department Ground Water Quality Bureau can provide information and support in these efforts.
- 4) Water Treatment. In instances of significant drinking water impairment, installation of onsite water treatment units or alternative water sources should be considered.

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APPENDIX A-Map Unit Descriptions for Generalized Geology



MAP UNIT DESCRIPTIONS OF GENERALIZED GEOLOGY

- Alluvium (middle Pleistocene to middle Pleistocene to Holocene)-Includes both stream channel and valley-floor alluvium in active floodplains (Qal) and young alluvial-fan and stream terrace deposits (Qfy, Qty). Composed principally of poorly to well-sorted sand, pebbles, and boulders. Light-brownish sand, gravelly sand, and sandy gravel with minor mud and silt that underlie modern ephemeral or active channels. Beds are typically very thin to thin, and planar or cross-stratified. Gravel is generally poorly sorted, subangular to subrounded pebbles. Sand is generally coarse- to very coarse-grained, poorly to moderately sorted, and subrounded to subangular. There is no soil development and the sediment is loose.
- Alluvial fan deposits (middle to late Pleistocene)-Older alluvial-fan deposits (Qfo). Poorly sorted silt, sand, pebbles, and boulders. Clasts are primarily of Pennsylvanian sedimentary rocks and Proterozoic quartzite, slate, schist, granite, and rare volcanic rock types. poorly sorted silt, sand, and pebbles. Stage III and IV calcium carbonate development where soils are preserved, although soil horizons are commonly affected by surface erosion.
- Older alluvial terrace deposits (middle Pleistocene)-Poorly sorted silt, sand, pebbles, and boulders. Clasts are primarily of Pennsylvanian sedimentary rocks and Proterozoic quartzite, slate, schist, granite, and rare volcanic rock types. Stage III and IV calcium carbonate development where soils are preserved, although soil horizons are commonly affected by surface erosion.
- **Tb** Basalt (Pliocene)-Dark-gray, vesicular, olivine tholeiite basalt flow found on high mesa in east-central map area, and as scattered, isolated remnants to the west. New 40Ar/39Ar date of 5.67 Ma indicates that this flow is time equivalent to rocks of the Ocate volcanic field to the east. Locally up to 10 m thick.
- Ttd Dixon member of Tesuque Formation of Santa Fe Group (Middle Miocene)-Red, tan, beige, and locally greenish and/or yellowish sandy to clayey silt and silty clay. Loose to slightly friable, moderately well to moderately poorly sorted, mostly massive but sometimes thinly to moderately thickly beded. Interbedded with tan, brownish, reddish, and characteristically light olive green, very friable to nonfriable, very fine lower to very coarse upper, moderately to very poorly sorted, generally subangular to subrounded, thinly to thickly bedded, locally carbonate cemented conglomerate to fine arkosic sandstone. Conglomerates contain abundant poorly to moderately rounded clasts of Precambrian quartzite and Paleozoic sandstone, limestone, and siltstone. Locally, conglomerates also contain clasts of Tertiary volcanic rocks. Sedimentary features other than plane lamination are not common, but include ripple marks, cross beds, and lateral accretion (point-bar) foresets. Contacts between beds are usually sharp, and bases of sandstones and conglomerates are typically scoured. Imbrication of clasts is not common, but is locally well developed. Sandstones and conglomerates are preferentially cemented with calcium carbonate. Paleocurrent indicators (imbrication and the strike of channel walls) show transport from the south, southeast, and southwest. Exposed thickness 75-100 m.



Tpu/c Upper volcaniclastic member of Picuris Formation or Chama El-Rito Member of Tesuque Formation of Santa Fe Group (<19.78 Ma to > ~14.5(?) Ma)-Red to purple, very friable to nonfriable, very poorly to moderately well sorted, poorly rounded to rounded, thickly to thinly bedded, commonly carbonate-cemented, pebble and gravel conglomerate. Composed predominantly of Tertiary volcanic and rounded Precambrian quartzite clasts, and tan, pinkish, and whitish, loose to slightly friable, very fine lower to very coarse upper, moderately well- to very poorly sorted, subangular to subrounded and rarely rounded, thinly to thickly bedded, locally carbonate-cemented, arkosic to lithic sandstone, and brick-red to pink, tan to brown, orange, and whitish, loose to slightly friable, moderately well- to poorly sorted, thinly to thickly bedded, locally weakly carbonate cemented, sandy silt to silty clay beds. Most contacts between beds are sharp and basal contact of coarser beds are commonly scoured. Upper contact appears to be depositional and possibly gradational and/or interfingering. The upper contact is placed at the top of the highest conglomerate bed that is dominated by Tertiary volcanic clasts. Approximately 10-100 m thick. A basalt clast from the basal part of the upper member at hill 7751' was dated at 19.8 Ma and the unit is overlain by the Dixon member, which is estimated to be 12.5 to 14.5 Ma regionally.

Cemented part of middle member of Picuris Formation (< ~23 Ma (?))-This unit is characterized by silica cementation and is informally defined as the interval between the lowest and highest pervasively silica-cemented beds within the Picuris Formation. This unit is everywhere found at the top of the middle member and sometimes includes all or part of the gradational and/or interfingering contact with the upper member. Some beds in this interval, in some locations, are either poorly cemented or cemented with both calcium carbonate and(?) silica. Buff to white and/or pinkish, nonfriable to strong, very fine lower to very coarse upper, very poorly to moderately sorted, rounded to subangular, thinly to thickly bedded, silica-cemented, silty sandstone to fine cobble conglomerate. Locally contains a basal portion of poorly sorted pebbly/gravelly sandstone and/or cobble/boulder conglomerate composed exclusively of Precambrian clasts. This portion of the unit grades upward (or laterally) into pebbly/gravelly sandstone and conglomerate composed of an increasing proportion of Tertiary pumice and/or other volcanic clasts relative to Precambrian clasts. In exposures along NM-76 between Chamisal and Penasco, the lowest, exposed, cemented part of the middle member is at least 13 m of moderately well sorted, thickly bedded, sub-rounded to angular, cobble and boulder conglomerate composed of Precambrian granite(46%), quartzite(26%), amphibolite (26%), phyllite (1%), and schist (1%). Rare paleocurrent indicators suggest transport from the northwest, north, and northeast. Approximately 10-35 m thick.

MIddle tuffaceous member of Picuris Formation, (<28.3 Ma to >23 Ma)-Light buff, yellowish, and locally white, very friable to somewhat friable, moderately(?) to very poorly sorted, commonly bimodal, silt to medium lower sand, fine to very fine silty sand, sandy to clayey silt, massive or very thickly to thinly bedded ashy/quartzose sand. Contains thin to thick (5 cm-1.5 m) interbeds and channel-fills of buff and black, friable, moderately to poorly sorted, subangular to subrounded, Precambrian Pilar slate and quartzite-rich and/or pumice-rich conglomerate. In Section 32, SW of Vadito, are rare channels of pebbly/gravely granite, epidote, slate, amphibolite and schist(?), and an exposure of boulder conglomerate composed of porphyritic Penasco quartz monzonite, Precambrian quartzite, and amphibolite. Ash beds (15-65 cm) are found north of the Rio Pueblo. Some ash beds are distinctly bioturbated. Conglomerate beds seem to increase in abundance towards the upper contact. Some conglomerate beds contain



abundant rounded pumice lapilli thatv are white or pink, mafic-poor, with phenocrysts of quarts and plagioclase. Near and at the upper contact (and also within parts of Tpmc) a biotite-rich pumice is found. Lower contact not exposed in map area. Upper contact is the base of the first silica-cemented bed in the section. Sedimentary features and bedding are absent or very poorly expressed except where coarse-grained or ashy beds exist. At least 150 m thick in northern exposures. Primary ash fall from the Amalia Tuff eruption has been identified within the middle member on Cerro Blanco. Two additional populations of pumice of approximately 23 and 27 Ma have been identified within the middle member (Peters, 2005; Aby et al., 2004). Although the bulk of this unit is somewhat less effervescent than other Tertiary units in the area, it is mostly moderately reactive in hydrochloric acid.

- **Tpl** Lower conglomerate member of Picuris Formation, (>25 Ma to >34.5 Ma)-Not exposed in the study area, but exposed nearby to the north and northeast. Greenish and pale yellowish, loose to strong, poorly sorted, moderately to well rounded sandy/silty conglomerate dominated by quartzite clasts from 2 mm to >2m.
- &/M Undivided Mississippian and Pennsylvanian sedimentary rocks of the Tererro Formation of Arroyo Penasco Group (Mississippian, Meramecian and Chesterian), Espiritu Santo Formation of Arroyo Penasco Group (Mississippian, Osagean)-Alamitos Formation (late Desmoinesian) and Flechado Formation (Morrowan-Atokan-Desmoinesian)-Consists chiefly of Pennsylvanian, poorly exposed, olive, brown, red, and dark gray shale and siltstone plus fine- to coarse-grained sandstone with lesser amounts of conglomerate and limestone. Alamitos Formation is equivalent to the "upper arkosic limestone member" of the Madera Formation to the south. Flechado Formation is equivalent to La Posada Formation to the south, which is equivalent to the Sandia Formation and the "lower gray limestone member" of the Madera Formation. The Espiritu Santo Formation consists of the basal Del Padre Sandstone member of basal conglomerate, quartz sandstone, siltstone, shale, and minor limestone beds at top. It grades into the overlying Tererro Formation. Thickness unknown, but a minimum of approximately 2000 m.
- **Xu** Precambrian, undivided-Complex metamorphic sequence of Early to Middle Proterozoic supracrustal and metaplutonic rocks of the Picuris Mountains. Principal rock types are granitic rocks, quartzite, pelitic schist, phyllite, metaconglomerate, biotite schist, amphibolite, quartzofeldspathic schist, pegmatite, and vein quartz.
- **Xub** Brecciated Precambrian rocks-Zone of highly brecciated and fractured mixed Precambrian rocks along the Picuris-Pecos fault in the northeast map area.



APPENDIX B-Well and Data Inventory

Table B1-Inventory of Wells, Springs and Surface Water Sites

New Mexico State Engineer Office records

Table B1-Inventory of Wells, Springs and Surface Water Sites

Water	Chem	×	×			>	<					>	< ×	×	×	×	×	×	×	×	×			;	×	>	<	×										×		×				×		×	:		×
	Comments																					Below cemented horizon		-	Sultur odor	in a common modern of the	very strainow goes ury									Sealed well	Artesian, overflow to			Sealed well	Sealed well	Significant drawdown			139 S tootage through	Owner said 45ft DTW			poor log
Water Bearing	Formation																					Tpm	Tpm	ì	lpm/xu	T Ca	Ttd/To:	Ttd/Tpu	naL	Tpu	Tpu	Tpu	nd I	nd i /bi	Tpu	Tpm	Tou	Qa/Tpm	Fault	Ttd/Tpu	Tpu	Tpu	Ttd/Tpu	Fault	Ipu	Tou	Tpu/Tpm	Tpu	Tpu
Date	Measured																					1/17/1985	₹	5/16/2002	NA	5/16/2002	5/16/2002	5/16/2002	12/17/1974	7/23/2002	9/10/1971	10/28/1984	5/16/2002	NA	4/28/1980	8/17/1984	ΔN	5/16/2002	5/16/2002		1/17/1981	¥	5/16/2002	5/17/2002	5/11//2002	6/14/1988	5/17/2002	5/17/2002	7/23/2002
S	Water																					OSE	오 도	NMBGMR	owner	NMBGMK	NIMBGINIS	NMBGMR	OSE	NMBGMR	OSE	OSE	NMBGMK	owner?	OSE	OSE	janyo	NMBGMR	NMBGMR		OSE	owner	NMBGMR	NMBGMR	NMBGMK	OSF	NMBGMR	NMBGMR	NMBGMR
Water level	Elev	7821	7545	1724	4577	0175	7357	8354		8613	7821	8490	1741									7270	7282	7383	190/	0617	77002	0677	7458	7356	7510	7517	7777	7435	7266	7390	0072	7289	7296	2365	7640	7634	7422	7330	7367	9262	7225	7302	7372
Depth to	water	0	0	0	0	> <	0 0	0	>	0	0	0	>									42	30	7	125	13	- 1/2	84	73	104	130	125	99	10	23	80	U	27	149	0	15	09	62	111	32	37 40	27	69	79
Well Total	Depth																					118	75	100	197	30	400	150	131		265	260	140	158	142	225	150	86	180	110	150		112	130	102	701	220	105	200
i	Elev	7821	7545	7724	7740	0175	7357	8354	-	8613	7821	8490	7414	7574	7159	7272	7521	7166	7227	7164	7564	7312	7312	7390	7002	7.72	7364	7367	7531	7460	7640	7642	7077	7445	7289	7470	7400	7316	7445	7365	7655	7694	7484	7441	7400	7316	7252	7371	7451
<u> </u>	Northing (2)	4001870	4004774	4006479	4006520	4000049	4006367	400987		4010784	4001870	4009916	4004074	4003259	4006123	4006223	4004744	4006209	4006259	4006146	4003587	4006205	4006257	4007025	4006337	4006365	4003/71	4004112	4003100	4003681	4003038	4003021	4003444	4002323	4005770	4004732	4003143	4006181	4003955	4003887	4003485	4003293	4002499	4005093	400469	4004609	4006094	4005471	4003355
; ;	Easting (2)	435590	438562	439852	459015	439430	436088	436345		436986	435590	436575	433805	437026	433862	436095	441069	433973	435278	433930	437460	436363	436320	436111	434212	434367	434013	434360	434376	434476	438018	438020	438593	439679	435104	436417	433821	436419	434756	433660	438319	438547	433637	436189	435697	435/21	434739	435782	434181
:	OSE Well Record	NA	NA	NA	AN N	X N	AN AN	NA N		NA	NA	AN	AN	NA	NA	NA	۷ ۷	Ϋ́N	NA	NA	NA	RG-43004 Ex	None	None	None	None	None	Unknown	RG-25564	None	RG-42318 S3	RG-42318 S4	RG-42318-5	RG-65852	RG-32797	RG-32797-S	PG-43509	RG-25565	None	None	RG-35418	None	RG-48882	RG-36125	KG-65082	RG-47739	RG-48086	RG-38097	RG-32550
Township, Range,	Section (1)	22N.12E.7.113	23N.12E.32.232	23N.12E.28.124	23N.12E.20.124	23N. 12E.20. 1121	23N 12E.21.2121	23N.12E.18.1142		23N.12E.7.24	22N.12E.7.113	23N.12E.18.12	2014. I L.: 00.204 I									23N.12E.30.143	23N.12E.30.1431	23N.12E.19.3332	23N.11E.26.2424	23N.11E.25.131	23N 11E.30.343	23N.11E.36.331	23N.11E.36.330					22N.12E.3.4143		23N.12E.31.1414	22N 11E 02 232	23N.12E.30.143		4			22N.11E.02.4131		23N.11E.36.2441		23N.11E.25.3211		22N.11E.2.2243
	Site Name			NE Sierra Blanca Spring	NE Sierra Blanca Spring	Acros Carings	Aspell Opliligs	Unnamed Spring	Unnamed Springs Cluster (7				Chamisal Creek	Rio Chiquito	Rio Embudo	Rio Pueblo Above WWTP	Kio Puebio above Telephone Canvon	Rio Pueblo above Embudo	Rio Pueblo Below WWTP	Santa Barbara above Embudo	Santa Barbara above Chiquito	Picuris Pueblo #3	Picuris Pueblo #2	Picuris Pueblo #1	Isosie	is Pueblo		Mead	Picuris Pueblo		o MDWCA		Penasco MDWCA	Vadito MDWCA	CA#1		Chamisal MDWCA			ova	School		Pentecostal Church				Roybal		lova
	e					Spring	Spring	Spring	B	Spring	Spring	Spring	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Well	Well	Well	Well	Well	Well			Well	Well	Well	Well	Well	Well	Well	llo///	Well	Well	Well			Well	Well			Well		Well
				PS-/8					-PS-				PSW-1		PSW-3			9-MSd					PW-02		PW-04		PW-00						PW-TIC			PW-13b	DW-14			PW-17	PW-18	PW-19	PW-20	PW-21	PW-22			PW-26	

		Toursel					Woll Total	Don'th to	Water lave	Source of	400	Water		Motor
Site Type	Site Name	Section (1)	OSE Well Record	Easting (2)	Northing (2)	Elev	Depth	water	Elev	Water	Measured	Formation	Comments	Chem
													Ttd/Tpu contact @80';	
	Sacoman	2	RG-71598	438232	4002222	7734	180	117	7617	OSE	4/9/1999	Tpu	Owner said 20ft DTW	×
	Davis		RG-69822	438358	4001952	7756	84	9	7750	NMBGMR	7/24/2002	Ttd/Tpu		
	Fresquez		RG-48112	438364	4002194	7737	120	12	7725	NMBGMR	7/24/2002	Tpu		
	Echwaldo	22N.12E.5.413	None	438422	4002516	7715	92	12	7703	NMBGMR	7/24/2002	Ttd/Tpu		×
	Fresquez	4	RG-54450	438254	4002089	7748	54	8	7740	NMBGMR	7/24/2002	Ttd	Cemented	×
	Ortega		Unknown	438362	4002163	7739	29	13	7726	NMBGMR	7/24/2002	Ttd		
	Roybal	22N.12E.6.2112	RG-46711	436864	4003663	7533	55	7	7526	owner	Ą	Tpm		×
	Aguilar	23N.12E.31.3242	RG-36131	436652	4004241	7490	25	2	7485	owner	¥	g		
	Elkins		RG-60402	436817	4003083	7613	63	27	7586	OSE	10/16/1994	Tpu	Cemented	
	Dominguez	Ļ	RG-48675	434131	4002828	7437	32	7	7430	OSE	8/7/1988	Qa		×
	Vasquez	7	RG-54896	435973	4004233	7545	09	. 52	7520	owner	¥	Tpmc/fault		×
	Lopez	. _	RG-66757	435833	4004547	7408	105	36	7382	NMBGMR	7/25/2002	Tem		×
Well	Roybal		RG-50114	435547	4004769	7358	80	18	7340	owner	Ž	Ton		×
	Owen		RG-70484	438068	4003242	7642	22	2 ~	7634	NMBGMR	7/25/2002	i c		
Well	Abevta		RG-72696	437370	4003019	7623	110	17	7606	NMBGMR	7/24/2002	Tal		
Well	Martinez	_	RG-25239	436841	4003959	7506	23	· m	7503	NMBGMR	7/26/2002	e O		
Well	Fields		RG-72920	437790	4002990	7646	110	30	7616	OSE	11/30/1999	ma_/na_	Water iron-rich	×
Well	Valdez	42	Unknown	439832	4004613	7568	83	09	7508	owner	¥	naL		×
Well	Pacheco		RG-47089	433852	4002320	7501	92	6	7492	OSE	6/11/1987	Tem	Cemented	
Well	Tafova		RG-74690	432742	4002978	7453	101	50	7433	OSE	9/19/2000	Ttq.		×
Well	Lopez	2	RG-47936	434248	4001642	7618	120	20	7548	OSE	3/28/1990	Ttd	Las Trampas Grant	
Well	Lovato		RG-62510	433318	4002812	7444	09	80	7436	OSE	5/25/1995	Ttd	_	×
Well	Lovato		RG-58067	433602	4002921	7420	65	23	7397	OSE	10/16/1993	Ttd		×
Well	Lovato	4	RG-74305	433462	4002977	7415	20	18	7397	OSE	7/14/2000	Ttd		
Well	Dominguez		RG-68546	433683	4002869	7426	92	35	7391	OSE	10/14/1997	Tpu/fault	Cemented	
	Wagner	22N.11E.2.1231	RG-58945	433127	4003494	2366	170	25	7341	OSE	4/2/1994	Ttd/Tpu		X
Well	Dominguez	22N.11E.2.4324	RG-47156	433798	4002406	7498	87	16	7482	OSE	6/18/1987	Tpu/Tpmc	Cemented	
Well	Dominguez	22N.11E.2.432	RG-47113	433750	4002366	7512	82	36	7476	OSE	6/7/1987	Tpmc/Tpm	Cemented	
Well	Roybal	_	RG-47770	433561	4002454	7486	100	38	7448	OSE	4/7/1988	Tpu	Ttd/Tpu contact @60'	×
Well	Dominguez		RG-46817	433797	4002155	7523	20	16	7507	ş	٤	Ttd		
11/0/11	20.000	23N 44E 44 2424	0.70763	777001	0000007	7560	720	47	7543	DIMOCAND	000016012	T-6-4/T po.:	Cemented; Las Trampas	
Well	Dominguez Romero		RG-47890	433920	4002009	7526	85	2 5	7506	OWDE	NA	Ttd/Tou	Gall	×
Well	Lopez	2	None	438684	4005066	7523	09	300	7493	owner	Ź	Tem		3
Well	Lujan	23N.12E.32.212	RG-49094	438591	4005207	7483	218	20	7463	OSE	5/19/1988	Tpm	Equal to RG-49095	
Well	Gumbiner	23N.12E.33.122	None	439789	4005188	7454	20	12	7442	NMBGMR	10/23/2002	g		
Well	Gonzales	4	Unknown	438874	4004913	7545	22	20	7525	NMBGMR	10/24/2002	Tpu/Tpm		X
Well	Sandoval		RG-56966	434942	4005399	7272	30	4	7268	OSE	4/12/1993	Qa	Screened 7-25	×
Well	Medina	23N.12E.29.4331	Unknown	438698	4005645	7404	65	24	7380	owner	NA	Tpm	1970s well filling w/sed	×
Well	Montoya		RG-58065	440266	4004553	7619	98	4	7615	OSE	6/20/1995	Qa/Tpu/Tpm	Tpu/Tpm contact @75'	×
Well	Lopez	က	RG-61238	439724	4005459	7467	167	20	7417	OSE	1/9/1994	Tpm		
Well	Stanley	~	RG-54061	438327	4005380	7463	285	160	7303	OSE	11/20/1991	Tpm	No basalt	×
Well	Gonzales	~	RG-76356	442767	4004575	7652	100	10	7642	OSE?	٤	Tpu/Tpm		
Well	Trujillo		RG-59969	436927	4003378	7566	77	10	7556	OSE	8/7/1994	Tpu/Tpm		×
Well	Kit Carson Propane		RG-76545	438710	4002961	7704	180	80	7624	OSE	12/27/2001	Tpu		
Well	Ortega		RG-66109	436793	4003860	7513	36	12	7501	OSE	9/16/1998	Tpm	Xu contact @34'	
Well	Roybal	1	RG-73948	436916	4002851	7631	100	38	7593	NMBGMR	7/29/2002	Tpu		
		0.00 = 000												

(1) Section followed by quarter divisions of section going from largest to smallest, where 1=NW, 2=NE, 3=SW, 4=SE quarters. (2) UTM projection, NAD 83, Zone 13.

" Now" Mosern Section 1. GENERAL INFORMATION (A) Owner of well Picuris Pueblo _ Owner's Well No. Street or Post Office Address ____ City and State Picuris, NM Well was drilled under Permit No. RG-43004-Explore and is located in the: a. NW 1/4 SE 1/4 NW 1/4 1/4 of Section 30 Township 23N Range _N.M.P.M. ___ of Map No. ____ ____ of the __ c. Lot No. ____ of Block No. ___ Subdivision, recorded in _____Taos d. X= __ feet, N.M. Coordinate System_ Zone in (B) Drilling Contractor Rodgers & Company. Inc. License No. WD-225 2615 Isleta Blvd., SW Albuquerque, NM 87105 Drilfing Began 1/14/85 Completed 1/17/85 Type tools ____ Size of hole__ at well is _____ ft. Total depth of well ____ 118' Elevation of land surface or ____ XXX shallow 🔲 artesian. Completed well is Depth to water upon completion of well ___ Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness Estimated Yield Description of Water-Bearing Formation From To in Feet (gailons per minute) 601 20' Sandy Clay with Gravel Stringers 70 GPM 821 118' Gravel with Sandy Clay Layers and Tpm :: Stringers, Clay, Gravel with Sandy Clay Streaks Section 3. RECORD OF CASING Diameter Pounds Threads Depth in Feet Length Perforations (inches) per foot Type of Shoe per in. Top Bottom (feet) 8 5/8" O.D. 118" 119½' None 45! 601 118' Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Sacks Cubic Feet Method of Macement From Diameter of Mud of Cement Jan Kar 1 11 Section 5. PLUGGING RECORD Plugging Contractor __ Address Depth in Feet Cubic Feet Plugging Method ___ No. Bottom of Cement Date Well Plugged_ Plugging approved by: State Engineer Representative

FOR USE OF STATE ENGINEER ONLY

File No. 191-43004

Date Received

OSh.F.

12 in n = 1.11

_ FWL ___

			Section 6. LOG OF HOLE
Depth From	in Feet To	Thickness in Feet	Color and Type of Material Encountered
0'	15'		
			Clay
15'	20 t		Cemented Gravel & Boulders
20'	60'		Sandy Clay with Gravel Stringers
60'	-64!		Sandy Clay with Embedded Gravel
64'	67'		Clay
67 '	71'		Sandy Clay with Hard Stringers
71'	82'		Sandy Clay
821	90'	·	Gravel with Sandy Clay Layers
90'	102'		Gravel with Sandy Clay Stringers
1021	104'		Clay
104'	118'		Gravel with Sandy Clay Streaks
 			
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Section 7. REMARKS AND ADDITIONAL INFORMATION

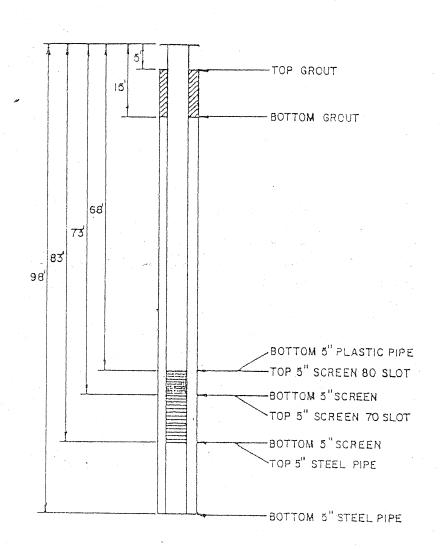
The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

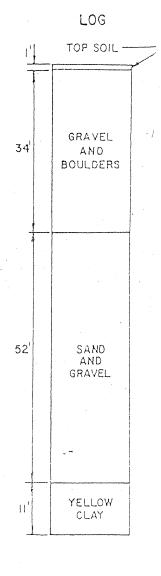
eclard Bonagude

: INSTRUCTIONS: This form should be executed in triplical preferably typewritten, and the State Engineer. All sections, when Section 5 shall be answered as completely and

the appropriate district office oly as possible when we

DOMESTIC WATER SUPPLY WELL NO. 2
PICURIS PUEBLO
PICURIS INDIAN RESERVATION
TAOS COUNTY, NEW MEXICO
(PROJECT NO. AL -73-507)





FOR: PICURIS PUEBLO COMMUNITY
WATER SYSTEM #3500113
SURVEY __ JUNE, 1982

STATE ENGINEER OFFICE

WELL RECORD



	•			GENERAL IN				
Owner of	wellPic	mris Pash]				Owner's	Well No.	
Street or	Post Office Add	iress Penas	eo Puebl	ο				
-	State						:	
was drilled	under Permit l	No. RG 255	64		and is located i	n the:		
						Range	118	N.M.P.M
b. Tract	No	_ of Map No		of the .		 -		
	00							
c. Lot No	oo vision, recorded	in		Or tale Co	unty.		j.,81	. 3.
								Zone i
				feet, N.M	A. Coordinate S	ystem		Grant
Drilling C	Contractor	Barrock Dr	cilling	,,		_ License NoW	297	
irana B	x 838 Esp	male. N.M.					· ,26	
aress	<u> </u>	m-v.mg - 01 - 01 - 01		. 424		Cable		
lling Began	13th Dec	Comp	leted 174		Type tools	Cable	Size of hole	u
untion of la	nd surface or			at well	is	_ ft. Total depth o	f well]3]	f1
Vactori or 12.								
mpleted wel	lis 🖫 sl	aallow 🔲 . aa	rtesian.	Ī	Depth to water	upon completion o	f well 73	II
		Sect	ion 2. PRIN	CIPAL WATER	-BEARING ST	RATA		
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From	То	in Feet		Description of V	vater-Bearing r	omation	(gallons per m	inute)
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12	 			, ,		COL	* A	
115	120	5		and tog	rovel	TPU		
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		<u> </u>	<u> </u>					
			Section	n 3, RECORD	OF CASING			
Diameter	Pounds	Threads		in Feet	Length	Type of Shoe	- »Perfor	
(inches)	per foot	per in.	Тор	Bottom	(feet)		From	То
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5"	sereen	1	5	120	5		-	
511	steel		120	131	11		677	
		Sacti	: ^* 4' PECO	RD OF MUDD	ING AND CEM	ENTING	- 4 -	
Depth	in Feet	Hole	Sac Sac		ibic Feet		of Pleasment	
From	То	Diameter	of M		Cement	мещо	of Placement	
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			Section	on 5. PLUGGIN	ig record		1.5	
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		State Eng	ined Repte	1914 ative 1] [4			
			FOR USE	OF STATE E	NGINEER ONI	Ϋ́		
							المراجع والأستحيد بمواريا	
ite Received	I						* v * v .	
	RG-25664	2561.4		Quad		FWL _	FSL	· · · · · · · · · · · · · · · · · · ·

Section 6. LOG OF HOLE

			Section 6. LOG OF HOLE	
	in Feet	Thickness in Feet	Color and Type of Material Encountered	
From	То	+		
0	2	2	Topsoil	
2	20	18	Clay	
20	72	52	Sandy elay w/streaks of gravel	
72	77	5	Sand	
77	80	3	Clay red	
80	100	20	Clay , sandy	
100	121	21	Sand and gravel	
121	133	12	Clay	
		T :		\(\frac{1}{2}\)
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Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Shauroek Prilling Co

INSTRUCTIONS: This form should be executed in friplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections except Section 5 shall be appropriate district office

RG = 42318 STATE ENGINEER OFFICE

WELL RECORD

NSTRUCTIONS: This form should be executed in tripleta, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired as the period when this form is used as a plugging record, only Section 1A and Section 5 need be completed.

1			Street and	Number		Yell Number			
	7		City		Penns	16	State	New Mexi	<u>ce</u>
	- A -					it No. out of			d in th
		1				of Section	Twp.	Rge	
1 1			(B) Drilli	ng Contra	tor_Ho	rds Brilling	<u> </u>	icense No	>10
	2		Street and	Number_	627	Carpana, II.	MOST TOUTE !		
<u> </u>	 		City			The state of the s	State		73
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64 <u>. ()</u>	in a series	-108 2620 13	4 Dfilling w	as complet	ed	July 2010.			19_73
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Section	2	<u> </u>		CIPAL WA	TER-BEARI	NG STRATA			
No.	Depth in		Thickness in Feet		Des	cription of Water	-Bearing Form	nation	
	From	To							
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Date	Received 202	:8 MA T	1971 SEP 2						

Date Becches TOE OF MET Depth in Feet SE Printers 1988 ORT's Type of Material Encountered Unia Supervior 0 large & small recke, surf water at 22 ft. gray Taggaeg eppisoed a 12 boulders & gravali a brown Plugging meth C as medium eler Se Se Tons of Cay 25. ons of Koughage us Modium clay & grevel 9 Street and Million men, sand & coarse gravel & clay 19 54 mod, hard class seil see & coarse gravel 85 90 brown 90 140 50 red sandy clay & gravel 140 1h23 22 prem med, clay 1423 sant & gravel 157 50 ant sand & gravel <u> 152</u> Hole indu 162 Cena course sand & gravel **अं**छ द्व del sand & large reck 172 10 and also be graval 175 21.8 ned sandy clay & grave 255 med. sandy clay's gravel 255 265 10010 discomposed grantte water Status: Depth it Description of Avitor they are, न्संबर्ध अप इ PRINCIPM WATER-BEARING STEA Riesztion as top of casing in fact above sea loyate.

														
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nearest district pittes of the State Laginter. All eschedisting preferably typewrities and uniquely as armustry as gondies when any well is drilled required or despended When this is an analysis record, and the man and the primiting of despended When this is an analysis record, and the man and an analysis record, and the man and analysis record, and the man are also as a second and the man are a second as a second as a second and the man are a second as a second and the man are a second as a second and the man are a second as a second and the man are a second as a second and the second are a second as a second and the second are a second as a second are a second as a second and the second are a second as a second as a second are a second as a second

WELL BECORD

STATE ENGINEER OFFICE WELL RECORD PW-Ila-d

· .•				GENERAL I				
(A) Owner o	f well a		SHALL OF	-	<u> </u>	Ow	ner's Well No.	
Street or City and	Post Office Ad State	NASCO	NNE	87553				
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c. Lot N Subdi	oovision, recorded	of Block No in		of the	county.			
d. X=		feet V=		feet N	M Coordinat	e Svetem	:	7 .01
	100	4- 1				e System		Zon
B) Drilling (Contractor	Piesenser .	Prillin			License No.	VD-986	
ddress	0. Not 1	is and a	in, In	Heries	57510		·	
rilling Began	_10-1-1	Com	pleted 19	28-84	Type tools	Cable	Size of	note 12
						ft. Total der		
ompleted wel	lis San	allow 🗀 :	irtesian.		Depth to wat	er upon complet	ion of well	- Transfer
Depth	in Feet	Sec Thickness	tion 2. PRINC	CIPAL WATE	R-BEARING	STRATA	Estim	ated Yield
From	70	in Feet		escription of	Water-Bearing	Formation		per minute)
235	253	20	Mult	-color	Congland	rate	100	

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	92					- 4		
		•	Section	3. RECORD	OF CASING	- P		
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7			298	360	52	rent	21	19 255
		4						
- B. 4			on 4. RECOR			MENTING	<u>, ki </u>	
From	in Feet	Hole Diameter	Sacks of Mu		bic Feet Cement	Ме	thod of Placem	ent
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						earlig.	Surface (ealng
	1.							
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		, , , , , , , , , , , , , , , , , , ,	Section	5. PLUGGIN	G RECORD			
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ugging Metho ate Well Plugs					No.	Тор	Bottom	of Cament
lugging appro					2			
74.45	a a marina a	State Eng	ineer Represer	ntative	34			
			FOR USE O	OF STATE EN	GINEER ON	LY		
ate Received			•	Ouad		FWL		FSL.
En. N-		-						. 02
File No				_ Use		Location No		

Depth	in Feet	Thickness	Section 6. LOG OF HOLE
From	То	in Feet	Color and Type of Material Encountered
		. 1	
			Besidens Gay Maded
_77	65	22.20	Sandy Clay with Green
47		16	Noith-soles Songismapore
63	74	***	34. Red Clay
74	160	25	Malti-color Chaginassase
160	169	9	30. Bot Clay
169	996	51	Seltionies Consuments selft
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142			

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Dr

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except 5, shall be answered as completely and state the state of the state engineer. All sections, except 5, shall be answered as completely and section 5 need be completed.

MPORTANT — READ INSTRUCTIONS ON BACK BEFORE FILLING OUT THIS FORM.

Declaration of Owner of Underground Water Right

		P	Sio Gro	inde.			
Declaration	on No.	RG-6585		BASIN NAME	eccived	May 22, 1996	
	, <u></u>			IJate F	eccived	- · · · · · · · · · · · · · · · · · · ·	
				STATEMENT			
	of Declarant		<u>lutual</u>	Domest		r Consumu	s Assu.
			23 Yad				
County	-	-	llow W		of New	Mexico	
	of water sup		110120	(artesian or sh	allow water aqu	nifer)	
3. Describ	c well location SE ¼	under one of the	~ .		~ ^3		=
	TAC		Coun	ty. Per	Twp. 23	\$ 7.5 mm Qu	EN.M.P.M., i
b. Trac c. X =	671,00	of Map 1		of the		0.1	· ·
in th	ie				M. Coordinate Sy	stem <u>Centra</u>	Zon Grant.
On 1	and owned by	Bamon &	Caroline	F. Rom	uro	Drilling Co	Grant.
4. Descri	iption of well	: date drilled_	6/28/60	drille	E.D. Benne	depth	158 feet.
ouțsid	e diameter of	casing 658	inches; origina	l capacity	20 gal. per	r min.; present capac	ity
						(below) land surface	-
֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓		_	: u z z i	_		254H	•
SH ware	and type of p	•				324H	
Make, make,	type, horsep	ower, etc., of po	wer plant		•		
Fracti	tional or per	centage interest	claimed in wel	1	0%		
5. Quanti	ty of water a	ppropriated and	beneficially us	ed1 <u>C</u>	<u> </u>		
S KE	Da	mestic	Munici	acre f	eet per acre)	(acre feet pe	
M		, '				escribe only lands ac	puiposes.
S O VIII	e actually it	ingated	_ acres, locate	d and describe	d as follows (de		
APPI	Subd	livision	Sec. T	wp. Range	Acres Irrigated	Own	
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FOR FILING DOES NOT CONSTITUTE APPROVAL OF DECLARANT'S CIAINA PARAMETS CIAINA						at on reverse side.)	
S , water v		ied to beneficia	mont	hary	<u> </u>	year and	since that time
	en used fully	and continuousl	y on all of the	above describe	ed lands or for t	he above described p	urpses except
as follo)WS:	N/A					
8							<u></u>
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		ts or explanation	- '	J	Storage	took loca	ite Rat
N.W. Y.	701	1 2F 14	· Sec 5.	8 time	234,	RojelZE, A	IW bW
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A JOW		number ship	35		·········		
M_{1}			hull			being first duly swon	
depose	and say that	the above is a f	all and complet	e statement pr	epared in accord	dance with the instru	ctions on the re-
verse si	de of this for	m and submitted	in evidence of	ownership of	a valid underere	ound water right, that best of my knowledge	Thave carefully
	~~ ~ • • •	contai	allu	t 4. A	On 1	A The knowledge	e and belief. Luvs.Ge:
				Yodu	2 Morro	U Domestic use	declarant.
				py: <u>A.V.</u>	polenda	M. Uschil	h /sec -1
Subscribed	and sworn to	before me this	21st		day of	nay,	A.D. 19 96
My commiss	sion expires_	6/38/9	7	(amella	Note	ry Public
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11 6	Boulders.
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7	Water Rell Log Location (torn)
Jate 6-23- 1900	Description Value, N. W.
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25' 33'	1. 10.
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	Confeder Denne Briller
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	se water Picker post affer
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MR	15

	State	ddress P	7.038 3CO	M.N.		SANTA	INEER	
ell was drille	i under Permit	No. BG-	32797 - S		and is located		FE N.M.	
	•							37 3 5 W *
a	_ ¼ ;	4¥	¼ of Se	ction	Township	Rang	e	N.M.P.I
b. Tract	No. 3-M	of Map No.	8-5 - 1	5 of th	1e			
c. Lot N	o	of Block No		of th	ne			
		d in Tae						
				feet, l	N.M. Coordinate	System		
Drilling (Contractor	J. R. Reyb	el .			License No	227	
dress	Reute S F	ex 266 Sam	te Fe N.	ч		•		
						Dable		7 :
			•		•			
vation of la	nd surface or _			at w	ell is	ft. Total depth o	f well 142	f
mpleted wel	lis 🗆 s	hallow 🗆 a	rtesian.		Depth to water	upon completion o	of well 23	f
		Sect	tion 2 PRIN	CIPAL WATI	ER-BEARING ST	RATA		
Depth	in Feet	Thickness					Estimated	_
From	То	in Feet	-	Description of	f Water-Bearing F	ormation	(gallons per	minute)
20	25	5	gra	vel			1	
125	130	x 4	5 88	ndrock			ž 4	<u>.</u>
115	120	5					5	
	220							
			3-				• .	:
			1-	·				
			Sectio	n 3. RECORI	O OF CASING			
Diameter (inches)	Pounds per foot	Threads	Depth	in Feet	Length	Type of Shoe		erations To
(inches)	Pounds per foot				Length (feet)		From	То
(inches)		Threads	Depth	in Feet	Length			
	per foot	Threads per in.	Depth	in Feet	Length (feet)		From	То
(inches)	per foot	Threads per in.	Depth	in Feet	Length (feet)		106	То
(inches)	per foot	Threads per in.	Depth Top	in Feet Bottom	Length (feet) 126 •10	Steel	From 106	То
(inches)	per foot	Threads per in.	Depth Top	in Feet Bottom RD OF MUD	Length (feet)	Steel ENTING	106	То
(inches)	per foot	Threads per in.	Depth Top	in Feet Bottom RD OF MUD	Length (feet) 126 *10 DING AND CEM	Steel ENTING F	From 106	То
(inches)	per foot 13.	Threads per in.	Depth Top on 4. RECO	in Feet Bottom RD OF MUD	Length (feet) 126 *10 DING AND CEM Cubic Feet	Steel ENTING	106	То
(inches)	per foot 13 in Feet To	Threads per in. wolded Section Hole Diameter	Depth Top on 4. RECO Sacl	in Feet Bottom RD OF MUD GS ud	Length (feet) 126 *10 DING AND CEM Cubic Feet	Steel ENTING E Method	From 106	То
(inches)	per foot 13. in Feet To	Threads per in. welded Section Hole Diameter	Depth Top on 4. RECO Sacl	in Feet Bottom RD OF MUD	Length (feet) 126 *10 DING AND CEM Cubic Feet	Steel ENTING E Method	From 106	То
Depth From	per foot 13 in Feet To	Threads per in. wolded Section Hole Diameter	Depth Top on 4. RECO Sacl	in Feet Bottom RD OF MUD GS ud	Length (feet) 126 *10 DING AND CEM Cubic Feet	Steel ENTING C Method	From 106	То
Depth From	per foot 13 Feet To (20)	Threads per in. wolded Section Hole Diameter	Depth Top on 4. RECO Sacl of M	in Feet Bottom RD OF MUD cs ud	Length (feet) 126 *10 DING AND CEM Cubic Feet of Cement	Steel ENTING E Method	From 106	То
Depth From	per foot 13. in Feet To (20) (21)	Threads per in. wolded Section Hole Diameter	Depth Top on 4. RECO Sacl of M	in Feet Bottom RD OF MUD cs ud	Length (feet) 126 *10 DING AND CEM Cubic Feet of Cement	Steel ENTING E Method	From 106	То
Depth From	in Feet To (20) (21) (22) actor	Threads per in. wolded Section Hole Diameter	Depth Top on 4. RECO Sacl of M	in Feet Bottom RD OF MUD cs ud	Length (feet) 126 *10 DING AND CEM Cubic Feet of Cement	Steel ENTING E Method	From 106 MA A of Placement P 22 CMA	To 126
Depth From	in Feet To (20) (21) (22) (22) (23)	Threads per in. wolded Section Hole Diameter	Depth Top on 4. RECO Sacl of M	in Feet Bottom RD OF MUD cs ud	Length (feet) 126 *10 DING AND CEM Cubic Feet of Cement ING RECORD No.	Steel ENTING E Method	From 106 MA A of Placement P 22 CMA	To 126
Depth From	per foot 13. in Feet To (2) (2) actor actor	Threads per in. wolded Section Hole Diameter	Depth Top on 4. RECO Sacl of M	in Feet Bottom RD OF MUD cs ud	Length (feet) 126 *10 DING AND CEM Cubic Feet of Cement ING RECORD No. 1	Steel ENTING E Method	From 106 WANT Of Placement PO COTA C	To 126
Depth From gging Contributes agging Methete Well Plug	per foot 13. in Feet To (2) (2) actor actor	Threads per in. wolded Section Hole Diameter	Depth Top on 4. RECO Sacl of M	in Feet Bottom RD OF MUD ss ud	Length (feet) 126 *10 DING AND CEM Cubic Feet of Cement No. 1 2 3	Steel ENTING E Method	From 106 WANT Of Placement PO COTA C	To 126
Depth From Jugging Contributions Jugging Contributions Jugging Methor Jugg	per foot 13. in Feet To (2) (2) actor actor	Threads per in. wolded Section Hole Diameter	Depth Top on 4. RECO Sacl of M Section	in Feet Bottom RD OF MUD ss ud n 5. PLUGGI	Length (feet) 126 *10 DING AND CEM Cubic Feet of Cement ING RECORD No. 1 2	Steel ENTING C Method T Z Z METHOD Depth in F	From 106 WANT Of Placement PO COTA C	To 126

Section	_	r	\sim	O.E.	UAI	•

			Section 6, LOG OF HOLE
Depth From	in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	20	20	brown elsy
20	25	5	gray gravel Q4.
25	50	25	red sandreek
50	60	10	brown ela y
60	90	30	red sandreck
90	115	25	green elay
115	120	5	red sandreck Tyu
120	125	5	gray elay
125	130	\$ 5	red sandreck
130	135	5	gr w elay
135	142	7 gray h	erd rock Tpm
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i	.)	73	3
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	• 3	,	Language of the second of the

"Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and mitted to the appropriate district office of the State Engineer. All sections, exc Section 5, shall be answered as completely a accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

/ am and

PW-136

Section 1. GENERAL INFORMATION

and is located in the: a. W. NW. W. BB. W. W. of Section 34 Township 23N Range 42B NM.P.M. b. Tract No. 39 of Map No. 8 30 of the Suprey 15, Taos Co., Assoment Survey c. Lot No. 6 Block No. 6 feet, V= 6 County. d. X= 6 feet, V= 6 feet, N.M. Coordinate System Zons in the Grant. Diffiling Contractor Carlos Tatoya License No. ND-733 dress P.O. Box 168 Taos, New Hexico 37571 Illing Begon 8-13-84 Completed 8-17-84 Type tools Rota-Dril Size of hole 5 5/Bin. mpleted well is 18 shallow actesian. Depth to water upon completion of well 225 ft. mpleted well is 18 shallow Actions Prince 19 Box 16 Grant. Depth in Feet Thickness Description of Water-Bearing Formation (guilous per minute) 11 2251 2251 Gravel, Sand & Boulder 19 Grant Strata DGT 18 1984 Section 3. RECORD OF CASING Diameter Pounds Prince 11 Present Description of Water-Bearing Formation (resch) Prince 10 Box 11 2251 2251 Cravel, Sand & Boulder 19 Grant Strata DGT 18 1984 Section 3. RECORD OF CASING Prince 19 Box 10	Street or	Post Office A	Incio Poddressi On New	30x 25	3	,		on O	wner's Well No			
b. Tract No. 3M. of Map No. 3 sh. of the Survey 15, Taos Co., Assement Survey. c. Lot No. of Block No. of the Survey 15, Taos Co., Assement Survey. c. Lot No. of Block No. of the Survey 15, Taos Co., Assement Survey. d. X= feet, Y= feet, N.M. Coordinate System Zone in the Grant. Drilling Contractor Carlos Tafoya License No. ND-753 dress P.O. Box 168 Taos, New Mexico 37571 Uning Began 3-13-84 Completed 3-17-84 Type tools Rota-Dril Size of hole 6 5/Sin. oration of land surface or at well is ft. Total depth of well 225 ft. Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness Description of Water-Bearing Formation (gallons per minuth) 11 225; 225; Gravel, Sand & Boulder Pow Length (feet) Type of Shoe Form To for Feet (feet) Per in To Depth in Feet Carlos Per in To Depth in Feet Carlos Per in To Depth in Feet Carlos Per in To Diameter Of Mud of Cament Method of Placement of Mud of Cament Method of Placement Of Mud of Cament State Engineer Representative 2 State Engineer Representative 2 State Engineer Representative 3 State Engineer Representative 3 State Engineer Representative 4 A J J Land State Engineer Representative 5 A State E			•					d in the:				
b. Trect No. 3M of Map No. 3 \$b of the Survey 15, Tage Co., Assement Surver. c. Lot No. of Block No. of the Survey 15, Tage Co., Assement Surver. c. Lot No. of Block No. of the Survey 15, Tage Co., Assement Surver. c. Lot No. of Block No. of the Survey 15, Tage Co., Assement Surver. c. Lot No. of Block No. of the Survey 15, Tage Co., Assement Surver. d. X* feet, Y* feet, N.M. Coordinate System Zone in County. d. X* feet, Y* feet, N.M. Coordinate System Zone in County. dress P.O. Box 163 Tags, New Mexico 37571 Illing Began 3=13-84 Completed 3=17-84 Type tools Rota-Dril Size of hole 5.5/3 in. Vation of land surface or at well is fi. Total depth of well 225 ft. Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet Description of Water-Bearing Formation (gallons per minute) 11 225. 225. Gravel, Sand & Boulder P. D. Edit N. E. D.									Range4_o	VD	N.M.P.M.	
C. Lot No. Of Block No. Tage						•			• •			
Subdivision, recorded in										· · · · · · · · · · · · · · · · · · ·	19	
Drilling Contractor Carlos Tafoya License No. MD_733												
April Apri						eet, N.	M. Coordinate	System				
Section 2. PRINCIPAL WATER-BEARING STRATA Type tools RO18—Dr11 Size of hole 6 5/3/8 in. Popular distribution of land surface or) Drilling (Contractor	arles Ta	оуа			•	License No.	WD-7	38		
Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet	dress P.	O. Box	168 Tac	s. New	Mexi	co	87571	<u> </u>				
Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet	illing Began	8-13-8	34 Comp	leted 8	-17- 8	4	Type tools I	Rota-Dril	Size of	hole	6 5/3in.	
Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet	vation of la	nd surface or .			<u>.</u>	at well	l is	ft. Total de	oth of well	225	ft.	
Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness in Feet Description of Water-Bearing Formation Callons per minute)												
Depth in Feet Thickness in Feet Description of Water-Bearing Formation (gallons per minute) 1			Sect	ion 2. PRIN	CIPAL W							
Section 3. RECORD OF CASING Section 3. RECORD OF CASING Section 3. RECORD OF CASING	Depth	in Feet	Thickness									
Section 3. RECORD OF CASING Diameter (inches) per foot per in. Top Bottom (feet) Type of Shoe From To Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Diameter of Mud of Cement Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Section 6. Section 6. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Diameter of Mud of Cement Method of Placement Section 7. PLUGGING RECORD Section 8. PLUGGING RECORD Section 9. PLUGGING REC	From	То	in Feet			JII 01 V	vater-bearing i		(gallons per minute)			
Section 3. RECORD OF CASING Diameter Pounds (inches) per foot per in. Top Bottom (feet) Type of Shoe From To 6 5/8 12.92 none 1 225 225 C-700 80 225 Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Diameter of Mud of Cement Method of Placement Section 5. PLUGGING RECORD Seging Contractor dress gging Method te Well Plugged gging approved by: State Engineer Representative 1 No. Depth in Feet Cubic Feet of Cement 1 Top Bottom 1 To	11 .	2251	2251	Grav	el,Sa	nd 8	Boulder	- Ubar	IATE ENGIN	ER-ALBI	ER-ALBUQUEROUE N	
Section 3. RECORD OF CASING Diameter Pounds (inches) per foot per in. Top Bottom (feet) Type of Shoe From To 6 5/8 12.92 none 1' 225' 225' C-700 80' 225' Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Diameter of Mud of Cement Method of Placement Section 5. PLUGGING RECORD sging Contractor dress ging Method grip ging Method te Well Plugged gging approved by: State Engineer Representative 1									K 底 (BEA	WE	
Section 3. RECORD OF CASING Diameter Pounds (inches) per foot per in. Top Bottom (feet) Type of Shoe From To 6 5/8 12.92 none 1' 225' 225' C-700 80' 225' Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Diameter of Mud of Cement Method of Placement Section 5. PLUGGING RECORD sging Contractor dress ging Method grip ging Method te Well Plugged gging approved by: State Engineer Representative 1									CO CT	18	1004	
Section 3. RECORD OF CASING Diameter Pounds (inches) per foot per in. Threads per foot per in. Top Bottom (feet) Type of Shoe (feet) Top Bottom To 6 5/8 12.92 none 1' 225' 225' C-700 80' 225' Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Diameter of Mud of Cement Method of Placement Section 5. PLUGGING RECORD gging Contractor dress gging Method to Well Plugged gging approved by: State Engineer Representative 1										1.10.	P	
Diameter (inches) per foot per in. Top Bottom (feet) Type of Shoe From To 6 5/8 12.92 none 1' 225' 225' C-700 80' 225' Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Diameter of Mud of Cement Method of Placement Section 5. PLUGGING RECORD gging Contractor dress gging Method te Well Plugged gging approved by: State Engineer Representative FOR USE OF STATE ENGINEER ONLY		<u> </u>		Section	n 2 DEC	O P O	OF CASING		414141414	/- - - 	किनिकार	
Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Diameter of Mud of Cement Of Cement Of Cement Section 5. PLUGGING RECORD Seging Contractor Grees Signing Method Grees Signing Approved by: State Engineer Representative FOR USE OF STATE ENGINEER ONLY FOR USE OF STATE ENGINEER ONLY Section 5. PLUGGING RECORD Signing Teet Cubic Feet Of Cement Green	Diameter	Pounds	Threads					Type of S	Shoe	Perfor	ations	
Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet	(inches)	per foot	per in.	Тор	Botte	om	(feet)	Type of c	F ₁	rom	То	
Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet	6 5/8	12.92	none	1'	22	51	2251	C-70	0 -	801	225'	
Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet		· · · · · · · · · · · · · · · · · · ·										
Depth in Feet									<u> </u>			
Section 5. PLUGGING RECORD gging Contractor dress gging Method e Well Plugged gging approved by: State Engineer Representative FOR USE OF STATE ENGINEER ONLY Method of Placement Met		•	Sectio	n 4. RECOI	RD OF M	UDDI	NG AND CEM	IENTING				
Section 5. PLUGGING RECORD gging Contractor dress								Ме	thod of Placen	nent		
State Engineer Representative FOR USE OF STATE ENGINEER ONLY												
State Engineer Representative FOR USE OF STATE ENGINEER ONLY	•											
State Engineer Representative FOR USE OF STATE ENGINEER ONLY												
State Engineer Representative FOR USE OF STATE ENGINEER ONLY State Engineer Representative Top Bottom Top			<u> </u>									
No. Depth in Feet Cubic Feet				Sectio	n 5. PLU	GGING	G RECORD					
gging Method Top Bottom of Cement te Well Plugged 1 2 3 State Engineer Representative 4 / FOR USE OF STATE ENGINEER ONLY te Received												
1							No.					
State Engineer Representative 3 4 / FOR USE OF STATE ENGINEER ONLY see Received	te Well Plugg	ged										
FOR USE OF STATE ENGINEER ONLY te Received	RRIUR abbio		C4-1-17 *	D		,						
te Received			State Engir	ieer Keprese	ntative		4					
·	ta Desaluad			FOR USE	OF STAT	re en	GINEER ONL	Y				
and the same of th	te Vecelved				•	Quad _		FWL	· 	. FSL_		
File No Use 1121111 Location No	File No	400 60-	35477	Ġ.	Use	htsi	116.A_	Location No	Margo d		+ B & May 1	

			Section 6. LOG OF HOLE							
Depth	in Feet	Thickness	Color and Type of Material Encountered							
From	То	in Feet								
11	2251	2251	Gravel, Sand & Boulder							
, •			orange of postuce							
		 								
		<u> </u>								
	<u> </u>	<u> </u>								
			•							
	<u> </u>		Tur .							
			300 打砂市(新生) 20 · 5.							
			And Is 1994							
			acceptable ages and							
										

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

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PW-15



Section 1. GENERAL INFORMATION

b. Tract No c. Lot No Subdivis: d. X= the Drilling Condress	sion, recorded ontractor state of surface or sis sis sis	of Map No. of Block No in feet, Y= Comp	1111ng C	fee	f the f the County. ct, N.M. Coordinate	Range	Zone ii Grant		
b. Tract No. c. Lot No. Subdivisi d. X= the Drilling Condress Wation of land mpleted well is Depth in From	sion, recorded ontractor	of Map No of Block No i in feet, Y= Comp	illing C	fee	f the f the County. ct, N.M. Coordinate	E SystemLicense No. 100	Zone ii		
c. Lot No Subdivis: d. X= the Drilling Condress dress evation of land mpleted well is Depth in From 35	entractor	of Block No i in feet, Y= Comp	1111ng C	fee	of the County.	e SystemLicense No. 10	Zone i Gran		
Subdivision of Land mpleted well in From	ntractor 339 12-9-74 1 surface or _	feet, Y= feet, Y= Feynols Comp	illing C	fee	County.	System	Zone ii Grant		
the Drilling Cordress illing Began evation of land mpleted well is Depth in From 35	ntractor 318 12-9-74 1 surface or _	Espanyla, Comp	illing C	12-73		License No.	Gran		
dress illing Began ivation of land mpleted well is Depth in From	12-9-74 1 surface or _	Comp	pleted 12-	12-73	***************************************				
evation of land mpleted well is Depth in From	12-9-74 I surface or _ is	Comp	pleted 125	12-73	·		<u> </u>		
Depth in From	l surface or _	5 · •	: 						
Depth in From 35	is X si				Type tools_	Cable	Size of hole in		
Depth in From 35		hallow 🗆 . a			it well is	ft. Total depth o	of well 96 f		
35	- F		artesian.		Depth to wat	er upon completion o	of well 30,47 f		
35	F	Sec	tion 2. PRIN	ICIPAL W	ATER-BEARING	STRATA	<u> </u>		
35		Thickness in Feet		Description	n of Water-Bearing	Formation	Estimated Yield (gallons per minute)		
-	To						59		
	67	52		and and	Staff.	<i></i>			
					<u></u>				
		·		2 DEC	ORD OF CASING				
Diameter	Pounds	Threads		in Feet	Length	Type of Shoe	Perforations		
(inches)	per foot	per in.	Тор	Botto		1,700.01.01.00	From To		
	lastic		<u>-</u>	70	70				
	47045	· -	70	85		1			
5" #	teel	1	85	76	33	*	<u> </u>		
Depth in	n Feet	Secti		RD OF M	UDDING AND CE		d of Placement		
From	То	Diameter	of N		of Cement	мещо	1 of Fracement		
5	15	12			é seeks	71000			
			Secti	ion 5 PLU	GGING RECORD		:		
ugging Contrac	ctor								
ddress			N WEX	300830	No.	Depth in I	Feet Cubic Feet Bottom of Cement		
ugging Method ate Well Plugge		× · · · · · · · · · · · · · · · · · · ·	301440 A	3 NON	3 3TATA	100	Dottom -		
ugging approve			# .		2"				
		State En	gineer Repre	seplative	61 330 1 4 4		1		
			FOR US	e of sta	TE ENGINEER O	NLY			
ate Received									
1					Quad	FWL _	FSL		

			Section 6. LOG OF HOLE
Depth	in Feet	Thickness	Color and Type of Material Encountered
From	То	in Feet	Cotor and Type of Material Encountered
	1	1	
	<u> </u>	70.0	180 1901
1	35	34	Gravel A Bankdown
35	87	52	Sand and gravel
			And the second s
87	98 .	13	Yollow elay
		* .	e e e e e e e e e e e e e e e e e e e
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		4.1, 44.311 4.132	
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Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Shawrook Drilling Co

Drille

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W-18 X

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E. .

STATE ENGINEER OFFICE
WELL RECORD

_						
Section	1.	GENER	ΑL	INFO	R M A	TION

(A) Owner of	Reet Office	oco School	B		-		Owi	er's Well No	. <u> </u>	
City and	State	ddress Par	inite Kantoo —							
Vell was drilled	l under Permi	t No.	35h18	• •	and	is locate	d in the:			
a. 5 9	_ ¼ _ EW _ :	% %	¼ of Se	ction	To	ownship_	22 R	ange121		N.M.P.1
b. Tract	No	of Map No.		0	of the					
		of Block No.								
		ed in				•	•			
		feet, Y=		fee	et, N.M. Co	oordinate	System			
B) Drilling C	ontractor	Vigils W	11 Pelli	ing			License No	10-523		
	•		, .							
			· ·				Coblo			65/8 i
levation of lan	id surface or .	- 		a	t well is	·	ft. Total dept	h of well	1501	f
ompleted well	is 🛖 s	shallow 🔲 a	rtesian.		Deptl	h to wate:	r upon completio	n of well	151	f
	-	Sec	tion 2. PRIN							
Depth i		Thickness					Formation			Yield
From	То	in Feet		escription	1 OI Water	-Dearing 1	Officiation	ation (gallons per minute)		
150	1504	1351	Ber	ulder,	Sand,	burel	<u> </u>	70 to	10.0	PH
			- ·							
							· · · · · · · · · · · · · · · · · · ·	 		
			Castia	2 DECC	RD OF C	A CIDIC		<u> </u>		<u>.</u>
Diameter	Pounds	Threads	Depth i			ength	Type of Sh	·	Perfor	ations
(inches)	per foot	per in.	Тор	Botton	n ((feet) Type of Sho		F:	om	То
65/81	18.97	hone	70	150	1	501	FSIA		151	1501
	•	Section	on 4, RECOR	D OF MU	DDING A	ND CEM	ENTING			
Depth in	n Feet To	Hole Diameter	Sacks of Mu	3	Cubic F	eet	3	od of Place	Z ent	
:		,	Of Ma		Of Control	-		m -	=	
								Z Z		
							, i		<u> </u>	
	•						S.	<u> </u>	•	
:	•	į	 Section	5. PLUG	GING RE	CORD	X	#01a.	i i	
gging Contrac	ctor			÷			÷			
dress gging Method				·		No.	Depth in			oic Feet
te Well Plugge	:db		ty ·			1	Top	Bottom	01	Cement
gging approve	ed by: `					3				
:	• ;	State Engir	neer Represer	ntative	# (·	4		· · · · · ·		
			FOR USE C	F STATE	ENGINE	ER ONL	Y			
te Received										
				Ch	1ad		FWL _		FCI	

Section 6. LOG OF HOLE

Deptl	n in Feet	Thickness	Section 6. LOG OF HOLE
From	То	in Feet	Color and Type of Material Encountered
-11	151	15.	Black Mrt & Green
151			
	391	251	Boulder & States
	501	801	Grand
_	1		
501	701	201	Boulder & Organi
701	201	201	Boulder & Grand
		1 "	
<u> 981</u>	951	50	Solid Rock
951	3301	101	
**		140	Sand Street,
1101	2301	201	Grand
1301	3501	1	
	130	50.	CPANS .
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Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

PW-20

Section 1. GENERAL INFORMATION

Street o	of well Pen or Post Office Ac d State	ddress	Church iam Mars isal, M.	of God, shall F M. 87521	Tndian M Box 2	ission Own	er's Well No	1.
Well was drille	ed under Permit	No PG-	48882		and is locate	d in the		
a. <u>SW</u>	%NA %	4 <u>SS</u> *_T	aos Coun	ection ity	Township _	22 ¹ Ra	nge	N.M.P.M.
c. Lot i Subd	No livision, recorde	of Block No d in		of th	e County.		· · · · · · · · · · · · · · · · · · ·	
d Y=		feet V=		feet N	M Coordinate	System		Zama in
the_		·				· · · · · · · · · · · · · · · · · · ·	· · ·	Grant,
	-			·		License No	WD-1.158	
	······································							·
						Potary-Air		
Elevation of la	and surface or _	Unkn	own	at we	ll is n/a	ft. Total depth	of well 11	2ft.
Completed we			artesian.			r upon completion		
		Se	ection 2. PRIN	ICIPAL WATE	R-BEARING S	TRATA	<u>.</u> 13. 48. 4	
Depth From	in Feet To	Thicknes in Feet		Description of	Water-Bearing	Formation		ted Yield per minute)
84	92	8	Lio	ose Grav	el and S	and	12	
							ŝ	
				: 		•	:	
				:				,
			Sectio	n 3. RECORD	OF CASING			
Diameter (inches)	Pounds per foot	Threads per in.	Depth		Length	Type of Sho	36 	erforations
4-211	2.08	Glued	<u>Top</u> +2	Bottom 110	(feet)	none	From 90	110
42	2.00	Graed	+2	110	4.62	none	1 90	110
ļ	<u> </u>				 			
L	ا بنو	<u> </u>				<u> </u>		
	V	Sec	tion 4. RECO	RD OF MUDD	ING AND CEM	ENTING		
Depth From	in Feet To	Hole Diameter	Saci of M		ubic Feet Cement	Metho	od of Placeme	nt
	=						883	
						B		
						E E	22 0	,
<u>L</u>	42	L				- T	D. T.	<u> </u>
Dharaina Cant	4		Sectio	on 5. PLUGGIN	IG RECORD		アフラ	
Plugging Conti Address						Depth in	From C	Cubic Feet
Plugging Meth					No.	Top	Bostom	of Cement
Date Well Plug	-				<u> </u>			
Plugging appro	wed by:			•	2			
		State En	gineer Repres	entative	4			
Date Received			FOR USE	OF STATE EN	GINEER ONL	Y	5	
Date Received				Quad		FWL _	1	FSL
File No	H-4	8882		_ Use	on	Location No.	2.11:5	413

Section 6. LOG OF HOLE

Depth	in Feet	Thickness	Color and Type of Material Encountered
From	То	in Feet	Cotor and Type of material Encountered
0	2	2	Brown Topsoil
2	7	5	Boulders and large Gravel
7	17	10	Red coarse Sand
17	24	7	Loose Gravel and Sand, Dry
24	67	43	Redish Caliche or Clay with gravel streaks
67	84	17	Compact fine red Sand
84	92	8	Gravel and Sand, Wet Hard Cap on top
.92	110	18	Red compact Sand or soft Sand stone
			-
		·	

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			The state of the s
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Section 7. REMARKS AND ADDITIONAL INFORMATION

Blew well down to clean out, set casing, surged well to develop for three hours, water cleaned up very ninely, ran flow test at sustained 12 GPM. Broke down to move location.

The undersigned hereby certifies that, to the best of his knowledge and belief the toregoing is a true and correct record of the above described hole.

Lynx Prilling Company

Drille

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is

			Section	I. GENERAL I	NFORMATIO	N -		
A) Owner o	of well	renold	Lopez			Owner's	Well No 16-65082	
Street or	r Post Office A	ddress	2 Bax	36 6 8 7.55				
			,			-		
ell was drille	d under Permit	No. #C/-	- 1382	6	_ and is locate	d in the:	.:	
	ا مگرا به باد	v delve	414.50		T	774) n	12E N.M.P.N.	
a	_ 4 22.0_ 7	د ۳۰ <u>س</u> ومد ۳	<u> </u>	ection O	rownsnip.	Kange	<u>್</u>	
b. Tract	No	of Map No		of the	·		<u></u>	
c Lot N	No.	of Block No		of the			1	
Subdi	ivision, recorde	d in	1405	of the	County.			
		teet, Y=		feet, N.	.M. Coordinate	System	Zone in Grant.	
		0.		11 /	11:			
		_				License No. 44		
ddress	2.0.00	x 57	' (Dursto	Nm	8755	6	
rilling Began	5/20/97	Z Com	pleted _2/	30/91	_ Type tools \	3 CONE Bil	_ Size of holein.	
evation of la	nd surface or .	7408	,	at wel	ll is	ft. Total depth of	well 105 ft.	
		/				-		
mpleted wel	ll is 🚅 s	shallow 🔲 .	irtesian.		Depth to wate	r upon completion o	f well ft.	
		Sec	tion 2. PRIN	ICIPAL WATEI	R-BEARING S	TRATA		
Depth	in Feet	Thickness					Estimated Yield	
From	То	in Feet		Description of	water-Bearing	rormation	(gallons per minute)	
O'	10'		7	ip soi	111	last		
				,				
10'	30'	 		sand cobbles				
30°	43'		C	lav				
1121	10.5				navel	/	10 11	
43	105	<u> </u>	<u> </u>	AND C	Mavel		13 go/lens	
			Section	n 3. RECORD	OF CASING			
Diameter (inches)	Pounds per foot	Threads		in Feet	Length	Type of Shoe	Perforations	
······	per toot	per in.	Тор	Bottom	(feet)	•	From To	
4/2			D'	65	65		65' 105'	
• • • • • • • • • • • • • • • • • • • •								
			 	 	<u> </u>	 	- 3	
	ì	1 1						
				·				
		Section	on 4 RECO	RD OF MUDDI	ING AND CEN	IENTING		
Depth	in Feet	Section Hole	on 4. RECO	RD OF MUDDI	ING AND CEM			
Depth From	in Feet			cs Cu			r.s	
	То	Hole	Saci of M	cs Cu ud of	bic Feet	Method	of Placement	
From		Hole	Saci	cs Cu ud of	bic Feet		of Placement	
From	То	Hole	Saci of M	cs Cu ud of	bic Feet	Method	of Placement	
From	То	Hole	Saci of M	cs Cu ud of	bic Feet	Method	of Placement	
From	То	Hole	Saci of M	cs Cu ud of	bic Feet	Method	of Placement	
From	То	Hole	Saci	cs Cu ud of	bic Feet Cement	Method	of Placement	
From	To 105'	Hole	Saci	es Cu ud of	bic Feet Cement	Method	of Placement	
gging Contra	To /05 /	Hole	Saci	es Cu ud of	G RECORD	Method	of Placement	
gging Contradress	To	Hole	Saci	es Cu ud of	G RECORD	Method	of Placement	
gging Contra	To 105' actor	Hole	Saci	es Cu ud of	G RECORD	Method	of Placement	
gging Contradress gging Metho te Well Plugg	To 105' actor	Hole Diameter	Sack of M	rs Cu ud of	G RECORD No.	Method	of Placement	
gging Contradress gging Metho te Well Plugg	To 105' actor	Hole Diameter	Saci	rs Cu ud of	G RECORD No. 1 2	Method	of Placement Compared to the control of Cement	
gging Contradress gging Metho te Well Plugg	actordgedwed by:	Hole Diameter	Saciof M 4 SAC Section	rs Cu ud of	G RECORD No. 1 2 3 4	Depth in Fee	of Placement Compared to the control of Cement	
gging Contradress gging Metho te Well Plugg	To 105' actor	Hole Diameter	Saciof M 4 SAC Section	n 5. PLUGGING	G RECORD No. 1 2 3 4	Depth in Fee	of Placement Compared to the control of Cement	

Depth in				
From	То	Thickness in Feet	Color and Type of Material Encountered	o.
			TM:	$\mathcal{L}_{\mathcal{O}_{\mathcal{N}}}$
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Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

pw.73

Location No.

Section 1. GENERAL INFORMATION

			T	ohn Orte	70 ·					
A) Owner o	f well ————— Post Office Ad State ————		 	•0 Box	46	Owner	r's Well No			
Street or	State	dress	P	enasco,	ч.м. 875	53				
				•				,		
	d under Permit									
SE	K SE K	NE 4	% of Se	ction 36	Township	23N Ran	ge 11E	N.M.P.1		
		•					Taos Co	unty		
b. Tract	No	of Map No.		of the			•			
c. Lot N Subdi	vision, recorded	d in		Of the	ounty.					
								_		
d. X=		_ feet, Y=		feet, N.	M. Coordinate	System	1/3	Zone Gran		
· · · · · · ·										
) Drilling (Contractor	ТЛ	nx Drii	ling Com	pany	License No	VD-1158	·		
	•	P.	O. Box	565 Mo	a New M	exico 87573	3			
ddress			7 1	7 00		Doton: Ain	دى	- 6111		
rilling Began	<u>3-8-88</u>	Comp	leted 5-1	1-00	Type tools_	Potary-Air	Size of h	olei		
						ft. Total depth				
evation of la	nd surface or					•				
ompleted we	llis 🗂 al	hallow 🗆 a	rtesian.	1	Depth to wate	r upon completion	of well37	f		
			o DDIN	OIDAI WATEE	DEADING S	TDATA				
Donah	in Feet	Thickness	ion 2. PRIN	CIPAL WATER	-DEARING 3	IKAIA	Retime	ted Yield		
From	To	in Feet	. 1	Description of V	Vater-Bearing	Formation		per minute)		
	98	19	Co	mpacted :	Sand and	Gravel	12			
79	90	1.7		mpacted:	Sairu anu	GIAVEL	3.4			
	,						1 7			
								1 ST 1 1 1 1 1 1		
	1									
										
					7,					
					· · · · · · · · · · · · · · · · · · ·					
				n 3. RECORD	OF CASING					
Diameter	Pounds	Threads ner in	Depth	in Feet	OF CASING Length	Type of Sho	e 			
(inches)	Pounds per foot	per in.	Depth Top	in Feet Bottom	OF CASING Length (feet)	Type of Sho	Fro	na To		
	Pounds per foot	1 . —	Depth	in Feet	OF CASING Length	Т	e 			
(inches)	Pounds per foot	per in.	Depth Top	in Feet Bottom	OF CASING Length (feet)	Type of Sho	Fro	na To		
(inches)	Pounds per foot	per in.	Depth Top	in Feet Bottom	OF CASING Length (feet)	Type of Sho	82	па То		
(inches)	Pounds per foot	per in.	Depth Top	in Feet Bottom	OF CASING Length (feet)	Type of Sho	82	па То		
(inches)	Pounds per foot	per in. Glue	Depth Top	in Feet Bottom 102	DF CASING Length (feet) 102	Type of Sho	82			
(inches)	Pounds per foot	per in. Glue	Depth Top	in Feet Bottom 102 RD OF MUDDI	DF CASING Length (feet) 102	Type of Sho	Froi 82	na To 102		
(inches)	Pounds per foot	glue Section	Depth Top O	in Feet Bottom 102 RD OF MUDDICS Cu	DF CASING Length (feet) 102	Type of Sho	82	na To 102		
(inches) 4\frac{1}{2}\frac{1}{2}	Pounds per foot 2.18	Glue Section	Depth Top O on 4. RECO	in Feet Bottom 102 RD OF MUDDICS Cu	DF CASING Length (feet) 102 NG AND CEI bic Feet	Type of Sho	82	na To 102		
(inches) 4\frac{1}{2}\frac{1}{2}	Pounds per foot 2.18	Glue Section	Depth Top O on 4. RECO	in Feet Bottom 102 RD OF MUDDICS Cu	DF CASING Length (feet) 102 NG AND CEI bic Feet	Type of Sho	82 82 Sept Placement	na To 102		
(inches) 4\frac{1}{2}\frac{1}{2}	Pounds per foot 2.18	Glue Section	Depth Top O on 4. RECO	in Feet Bottom 102 RD OF MUDDICS Cu	DF CASING Length (feet) 102 NG AND CEI bic Feet	Type of Sho	82 82 84 86 86 86 86 86 86 86 87 87 87 87 87 87 87 87 87 87 87	na To 102		
(inches) 4\frac{1}{2}\frac{1}{2}	Pounds per foot 2.18	Glue Section	Depth Top O on 4. RECO	in Feet Bottom 102 RD OF MUDDICS Cu	DF CASING Length (feet) 102 NG AND CEI bic Feet	Type of Sho	82 82 86 Place ARR 25 A	na To 102		
(inches) 4\frac{1}{2}\frac{1}{2}	Pounds per foot 2.18	Glue Section	Depth Top O on 4. RECO	in Feet Bottom 102 RD OF MUDDICS Cu	DF CASING Length (feet) 102 NG AND CEI bic Feet	Type of Sho	82 82 84 Place R 25 Place R 25 Pl	na To 102		
(inches) 4\frac{1}{2}\frac{1}{2}	Pounds per foot 2.18	Glue Section	Depth Top O Son 4. RECO Saci	in Feet Bottom 102 RD OF MUDDI ss Cu ud of	DF CASING Length (feet) 102 NG AND CEI bic Feet Cement	Type of Sho	82 82 84 Place R 25 Place R 25 Pl	na To 102		
(inches) 4\frac{1}{2}\frac{1}{2}	Pounds per foot 2.18	Glue Section	Depth Top O Son 4. RECO Saci	in Feet Bottom 102 RD OF MUDDICS Cu	DF CASING Length (feet) 102 NG AND CEI bic Feet Cement	Type of Sho	82 86 87 86 87 87 87 87 87 87 87 87 87 87 87 87 87	na To 102		
Unches) 42 m Depth From	Pounds per foot 2.18 in Feet To	Glue Section	Depth Top O Son 4. RECO Saci	in Feet Bottom 102 RD OF MUDDI ss Cu ud of	DF CASING Length (feet) 102 NG AND CEI bic Feet Cement	Type of Sho	82 800 Place R OFFICE	nt To 102		
Unches) 4 1/2 m Depth From	Pounds per foot 2.18 in Feet To	Glue Section	Depth Top O Son 4. RECO Saci	in Feet Bottom 102 RD OF MUDDI ss Cu ud of	DF CASING Length (feet) 102 NG AND CEI bic Feet Cement	Type of Sho	82 800 Place R OFFICE	na To 102		
Unches) 41 m Depth From	Pounds per foot 2.18 in Feet To ractor od	Glue Section	Depth Top O Son 4. RECO of M Section	in Feet Bottom 102 RD OF MUDDI ss Cu ud of	OF CASING Length (feet) 102 NG AND CEI bic Feet Cement G RECORD No. 1	Type of Sho	82 82 82 83 84 87 82 83 84 84 84 84 84 84 84 84 84 84 84 84 84	na To 102 nat		
(inches) 4\frac{1}{2}\frac{1}{2}	Pounds per foot 2.18 in Feet To ractor od gged	Glue Section	Depth Top O Son 4. RECO of M Section	in Feet Bottom 102 RD OF MUDDI ss Cu ud of	OF CASING Length (feet) 102 NG AND CEI bic Feet Cement G RECORD No. 1 2	Type of Sho	SE SE SE SE SE SE SE SE SE SE SE SE SE S	na To 102 Int Cubic Feet of Cement		
Unches) 41 m Depth From Ungging Cont. ddress Ungging Methelate Well Plug	Pounds per foot 2.18 in Feet To ractor od gged	Section Hole Diameter	Depth Top O Saclof M Section	in Feet Bottom 102 RD OF MUDDI sud of	OF CASING Length (feet) 102 NG AND CEI bic Feet Cement G RECORD No. 1 2 3	Type of Sho	82 82 82 83 84 87 82 83 84 84 84 84 84 84 84 84 84 84 84 84 84	na To 102 nat		
Uugging Contiddress	Pounds per foot 2.18 in Feet To ractor od gged	Section Hole Diameter	Depth Top O Son 4. RECO of M Section	in Feet Bottom 102 RD OF MUDDI sud of	OF CASING Length (feet) 102 NG AND CEI bic Feet Cement G RECORD No. 1 2	Type of Sho	82 82 83 84 86 87 87 88 88 88 88 88 88 88 88 88 88 88	nt To 102		
Unches) 41 m Depth From Ungging Cont. ddress Ungging Methelate Well Plug	Pounds per foot 2.18 in Feet To ractor od gged	Section Hole Diameter	Depth Top O On 4. RECO Sacl of M Section	in Feet Bottom 102 RD OF MUDDI sud of	OF CASING Length (feet) 102 NG AND CED bic Feet Cement G RECORD No. 1 2 3 4	Type of Sho none MENTING Method FOR THE TYPE TO THE TYPE TO THE TYPE TYPE TYPE TYPE TYPE TYPE TYPE TYP	SE SE SE SE SE SE SE SE SE SE SE SE SE S	nt To 102		

Section 6, LOG OF HOLE

Depth	in Feet	Thickness	Color and Type of Material Encountered
From	То	in Feet	I the control of the
0	6	6	Red Topsoil and gravel
6	11	5	Large gravel and boulders
μ. 11 : 25	21	10	Fine Red Sand
21.1	66	45	Redish Clay and Caliche
(66	79	1.3	Caliche and small gravel
79	98	19	Compacted sand and gravel (wet)
98	102	1,	Unconsolidated large gravel
<u>.</u>			0.8a
			<u></u>
			in the state of th
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Section 7. REMARKS AND ADDITIONAL INFORMATION

Blew well to clean up, set casing and shut down for day. Returned next morning, measured static water level at 37' Blew well for about 3 hrs until clear, measured flow at 12 GPM Broke down and moved location.

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Lynx Drilling Company

Jim Bell

Driller

	# :	9	Section 1.	GENERAL I	NFORMATION	N24 PI: 0	
(A) Owner of	well	110 0	- Gahr	1.1.0°		Owner's	Well No.
Street or I City and S	tate	iress	1.1.1	744 3 7	3.3 3 Alt	ENGINEER OFFIC	
Well was drilled					7117011	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	v
							1/E N.M.P.M.
-					10wnsnip		N.M.I.
							* ** ***
c. Lot No Subdiv	ision, recorded	in	US.	of th	county.		
d. X= the		feet, Y=		feet, N	I.M. Coordinate	System	Zone in Grant.
(B) Drilling C	ontractor	Karara	1. L. K	lill		License No. 1V	13/15/
Address 140	12 Soft	13 8	st. Lo	mar, C	0 8105	2	
Drilling Began _	4-12-8	& Com	pleted	-14-88	Type tools	Air Retor	I Size of holein.
Elemtion of lan	d surface or	4.33%	ĵ	at we	ell is 1. 3	ft. Total depth of	well 70 ft.
	J						f wellft.
Completed well	sh السادis ا	allow			Depth to wate		it.
Depth i	n Feet To	Thicknes in Feet	s ,		Water-Bearing		Estimated Yield (gallons per minute)
From	70	2/6	/3	ravet.	1.12.661		10
							
		T			OF CASING		Perforations
Diameter (inches)	Pounds per foot	Threads per in.	Top	in Feet Bottom	Length (feet)	Type of Shoe	From To
5'00	400	UPVC	+1.5	90	91.5		70 90
							1455
	<u> </u>	San-	tion 4 DECO	DD OF MID	DING AND CE	MENTING	
Depth From	in Feet To	Hole Diameter	Saci	ks (Cubic Feet of Cement		of Placement
t commit	Seal to	by place	ed whe	stre	1 Surface	er pipe is	installed
1.72	+ 1666	laved	in.				
:		,					**************************************
			Section	on 5. PLUGGI	NG RECORD	STAT ALB	IR 88
Plugging Contra Address						Desired F	cet Cubic Feet
Plugging Metho	d				No.		Bottom of Cement
Date Well Plugg Plugging approv	-				1 2	C THE	
35 5		State En	ngineer Repres	entative	3	2-0	

Date Received			FOR USE	OF STATE E	ENGINEER ON	LY	
	UG. 4	المعاد المواورات		Qua		FWL	FSL
File No.	4.4.	1739		Use	11.2	Location No.	1111100 710

a.u.e. ... 113.

<u> </u>			Section 6. LOG OF HOLE							
Depth From	in Feet To	Thickness in Feet	Color and Type of Material Encountered							
	1.0	20								
الو	3.5	15	1106-1600,00							
35	46	1.1	215th it could							
46	90	44	Gravel + Cubbles							
		,								
		ļ								
			n.							
	,									

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Drille

(Jupica)



Section 1. GENERAL INFORMATION

Street or City and	Post Office Ad State Pana	dress _ Ba	M. 8	1553					
ell was drilled	under Permit	No. RG-	48086		_ and is located	in the SAIL.	温层层推炼的	•	
						23 N Rang			
b. Tract 1	No	of Map No	o	of the	·		·		
c. Lot No	o	of Block No.	1205	of the	County.				
•						System		Zone	
the			•					Gran	
) Drilling C	ontractor	Korman	2.4/1			License NoW	D-1151	 	
	Box 783,								
rilling Began .	2-26-8	Con	npleted 2 -	2988	_ Type tools	lir Rotary	Size of hole_	7 % i	
						ft. Total depth o			
ompleted well		hallow 🗀	*	•		r upon completion (
					R-BEARING S			•	
Depth	in Feet	Thicknes			Water-Bearing I		Estimated		
From	То	in Feet					(gallons per minute)		
70	81	11.	1		Clay Laye	245		3	
190	198	8	Frac	stured 1	Malpi				
				· .	· · · · · · · · · · · · · · · · · · ·				
		<u> </u>							
		,		on 3. RECORD			D. f.		
Diameter (inches)	Pounds per foot	Threads per in.	Depth Top	in Feet Bottom	Length (feet)	Type of Shoe Fro		rations To	
\$. K	Twall 3	tecl	+1.5	5.5	7			<u> </u>	
	Shed 40	1 1	5	220	215		70	80	
	•						190	200	
		Sec	tion 4. RECO	RD OF MUDD	ING AND CEM	IENTING	<u> </u>		
Depth From	in Feet To	Hole Diameter	Sac	ks C	ubic Feet f Cement		i of Placement		
0	10	75"			2	Poured			
	, , ,	<u> </u>				, , , , , ,			
							. 😄		
		1	:	L		¥, E	STA MA		
		et .	Section	on 5. PLUGGII	NG RECORD	TBUQU	n 7		
ddress	actor				No.	Depth 📆		ubic Feet	
	od			•		Top E	mottom o	f Cement	
ate Well Plugs lugging appro	ged				$\frac{1}{2}$	+		•	
reserve abbro.		State E.	ngineer Repre	sentative	3				
		State El	"Pulcer Kehle			<u> </u>	iii.		
						. 37			
Date Received			FOR USE		ngineer on	LY FWL	•		

 ${\bf J}_{{\bf F}_{\rm cons}} = {\bf J}_{\rm cons} \times {\bf K}$

Section 6. LOG OF HOLE

De-+1	h in Feet	Thirling	Section 6. LOG OF HOLE
From	To	Thickness in Feet	Color and Type of Material Encountered
	10	10	Surface
	39	29	Sand
29	41	/2	Clay + Gravel Layor - Grey
41	70	29	Clay-Tan
70	81	/)	Clay with lagers of Sandstone
81	190	109	Clay - Brown
190	198	8	Fractured Malpi
198	220	22	Clay-Brown
			*
		•	
·			

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Drille

STATE ENGINEER OFFICE

WELL RECORD

STATE CONTINUER OFFICE Section 1. GENERAL INFORMATION

Street o	r Post Office A			_ \delta			Own	er a men Mo.	110 001	
City and	State Pen	asco, N	м. 8755	3						
Well was drille	d under Permit	t No. RG= 3	8097		and	is located	in the:			
aSE	¼SE	¼ <u> </u>	SE ¼ of S	ection	25 To	ownship _	23N Ra	nge 1	1E NI	
b. Tract	No	of Map N	lo		of the		: · ·			
c. Lot N	۷٥	of Block No)		of the			:		
Subd	ivision, recorde	ed in	Taos		Count	у.				
d. X= the _		feet, Y=		f	eet, N.M. Co	oordinate	System		z	
	2						License No. W		(
					1.0		License NoW	<u>D-514</u>		
	ar Rte.,	. T	· .					·		
							cable			
							ft. Total depth		Array San San San	
ompleted wel	llis <u>Sc</u> lsi	hallow [artesian.		Depti	to water	upon completion	of well	65	
Depth	in Feet	Thickne	ection 2. PRIN	CIPAL W	ATER-BEA	RING ST	RATA			
From	То	in Feet		Description	on of Water	Bearing F	Formation Estimated Yield (gallons per minute)			
65	102	37	cla	ц, ва	nd & g	ravel		15		
		·						 ند.		
					<u> </u>			4		
·		, ,	Section	n 3. REC	ORD OF C	ASING				
Diameter (inches)	Pounds per foot	Threads per in.	Depth Top	in Feet Botto		ength feet)	Type of Sho	Fro	Perforations m To	
65/80D	. 13	_ 0	0	102) 10	02	steel		2 102	
	· · · · · · · · · · · · · · · · · · ·									
	i,									
		Sect	ion 4. RECO	RD OF M	UDDING A	ND CEMI	ENTING			
Depth i	n Feet To	Hole Diameter	Sacl of M	s	Cubic Fo	et		nod of Placement		
					3. 333	-				
			 							
					:					
		·.	<u> </u>	l						
			Sectio	n S. PLUC	GGING REC	CORD		·		
ugging Contra idress						N-	Depth in F	cet	Cubic Fee	
agging Method ite Well Plugge						No.	Тор	Bottom	of Cemen	
agging approve						2				
		State Eng	gineer Represe	ntative		3 4				
								<u>_</u>		
			FOR USF	OF STAT	E ENGINE	ER ONI V		*		
ite Received			FOR USE		E ENGINE	ER ONLY	FWL_		FSL	

			Section 6, LOG OF HOLE
Dept! From	To To	Thickness in Feet	Color and Type of Material Encountered
0	2	2	Brown adobe
2	25	23	Red clay & sand
25	30	5	Tan boulders
30	65	35	Red clay & sand
_ 65	102	37	Red clay, sand & gravel
	5		
	er Commonwealth		
	.5		
*.	# :		
	*. *		
	\$ 5		
	nda (Br. 185		
	· .		
	# 1		
	\$ \$\display		

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and a of the State of regiment. All sections, except Section 5, shall be answered as completely as seen of the state of the section of the State of the section of t

to the appropriate district office.

ly as possible their any the confidence of the

PW-27

Street or P	ost Office A			In No.	des	Own	51 8 WELL NO.	
/as drilled t	under Permi	No.	-1250		_ and is located	l in the:	* *.	
a	1/4 112	4 SW 4 8	≇ ¼ of Se	ction 🖁	Township _	233 Ra	nge 112	N.M.P.M.
b. Tract N	o	of Map No.		of th	e			
	• "							•
				feet, N	.M. Coordinate	System		Zone in Grant.
Drilling Co	ntractor	panano 's	WELL BY	all law		License No	606	
ss		to 1 Dec	100				٠.	
	_		_	/79	Type tools	Colda	Size of	holein.
							n of well	200 ft.
								60 ft.
10100 1, 011								
		Thickness						nated Yield per minute)
	10	200	6			•	12	
						· · · · · · · · · · · · · · · · · · ·	1:4	
				e.			1	
			Section	n 3 RECORE	OF CASING			
ameter	Pounds	Threads	Depth	in Feet	Length	Type of Sh	oe 	Perforations
		per m.	Тор	Bottom	(Teet)	20mm		-
	"/							
				<u> </u>		<u> </u>		
			ion 4 PECO	PD OF MIDT	ING AND CEN	(ENTING	<u> </u>	
		Hole	Sacl	ks C	ubic Feet		od of Placen	ient
·rom	10	Diameter	01 111		a contont	 		
		 	:				-	. •
		 				* .		
L		<u> </u>	<u> </u>	<u></u>				
na Contra	nto=		Section	on 5. PLUGGI	NG RECORD			•
ss		A MEX.	ากเมารเน	6	No.			Cubic Feet of Cement
Well Plugge		30/140	ENGINEER	STATA		100	20110111	
	ed by				3		· · · · · · · · · · · · · · · · · · ·	
ng approve								
		State Br	incer opres	Intadity 02	4			
ng approve			FOR USE			LY		
		State 17, 1979	FOR USE		4 NGINEER ONI	LY FWL		FSL
	Street or P City and S as drilled a a b. Tract N c. Lot No Subdivi d. X= the Drilling Co ss ion of land leted well Depth in from City and State	Street or Post Office Address City and State as drilled under Permit No. a	Street or Post Office Address City and State Tas drilled under Permit No. a.	Street or Post Office Address City and State as drilled under Permit No. a.	Street or Post Office Address City and State as drilled under Permit No. a	Street or Post Office Address City and State as drilled under Permit No. a.	Street or Post Office Address City and State as drilled under Permit No. and is located in the: a.	

Section 6. LOG OF HOLE

Depth in Feet Thick		Thickness	
From	То	Thickness in Feet	Color and Type of Material Encountered
		·	
,		5 9	116 TI BUG 17 All:
		·	J ADD
		37:	STATE
			A
		·	
Ì			

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record on the Section 10.

STATE ENGINEER OFFICE

WELL RECORD

) Owner of	wellG	ene A. Sad	coman			·	Own	er's Well No	<u> </u>	
Street or	Post Office Ad	idress Penasco, l	2.0. Bo	x 47						
City and S	state	Pellasco, 1	N.M. O ()						
ll was drilled	under Permit	No. RG-7	1598		and	is located i	n the:			
a. <u>NE</u>	_ %NE %	4_SW_ %	¼ of Sec	ction	<u></u> т	ownship <u>2</u>	2N Ra	nge 12E	N.M.P.M	
		of Map No							i	
c. Lot No)	of Block No		o	f the					
	•	d in Tag				-		- A		
d. X= the		_ feet, Y=		tee	t, N.M. C	oordinate S	ystem		Zone in	
Drilling C	ontractorV	igil's We	<u>11 Dril</u>	ling_			License No	WD-523		
dresš	P.O.	Box 142 R	anchos	De Tac	oș. TN	м.:875	57			
lling Began _	4/8/99	Compl	eted _4/9	/99	Ту	pe tools Ro	tary	Size of h	ole <u>7"</u> in	
vation of lan	d.surface or _			a1	well is_		ft. Total depti	h of well	180' ft.	
mpleted well	is XXX s	hallow 🗆 ar	tesian.		Dep	th to water i	pon completio	n of well	117' ft.	
		Secti	on 2. PRIN	CIPAL WA	TER-BE	ARING STI	RATA	*	<u> </u>	
Depth i	n Feet To	Thickness in Feet	I	Description	of Wate	r-Bearing Fo	rmation		nted Yield per minute)	
117'	180'	63'		Grave	<u> </u>			10-15		
L1./				GLAVE			1			
							•			
						··· ··· · · · · · · · · · · · · · · ·		1		
			Sectio	n 3. RECC	ORD OF	CASING		4.5.		
Diameter	Pounds	Threads		in Feet		Length	Towns of Ch		erforations	
(inches)	per foot	per in.	Тор	Botto	n	(feet)	Type of Sh	Fro	m To	
6 5/8"	12-5	none	1.1	180	•	180'	421W	12	0' 180'	
		 					·			
. Depth	in Feet	Sectio Hole	n 4. RECO		JDDING Cubic	AND CEME		<u> </u>	<u> </u>	
From	То	Diameter	of M		of Cer		Meth	od of Placent	ant Rog	
•		·		·	:			- 25		
								3		
								Tring.	taria	
	. -		Sectio	n 5. PLUC	GING R	ECORD		उ	er en	
gging Contra	actor									
dress		· · · · · · · · · · · · · · · · · · ·				No.	Depth in		Cubic Feet	
gging Metho te Well Plugs							Тор	Bottom	of Cement	
gging approv						$\frac{1}{2}$				
		State Engir	neer Repres	entative		3 4		, 1		
		- O	FOR HISE	OF STAT	E ENGIN	EER ONL	,			
e Received	4.13.	44	. OR OUD)uad	~	FWL		FSL	
1) ()	1500		•	(uau	·/		00.1.1	T. E. S	
File No.	10.1	しての		Use	<u> ١</u> س) 1	ocation No.	XXIV : 10	インシ	

Depth in Feet Thickness			Section 6. LOG OF HOLE					
From	· To	in Feet	Color and Type of Material Encountered					
1'	20'	20'	Boulder & Gravel					
20'	40'	20'	Boulder & Gravel					
40'	60'	20'	Red Clay					
60'	80	20'	Red Clay					
80'	100'	20'	Gravel					
00'	120'	20'	Clay & Gravel					
20'	140'	20'	Sand & Gravel					
40'	160'	20'	Sand & Gravel					
60'	180'	20'	Gravel					
· · · · · · · · · · · · · · · · · · ·		,						
			i diving maga medicapan era era era era era era era era era era					
······································								
		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4						
		i i						
	,	A A A CONTRACT		•				
				<u> </u>				
			Algebraic is					
		jos (of the colour and share the same of the sa					
			The state of the s					

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole:

Drille

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a physicing record, only Section 1(a) and Section 1.

PW-29

Street or	Post Office Ad	James	98				Ow	ner's We	ll No		
•		dito N.M. No. RG-				is located	in the:				
		SW 4 S						Zance	12E	NMPM	
										1,1,141,141,	
b. Tract	No	of Map No.		o	f the						
c. Lot N Subdi	o vision, recorde	of Block No d inTac	os	0	f the _ Count	y.	•				
d. X= the		_ feet, Y=		fee	t, N.M. C	oordinate S	ystem			Zone in Grant.	
(B) Drilling (Contractor	Vigil's	well	Drilli	ng		_ License No.	WD	-523		
Address	P.O. Box	142 Rang	chos De	Taos,	N.M.	87557					
Drilling Began	6/17/98	Comp	leted <u>6/</u>	17/98	Туј	e tools	Cable	s	ize of hole		
Elevation of la	nd surface or _				t well is_		_ ft. Total dep	th of we	8 11:	14 ' ft.	
Completed wel		hallow 🗆 a									
Sompleted wer				,					* /		
Depth	in Feet	Thickness	ion 2. PRIN					- T	Estimate	d Yield	
From	То	in Feet		Description	of Water	-Bearing F	ormation		gallons pe	r minute)	
65'	84'	19'		G	ravel				10-1	15	
	l [.]			27 10 1					;- II.		
				! !							
								+			
		<u> </u>		***		<i>:</i>			**		
Diameter	Banada			n 3. RECC				 	Dan	forations	
Diameter (inches)	Pounds per foot	Threads per in.	Тор	Bottor		ength (feet)	Type of S	hoe	From		
6 5/8"	12-5	none	1'	84	,	84'	421-W		49	84'	
				1							
							•				
	I		4 0000		<u> </u>						
. Depth	in Feet	Section Hole	on 4. RECO		Cubic l		CEMENTING Method of Placement				
From	То	Diameter	of M	ud	of Cen	ent	Me	inod of	Placement	28	
										ŽÄ.	
									22		
					:				2:		
····	l	I	I			, ! ,				<u></u>	
			Sectio	n 5. PLUG	GING RI	ECORD			7	SA	
lugging Contr Address	actor			+			Depth	in Feet		Cubic Feet	
lugging Metho						No.	Top	Bott		of Cement	
Date Well Plug Plugging appro	~		·····			1 2			\rightarrow		
22 3 1112	-	State Engi	neer Represe	entative		3					
	Part of the second of the second of the second					4	_			. R	
Date Received	6-22	-98	FOR USE			EER ONLY					
	DC (C) 2 7		Q :	uad		FWL			bc (/2	
File No	120-67	1800		Use	100	m_{\perp}	ocation No.2	W.	12E	100142	

			Section 6, LOG OF HOLE	
Depth From	in Feet	Thickness in Feet	Color and Type of Material Encountered	
1'	20'	20'	Boulder & Gravel	
20'	40'	20'	Boulder & GRavel	
40'	601	20'	Brown Clay	-
60'	70'	10'	Sand & Gravel	
_70*	84'	14'	Gravel	
			5	
		·		
				
				11
				·····
			1:	· · · · · · · · · · · · · · · · · · ·
				1.
		ī		
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i				

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Deller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record as large section 10.

Street or	Post Office A	e Fresque ddressB	ox 125		07554				
	State	R	odarte	N.Mex.	87561				
		No. RG-54	450		and is located	d in the:			
			:		- ···		- 25		N M B M
a. <u>8E</u>	_ ¼ <u>NW</u> _}	6 SE %	¼ of S	ection	Township 2	ZNIZE	7)	N.M.P.M
b. Tract	: No	of Map No.		of t	the	77-	y 0	2	
	:					يين		-0 ì	
c. Lot N	0	of Block No		of	the	- =	الإستار		
Subdi	vision, recorde	d in <u>RIO</u> A	RRIBA		_ County.	, it	(). E ()	70	
d. X=	<u> </u>	feet, Y=		feet,	N.M. Coordinate	System		~	Zone in
the	1.				N.M. Coordinate		rSij.		Grant
W 12 23 25 27 27	*** * ***							~	
Drilling (ontractor	BUSTUS	W Filili-1	K.I.I.I.I.III.		License NC	X		
iress <u>HC</u>	64 Box	23 Guada	lupita	N.Mex.	87722				
	C								6 ·-
lling Began		Comp	leted _B/	22/92	Type tools _	Cable	Si	ze of hole_	
vation of la	nd surface or _	•		at 1	well is	ft. Total de	epth of wel	1 54	ft.
npleted wel		shallow La	rtesian.		Depth to water	r upon comple	tion of we	110_	It
	fe H	Sect	ion 2. PRII	NCIPAL WAT	TER-BEARING S	TRATA			
Depth	in Feet	Thickness	1		•			Estimated	
From	То	in Feet		Description	of Water-Bearing	Formation	ઉ	alions per	minute)
25	54	29	San	d Grave	l Brown Di	.rt		20	
	34	1		02070			_		
		1	San	d Stone					
		<u> </u>							
•	,								
			C4!	2 DECOI	RD OF CASING				•
Diameter	Pounds	Threads		in Feet	Length	· ·		Perfe	orations
(inches)	per foot	per in.	Тор	T	— <i>"</i>	Type of	Shoe	From	То
6 5/	8 12-5	None	1	54	54	Blue Di	amond	20	54
0 3/	0 12-3	None	'	1 34		1220 2			
								İ	1
P 16	<u> </u>	_LL_						(0)	
		Section	on 4. RECC	ORD OF MU	DDING AND CE	MENTING	Ç.,		
	in Feet	Hole Diameter		cks Mud	Cubic Feet of Cement	M	lethod o		
From	То	Diameter	1 01 1	wuu -	Of Centent		7:7	***	
		·	ŀ					€ 	
							ITI SE	H H	
			 				27.	70	
		1					70 28	약 10	
	•						0	es C>	
	**		Sect	ion 5. PLUG	GING RECORD		ì	111	
gging Cont	ractor			·					
					No.		h in Feet Bott		Tubic Feet of Cement
	od ged					Тор	Bott	<u> </u>	
gging appro		:			2				
	. # _*	64.7 P	i D		3				
		State Eng	ineer Repre	esentative	4				
			FOR HS	E OF STATE	ENGINEER ON	LY			
2,3		_							
te Received	8-31	-92	· ·						
te Received	8-31		,	Qı		F			
ite Received		-92 54450	TOR OS	Qı	Lom.				

From	То	in Feet	Color and Type of Material Encountered
1	18	18	Bolder Rocks Gravel
18	25	7	Brown Dirt Gravel and Sand mixed
25	30	55	Sand Stone
30	40	10	Gravel Sand Brown Dirt
40	45	5	Sand Stone
45	54	9	Gravel and Sand Stone
-			
	4.		
	Total Control		
	#		
	in i		
	**		
	7		
	Tan Tan		
	<u>*</u> *		
	rje =		
	1		
	il de la companya de		
	ής.		

The undersigned here by certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

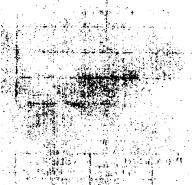
Carlos Sustan

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		·			NFORMATION			(
A) Owner of	well	Delo	res Elk	ins		Owner'	s Well No.RC	60402
Street or i	well ———————————————————————————————————	ress P.O.	Bx. 35	90		sco N.M 875		
City and S	State	KIO		.o Roau	747 Pellas	SCO N.H 073.	,	
fall was drilled	under Permit N	o RG-	60402		_ and is located	l in the:	• 1	
		•					1 2 F	
a. SW	4 <u>SE</u> 4.	NW ¼	¼ of Sec	tion	Township _	22 N Rang	e <u>125</u>	N.M.F
		of Mon No		of the	•			
				· ·				
c. Lot No) 0	f Block No		of the	·			•
Subdiv	ision, recorded	in <u>T</u> ä	aos		county.			
4 Y=		feet. Y=		feet. N	.M. Coordinate	System		Zon
the								Gr
•	,	. Busto	m Woll F	orillina		License NoW	n 1202	
						· · · · · · · · · · · · · · · · · · ·	1203	
ddress	I	i.C. 64 1	Box 23 (Guadalup	ita N.M.	87722	4,	
	. 10±15_9/	1	10	n_16_94		Cable		. 6
Orilling Began		Comp	leted	J-10-51	_ Type tools_		Size of h	ole
	d surface or			at we	ll is	ft. Total depth o	of well	63
14. 4 .								
Completed well	is C23 sh	allow L a	rtesian.		Depth to wate	r upon completion		
		Sect	ion 2. PRINC	CIPAL WATE	R-BEARING S	TRATA	N. V.	e distr Service
Depth	in Feet	Thickness						ted Yield
From	To	in Feet	Г	Description of	Water-Bearing	Formation	(gallons	per minute)
35	63	28	Bro	own Dirt	Sand an	d Gravel	13	
							3, 1	
				Br	own Clay		7 19 71	· . ·
							5 🚊	."
	1 1 1 1 2						<u>:</u>	·
	J							
			Castle	- 2 DECODE	OF CASING			
Discorder	Pounds	Threads			OF CASING			erforations
Diameter (inches)	Pounds per foot	Threads per in.		n 3. RECORI	OF CASING Length (feet)	Type of Sho	Fro	Perforations m To
			Depth	in Feet	Length	-	Fro	m To
			Depth	in Feet	Length	Type of Sho	Fro	
(inches)	per foot	per in.	Depth	in Feet Bottom	Length (feet)	-	Fro	m To
(inches)	per foot	per in.	Depth	in Feet Bottom	Length (feet)	-	Fro	m To
(inches)	per foot	per in.	Depth	in Feet Bottom	Length (feet)	-	Fro	m To
(inches)	per foot	per in. None	Depth Top	in Feet Bottom 63	Length (feet)	Flame Tre	Fro	m To
(inches)	per foot	Section Hole	Depth Top O Top O Sack	in Feet Bottom 6.3 RD OF MUDI	Length (feet) 63 DING AND CE	Flame Tre	Fro	m To
(inches)	per foot	per in. None Section	Depth Top O r on 4. RECOI	in Feet Bottom 6.3 RD OF MUDI	Length (feet) 63 DING AND CE	Flame Tre	ated 30	m To
(inches) 6 Depth	per foot	Section Hole	Depth Top O Top O Sack	in Feet Bottom 6.3 RD OF MUDI	Length (feet) 63 DING AND CE	Flame Tre	ated 30	m To
(inches) 6 Depth	per foot	Section Hole	Depth Top O Top O Sack	in Feet Bottom 6.3 RD OF MUDI	Length (feet) 63 DING AND CE	Flame Tre	ated 30	m To
(inches) 6 Depth	per foot	Section Hole	Depth Top O Top O Sack	in Feet Bottom 6.3 RD OF MUDI	Length (feet) 63 DING AND CE	Flame Tre	ated 30	m To
(inches) 6 Depth	per foot	Section Hole	Depth Top O Top O Sack	in Feet Bottom 6.3 RD OF MUDI	Length (feet) 63 DING AND CE	Flame Tre	ated 30	m To
(inches) 6 Depth	per foot	Section Hole Diameter	Depth Top O Top O Sack	in Feet Bottom 6.3 RD OF MUDI	Length (feet) 63 DING AND CE	Flame Tre	ated 30	m To
(inches) 6 Depth	per foot	Section Hole	Depth Top O r on 4. RECOl Sack of Me	in Feet Bottom 63 RD OF MUDI	Length (feet) 63 DING AND CE	Flame Tre	ated 30 ated 340CT25	m To
(inches) 6 Depth From	per foot 12-1 in Feet To	Section Hole Diameter	Depth Top O r on 4. RECOl Sack of Me	in Feet Bottom 63 RD OF MUDI	Length (feet) 63 DING AND CE Cubic Feet of Cement	Flame Tre	ated 30	m To
(inches) 6 Depth From	per foot 12-1 in Feet To	Section Hole Diameter	Depth Top O r on 4. RECOl Sack of Me	in Feet Bottom 63 RD OF MUDI	Length (feet) 63 DING AND CE Cubic Feet of Cement NG RECORD	MENTING Metho Gepth in	ated 30 ated 3	m To
Oppth From Plugging Contraddress Plugging Methods	in Feet To	Section Hole Diameter	Depth Top O r on 4. RECOl Sack of Me	in Feet Bottom 63 RD OF MUDI	Length (feet) 63 DING AND CE Cubic Feet of Cement NG RECORD	MENTING Metho Gepts in Top 19	ated 30 ated 3	m To
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Oppth From Plugging Contraddress Plugging Metholate Well Plugging appro	in Feet To ractor od ged wed by:	Section Hole Diameter	Depth Top O r on 4. RECOl Sack of Me	in Feet Bottom 6.3 RD OF MUDICS ud on 5. PLUGGI	Length (feet) 63 DING AND CE Cubic Feet of Cement NG RECORD No. 1 2	MENTING Metho Germany Germa	ated 30 ated 30 d of Placemo	m To
Oppth From Plugging Contraddress Plugging Metholate Well Plugging appro	in Feet To ractor od ged wed by:	Section Hole Diameter	Depth Top O Top O Section Section Section	in Feet Bottom 63 RD OF MUDI cs ud on 5. PLUGGI	Length (feet) 63 DING AND CE Cubic Feet of Cement NG RECORD No. 1 2 3 4	Flame Tre	ated 30 ated 30 d of Placemo	m To
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Depth From Plugging Conta Address Address Plugging Metho Date Weil Plug	in Feet To ractor od ged wed by:	Section Hole Diameter	Depth Top O Top O Section Section Section	in Feet Bottom 63 RD OF MUDIcs ud on 5. PLUGGI	Length (feet) 63 DING AND CE Cubic Feet of Cement NG RECORD No. 1 2 3 4 INGINEER ON	Flame Tre	d of Placeme	m To 63 Cubic Fer of Cemen

•	From	To	in Feet	Color and Type of Material Encountered
:	0	10	10	Brown Dirt
	10	20	10	Brown Dirt
	20	35	15	Brown Clay
-	35	42	7	Sand Gravel Brown Dirt
_	42	50	8	Brown Clay
	50	53	3	Sand Stone
	53	55	2	Sand
	55	58	3	Brown Dirt
	58	61	3-	Sand - Stone
	61	63	2	Gravel
		er e desirente Na la segunda e Na la segunda e		
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•	A. War	4	精色体 4	
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Section 7. REMARKS AND ADDITIONAL INFORMATION



The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Jarla Lasto Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

PW -37

			WELL				1 144.01	
	•	Section 1	. GENERA	LIJINFORM	IATION			
/e11		SEARCH OF	ina Do	<u>.</u> mingue	Z	Owner	's Well No	1
ost Office Ad	ldress	ত অ ন্ত ক্লেট্ৰ ট্ৰ	, <u>4</u>		00 017	521		
nder Permit	No RG-48	3675	E. HEW A	ne nio	located i	n the:		
יייסיי ייסייי	NE	J _i kee e l'ali	2			22M _	חור	
14 <u>15.15</u> 14	Tac	y of Se	ction	Tow	nship	Ran	ge	N.M.I
o	of Map No		0	f the				
	of Block No		•	f the		,	••	•
ion, recorder	d in			County.				
							4.	Zon
	_ leet, Y=		166	IE, IN.M. COC	rumate 5	y 81 GIII		Gn
		· V.vr	x Dril	ling C	· •	Tiberes Me	11.58 חזיי	• .
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8-7-8	18 Com	nleted 8-7	-88	Type	tools .	otary-Air	Size of ho	6 1 11
surface or _	Unkno) AII						
s 🖒 st	hallow 🔲	artesian.	÷	Depth	to water i	pon completion	of well7	
		÷						
Feet			CIPAL WA	A I EK-BEAL	CING 211	WIN	Retime	ted Yield
Depth in Feet Thickness From To in Feet			Description	n of Water-E	earing Fo	rmation		er minute)
17 32		Uncó	nsoli	dated g	ravel		22	
	 							
·	<u> </u>							
	L			•			1	
				ORD OF CA	SING			-
Pounds per foot	Threads per in.					Type of Sho	e	erforations n To
<u>.</u>	+			<u> </u>	 i	2020		28
•T88	MeTq	+2	25	28		none	- - ('-	- 20
			111					
	LL		1					<u>L</u>
1 .	Sect	ion 4. RECO	RD OF M				<u></u>	<u> </u>
	Hole Diameter					Metho	d of Placeme	nt
	+	+					7 =	
	<u> </u>				_	<u> </u>	7 7	
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·		Sacti	on 5 Pi III	GGING RF	CORD	المستداد المخا	Z O	69
		Secti	on 5. PLU	GGING RE	CORD	a sand	• •	69
etor		Secti	on 5. PLU	GGING RE	<u>-</u>	Depth in	WE C	
l <u></u>		Secti	on 5, PLUG	GGING RE	No.		WE C	Cubic Fee
d		Secti	on 5. PLUC	GGING RE	No.	Depth in	M Feet F	Cubic Fee
l <u></u>				GGING RE	No.	Depth in	M Feet F	Cubic Fee of Cemen
d	State En	Secti		GGING REG	No.	Depth in	M Feet F	Cubic Fee of Cemen
d	State En	gineer Repre	sentative	GGING REG	No. 1 2 3 4	Depth in Top	M Feet F	Cubic Fee of Cemen
	ate	ate	ate	ate	ate	ate	nder Permit No. RG-48675 NE Method and is located in the: M	and is located in the: SE N NE No. No Section 2 Township 22N Range 11E

Section 6. LOG OF HOLE

Depth	in Feet	Thickness	Section 6. LOG OF HOLE
From	То	in Feet	Color and Type of Material Encountered
0	2	2	Topsoil
2	17	15	Sand and red Clay
17:	32	15	Unconsolidated river gravel
			\(\partial \text{\text{\$\frac{\partial \text{\$\frac{\partial \text{\$\frac{\epirial \text{\$\frac{\partial \text{\$\frac{\epirial \text{\$\frac{\epirial \text{\$\frac{\epirial \text{\$\frac{\epirial \text{\$\frac{\epirin
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Section 7. REMARKS AND ADDITIONAL INFORMATION

Well appears to be in an underground riverbed. Could not penetrate any deeper into the gravel, would not remain stabilized. Drove 5 9/16 steel casing as far as it would go and completed at that point. Lots of water (22gpm). Temperature of water extremely cold.

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is true and correct record of the above described hole.

(Lyn)x rilling Company

Jiva Bell Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well in

PW-39

Street or Pos	il <u> </u>	ess	2.0	BOX 6		Ow	ner's Well No.C	G-66757	
City and Sta	te <u>Pe</u> ~	UP-0	0-053 =	7555 RG-	φ6757 and is located	i- that	1	:	
							11	ــ ــ	
					•		Range	N.M.P.N.	
					he				
c. Lot No Subdivision	on, recorded i	Block No	THOS	of th	County.				
. the					N.M. Coordinate		•	Zone in Grant.	
					ffing				
•			-		, um				
						•		nole <u>63/4</u> in.	
ation of land s	surface or	7400		at w	ell is				
pleted well is	□ sha	llow 🗆 a	artesian.		Depth to water	upon completi	ion of well	10 ft.	
•		Sec	tion 2. PRIN	CIPAL WAT	ER-BEARING ST		4 3		
Depth in F	Feet To	Thickness in Feet	1	Description o	f Water-Bearing F	ormation		ated Yield per minute)	
	151			class	·			•	
	0'		50	and C	Cobbles	•	5		
,	40'		(lay					
10' 1	05		51	not (Grave/		159	901/ms	
· · · · · · ·			Section		D OF CASING				
Diameter	Pounds	Threads		in Feet	Length	Type of S	shoe	Perforations	
(inches)	per foot	per in.	Тор	Bottom	(feet)		Fro		
1/2			0'	65'	65'		65	105	
-	•						is a dig	· · · · · · · · · · · · · · · · · · ·	
						<u> </u>			
		Secti	on 4. RECO	RD OF MUD	DING AND CEM	ENTING	1.	, CO.	
Depth in F From	To To	Hole Diameter	Saci of M		Cubic Feet of Cement	Met	thod of Placem	int [3] - [5]	
0'	105	63/4	3500	Ks		By Hand.			
							i Logo		
			<u> </u>				- 6	`	
			Sectio	n 5. PLUGG	ING RECORD				
ging Contracto	or					Depth	in Feet	Cubic Feet	
ging Method _					No.	Тор	Bottom	of Cement	
Well Plugged	•	,			2				
	by.				3	r I			
e Well Plugged gging approved		State Eng	ineer Repres	ntative					

Depth	in Feet	Thickness	
From	To	in Feet	Color and Type of Material Encountered
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The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Thomas Montage

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5

PW-42

Revised May 1993

IMPORTANT — READ INSTRUCTIONS ON BACK BEFORE FILLING OUT THIS FORM.

Declaration of Owner of Underground Water Right

			Rio (Grande ME					
ration NoRG-70	484		D	ate received .	Augus	st 11, 1998	3		_
		•	STATEME	NT	_	+ 100: 1		€ 1	
ame of Declarant Ja	mes, Juli	e Av	sa, f	Alber	+ 1c	4 Mich	<u>موا</u>	<u>اس)</u>	en
ailing Address PO		4 7	enasc	20	<u>nm</u>	8755	<u>3</u>		
ounty of Taos				, State of	Vew C	<u>Nexico</u>			
ource of water supply	nell		5	shallo	w				
escribe well location unde	Cale Callanda	aubheadines:	,		water aquife	•			
	NM R Somewing	DE 4	of Sec.	5	Two 22	N Rec 1	2 E	N.M.P.	M., in
	· · · · · · · · · · · · · · · · · · ·	-CM No				of the			
Tract No	fee, Y =	Of Map 14c		Gard N	M Coordina	te System			_ Zone
	lee, I =			Rect, I					Grant.
in the	AU A-80VI	3							
	A H BUV	<u></u>		10 - 1	Duc	11	5'		_ feet.
Description of well: date di	rilled 1900)	driller	nuna	<u> </u>	сери		•	> ⊘
outside diameter of casing						per min.; present c			冥
gal. per min.; pumping lift			nter level		feet (a	bove) (below) land	surisce;	F	100 C
make and type of pump _	see belo	بمان						w	<u> </u>
make, type, horsepower, et	c., of power plant			<u> </u>				>>	- :á
Fractitional or percentage	interest claimed in wel	<u> </u>	L					<u> </u>	- 22
Quantity of water appropri	iated and beneficially	used	1			(acre feet per ann	nm)	<u>မှ</u>	- 27
for irrico		(acre	feet per acr	v)		(Zere non per zere		Pv	rbogy,
J									
Acreage actually irrigated Subdivi	sion	\$*c. 5	Twp. 22 N	Range	Acres Irrigated	s follows (describe	Owner	actually irr	
	sion		Twp.	Range	Acres Irrigated	24 - 0	Owner	۸.	
	sion		Twp.	Range	Acres Irrigated	24 - 0	Owner	۸.	
		5	7wp. 22 N	Range 12 E	Acres Irrigated	Same	Owner As f	۸.	
		5	7wp. 22 N	Range 12 E	Acres Irrigated	SAME	Owner As f	Abovi	
Subdivi	(Nate: location of	5	Twp. 22 N	Range 12 E	Acres Irrigated 14	SAME	Owner As f	۸.	
Subdivi	(Nate: location of	5	Twp. 22 N	Range 12 E	Acres Irrigated 14	SAME	Owner As f	Abovi	
Subdivi	(Nate: location of	5	Twp. 22 N	Range 12 E	Acres Irrigated 14	SAME	Owner As f	Abovi	If at time
Subdivi	(Nate: location of	5	Twp. 22 N	Range 12 E	Acres Irrigated	SAME	Owner As f	Abovi	Est titles
Subdivi	(Nate: location of	f well and acre	Twp. 22 N	Range 12 E	Acres Irrigated 14	SAME	Owner As f	Above	Est tines
Subdivi	(Note: location of beneficial use mo continuously on all of	5	Twp. 22 N	Range 12 E	Acres Irrigated 14	SAME	Owner As f	Above	Est tines
Subdivi	(Note: location of beneficial use mo continuously on all of	f well and acre	Twp. 22 N	Range 12 E	Acres Irrigated 14	SAME	Owner As f	Above	Est tines
Water was first applied to has been used fully and	(Note: location of beneficial use	f well and acre	Twp. 22 N age actually cribed lands	Range 12 E	Acres Irrigated 14	SAME plat on reverse side. 1966 purposes except e	Owner As f	Above	Est titles
Water was first applied to has been used fully and Additional statements or Review	(Note: location of beneficial use	f well and acre	Twp. 22 N age actually cribed lands	Range 12 E	Acres Irrigated 14	SAME plat on reverse side. 1966 purposes except e	Owner As f	Above	Est tines
Water was first applied to has been used fully and Additional statements or Penasco	(Note: location of beneficial use	f well and acre	Twp. 22 N age actually cribed lands	Range 12 E	Acres Irrigated 14	SAME plat on reverse side. 1966 purposes except e	Owner As f	Above	Est titles
Water was first applied to has been used fully and Additional statements or Renouse Co.	(Note: location of beneficial use	f well and acre	Twp. 22 N age actually cribed lands	Range 12 E	Acres Irrigated 14	SAME plat on reverse side. 1966 purposes except e	Owner As f	Above	Est titles
Water was first applied to has been used fully and Additional statements or Renauce	(Note: location of pheneficial use	f well and acre	Twp. 22 N age actually cribed lands	Range 12 E irrigated must day a or for the ab	Acres Irrigated 14	SAME plot on reverse side. 1966 purposes except e	Owner As 1	and since	Dat tinted
Water was first applied to has been used fully and Additional statements or Renauce	(Note: location of pheneficial use	f well and acre	Twp. 22 N age actually cribed lands	Range 12 E irrigated must day or for the ab	Acres Irrigated 14- 14- 15 be shown on 15 ove described 15 ith the instruction	plot on reverse side. 1966 purposes except s	Owner As f	and since	But times The property of the
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Water was first applied to has been used fully and Additional statements or Rences of the Control of the Contro	(Note: location of beneficial use	f well and acre	Twp. 22 N age actually cribed lands	Range 12 E irrigated must day or for the ab	Acres Irrigated 14- the shown on the shown o	plat on reverse side. 1966 1 purposes except a	Owner As f	and since	n my oath aubmitte ne are tru

UNDER NEW MEXICO LAW, A DECLARATION IS ONLY A STATEMENT OF DECLARANTS CLAIM AND FILING DOES NOT CONSTITUTE APPROVAL OR REJECTION OF CLAIM.

STATE ENGINEER OFFICE

PW: 43

A) Owner of well Alex R. Abeyta Owner's Well No Street or Post Office Address	N.M.P.M. Zone in Grant.		
a	Zone in Grant.		
b. Tract No of Map No of the	Zone in Grant.		
Subdivision, recorded in County. d. X= feet, Y= feet, N.M. Coordinate System the Drilling Contractor Rodney's Drilling License No. WD-1277 ddress RT.1 Box 6 Embudo. NM. 87531 rilling Began 9-23-99 Completed 9-25-99 Type toolsRotary air Size of	Zone in Grant.		
the	Grant.		
oldress RT.1 Box 6 Embudo, NM, 87531 rilling Began 9-23-99 Completed 9-25-99 Type tools Rotary air Size of			
oldress RT.1 Box 6 Embudo, NM, 87531 rilling Began 9-23-99 Completed 9-25-99 Type tools Rotary air Size of			
rilling Began 9-23-99 Completed 9-25-99 Type tools Rotary air Size of			
evation of land surface or at well is ft. Total depth of well _1	hole <u>6 1/8 in.</u>		
	10 ft.		
ompleted well is	20 ft.		
Section 2. PRINCIPAL WATER-BEARING STRATA	lengted Vield		
	istimated Yield llons per minute)		
	0		
Section 3. RECORD OF CASING			
Diameter Pounds Threads Depth in Feet Length (inches) per foot per in. Top Bottom (feet) Type of Shoe	Perforations From To		
6 5/8 od 13 0 40 40 steel			
5 od 2.28 30 110 80	70 110		
	<u> </u>		
Depth in Feet Hole Sacks Cubic Feet Method of Place	<u> </u>		
From 10 Statuted Contact	N 22		
1	3 6 5		
	# BX		
	<u> 8</u>		
Section 5. PLUGGING RECORD			
Plugging Contractor Depth in Feet	Cubic Feet		
Plugging Method No. Top Bottom Date Well Plugged 1	of Cement		
Plugging approved by:			
State Engineer Representative 3			
FOR USE OF STATE ENGINEER ONLY Date Received 9-28-99			
Quad FWL	FSL		

Section 6. LOG OF HOLE

Depth i	n Feet	Thickness	Section 6. LOG OF HOLE
From	То	in Feet	Color and Type of Material Encountered
0	35	35	Dark brown clay, sand, gravel and boulders
35	- 50	15	Lt. tan clay and sand
50	105	55	Lt. tan clay, sand and gravel
105	110	5	Red clay and sand
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Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole. Rodney Stevens

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this fd is used as a plugging record, only Section 1(a) Section 5 need be completed.

pw-44

Ctreat or P	oet Office Add	rece DUA	1274			Ow	ner's We	li No. HC-	-57 <i>3</i> 67
City and S	tate Grant	s. New M	<u>exico</u>	<u> </u>					
ll was drilled t	ınder Permit N	Io. RG-252	39	,	and is loca	ted in the:		\$ \$ 65	
							Danas	· · · · · · · · · · · · · · · · · · ·	
8	4 <u>NE</u> 4. パー ヤン3NB	SW 1/2E NMPM	¼ of Sect	نــــــــــــ tion	1 ownship	23N	cange		
b. Tract N	0	of Map No.		of	the Vicin	ity of THE	Pena	BCO, N	.M.
c. Lot No Subdivi	sion, recorded	inTac	B	0	County.				
d. X= the		. Icet, I =		100		ate System			Gran
		T D C+07	ron s			License No.	WD-	514	
Drilling Co	ontractor	t.R. Diev	ець	;		License No.			Ψ.
dressBo	z 3. Embi	do. New	Mex. 87	531					
Wine Deser	0_26_74	Comp	leted 9-3	50-74	Type tool	s Cable	S	ize of hole	<u>, 6</u> ,
vation of lan						ft. Total de			
mpleted well	is 🛣 sh	allow 🗀 at	rtesian.		Depth to w	ater upon comple	tion of w	ell <u>6</u>	f
-					ATER-BEARING				
Depth i	n Feet	Thickness						Estimate	
From	То	in Feet	E	Description	n-of Water-Beari	ng Formation		(gallons per minute)	
	0.77	13	Boulders					10	
10	23	11.7	T DOW.	Lucio			, 19 , 197		
							_		
		L							
		·			ORD OF CASIN			Per	rforations
Diameter (inches)	Pounds per foot	Threads per in.		in Feet Botto	Length m (feet)		Shoe	From	
(2101101)						G+oo'	1	13	23
65/80D	13	0	0	23	23	Stee	1	+	
									.
		<u> </u>		L					
		T			UDDING AND	CEMENTING	 	* *	
From	in Feet To	Hole Diameter	Sacl of M		Cubic Feet of Cement	M	ethod of	Placemen	ıt .
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		<u> </u>				+			
								<u> </u>	·
	L		_ 					, , , , , , , , , , , , , , , , , , ,	
			Section	on 5. PLU	GGING RECOR	r D	•	, ¥	
lugging Contr	actor	'V 3 W 'V '~		<u>.</u>					C 11 P. 4
ddress lugging Metho			กฮกรเบา เมื่อเรา		N	Top	h in Feet Bo	ttom	Cubic Feet of Cement
ate Well Plug		EN OFFICE	E ENGINE	TATE		1			
lugging appro	ved by:	• •	•			2	_		·
		State Eng	ineer Repres	emative/		3 4	\pm		
ate Received			FOR USE	OF STA	TE ENGINEER	UNLY		•	
ate Neceived			•		Quad	F ¹			
	RG-252	20			Dom		23.	12.31.	320 Tao:

Section 6. LOG OF HOLE

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Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Deilles

Section 1. GENERAL INFORMATION

PW-45

Street or	Post Office A	erry and i ddress <u>PO.</u> nisal, NM	Box 34			Ow	ner's We	ll No	
•		No. RG-72				ed in the:			
						22N R	ange .	12E	NMP
		;			1				
Subdiv	ision, recorde	d ín		C	ounty.			į.	
d. X=		_ feet, Y=		feet, N.I	M. Coordinat	e System			Zone
			a Triantini	, ta 12		License No.			Gn
		c 6 Embude				License No	WD 11		
			7		Tune tools	rotary		10 × -1-	
		4.			:	ft. Total dep			
Completed well	is LA s					er upon completie	on of we		
Depth is	n Feet	Thickness	on 2. PRINCI			· · · · · · · · · · · · · · · · · · ·	· 	Estimated	
From	To	in Feet		scription of V			- (gallons per	
75	110	35	Lt. ta	n clay,s	sand, gr	avel nom	P ^M 15		
				· · · · · · · · ·				<u> </u>	
				La carte and a care			<u> </u>	e de la composición dela composición de la composición dela composición de la composición de la composición dela composición dela composición de la composic	
								į.	
				RECORD	OF CASING				
Diameter (inches)	Pounds per foot	Threads per in.	Depthe in	Bottom	Length (feet)	Type of Si	106	Perfo From	rations To
6 5/8 od	13		0 '	42	42	steel		37	42
4 1/2 od	2.28	-	10	110	100			70	110
					T			. i	
		Section	n 4. RECORD	OF MUDDI	NG AND CE	MENTING		<u> </u>	1
Depth is	r Feet To	Hole Diameter	Sacks of Mud	Cu	bic Feet Cement		hod of l	Placement	
			20			·			
			,	\$800 S				- 7	<u> </u>
	· · · · · · · · · · · · · · · · · · ·	-1	-				- A		<u> </u>
L		L 3	<u>: </u>					<u> </u>	- 53
Diversing Control	•		Section :	5. PLUGGING	RECORD			10	A S
Plugging Contract Address		Ž.			_ No.	Depth is	n Feet	20 30	poic Feet
Plugging Method Date Well Plugge		j.	The second second second		_ No.	Тор	Botto	m S	Cement
lugging approve			•						
		State Engin	eer Represent	ative	— <u>3</u>				
		4	FOR USE OF	CTATT DA	TIVEED ON				
			LOK OPE OF	STATE EN	JINEEK UN	LY			
Pate Received	11-8-9	19	FOR USE OF	Ouad_	JINEEK UN	FWL		FSI.	. 1

Section 6. LOG OF HOLE Depth in Feet Thickness Color and Type of Material Encountered in Feet From То 23 Brown clay, sand, cobble stones and boulders 23 0 Brown clay and sand 45 22 23 75 30 45 Lt. tan clay and sand 35 . 7:5 110 Lt. tan clay, sand and gravel 4

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Rodny Stevens Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plurging record, only Section 162 and 202 are a proposed or deepened.

. PW-47

WELL RECORD Section 1. GENERAL INFORMATION

(A) Owner	of well	Oliv:	na Pach	a.co	<u> </u>	Owner	e Wall No	1 .
Street	or Post Utilice A	Address	OX OID				5 WEII NO	
	d State							
Well was drill	ed under Perm	it No	RG- 4	7089	and is locate	ed in the:	1 60 1 80	
a. <u>SE</u>	¼ <u>NW</u>	4 SE 4	¼ of S	ection 2	Township	Rang	. 11 F	N M D
Taosm b. Trac	County t No	of Map N	Io	of th	ne	Kang	· · · · · · · · · · · · · · · · · · ·	1\.\\\.\
c. Lot	No	_ of Block No	3	301. Sign	2		:	
Subd	livision, record	ed in			County.			· ·
d. X= _ the _		feet, Y=		feet, l	N.M. Coordinate	e System		
						License No.WD_		Gra
						7.32		
						Rotary		
Elevation of la	and surface or .		unknow	n at we	ell is <u>na</u>	ft. Total depth o	f well 92 *!	
Completed we						r upon completion o		
						•	i weii	l
Depth	in Feet	Thickne	25		R-BEARING S		V-414	1 32 11
From	То	in Feet		Description of	Water-Bearing	Formation	Estimated (gallons per	
16	23	7	м	ixed San	d_and Cre	7770	9	
63	79	16		Mixed Sand and Grave; Black Shale				
			- 			<u> </u>		
	<u> </u>			t phaye to	rene per		<u> </u>	
	1 _	T:	Sectio	n 3. RECORD	OF CASING			
Diameter (inches)	Pounds per foot	Threads per in.		in Feet Bottom	Length (feet)	Type of Shoe	Perfe	orations
			100	Bottom	(1661)		From	То
4½"	2 <u>18</u>	glued	+2	-82	8/	cap	62	82
43	<u> </u>		He care	the t	!	; -		
	ご支		ţ: .	** ***				T
«C	岩	CA			<u></u>	<u> </u>	_L	
Depin i	in Feet	Hole	on 4. RECOF		NG AND CEM	ENTING E		
From 2	Toj <1	Diameter	of Mu	-, 04	bic Feet Cement	Method o	f Placement	
						17.3	<u>(.)</u>	
q	2					$\frac{\mathcal{L}}{\tilde{g}}$	<u>~~~</u>	
			 			<u> </u>	100	
<u> </u>						ž.	4	
			Cantinu	6 Brucon				
				5. PLUGGIN	3 RECORD			
gging Contra	ctor							
dress	ctor					Denth in Face		
dress gging Method	i				No.	Depth in Fee		bic Feet Cement
ldress Igging Method te Well Plugge	I				_ 1			
dress igging Method te Well Plugge	I							
dress igging Method te Well Plugge	I				1 2			
Idress Igging Method te Well Plugge Igging approve	I		neer Represer	itative	1 2 3	Тор Во		
ldress igging Method	I		neer Represer	itative F STATE ENG	1 2 3 4	Тор Во	ttom of	Cement
dress gging Method te Well Plugge gging approve	I	State Engi	neer Represer	itative PF STATE ENC Quad _	1 2 3 4 GINEER ONLY	Тор Во	ttom of	Cement

. =				Section 6, LOG OF HOLE
-	Depth From	in Feet To	Thickness in Feet	Color and Type of Material Encountered
_	0	2	2	Topsoil
_	2	8	6	Redish Clay
_	8	16	8	Compacted Sand & Gravel
Lbn	16	23	7	Sand & Gravel (wet)
_	23	39	16	Tight red sand mixed with gravel
TPM	<u>~</u> 39	63	27	Redish Caliche
7P_	63	79	16	Black Shale (wer)
	79	92	13	Red Caliche
_				
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The undersigned hereby certifies that, to the best of his knowledge and beltef, the foregoing is a true and correct record of the above described hole.

.Jim Bell

Driller

INS. A. TONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible with a present of the state of the state of the state of the section of the state of the state of the state of the section of the state o

PW-4B

Section 3. RECORD OF CASING Section 3. RECORD OF CASING	Street or P	art Office Ad	drass PO B	ox 85				Owner	r's Well No. H	C-12279
W.N.E. W.N.W. W.S.E. w of Section 02 Township 22N Range 11E N.M.P.M. in Taos Country.	-				· .					
In Taos county. Inter No. of Map No. of the	was drilled	under Permit	No. <u>RG-746</u>	90		and is	located i	n the:	. • •	
A. Trect No of Map No of the	۵	% NE %	NW % SE	¼ of Sec	tion <u>02</u>	Town	ıship <u> </u>	22N Rar	ge <u>11E</u>	N.M.P.I
Subdivision, recorded in	in b. Tract N	Taos cou	inty. of Map No		of t	he				
Subdivision, recorded in	c. Lot No	·	of Block No		of t	he				
Depth in Feet Founds Per Pounds Per Per Pounds Per Pounds Per Pounds Per Per Pounds Per								-		
Depth in Feet Founds Per Pounds Per Per Pounds Per Pounds Per Pounds Per Per Pounds Per	d. X=	년 -	feet, Y=		feet,	N.M. Coor	dinate S	ystem	· · · · · · · · · · · · · · · · · · ·	Zone
Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet Inches Depth in Feet Depth in Fee	the									Gran
Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet To in Feet Need in Feet Need in Feet Need in Feet Need in Feet Need in To Need Need Need Need Need Need Need Nee	_									
Section 2. PRINCIPAL WATER-BEARING STRATA	ress <u>RT</u> .	1 Box	6 Embudo.	NM. 87	531					
Section 2. PRINCIPAL WATER-BEARING STRATA	. •	21 K								
Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness in Feet Description of Water-Bearing Formation Gallons per minute)	ation of lan	d surface or _			at v	vell is		_ ft. Total depth	of well_10	1
Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness in Feet Description of Water-Bearing Formation Gallons per minute)	nleted well	ia (X) si	nallow 🔲 ar	tesian.		Depth t	o water	upon completion	of well2	0
Depth in Feet Thickness in Feet Description of Water-Bearing Formation Estimated Yield (gallons per minute)	-	*								•
Description of Water-Bearing Formation (gallons per minute)	Denth :	n Feet		T					Estim:	ated Yield
Section 3. RECORD OF CASING Section 3. RECORD OF CASING	From	· · · · · · · · · · · · · · · · · · ·		T.	Description (of Water-B	earing F	ormation		
Section 3. RECORD OF CASING Threads per foot per in. Top Bottom (feet) Type of Shoe From To /8 od 13 +2 101 103 none 61 101 Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Sacks Cubic Feet of Mud of Cement Section 5. PLUGGING RECORD		101	31 /	Reddi	sh tan	clay,	sand	i, gravel	1	5 .
Section 3. RECORD OF CASING Perforations Perf	2 4									
Section 3. RECORD OF CASING Perforations Perf										
Section 3. RECORD OF CASING Perforations Perf						· · ·				
Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Diameter of Mud of Cement Section 5. PLUGGING RECORD Section 5. PLUGGING RECO		-		Section	n 3. RECOI	ED OF CA	SING			
Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Sacks Cubic Feet of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement Of Mud Of Cement	Diameter (inches)							Type of Sh	08	
Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Sacks Cubic Feet of Mud of Cement Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Ing Contractor ess ing Method Ing Met		he f	por m.					none		
Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Diameter of Mud of Cement Method of Placemess No. Section 5. PLUGGING RECORD Ing Contractor ess ing Method Method of Placemess No. Section 5. PLUGGING RECORD Ing Contractor ess ing Method Top Bottom of Cement Well Plugged 1 State Engineer Representative 4 FOR USE OF STATE ENGINEER ONLY	5/8 od	13		+2	101	1	03	none		
Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Diameter of Mud of Cement Method of Placemess No. Section 5. PLUGGING RECORD Ing Contractor ess ing Method Method of Placemess No. Section 5. PLUGGING RECORD Ing Contractor ess ing Method Top Bottom of Cement Well Plugged 1 State Engineer Representative 4 FOR USE OF STATE ENGINEER ONLY							·			
Depth in Feet	Na							<u> </u>		
Section 5. PLUGGING RECORD ing Contractor ess ing Method Well Plugged ing approved by: State Engineer Representative FOR USE OF STATE ENGINEER ONLY	114	**	Section	on 4. RECO	RD OF MU	DDING A	ND CEM	ENTING		
Section 5. PLUGGING RECORD ing Contractor ess Well Plugged ing approved by: State Engineer Representative FOR USE OF STATE ENGINEER ONLY								Meth	od of Placem	
Section 5. PLUGGING RECORD ing Contractor ess Mo. Depth in Feet Cubic Feet of Cement Well Plugged ing approved by: State Engineer Representative FOR USE OF STATE ENGINEER ONLY	FIOM	10	- Diamotor	0.1						पुँ ो
Section 5. PLUGGING RECORD sing Contractor ess sing Method Well Plugged ing approved by: State Engineer Representative FOR USE OF STATE ENGINEER ONLY										2
Section 5. PLUGGING RECORD sing Contractor ess sing Method Well Plugged ing approved by: State Engineer Representative FOR USE OF STATE ENGINEER ONLY		/*·								3)
Section 5. PLUGGING RECORD		ŗ.		<u> </u>		·				
Section 5. PLUGGING RECORD	· · ·	<u> </u>	<u> </u>							
No. Depth in Feet Cubic Feet		· · · · · · · · · · · · · · · · · · ·	•	Section	on 5. PLUG	GING REC	ORD		•	0
well Plugged 1 2 3 State Engineer Representative 4 FOR USE OF STATE ENGINEER ONLY								Depth is	n Feet	
	gging Metho	odb			 : -	<u> </u>		Тор	Bottom	of Cement
State Engineer Representative 3 4 FOR USE OF STATE ENGINEER ONLY					_,			 		
FOR USE OF STATE ENGINEER ONLY	PRINT SPILO		<u> </u>	<u> </u>						
			State Eng	ineer Repres	entative	- 4	4	N .		
Received 9- 27- 2000	te Received	9-2	7- 2000	FOR USE	OF STATE	E ENGINE				
Ouad FWL FSL					Q	uad		FWL		. FSL
le No. RG 74690 Use DOM Location No. 22N: 11E. 02: 413	File No	RG 74	1690		Use	Dom		Location No.	2N·11E	.02.41

nebtu	in reet	Thickness	
From	То	in Feet	Color and Type of Material Encountered
0	30	30	Reddish tan clay, sand and cobble stones
30	40	10	Red clay siming a sign a cont
40	50	10:	Red clay, sand and gravel
200 50	70	20	Red clay and sand
70	101	31	Reddish tan clay, sand and gravel
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	Maria Maria		
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	Talles Service		
			
		11110	Description of World Length Filtrage (1997)
		374	SECT TRODAL WATEL-BEALING STRAFA
	4	148.7	and the second s
	1		•

The undersigned here by certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

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STATE ENGINEER OFFICE

V
A

		WELL R			PW-	49		γ.
		Section I. GENERA	L INFORMAT	TION			•	
(A) Owner of well To	av La	Pez			Owner's	Well No	<u> </u>	_:
Street or Post Office A	ddress Po B	ox 151	7 - 7 1					_
City and StateCF	lanisoL	<u> </u>	<u> </u>					-
City and State	it No. RG -	47936	and is lo	cated in	the:	•		
a. <u>NE</u> % <u>SW</u>	<u> </u>	_ ¼ of Section _2	21 Towns	hip	Range		N.M.P.I	M.
b. Tract No								
c. Lot No Subdivision, record	of Block No led in	ol	f the County.					_
d. X=							Zone	in nt.
(B) Drilling Contractor								
Address PO Box 16	79 Tage	NM 8757		17				
Drilling Began 3-20	490 0	3-28-	50 Type to	ole S	Puller			in.
Elevation of land surface o								
Completed well is	shallow \(\sigma_{} \)	esian.	Depth to	water	upon completion	of well	0	ft.
Completed well is		on 2. PRINCIPAL W			T.			
Depth in Feet	Thickness in Feet	T	n of Water-Be				ted Yield per minute)	
80 12-C		cloxon	d an	vel		2	5	
	•							
	<u>.</u>							
		Section 3. REC	ORD OF CAS	RING				
Diameter Pounds		Depth in Feet	Len	gth	Type of Sho	e I	Perforations	\Box
(inches) per foo	t per in.	Top Botte			ļ 	Pro		\neg
6 3/8 12	Wenter	1 1/9	' 17	ω .	3/66/	M (-3	0 120	_
					<u> </u>	A A		
		1. 1. 1. 1. 1.			· g	70 20	x	
	Section	on 4. RECORD OF N	UDDING AN		IENTING E	7 TO		
Depth in Feet From To	liole Diameter	Sacks of Mud	Cubic Fee		Meth	on of Placem	ent	
Fram To	Diameter	O Muu	or center			3 2		
					* *	A		
							·	
<u> </u>	.	Section 5. PLU	ICCINC PEC	ת פחי	N ₃	-		
Plugging Contractor							···	
Address				No.	Depth in		Cubic Fe	
Plugging Method Top Bottom of Cement Date Well Plugged I								
Plugging approved by:								
	,			<u> </u>	-			

D. A. D band	4.4.90	FOR USE OF STATE ENGINEER ONLY	
Date Received		QuadF&LFSL	
File No	RG-47936	Use Location No. 22N. 11E. 3. 4.	3.
		(9)	,

Section 6, LOG OF HOLE Thickness Depth in Feet Color and Type of Material Encountered in Feet From TOP soll O Bid rates and wight put 20 16 80 60 120 40 80

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

.

Driller

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7W-50

) Owner of	well <u>Emer</u>	y Lavato	ox 248				Owner'	s Well No.HC-	6-02270
Street or I	Post Office Ad StateCham	isal, NM.	87521						
-		No. RG-6				and is located	in the:		
								11 R	
a	in Taos	County	¼ of Sec	tion		_ Township	22N Rang	30	N.M.P.M.
b. Tract?	No	of Map No	,	<u> </u>	f the .				
c. Lot No	o	of Block No			f the_				
Subdiv	rision, recorded	I in			Co	unty.			
		_ feet, Y=		fee	et, N.M	I. Coordinate	System		
		odnev's I	rillin	Q.					- Giani.
ם ביים הים הים הים משוווים (ו	ontractor	Embudo	NM 97	521	• • • •	• • • • • • • • • • • • • • • • • • • •	License NoW		
		Embudo,							
rilling Began .	5-22-95	Compl	eted 3-2	3-93		Type tools	able tool	Size of hole	in.
levation of lar	nd. surface or	·	·		it well	is	_ ft. Total depth	of well 60	ft.
ompleted well							upon completion		i ft.
	-					1		o. won	
Depth	in Feet	Thickness				BEARING ST		Estimate	·
From	То	in Feet				ater-Bearing F		(gallons pe	
8	1.5.	7	Lt.	20					
25	35	10			•		,		
45	55	10							
		*		•		OF CASING		· ·	
Diameter	Pounds	Threads		in Feet		Length	Type of Sho	Per	forations
(inches)	per foot	per in.	Тор	Botto 60		(feet)	 	From	To
5/8od	13	 -	U	. 60		60	steel	30	55
								i	
		Sectio	n 4. RECOI	RD OF M	UDDI	NG AND CEM	ENTING		
Dep th From	in Feet To	Hole Diameter	Sack of M			bic Feet Cement	Metho	d of Placement	:
				- 2 T		San Lead	·		
			1					6	<u> </u>
·.			· · · · · ·					<u> </u>	
				· · ·				-	5
			Sectio	n S. PLU	GGIN	G RECORD		3	- 3
lugging Contr	actor	·····		· · · · · · · · · · · · · · · · · · ·					<u></u>
ddress lugging Metho		•				No.	Depth in		Cu Bachet
lagging Metho Pate Well Plugg			 			= $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$	Тор	Bottom	of Cement
lugging approv	ved by:					2			
		State Engir	neer Represe	ntative		3 4			
		^ ~	FOR USE	OF STAT	E EN	GINEER ONL	Y		•
Pate Received		18			Quad _	L	FWL _	.:	, 0
T	3G-629	210			. 1			F5	•
File No	19 - DX	21(C) ,		Use	<u>ريان</u>	m	Location No. 2	311.NR	·2) L

Section 6, LOG OF HOLE

Depth in Feet Thickness To To To To To To To
0 5 5 Lt. tan clay and sand 5 15 10 Lt. tan clay, sand and gravel 15 25 10 Lt. tan clay and sand 25 35 10 Lt. tan clay, sand and gravel 35 45 10 Lt. tan clay, sand and grav 45 55 10 Lt. tan clay, sand and gravel 55 60 5 Lt. tan clay and sand
15
25 35 10 Lt. tan clay, sand and gravel 35 45 10 Lt. tan clay, sand and gravel 45 55 10 Lt. tan clay, sand and gravel 55 60 5 Lt. tan clay and sand Carry na Carry
35
45 55 10 Lt. tan clay, sand and gravel 55 60 5 Lt. tan clay and sand C 6 2 3 60 60 60 60 60 60 60 60 60 60 60 60 60
45 55 10 Lt. tan clay, sand and gravel 55 60 5 Lt. tan clay and sand
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Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

odney Flerens Driller

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Owner of Street or F	ost Office Add	dress P.	O. Box 1 amisal,	92		·	Owne	S WEII IAO		
	under Permit ?								:	
•	4 SW 4							LEE	IIE	N.M.P.M.
a. <u>NW</u>	4 <u>SW</u> 4	NE_ %	¼ of Sect	tion		ownship	Ra	nge		N.M.P.M.
b. Tract N	ło	_ of Map No.		of	the	4.4	ALBUQU	2	. 1 .	
c. Lot No)	of Block No	. Emé	of	the		ŽO!	, , <u>, , , , , , , , , , , , , , , , , </u>	·	
Subdiv	ision, recorded	ín	Taos		_ Cour	ty.	70 P		· ·.	
d. X=		_ feet, Y=					ystem Ex	Ti.		Zone in
							7-	<u></u>	17	Grant.
Drilling C	ontractor	C. Busto	s Well I	rillY	'nģ	\$70	_ License No	wb-120	2	
dress		н.с.64 в	ox 23 Gt	iadalu	pīta	New Me	xico 877	22		
illing Began	10-15-9	3 Comr	oleted 1.0-1	6-93	Т	vné tools	Cable	Size	of hole_	6 _{in}
			· · ·	1						
				1			ft. Total dept			
mpleted wel	lis ⊡ si	hallow 🔲 i	artesian.	!	De De	pth_to_water	upon completion	on of well _	2	<u> </u>
		Sec	tion 2. PRIN	EIPAL W	TER	EARING ST	TRATA	. 6.		
	in Feet To	Thickness in Feet	r	escription	of Wá	ter-Bearing F	ormation ,		timated ons per i	
From 20	65	45	Bro	wn Dir	+ B	own Cla		-	5	
		1 73	DIO	W. DI		Own Cre	-			
		 	San	d Grav	el			-		
	·							:		
2 11 1 5 1 1 1 1 C 1 2 1 C 2 1										
	l 			:		7.				
Diameter	Pounds	Threads		in Feet		F CASING Length	T		Perfo	rations
(inches)	per foot	per in.	Тор	Bottom (feet)				Type of Shoe From		
6 5/8	12-1	None	11	65		65	Blue Dia	ond 20		65
OD			179 37	10 (1		1 - 1 -	1	1		1
			1.10	7 . 17	· E.	Haida Gara				
	<u> </u>	السنسا	- 4 DEGG	22.4						
Depth	in Feet	Hole	ion 4. RECO			ic Feet		hog of Pla		
From	То	Diameter	of M	ud		Cement	Me	~y- ∑_s		
				; i.		.			5	
								Z 35 L	<u>. </u>	
			<u> </u>					€ m =	<u></u>	
	<u> </u>	<u> </u>		:				~ ~		
			Section	on S. PLU	GGING	RECORD		OFFICE OFFICE		
	ractor			ï					- `	
ddress	od		<u> </u>		-	No.	Top	in Feet Bottom		ubic Feet f Cement
ate Well Plug	ged	· · · · · · · · · · · · · · · · · · ·	u/			$-\Box$	1	20110.		
lugging appro	oved by:					2	 			
		State En	gineer Repres	entative		4	1			
	11.2.9	3	FOR USE	OF STA	TE EN	GINEER ON	LY		÷	
Date Receive	a 11-2-9. RG-5	~	• •	1	Once	•	FV	л ·	10	9 1
					Affag					·
	ON -	8-17		į	٧,	/	Location No	/	.,,-	1 95

			section 6. LOG OF HOLE
Depth	in Feet	Thickness	Color and Type of Material Encountered
From	То	in Feet	eoron and Type of Material Ent Material
1	10	10	Brown Dirt
10	20	10	Brown Caliche
20	30	10	Brown Clay
30	4.0	10	Brown Dirt with sand
40	50	10	Brown Dirt Sand and Gravel
50	65	15	Brown Clay
	·		
		·	
	_		

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

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PW-52

		L. Lovato	Section 1. G	ENERAL IN	FORMATIO	N	Owner's	Well No.	IC6-119	30
Owner of we	ılı <u>Joe</u>	L. Lovato	0.8				Owner s			
City and Sta	te Ondina	<u> </u>		ani in a spo			•		٠.	
l was drilled ui	nder Permit No	sal, NM. RG-7430 NE % SW nty. of Map No.)5	0.2	and is locate	d in th	e: Rang	<u> 11E</u>	1	ı.M.P.M.
ai n	¼ <u>NE ¼ </u> Taos Cou	nty.	_ % 01 2600	1011 <u> </u>		•			•	
b. Tract No		of Map No		of the	11					
		r Dik Ma		of the					<u> </u>	
c. Lot No	ion, recorded i	f Block No			County.		, .			:
5				fact N	M Coordina	te Svst	· em		<u></u>	Zone in
d. X=		feet, Y=								_ Grant.
, tho 		odnev's D	_ = 1 1 = - 0	n = R= .07	Se 50 50	r.	icense No	D-127	7	
Drilling Co	ntractor <u>RC</u>	oney's D	LITIUS	i : 33i	J p. b					
= 7	-10-00	Comple	ted 7 - 14-	00.0	Type tools	_cab	1e	Size	of hole	6in.
illing Began	10 00							- £a11	70	ft.
evation of land	l surface or			at we	ell is	r	t. 10tau deput	01 Mett-		
ompleted well	is □XI sh	allow 🗀 art	esian.		Depth to w	ter up	on completion	of well_	18	ft.
				•	ER BEARING				. ,	
Depth is	Feet	Thickness	7 .	les :	The same of the same			Es	timated Y	eld
From	To	in Feet	I	Description of	f Water-Beari	ng For	nation	(gall	ons per mi	nute)
30	55	25	Tan	clay, s	and, gra	vel		1	.5	
									-	
	i									
l		L		<u> </u>	TATE OF STREET	<u></u>	 	L		
					D OF CASIN				Perfora	tions
Diameter (inches)	Pounds per foot	Threads per in,	Depth Top	in Feet Bottom			Type of Sh	oe –	From	То
			+2	70	72	4.	steel		40	70
6 5/8 od	13		T Z	70			30001			
			1 - 1,551	genitetini.						
			N 4 5 5	T C TT	11 / 11 7				·	
		<u> </u>		<u> </u>	<u> </u>					
		Secti			DDING AND		NTING	·		
	in Feet To	Hole Diameter		ks Iud	Cubic Feet of Cement		Meth	od of Pl	acement	12.00
From	10	- Diamoto.							ي د	万言
						-}-				
				į					: -1	# 15 m
										34 (A
	<u> </u>		<u> </u>			l				<u> 5</u> 8
			Sect	ion 5. PLUG	GING RECO	RD			~ ~	. B.
Plugging Cont	ractor									
Address					[T	No.	Depth			bic Feet Cement
Plugging Meth						1	Тор	Botto	m 0	Cement
Date Well Plug Plugging appro						$\frac{1}{2}$				
ringerite abbit						3	>			
		State En	gineer Repr	esentative		4				
			FOR US	E OF STAT	E ENGINEEI	ONL	'		Ţ.	
Date Received	7-27	1-2000 1305	. 0.0	*					-	
				Q	uad		FWL		FSI	<i>,</i>
							Location No.			

Depth	in Feet	Thickness	Section 6. LOG OF HOLE
From	То	in Feet	Color and Type of Material Encountered
0	3	3	Black top soil
3	15	12	Tan clay and sand
. 15	55	25	Tan clay, sand and gravel
55	·70	15	Tan clay and sand
		,	
		·	
·			
	-		The state of the second
	,		
			The state of the s
	T		The Consider with the first from the contract of the contract

The undersigned here by certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above

INSTRUCTIONS: This form should be executed in trodicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used a plugging record, only Section 1(a) and Section 5 need be completed.

						HW-53		
			W	ELL RECO	RD			
			Section 1	GENERAL INF	ORMATION		Trn-13	32040
		Lind				Owner's	Well No RG	-68546
Owner of v	vell	P.O.	Box 32		and the second second	Owner's	· · · · · · · · · · · · · · · · · · ·	
Street or P	ost Office Add	Chan	nisal Ne	w Mexico	87521			
			58546	•	and is located in	the:	•	
							1177	
a. NE	14 NE 14		¼ of Sect	ion <u>02</u>	Township 22	N Range	115	N.M.P.M
L Treat N	lo.	of Map No.		of the				
c. Lot No	(of Block No inTac	28	of the_	unty.			
								Zone i
		. feet, Y=		feet, N.M	I, Coordinate Sy	stem		Gran
the		D.,				W	D_1202	
Drilling Co	ontractor	Bustos D	rilling		:	License No. W	<u> </u>	
dresk		HC. 64 B	ox 23 Gi	ıadalupit	à New Mex	cico 8772	2	
u1033	10-10-9	7 _	10-	-14-97	Ca	able	Size of hole	6 j
lling Began _	10-10-3	Comp	leted	: ۱۱۸ مر څار د	Type tools	able		-
vation of lan	d. surface or			at well	iş	ft. Total depth o	of well 92	
	. гЖ .	hallow 🗀 a	etecion 3.5		Denth to water u	pon completion o	of well 35	<u> </u>
mpleted well	is E si							
			tion 2. PRINC	IPAL WATER	-BEARING STR	RATA		ed Yield
Depth	n Feet To	Thickness in Feet	D	escription of V	Vater-Bearing Fo	rmation		er minute)
From				· · · · · · · · · · · · · · · · · · ·				
30	93	63	Calid	che, Clay,	Dirt, and	Sand	6	
					. iy			
				e es Pilo	10v 21 . 1	Ī		
				ii iz eo Nib	100 (21.12 f)			
				n 3. RECORD			· · · · · · · · · · · · · · · · · · ·	
Diameter	Pounds	Threads	Section	n 3. RECORD	OF CASING	Type of Sho	e 	erforations
Diameter (inches)	Pounds per foot	Threads per in.	Section	n 3. RECORD	OF CASING	Type of Sho	e Pe	
		1	Section Depth Top	n 3. RECORD in Feet Bottom	OF CASING	Type of Show	e 	
(inches)	per foot	per in.	Section Depth Top	n 3. RECORD in Feet Bottom	OF CASING Length (feet)		Fron	n To
(inches)	per foot	per in.	Section Depth Top	n 3. RECORD in Feet Bottom	OF CASING Length (feet)		Fron	n To
(inches)	per foot	per in.	Section Depth Top	n 3. RECORD in Feet Bottom	OF CASING Length (feet)		Fron	n To
(inches)	per foot	per in. None	Section Depth Top	n 3. RECORD in Feet Bottom	OF CASING Length (feet) 92	Trident	Fron	92
(inches)	per foot 12-1 in Feet	per in. None Sect. Hole	Section Depth Top 1	n 3. RECORD in Feet Bottom 92 RD OF MUDD ks Co	OF CASING Length (feet) 92 ING AND CEMI	Trident	Fron 57	92
6	per foot 12-1	per in. None	Section Depth Top 1	n 3. RECORD in Feet Bottom 92 RD OF MUDD ks	OF CASING Length (feet) 92 ING AND CEM	Trident	Fron	92
6 Depth	per foot 12-1 in Feet	per in. None Sect. Hole	Section Depth Top 1	n 3. RECORD in Feet Bottom 92 RD OF MUDD ks Co	OF CASING Length (feet) 92 ING AND CEMI	Trident	Fron	92
6 Depth	per foot 12-1 in Feet	per in. None Sect. Hole	Section Depth Top 1	n 3. RECORD in Feet Bottom 92 RD OF MUDD ks Co	OF CASING Length (feet) 92 ING AND CEMI	Trident	Fron	92
6 Depth	per foot 12-1 in Feet	per in. None Sect. Hole	Section Depth Top 1	n 3. RECORD in Feet Bottom 92 RD OF MUDD ks Co	OF CASING Length (feet) 92 ING AND CEMI	Trident	Fron	92
6 Depth	per foot 12-1 in Feet	per in. None Sect. Hole	Section Depth Top 1	n 3. RECORD in Feet Bottom 92 RD OF MUDD ks Co	OF CASING Length (feet) 92 ING AND CEMI	Trident	Fron	92
6 Depth	per foot 12-1 in Feet	per in. None Sect. Hole	Section Depth Top 1 Section 4. RECO Section 4. RECO	n 3. RECORD in Feet Bottom 92 RD OF MUDD ks Cud	OF CASING Length (feet) 92 ING AND CEMI ubic Feet f Cement	Trident	Fron	92
6 Depth	per foot 12-1 in Feet	per in. None Sect. Hole	Section Depth Top 1 Section 4. RECO Section 4. RECO	n 3. RECORD in Feet Bottom 92 RD OF MUDD ks Co	OF CASING Length (feet) 92 ING AND CEMI ubic Feet f Cement	Trident	Fron	92
6 Depth	per foot 12-1 in Feet	per in. None Sect. Hole	Section Depth Top 1 Section 4. RECO	n 3. RECORD in Feet Bottom 92 RD OF MUDD ks Cud	OF CASING Length (feet) 92 ING AND CEMI ubic Feet f Cement	Trident ENTING Metho	57	n To
6 Depth	per foot 12-1 in Feet To	per in. None Sect. Hole	Section Depth Top 1 ion 4. RECO Sacl of M	n 3. RECORD in Feet Bottom 92 RD OF MUDD ks Coud 0	OF CASING Length (feet) 92 ING AND CEMI ubic Feet f Cement	Trident	57	n To 92 nt Cubic Fee
Depth From Ungging Metholate Well Plus	in Feet To To Tellor	per in. None Sect. Hole	Section Depth Top 1 ion 4. RECO Sacl of M	n 3. RECORD in Feet Bottom 92 RD OF MUDD ks Coud 0	OF CASING Length (feet) 92 ING AND CEMI bic Feet f Cement NG RECORD	Trident ENTING Metho	od of Placeme	n To 92 nt Cubic Fee
Depth From	in Feet To To Tellor	Section Hole Diameter	Section Depth Top 1 ion 4. RECO Sacl of M	n 3. RECORD in Feet Bottom 9.2 RD OF MUDD ks Chud chud	OF CASING Length (feet) 92 ING AND CEMI ubic Feet f Cement	Trident ENTING Metho	od of Placeme	92

Date Received / D-	والمراجع والمستعرف المستداعين بدائد أأناها المتراجي	·
•	Quad	FSL FSL
RG-68546		ocation No. 22 N. 11E. OZ. 32
File No. (20-68576)	Use 600) 1	ocation No.
The No.	The state of the s	

				Section 6, LOG OF HOLE
	Depth	in Feet	Thickness	
_	From	То	in Feet	Color and Type of Material Encountered
_	1	10	10	Dirt.
	10	30	20	Caliche.
	30	65	35	Clay.
_	65	77	12	Dirt and Sand.
7	7/2:	85	8	Caliche.
<u>—</u>	85	92	7	Clay.
	20	7		
-,, -	2			
Ä,	1,1			
				2 1 St 22 1 St
		·		

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

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Section 1. GENERAL INFORMATION

) Owner of	well	Carl	Wagner		Owner's Well	No. RG=5	8945
Street or	Post Office Add	iress Po.	Box 28 isal N. M.	87521			
	State			0.02.			:
ati waa deliled	under Permit I	No. RG-5	8945	and is located	in the:	•	
216.7	NI ER	CW		2	22N n	11-E	NMPN
9	_ % _ N E %	_ ¼	K of Section	Township	22N Range		87.582.55
h Tenat	No	of Map No.	0	f the			
							;
c. Lot No	o	of Block No	0	of the			
Subdiv	vision, recorded	ın	AUR		•	.*	
a x= 6	50.000	feet, Y=_128	181 . 000 fee	t, N.M. Coordinate	System <u>Centr</u>	al	Zone l
the		Pic	uris Pueblo				Gran
h Drillin s C		C Bustos	Well Drill:	i na	License NoWD=1	202	
					87722		
-Uline Been	3-20-94	Comp	eted 4+2-94	Type tools	Cable s	ze of hole_	<u>- 6</u> µ
titting pegais					`	170	
levation of la	nd surface or		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	it well is	ft. Total depth of we	li	I
ompleted wel	III. XXXI al	allow 🗖 au	teslan.	Depth to water	upon completion of we	1125_	
ourbieren wei			150.3				
		Sect	ion 2. PRINCIPAL W	ATER BEARING ST	RATA	Estimated	Viold
	in Feet	Thickness in Feet	Descriptio	n of Water-Bearing I	ormation (Estimated	
From	To		D-3 01	Dlask sand	and Dist	15	
150	170	20	Red Clay	Black Band	and Dire	- +	
	\			Black Clay		•	
	 ,		·				
					<u>.</u>	 	
			والمسائنين على سائل الأراب			•	
	<u> </u>	L					
		1		ORD OF CASING	ı	Parfe	rations
Diameter (inches)	Pounds per foot	Threads per in.	Top Botto	Length (feet)	Type of Shoe	From	То
-, -				•		:	
6	12-1	None	0 17	0 170	Blue diamond	17	22
•						115	170_
	1			The Brown and the second			
		l				ــــــــــــــــــــــــــــــــــــــ	
		Section	on 4. RECORD OF M	FUDDING AND CEN	ENTING		
	in Feet	Hole	Sacks of Mud	Cubic Feet of Cement	Method of	Piacement	
From	010	Diameter				====	
		· -:		المرابعة الشيط شوا	2 ·	3PP	
	ο.			<u> </u>	10 A	2()	
	 20	-	1		# H		
	R 2	1:			··- ×		
	ΑР				OFFIC EXICO	0	
	(C)	٠	Section 5. PLU	IGGING RECORD	FIC	80	
Plugging Cont	ractor		The second second	Carry Carry Constitution of	LLJ		
Address				No.	Depth in Feet		Cubic Feet of Cement
lugging Meth				1	Top Bot	tom .	·
Date Well Plui			1: 1				
Date Well Plug Plugging appro		State Fne	ineer Representative	3			
				<u>4_</u>			
							
lugging appro	1/ 00 0		FOR USE OF STA	TE ENGINEER ON	LY :	•	
lugging appro	4-20-9		* * * * * * * * * * * * * * * * * * *			Ec	1.
lugging appro	4-20-9			Quad 22N. 11E.	2.321 FWL		
lugging appro	, 4-20-9 RG-5891		20 (1) (1) (2) (2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	Quad 22N. 11E.	2, 32/ FWL Location No. X=656		1,881,

From	То	in Feet	Color and Type Color
.0	10	10	Brown Dirt
10	17	7	Brown Clay
17	22	5	Sand and Gravel
22	30	8	Red Clay
30	50	20	Brown Dirt
50	75	25	Red Clay
75	100	25	Red Clay
100	120	20	Brown Dirt
120	150	30	(Red Clay
150	165	15.	Black Dirt and Sand 7 3
165	170	· 5	Black Clay
	·		
			TOTAL FOR EACH AND AND AND AND AND AND AND AND AND AND
	4		

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

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951Lb

Section 1. GENERAL INFORMATION

wner of	well	Jaco	h Domingue	z		Owner's	Well No.	
treet or F	Post Office Addi	ress P.O	Box 622	Marri ag 97	521			
ity and S	itate	unai	in sar, New	MEXICO 67	JZ		 	
as drilled	under Permit N	o. <u>RG-47</u>	1.56	and is lo	cated in the:			
SE	¼ NW ¼	SE_ ½	¼ of Section _2	Townsl	nip <u>22N</u>	Range	11E	N.M.P.M.
Dia.	Ammilea C	~ · · ~ + · · ·						
Tract N	ło	of Map No		of the	· · · · · · · · · · · · · · · · · · ·			
. Lot No	o of	f Block No		of the	·-··			
Subdiv	ision, recorded i	in		County.				
l. X=		feet, Y=		et, N.M. Coordi	nate System.			Zone in
					•			
Orilling C	ontractor	Lyn	x Drilling	Company	Lice	nse No. WD	1158	
ss		BUX	1 and a	New Mexic	0 0//32			
g Began .	6-17-87	Compl	eted <u>6-18-87</u>	Type to	ols Rotar	· y .	_ Size of hole	-6 <u>}"</u> in.
ion of lar								
leted well	lis 🖾 sha	allow 🔲 'ar	tesian.	Depth to	water upon o	completion o	f well _16!	ft.
Depth	in Feet	Thickness				T T	Estimate	d Yield
rom	To	in Feet		ion	(gallons pe	er minute)		
16	28	12	Clean sa		7			
<i>6 I</i> .	02	10	Ricole Ch				. 5	
04	.103	1.7	BIACK SI		•			·
				Alian.				
				P				
	! <u> </u>		0 2.05	00 D O C O 4 C	NC			
ameter	Pounds	Threads			th		Pe	rforations
nches)	per foot	per in.				ype of Shoe		
							1 :	
							<u> </u>	
**	<u> </u>	Conti	A RECORD OF	MIDDING AND	CEMENTO	NC.		
		Hole						
From	To ±	Diameter	of Mud	1	1.	Method	of Placemen	it
	_	•				i.s.; *	N	
<u>`</u>	Title Control			1 ()		<u> </u>		
				-		7	-	*** *
(# 933					Ī		
	•		Section 5. PL	UGGING RECO	ORD .		7	
	ractor		· (t) 3, 40	- (
	od				No.			Cubic Feet of Cement
							Dottom	
ging appr	oved by:				2			
		State Eng	ineer Representativ	-	4			
			EOD HEE OF ST	ATE ENGINES	D ONLY			
Received	j		FOR USE OF ST	AIE ENGINEE	R UNLY			
				Quad	·····	FWL		FSL
	0/ //21	<1-		() And	·	2 :	1/2	414
	treet or Etity and State of the state of the	treet or Post Office Addity and State is drilled under Permit N SE	treet or Post Office Address P.O. ity and State Char Char is drilled under Permit No. RG-47. SE	treet or Post Office Address P. O. Box 622 Chamisal, New and State Chamisal, New as drilled under Permit No. RG-47156 SE. 14 NW 14 SE 14 14 of Section 2. Rio Arriba County Tract No. of Map No. Lot No. of Block No. Subdivision, recorded in X= feet, Y= feet, Y= feet, Y= feethe Corilling Contractor Box 565, Mora Box 565, Mora Box 565, Mora Box 565, Mora Box 565, Mora Box 565, Mora Completed 6-18-87 Completed 6-18-87 Completed 12 Clean Section 2. PRINCIPAL V Depth in Feet Thickness in Feet Description To To Feet Thickness In Feet Top Black St Section 3. RE ameter Pounds Threads Depth in Feet Top Bot Section 4. RECORD OF Depth in Feet Top Bot Section 5. PL ting Contractor Completed Contractor Completed Contractor Completed Contractor Completed Contractor Completed Contractor Cont	treet or Post Office Address P. O. Box 622 Chamisal, New Mexico 87 state and state Chamisal, New Mexico 87 state of the Section 2 Townst Rio Arriba County Tract No. of Map No. of the Subdivision, recorded in County. Let No. of Block No. of the Subdivision, recorded in County. Let No. of Block No. of the Subdivision, recorded in County. Let County Drilling Company Box 565, Mora New Mexico as Began 6-17-87 Completed 6-18-87 Type to contractor Lynx Drilling Company Box 565, Mora New Mexico as Began 6-17-87 Completed 6-18-87 Type to contract of land surface or Unknown at well is N/A etcd well is William Depth in Feet Thickness In Feet Description of Water-Bear In Feet Tom To In Feet Town Town Town Town Town Town Town Town	tree to Post Office Address P. O. Rox 622 ity and State Chamis al, New Mexico 87521 is drilled under Permit No. RG-47156 and is located in the: SE M. NW. SE M. V. SE M. V. SE M. V. SECTION OF SECTION OF TO Subdivision, recorded in County. Lot No. Of Block No. Of the County. LYNX Drilling Company Lice Box 565, Mora New Mexico 87732 Box 565, Mor	treet or Post Office Address P. O. Box 6.22 tity and State Chamisal New Mexico 87.521 tity and State Chamisal New Mexico 87.521 tity and State Regular Permit No. RG_47156 solve and is located in the: SE	tity and State

=				Section 6. LOG OF HOLE	*
_		in Feet	Thickness		·
·-	From	То	in Feet	Color and Type of Material Encountered	
_	0	2	2	Topsoil	
仅_	2	9	7	Sandy clay	
√9⁄E	9	16	7	Dry gravel and Boulders	
1 br	16	28	12	Clean sand and gravel (wet)	-
_	28	36	8	Hard sandstone	
(15)	36	64	28	Redish Caliche	
_	64	83	19	Black Shale (wet)	ŧ
_	83	87	4	Conglomerate sandstone	
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Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Lynx Drilling Company

Jim Be Priller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a place of the Section 5.

Revised Jun STATE ENGINEER OFFICE WELL RECORD Section 1. GENERAL INFORMATION

City and	State	dress P.O.	izal, N	ew Me	xico	87521			
II waa deillad	under Permit	No. RG 471	13	1-20	AT [] . 5	d i s B ôaled is	the:	T.	
II was ormed	NT.T	GP	!) sages is	32 F 1 7 S	22	N Ran	11E	NMP
									os Count
							: 		os Court
c. Lot N	0	of Block No		3 5	of the	- 17 ₂ - 7			
		d ín			Cour				
		_ feet, Y=		fe	et, N.M.	Coordinate Sy	stem		Zone Gran
							- T		
	•			11 J.C	•	1 "1	License No		
dresš		P.O.	Box 565	Mor	a: Ner	w Maxico	87732		
illing Began	6-6-87	Comp	oleted6_	7-187	Т	ype tools R O	tar y	Size of h	ole 6*"
evation of la	nd surface or _	ımknown		<u> </u>	at well is		ft. Total depth	of well 8	2 1 63"
				1 1			ipon completion		
mpleted wel	i.is uggu si								
Denth	in Feet	Sec Thickness	100		The state of				ited Yield
From	То	in Feet		Description	on of Wa	er-Bearing Fo	rmation	(gallons	per minute)
26	3 7	11	Ti	ght S	and a	nd Grave	1	7	
63	77	14	CI	995	 Black	Shale	pm 1 or	4	
63		1 2 2			BLACK	mare_			
		<u> </u>			<u> </u>			-	
		<u> </u>	<u> </u>	n (. ?	L(C, L):	<u> </u>			
			Sectio	n 3 , R EC	ORD OF	CASING			
Diameter (inches)	Pounds per foot	Threads per in.	Depth Top	in Feet Bott	om	Length (feet)	Type of Sho	e Fro	erforations m To
43.11	DIVO		+2	82 '		84'		62'	82
43"	PVC	 -	<u> 72</u>	02		- 04	cap		- JE
	<u> </u>	+		-		- ! - 			
			i :		71 T.		(ميرا ۾	<u>, </u>
		Sect	ion 4. RECO	RD OF I	MIDDIN	G AND CEMI	INTING		<u> </u>
Depth From	in Feet To	Hole Diameter	Sac of M			c Feet ement	Meth	of Place	ent
			1				***	<u> </u>	···
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· · · · · · · · · · · · · · · · · · ·									
			Saction	m 4 Pf 1	ICCINC	RECORD		: 65	
ugging Cont	ractor		50011		3001110	RECORD	นับใ	ק	•
ddress						_ No.	Depth in		Cubic Feet
ugging Meth ate Well Plug	od					_	Top -	Bottom	of Cement
ugging appro	-					$-\frac{1}{2}$	 		·
		State En	gineer Repres	entative		- <u>3</u>			
		·							· · · · · · · · · · · · · · · · · · ·
			FOR USE	OF STA	TE ENG	INEER ONL'	Y		
ate Received									

Section 6. LOG OF HOLE

	Dent	h in Feet	Thickness	Section 6. LOG OF HOLE
	From	To	in Feet	Color and Type of Material Encountered
	(n			
h	\neg	-	2	Topsoil
又	$\frac{1}{2}$	7	5	Red Clay
	7	13	6	Loose dry Gravel
	\ 13	16	3	Hard cemented sand 7 gravel conglomerate
Pm	\ \ 16 \ \ \ \	26	10	Coarse moist red sand and gravel mix
		37	11	Tight coarse cand and gravel (wet)
	3 7	59	22	Redish Caliche
pmc	59	63	4	Compacted sand and gravel
-	63	77	14	Black shale (wer)
	77	82	5	Redish caliche
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-				The state of the s
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Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Jim Bell

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when a results and accurately as possible when a results and accurately as possible when a results and accurately as possible when a results and accurately as possible when a results are results.

2Eb-58-5002 13:50 LBOW:MBD

STATE ENGINEER OFFICE WELL RECORD

	77.		_			1.1	cii U) <u>.</u>	-
() Owner of	Well Ernr	eto Royk	x 14			38 13R by.	er's Well No.		
City and	Post Office Add	hami ani	N.M.	8752I					
'ell was drilled	under Permit N	10. RG-427	270		and is located	in thek ! A in a	RELEASE MENT	۱. ب	
aSW_	_ ¼ <u>NW </u> ¼.		% of Sec	tion	Township	22N R	ange llE		N.M.P.M
					the				
c. Lot No Subdiv	o c vision, recorded	inTo).a.s.	of	the		···		
d. X=					, N.M. Coordinate	System			Zone ù
3) Drilling C	Contractor No 1	men L.	Hill.			License No	WD_1151		
ddress PaO	.Bo x 783	Lamar,	Co. 810	252			·····		
rilling Began .	4-6-88	Com	pleted <u>4-7-</u>	-88	Type tools	ir roter	XSize of	hole_£	3///Lin
evation of lar	nd surface or	Carin		at v	well is + I	ft. Total dep	th of well	700	ft
ompleted well	is 🕮 sh	allow 🗆 s	artesian.		Depth to water	upon completio	on of well	38	ft
		Sec	tion 2. PRINC	CIPALWAT	TER-BEARING ST	RATA			
	in Feet	Thickness in Feet			of Water-Bearing F			mated '	
From 60	To 3100:					(Ballons per minute			
	100	4,0	88.740	and co	Urse grave	31.		25	
									•
	1		Section	3 PECO	RD OF CASING		-L		
Diameter	Pounds	Threads	Depth		Length	Turn of S		Perfor	ations
(inches)	per foot	per in.	Тор	Bottom	(feet)	Type of S	F	rom	То
	188 well		★ 1_5	5-5			8	Ю	100
5" ache	40 PV	;	5	100	95				
									<u> </u>
	in Feet				DDING AND CEM	ENTING			
	in Feet To	Secti Hole Diameter	ion 4. RECOF Sack of Mu	:R	DDING AND CEM Cubic Feet of Cement		hod of Place	ment	<u> </u>
Dep th		Hole	Sack	:R	Cubic Feet			ment	
Depth From	To	Hole Diameter	Sack	:R	Cubic Feet of Cement	Met		ment	
Depth From	To	Hole Diameter	Sack	:R	Cubic Feet of Cement	Met		ment	
Dep th From	To	Hole Diameter	Sack of Mu	id d	Cubic Feet of Cement	Met		ment	
Depth From O	To LO	Hole Diameter 8 5//8	Sack of Mu	n 5. PLUGG	Cubic Feet of Cement 3; GING RECORD	Met		ment	
Depth From O	To YO	Hole Diameter 8 5//8	Sack of Mu	n S. PLUGO	Cubic Feet of Cement 3: GING RECORD	pour e	ed.		Thic Feet
Depth From O	To LO	Hole Diameter 8 5//8	Sack of Mu	n S. PLUGO	GING RECORD	poure	ed.		abic Feet
Depth From O lugging Contro ddress lugging Metho atc Well Plugs	To YO actor	Hole Diameter 8 5//8	Sack of Mu	n S. PLUGO	Cubic Feet of Cement 3; GING RECORD No. 1 2	pour e	ed.		
Depth From O lugging Contro ddress lugging Metho atc Well Plugs	To YO actor	Hole Diameter 8 5//8	Sack of Mu	n S. PLUGG	Cubic Feet of Cement 3; GING RECORD No.	pour e	ed.		
Depth From O	To YO actor	Hole Diameter 8 5//8	Sack of Mu	n S. PLUGO	Cubic Feet of Cement 3: GING RECORD No. 1 2 3	poure Pepth Top	ed.		
Depth From O lugging Contro	To YO actor	Hole Diameter 8 5//8	Sack of Mu	n 5. PLUGO	Cubic Feet of Cement 3: CHING RECORD No. 1 2 3 4	Depth Top	in Feet Bottom	- Ct	Cement

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5685+372@2:0T

_			Section 6. LOG OF HOLE
	in Feet	Thickness	Color and Type of Material Encountered
· · •From	То	in Feet	Color with Type of Material Encountered W 4 6
	i	5	
ريا ريا	10	5	· day-unite
,			of y-Denom > To
· A	· •		clan-red
2.5	60		cz ym cz clay-red
60	3:43	40	1-31 FRE GART - JA VII Send & Coarse grand
	-	<u> </u>	•
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Section 7. REMARKS AND ADDITIONAL INFORMATION

RG 47770

The undersigned hereby cortifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

I. STRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, excepaction 5, shall be answered as completely and surately as possible when any well is drived, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

PW-59

) Owner of	f well	Roger D	ominguez	. GENERAL II	NFORMATIO	SA APR 15	p : 2U 's Well No	1
Street or	Post Office Ad	ldress — Ch	amisal.	new Mexi	co 87521	STATE OF N	- 3 OFFIC	
City and	State	7.0	1000			N SE PLACE	EW MEXIC	9
ell was drilled	d under Permit	No.	487クク		_ and is locate	d in theil IA		,:
a	_ ¼ ¼		¼ of Se	Taos C	ounty	Kang	ge <u>11 E *</u>	N.M.P.
	No			•			1.5	
c. Lot N Subdi	lo vision, recorde	of Block No d in	• —	of the	ounty.			
d. X= the		_ feet, Y=		feet, N	M. Coordinate	System		Zone
	Contractor					License No		
			P.O. Bo	× 565	Mora, Me	w Mexico 87	732	
rilling Began	4-1-88	Coi	mpleted $\frac{l_1-2}{l_1-2}$	- 88	_ Type tools _	{otary/Air	Size of h	ole6½"
evation of la	nd surface or _	Unkn	own	at we	ll isn/a_	ft. Total depth	of well 1.2	2
ompleted wel						r upon completion		
		;	ection 2. PRIN				;	
	in Feet	Thickne in Fee		Description of	Water-Bearing	Formation		ted Yield per minute)
From 89	98 .	9		ge grave	l and sa	nd	17	
								
		775						
		i	Sectio	n 3. RECORD	OF CASING			•
Diameter (inches)	Pounds per foot	Threads per in.	Depth Top	in Feet Bottom	Length (feet)	Type of Shoe	Fro	erforations m To
5111	2.18	Glued	+1	122	123	none	102	
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	 				ļ	<u>A</u>		
	<u> </u>	<u> </u>					1 ^{ri} 2	
		Sec	tion 4. RECO	RD OF MUDD	ING AND CE	MENTING T		
Depth From	in Feet To	Hole Diameter	Saci		ubic Feet f Cement	Meti	Placent	ht
						7	OF	
						——— —	71	
				11 2			· · · · · · · · · · · · · · · · · · ·	:
	<u> </u>	<u> </u>						
l			Section	on 5. PLUGGI	NG RECORD			•
ddress	ractor	-			No.	Depth in		Cubic Fee
lugging Meth	od					Тор	Bottom	of Cement
ate Well Plus					2			
ate Well Plug lugging appro					3			<u> </u>
_		State E	ingineer Repres	entative	4		<u> </u>	
lugging appro		State E		OF STATE E	<u>-</u>	LY		
_		State E		OF STATE E	NGINEER ON	LY FWL _		FSL

Depth i	n Feet	Thickness	Section 0. DOO OF HOLD
From	To	in Feet	Color and Type of Material Encountered
0	4	4	Brown Topsoil
4	19	15	Red Sand, Coarse withisparse pea Gravel
19	79	60	Redish Clay/Caliche with intermittant gravel stre
79 .	89	10	Compact fine sand
89	98	9	Large Gravel and Coarse Sand (wet)
98	122	24	Caliche with small gravel streaks
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72			
4			
3			
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			:
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
3.			

Set casing and blew well dry, surged well for 3 hrs to develop Guaged flow at 17 gpm, broke rig down and moved to next location.

The undersigned hereby certifies that, to the best of his knowledge and belief, the teregoing is a true and correct record of the above described hole.

Jim Bell Dril

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a rungging record, only Section 1(a) and Section 5 need be completed.

			Section 1.	GENERAL	INFORMATION 16	A8: 41월:		
A) Owner of Street or	Post Office Add	dres P.O.	GDY 13	uard A	BJan	Owner a	Well N	
City and	State	dito,	NM. B	7579	TAIL (L2)	DER OFFICE THE	: P	
ell was drille	d under Permit 1	No. RG-	49093	\$	SANTA FE, N and is located i	EW MEXICO	·	
				•	Township=		12.E	N.M.P.M.
					e	<u> </u>	i co	
	o vision, recorded							
		_ feet, Y=		feet, N	I.M. Coordinate S	ystem		Zone in Grant.
						License No. W	D-1151	
		•				4ir Rotary		
levation of la	nd surface or	CASING)	at w	e11 is + / 15	ft. Total depth o	f well2	1 8 1.
ompleted we	ilis 💢 sh	nallow 🗀 s	artesian.		Depth to water	upon completion o	f well2	. <u> </u>
Depth	in Feet	Thickness	.		R-BEARING ST	T	Estimated	
From	То	in Feet			watel-Destrick L	ormation	(gailons per	minute)
180	218	38	Clay	and GI	ravel Lay	2.5		
<u> </u>								
	<u> </u>	I	Section	3. KECOKI	D OF CASING		· · · · · · · · · · · · · · · · · · ·	
Diameter (inches)	Pounds per foot	Threads per in.	Depth	in Feet	Length	Type of Shoo		orations
	19 थया इ	<u> </u>	+ 1.5	Bottom 5.5	(feet)	•	From	То
5"00	Shed 40	PVC	3.5	218	214.5		178	218
· · · · · · · · · · · · · · · · · · ·	1,							1
Depth	in Feet	Sccti Hole	ion 4. RECOL		DING AND CEM			
From	То	Diameter	of Mo		of Coment	Method	l of Placement	
_	10	フを	1		4	Pource	d	
0	1		ł	1	i			
		<u> </u>						
<i>O</i>			Pantin	n 5 PI UCC	INC PROPE	<u> </u>		
lugging Cont	ractor			n 5. PLUGG	ING RECORD	⊅। ⊌∪	88MAY28	
lugging Cont				n 5. PLUGG	ING RECORD	Depth 神美	72	Cubic Feet
lugging Cont address lugging Metholate Well Plu	ractor			n 5. PLUGG	No.	Depth 神美 Top 美一	set Wottom	Cubic Feet of Coment
lugging Cont ddress lugging Meth	ractor			n 5. PLUGG	No. 1 2	Depth 神美 Top 美一	sex Softtom	
lugging Cont ddress lugging Meth	ractor				No.	Depth 神美 Top 美一	set Wottom	
lugging Cont	ractor		gincer Represe	entative	No. 1 2 3	Depth max	20 20 C 20 C 20 C 20 C 20 C 20 C 20 C 2	
lugging Cont ddress ———————————————————————————————————	ractor	State Eng	gincer Represe	entative OF STATE	No. 1 2 3 4 ENGINEER ONL	Depth max	C C C C C C C C C C C C C C C C C C C	of Coment

			Section 6. LOG OF HOLE
Depth From	in Feet To	_ Thickness in Feet	Color and Type of Material Encountered
0	10	10	Surface
jo	15	5	Large Cubbles + Gravel
15	39	24	Clay-Tan
39	45	6	Coarse Gravel + Cobbles
45	180	/35	Clay-Tan with thin gravel streaks
180	218	38	Clay and Gravel Layers
		_	
			
		<u> </u>	
-			
•			
		•	

Section 7. REMARKS AND ADDITIONAL INFORMATION

RG 49094

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Somman L. Lill

Description

Drille

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, excellection 5, shall be answered as completely as a courately as possible when any well is drilled, repaired or despend. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

pw.65

	Post Office Add	dress1_1_5_	South	PH.D. Grand # 1	8	Owner's	MEII NO. IIL	10.1047
City and	State Las_	Vegas, NA	M. 8770	1				
l) was drilled	under Permit	No.RG 565	966		and is located	l in the:	, E.J.	. 4.55
- CH	N CH N	CE M	K of Se	ction 25	Township	23N Rang	e 11E	N.M.P.I
i	n Taos co	ountv.						
b. Tract	No	_ of Map No.		of the	 		-	
c. Lot N	o	of Block No		of the_			W. V.	
Subdir	vision, recorded	l ín		Co	unty.		7*	
d. X=		_ feet, Y=		feet, N.M	1. Coordinate	System		Zone i
								Gran
) Drilling (ContractorR	odney's	D <u>rillin</u>	8		License No	/D-1277	
idress P	T 1 Boz6	Embudo.	NM. 87	531		<u>.</u>	<u> </u>	
						cable		
evation of la	nd surface or _			at well	is	ft. Total depth o	of well30	·1
ompleted wel	lis 🔽 si	hallow 🗀 a	rtesian.	I	Depth to wate	r upon completion (of well	41
	· ·			ICIPAL WATER	DEADING S	TDATA	11	
Depth	in Feet	Thickness					Estimat	ed Yield
From	То	in Feet		Description of W	ater-Bearing	Formation	(gallons p	er minute)
. 5	12	7	Lt.	tan clay	and riv	er boulders	, 12	ar gw
			sand	and grav	e1			ij se wi
			June	<u> </u>				
			1			.,	1 (0, q 2)	<u> </u>
·	<u> </u>			<u> </u>				ere i
			Section	on 3. RECORD (OF CASING		•	
			5000	on or induction i	OI. CVDIIIO		·	
Diameter	Pounds	Threads	Depth	in Feet	Length	Type of Shoo	Pe	erforations
Diameter (inches)	Pounds per foot	Threads per in.				Type of Shoo	From	rforations n To
(inches)	per foot	_	Depth	in Feet	Length	Type of Show	Pe	rforations n To
(inches)	per foot	_	Depth Top	Bottom	Length (feet)		From	rforations n To
(inches)	per foot	_	Depth Top	Bottom	Length (feet)		Pe From	rforations n To
(inches)	per foot	per in.	Depth Top	Bottom 30	Length (feet)	steel	Per From 7	rforations n To
(inches)	per foot	per in.	Depth Top 0	Bottom 30 ORD OF MUDDI	Length (feet) 30	steel	Pron 7	erforations n To 25
(inches)	per foot	per in.	Depth Top 0	Bottom 30 ORD OF MUDDI	Length (feet)	steel	Property of the second	erforations n To 25
(inches) 6 5/8 oc	per foot 13 in Feet	Secti	Depth Top 0	Bottom 30 ORD OF MUDDI	Length (feet) 30 NG AND CE	steel MENTING	From 7	erforations n To 25
(inches) 6 5/8 oc	per foot 13 in Feet	Secti	Depth Top 0	Bottom 30 ORD OF MUDDI	Length (feet) 30 NG AND CE	steel MENTING	Pron 7	erforations n To 25
(inches) 6 5/8 oc	per foot 13 in Feet	Secti	Depth Top 0	Bottom 30 ORD OF MUDDI	Length (feet) 30 NG AND CE	steel MENTING	Property of Photos	erforations n To 25
(inches) 6 5/8 oc	per foot 13 in Feet	Secti	Depth Top 0	Bottom 30 ORD OF MUDDI	Length (feet) 30 NG AND CE	Steel MENTING C	From 7	erforations n To 25
(inches) 6 5/8 occ Depth From	per foot 13 in Feet	Secti	Depth Top 0 con 4. RECC Sac of M	Bottom 30 ORD OF MUDDI sks Cufud of	Length (feet) 30 NG AND CE bic Feet Cement	Steel MENTING C	From 7	erforations n To 25
(inches) 6 5/8 occ Depth From	per foot 1 13 in Feet To	Secti	Depth Top 0 con 4. RECC Sac of M	Bottom 30 ORD OF MUDDI	Length (feet) 30 NG AND CE bic Feet Cement	Steel MENTING C	From 7	erforations n To 25
Depth From	per foot 1 13 in Feet To	Secti	Depth Top 0 Son 4. RECC Sac of M	Bottom 30 ORD OF MUDDI sks Cufud of	Length (feet) 30 NG AND CE bic Feet Cement	Steel MENTING C	From 7	reforations To 25
Depth From	in Feet To ractor	Secti	Depth Top 0 son 4. RECC Sac of M	Bottom 30 ORD OF MUDDI sks Cufud of	Length (feet) 30 NG AND CE bic Feet Cement	Steel MENTING MENTI	From 7	erforations n To 25
Depth From lugging Cont. ddress lugging Meth	in Feet To ractor	Secti	Depth Top 0 Son 4. RECC Sac of M	Bottom 30 ORD OF MUDDI sks Cufud of	Length (feet) 30 NG AND CE bic Feet Cement	Steel MENTING MENTI	Feet	reforations To 25
Depth From	in Feet To ractor	Secti Hole Diameter	Depth Top 0 son 4. RECC Sac of N	Bottom 30 ORD OF MUDDI sks Cu fud of	Length (feet) 30 NG AND CE bic Feet Cement G RECORD No. 1 2 3	Steel MENTING MENTI	Feet	reforations To 25
Depth From lugging Cont. ddress lugging Meth	in Feet To ractor	Secti Hole Diameter	Depth Top 0 Son 4. RECC Sac of M	Bottom 30 ORD OF MUDDI sks Cu fud of	Length (feet) 30 NG AND CE bic Feet Cement G RECORD No. 1 2	Steel MENTING MENTI	Feet Bottom	reforations To 25
Depth From lugging Cont. ddress lugging Meth late Well Plug	in Feet To ractor	Secti Hole Diameter	Depth Top 0 ion 4. RECC Sac of M Secti	Bottom 30 ORD OF MUDDI sks Cu fud of	Length (feet) 30	MENTING MENTIN	Feet	reforations To 25

1-- >

			Section 6. LOG OF HOLE
Depth From	in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	2	2	Lt. Brown clay and sand
	12	10	Lt tan clay, river boulders, sand and gravel
12	30	18	Lt. tna clay, sand and gravel
		<u> </u>	
			i i i i i i i i i i i i i i i i i i i
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The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections except Section 5, shall be appropriate as completely and convertely an appropriate district office.

of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

Driller

STATE ENGINEER OFFICE

WELL RECORD

Owner's Well Nick and Julia Montoys Owner's Well No. EC-6-01589				Section 1	, GENERAL I	INFURMAT	ON				01500
Il was drilled under Permit No. RG - 58065 and is located in the:	Owner of v Street or Po City and So	vell NICK ost Office Aditate Vadi	dress PO.	a Monto Box 52 7579	оуа			Owi	ner's Well No	HC-6	-01589
b. Tract No. of Map No. of the C. Lo No. of Block No. of Block No. of the Subdivision, recorded in County. d. X = feet, Y = feet, N.M. Coordinate System Zona in Great. Drilling Contractor Rod ney 's Drilling License No. WD-1277 dress RT. 1 Box 6 Embudo, NM. 87531 License No. WD-1277 dress RT. 1 Box 6 Embudo, NM. 87531 License No. WD-1277 dress RT. 1 Box 6 Embudo, NM. 87531 License No. WD-1277 dress RT. 1 Box 6 Embudo, NM. 87531 License No. WD-1277 Diamonal Structure of the Size of Role of In. Total depth of well R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. Total depth of R6 fr. R. To	ll was drilled t	under Permit 1	No. RG- 58	065		and is loca	ted in th	he:			
b. Tract No of Map No. of the c. Lo No. of Block No. of Block No. of the Subdivision, recorded in County. d. X = feet, Y = feet, N.M. Coordinate System Zone in the Grant. Dilling Contractor Rod ney 's Drilling License No. WD-1277 dress ET. 1 Box 6 Embudo, N.M. 87531 Ulting Began 6-16-95 Completed 6-20-95 Type tools Cable Size of hole 6 in. President of the contract of the con	. SW	y SE y	SW 4	¼ of Se	ction 28	Townshi	p_23N	R	ange 12E		_N.M.P.M.
c. Lot No of Block No of Block No County. d. X= feet, Y= feet, N.M. Coordinate System Zone In the Great, N.M. Coordinate System Creat	in Ta	os Coun	ty.		of th	.=	-		. · · ·		
Subdivision, recorded in	b. Tract N	0	OI MED NO		OI (ii						
the	c. Lot No. Subdivi	sion, recorded	of Block No l in		of th	County.			i i		
Drilling Contractor RT. 1 Box 6 Embudo, NM. 87531 Hing Began 6-16-95 Completed 6-20-95 Type tools cable Size of hole 6 in vation of land surface or mpleted well is							ata Svet				Zone in
Section 3. RECORD OF CASING Size of hole Size	d. X= the		_ leet, I =		1661, 1	T.M. COOLUM					Grant
Section 3. RECORD OF CASING Size of hole Size	Drilling Co	entractor R	odney's D	rillin	8		L	icense No	WD-1277		
Section 2. PRINCIPAL WATER-BEARING STRATA Section 2. PRINCIPAL WATER-BEARING STRATA Section 2. PRINCIPAL WATER-BEARING STRATA Section 3. RECORD OF CASING Depth in Feet in F						. •					
section 3. RECORD OF CASING Diameter Founds Circle From To Depth Treeds Top Bottom Top Bottom Top Section 4. RECORD OF MUDDING AND CEMENTING	U1 083					Type tool	s_cab	le	Size of	hole	6in
Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness in Feet Description of Water-Bearing Formation Gallous per minute)											
Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness in Feet To To To To To To To T					,						
Depth Feet Thickness Description of Water-Bearing Formation Feet Section 3. RECORD OF CASING	mpleted well:	is 🗀 st	nallow ∟! art	esian.		Depth to w	ater upo	n completi			It.
Section 3. RECORD OF CASING Section 3. RECORD OF CASING				on 2. PRIN	CIPAL WATE	ER-BEARING	G STRA	TA			أماط
Section 3. RECORD OF CASING Diameter (inches) Perforations Perforations Perform Top Bottom (feet) Type of Shoe Perform To Top					Description of	Water-Beari	ng Form	ation			
Section 3. RECORD OF CASING Diameter Pounds (inches) per foot Top Bottom (feet) Type of Shoe From To 5/8 od 13 0 86 86 steel 10 18 Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Sacks Cubic Feet of Mud of Cement Method of Placement To Diameter of Mud of Cement Section 5. PLUGGING RECORD FOR USE OF STATE ENGINEER ONLY State Engineer Representative 4 FWL FSL		18	14	Tan	clay and	river	bould	lers	. 1	2	
Section 3. RECORD OF CASING Depth in Feet Length Type of Shoe Perforations From To Top Bottom (feet) Type of Shoe From To 18 56 86 86 86 86 86 86 8									- 		
Section 3. RECORD OF CASING Depth in Feet Length Type of Shoe Perforations From To Top Bottom (feet) Type of Shoe From To 18 56 86 86 86 86 86 86 8											
Diameter (inches) Pounds per foot Threads per in. Top Bottom (feet) Type of Shoe Perforations From To To Top Bottom To 10 18 18 18 18 19 19 19 19									1. 1.	ul	
Diameter (inches) per foot per			L	Section	n 3 PECOPI	OF CASIN	G			- `	
Section 4. RECORD OF MUDDING AND CEMENTING Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Diameter of Mud of Cement Section 5. PLUGGING RECORD FOR USE OF STATE ENGINEER ONLY Section 5. PLUGGING RECORD FOR USE OF STATE ENGINEER ONLY Section 5. PLUGGING RECORD FOR USE OF STATE ENGINEER ONLY Section 5. PLUGGING RECORD FOR USE OF STATE ENGINEER ONLY Section 5. PLUGGING RECORD FOR USE OF STATE ENGINEER ONLY Section 5. PLUGGING RECORD FOR USE OF STATE ENGINEER ONLY FOR USE OF STATE ENGINEER ONLY	Diameter	Pounds	Threads					Type of S	han	Perfora	tions
Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Diameter of Mud of Cement Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Top Bottom of Cement 1 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4			per in.						Fr		
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Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Sacks Cubic Feet of Mud of Cement Method of Placement To Diameter of Mud of Cement To To Diameter Section 5. PLUGGING RECORD Section 5. PLUGGING RECORD Seging Contractor Models Top Bottom of Cement Top Bottom of Cement Top Bottom of Cement Top Bottom of Cement Top Bottom of Cement Top Bottom of Cement Top Bottom of Cement Top Bottom of Cement Top Bottom of Cement Top Bottom of Cement Top Bottom											
Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Sacks of Mud of Cement Method of Placement To Diameter of Mud of Cement Section 5. PLUGGING RECORD Ingging Contractor degree d									5		i
Depth in Feet Hole Diameter of Mud of Cement Method of Placement From To Diameter of Mud of Cement Method of Placement To Diameter of Mud Of Cement To Diameter Of Mud Of Cement To Diameter Of Mud Of Cement To Diameter To Diameter Of Cement To Diameter To Diameter Of Cubic Feet Of Cement To Depth in Feet Of Cement To	L		Section	4 RECO	RD OF MUDI	DING AND O	CEMENT	TING	N 2	ÇON ÇES	
Section 5. PLUGGING RECORD gging Contractor dress gging Method te Well Plugged gging approved by: State Engineer Representative FOR USE OF STATE ENGINEER ONLY Top Bottom Of Cement 2 3 4 FOR USE OF STATE ENGINEER ONLY Top Bottom FWL FSL FOR USE OF STATE ENGINEER ONLY			Hole	Sac	ks (Cubic Feet					
Section 5. PLUGGING RECORD Ingging Contractor dress Ingging Method It Well Plugged Ingging approved by: State Engineer Representative FOR USE OF STATE ENGINEER ONLY Quad FWL FSL	From	10	Distinctes		<u> </u>	or Cement	 			<u> </u>	}
Section 5. PLUGGING RECORD In the section 5. PLUGGING RECORD In the section 5. PLUGGING RECORD In the section 5. PLUGGING RECORD In the section 5. PLUGGING RECORD No. Depth in Feet to Cubic Fee							ļ		- 	7 2 1	<u> </u>
gging Contractor dress gging Method te Well Plugged gging approved by: State Engineer Representative FOR USE OF STATE ENGINEER ONLY te Received 66 27 95 Quad FWL FSL		·				. •	<u> </u>	·	~		1
gging Contractor dress gging Method te Well Plugged gging approved by: State Engineer Representative FOR USE OF STATE ENGINEER ONLY te Received 66 27 95 Quad FWL FSL		,						•			
dress	seine Contra	-10-		Section	on 5. PLUGGI	NG RECOR	D	•	die de		
Top Bottom of Cement to Well Plugged gging approved by: State Engineer Representative FOR USE OF STATE ENGINEER ONLY to Received 66 27 95 Quad FWL FSL	dress		·			[_N		Depth	n Feet 🗼 🖖		
State Engineer Representative 2 3 3 3 4 4 4 4 4 4 4								Тор	Bottom	of (Cement
FOR USE OF STATE ENGINEER ONLY te Received 6 6 27 9.5 QuadFWLFSL						2					
te Received C 6 2 7 9.5 Quad FWL FSL		***	State Engin	eer Repres	entative						
te Received 6 6 2 7 9 5 Quad FWL FSL				FOR HER	OF CTATE				<u> </u>		
	te Received	06 27 9			OFSIAICE	HOINEER (MLI '	. •			
File No. PG-58045 Use DOW Location No. T23NR DES, 28-3.					Quad					FSL_	
	File No	G-58	065		Use <i>0</i>	m	Loca	ition No.Z	23NR.1	ZES	. 28-3.

				Section 6. LOG OF HOLE
_	Depth From	in Feet To	Thickness in Feet	Color and Type of Material Encountered
Os-	0	. 18	18	Tan clay and river boulders
	18	30	12	Lt. Tan clay and cobble stones
سے-	30	75	45	Lt. Tan clay, sand and gravel
 1PM	75	86	11	Decomposed black shale, black sand
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Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

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PW-68

Section 1. GENERAL INFORMATION

(A) Owner of	wellAni	val Lopez	<u>. </u>			Owr	er's Well NoH	C-6-01538
Street or F	Post Office Ad	idress PO	POX TOT				***	
City and S	tate Vad1	to. NM.	3/3/9					
					and is locate			
s. SE	NW N	SW K	¼ of Se	ction 28	Township	23N R	ange <u>12E</u>	N.M.P.I
b. Tract N	lo	of Map No.		of t	the			
c, Lot No		of Block No	•	of (he		<u> </u>	
		d in					3.	
A Y=		feet Y=		feet.	N.M. Coordinate	System		
the		·				·		Gran
B) Drilling Co	ontractorR	odney's l	Drilling	8		License No.W	D-1277	
ddress_RT.	l Box 6	Embudo, 1	M. 875	31		,		
Orilling Began _	1-3-95	Comp	leted 1-9-	-94	Type tools_	cable	Size of	hole_6i
laustion of lens	d surface or			at v	vell le	ft. Total dept	th of well 16	7
completed well	**	hallow 🗖 at				er upon completic	7 · ·	
		•		OF 11 W117	TO DE LOUIS	YTD A T A		•
Depth is	n Feet	Thickness	\neg		ER-BEARING S of Water-Bearing			ated Yield
From	То	in Feet	_			1 Otherion		per minute)
53	167	94	Beige	e clay	and sand		2	
							3	
						•	ا <u>نگ</u> ا دید خان	
								and a sales of the
			Section	n 3. RECOR	D OF CASING		. day . ∰fa No ± . No men.	
Diameter	Pounds per foot	Threads		in Feet	Length (feet)	Type of Si	roe Fr	Perforations
(inches) 6 5/8 od	13	per m.	Top 0	Bottom 167	167	None	13	
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			-		
<u> </u>		<u> </u>	4 7 7 7 7 7			MENTING 2	الم	· · · · · · · · · · · · · · ·
Depth is		Hole	Sack	:0	Cubic Feet		od of Encem	ent
From	То	Diameter	of Mu	10	of Cement		, 0	
			<u> </u>	·		·····	70.4	
								
		L	l				<u>.</u>	
			Section	n 5. PLUGG	ING RECORD		بر د د	<i>:</i>
lugging Contrac						Bat.	- Read	-
ddress lugging Method			*****		No.	Depth is	Bottom	Cubic Feet of Cement
ate Well Plugge	d							
lugging approve	ed by:	• .			2			
		State Engi	neer Represe	ntative	3			
	1-12-9	75	FOR USE	OF STATE	ENGINEER ON	LY		
Pate Received	1-12-4	13	•	Qua		FWL	<u>.</u>	FSL
File No. R	6-612	138		_ Use	10M	Location No. 3	BN./AE	,28,3/4

			Section 6. LUG UF HOLE	
Depth From	in Feet To	Thickness in Feet	Color and Type of Material Encountered	
0	15	15	Lt. Brown clay and sand	
15	39	24	Lt. Brown clay and gravel	· · · · · · · · · · · · · · · · · · ·
		<u> </u>		
39	167	126	Beige clay and sand	
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			the second secon	
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The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled renaired or despend. When this form is used as a business and the second section is used as a business and the second

STATE ENGINEER OFFICE

WELL RECORD

			Section 1.	. GENERAL I	NFORMATIC	N		3
A) Owner of	well Jan	e Sto	hlen			Ow	ner's Well No	
Street or	Post Office Ad	dress Rox	17 P	•				
,	State	//:	- •					
ell was drilled	l under Permit	No. RG	54061	<u> </u>	_ and is locat	ted in the:		•
	v NE v	CE VC	W 1/ 05 Sa.		Tairmahin	771/ n	/ 5	N.M.P.M
								•
b. Tract	No/ <i>9/20</i>	of Map No.	► 57	of the	Surve	9 15, 1941	TCRS	
c. Lot N	o	of Block No		of the	s			1
Subdi	o vision, recorded	d in	TROS		County.			•
d X=		feet Y=		feet N	M Coordina	te System		Zone is
the								Grant
)		- ennall	Die	lina to		License No	wnac	77
rilling Began	14-9-	2 / Comp	oleted	- 20-91	, _ Type tools	rotary	Size of	holein
						-		
levation of lai		•				•		2 <i>55</i> ft
ompleted wel	l is 🗷 si	hallow 🗖 a	rtesian.	•	Depth to wa	ter upon completi	on of well	160_ft
		Sec	tion 2 PRIN	CIPAL WATE	R.RFARING	STRATA		
Depth	in Feet	Thickness						mated Yield
From	То	in Feet	I	Description of	Water-Bearin	g Formation	(gallor	s per minute)
255	280	25	I I	actures	1 Pace	×14	100	(8)
							. 5	ė.
		ļ					- 2.	<u> </u>
								<u>.</u>
	L	<u> </u>			:		ALG	92
	r 5 .	T = - T		n 3. RECORD	1	, .		3
Diameter (inches)	Pounds per foot	Threads per in.	Top	in Feet Bottom	Length (feet)	Type of S	free -	Perforations Om To
15/			_		سر و	Ė		
618	13	-	0	/3	15			·
4500	pre		10	28-5	275		25	0 285
						ν _Ε χ	49	1
	<u> </u>	<u> </u>		L	<u> </u>		0 1	·
		 	· r	RD OF MUDD		EMENTING		<u> </u>
Depth From	in Feet To	Hole Diameter	Sack of Mi		ubic Feet f Cement	Met	thod of Placer	nent
		77/	Ans.				;	
0	10	1/8	0			grenty	+ Trem	u'e
							: :	ك *-
					-			
·	L	<u> </u>				<u> </u>		2 .4
	•		Sectio	n 5. PLUGGI	NG RECORD		v.	## # 6,
	actor						1	
lugging Contr					No.	Depth		Cubic Feet
ddress					$ \frac{1}{1}$	Тор	Bottom	of Cement
ddress	od : bo							.1
ddress lugging Metho ate Well Plug	od ged		•		2			-
ddress lugging Metho ate Well Plug	od ged		ineer Renress	entative			<u> </u>	:
ddress	od ged		ineer Represe	entative				:
ddress lugging Metho ate Well Plug lugging appro	od : ged ved by: 	State Eng	***************************************	entative	3	NLY		
ddress lugging Metho ate Well Plug lugging appro	od : ged ved by: 	State Eng	***************************************	OF STATE EI	3 4 NGINEER OI			Eci
ddress lugging Metho ate Well Plug lugging appro	od ged	State Eng	***************************************	OF STATE EI	3 4 NGINEER OI	29.342 FWL		FSL

			SCHORO, LOU OF HOLE
Dept From	h in Feet To	Thickness in Feet	Color and Type of Material Encountered
_0	10	10	sand elay + green
10	60	50	baselt
60	70	10	white quantz punice lash bed
70	255	185	baselt
255	250	25	Fractured Boselt.
260	285	5	Basalt = channel fill of
			Pilar slake derivo & Sand
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1,5720

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

PW-71

Section 1. GENERAL INFORMATION

Owner of v		dress P.O	BX. 27	4			s Well No. RG-59969
		Pena	sco N.	Mex. 87	553	· · · · · · · · · · · · · · · · · · ·	
was drilled	under Permit l	No. RG-5	9969		_ and is located	in the 94 AUG 7	PARTIE N.M.P.M.
. SE	iz SW 12	NE 12	K of Sec	tion 6	Townshin 2	2NSTATE Rang	19 20 7 NMPM
a	. 74 74		/4 01 360		v w natup	SANTA ETC	MEER OF
b. Tract N	lo	_ of Map No		of the	·	- 17EA	EW MEY, CE
c. Lot No	,	of Block No InTaos	<u></u>	of the			-116Q
Subdivi	ision, recorded	in Taos	<u> </u>	c	ounty.		
d. X=		_ feet, Y=		feet, N.	M. Coordinate	System	Zone in
					·		Grant,
Drilling Co	ontractor	C Bustos	Well Dr	illing		License No	WD-1202
_							22
ling Began	7/31/	Comp	leted8/	1/94	_ Type tools	Cable	Size of hole6in.
etion of len	d surface or			at we	ll is	ft. Total depth o	of well 77 ft.
		•					of well ft.
apleted well	is LAN at	nallow 🗔 a	rtesian.		Depth to water	upon completion	of Mell
		Sect	ion 2. PRINC	CIPAL WATE	R-BEARING ST	TRATA	
Depth i		Thickness in Feet	1	Description of	Water-Bearing I	Formation	Estimated Yield (gallons per minute)
From	То	W. I. cct					
25 ,	77	52	San	d Grave	L Brown D	irt Clay	3.0 ◆
					* 1 1 1	m - 1 m - 1 m - 1	<u></u>
				• .	:		
		 					
<u></u>		<u> </u>			 		7- 7- - 7-
	•		Section	n 3. RECORD	OF CASING		
Diameter	Pounds	Threads		in Feet	Length	Type of Shoo	Perforations To
(inches)	per foot	per in.	Тор	Bottom	(feet)	<u> </u>	From To
6	12-1	None	0	77	77	Flame Trea	ted 20 77
						,	41
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	·	<u> </u>		<u></u>	<u> L</u>	<u> </u>	<u> </u>
		Secti	on 4. RECO	RD OF MUDI	ING AND CEN	MENTING TO	4
	in Feet	Hole Diameter	Saci		ubic Feet of Cement	Metho	d Placement
From	То	Diameter	OI M		, comple	C 17	5
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	,		1			? o	CF.
	L	<u> </u>	1			X 3	
			Section	n 5. PLUGGI	NG RECORD	EXE	
seine Contr	actor						
dress					No.	Depth in	
	od					Тор	Bottom of Cement
gging Metho	Bed		-		2		
te Well Plug	ved by:				3		1,0
igging Metho te Well Plugi igging appro	ved by:	Ciata Ba	ineer Do	entative		 	₩ (1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1
te Well Plug	ved by:	State Eng	ineer Repres	entative	4		
te Well Plug				·	4 ENGINEER ON	LY	

_		in Feet To	Thickness in Feet	Color and Type of Material Encountered
_	From 0	10	10	Brown Dirt Hard Packed Gravel.
			. 8	Bolders Sand and Dirt
_	10	18		
_	18	25	7	Brown Dirt
1-	25	30	5	Sand And Gravel
1	30	40	10	Brown Dirt
4	40	50	10	Brown Dirt
ζ_	50	65	15	Black Sand, Gravel and Brown Dirt.
, F	65	77	12	Red Clay.
		* 4		
		gas sand		
_	. · I	. S		
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The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

backe Sustas

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is deitled remained or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

PW-72

Section 1. GENERAL INFORMATION

Well was drilled under Permit No. RG-76545 and is located in the: a. NE
b. Tract No of Block No of the
c. Lot No of Block No of the County. d. x=667430
Subdivision, recorded in Taos County. d. X=667430
Drilling Contractor Vigil's Well Drilling License No. WD-523 Note
B) Drilling Contractor Vigil's Well Drilling License No. WD-523 Contractor P.O. Box 142 Ranchos De Taos, N.M. 87557 Completed P.O. Box 142 Ranchos De Taos, N.M. 87557 Completed Segan 12/27/01 Completed 12/27/01 Type tools Rotary Size of hole 7" Revenue of land surface or
Section 3. RECORD OF CASING Tope tools Tope of Shoe Tope o
Section 2 PRINCIPAL WATER-BEARING STRATA Depth in Feet Description of Water-Bearing Formation Section 2 PRINCIPAL WATER-BEARING STRATA
Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness in Feet To an Indian Section 3. RECORD OF CASING Section 3. RECORD OF CASING Diameter (inches) per foot per in. Top Bottom (feet) Type of Shoe From To Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Diameter of Mud of Cement Method of Placement
Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness in Feet To In Feet To Inches Inch
Depth in Feet Thickness in Feet Description of Water-Bearing Formation Estimated Yield (gallons per minute)
Section 3. RECORD OF CASING Top Bottom (feet) Type of Shoe From To Top Bottom (feet) Top T
Section 3. RECORD OF CASING Diameter (inches) per foot per in. Top Bottom (feet) Type of Shoe From To Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Diameter of Mud of Cement Method of Placement
Section 3. RECORD OF CASING Diameter (inches) Pounds per foot Threads per in. Top Bottom (feet) Type of Shoe Perforations From To
Diameter (inches)
Diameter (inches)
(inches) per foot per in. Top Bottom (feet) Type of Shoe From To 5 9/16 10.79 None 1' 180' 180' None 120' 180 Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole From To Depth in Feet Diameter of Mud Of Cement Method of Placement
Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet
Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Sacks Cubic Feet of Mud of Cement Method of Placement
Depth in Feet Hole Sacks Cubic Feet of Mud of Cement Method of Placement
Depth in Feet Hole Sacks Cubic Feet of Mud of Cement Method of Placement
From To Diameter of Mud of Cement Method of Placement
20 20 20 20 20 20 20 20 20 20 20 20 20 2
JAN STATE
~ 55
Section 5. PLUGGING RECORD Significant Contractor
ddress Depth in Feet Cume Feet
ate Well Plugged
ugging approved by: 2 3
State Engineer Representative 4
File No. RG 76545 FOR USE OF STATE ENGINEER ONLY PICULIS Pueblo QuadFWLFSL Use DOM/SAN Location No. X 667430 V 1882
Quad
File No. RG 76545 Use DOM/SAN Location No. X 667430 V 1882 CENTRAL

Depti	in Feet	Thickness	Section 6. LOG OF HOLE
From	То	in Feet	Color and Type of Material Encountered
11	20'	20'	Brown Dirt & Gravel
20'	40'	20 '	Boulder & Gravel
40'	60'	20'	Brown Clay & Gravel
60'	100'	40'	Brown Clay & Gravel
100'	120!	20'	Boulder & Gravel
120'	140'	20'	Sand & Gravel
140'	160'	20'	Sand & Gravel
160'	180'	20'	Gravel
·····	<u> </u>		
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The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except on 5, shall be answered as completely and a stely as possible when any well is

_N.M.P.M.

Owner's Well No. RG-66109

STATE ENGINEER OFFICE WELL RECORD

Section 1. GENERAL INFORMATION

a SE 1/4 SE 1/4 NW 1/4 1/4 of Section 5 Township 22N Range 12E

87553

____ and is located in the:

Thomas Ortega P.O. Box 252 Penasco New Mexico

(A) Owner of well ___

Street or Post Office Address

Well was drilled under Permit No. RG-66109

City and State _____

		_ feet, Y=		feet,			System			
Drilling C	Contractor	Bustos I	Drilling			_	_ License No. W	D-12	02	·
resš		H.C. 64	Box 23	Guadal	urita	Ne	w Mexico	877	22	
ing Began	9/14/9	8 C _O m ₁	pleted9/	16/98	Type t	ools	Cable	Siz	e of hole	_6in.
							_ ft. Total depth			
pleted wel		hallow 🗔 🕻					upon completion			
		Sec	tion 2. PRING					,		
Depth From	in Feet To	Thickness in Feet	r	Description	of Water-Be	earing F	ormation		Estimated ?	
20										
	36	36	Blue	e Shale	e,Sand,	and	Malpaiz.		25 +	
		 		Teason .						
		<u> </u>	- 						· · ·	
	1								•.	
Diameter	Pounds	Threads		n 3. RECO in Feet	RD OF CAS	SING ngth	<u> </u>		Perfor	ations
(inches)	per foot	per in.	Тор	Botton		et)	Type of Sho	e	From	То
6	12-1	None	11	36	3	6	Blue Diam	ond	12	34
		+							·	
			 				<u> </u>			, .
Denth	in Feet	Sect Hole	ion 4. RECO		DDING AN		IENTING			
From	То	Diameter	of M		of Cemer		Metho	od of P	lacement	
									98	A 817
				t H					9	் ਜ਼ □
									2	
aging Cont	mater	· · · · · · · · · · · · · · · · · · ·		on 5. PLUG	GING REC	ORD			H 2: 2:	
dress					[No.	Depth in			bic Feet
te Well Plu	gged					1	Тор	Botto	om of	Cement
gging appr	ovea by:		···			3				
4.2		State En	gineer Repres	****		4				
e Received	10-2 R6-6	-98	FOR USE		E ENGINEI	ER ONI	FWL _		FSL	√
			\sim	ž	~					

			Section 6. LOG OF HOLE
Depth From	in Feet To	Thickness in Feet	Color and Type of Material Encountered
1	9	9	Black Dirt.
9	20	11 .	Gravel and Sand.
20	27	7	Blue Shale. 1pm
27	29 .	2	Sand.
29	34 ·	5	Shale. (p ^m
34	36	2	Granite. Y
•			
			`
	*	·	

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

Revised June 1972

PW-74

(A) Owner	of well	DANI	M AT	Rol	UBA	KMATIO	o					
Street o	or Post Office	pen As	30.130	x 390	8755		0	wner's W	/ell No			
	•											
well was drill	ed under Pern	nit No. R	æ 134	48	and	is locate	d in the:					
a. <u>V</u>	1 4 3W	* NE *	¼ of	Section	<u>6</u> T	ownship _	22N	Range_	DE	N.M		
b. Trac	t No	of Map	No		of the							
c. Lot	No	_ of Block N	o		of the							
Subc	livision, recor	ded in			Count	y.						
d. X= _ the	* 5 4 · 4	feet, Y=_		fe	et, N.M. Co	oordinate	System	····		Zo		
		LUX	~ T	Nux			License No.	1116	150			
P) Diminĝ	Contractor_	B	601	$\frac{\alpha}{2}$	<u>د کې</u> د ۸ که	11 00	License No.	w	2 (198			
							877					
Drilling Began	6-2	3-00 CO	mpleted 6	-29-0	Typ	e tools _	ROTAL	4:	Size of hole.	64		
Elevation of la	and surface or	<u>Une</u>	Chow	<u>J</u> ,	at well is	NA	ft. Total de	(oth of w	ell 100	9		
Completed we	ılı is 📈	shallow 🔲	artesian		Denti	to water	upon complet		. 3	51		
								ion or w	etı ————			
Depth	in Feet	Thickne							Estimated	Vield		
From	То	in Fee					ormation		(gallons per			
43	88	4	5 K	WER	Koc	L/3	AND		9			
-	7					1	,					
												
1111	*						·····					
					<u> </u>							
Diameter	Pounds	Threads		on 3. RECC		ASING			Porfo	rations		
(inches)	per foot	per in.	Тор	Bottor		feet)	Type of S	hoe	From	To		
54	.218	GIVE	42	100	3 18	02	NON	ع 🖢	80	100		
	ी : :											
	New York		-					***************************************				
	4	Sec	tion 4. RECC	RD OF MI	IDDING A	ND CEMI	PETEINIC			<u> </u>		
Depth From	in Feet	Hole	Sac	ks	Cubic Fe	et		hod of I	Placement	2.10		
TTOM	То	Diameter	of M	iua	of Ceme	nt			·······································			
		· · · · ·		····								
	Į.											
							<u></u> .					
·.			Section	on 5. PLUG	GING PPC	מעס	٠.		S	}		
ugging Contra	actor			5. 1 500	JING REC				OU AUG	S		
ddress ugging Metho	+ 21 · · ·	<u> </u>			 [No.	Depth in		NGu	bic Fee		
ite Well Plugg	ed					1	Тор	Botto	om of	Ceinen		
ugging approv	ार्ग <u> </u>	,	25.			2 3	52			養が		
(4)	· ••	State En	gineer Repres	entative		4			<u> </u>	88		
1 : 사용하였다. - 사용하였다.	.7.									\bullet		
- 24×3×3 			FOR USE	OF STATE	ENGINE					<u> </u>		
ite Received		2000	FOR USE		ENGINEE				FSL	<u> </u>		

Depth From	in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	5	5	TOPSOIL,
5	19	14	Dry GRAVEL/Boulders
19	43	24	Sanfa FE FORMATION
43	88	45	RIVER ROCK/SAND (WET)
88	(00)	12	Brown Clay
	x		<i>k</i>
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10 (1)	1		

GOOD Water

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the town described hole.

Driller

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PW- 75

Section 1. GENERAL INFORMATION

		sco. NM. No. HC-669			and is located	l in the:		
						22N Rai	107	NMB
4 5	Took oo				-			
b. Tract i	No	of Map No.		of ti	he			
					he			
Subdiv	ision, recorded	d in	· · · · · · · · · · · · · · · · · · ·		County.	•		
		_ feet, Y=			N.M. Coordinate	System		Zone
Drilling C	ontractor	Rodney's	Drillin	8		License No	WD-127	7
dress <u>RT</u>	1 Box 6	Embudo,	NM 87	531		,, -		
illing Began .	11-25-92	Comp	leted <u>12</u> =	1-92	Type tools_	cable	Size of	hole6
vation of lan	d surface or _	i	<u> </u>	at w	ell is	ft. Total depth	of well	50
mpleted well	is 🔯 sl	hallow 🔲 a	rtesian.		Depth to water	upon completion	of well	12
	_		•		ER-BEARING S			
Depth i	n Feet	Thickness		· - · · · · · · · · · · · · · · · · · ·	f Water-Bearing I			nated Yield
From	То	in Feet	1 .	•				s per minute)
16	40	24	Lt. t	an clay	, sand an	d gravel		20
			- }			•		
					and the Miles			
			-		<u>., </u>		1 -	
		<u> </u>				· · · · · · · · · · · · · · · · · · ·	L	
		1			D OF CASING			
Diameter (inches)	Pounds per foot	Threads per in.	Top	in Feet Bottom	Length (feet)	Type of Sho	Fr	Perforations om To
5/8 od	13		0	50	50	steel	3	0 50
			· · · · · · ·		-			
		<u> </u>				<u> </u>		
	· -	, 	T		DING AND CEM		9	
Depth i	n reet To	Hole Diameter	Sack of Mu		Cubic Feet of Cement	Matho	of Place	
	•					υαΰ	() ())
				131 - 4 31 - 4 5	u etga yat tili.		τ	
						- C	77	•
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i C4	-4		Section	n 5. PLUGGI	NG RECORD	X m X	FFICE	
dress					No.	Depth in	Feet	Cubic Feet
gging Method te Well Plugge	d	·				Тор	Bottom	of Cement
gging approv					2			
		State Engi	neer Represe	entative	- 3 4			
						<u> </u>		·
			EOD HOE	AR RTATE E	INGINEER ONL	Y		
e Received	12-9-90	7 ·	FOR USE	OFSIAIE	SNOINEER ONL			

	AND ADDITIONA	

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

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APPENDIX C—Water Quality Results

Table C1-Summary of Major Element Chemistry

Table C2-Summary of Minor Element Chemistry

Table C3-Summary of Trace Element Chemistry

Table C4-Summary of Microbiological Results

Table C-Explanation

New Mexico Bureau of Geology & Mineral Resources and New Mexico Department of Health Scientific Laboratory Division reports

Table C1-Summary of Major Element Chemistry

		Geologic	Date	рН (рН		Specific Conductanc								
Site ID	Site Name	Formation	Sampled	units)	TDS	e (uS/cm)	Ca	Mg	Na	K	HCO3	SO4	CI	Br
EPA MCL's	for Drinking Water (1)			6.5-8.5*	500*	none	none	none	none	none	none	250*	250*	none
NM State St				6.0-9.0	1000	none	none	none	none	none	none	600	250	none
PW-04	Tsosies	Tpm/Xu	3/18/04	8.0	330	560	18	1.9	95	4.5	230	68	5.5	0.14
PW-06	Rael	Tpmc	12/11/03	7.7	250	285	53	5.7	14	4.3	184	22	3.4	0.1
PW-06A	Rael	Tpmc	2/27/04	8.3	230	344	48	5.5	11	3.8	173	23	3.3	<0.1
PW-08	Mead	Ttd/Tpu	12/11/03	7.5	310	394	69	8.5	21	3.5	256	23	9.3	0.15
PW-15	PicurisPueblo	Qa/Tpm	3/31/04	7.5	268	433	67	8.4	8.8	1.8	237	24	3.9	<0.1
PW-17	Cordova	Ttd/Tpu	5/6/04	7.2	485	844	117	19	28	1.1	450	35	8.3	<0.1
PW-21	Lopez	Fault	12/19/03	7.8	300	392	66	16	8.1	3	265	20	4.8	0.04
PW-24	Guaule	Tpu	12/11/03	7.3	320	418	83	13	4.9	3	285	29	5.7	<0.1
PW-27 PW-28	Cordova	Tpu	12/11/03 12/11/03	7.6 7.8	360 200	438 257	68 43	12 5.8	27 15	6.4 1.8	308 178	22 19	7.1	0.11 0.1
PW-31	Sacoman Echwaldo	Tpu Ttd/Tpu	12/11/03	7.6	180	264	43	5.9	6.5	0.74	105	62	3.1	<0.1
PW-31 PW-32	Fresquez	Ttd/Tpu	3/31/04	7.4	164	283	44	6.2	11	1.1	176	9.2	3.7	<0.1
PW-32 PW-34	Roybal	Tpm	12/19/04	7.9	280	383	81	6.5	5.3	1.1	252	19	7.2	<0.1
PW-37	Dominguez	Qa	2/26/04	7.0	320	534	83	9.1	11	1.4	305	21	5	<0.1
PW-37 PW-38	Vasquez	Tpmc/fault	2/27/04	8.1	330	524	69	10	19	3.5	265	17	24	0.13
PW-39	Lopez	Tpm	4/27/04	7.6	301	513	83	9.4	4.9	1.9	271	20	8	<0.13
PW-40	Roybal	Tpu	12/11/03	7.1	260	364	73	6.9	6.9	1.3	247	24	5.5	0.1
PW-45	Fields	Tpu/Tpm	4/1/04	7.2	248	433	66	7.4	6.2	0.56	176	62	4.8	0.1
PW-46	Valdez	Tpu	3/11/04	7.5	250	427	67	6.3	4.7	1.2	205	25	6.7	<0.1
PW-48	Tafoya	Ttd	4/28/04	7.6	306	493	74	11	16	1	278	19	3.1	<0.1
PW-50	Lovato	Ttd	4/22/04	7.5	298	500	81	11	6.3	0.44	279	24	1.9	<0.1
PW-51	Lovato	Ttd	2/26/04	7.7	360	580	78	12	20	3.2	311	29	8.6	<0.1
PW-54	Wagner	Ttd/Tpu	5/6/04	7.5	381	642	78	14	33	2.7	330	29	9.1	0.15
PW-57	Rovbal	Tpu	2/26/04	7.8	320	510	61	13	17	5.7	290	18	3.2	<0.1
PW-60	Romero	Ttd/Tpu	4/29/04	7.5	344	550	76	14	24	1.9	306	25	4.7	<0.1
PW-64	Gonzales	Tpu/Tpm	3/10/04	7.5	290	462	68	6.2	9.6	3.3	255	16	4.9	<0.1
PW-65	Sandoval	Qa	3/18/04	7.2	360	647	96	12	8.3	2.7	365	24	6.1	<0.1
PW-66	Medina	Tpm	3/11/04	7.3	340	573	91	9.5	6	1.8	325	25	4.8	<0.1
PW-67	Montoya	Qa/Tpu/Tpm	4/1/04	7.4	259	497	78	7.6	7.1	0.34	247	28	7.7	<0.1
PW-69	Stanley	Tpm	3/31/04	7.8	231	410	26	4.1	58	2.9	156	39	9.8	0.13
PW-71	Trujillo	Tpu/Tpm	2/25/04	7.5	230	400	62	6.4	7.9	0.62	203	33	4.7	<0.1
Picuris Pue	blo Water Quality Code (3) Ge	neral Standards		none	500	none	none	none	none	none	none	250	230	none
PS-76	Suncorner Springs		5/5/04	8.0	292	526	75	8.8	17	1.4	281	9.1	12	<0.1
PS-77	Dogwater Spring		4/22/04	8.2	329	517	88	7.5	11	2.8	303	15	2.7	<0.1
PS-81	Aspen Springs		5/5/04	8.1	202	355	38	5.7	27	1.3	182	10	7.4	0.11
PS-93	Unknown Spring		12/19/03	7.5	280	388	81	6.7	6.5	1.7	247	31	4.4	<0.1
	blo Water Quality Code (3) De	signated Use St		6.6-8.8 (c)	500 (c)	none	none	none	none	none	none	none	none	none
PSW-1	Chamisal Creek		12/11/03	7.7	340	461	95	10	12	1.4	326	23	5.8	<0.1
PSW-3	Embudo		2/13/04	7.8	200	269	52	6.4	5.8	0.93	167	30	4.4	<0.1
Picuris Pue	blo Water Quality Code (3) De	signated Use St	andards (B)	6.6-8.8 (c,d)	500 (c,h)	300 (d)	none	none	none	none	none	250 (h)	230 (h)	none
PSW-2	Rio Chiquito		3/17/04	7.7	190	262	49	5.8	6.3	0.78	166	27	3.3	<0.1
PSW-4	Rio Pueblo above WWTP		2/13/04	7.8	220	312	58	7.7	6	0.86	197	34	5.2	<0.1
	Rio Pueblo above													1
PSW-5	Telephone Canyon		2/13/04	7.6	190	278	52	6.8	4.8	0.59	163	35	4.8	<0.1
PSW-6	Rio Pueblo above Embudo		2/13/04	7.4	200	264	53	7	5.8	0.86	168	31	5.5	<0.1
PSW-7	Rio Pueblo below WWTP		2/13/04	7.5	220	296	57	7.6	6	0.97	193	33	5.3	<0.1
	Santa Barbara above													
PSW-8	Embudo		2/13/04	7.7	190	260	52	5.8	5.5	0.95	166	30	4.2	<0.1
L	Santa Barbara above		0116:5:	_										
PSW-9	Chiquito		2/13/04	7.5	170	237	45	4.8	3.7	0.79	127	37	3.9	<0.1

All units are mg/L (ppm), except where noted.

⁽¹⁾ US Environmental Protection Agency National Primary and Secondary Drinking Water Standards. (MCL = Maximum Contaminant Level)

^{*}EPA Secondary Drinking Water Standards - non-enforceable guidelines to regulate contaminants that cause cosmetic or asthetic effects.

(2) New Mexico Water Quality Control Commission NMAC 20.6.2.3103 Human Health Standards for Groundwater

⁽³⁾ Water Quality Code for the Picuris Pueblo, adopted May 11, 1995; revised May, 2000.

⁽A) Most stringent standards for all designated uses (marginal coldwater fishery, warm water fishery, irrigation, livestock watering, wildlife habitat, primary contact, and recharge of domestic water supply) in streams and tributaries below confluence of Rio Pueblo and Rio Santa Barbara.

⁽B) Most stringent standards for designated uses (recharge of domestic water supply, fish culture, high quality coldwater fishery, irrigation, livestock watering, wildlife habitat, municipal & industrial water supply, and primary contact) in streams and tributaries above confluence of Rio Pueblo and Rio Santa Barbara.

⁽c) Standard for primary contact.

⁽d) Standard for high quality coldwater fishery.

⁽h) General standards for fish culture and muinicipal & industrial supply.

Table C2-Summary of Minor Element Chemistry

		Caalasia							
Site ID	Site Name	Geologic Formation	Date Sampled	NO3(N)	Fe	Mn	F	Sr	SiO2
		Formation	Date Sampled	10	0.3*	0.05*	4 (2*)		
	's for Drinking Water (1) Standards (2)			10 (2a)	1 (2b)	0.05° 0.2 (2b)	1.6 (2a)	none	none
PW-04	Tsosies	Tpm/Xu	3/18/04	<0.02	< 0.05	0.2 (20)	3.3	0.3	none 16
PW-06	Rael	Tpmc	12/11/03	0.70	<0.05	<0.002	0.38	0.33	49
PW-06A	Rael	Tpmc	2/27/04	0.70	<0.05	<0.001	0.36	0.33	49
PW-08	Mead	Ttd/Tpu	12/11/03	0.72	0.03	0.006	0.4	0.29	49
PW-15	PicurisPueblo	Qa/Tpm	3/31/04	0.75	<0.05	<0.001	0.07	0.48	32
PW-17	Cordova	Ttd/Tpu	5/6/04	3.16	<0.05	<0.001	0.21	4.3	32
PW-21	Lopez	Fault	12/19/03	0.86	<0.05	<0.001	0.77	0.59	43
PW-24	Guaule	Tpu	12/11/03	0.47	<0.05	<0.001	0.39	0.46	41
PW-27	Cordova	Tpu	12/11/03	1.08	<0.05	<0.001	0.65	1.1	54
PW-28	Sacoman	Tpu	12/11/03	0.22	0.89	0.003	0.03	0.63	23
PW-31	Echwaldo	Ttd/Tpu	12/11/03	0.22	0.69	0.005	0.14	0.03	6.8
PW-32	Fresquez	Ttd	3/31/04	0.10	<0.05	<0.003	0.12	0.44	18
PW-34	Roybal	Tpm	12/19/04	0.74	<0.05	<0.001	0.20	0.44	31
PW-37	Dominguez	Qa	2/26/04	0.74	0.084	0.001	0.10	0.31	34
PW-38	Vasquez	Tpmc/fault	2/27/04	0.52	<0.05	<0.002	0.25	0.53	55
PW-39	Lopez	Tpm	4/27/04	0.52	<0.05	<0.001	0.43	0.53	36
PW-40	Roybal	Tpu	12/11/03	0.27	<0.05	<0.001	0.13	0.82	20
PW-45		Tpu/Tpm	4/1/04	<0.02	0.13	0.002	0.13	0.34	13
PW-45 PW-46	Fields Valdez	Tpu/Tpm	3/11/04	1.92	<0.05	<0.002	0.13	0.34	23
PW-48		Ttd	4/28/04	0.59	<0.05	0.001	0.2	0.32	39
PW-40 PW-50	Tafoya		4/22/04	0.59	<0.05	<0.001			39
PW-50 PW-51	Lovato	Ttd Ttd	2/26/04	2.48	<0.05	<0.001	0.31 0.59	1.2 0.82	45
PW-51	Lovato	Ttd/Tpu	5/6/04	1.04	<0.05	<0.001	0.59	2.2	43
	Wagner								
PW-57 PW-60	Roybal Romero	Tpu Ttd/Tpu	2/26/04 4/29/04	0.22 1.17	<0.05 <0.05	<0.001 <0.001	0.63 0.45	1.1 1.5	55 39
PW-60 PW-64	Gonzales	Tpu/Tpm	3/10/04	0.84	<0.05	<0.001	0.43	0.37	47
PW-64 PW-65	Sandoval		3/18/04	0.04	0.03	0.49	0.21	0.5	29
PW-65 PW-66	Medina	Qa Tpm	3/11/04	0.06	< 0.05	0.002	0.14	0.57	39
PW-67	Montoya	Qa/Tpu/Tpm	4/1/04	1.47	<0.05	<0.002	0.19	0.37	21
PW-69	Stanley	Tpm	3/31/04	0.52	<0.05	<0.001	10	0.54	21
PW-09 PW-71	Trujillo	Tpu/Tpm	2/25/04	0.52	0.18	0.003	0.11	0.34	12
			2/25/04						
	eblo Water Quality Code (3) Ger	neral Standards	F/F/0.4	none	none	none	none	none	none
PS-76	Suncorner Springs		5/5/04	<0.02	1.3	0.34	0.36	1.2	25
PS-77	Dogwater Spring		4/22/04	0.41	0.52	0.17	0.19	0.88	47
PS-81	Aspen Springs		5/5/04	0.03	0.27	0.016	0.31	0.45	21
PS-93	Unknown Spring		12/19/03	0.43	0.11	<0.001	0.25	0.37	20
	eblo Water Quality Code (3) Des	signated Use Stan		10 (e)	0.3 (e)	none	none	none	none
PSW-1	Chamisal Creek		12/11/03	0.27	< 0.05	0.007	0.37	0.49	31
PSW-3	Embudo		2/13/04	0.04	0.05	0.014	0.15	0.3	12
	eblo Water Quality Code (3) Des	signated Use Stan		10 (e)	0.3 (e)	none	none	none	none
PSW-2	Rio Chiquito		3/17/04	0.14	0.051	0.018	0.19	0.23	11
PSW-4	Rio Pueblo above WWTP		2/13/04	0.08	<0.05	0.007	0.17	0.41	13
	Rio Pueblo above Telephone								
PSW-5	Canyon		2/13/04	0.04	<0.05	0.017	0.14	0.36	7.3
PSW-6	Rio Pueblo above Embudo		2/13/04	0.06	0.094	0.02	0.16	0.37	12
PSW-7	Rio Pueblo below WWTP		2/13/04	0.09	0.066	0.014	0.19	0.4	13
	Santa Barbara above		Π						
PSW-8	Embudo		2/13/04	0.05	<0.05	0.013	0.21	0.24	11
	Santa Barbara above		[<u> </u>						
PSW-9	Chiquito		2/13/04	0.04	< 0.05	0.004	0.14	0.2	6.6
A 11 '4	are mall (nnm)								

All units are mg/L (ppm).

- (1) US Environmental Protection Agency National Primary and Secondary Drinking Water Standards. (MCL = Maximum Contaminant Level)
 *EPA Secondary Drinking Water Standards non-enforceable guidelines to regulate contaminants that cause cosmetic or asthetic effects.
- (2) New Mexico Water Quality Control Commission NMAC 20.6.2.3103 Standards for Groundwater: (2a) Human Health Standards, (2b) Other Standards for Domestic Water Supply.
- (3) Water Quality Code for the Picuris Pueblo, adopted May 11, 1995; revised May, 2000.
- (A) Most stringent calculated standard for all designated uses (marginal coldwater fishery, warm water fishery, irrigation, livestock watering, wildlife habitat, primary contact, and recharge of domestic water supply) in streams and tributaries below confluence of Rio Pueblo and Rio Santa Barbara.

 watering, wildlife habitat, municipal & industrial water supply, and primary contact) in streams and tributaries above confluence of Rio Pueblo and Rio Santa Parkers.
 - (e) Standard for recharge of domestic water supply.

Table C3-Summary of Trace Element Chemistry

		Caalasia	Data										
Site ID	Site Name	Geologic Formation	Date Sampled	Al	As	Ba	В	Cu	Li	Мо	U	v	Zn
Site ID	Joile Name	Formation	Sampleu	Al	10 (as of	Da	В	Cu	LI	IVIO	U	V	ZII
EPA MCL'	s for Drinking Water (1)			50-200*	1/23/06)	2000	none	1300 (1000*)	none	none	30	none	5000*
	tandards (2)			5000 (2c)	100 (2a)	1000 (2a)	750 (2c)	1000 (2b)	none	1000 (2c)	30 (2a)	none	10000 (2b)
PW-04	Tsosies	Tpm/Xu	3/18/04	<1	5	28	340	13	69	14	8	1	2
PW-06	Rael	Tpmc	12/11/03	3	1	100	31	130	9	2	6	3	40
PW-06A	Rael	Tpmc	2/27/04	<1	1	110	20	<1.	7	1	5	3	9
PW-08	Mead	Ttd/Tpu	12/11/03	120	3	120	30	20	18	2	8	6	120
PW-15 PW-17	PicurisPueblo	Qa/Tpm	3/31/04 5/6/04	<1 12	<1 5	140 190	16 71	<1 13	43	2	8 14	2 12	1 120
PW-17 PW-21	Cordova Lopez	Ttd/Tpu Fault	12/19/03	4	3	82	21	22	11	<1	4	3	65
PW-21	Guaule	Tpu	12/11/03	1	 <1	140	23	15	4	<1	3	2	150
PW-27	Cordova	Tpu	12/11/03	<1	3	180	40	9	26	<1	30	4	470
PW-28	Sacoman	Tpu	12/11/03	3	2	80	34	92	12	<1	6	8	55
PW-31	Echwaldo	Ttd/Tpu	12/11/03	180	<1	50	10	410	3	<1	<1	<1	59
PW-32	Fresquez	Ttd	3/31/04	<1	1	160	16	8	13	<1	2	2	21
PW-34	Roybal	Tpm	12/19/04	1	<1	260	14	24	6	<1	2	1	970
PW-37	Dominguez	Qa	2/26/04	18	2	310	27	7	10	<1	3	7	15
PW-38	Vasquez	Tpmc/fault	2/27/04	<1	3	220	13	2	17	1	4	11	13
PW-39	Lopez	Tpm	4/27/04	<1	<1	<1	14	2	5	<1	4	2	8
PW-40	Roybal	Tpu	12/11/03	5	<1	150	13	8	5	<1	2	<1	5
PW-45	Fields	Tpu/Tpm	4/1/04	4	<1	110	9	1	2	<1	1	1	35
PW-46	Valdez	Tpu	3/11/04	<1	<1	130	13	4	4	<1	1	4	7
PW-48	Tafoya	Ttd	4/28/04	1	3	110	25	2	20	<1	7	10	24
PW-50	Lovato	Ttd	4/22/04	2	4	250	18	3	12	<1	5	7	17
PW-51	Lovato	Ttd	2/26/04	<1	11	150	27	2	20	<1	12	11	1
PW-54	Wagner	Ttd/Tpu	5/6/04	<1	3	110	38	41	25	2	19	7	4
PW-57	Roybal	Tpu	2/26/04	<1	3	200	19	2	17	<1	7	5	7
PW-60	Romero	Ttd/Tpu	4/29/04	<1	2	150	27	1	17	<1	10	7	13
PW-64 PW-65	Gonzales	Tpu/Tpm	3/10/04	<1 3	<1 <1	220	15 14	3 140	7	<1 <1	7	2	86
PW-65	Sandoval Medina	Qa Tpm	3/18/04 3/11/04	20	8	140 110	25	140	17	<1	2	15	71 27
PW-67	Montoya	Qa/Tpu/Tpm	4/1/04	1	o <1	200	17	84	6	<1	2	3	9
PW-69	Stanley	Tom	3/31/04	1	8	6	160	19	26	11	12	1	76
PW-71	Trujillo	Tpu/Tpm	2/25/04	<1	<1	140	7	110	3	<1	2	<1	150
	eblo Water Quality Code (3) Gene		ZIZOIOT	none	none	none	none	none	none	none	none	none	none
PS-76	Suncorner Springs	oral Standards	5/5/04	660	1	320	22	3	19	<1	2	3	4
PS-77	Dogwater Springs		4/22/04	200	1	350	14	<1	8.000	<1	6	6	1
PS-77 PS-81	Aspen Springs		5/5/04	170	2	280	13	2	15	6	27	1	2
PS-93	Unknown Spring		12/19/03	3	<1	190	15	18	6	<1	1	4	170
	eblo Water Quality Code (3) Desi	amatad Haa Ctan		750 (i)	50 (e)	2000 (e)	none	200 (f)			5000 (e)	100 (f,g)	Calculation (j)
PSW-1	Chamisal Creek	gnated Use Stan	12/11/03	7 30 (1)	30 (e)	260 260	none 27	200 (1)	none 10	none <1	5000 (e)	3	<1 (279)
PSW-1	Embudo		2/13/04	42	<1	81	6	<1	3	<1	2	1	<1 (279)
	eblo Water Quality Code (3) Desi	anatod Hea Stan		750 (i)	50 (e)	2000 (e)	none	200 (f)	none	none	5000 (e)	100 (f,g)	Calculation (i)
PSW-2	Rio Chiquito	gnateu Ose Stan	3/17/04	43	<1	110	5	<1	4	<1	1	100 (1,9)	91 (161)
PSW-4	Rio Pueblo above WWTP		2/13/04	30	<1	69	6	<1	4	<1	2	1	<1 (190)
<u> </u>	Rio Pueblo above Telephone		_,.0,01	- 30		- 30	l					<u> </u>	. , 100/
PSW-5	Canyon		2/13/04	14	<1	48	4	<1	2	<1	2	<1	2 (173)
PSW-6	Rio Pueblo above Embudo		2/13/04	94	<1	66	6	<1	3	<1	2	1	<1 (175)
PSW-7	Rio Pueblo below WWTP		2/13/04	36	<1	71	7	<1	3	<1	2	1	320 (187)
	Santa Barbara above												, ,
PSW-8	Embudo		2/13/04	22	<1	94	5	<1	3	<1	1	1	<1 (169)
	Santa Barbara above												
PSW-9	Chiquito		2/13/04	2	<1	53	3	<1	1	<1	<1	<1	<1 (148)
A II	re ua/L (nnh)												

All units are ug/L (ppb).

- (e) Standard for recharge of domestic water supply.
- (f) Standard for irrigation.
- (g) Standard for livestock watering & wildlife habitat.
- (i) Standard for Acute Fishery Criteria
- (j) Standard for Zinc calculated under Acute Fishery Criteria = e (0.8473(In(hardness))+0.8618), in parentheses following lab reported value.

⁽¹⁾ US Environmental Protection Agency National Primary and Secondary Drinking Water Standards. (MCL = Maximum Contaminant Level)

^{*}EPA Secondary Drinking Water Standards - non-enforceable guidelines to regulate contaminants that cause cosmetic or asthetic effects. Irrigation Use Standards.

⁽³⁾ Water Quality Code for the Picuris Pueblo, adopted May 11, 1995; revised May, 2000.

⁽A) Most stringent calculated standard for all designated uses (marginal coldwater fishery, warm water fishery, irrigation, livestock watering, wildlife habitat, primary contact, and recharge of domestic water supply) in streams and tributaries below confluence of Rio Pueblo and Rio Santa Barbara.

⁽B) Most stringent standards for designated uses (recharge of domestic water supply, fish culture, high quality coldwater fishery, irrigation, livestock watering, wildlife habitat, municipal & industrial water supply, and primary contact) in streams and tributaries above confluence of Rio Pueblo and Rio Santa Barbara.

Table C4-Summary of Microbiological Results

		0			
Cita ID	Cita Nama	Geologic	Data Campilad	Tatal aslifama	Facal California
Site ID	Site Name	Formation	Date Sampled	Total coliform 5% of sample	Fecal Coliform
	J ··· (/			none	none E00aal/d00ml
NM State Stand	Tsosies	Tpm/Xu	3/18/04	NA	500col/100ml <1/100 mls
PW-04 PW-06	Rael	Tpmc	12/11/03	Absent	<1/100 mls
PW-06 PW-06A	Rael	Tpmc	2/27/04	Absent	<1/100 mls
PW-06A PW-08	Mead	Ttd/Tpu	12/11/03	Absent	<1/100 mls
PW-06 PW-15	PicurisPueblo	Qa/Tpm	3/31/04	Absent	<1/100 mls
PW-15 PW-17			5/6/04		<1/100 mls
PW-17 PW-21	Cordova	Ttd/Tpu	12/19/03	Absent	<1/100 mls
	Lopez	Fault		Absent	<1/100 mis
PW-24 PW-27	Guaule	Tpu	12/11/03	Absent	< 1/ 100 mis
	Cordova	Tpu	12/11/03		
PW-28	Sacoman	Tpu	12/11/03	A I 1	4/400 ···l·
PW-31	Echwaldo	Ttd/Tpu	12/19/03	Absent	<1/100 mls
PW-32	Fresquez	Ttd	3/31/04	Absent	<1/100 mls
PW-34	Roybal	Tpm	12/19/04	Absent	<1/100 mls
PW-37	Dominguez	Qa	2/26/04	Absent	<1/100 mls
PW-38	Vasquez	Tpmc/fault	2/27/04	Present	<1/100 mls
PW-39	Lopez	Tpm	4/27/04	Absent	<1/100 mls
PW-40	Roybal	Tpu	12/11/03	Absent	<1/100 mls
PW-45	Fields	Tpu/Tpm	4/1/04	Absent	<1/100 mls
PW-46	Valdez	Tpu	3/11/04	Absent	<1/100 mls
PW-48	Tafoya	Ttd	4/28/04	Absent	<1/100 mls
PW-50	Lovato	Ttd	4/22/04	Absent	<1/100 mls
PW-51	Lovato	Ttd	2/26/04	Absent	<1/100 mls
PW-54	Wagner	Ttd/Tpu	5/6/04	Absent	<1/100 mls
PW-57	Roybal	Tpu	2/26/04	Absent	<1/100 mls
PW-60	Romero	Ttd/Tpu	4/29/04	Absent	<1/100 mls
PW-64	Gonzales	Tpu/Tpm	3/10/04	Absent	<1/100 mls
PW-65	Sandoval	Qa	3/18/04	Absent	<1/100 mls
PW-66	Medina	Tpm	3/11/04	NA	<1/100 mls
PW-67	Montoya	Qa/Tpu/Tpm	4/1/04	Absent	<1/100 mls
PW-69	Stanley	Tpm	3/31/04	NA	<1/100 mls
PW-71	Trujillo	Tpu/Tpm	2/25/04		<1/100 mls
	Water Quality Code (3) General Stand	ards		none	none
PS-76	Suncorner Springs		5/5/04	Present	<1/100 mls
PS-77	Dogwater Spring		4/22/04	Present	<1/100 mls
PS-81	Aspen Springs		5/5/04	Present	<1/100 mls
PS-93	Unknown Spring		12/19/03		
	Water Quality Code (3) Designated Us	se Standards (A)		none	200col/100ml (c)
PSW-1	Chamisal Creek		12/11/03		
PSW-3	Embudo		2/13/04		
	Water Quality Code (3) Designated Us	se Standards (B)		none	200col/100ml (c)
PSW-2	Rio Chiquito		3/17/04		
PSW-4	Rio Pueblo above WWTP		2/13/04		
	Rio Pueblo above Telephone				
PSW-5	Canyon		2/13/04		
PSW-6	Rio Pueblo above Embudo		2/13/04		
PSW-7	Rio Pueblo below WWTP		2/13/04		
PSW-8	Santa Barbara above Embudo		2/13/04		
PSW-9	Santa Barbara above Chiquito		2/13/04		

⁽¹⁾ US Environmental Protection Agency National Primary and Secondary Drinking Water Standards. (MCL = Maximum Contaminant Level)

⁽²⁾ New Mexico Water Quality Control Commission NMAC 20.6.2

⁽³⁾ Water Quality Code for the Picuris Pueblo, adopted May 11, 1995; revised May, 2000.

⁽A) Most stringent standards for all designated uses (marginal coldwater fishery, warm water fishery, irrigation, livestock watering, wildlife habitat, primary contact, and recharge of domestic water supply) in streams and tributaries below confluence of Rio Pueblo and Rio Santa Barbara

⁽B) Most stringent standards for designated uses (recharge of domestic water supply, fish culture, high quality coldwater fishery, irrigation, livestock watering, wildlife habitat, municipal & industrial water supply, and primary contact) in streams and tributaries above confluence of Rio Pueblo and Rio Santa Barbara.

⁽c) Standard for primary contact.

Table C4-Explanation

COLUMN HEADING	EXPLANATION
Site ID	All records are given a Site ID for tracking purpose, including wells, surface water and springs.
Site Name	Last name of well owner, or name of spring or surface water site.
Geologic Formation	Interpreted geologic formation of water bearing zone(s)
Date Sampled	Date water sample was collected by NMBGMR
TDS	Total Dissolved Solids
<u>Ca</u> Mg	Calcium
Mg	Magnesium
Na	Sodium
K	Potassium
HCO3	Bicarbonate ion
SO4	Sulfate
Cl	Chloride
Br	Bromide
NO3(N)	Nitrate as Nitrogen
Fe	Iron
Mn	Manganese
F	Flouride
Sr	Strontium
SiO2	Silica
Al	Aluminum
As	Arsenic
Ва	Barium
В	Boron
Cu	Copper
Li	Lithium
Мо	Molybdenum
U	Uranium
V	Vanadium
Zn	Zinc



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

NEW MEXICO TECH

801 Leroy Place, Socorro, NM 87801

			04-0320		999
	Township, Range	Section	Lab. number		Conductivity (uS/cm) 560
REPORT OF WATER ANALYSES		Newton			330
REPORT OF W	County	Collected By	Water Depth		TDS (ppm)
		3/18/04 09:15		PW-4	7.96
	Basin	Collection Date	Well Depth	Sample Description	Hd

F					1				Т				-	_
	ebm					0.01						00.00		
260	mdd	< 0.0001	0.014	< 0.001	< 0.001	0.3	16	< 0.001	< 0.001	0.008	0.001	0.002		
Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)		
	ebm	0.00									0.00			0.00
330	mdd	< 0.001	0.005	0.028	< 0.001	0.34	< 0.001	0.003	< 0.001	0.013	< 0.05	< 0.001	0.069	0.002
TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
	epm		0.00	3.77	0.00	0.16	0.17	0.00	0.00	1.42	4.13	0.12	0.16	0.90
7.96	mdd	53		230	0.14	5.5	3.3	< 0.1	< 0.5	89	95	4.5	1.9	18
Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO_3^{2-})	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (CI-)	Fluoride (F)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO ₄ ²⁻)	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

vew intexico Buleau oi Geology

5.31
5.52
-1.91 Total epm Anions % Difference Total epm Cations

Approved by:

Date received: 03/19/04

Charges:

\$90.00

Date completed: 03/24/04

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

(505) 841-2543 Fax:

PW-4

P.O. Box 4700

Albuquerque, NM 87196-4700

Date/Time Rec'd: 3/18/04 2:47:00 PM

SLD Number: 200401846 Submitter: 998

User: 64000

Date Collected: 3/18/04

Time Collected: 9:15:00 AM

Disinfected: N Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-TSOSIES

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

See Comments

Comment: Laboratory accident, please resubmit sample.

Date Out: 3/19/04

Analyst: cdg

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax:

(505) 841-2543

PW-4

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401841

Date/Time Rec'd: 3/18/04 2:47:00 PM

Submitter: 998

User: 64000

Date Collected: 3/18/04

Time Collected: 9:15:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-4 TSOSIES

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 3/18/04 at 4:23pm.

Date Out: 3/19/04

Analyst: cdg

c96



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES NEW MEXICO TECH

801 Leroy Place, Socorro, NM 87801

REPORT OF WATER ANALYSES

				epm				34	0.01						0.00		
	03-1758		285	mdd	< 0.0001	0.002	< 0.001	0.001	0.33	49	< 0.001	< 0.001	9000	0.003	0.04		1)
Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)		
			-	epm	0.00									0.00		1	0.00
			250	mdd	0.003	0.001	0.1	< 0.001	0.031	< 0.001	0.001	< 0.001	0.13	< 0.05	< 0.001	0.009	< 0.001
Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
				epm			3.02	0.00	0.10	0.02	0.05	0.00	0.46	0.61	0.11	0.47	2.64
5		9-Md	7.68	mdd	156		184	0.1	3.4	0.38	3.1	< 0.5	22	14	4.3	5.7	53
Collection Date	Well Depth	Sample Description	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO ₃ ²⁻)	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (Cl ⁻)	Fluoride (F-)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO_4^{2-})	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

Beand		12/11/03	12/24/03
Approved by: Hym		Date received: 12/11/03	Date completed:
3.84	2.68	\$35.00	
Total epm Cations Total epm Anions	% Difference	Charges:	
Name, Address and Phone: Patty Jackson			

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

pw-b

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter: 998 User: 64000

Date Collected: 3/10/04

Time Collected: 11:45:00 AM

Disinfected:

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-6 RAEL

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 3/10/04 at 3:53pm.

Date Out: 3/11/04 Analyst: cdg CD6

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax:

(505) 841-2543

PW-k

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401638

Date/Time Rec'd: 3/10/04 2:56:00 PM

Submitter: 998

User: 64000

Date Collected: 3/10/04

Time Collected: 11:45:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-6 RAEL

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter -

Analyst: cdg Date Out: 3/15/04



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

NEW MEXICO TECH

801 Leroy Place, Socorro, NM 87801

			DEDODT OF WATED ANA! VSES	ATED ANA	IVCEC			
			ICI ONI OL W	אוט איז ו	מתמוד תג			
Basin			County			Township, Range		
Collection Date	2/27/04 11	1:45	Collected By	Newton	ton	Section	Cr.	
Well Depth			Water Depth			Lab. number	04-0197	
Sample Description PW-6A	PW-6A							
Hd	8.32	8	TDS (ppm)	230		Conductivity (uS/cm)	344	
ANALYSIS	mdd	epm	ANALYSIS	udd	epm	ANALYSIS	udd	epm
Hardness (CaCO ₃)	143		Aluminum (Al ₂ O ₃)	< 0.001	0.00	Mercury (Hg)	< 0.0001	
Carbonate (CO_3^{2-})		0.00	Arsenic (As)	0.001		Molybdenum (Mo)	0.001	
Bicarbonate (HCO ₃ -)	173	2.84	Barium (Ba)	0.11		Nickel (Ni)	< 0.001	
Bromide (Br)	< 0.1	0.00	Beryllium (Be)	< 0.001		Selenium (Se)	< 0.001	145
Chloride (Cl-)	3.3	0.09	Boron (B)	0.02		Strontium (Sr)	0.29	0.01
Fluoride (F)	0.4	0.05	Cadmium (Cd)	< 0.001		Silica (SiO ₂)	49	
Nitrate (NO ₃ -)	3.2	0.05	Chromium (Cr)	0.002		Silver (Ag)	< 0.001	
Phosphate (PO_4^{3-})	< 0.5	0.00	Cobalt (Co)	< 0.001		Thorium (Th)	< 0.001	
Sulfate (SO_4^{2-})	23	0.48	Copper (Cu)	< 0.001		Uranium (U)	0.005	
Sodium (Na)	11	0.48	Iron (Fe)	< 0.05	0.00	Vanadium (V)	0.003	
Potassium (K)	3.8	0.10	Lead (Pb)	< 0.001		Zinc (Zn)	0.009	0.00
Magnesium (Mg)	5.5	0.45	Lithium (Li)	0.007				
Calcium (Ca)	48	2.40	2.40 Manganese (Mn)	< 0.001	0.00			

New Mexico Bureau of Geology Name, Address and Phone: Talon Newton

3.48 Total epm Cations Total epm Anions % Difference

3.43

Approved by:

Date received: 02/27/04 03/17/04 Date completed:

\$90.00

Charges:

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax:

(505) 841-2543

PWbA

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401633

Date/Time Rec'd: 3/10/04 2:55:00 PM

Submitter: 998

User: 64000

Date Collected: 3/10/04

Time Collected: 11:45:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-6A

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Conform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 3/10/04 at 3:48pm.

Date Out: 3/11/04

Analyst: cdg

CD6

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax:

(505) 841-2543

PW-6A

.

P.O. Box 4700

Albuquerque, NM 87196-4700 SLD Number: 200401637

Date/Time Rec'd: 3/10/04 2:55:00 PM

Submitter: 998 User: 64000

Date Collected: 3/10/04

Time Collected: 11:45:00 AM

Disinfected: N
Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-6A RAEL

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 3/15/04 Analyst: cdg cb6



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

					100		- 1		3	3.75			2.5		1	100			
		•			03-1755		394	mdd	< 0.0001	0.002	0.001	0.002	9.0	46	< 0.001	< 0.001	0.008	900.0	0.12
			Township, Range	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)
Ţ	4 87801	LYSES						epm	0.01									0.02	
NEW MEXICO LECH	ocorro, NN	TER ANA					310	mdd	0.12	0.003	0.12	< 0.001	0.03	< 0.001	< 0.001	< 0.001	0.02	0.41	0.003
NEW MEX	801 Leroy Place, Socorro, NM 87801	REPORT OF WATER ANALYSES	County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)
								ebm			4.20	0.00	0.26	0.04	90.0	0.00	0.48	0.91	0.09
es	4.					PW-8	7.47	mdd	207		256	0.15	9.3	29.0	3.5	< 0.5	23	21	3.5
NEW MEXICO TECH	X Home	clence for the 21st	Basin	Collection Date		Sample Description		ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO ₃ ²⁻)	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (CI ⁻)	Fluoride (F ⁻)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO ₄ ²⁻)	Sodium (Na)	Potassium (K)

Bund	12/11/03	12/24/03
Approved by: Appan	Date received: 12/11/03	Date completed:
5.20 5.03	\$35.00	
Total epm Cations Total epm Anions % Difference	Charges:)
Name, Address and Phone: Patty Jackson		

0.00

0.00

0.018

Lithium (Li) Manganese (Mn)

0.70

8.5

Magnesium (Mg) Calcium (Ca)

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax:

(505) 841-2543

8-wg

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401639 Date/Time Rec'd: 3/10/04 2:56:00 PM

Submitter: 998 User: 64000

Date Collected: 3/10/04

Time Collected: 12:00:00 PM

Disinfected: N
Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-8 MEAD

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 3/11/04 Analyst: cdg

CD6

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

8-wg

Section: (505) 841-2537 Fax: (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401635

Date/Time Rec'd: 3/10/04 2:55:00 PM

Submitter: 998

User: 64000

Date Collected: 3/10/04

Time Collected: 12:00:00 PM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-8 MEAD

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 3/10/04 at 3:57pm.

Date Out: 3/11/04

Analyst: cdg

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES **NEW MEXICO TECH**

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

GENERAL CHEMISTRY FORM

Lab. Number Collection Date	04-0328 Co 3/31/04 Co		Newton		
Well Depth		ater Depth		Basin	
Sample Description	PW-15 Picoris Puebl	o Community Well		· · · · · · · · · · · · · · · · · · ·	
Name Address Address 2 City, State, Zip code Phone FAX Email	Peggy Johnson New Mexico Bureau	of Geology		• • • •	
Date Received Date Completed	4/6/04 4/13/04				
CHARGES	\$60.00				
рН	7.45				
Conductivity (uS/cm)	433				
TDS (ppm) (calculation) TDS (ppm) (gravimetric)				•	
ANALYSIS	Conc. (ppm)	epm			
Hardness (CaCO3)	199				
Alkalinity					
Carbonate (CO32-) Bicarbonate (HCO3-)	237	0.0000 3.8844			
Major Anions					
Bromide (Br) Chloride (CI-) Fluoride (F-) Nitrite (NO2-) Nitrate (NO3-) Phosphate (PO43-) Sulfate (SO42-)	<0.1 3.9 0.21 <0.1 2.9 <0.5 24	0.0000 0.1100 0.0111 0.0000 0.0468 0.0000 0.4997			
Major Cations					
Sodium (Na) Potassium (K) Magnesium (Mg) Calcium (Ca)	8.8 1.8 8.4 67	0.3828 0.0466 0.6910 3.2830			
Total epm Cations Total epm Anions % Difference	 	4.41 4.55 -1.53			
Approved By:	Fang 7	hen	-		

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES NEW MEXICO TECH

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

TRACE METALS FORM

Lab. Number Collection Date	04-0328 0		Township, Range	
Well Depth			on Section	
Sample Description		Vater Depth blo Community Well	Basin	
Campic Description	FW-13 FICOIIS FUE	solo Community Well		
Name	Peggy Johnson			
Address	New Mexico Bureau	ı of Geology		
Address 2		- c. c.c.gy	_	
City, State, Zip code				
Phone				
FAX				
Email			_	
Date Received	4/6/04			
Date Completed	4/6/04 4/13/04			
Date Completed	4/13/04			
CHARGES	\$30.00			
ANALYSIS	Conc. (ppm)	epm		
Aluminum (Al2O3)	< 0.001	0.0000		
Antimony (Sb)	< 0.001			
Arsenic (As)	< 0.001			
Barium (Ba)	0.14			
Beryllium (Be)	< 0.001			
Boron (B)	0.016			
Cadmium (Cd)	< 0.001			
Chromium (Cr)	0.004			
Cobalt (Co) Copper (Cu)	< 0.001			
Iron (Fe)	< 0.001 < 0.05	0.0000		
Lead (Pb)	< 0.001	0.0000		
Lithium (Li)	0.004			
Manganese (Mn)	< 0.001	0.0000		
Mercury (Hg)	< 0.0001	0.0000		
Molybdenum (Mo)	0.002			
Nickel (Ni)	< 0.001			
Selenium (Se)	< 0.001			
Strontium (Sr)	0.48	0.0110		
Silica (SiO2)	32		·	
Silicon (Si)	15			
Silver (Ag)	< 0.001			•
Thalium (TI)	< 0.001			
Thorium (Th)	< 0.001			
Tin (Sn)	< 0.001			
Titanium (Ti)	< 0.001			
Uranium (U)	0.008			
Vanadium (V)	0.002	0.0000		
Zinc (Zn)	0.001	0.0000		

Fing Thomas

Approved By:

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

(505) 841-2543

Fax:

pw-15

.

P.O. Box 4700

Albuquerque, NM 87196-4700

Date/Time Rec'd: 3/31/04 3:33:00 PM

SLD Number: 200402009

Submitter: 998

User: 64000

Date Collected: 3/31/04

Time Collected: 9:38:00 AM

Disinfected:

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Community

Collected By: TALON NEWTON

Sample Location: PW-15 PUEBLO

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 4/1/04 Analyst: cdg

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537 Fax: (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402007 Date/Time Rec'd: 3/31/04 3:33:00 PM

Submitter: 998 User: 64000

Date Collected: 3/31/04

Time Collected: 9:30:00 AM

Disinfected:

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Community

Collected By: TALON NEWTON

Sample Location: PW-15 PUEBLO

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 3/31/04 at 4:19pm.

Analyst: cdg **Date Out:** 4/1/04

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES **NEW MEXICO TECH**

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

GENERAL CHEMISTRY FORM

Lab. Number Collection Date Well Depth Sample Description		County Collected By Vater Depth	T. Newton	Township, Range Section Basin	
Name Address Address 2 City, State, Zip code Phone FAX Email	Peggy Johnson New Mexico Bureau	of Geology			
Date Received Date Completed	5/7/2004 5/20/2004				
CHARGES	\$60.00				
рН	7.23				
Conductivity (uS/cm)	844				
TDS (ppm) (calculation) TDS (ppm) (gravimetric)	485				
ANALYSIS	Conc. (ppm)	epm			
Hardness (CaCO3)	365				
Alkalinity					
Carbonate (CO32-) Bicarbonate (HCO3-)	450	0.0000 7.3755			
Major Anions					
Bromide (Br) Chloride (CI-) Fluoride (F-) Nitrite (NO2-) Nitrate (NO3-) Phosphate (PO43-) Sulfate (SO42-)	< 0.1 8.3 0.77 < 0.1 14 < 0.5 35	0.0000 0.2341 0.0405 0.0000 0.2258 0.0000 0.7287			
Major Cations					
Sodium (Na) Potassium (K) Magnesium (Mg) Calcium (Ca)	28 1.1 19 117	1.2180 0.0285 1.5629 5.7330			
Total epm Cations Total epm Anions % Difference		8.65 8.60 0.24			
Approved By:	Fry F.	h_			

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES NEW MEXICO TECH

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

TRACE METALS FORM

Lab. Number	04-0588 C	ounty		Township, Range	
Collection Date	5/6/2004 C	ollected By	T. Newton		 -
Well Depth	W	ater Depth		Basin	_
Sample Description	PW-17 Cordova			•	 -
					 -
Name	Peggy Johnson				
Address	New Mexico Bureau	of Geology			
Address 2					
City, State, Zip code					
Phone					
FAX					
Email					
Date Received	E/7/2004				
Date Completed	5/7/2004				
Date Completed	5/20/2004				
CHARGES	\$30.00				
ANALYSIS	Conc. (ppm)	epm			
Aluminum (Al2O3)	0.012	0.0013			
Antimony (Sb)	< 0.001	0.0013			
Arsenic (As)	0.005				
Barium (Ba)	0.19				
Beryllium (Be)	< 0.001				
Boron (B)	0.071				
Cadmium (Cd)	< 0.001				
Chromium (Cr)	0.006				
Cobalt (Co)	< 0.001				
Copper (Cu)	0.013				
Iron (Fe)	< 0.05	0.0000			
Lead (Pb)	0.001	0.000			
Lithium (Li)	0.043				
Manganese (Mn)	< 0.001	0.0000			
Mercury (Hg)	0.0001				
Molybdenum (Mo)	0.001				
Nickel (Ni)	< 0.001				
Selenium (Se)	< 0.001				
Strontium (Sr)	4.3	0.0981			
Silica (SiO2)	32				
Silicon (Si)	15				
Silver (Ag)	< 0.001				
Thalium (TI)	< 0.001				
Thorium (Th)	< 0.001				
Tin (Sn)	< 0.001				
Titanium (Ti)	0.008				
Uranium (U)	0.014				
Vanadium (V)	0.012				
Zinc (Zn)	0.12	0.0037			

Tyth

Approved By:

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537 Fax: (505) 841-2543 PW- 17

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402867 Date/Time Rec'd: 5/6/04 12:35:00 PM

Submitter: 998 **User:** 64000

Date Collected: 5/6/04

Time Collected: 9:45:00 AM

Disinfected: N Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON
Sample Location: PW-17 CORDOVA

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 5/6/04 at 4:39pm.

Date Out: 5/7/04 Analyst: cdg CD6

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537
Fax: (505) 841-2543

pwi

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402870 Date/Time Rec'd: 5/6/04 12:35:00 PM

Submitter: 998 User: 64000

Date Collected: 5/6/04

Time Collected: 9:48:00 AM

Disinfected: N Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON **Sample Location:** PW-17 CORDOVA

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 5/7/04 Analyst: cdg



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

NEW MEXICO TECH

801 Leroy Place, Socorro, NM 87801

						ebu		*			0.0				-		0.0		
			03-1761		392	mdd	< 0.0001	< 0.001	< 0.001	< 0.001	0.59	43	< 0.001	< 0.001	0.004	0.003	0.065		
	Township, Range	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)		
LYSES						epm	0.00									0.00			0.00
TER ANA					300	mdd	0.004	0.003	0.082	< 0.001	0.021	< 0.001	< 0.001	< 0.001	0.022	< 0.05	< 0.001	0.011	< 0.001
REPORT OF WATER ANALYSES	County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
						ebm			4.34	0.00	0.14	0.03	90.0	0.00	0.42	0.35	0.08	1.32	3.29
				PW-21	7.77	undd	231		265	0.04	4.8	0.59	3.8	< 0.5	20	8.1	3	16	99
	Basin	Collection Date	Well Depth	tion	Hd	SIS	Hardness (CaCO ₃)	Carbonate (CO ₃ ²⁻)	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (Cl ⁻)	Fluoride (F-)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO ₄ ²⁻)	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

Brand	12/19/03	12/24/03
Approved by: Tynn	Date received:	Date completed:
5.05 4.99 0.66	\$35.00	
Total epm Cations Total epm Anions % Difference	Charges:	0
Name, Address and Phone: Patty Jackson		

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Em-SI

P.O. Box 4700

Albuquerque, NM 87196-4700

(505) 841-2543

SLD Number: 200401673

Date/Time Rec'd: 3/11/04 2:46:00 PM

Fax:

Submitter: 998

User: 64000

Date Collected: 3/11/04

Time Collected: 11:50:00 AM

Disinfected:

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-21 LOPEZ

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 3/11/04 at 3:55pm.

Analyst: cdg **Date Out: 3/12/04**

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

31

PW-21

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter: 998 User: 64000

Date Collected: 3/11/04

Time Collected: 11:50:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-21 LOPEZ

County: SOCORRO

WSS Code: 0

WSS Code: (

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

Client

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 3/12/04 Analyst: cdg cob



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

NEW MEXICO TECH

801 Leroy Place, Socorro, NM 87801

						epm					0.01						0.00		
			03-1756		418	mdd	< 0.0001	< 0.001	< 0.001	< 0.001	0.46	41	< 0.001	< 0.001	0.003	0.002	0.15		
	Township, Range	Section	Lab. number		Conductivity (uS/cm) 418	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)		
LYSES	8					epm	0.00									0.00			0.00
TER ANA					320	uudd	0.001	< 0.001	0.14	< 0.001	0.023	< 0.001	< 0.001	< 0.001	0.015	< 0.05	0.001	0.004	< 0.001
REPORT OF WATER ANALYSES	County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
						ebm			4.67	0.00	0.16	0.02	0.03	0.00	09.0	0.21	0.08	1.07	4.14
				PW-24	7.34	mdd	261		285	< 0.1	5.7	0.29	2.1	< 0.5	29	4.9	3	13	83
	Basin	Collection Date	Well Depth	Sample Description	Hd	ANALYSIS	Iardness (CaCO ₃)	arbonate (CO ₃ ²⁻)	licarbonate (HCO ₃ -)	romide (Br)	Thloride (CI-)	luoride (F-)	Vitrate (NO ₃ -)	hosphate (PO ₄ ³⁻)	ulfate (SO ₄ ²⁻)	odium (Na)	otassium (K)	fagnesium (Mg)	alcium (Ca)

Beans	12/11/03	12/25/03
Approved by: Hum	Date received:	Date completed: 12/25/03
5.52 5.48 0.28	\$35.00	
Total epm Cations Total epm Anions % Difference	Charges:	6
Name, Address and Phone: Patty Jackson		

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700 SLD Number: 200401844

Date/Time Rec'd: 3/18/04 2:47:00 PM

Submitter: 998 User: 64000

Date Collected: 3/18/04

Time Collected: 11:00:00 AM

PW-24

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-24 GUAULE

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 3/19/04 Analyst: cdg

DEPARTMENT OF HEALTH STATE OF NEW MEXICO **Scientific Laboratory Division** 700 Camino de Salud, N.E.

Section: (505) 841-2537 Fax:

(505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700

Date/Time Rec'd: 3/18/04 2:47:00 PM SLD Number: 200401839

Submitter: 998 User: 64000

Date Collected: 3/18/04

Time Collected: 11:00:00 AM

PW-24

Disinfected: Y Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-24 GUAULE

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 3/18/04 at 4:08pm.

Analyst: cdg **Date Out:** 3/19/04



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

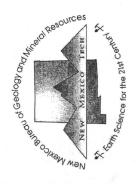
NEW MEXICO TECH

801 Leroy Place, Socorro, NM 87801

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					ebm					0.03						0.01		
		03-1757		438	mdd	< 0.0001	< 0.001	< 0.001	< 0.001	1.1	54	< 0.001	< 0.001	0.03	0.004	0.47		
Township, Kange	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)		
					epm	0.00									0.00			0.00
				360	mdd	< 0.001	0.003	0.18	< 0.001	0.04	< 0.001	< 0.001	< 0.001	0.009	< 0.05	0.004	0.026	< 0.001 0.00
County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
					epm		0.00	5.05	0.00	0.20	0.03	0.08	0.00	0.46	1.17	0.16	0.99	3.39
	>		PW-27	7.58	mdd	219		308	0.11	7.1	0.65	4.8	< 0.5	22	27	6.4	12	89
Basin	Collection Date	Well Depth	Sample Description	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO ₃ ²⁻)	Bicarbonate (HCO3-)	Bromide (Br)	Chloride (CI ⁻)	Fluoride (F-)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO ₄ ²⁻)	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

Ora	12/11/(
Approved by: Hynn	Date received: 12/11/0 Date completed: 12/24/0
5.76	\$35.00
Total epm Cations Total epm Anions % Difference	Charges:
Name, Address and Phone: Patty Jackson	



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES NEW MEXICO TECH

801 Leroy Place, Socorro, NM 87801

REPORT OF WATER ANALYSES

190					epm					0.01						0.00	4	
		03-1759		257	mdd	< 0.0001	< 0.001	< 0.001	< 0.001	0.63	23	< 0.001	< 0.001	900.0	0.008	0.055		
Lownship, Kange	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)		
					epm	0.00									0.05			0.00
				200	mdd	0.003	0.002	0.08	< 0.001	0.034	< 0.001	0.002	< 0.001	0.092	0.89	0.001	0.012	0.003
County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
					ebm			2.92	0.00	90.0	0.01	0.02	0.00	0.40	0.65	0.05	0.48	2.15
			PW-28	7.79	mdd	131		178	0.1	2.2	0.14	0.97	< 0.5	19	15	1.8	5.8	43
Basın	Collection Date	Well Depth	Sample Description	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO ₃ ²⁻)	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (Cl ⁻)	Fluoride (F ⁻)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO ₄ ²⁻)	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

Name, Address and Phone:	Total epm Cations	3.39		a
Patty Jackson	Total epm Anions	3.40	Approved by: Kinny	Chan
	% Difference	-0.20		
	7	0	4	12/11/02
	Charges:	\$35.00	Date received:	12/11/03
			Date completed:	12/24/03



							03-176		264	mdd
NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES					Township, Range	Section	Lab. number		Conductivity (uS/cm) 264	ANALYSIS
O MINE	Н	M 87801		LYSES						epm
JUGY AN	NEW MEXICO TECH	, Socorro, NI		VATER ANA					180	maa
BUREAU OF GE	NEW M	801 Leroy Place, Socorro, NM 87801		REPORT OF WATER ANALYSES	County	Collected By	Water Depth		TDS (ppm)	ANALYSIS
/ MEXICC										enm
NEV	ces	%						PW-31	7.38	maa
	NEW MEXICO TRCH	**	Science for the 21st Centur		Basin	Collection Date	Well Depth	Sample Description	Hd	ANALYSIS

Hardness (CaCO ₃)	mdd	epm	ANALYSIS	mdd	ebm	ANALYSIS	ppm	ebm
2-1 (00)	134		Aluminum (Al ₂ O ₃)	0.18	0.02	Mercury (Hg)	< 0.0001	
Carbonate (CO3 ²)			Arsenic (As)	< 0.001		Molybdenum (Mo)	< 0.001	
13-)	105	1.72	Barium (Ba)	0.05		Nickel (Ni)	0.001	
-	< 0.1	0.00	Beryllium (Be)	< 0.001		Selenium (Se)	< 0.001	
Chloride (Cl ⁻)	3.1	0.0	Boron (B)	0.01		Strontium (Sr)	0.21	0.00
	0.12	0.01	Cadmium (Cd)	< 0.001		Silica (SiO ₂)	8.9	
Nitrate (NO ₃ -) 0	0.72	0.01	Chromium (Cr)	< 0.001		Silver (Ag)	< 0.001	
)4 ³⁻)	< 0.5	0.00	Cobalt (Co)	< 0.001		Thorium (Th)	< 0.001	
	62	1.29	Copper (Cu)	0.41		Uranium (U)	< 0.001	
	6.5	0.28	Iron (Fe)	0.47	0.03	Vanadium (V)	< 0.001	
Potassium (K) 0	0.74	0.02	Lead (Pb)	0.002		Zinc (Zn)	0.059	0.00
Magnesium (Mg)	5.9	0.49	Lithium (Li)	0.003		9, 120		
Calcium (Ca)	44	2.20	Manganese (Mn)	0.005	0.00			

Grand	12/19/03
Approved by: Sym	Date received:
3.03	\$35.00
Total epm Cations Total epm Anions % Difference	Charges:
Name, Address and Phone: Patty Jackson	

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

pw-31

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401260 Date/Time Rec'd: 2/25/04 12:31:00 PM

Submitter: 998 User: 64000

Date Collected: 2/25/04

Time Collected: 8:00:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-31 ECHWALDO

County: SOCORRO

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 3/1/04 Analyst: cdg

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

DM-31

P.O. Box 4700

Albuquerque, NM 87196-4700 SLD Number: 200401263

Submitter: 998

Date/Time Rec'd: 2/25/04 12:31:00 PM

User: 64000

Date Collected: 2/25/04

Time Collected: 8:00:00 AM

Disinfected: N
Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-31 ECHWALDO

County: SOCORRO

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 2/25/04 at 2:22pm.

Date Out: 2/26/04 Analyst: cdg

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES NEW MEXICO TECH

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

GENERAL CHEMISTRY FORM

Lab. Number	04-0331			Township, Range _	
Collection Date		Collected By	Section		
Well Depth		Vater Depth	Basin _		
Sample Description	PW-32 Fresquez				
Name Address Address 2 City, State, Zip code	Peggy Johnson New Mexico Bureau	u of Geology			
Phone					
FAX					
Email					
Date Received	4/6/04				
Date Completed	4/13/04				
•					
CHARGES	\$60.00				
pН	7.85				
•					
Conductivity (uS/cm)	283				
, ,					
TDS (ppm) (calculation)	164				
TDS (ppm) (gravimetric)					
r Do (ppm) (gravimente)					
ANALYSIS	Conc. (ppm)				
AITALISIS	Conc. (ppm)	epm			
Hardness (CaCO3)	131				
Alkalinity					
Carbonate (CO32-)		0.0000			
Bicarbonate (HCO3-)	176	2.8846			
				*	
Major Anions					
•					
Bromide (Br)	< 0.1	0.0000			
Chloride (Cl-)	3.7	0.1044			
Fluoride (F-)	0.26	0.0137			
Nitrite (NO2-)	< 0.1				
		0.0000			
Nitrate (NO3-)	1.2	0.0194			
Phosphate (PO43-)	< 0.5	0.0000			
Sulfate (SO42-)	9.2	0.1915			
Major Cations		÷			•
Sodium (Na)	11	0.4785			
Potassium (K)	1.1	0.0285			
Magnesium (Mg)	6.2	0.5100			
Calcium (Ca)	43	2.1070			
(/		2.1070			
Total epm Cations		3.13			
Total epm Anions	_				
	_	3.21			
% Difference		-1.24			
		_			

TryThen

Approved By:

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES NEW MEXICO TECH

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

111. 303-033-3410 1 AX. 303-033-033

TRACE METALS FORM

Lab. Number	04-0331_C			Township, Range	
Collection Date	3/31/2004 C	ollected By	T. Newton	Section	
Well Depth		ater Depth		Basin	
Sample Description	PW-32 Fresquez				
Name	Peggy Johnson			_	
Address	New Mexico Bureau	of Geology		_	
Address 2				_	
City, State, Zip code				_	
Phone				_	
FAX					
Email					
Date Received	4/6/2004				
Date Completed	4/13/2004				
Date Completed	4/13/2004				
CHARGES	\$30.00				
ANALYSIS	Conc. (ppm)	epm			
Aluminum (Al2O3)	< 0.001	0.0000			
Antimony (Sb)	< 0.001				
Arsenic (As)	0.001				
Barium (Ba)	0.16				
Beryllium (Be)	< 0.001				
Boron (B)	0.016				
Cadmium (Cd)	< 0.001				
Chromium (Cr)	0.002				
Cobalt (Co)	< 0.001				
Copper (Cu)	0.008				
Iron (Fe)	< 0.05	0.0000			
Lead (Pb)	< 0.001				
Lithium (Li)	0.013				
Manganese (Mn)	< 0.001	0.0000			
Mercury (Hg)	< 0.0001				
Molybdenum (Mo)	< 0.001				
Nickel (Ni)	< 0.001				
Selenium (Se)	< 0.001				
Strontium (Sr)	0.44	0.0100			
Silica (SiO2)	18				
Silicon (Si)	8.4				
Silver (Ag)	< 0.001				
Thalium (TI)	< 0.001				
Thorium (Th)	< 0.001				
Tin (Sn)	< 0.001				
Titanium (Ti)	< 0.001				
Uranium (U)	0.002				
Vanadium (V)	0.002	0.0000			
Zinc (Zn)	0.021	0.0006			

Fungflow

Approved By:

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

W. Br

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402010 Date/Time Rec'd: 3/31/04 3:33:00 PM

Submitter: 998 User: 64000

Date Collected: 3/31/04

Time Collected: 12:20:00 PM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON **Sample Location:** PW-32 FRESQUEZ

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 4/3/04 Analyst: cdg

DEPARTMENT OF HEALTH STATE OF NEW MEXICO **Scientific Laboratory Division** 700 Camino de Salud, N.E.

Section: (505) 841-2537

(505) 841-2543 Fax:

P.O. Box 4700

Albuquerque, NM 87196-4700 **SLD Number: 200402008**

Date/Time Rec'd: 3/31/04 3:33:00 PM

Submitter: 998 **User:** 64000

Date Collected: 3/31/04

Time Collected: 12:20:00 PM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON Sample Location: PW-32 FRESQUEZ

County: TAOS

WSS Code: 0

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

Client

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 3/31/04 at 4:23pm.

Analyst: cdg **Date Out: 4/1/04**

CDE

pn-35



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

NEW MEXICO TECH

801 Leroy Place, Socorro, NM 87801

Conductivity (uS) ANALYSIS ercury (Hg)	ivity (u.S. ALYSIS Hg) um (Mo)	(Mo)								(cm	(cm
epm 0.00											
280 ppm 0.001	280 ppm 0.001 < 0.001	280 ppm 0.001 < 0.001 0.26	280 ppm 0.001 <0.001 0.26 <0.001	280 ppm 0.001 <0.001 <0.26 <0.001 <0.14	280 ppm 0.001 <0.001 <0.001 <0.014 <0.001	280 ppm 0.001 <0.001 <0.001 <0.001 <0.014 <0.001 <0.001	280 ppm 0.001 0.001 0.056 0.014 0.014 0.014 0.0101	280 ppm 0.001 <0.001 <0.001 <0.0014 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001	280 ppm 0.001 0.001 0.26 0.26 0.014 0.014 0.014 0.024 0.024 0.024	280 ppm 0.001 0.001 0.061 0.014 0.014 0.014 0.001 0.024 0.026 0.005	280 ppm 0.001 0.001 0.001 0.014 0.014 0.014 0.024 0.024 0.024 0.005 0.006
TDS (ppm) ANALYSIS Aluminum (Al ₂ O ₃)	TDS (ppm) ANALYSIS Aluminum (Al ₂ O ₃) Arsenic (As)	TDS (ppm) ANALYSIS Aluminum (Al ₂ O ₃) Arsenic (As) Barium (Ba)	TDS (ppm) ANALYSIS Aluminum (Al ₂ O ₃) Arsenic (As) Barium (Ba) Beryllium (Be)	TDS (ppm) ANALYSIS Aluminum (Al ₂ O ₃) Arsenic (As) Barium (Ba) Beryllium (Be) Boron (B)	TDS (ppm) ANALYSIS Aluminum (Al ₂ O ₃) Arsenic (As) Barium (Ba) Beryllium (Be) Boron (B) Cadmium (Cd)	TDS (ppm) ANALYSIS Aluminum (Al ₂ O ₃) Arsenic (As) Barium (Ba) Beryllium (Be) Boron (B) Cadmium (Cd) Chromium (Cr)	TDS (ppm) ANALYSIS Aluminum (Al ₂ O ₃) Arsenic (As) Barium (Ba) Beryllium (Be) Boron (B) Cadmium (Cd) Chromium (Cr)	TDS (ppm) ANALYSIS Aluminum (Al ₂ O ₃) Arsenic (As) Barium (Ba) Beryllium (Be) Boron (B) Cadmium (Cd) Chromium (Ct) Cobalt (Co)	TDS (ppm) ANALYSIS Aluminum (Al ₂ O ₃) Arsenic (As) Barium (Ba) Beryllium (Be) Boron (B) Cadmium (Cd) Chromium (Ct) Cobalt (Co) Copper (Cu) Iron (Fe)	TDS (ppm) ANALYSIS Aluminum (Al ₂ O ₃) Arsenic (As) Barium (Ba) Beryllium (Be) Boron (B) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb)	TDS (ppm) ANALYSIS Aluminum (Al ₂ O ₃) Arsenic (As) Barium (Ba) Beryllium (Be) Boron (B) Cadmium (Cd) Cadmium (Cd) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Lithium (Li)
epm Al											
229	229	229	229	229 252 252 < 0.1	229 252 252 <0.1 7.2	229 229 252 <0.1 7.2 0.18	229 229 252 <0.1 7.2 0.18 3.3	229 252 252 <0.1 7.2 0.18 3.3 <0.5	229 229 252 <0.1 7.2 0.18 3.3 <0.5 19 5.3	229 229 252 <0.1 7.2 0.18 3.3 <0.5 19 5.3	229 229 252 <0.1 7.2 0.18 3.3 <0.5 19 5.3 1.2 6.5
dness (CaCO ₃)	ardness (CaCO ₃) arbonate (CO ₃ ²⁻)	Hardness (CaCO ₃) Carbonate (CO ₃ ² -) Bicarbonate (HCO ₃ -)	Hardness (CaCO ₃) Carbonate (CO ₃ ² -) Bicarbonate (HCO ₃ -) Bromide (Br)	fardness (CaCO ₃) (arbonate (CO ₃ ² -) (icarbonate (HCO ₃ -) fromide (Br) (hloride (Cl ² -)	ardness (CaCO ₃) arbonate (CO ₃ ²) icarbonate (HCO ₃ -) romide (Br) thloride (Cl ⁻)	ardness (CaCO ₃) arbonate (CO ₃ ²) icarbonate (HCO ₃ -) romide (Br) hloride (Cl ⁻) luoride (F ⁻) itrate (NO ₃ ⁻)	ardness (CaCO ₃) arbonate (CO ₃ ² -) icarbonate (HCO ₃ -) romide (Br) hloride (Cl ⁻) luoride (F ⁻) itrate (NO ₃ ⁻)	ardness (CaCO ₃) arbonate (CO ₃ ² -) icarbonate (HCO ₃ -) romide (Br) hloride (Cl ⁻) iurate (NO ₃ -) alfate (SO ₄ ² -)	ardness (CaCO ₃) ardness (CaCO ₃) icarbonate (CO ₃ ²) romide (Br) hloride (Cl ⁻) itrate (NO ₃ ⁻) ulfate (SO ₄ ² -) odium (Na)	Hardness (CaCO ₃) Carbonate (CO ₃ ² -) Bicarbonate (HCO ₃ -) Bromide (Br) Chloride (Cl ⁻) Fluoride (F ⁻) Nitrate (NO ₃ ⁻) Phosphate (PO ₄ ³ -) Sulfate (SO ₄ ² -) Sodium (Na) Potassium (K)	Hardness (CaCO ₃) Carbonate (CO ₃ ² -) Bicarbonate (HCO ₃ -) Bromide (Br) Chloride (Cl ⁻) Fluoride (F ⁻) Nitrate (NO ₃ -) Phosphate (PO ₄ ³ -) Sulfate (SO ₄ ² -) Sodium (Na) Potassium (K)
	Arsenic (As)	Arsenic (As) 252 4.13 Barium (Ba)	Arsenic (As) 252 4.13 Barium (Ba) <0.1 0.00 Beryllium (Be)	Arsenic (As) 252 4.13 Barium (Ba) <0.1 0.00 Beryllium (Be) 7.2 0.20 Boron (B)	Arsenic (As) 252 4.13 Barium (Ba) <0.1 0.00 Beryllium (Be) 7.2 0.20 Boron (B) 0.18 0.01 Cadmium (Cd)	Arsenic (As) 252 4.13 Barium (Ba) <0.1 0.00 Beryllium (Be) 7.2 0.20 Boron (B) 0.18 0.01 Cadmium (Cd) 3.3 0.05 Chromium (Cr)	Arsenic (As) 252 4.13 Barium (Ba) <0.1 0.00 Beryllium (Be) 7.2 0.20 Boron (B) 0.18 0.01 Cadmium (Cd) 3.3 0.05 Chromium (Cr) <0.5 0.00 Cobalt (Co)	Arsenic (As) 252 4.13 Barium (Ba) <0.1 0.00 Beryllium (Be) 7.2 0.20 Boron (B) 0.18 0.01 Cadmium (Cd) 3.3 0.05 Chromium (Cr) <0.05 0.00 Cobalt (Co) 19 0.40 Copper (Cu)	Arsenic (As) < 0.001 252 4.13 Barium (Ba) 0.26 < 0.1	Arsenic (As) < 0.001 252 4.13 Barium (Ba) < 0.26	Arsenic (As) < 0.001 D3-) 252 4.13 Barium (Ba) < 0.00

Branch	12/19/03
Approved by: Hynn	Date received: Date completed:
4.87	\$35.00
Total epm Cations Total epm Anions % Difference	Charges:
Name, Address and Phone: Patty Jackson	

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

P1

P.O. Box 4700

Albuquerque, NM 87196-4700

Date/Time Rec'd: 2/25/04 12:32:00 PM

SLD Number: 200401261
Submitter: 998

User: 64000

Date Collected: 2/25/04

Time Collected: 9:30:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-34 ROYBAL

County: SOCORRO

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 2/26/04

Analyst: cdg

CNL

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

m. zy

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401264 Date/Time Rec'd: 2/25/04 12:31:00 PM

Submitter: 998 User: 64000

Date Collected: 2/25/04

Time Collected: 9:30:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-34 ROYBAL

County: SOCORRO

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

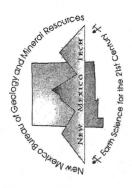
Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 2/25/04 at 2:27pm.

Date Out: 2/26/04 Analyst: cdg



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

801 Leroy Place, Socorro, NM 87801 NEW MEXICO TECH

REPORT OF WATER ANALYSES

			04-0198		534	mde mdd	< 0.0001	< 0.001	< 0.001	< 0.001	0.39 0.01	34	< 0.001	< 0.001	0.003	0.007	0.015 0.00		
	Township, Range	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)		
טבט ז בינ		ton			,	epm	0.00									0.00			000
אוט אחו	County	Newton			320	mdd	0.018	0.002	0.31	< 0.001	0.027	< 0.001	0.002	< 0.001	0.007	0.084	< 0.001	0.01	0000
CACTACK VALLA VALL		Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganaga (Ma)
		:55				epm		0.00	5.00	0.00	0.14	0.01	0.05	0.00	0.44	0.48	0.04	0.75	4 14
		2/26/04 10:55		PW-37	7.91	mdd	245		305	< 0.1	5	0.23	2.8	< 0.5	21	11	1.4	9.1	83
	Basin	Collection Date	Well Depth	Sample Description PW-37	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO_3^{2-})	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (Cl ⁻)	Fluoride (F)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO ₄ ²⁻)	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

Name, Address and Phone:	Talon Newton	New Mexico Bureau of Geology
Naı	Tal	Ne

Total epm Cations Total epm Anions % Difference

5.63

5.42

Approved by:

02/27/04 Date received:

\$90.00

Charges:

03/17/04 Date completed:

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

(505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700

Date/Time Rec'd: 2/26/04 2:26:00 PM **SLD Number: 200401308**

Submitter: 998 User: 64000

Date Collected: 2/26/04

Time Collected: 10:55:00 AM

Disinfected: N Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-37 DOMINGUEZ

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

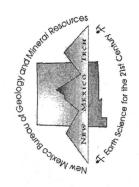
801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter -

Analyst: cdg Date Out: 2/27/04



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

801 Leroy Place, Socorro, NM 87801 NEW MEXICO TECH

REPORT OF WATER ANA! VSES

	1				1										_				
						epm					0.01		230				0.00		
			04-0199		524	mdd	< 0.0001	0.001	< 0.001	< 0.001	0.53	55	< 0.001	< 0.001	0.004	0.011	0.013		
	Township, Range	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)		
ALY SES		ton				epm	0.00									0.00			0.00
VIER AN		Newton			330	udd	< 0.001	0.003	0.22	< 0.001	0.013	< 0.001	0.002	< 0.001	0.002	< 0.05	< 0.001	0.017	< 0.001
KEPOKI OF WAIER ANALYSES	County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
		1:05				epm		0.00	4.34	0.00	0.68	0.02	0.04	0.00	0.35	0.83	0.00	0.82	3.44
		2/27/04 11:05		PW-38	8.12	mdd	213		265	0.13	24	0.45	2.3	< 0.5	17	19	3.5	10	69
	Basin	Collection Date	Well Depth	Sample Description PW-38	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO_3^{2-})	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (Cl-)	Fluoride (F)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO_4^{2-})	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

Name, Address and Phone:	Falon Newton	New Mexico Bureau of Geology
Name, Ad	Talon New	New Mexi

5.44 5.19 Total epm Cations Total epm Anions % Difference

Approved by:

02/27/04 Date received:

\$90.00

Charges:

03/17/04 Date completed:

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Fax:

Section: (505) 841-2537 (505) 841-2543 8W-39

P.O. Box 4700

Albuquerque, NM 87196-4700 SLD Number: 200401842

Date/Time Rec'd: 3/18/04 2:47:00 PM

Submitter: 998

User: 64000

Date Collected: 3/18/04

Time Collected: 11:45:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-38 VASQUEZ

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter + **PRESENT**

> Fecal Coliforms -**ABSENT**

Comment: TNTC of noncoliforms.

Analyst: cdg cb6 Date Out: 3/22/04

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Fax:

Section: (505) 841-2537 (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401837

Date/Time Rec'd: 3/18/04 2:47:00 PM

Submitter: 998

User: 64000

Date Collected: 3/18/04

Time Collected: 11:45:00 AM

Disinfected:

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-38 VASQUEZ

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 3/18/04 at 3:59pm.

Analyst: cdg <b6 **Date Out: 3/19/04**

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES **NEW MEXICO TECH**

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

GENERAL CHEMISTRY FORM

Lab. Number	04-0584_C		т	ownship, Range	
Collection Date	4/27/2004 C	ollected By	T. Newton S	Section	
Well Depth	M	/ater Depth	2	Basin -	
Sample Description	PW-39 Lopez	• —		-	
Name Address Address 2	Peggy Johnson New Mexico Bureau	of Geology			
City, State, Zip code Phone FAX Email					
Date Received Date Completed	5/3/2004 5/19/2004				
CHARGES	\$60.00				
pH	7.57				
Conductivity (uS/cm)	513				
TDS (ppm) (calculation) TDS (ppm) (gravimetric)	301				
ANALYSIS	Conc. (ppm)	epm			
Hardness (CaCO3)	242				
Alkalinity					
Carbonate (CO32-) Bicarbonate (HCO3-)	271	0.0000 4.4417			
Major Anions					
Bromide (Br) Chloride (CI-) Fluoride (F-) Nitrite (NO2-) Nitrate (NO3-) Phosphate (PO43-) Sulfate (SO42-)	< 0.1 8 0.13 < 0.1 1.2 < 0.5 20	0.0000 0.2257 0.0068 0.0000 0.0194 0.0000 0.4164			
Major Cations					
Sodium (Na) Potassium (K) Magnesium (Mg) Calcium (Ca)	4.9 1.9 9.4 83	0.2132 0.0492 0.7732 4.0670			
Total epm Cations Total epm Anions % Difference		5.12 5.11 0.07			
Approved By:	Jun Ty				

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES NEW MEXICO TECH

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

TRACE METALS FORM

Lab. Number	04-0584 C	ounty		Township, Range	
Collection Date	4/27/2004 C	ollected By	T. Newton		
Well Depth	W	ater Depth		Basin	
Sample Description	PW-39 Lopez			•	
Name	Peggy Johnson				
Address	New Mexico Bureau	of Geology			
Address 2					
City, State, Zip code					
Phone FAX			· · · · · · · · · · · · · · · · · · ·		
Email					
Email					
Date Received	5/3/2004				
Date Completed	5/19/2004				
CHARGES	\$30.00				
ANALYSIS	Conc. (ppm)	epm			
Aluminum (Al2O3)	< 0.001	0.0000			
Antimony (Sb)	< 0.001				
Arsenic (As)	< 0.001				
Barium (Ba)	0.23				
Beryllium (Be) Boron (B)	< 0.001				
Cadmium (Cd)	0.014 < 0.001				
Chromium (Cr)	0.003				
Cobalt (Co)	< 0.003				
Copper (Cu)	0.002				
Iron (Fe)	< 0.05	0.0000			
Lead (Pb)	< 0.001	0.0000			
Lithium (Ĺi)	0.005				
Manganese (Mn)	< 0.001	0.0000			
Mercury (Hg)	< 0.0001				
Molybdenum (Mo)	< 0.001				
Nickel (Ni)	< 0.001				
Selenium (Se)	< 0.001				
Strontium (Sr)	0.62	0.0141			
Silica (SiO2)	36				
Silicon (Si)	17				
Silver (Ag)	< 0.001				
Thalium (TI)	< 0.001				
Thorium (Th)	< 0.001				
Tin (Sn) Titanium (Ti)	< 0.001				
Uranium (U)	0.001 0.004				
Vanadium (V)	0.002				
Zinc (Zn)	0.002	0.0002			
\/		0.0002			

Tuy The

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

PW-37

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402694 Date/Time Rec'd: 4/29/04 3:02:00 PM

Submitter: 998 User: 64000

Date Collected: 4/29/04

Time Collected: 9:30:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-39 LOPEZ

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 4/29/04 at 3:45pm.

Date Out: 4/30/04 Analyst: cdg

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

2W-39

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402696 Date/Time Rec'd: 4/29/04 3:02:00 PM

Submitter: 998 User: 64000

Date Collected: 4/29/04

Time Collected: 9:30:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-39 LOPEZ

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 4/30/04 Analyst: cdg



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

NEW MEXICO TECH 801 Leroy Place, Socorro, NM 87801

REPORT OF WATER ANALYSES

					epm		d.			0.01				2		0.00		
		03-1753		364	mdd	< 0.0001	< 0.001	< 0.001	< 0.001	0.34	20	< 0.001	< 0.001	0.002	< 0.001	0.005		
Township, Range	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)		
					epm	0.00									0.00			0.00
				260	mdd	0.005	< 0.001	0.15	< 0.001	0.013	< 0.001	< 0.001	< 0.001	0.008	< 0.05	< 0.001	0.005	< 0.001
County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
					ebm		0.00	4.05	0.00	0.16	0.01	0.03	0.00	0.50	0.30	0.03	0.57	3.64
			PW-40	7.10	mdd	211		247	0.1	5.5	0.13	2.1	< 0.5	24	6.9	1.3	6.9	73
Basin	Collection Date	Well Depth	Sample Description	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO_3^{2-})	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (Cl ⁻)	Fluoride (F-)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO ₄ ²⁻)	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

C	Deane		12/11/03	12/24/03
	Approved by: Kinn		Date received:	Date completed:
4.55	4.75	-2.08	\$35.00	
Total epm Cations	Total epm Anions	/o Dillerellee	Charges:)
Name, Address and Phone:	Patty Jackson		7	

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

OH WG

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401843 Date/Time Rec'd: 3/18/04 2:47:00 PM

Submitter: 998 User: 64000

Date Collected: 3/18/04

Time Collected: 11:25:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-40 ROYBAL

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 3/19/04 Analyst: cdg

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700

Date/Time Rec'd: 3/18/04 2:47:00 PM SLD Number: 200401838

Submitter: 998 User: 64000

Date Collected: 3/18/04

Time Collected: 11:25:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-40 ROYBAL

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 3/18/04 at 4:04pm.

Analyst: cdg Date Out: 3/19/04

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES **NEW MEXICO TECH**

801 LEROY PLACE, SOCORRO, NM 87801

PH: 505-835-5416 FAX: 505-835-6333

GENERAL CHEMISTRY FORM

Lab. Number Collection Date Well Depth Sample Description		ollected By	T. Newton	Township, Range					
Name Address Address 2 City, State, Zip code Phone FAX Email	Peggy Johnson New Mexico Bureau								
Date Received Date Completed	4/6/04 4/13/04								
CHARGES	\$60.00								
рН	7.16								
Conductivity (uS/cm)	433								
TDS (ppm) (calculation) TDS (ppm) (gravimetric)	248								
ANALYSIS	Conc. (ppm)	epm							
Hardness (CaCO3)	192								
Alkalinity									
Carbonate (CO32-) Bicarbonate (HCO3-)	176	0.0000 2.8846							
Major Anions									
Bromide (Br) Chloride (Cl-) Fluoride (F-) Nitrite (NO2-) Nitrate (NO3-) Phosphate (PO43-) Sulfate (SO42-)	0.1 4.8 0.13 < 0.1 < 0.1 < 0.5 62	0.0013 0.1354 0.0068 0.0000 0.0000 0.0000 1.2908			•				
Major Cations									
Sodium (Na) Potassium (K) Magnesium (Mg) Calcium (Ca)	6.2 0.56 7.4 66	0.2697 0.0145 0.6087 3.2340							
Total epm Cations Total epm Anions % Difference	_ _ _	4.14 4.32 -2.08							

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES NEW MEXICO TECH 801 LEROY PLACE, SOCORRO, NM 87801

PH: 505-835-5416 FAX: 505-835-6333

TRACE METALS FORM

Lab. Number	04-0327 C	County		Township, Range	
Collection Date		collected By	T. Newton	Section	
Well Depth	V	Vater Depth		Basin	
Sample Description	PW-45A Rodriguez				
N.I.	_				
Name	Peggy Johnson			_	
Address Address 2	New Mexico Bureau	of Geology			
City, State, Zip code					
Phone					
FAX				•	
Email	•			•	
Linaii				•	
Date Received	4/6/04				
Date Completed	4/13/04				
CHARGES	\$30.00				
ANALYSIS	Conc. (ppm)	epm			
Aluminum (Al2O3)	0.004	0.0004		2.9	
Antimony (Sb)	< 0.001				
Arsenic (As)	< 0.001				
Barium (Ba)	0.11				
Beryllium (Be)	< 0.001				
Boron (B)	0.009				
Cadmium (Cd) Chromium (Cr)	< 0.001				
Cobalt (Co)	0.004				
Copper (Cu)	<u>< 0.001</u> 0.001				
Iron (Fe)	0.13	0.0070			
Lead (Pb)	< 0.001	0.0070			
Lithium (Li)	0.002				
Manganese (Mn)	0.002	0.0001			
Mercury (Hg)	< 0.0001	0.0001			
Molybdenum (Mo)	< 0.001				
Nickel (Ni)	< 0.001				
Selenium (Se)	< 0.001				
Strontium (Sr)	0.34	0.0078			
Silica (SiO2)	13				
Silicon (Si)	5.9				
Silver (Ag)	< 0.001				
Thalium (TI)	< 0.001				
Thorium (Th)	< 0.001				
Tin (Sn)	< 0.001	•			
Titanium (Ti)	< 0.001				
Uranium (U)	0.001				
Vanadium (V)	0.001				
Zinc (Zn)	0.035	0.0011			

Fung Then

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax:

(505) 841-2543

RW-US A

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402040 Date/Time Rec'd: 4/1/04 3:35:00 PM

Submitter: 998 User: 64000

Date Collected: 4/1/04

Time Collected: 12:25:00 PM

Disinfected: N
Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-45A RODRIGUEZ

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 4/2/04 Analyst: cdg

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

pw-45A

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402037 Date/Time Rec'd: 4/1/04 3:35:00 PM

Submitter: 998 User: 64000

Date Collected: 4/1/04

Time Collected: 12:25:00 PM

Disinfected: N Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-45A RODRIGUIEZ

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

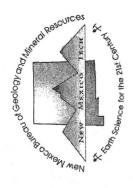
Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 4/1/04 at 4:07pm.

Date Out: 4/2/04 Analyst: cdg CD6



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

NEW MEXICO TECH

801 Leroy Place, Socorro, NM 87801

						ebm					0.01						0.00			
			04-0300		427	mdd	< 0.0001	< 0.001	< 0.001	< 0.001	0.32	23	< 0.001	< 0.001	0.001	0.004	0.007			
	Township, Range	Section	Lab. number		(cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)			
LYSES						epm	0.00									0.00			0.00	
TER ANA					250	mdd	< 0.001	< 0.001	0.13	< 0.001	0.013	< 0.001	0.003	< 0.001	0.004	< 0.05	< 0.001	0.004	< 0.001	
REPORT OF WATER ANALYSES	County	Collected By	Water Depth	Water Depth	Water Depth	TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
		00:				ebm		0.00	3.36	0.00	0.19	0.01	0.14	0.00	0.52	0.20	0.03	0.52	3.34	
		3/11/04 11:00		PW-46	7.48	uudd	193		205	< 0.1	6.7	0.2	8.5	< 0.5	25	4.7	1.2	6.3	29	
Vence for the 21st	Basin	Collection Date	Well Depth	Sample Description PW-46	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO ₃ ²⁻)	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (CI ⁻)	Fluoride (F)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO ₄ ²⁻)	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)	

Name, Address and Phone:	Peggy Johnson	New Mexico Bureau of Geology

4.10	4.22	-1.36
Total epm Cations	Total epm Anions	% Difference

Approved by: Jung J

Date received: 03/12/04
Date completed: 03/22/04

\$90.00

Charges:

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

DW-46

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401677 Date/Time Rec'd: 3/11/04 2:46:00 PM

Submitter: 998 User: 64000

Date Collected: 3/11/04

Time Collected: 11:00:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-46 VALDEZ

County: SOCORRO

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 3/12/04 Analyst:

Analyst: cdg

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

PW-MP

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401674 Date/Time Rec'd: 3/11/04 2:46:00 PM

Submitter: 998 User: 64000

Date Collected: 3/11/04

Time Collected: 11:00:00 AM

Disinfected: N
Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-46 VALDEZ

County: SOCORRO

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 3/11/04 at 4:00pm.

Date Out: 3/12/04 Analyst: cdg CD6

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES NEW MEXICO TECH

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

GENERAL CHEMISTRY FORM

Lab. Number	04-0586			Township, Range	<u> </u>
Collection Date Well Depth	4/28/2004	Vater Depth	T. Newton	Section Basin	
Sample Description	PW-48 Tafoya	vater Deptir		Dasiii	
Name Address Address 2 City, State, Zip code Phone FAX Email	Peggy Johnson New Mexico Bureau	of Geology			
Date Received Date Completed	5/3/2004 5/19/2004				
CHARGES	\$60.00				
рН	7.59				
Conductivity (uS/cm)	493				
TDS (ppm) (calculation) TDS (ppm) (gravimetric)					
ANALYSIS	Conc. (ppm)	epm			
Hardness (CaCO3)	227				
Alkalinity					
Carbonate (CO32-) Bicarbonate (HCO3-)	278	0.0000 4.5564			
Major Anions					
Bromide (Br) Chloride (CI-) Fluoride (F-) Nitrite (NO2-) Nitrate (NO3-) Phosphate (PO43-) Sulfate (SO42-)	< 0.1 3.1 0.98 < 0.1 2.6 < 0.5 19	0.0000 0.0875 0.0516 0.0000 0.0419 0.0000 0.3956			
Major Cations					
Sodium (Na) Potassium (K) Magnesium (Mg) Calcium (Ca)	16 1 11 74	0.6960 0.0259 0.9049 3.6260			
Total epm Cations Total epm Anions % Difference		5.27 5.13 1.34			
		_//			

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES **NEW MEXICO TECH**

801 LEROY PLACE, SOCORRO, NM 87801

PH: 505-835-5416 FAX: 505-835-6333

TRACE METALS FORM

Lab. Number	04-0586 C	County		Township, Range	
Collection Date	4/28/2004 0		T. Newton	Section	
Well Depth	V	Vater Depth		Basin	
Sample Description	PW-48 Tafoya				
Name	Peggy Johnson			·	
Address	New Mexico Bureau	of Geology		_	
Address 2				•	
City, State, Zip code				_	
Phone				_	
FAX				_	
Email				-	
Date Received	5/3/2004				
Date Completed	5/19/2004				
Bate Completed	<u> </u>				
CHARGES	\$30.00				
ANALYSIS	Conc. (ppm)	epm			
Aluminum (Al2O3)	0.001	0.0001			
Antimony (Sb)	< 0.001	0.0001			
Arsenic (As)	0.003				
Barium (Ba)	0.11				
Beryllium (Be)	< 0.001				
Boron (B)	0.025				
Cadmium (Cd)	< 0.001				
Chromium (Cr)	0.003				
Cobalt (Co)	< 0.001				
Copper (Cu)	0.002				
Iron (Fe)	< 0.05	0.0000			
Lead (Pb)	< 0.001				
Lithium (Li)	0.02				
Manganese (Mn)	0.001	0.0001			
Mercury (Hg)	< 0.0001				
Molybdenum (Mo)	< 0.001				
Nickel (Ni)	< 0.001				
Selenium (Se)	< 0.001				
Strontium (Sr)	0.81	0.0185			
Silica (SiO2)	39				
Silicon (Si)	18				
Silver (Ag)	< 0.001				
Thalium (TI)	< 0.001				
Thorium (Th)	< 0.001				
Tin (Sn)	< 0.001				
Titanium (Ti)	< 0.001				
Uranium (U)	0.007				
Vanadium (V)	0.01 0.024	0.0007			
Zinc (Zn)	0.024	0.0007			

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

2W-48

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402651 Date/Time Rec'd: 4/28/04 2:06:00 PM

Submitter: 998 User: 64000

Date Collected: 4/28/04

Time Collected: 11:55:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-48 TAFOYA

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 4/30/04 Analyst: cdg

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

(505) 841-2543

DW-48

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402652 Date/Time Rec'd: 4/28/04 2:07:00 PM

Submitter: 998 User: 64000

Date Collected: 4/28/04

Time Collected: 10:00:00 AM

Disinfected: N
Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-48 TAFOYA

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 4/28/04 at 4:34pm.

Date Out: 4/30/04 Analyst: cdg

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES NEW MEXICO TECH

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

GENERAL CHEMISTRY FORM

Lab. Number	04-0569 (County	Township, Range				
Collection Date		Collected By	Section				
Well Depth		Vater Depth		Basin			
Sample Description	PW-50 Lovato						
Name Address Address 2 City, State, Zip code	Peggy Johnson New Mexico Bureau	u of Geology					
Phone				•			
FAX Email							
Date Received	4/23/2004						
Date Completed	5/10/2004						
	0/10/2001						
CHARGES	\$60.00						
pH .	7.53						
Conductivity (uS/cm)	500						
TDS (ppm) (calculation) TDS (ppm) (gravimetric)							
ANALYSIS	Conc. (ppm)	epm					
Hardness (CaCO3)	244						
Alkalinity							
Carbonate (CO32-)		0.0000					
Bicarbonate (HCO3-)	279	4.5728					
Major Anions							
Bromide (Br)	< 0.1	0.0000					
Chloride (Cl-)	1.9	0.0536					
Fluoride (F-)	0.31	0.0163					
Nitrite (NO2-)	< 0.1	0.0000					
Nitrate (NO3-)	2.1	0.0339					
Phosphate (PO43-)	< 0.5	0.0000					
Sulfate (SO42-)	24	0.4997					
Major Cations							
Sodium (Na)	6.3	0.2741					
Potassium (K)	0.44	0.0114					
Magnesium (Mg)	11	0.9049					
Calcium (Ca)	81	3.9690					
Total epm Cations		5.19					
Total epm Anions	•	5.18					
% Difference	_	0.11					
	_						

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES NEW MEXICO TECH

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

TRACE METALS FORM

Lab. Number	04-0569_C	ounty	Township, Range					
Collection Date	4/22/2004 C	ollected By	T. Newton Section					
Well Depth		ater Depth	Basin					
Sample Description	PW-50 Lovato							
Name	Peggy Johnson							
Address	New Mexico Bureau	of Geology						
Address 2								
City, State, Zip code								
Phone FAX								
Email	<u></u>							
Email								
Date Received	4/23/2004							
Date Completed	5/10/2004							
·								
CHARGES	\$30.00							
ANALYSIS	Conc. (ppm)	epm						
Aluminum (Al2O3)	0.002	0.0002						
Antimony (Sb)	< 0.001							
Arsenic (As)	0.004							
Barium (Ba)	0.25							
Beryllium (Be)	< 0.001							
Boron (B)	0.018							
Cadmium (Cd)	< 0.001							
Chromium (Cr) Cobalt (Co)	0.003							
Copper (Cu)	<u>< 0.001</u> 0.003							
Iron (Fe)	< 0.05	0.0000						
Lead (Pb)	< 0.001	0.0000						
Lithium (Li)	0.012							
Manganese (Mn)	< 0.001	0.0000						
Mercury (Hg)	0.0003	3.333						
Molybdenum (Mo)	< 0.001							
Nickel (Ni)	< 0.001							
Selenium (Se)	< 0.001							
Strontium (Sr)	1.2	0.0274						
Silica (SiO2)	30							
Silicon (Si)	14							
Silver (Ag)	< 0.001							
Thalium (TI)	< 0.001							
Thorium (Th)	< 0.001							
Tin (Sn)	< 0.001							
Titanium (Ti)	0.002							
Uranium (U)	0.005							
Vanadium (V) Zinc (Zn)	0.007	0.0005						
ZIIIO (ZII)	0.017	0.0005						

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537
Fax: (505) 841-2543

DM-RO

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402550 Date/Time Rec'd: 4/22/04 2:56:00 PM

Submitter: 998 User: 64000

Date Collected: 4/22/04

Time Collected: 11:55:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-50 LOVATO

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 4/22/04 at 3:48pm.

Date Out: 4/23/04 Analyst: cdg CD6

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537 Fax:

(505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700

Date/Time Rec'd: 4/22/04 2:56:00 PM SLD Number: 200402553

Submitter: 998 User: 64000

Date Collected: 4/22/04

Time Collected: 11:55:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-50 LOVATO

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

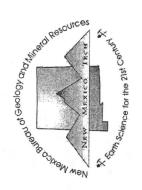
801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter -**ABSENT**

Analyst: cdg C.D6 **Date Out:** 4/23/04



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

NEW MEXICO TECH

801 Leroy Place, Socorro, NM 87801

REPORT OF WATER ANALYSES

					ebm					0.02						0.00		
		04-0200		580	mdd	< 0.0001	< 0.001	< 0.001	< 0.001	0.82	45	< 0.001	< 0.001	0.012	0.011	0.001		
Township, Range	Section	Lab. number		Conductivity (uS/cm) 580	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)		
	ton				epm	0.00									0.00		7	0.00
	Newton			360	udd	< 0.001	0.011	0.15	< 0.001	0.027	< 0.001	0.007	< 0.001	0.002	< 0.05	< 0.001	0.02	< 0.001
County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	3.89 Manganese (Mn)
	55			t.	ebm		0.00	5.10	0.00	0.24	0.03	0.18	0.00	09.0	0.87	0.08	0.99	3.89
	2/26/04 9:55		PW-51	7.65	mdd	244		311	< 0.1	9.8	0.59	11	< 0.5	29	20	3.2	12	78
Basin	Collection Date	Well Depth	Sample Description PW-51	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO_3^{2-})	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (CI ⁻)	Fluoride (F)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO_4^{2-})	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

Name, Address and Phone:	Talon Newton	New Mexico Bureau of Geology

Total epm Cations Total epm Anions % Difference

6.15

5.85

Approved by:

02/27/04 03/17/04

\$90.00

Charges:

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401309

Date/Time Rec'd: 2/26/04 2:26:00 PM

Submitter: 998

User: 64000

Date Collected: 2/26/04

Time Collected: 9:55:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-51 LOVATO

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 2/27/04

Analyst: cdg

C96

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DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700 **SLD Number: 200401306**

Date/Time Rec'd: 2/26/04 2:25:00 PM

Submitter: 998

User: 64000

Date Collected: 2/26/04

Time Collected: 9:55:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-51 LOVATO

County:

WSS Code: 0

Client

......

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 2/26/04 at 3:50pm.

Analyst: cdg **Date Out: 2/27/04** CDB

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES NEW MEXICO TECH

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

GENERAL CHEMISTRY FORM

Lab. Number	04-0590		Township, Range	
Collection Date			ton Section	
Well Depth Sample Description	PW-54 Wagner	Water Depth	Basin	
Name	Peggy Johnson			
Address	New Mexico Burea	u of Geology		
Address 2 City, State, Zip code				
Phone				
FAX				
Email				
Date Received	5/7/2004			
Date Completed	5/20/2004			
CHARGES	\$60.00			
pН	7.49			
Conductivity (uS/cm)	642			
TDS (ppm) (calculation)				
TDS (ppm) (gravimetric)				
ANALYSIS	Conc. (ppm)	epm		
Hardness (CaCO3)	249			
Alkalinity				
Carbonate (CO32-)		0.0000		
Bicarbonate (HCO3-)	330	5.4087		
Major Anions				
Bromide (Br)	0.15	0.0019		
Chloride (CI-)	9.1	0.2567		
Fluoride (F-)	0.74	0.0390		
Nitrite (NO2-)	< 0.1	0.0000		
Nitrate (NO3-)	4.6	0.0742		
Phosphate (PO43-)	< 0.5	0.0000		
Sulfate (SO42-)	29	0.6038		
Major Cations				
Sodium (Na)	33	1.4355		
Potassium (K)	2.7	0.0698		
Magnesium (Mg)	14	1.1516		
Calcium (Ca)	78	3.8220		
Total epm Cations		6.53		
Total epm Anions	-	6.38		
% Difference	-	1.12		
	-			
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NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES NEW MEXICO TECH

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

TRACE METALS FORM

Lab. Number	04-0590 Cd			Township, Range	
Collection Date	5/6/2004 Cd		T. Newton		
Well Depth	***	ater Depth		Basin	
Sample Description	PW-54 Wagner				
Name	Peggy Johnson			-	
Address	New Mexico Bureau	of Geology		-	
Address 2			·	_	
City, State, Zip code				_	
Phone FAX				-	
Email	•			-	
Liliali				-	
Date Received	5/7/2004				
Date Completed	5/20/2004				
CHARGES	\$30.00				
ANALYSIS	Cono (nnm)	anm			
Aluminum (Al2O3)	Conc. (ppm) < 0.001	epm 0.0000			
Antimony (Sb)	< 0.001	0.0000			
Arsenic (As)	0.003				
Barium (Ba)	0.11				
Beryllium (Be)	< 0.001				
Boron (B)	0.038				
Cadmium (Cd)	< 0.001				
Chromium (Cr)	0.004				
Cobalt (Co)	< 0.001				
Copper (Cu)	0.041				
Iron (Fe)	< 0.05	0.0000			
Lead (Pb)	< 0.001				
Lithium (Li)	0.025				
Manganese (Mn)	< 0.001	0.0000			
Mercury (Hg)	< 0.0001				
Molybdenum (Mo)	0.002				
Nickel (Ni)	< 0.001				
Selenium (Se)	0.001				
Strontium (Sr)	2.2	0.0502			
Silica (SiO2)	43				
Silicon (Si)	20				
Silver (Ag)	< 0.001 < 0.001				
Thalium (TI) Thorium (Th)	< 0.001				
Tin (Sn)	< 0.001				
Titanium (Ti)	0.006				
Uranium (U)	0.008				
Vanadium (V)	0.007				
Zinc (Zn)	0.004	0.0001			
		0.000			

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DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537
Fax: (505) 841-2543

bm-ex

P.O. Box 4700

Albuquerque, NM 87196-4700 SLD Number: 200402868

Date/Time Rec'd: 5/6/04 12:35:00 PM

Submitter: 998 User: 64000

Date Collected: 5/6/04

Time Collected: 8:10:00 AM

Disinfected: N Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-54 WAGNER

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 5/6/04 at 4:43pm.

Date Out: 5/7/04 Analyst: cdg

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

pw-91

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter: 998

SLD Number: 200402869

Date/Time Rec'd: 5/6/04 12:35:00 PM

User: 64000

Date Collected: 5/6/04

Time Collected: 8:15:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-54 WAGNER

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 5/10/04 Analyst: cdg

C)6



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

NEW MEXICO TECH

801 Leroy Place, Socorro, NM 87801

REPORT OF WATER ANALYSES

					epm					0.03						0.00		
		04-0201		510	mdd	< 0.0001	< 0.001	< 0.001	< 0.001	1.1	55	< 0.001	< 0.001	0.007	0.005	0.007		
Township, Range	Section	Lab. number		Conductivity (uS/cm) 510	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)		
	ton				epm	0.00				**					0.00			0.00
	Newton			320	udd	< 0.001	0.003	0.2	< 0.001	0.019	< 0.001	0.001	< 0.001	0.002	< 0.05	< 0.001	0.017	< 0.001
County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
):30				epm		0.00	4.75	0.00	0.00	0.03	0.02	0.00	0.37	0.74	0.15	1.07	3.04
	2/26/04 09:30		PW-57	7.83	mdd	206		290	< 0.1	3.2	0.63	0.97	< 0.5	18	17	5.7	13	61
Basin	Collection Date	Well Depth	Sample Description PW-57	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO_3^{2-})	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (Cl-)	Fluoride (F)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO ₄ ²⁻)	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

New Mexico Bureau of Geology Name, Address and Phone: Talon Newton

Total epm Cations Total epm Anions % Difference

5.02

Approved by:

Date received: 02/27/04 Date completed:

Charges:

\$90.00

03/17/04

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

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P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401310 Date/Time Rec'd: 2/26/04 2:26:00 PM

Submitter: 998 User: 64000

Date Collected: 2/26/04

Time Collected: 9:25:00 AM

Disinfected: N Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-57 ROYBAL

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 2/27/04 Analyst: cdg

CD6

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division

700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700 **SLD Number: 200401307** Section: (505) 841-2537

(505) 841-2543 Fax:

PW-57

Date/Time Rec'd: 2/26/04 2:25:00 PM

User: 64000

Submitter: 998

Date Collected: 2/26/04

Time Collected: 9:25:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-57 ROYBAL

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 2/26/04 at 3:54pm.

Date Out: 2/27/04

Analyst: cdg

CPP

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

GENERAL CHEMISTRY FORM

Lab. Number	04-0585			Township, Range	
Collection Date		Collected By	T. Newton		
Well Depth Sample Description	PW-60 Romero	Water Depth _		Basin	
Name Address	Peggy Johnson New Mexico Bureau	u of Geology			
Address 2 City, State, Zip code					
Phone			·		
FAX Email					
Ciliali					
Date Received	5/3/2004				
Date Completed	5/19/2004				
CHARGES	\$60.00				
рН	7.5				
Conductivity (uS/cm)	550				
TDS (ppm) (calculation) TDS (ppm) (gravimetric)					
ANALYSIS	Conc. (ppm)	epm			
Hardness (CaCO3)	244				
Alkalinity					
Carbonate (CO32-)		0.0000			
Bicarbonate (HCO3-)	306	5.0153			
Major Anions					
Bromide (Br)	< 0.1	0.0000			
Chloride (CI-) Fluoride (F-)	4.7 0.45	0.1326			
Nitrite (NO2-)	< 0.1	0.0237 0.0000			
Nitrate (NO3-)	5.2	0.0839			
Phosphate (PO43-) Sulfate (SO42-)	< 0.5	0.0000			
Sullate (5042-)	25	0.5205			
Major Cations					
Sodium (Na)	24	1.0440			
Potassium (K) Magnesium (Mg)	1.9 14	0.0492			
Calcium (Ca)	76	1.1516 3.7240			
Total epm Cations		6.00	•		
Total epm Anions		5.78			
% Difference		1.93			
	_				

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

TRACE METALS FORM

Lab. Number Collection Date Well Depth Sample Description	04-0585 C 4/29/2004 C W PW-60 Romero	• •	T. Newton	Township, Range Section Basin	
Name Address Address 2 City, State, Zip code Phone FAX Email	Peggy Johnson New Mexico Bureau	of Geology			
Date Received Date Completed	5/3/2004 5/19/2004				
CHARGES	\$30.00				
ANALYSIS Aluminum (Al2O3) Antimony (Sb)	Conc. (ppm) < 0.001 < 0.001	epm 0.0000			
Arsenic (As) Barium (Ba) Beryllium (Be)	0.002 0.15 < 0.001				
Boron (B) Cadmium (Cd) Chromium (Cr) Cobalt (Co)	0.027 < 0.001 0.003 < 0.001				
Copper (Cu) Iron (Fe) Lead (Pb)	0.001 < 0.05 < 0.001	0.0000			
Lithium (Li) Manganese (Mn) Mercury (Hg) Molybdenum (Mo)	0.017 < 0.001 < 0.0001 < 0.001	0.0000			
Nickel (Ni) Selenium (Se) Strontium (Sr)	< 0.001 < 0.001 < 0.001 1.5	0.0342			
Silica (SiO2) Silicon (Si) Silver (Ag) Thalium (TI)	39 18 < 0.001 < 0.001	0.0342			
Thorium (Th) Tin (Sn) Titanium (Ti) Uranium (U)	< 0.001 < 0.001 < 0.002 0.01				
Vanadium (V) Zinc (Zn)	0.007 0.013	0.0004			

Fung Them

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E. ONWA

Section: (505) 841-2537

Fax: (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402695 Date/Time Rec'd: 4/29/04 3:02:00 PM

Submitter: 998 **User:** 64000

Date Collected: 4/29/04

Time Collected: 10:40:00 AM

Disinfected:

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-60 ROMERO

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 4/29/04 at 3:50pm.

Date Out: 4/30/04 Analyst: cdg

CDL

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

ud, N.E.

Section: (505) 841-2537

6m. PD

Fax: (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402697 Date/Time Rec'd: 4/29/04 3:02:00 PM

Date Collected: 4/29/04

Time Collected: 10:40:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-60 ROMERO

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

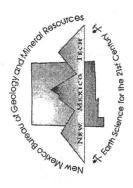
801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 4/30/04 Analyst: cdg



801 Leroy Place, Socorro, NM 87801

						epm					0.01			/a			0.00		
			04-0302	N	462	udd	< 0.0001	< 0.001	< 0.001	< 0.001	0.37	47	< 0.001	< 0.001	0.004	0.004	0.086		
	Township, Range	Section	Lab. number		Conductivity (uS/cm) 462	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)		
ALYSES						epm	0.00									0.00			0.00
TER ANA					290	udd	< 0.001	< 0.001	0.22	< 0.001	0.015	< 0.001	0.004	< 0.001	0.003	< 0.05	< 0.001	0.007	< 0.001
REPORT OF WATER ANALYSES	County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	3.39 Manganese (Mn)
		0:25		79		ebm		0.00	4.18	0.00	0.14	0.01	90.0	0.00	0.33	0.42	0.08	0.51	3.39
		3/10/04 10:25			7.54	mdd	195		255	< 0.1	4.9	0.21	3.7	< 0.5	16	9.6	3.3	6.2	89
	Basin	Collection Date	Well Depth	Sample Description PW-66	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO ₃ ²⁻)	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (Cl ⁻)	Fluoride (F)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO ₄ ²⁻)	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

Name, Address and Phone:	Peggy Johnson	New Mexico Bureau of Geology

4.42	4.72	-3.34
Total epm Cations	Total epm Anions	% Difference

1	
Lun	1
l_{\approx}	
ved b	
Approve	

ed: 03/12/04	ed: 03/22/04
Date receive	Date complete

\$90.00

Charges:

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax:

(505) 841-2543

FW-64

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401640 Date/Time Rec'd: 3/10/04 2:56:00 PM

Submitter: 998 **User:** 64000

Date Collected: 3/10/04

Time Collected: 10:25:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-64 GONZALES

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 3/11/04 Analyst: cdg

CD6

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter: 998 **User:** 64000

Date Collected: 3/10/04

Time Collected: 10:25:00 AM

M. Pul

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-64 GONZALES

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 3/10/04 at 4:01pm.

Date Out: 3/11/04 Analyst: cdg CD6



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

NEW MEXICO TECH

801 Leroy Place, Socorro, NM 87801

						də
			04-0319		647	mdd
	Township, Range	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS
ALYSES		Newton				epm
TER AN		Nev			360	uudd
REPORT OF WATER ANALYSES	County	Collected By	Water Depth		TDS (ppm)	ANALYSIS
		10:00				epm
		3/18/04 10		PW-65	7.19	uudd
	Basin	Collection Date	Well Depth	Sample Description	Hd	ANALYSIS

b) 0.003 0.00 Mercury (Hg) <0.0001 c) 0.003 0.00 Mercury (Hg) <0.0001 c) 0.14 Molybdenum (Mo) <0.001 c) 0.14 Nickel (Ni) 0.001 c) 0.014 Selenium (Se) <0.001 c) 0.014 Strontium (Sr) 0.5 c) 0.001 Silica (SiO ₂) 29 c) 0.005 Silica (SiO ₂) 29 c) 0.005 Silver (Ag) <0.001 c) 0.14 Uranium (U) 0.007 c) 0.43 0.02 Vanadium (V) 0.002 c) 0.006 Zinc (Zn) 0.071 c) 0.007 c) 0.007	Hd	7.19		TDS (ppm)	360		Conductivity (uS/cm) 647	647	
aCO ₃) 289 Aluminum (Al ₂ O ₃) 0.003 0.000 Mercury (Hg) < 0.0001 YO ₃ -) 0.00 Arsenic (As) < 0.001	ANALYSIS	mdd	ebm	ANALYSIS	mdd	epm	ANALYSIS	mdd	epm
(HCO3-) 365 5.98 Barium (Ba) < 0.001 Molybdenum (Mo) < 0.001 (HCO3-) 365 5.98 Barium (Ba) 0.14 Nickel (Ni) 0.001 (HCO3-) 5.98 Barium (Ba) 0.14 0.14 0.00 Selenium (Sc) 0.001 (h) 6.1 0.17 Boron (B) 0.014 Strontium (Sr) 0.5 (h) 0.14 0.01 Cadmium (Cd) < 0.001	Hardness (CaCO ₃)	289		Aluminum (Al ₂ O ₃)	0.003	0.00	Mercury (Hg)	< 0.0001	
(HCO3-) 365 5.98 Barium (Ba) 0.14 Nickel (Ni) 0.001 (1) 6.1 0.00 Beryllium (Be) < 0.001	Carbonate (CO_3^{2-})		00.0	Arsenic (As)	< 0.001		Molybdenum (Mo)	< 0.001	
(a) (a) Beryllium (Be) (a) (a) Selenium (Se) (a) (a) <td>Bicarbonate (HCO₃-)</td> <td>365</td> <td>5.98</td> <td>Barium (Ba)</td> <td>0.14</td> <td></td> <td>Nickel (Ni)</td> <td>0.001</td> <td></td>	Bicarbonate (HCO ₃ -)	365	5.98	Barium (Ba)	0.14		Nickel (Ni)	0.001	
(a) 6.1 0.17 Boron (B) 0.014 Strontium (Sr) 0.5 (a) 0.14 0.01 Cadmium (Cd) < 0.001	Bromide (Br)	< 0.1	00.0	Beryllium (Be)	< 0.001		Selenium (Se)	< 0.001	
0.14 0.01 Cadmium (Cd) < 0.001 Silica (SiO ₂) 29 0.43-) 6.05 0.01 Chromium (Cr) 0.005 Silver (Ag) < 0.001	Chloride (Cl ⁻)	6.1	0.17	Boron (B)	0.014		Strontium (Sr)	0.5	0.01
(a) (a) <td>Fluoride (F)</td> <td>0.14</td> <td>0.01</td> <td>Cadmium (Cd)</td> <td>< 0.001</td> <td></td> <td>Silica (SiO₂)</td> <td>29</td> <td></td>	Fluoride (F)	0.14	0.01	Cadmium (Cd)	< 0.001		Silica (SiO ₂)	29	
O4 ³⁻) < 0.5 Cobalt (Co) < 0.001 Thorium (Th) < 0.001 '-) 24 0.50 Copper (Cu) 0.14 Uranium (U) 0.007 '-) 2.4 0.36 Iron (Fe) 0.43 0.02 Vanadium (V) 0.007 ') 2.7 0.07 Lead (Pb) 0.006 Zinc (Zn) 0.071 Mg) 12 0.99 Lithium (Li) 0.09 0.049 0.09 Manganese (Mn) 0.49 0.04 0.0	Nitrate (NO ₃ -)	0.36	0.01	Chromium (Cr)	0.005		Silver (Ag)	< 0.001	
F) 24 0.50 Copper (Cu) 0.14 Uranium (U) 0.007 8.3 0.36 Iron (Fe) 0.43 0.02 Vanadium (V) 0.002 C) 2.7 0.07 Lead (Pb) 0.006 Zinc (Zn) 0.071 Mg) 12 0.99 Lithium (Li) 0.002 96 4.79 Manganese (Mn) 0.49 0.04	Phosphate (PO ₄ ³⁻)	< 0.5	0.00	Cobalt (Co)	< 0.001		Thorium (Th)	< 0.001	
8.3 0.36 Iron (Fe) 0.43 0.02 Vanadium (V) 0.002 Carroll Can (Pb) 0.006 Cinc (Cn) 0.071 Mg) 12 0.99 Lithium (Li) 0.002 Mg) 4.79 Manganese (Mn) 0.49 0.04	Sulfate (SO ₄ ²⁻)	24	0.50	Copper (Cu)	0.14		Uranium (U)	0.007	
Mg) 2.7 0.07 Lead (Pb) 0.006 Zinc (Zn) 0.071 Mg) 12 0.99 Lithium (Li) 0.002 6.479 Manganese (Mn) 0.49 0.04 <	Sodium (Na)	8.3	0.36	Iron (Fe)	0.43	0.02	Vanadium (V)	0.002	
Mg) 12 0.99 Lithium (Li) 0.002 96 4.79 Manganese (Mn) 0.49	Potassium (K)	2.7	0.07	Lead (Pb)	900.0		Zinc (Zn)	0.071	0.00
96 4.79 Manganese (Mn) 0.49	Magnesium (Mg)	12	0.99	Lithium (Li)	0.002				
	Calcium (Ca)	96	6/	Manganese (Mn)	0.49	0.04			

6.67 6.28 Total epm Cations Total epm Anions % Difference

Approved by:

Date received: 03/19/04

\$90.00

Charges:

Date completed: 03/24/04

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

SN.PS

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter: 998 User: 64000

Date Collected: 3/18/04

Time Collected: 10:00:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-65 SANDOVAL

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 3/22/04 Analyst: cdg

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537 Fax: (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700 SLD Number: 200401840

Date/Time Rec'd: 3/18/04 2:47:00 PM

Submitter: 998 User: 64000

Date Collected: 3/18/04

Time Collected: 10:00:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-65 SANDOVAL

County:

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 3/18/04 at 4:12pm.

Analyst: cdg Date Out: 3/19/04



NEW MEXICO LECH 801 Leroy Place, Socorro, NM 87801

REPORT OF WATER ANALYSES

						ebm	5,07				0.01						0.00		
			04-0301		573	mdd	< 0.0001	< 0.001	< 0.001	< 0.001	0.57	39	< 0.001	< 0.001	0.002	0.015	0.027		
	Township, Range	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)		
טבט ו בו						ebm	0.00									0.00			0.00
TEN ALL					340	mdd	0.02	800.0	0.11	< 0.001	0.025	< 0.001	0.005	< 0.001	0.012	< 0.05	0.003	0.017	0.002
NEFONI OF WALLANDIAN	County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
):36				ebm		0.00	5.33	0.00	0.14	0.02	0.03	0.00	0.52	0.26	0.05	0.78	4.54
		3/11/04 09:3		99-Md	7.31	uudd	266		325	< 0.1	4.8	0.34	2	< 0.5	25	9	1.8	9.5	91
	Basin	Collection Date	Well Depth	tion	. Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO_3^{2-})	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (Cl-)	Fluoride (F)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO ₄ ²⁻)	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

Name, Address and Phone:	To
Peggy Johnson	To
New Mexico Bureau of Geology	%

5.65	6.03	-3.32
Total epm Cations	Total epm Anions	% Difference

1 from	03/12/04	03/22/04
Approved by:	Date received:	Date completed:

\$90.00

Charges:

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

dd wg

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter: 998 User: 64000

Date Collected: 3/11/04

Time Collected: 9:36:00 AM

Disinfected: N Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-66 MEDINA

County: SOCORRO

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 3/11/04 at 4:06pm.

Date Out: 3/12/04 Analyst: cdg cb6

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

pw.66

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401678 Date/Time Rec'd: 3/11/04 2:46:00 PM

Submitter: 998 User: 64000

Date Collected: 3/11/04

Time Collected: 9:36:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-66 MEDINA

County: SOCORRO

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

TNTC Noncoliforms-Resample & Request MMO-MUG Test

Date Out: 3/15/04 Analyst: cdg

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

GENERAL CHEMISTRY FORM

Lab. Number Collection Date Well Depth Sample Description		unty llected By ater Depth		Township, Range Section Basin	
Name Address Address 2 City, State, Zip code Phone FAX Email	Peggy Johnson New Mexico Bureau	of Geology			
Date Received Date Completed	4/6/04 4/13/04				
CHARGES	\$60.00				
рН	7.35				
Conductivity (uS/cm)	497				
TDS (ppm) (calculation) TDS (ppm) (gravimetric					
ANALYSIS	Conc. (ppm)	epm			
Hardness (CaCO3)	223				
Alkalinity					
Carbonate (CO32-) Bicarbonate (HCO3-)	247	0.0000 4.0483			
Major Anions					
Bromide (Br) Chloride (Cl-) Fluoride (F-) Nitrite (NO2-) Nitrate (NO3-) Phosphate (PO43-) Sulfate (SO42-)	< 0.1 7.7 0.19 < 0.1 6.5 < 0.5 28	0.0000 0.2172 0.0100 0.0000 0.1048 0.0000 0.5830			
Major Cations					
Sodium (Na) Potassium (K) Magnesium (Mg) Calcium (Ca)	7.1 0.34 7.6 78	0.3089 0.0088 0.6252 3.8220			
Total epm Cations Total epm Anions % Difference	=	4.77 4.96 -1.96			
Approved By:	Tungt	lu-	-		

NEW MEXICO TECH 801 LEROY PLACE, SOCORRO, NM 87801

PH: 505-835-5416 FAX: 505-835-6333

TRACE METALS FORM

Lab. Number	04-0330_C			_Township, Range		
Collection Date	4/1/2004 C		T. Newton			
Well Depth	W	ater Depth	•	Basin		
Sample Description	PW-67 Montoya					
Name	Peggy Johnson			_		
Address	New Mexico Bureau	of Geology		-		
Address 2						
City, State, Zip code				_		
Phone				-		
FAX				_		
Email				-		
Date Received	4/6/2004		•			
Date Completed	4/13/2004					
CHARGES	\$30.00					
ANALYSIS	Conc. (ppm)	epm				
Aluminum (Al2O3)	0.001	0.0001				
Antimony (Sb)	< 0.001	0.0001				
Arsenic (As)	< 0.001					
Barium (Ba)	0.2					
Beryllium (Be)	< 0.001					
Boron (B)	0.017					
Cadmium (Cd)	< 0.001				,	
Chromium (Cr)	0.003					
Cobalt (Co)	< 0.001					
Copper (Cu)	0.084					
Iron (Fe)	< 0.05	0.0000				
Lead (Pb)	< 0.001					
Lithium (Li)	0.006					
Manganese (Mn)	< 0.001	0.0000				
Mercury (Hg)	< 0.0001					
Molybdenum (Mo)	< 0.001					
Nickel (Ni)	< 0.001					
Selenium (Se)	< 0.001					
Strontium (Sr)	0.33	0.0075				
Silica (SiO2)	21					
Silicon (Si)	9.8					
Silver (Ag)	< 0.001					
Thalium (Tl)	< 0.001					
Thorium (Th)	< 0.001					
Tin (Sn)	< 0.001					
Titanium (Ti)	< 0.001					
Uranium (U)	0.002					
Vanadium (V)	0.003	0.0000				
Zinc (Zn)	0.009	0.0003				

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

 $\Gamma_{\phi,\omega q}$

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402038 Date/Time Rec'd: 4/1/04 3:35:00 PM

Submitter: 998 User: 64000

Date Collected: 4/1/04

Time Collected: 9:30:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON **Sample Location:** PW-67 MONTOYA

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 4/2/04 Analyst: cdg

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700 SLD Number: 200402035

Date/Time Rec'd: 4/1/04 3:35:00 PM

Submitter: 998 User: 64000

Date Collected: 4/1/04

Time Collected: 9:30:00 AM

Disinfected: N Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-67 MONTOYA

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 4/1/04 at 3:58pm.

Date Out: 4/2/04 Analyst: cdg

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

NEW MEXICO TECH

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

GENERAL CHEMISTRY FORM

Lab. Number Collection Date		ollected By	T. Newton		
Well Depth Sample Description	PW-69 Stanley	ater Depth		Basin	
Name Address Address 2 City, State, Zip code Phone FAX Email	Peggy Johnson New Mexico Bureau	of Geology		- - - -	
Date Received Date Completed	4/6/04 4/13/04				
CHARGES	\$60.00				
рН	7.84				
Conductivity (uS/cm)	410				
TDS (ppm) (calculation) TDS (ppm) (gravimetric)					
ANALYSIS	Conc. (ppm)	epm			
Hardness (CaCO3)	81				
Alkalinity					
Carbonate (CO32-) Bicarbonate (HCO3-)	156	0.0000 2.5568			
Major Anions					
Bromide (Br) Chloride (Cl-) Fluoride (F-) Nitrite (NO2-) Nitrate (NO3-) Phosphate (PO43-) Sulfate (SO42-)	0.13 9.8 10 < 0.1 2.3 < 0.5 39	0.0016 0.2765 0.5264 0.0000 0.0371 0.0000 0.8120			
Major Cations	1				
Sodium (Na) Potassium (K) Magnesium (Mg) Calcium (Ca)	58 2.9 4.1 26	2.5230 0.0750 0.3373 1.2740			
Total epm Cations Total epm Anions % Difference	_ _ _	4.22 4.21 0.16			
Approved By:	Tryt	<u></u>			,

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

TRACE METALS FORM

Lab. Number Collection Date Well Depth Sample Description	04-0329 C 3/31/2004 C W PW-69 Stanley		T. Newton	Township, Range Section Basin	
Name Address Address 2 City, State, Zip code Phone	Peggy Johnson New Mexico Bureau	of Geology			
FAX Email					
Date Received	4/6/2004				
Date Completed	4/13/2004				
CHARGES	\$30.00				
ANALYSIS	Conc. (ppm)	epm			
Aluminum (Al2O3)	0.001	0.0001			
Antimony (Sb)	< 0.001				
Arsenic (As)	0.008				
Barium (Ba)	0.006				
Beryllium (Be)	< 0.001				
Boron (B)	0.16				
Cadmium (Cd)	< 0.001				
Chromium (Cr)	0.002				
Cobalt (Co)	< 0.001				
Copper (Cu)	0.019				
Iron (Fe)	< 0.05	0.0000			
Lead (Pb)	0.002				
Lithium (Li)	0.026				
Manganese (Mn)	< 0.001	0.0000			
Mercury (Hg)	0.0001				
Molybdenum (Mo)	0.011				
Nickel (Ni)	< 0.001				
Selenium (Se)	< 0.001	0.0400			
Strontium (Sr) Silica (SiO2)	0.54	0.0123			
Silicon (Si)	9.7				
Silver (Ag)	< 0.001			*	
Thalium (TI)	< 0.001				
Thorium (Th)	< 0.001				
Tin (Sn)	< 0.001				
Titanium (Ti)	< 0.001				
Uranium (U)	0.012				
Vanadium (V)	0.001				
Zinc (Zn)	0.076	0.0023			
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DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700 SLD Number: 200402036

Date/Time Rec'd: 4/1/04 3:35:00 PM

Submitter: 998 User: 64000

Date Collected: 4/1/04

Time Collected: 10:05:00 AM

rd-wg

Disinfected: N
Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-69 STANLEY

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 4/1/04 at 4:03pm.

Date Out: 4/2/04 Analyst: cdg CD6

DEPARTMENT OF HEALTH STATE OF NEW MEXICO **Scientific Laboratory Division** 700 Camino de Salud, N.E.

Section: (505) 841-2537

(505) 841-2543 Fax:

P.O. Box 4700

Albuquerque, NM 87196-4700

Date/Time Rec'd: 4/1/04 3:35:00 PM **SLD Number: 200402039**

Submitter: 998 User: 64000

Date Collected: 4/1/04

Time Collected: 10:05:00 AM

Disinfected: N Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-69 STANLEY

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Confluent Growth Noncoliforms-Resample/Request MMO

Date Out: 4/5/04 Analyst: mlm



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

NEW MEXICO TECH

801 Leroy Place, Socorro, NM 87801

REPORT OF WATER ANALYSES

			KEPOKI OF WAIEK ANALYSES	AIEK AINF	LIDEO			
Basin			County			Township, Range		
Collection Date	2/25/04 09:00	00:6	Collected By	Newton	ton	Section		
Well Depth			Water Depth			Lab. number	04-0202	
Sample Description PW-71	PW-71							
Hd	7.54		TDS (ppm)	230		Conductivity (uS/cm)	400	
ANALYSIS	mdd	epm	ANALYSIS	mdd	epm	ANALYSIS	udd	epm
Hardness (CaCO ₃)	181		Aluminum (Al ₂ O ₃)	< 0.001	0.00	Mercury (Hg)	< 0.0001	
Carbonate (CO_3^{2-})		0.00	Arsenic (As)	< 0.001		Molybdenum (Mo)	< 0.001	
Bicarbonate (HCO ₃ -)	203	3.33	Barium (Ba)	0.14		Nickel (Ni)	< 0.001	-0.7
Bromide (Br)	< 0.1	0.00	Beryllium (Be)	< 0.001		Selenium (Se)	< 0.001	
Chloride (Cl-)	4.7	0.13	Boron (B)	0.007		Strontium (Sr)	0.28	0.01
Fluoride (F)	0.11	0.01	Cadmium (Cd)	< 0.001		Silica (SiO ₂)	12	
Nitrate (NO ₃ -)	0.71	0.01	Chromium (Cr)	< 0.001		Silver (Ag)	< 0.001	
Phosphate (PO ₄ ³⁻)	< 0.5	0.00	Cobalt (Co)	< 0.001		Thorium (Th)	< 0.001	
Sulfate (SO_4^{2-})	33	69.0	Copper (Cu)	0.11		Uranium (U)	0.002	
Sodium (Na)	7.9	0.34	Iron (Fe)	0.18	0.01	Vanadium (V)	< 0.001	
Potassium (K)	0.62	0.02	Lead (Pb)	0.005	1	Zinc (Zn)	0.15	0.00
Magnesium (Mg)	6.4	0.53	Lithium (Li)	0.003				
Calcium (Ca)	62	3.09	Manganese (Mn)	0.003	0.00			

Name, Address and Phone:	Talon Newton	New Mexico Bureau of Geology	

4.00	4.16	-2.00
Total epm Cations	Total epm Anions	% Difference

\

02/27/04	03/17/04
Date received:	Date completed:

\$90.00

Charges:

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

15 Wg

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200401262 Date/Time Rec'd: 2/25/04 12:31:00 PM

Submitter: 998 User: 64000

Date Collected: 2/25/04

Time Collected: 9:00:00 AM

Disinfected: N
Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-71 TRUJILLO

County: SOCORRO

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter - ABSENT

Date Out: 2/26/04 Analyst: cdg

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700 SLD Number: 200401265

Date/Time Rec'd: 2/25/04 12:31:00 PM

Submitter: 998 User: 64000

Date Collected: 2/25/04

Time Collected: 9:00:00 AM

Disinfected: N Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Private Well

Collected By: TALON NEWTON

Sample Location: PW-71 TRUJILLO

County: SOCORRO

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 2/25/04 at 2:39pm.

Date Out: 2/26/04 Analyst: cdg

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

PS-76

GENERAL CHEMISTRY FORM

Lab. Number Collection Date Well Depth	04-0587 County 5/5/2004 Collected By Water Depth		Township, Range T. Newton Section Basin		
Sample Description Name	PW-76 Suncorner Peggy Johnson				
Address Address 2 City, State, Zip code Phone FAX	New Mexico Bureau	of Geology			
Email					
Date Received Date Completed	5/7/2004 5/20/2204				
CHARGES	\$60.00				
pН	7.99				
Conductivity (uS/cm)	526				
TDS (ppm) (calculation) TDS (ppm) (gravimetric)					
ANALYSIS	Conc. (ppm)	epm			
Hardness (CaCO3)	220				
Alkalinity					
Carbonate (CO32-) Bicarbonate (HCO3-)	281	0.0000 4.6056			
Major Anions					
Bromide (Br) Chloride (Cl-) Fluoride (F-) Nitrite (NO2-) Nitrate (NO3-) Phosphate (PO43-) Sulfate (SO42-)	< 0.1 12 0.36 < 0.1 < 0.1 < 0.5 9.1	0.0000 0.3385 0.0190 0.0000 0.0000 0.0000 0.1895			
Major Cations					
Sodium (Na) Potassium (K) Magnesium (Mg) Calcium (Ca)	17 1.4 8.8 75	0.7395 0.0362 0.7239 3.6750			
Total epm Cations Total epm Anions % Difference	_	5.37 5.15 2.07			

Approved By:

Frythe

801 LEROY PLACE, SOCORRO, NM 87801

PH: 505-835-5416 FAX: 505-835-6333

TRACE METALS FORM

Lab. Number	04-0587 County		Township, Range		
Collection Date	5/5/2004 Collected By T. Newton		Section		
Well Depth				Basin	
Sample Description	PW-76 Suncorner			<u> </u>	
		-			
Name	Peggy Johnson			_	
Address	New Mexico Bureau	ı of Geology		_	
Address 2				_	
City, State, Zip code				_	
Phone				_	
FAX				_	
Email				-	
Date Received	E/7/2004				
Date Completed	<u>5/7/2004</u> 5/20/2204				
Date Completed	3/20/2204				
CHARGES	\$30.00				
ANALYSIS	Conc. (ppm)				
Aluminum (Al2O3)	0.66	epm			
Antimony (Sb)	< 0.001	0.0734			
Arsenic (As)	0.001				
Barium (Ba)	0.32				
Beryllium (Be)	< 0.001				
Boron (B)	0.022				
Cadmium (Cd)	< 0.001				
Chromium (Cr)	0.004				
Cobalt (Co)	< 0.001				
Copper (Cu)	0.003				
Iron (Fe)	1.3	0.0698			
Lead (Pb)	0.001	0.0000			
Lithium (Li)	0.019				
Manganese (Mn)	0.34	0.0248			
Mercury (Hg)	0.0002	0.0210			
Molybdenum (Mo)	< 0.001				
Nickel (Ni)	0.002				
Selenium (Se)	< 0.001				
Strontium (Sr)	1.2	0.0274			
Silica (SiO2)	25				
Silicon (Si)	11.6				
Silver (Ag)	< 0.001				
Thalium (TI)	< 0.001				
Thorium (Th)	< 0.001				
Tin (Sn)	< 0.001				
Titanium (Ti)	0.077				
Uranium (U)	0.002				
Vanadium (V)	0.003				
Zinc (Zn)	0.004	0.0001			

Trung The

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

20 Jp

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402846 Date/Time Rec'd: 5/5/04 3:04:00 PM

Submitter: 998 User: 64000

Date Collected: 5/5/04

Time Collected: 11:30:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Other:

SPRING

Collected By: TALON NEWTON

Sample Location: PW-76 SUNCORNER SPRINGS

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 5/5/04 at 4:28pm.

Date Out: 5/7/04 Analyst: cdg

DEPARTMENT OF HEALTH STATE OF NEW MEXICO **Scientific Laboratory Division** 700 Camino de Salud, N.E.

Section: (505) 841-2537 (505) 841-2543 Fax:

P.O. Box 4700

Albuquerque, NM 87196-4700

Date/Time Rec'd: 5/5/04 3:05:00 PM

SLD Number: 200402848

User: 64000

Submitter: 998

Date Collected: 5/5/04

Time Collected: 11:30:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Other:

SPRING

Collected By: TALON NEWTON

Sample Location: PW-76 SUNCORNER SPRINGS

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter +

PRESENT

Fecal Coliforms -

ABSENT

Comment: Confluent growth

Date Out: 5/7/04

Analyst: cdg CD6

ps-17

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

GENERAL CHEMISTRY FORM

Lab. Number	04-0570			Township, Range		
Collection Date	4/22/2004 Collected By T. Newton			·		
Well Depth		Water Depth		Basin		
Sample Description	PW-77 Spring					
Name	Peggy Johnson					
Address	New Mexico Burea	u of Geology				
Address 2						
City, State, Zip code						
Phone FAX						
Email			· · · · · · · · · · · · · · · · · · ·			
Liliaii						
Date Received	4/23/2004					
Date Completed	5/10/2004					
CHARGES	\$60.00					
pН	8.2					
Conductivity (uS/cm)	517					
TDS (ppm) (calculation) TDS (ppm) (gravimetric)						
ANALYSIS	Conc. (ppm)	epm				
Hardness (CaCO3)	247					
Alkalinity						
Carbonate (CO32-)		0.0000				
Bicarbonate (HCO3-)	303	4.9662				
, ,						
Major Anions						
Bromide (Br)	< 0.1	0.0000				
Chloride (Cl-)	2.7	0.0762				
Fluoride (F-)	0.19	0.0100				
Nitrite (NO2-)	< 0.1	0.0000				
Nitrate (NO3-)	1.8	0.0290				
Phosphate (PO43-)	< 0.5	0.0000				
Sulfate (SO42-)	15	0.3123				
Major Cations						
Sodium (Na)	11	0.4785				
Potassium (K)	2.8	0.4763				
Magnesium (Mg)	7.5	0.6170				
Calcium (Ca)	88	4.3120				
Total epm Cations		5.56				
Total epm Anions	_	5.39				
% Difference	_	1.54				

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

TRACE METALS FORM

Lab. Number	04-0570 C	nuntv	Township, Range	
Collection Date	4/22/2004 C		T. Newton Section	
		ater Depth	Basin	
Well Depth Sample Description	PW-77 Spring			
Sample Description	PVV-77 Opining			
Name	Peggy Johnson			
Address	New Mexico Bureau	of Geology		
Address 2	71007 111071100			
City, State, Zip code				
Phone				
FAX				
Email				
Date Received	4/23/2004			
Date Completed	5/10/2004			
Date Completed	0/10/2007			
CHARGES	\$30.00			
CHARGES	400.00			
ANALYSIS	Conc. (ppm)	epm		
Aluminum (Al2O3)	0.2	0.0222		
Antimony (Sb)	< 0.001			
Arsenic (As)	0.001			
Barium (Ba)	0.35			
Beryllium (Be)	< 0.001			
Boron (B)	0.014			
Cadmium (Cd)	< 0.001			
Chromium (Cr)	0.003			
Cobalt (Co)	< 0.001			
Copper (Cu)	< 0.001			
Iron (Fe)	0.52	0.0279		
Lead (Pb)	0.001			
Lithium (Li)	0.008	0.0404		
Manganese (Mn)	0.17	0.0124		
Mercury (Hg)	0.0001			
Molybdenum (Mo)	< 0.001 < 0.001			
Nickel (Ni)	< 0.001			
Selenium (Se)	0.88	0.0201		
Strontium (Sr)	47	0.020		
Silica (SiO2)	22			
Silicon (Si) Silver (Ag)	< 0.001			
Thalium (TI)	< 0.001			
Thorium (Th)	< 0.001			
Tin (Sn)	< 0.001			
Titanium (Ti)	0.041			
Uranium (U)	0.006			
Vanadium (V)	0.006			
Zinc (Zn)	0.001	0.0000		

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537 Fax: (505) 841-2543 PW 1

P.O. Box 4700

Albuquerque, NM 87196-4700

SLD Number: 200402551 Date/Time Rec'd: 4/22/04 2:56:00 PM

Submitter: 998 User: 64000

Date Collected: 4/22/04

Time Collected: 10:10:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Other:

SPRING

Collected By: TALON NEWTON

Sample Location: PW-77 SPRING

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 4/22/04 at 3:54pm.

Date Out: 4/22/04 Analyst: cdg

Microbiological Water Report

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700 SLD Number: 200402552

Date/Time Rec'd: 4/22/04 2:56:00 PM

Submitter: 998 User: 64000

Date Collected: 4/22/04

Time Collected: 10:10:00 AM

rr.ug

Disinfected: N Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Other:

SPRING

Collected By: TALON NEWTON

Sample Location: PW-77 SPRING

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter + PRESENT

Fecal Coliforms - ABSENT

Date Out: 4/26/04 **Analyst:** cdg

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES **NEW MEXICO TECH**

801 LEROY PLACE, SOCORRO, NM 87801 PH: 505-835-5416 FAX: 505-835-6333

PS-81

GENERAL CHEMISTRY FORM

Lab. Number	04-0589			Township,	Range _	
Collection Date		Collected By	T. Newton			
Well Depth Sample Description	PW-81 Aspen Sprin	Vater Depth gs		Basin	_	
Name Address Address 2 City, State, Zip code Phone	Peggy Johnson New Mexico Bureau	ı of Geology				
FAX Email						
Date Received Date Completed	5/7/2004 5/20/2004					
CHARGES	\$60.00					
pH	8.08					
Conductivity (uS/cm)	355					
TDS (ppm) (calculation) TDS (ppm) (gravimetric)	202					
ANALYSIS	Conc. (ppm)	epm				
Hardness (CaCO3)	117					
Alkalinity						
Carbonate (CO32-) Bicarbonate (HCO3-)	182	0.0000 2.9830				
Major Anions						
Bromide (Br) Chloride (Cl-) Fluoride (F-) Nitrite (NO2-) Nitrate (NO3-) Phosphate (PO43-) Sulfate (SO42-)	0.11 7.4 0.31 < 0.1 0.14 < 0.5	0.0014 0.2088 0.0163 0.0000 0.0023 0.0000 0.2082				
Major Cations						
Sodium (Na) Potassium (K) Magnesium (Mg) Calcium (Ca)	27 1.3 5.7 38	1.1745 0.0336 0.4689 1.8620				
Total epm Cations Total epm Anions % Difference	_ _ _	3.58 3.42 2.34				
Approved By:	Tung F	Rum				

NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES NEW MEXICO TECH

801 LEROY PLACE, SOCORRO, NM 87801

PH: 505-835-5416 FAX: 505-835-6333

TRACE METALS FORM

Lab. Number	04-0589 (County		Township, Range	
Collection Date	5/5/2004	Collected By	T. Newton		
Well Depth		Vater Depth		- Basin	
Sample Description	PW-81 Aspen Sprin	gs		•	
					· · · · · · · · · · · · · · · · · · ·
Name	Peggy Johnson				
Address	New Mexico Bureau	of Geology		-	
Address 2				-	
City, State, Zip code				•	
Phone				•	
FAX				-	
Email				•	
Date Received	F/7/000 A			-	
	5/7/2004				
Date Completed	5/20/2004				
CHARGES	\$30.00				
ANALYSIS	Cone (nnm)				
Aluminum (Al2O3)	Conc. (ppm)	epm			
Antimony (Sb)	<u>0.17</u> < 0.001	0.0189			
Arsenic (As)	0.002				
Barium (Ba)	0.28				
Beryllium (Be)	< 0.001				
Boron (B)	0.013				
Cadmium (Cd)	< 0.001				
Chromium (Cr)	0.002				
Cobalt (Co)	< 0.002				
Copper (Cu)	0.002				
Iron (Fe)	0.27	0.0145			
Lead (Pb)	< 0.001	0.0140			
Lithium (Li)	0.015				
Manganese (Mn)	0.016	0.0012			
Mercury (Hg)	< 0.0001	0.0012			
Molybdenum (Mo)	0.006				
Nickel (Ni)	< 0.001				
Selenium (Se)	< 0.001				
Strontium (Sr)	0.45	0.0103			
Silica (SiO2)	21	3.3.03			
Silicon (Si)	9.7				
Silver (Ag)	< 0.001				
Thalium (TI)	< 0.001				
Thorium (Th)	< 0.001				
Tin (Sn)	< 0.001				
Titanium (Ti)	0.058				
Uranium (U)	0.027				
Vanadium (V)	0.001				
Zinc (Zn)	0.002	0.0001			

Approved By:

Microbiological Water Report

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

(505) 841-2543

Fax:

P.O. Box 4700

Albuquerque, NM 87196-4700 SLD Number: 200402849

Date/Time Rec'd: 5/5/04 3:05:00 PM

Submitter: 998

User: 64000

Date Collected: 5/5/04

Time Collected: 9:40:00 AM

Disinfected: N

Residual:

Reason for Sampling: Special Sample

Analysis Requested: Total Coliform - Membrane Filter

Other Analysis:

Type of System: Other:

SPRING

Collected By: TALON NEWTON

Sample Location: PW-81 ASPEN SPRINGS

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Total Coliform - Membrane Filter + PRESENT

Fecal Coliforms - ABSENT

Comment: Confluent growth

Date Out: 5/7/04 Analyst: cdg CD6

Microbiological Water Report

DEPARTMENT OF HEALTH STATE OF NEW MEXICO Scientific Laboratory Division 700 Camino de Salud, N.E.

Section: (505) 841-2537

Fax: (505) 841-2543

P.O. Box 4700

Albuquerque, NM 87196-4700 SLD Number: 200402847

Date/Time Rec'd: 5/5/04 3:05:00 PM

Submitter: 998 User: 64000

Date Collected: 5/5/04

Time Collected: 9:40:00 AM

Disinfected: N
Residual:

Reason for Sampling: Special Sample

Analysis Requested: Fecal Coliform - Membrane Filter

Other Analysis:

Type of System: Other:

SPRING

Collected By: TALON NEWTON

Sample Location: PW-81 ASPEN SPRING

County: TAOS

WSS Code: 0

Client

Attention: PEGGY JOHNSON

NEW MEXICO BUREAU OF GEOLOGY

801 LEROY PLACE

SOCORRO, NM 87801-

Laboratory Results:

Fecal Coliform - Membrane Filter <

1 /100 mls

Comment: Sample analyzed on 5/5/04 at 4:33pm.

Date Out: 5/7/04 Analyst: cdg



801 Leroy Place, Socorro, NM 87801

REPORT OF WATER ANALYSES

	07001
NEW MEXICO TECH	1001 I DI C. C. MIN 97901

					ebm					0.01				S.		0.01		
		03-1764		388	mdd	< 0.0001	< 0.001	< 0.001	< 0.001	0.37	20	< 0.001	< 0.001	0.001	0.004	0.17		
Township, Range	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)		
					epm	0.00									0.01	-		0.00
				280	undd	0.003	< 0.001	0.19	< 0.001	0.015	< 0.001	< 0.001	< 0.001	0.018	0.11	< 0.001	900.0	< 0.001
County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
1					ebm			4.05	0.00	0.12	0.01	0.03	0.00	0.65	0.28	0.04	0.55	4.04
			PW-93	7.47	mdd	230		247	< 0.1	4.4	0.25	1.9	< 0.5	31	6.5	1.7	6.7	81
Basin	Collection Date	Well Depth	Sample Description	'	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO ₃ ²⁻)	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (Cl ⁻)	Fluoride (F-)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO ₄ ²⁻)	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

Brand	1: 12/19/03	1: 12/24/03
Approved by:	Date received:	Date completed:
4.94	\$35.00	
Total epm Cations Total epm Anions % Difference	Charges:)
Name, Address and Phone: Patty Jackson		



RCES

[87801	801 Leroy Place, Socorro, NM 87801
	NEW MEXICO TECH
MINERAL RESOUR	NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOUF

GOOD TO THE SIST								
			REPORT OF WATER ANALYSES	TER ANA	LYSES			
Basin			County			Township, Range		
Collection Date			Collected By			Section		
Well Depth			Water Depth			Lab. number	03-1754	
Sample Description Chamisal		Crak						
Hd	7.71		TDS (ppm)	340		Conductivity (uS/cm)	461	
ANALYSIS	mdd	epm	ANALYSIS	mdd	epm	ANALYSIS	udd	ebm
Hardness (CaCO3)	278		Aluminum (Al ₂ O ₃)	0.005	00.00	Mercury (Hg)	< 0.0001	34
Carbonate (CO ₃ ² -)			Arsenic (As)	0.001		Molybdenum (Mo)	< 0.001	
Sicarbonate (HCO ₃ -)	326	5.34	Barium (Ba)	0.26		Nickel (Ni)	< 0.001	
Bromide (Br)	< 0.1	0.00	Beryllium (Be)	< 0.001		Selenium (Se)	< 0.001	
Chloride (Cl ⁻)	5.8	0.16	Boron (B)	0.027		Strontium (Sr)	0.49	0.01
luoride (F-)	0.37	0.02	Cadmium (Cd)	< 0.001		Silica (SiO ₂)	31	
Vitrate (NO ₃ -)	1.2	0.02	Chromium (Cr)	< 0.001		Silver (Ag)	< 0.001	
hosphate (PO ₄ ³⁻)	< 0.5	0.00	Cobalt (Co)	< 0.001		Thorium (Th)	< 0.001	
Sulfate (SO ₄ ²⁻)	23	0.48	Copper (Cu)	< 0.001		Uranium (U)	0.005	
odium (Na)	12	0.52	Iron (Fe)	< 0.05	0.00	0.00 Vanadium (V)	0.003	
otassium (K)	1.4	0.04	Lead (Pb)	< 0.001		Zinc (Zn)	< 0.001	0.00
Aagnesium (Mg)	10	0.82	Lithium (Li)	0.01				
Calcium (Ca)	95	4.74	Manganese (Mn)	0.007	0.00		7	

Grand	12/11/03 12/24/03
Approved by: Approved	Date received:
6.13 6.02 0.89	\$35.00
Total epm Cations Total epm Anions % Difference	Charges:
Name, Address and Phone: Patty Jackson	



NEW MEXICO TECH

801 Leroy Place, Socorro, NM 87801

SES
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Z
TER A
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)FW
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REPORT
RE

					epm					0.01						0.00		
		04-0067		262	udd	< 0.0001	< 0.001	< 0.001	< 0.001	0.23	11	< 0.001	< 0.001	0.001	0.001	0.091	0.002	
Township, Range	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)	Titanium (Ti)	
					ebm	0.00									0.00			0.00
				190	uudd	0.043	< 0.001	0.11	< 0.001	0.005	< 0.001	0.002	< 0.001	< 0.001	0.051	< 0.001	0.004	0.018
County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
					epm		0.00	2.72	0.00	0.09	0.01	0.01	0.00	0.56	0.27	0.02	0.48	2.45
			Chiquito	7.65	mdd	146		166	< 0.1	3.3	0.19	9.0	< 0.5	27	6.3	0.78	5.8	49
Basin	Collection Date	Well Depth	Sample Description Chiquito	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO_3^{2-})	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (CI-)	Fluoride (F)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO_4^{2-})	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

Name, Address and Phone:	eggy Johnson	New Mexico Bureau of Geology	
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-2.45 Total epm Cations Total epm Anions % Difference

3.23 3.40

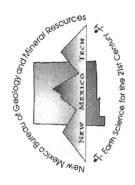
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02/13/04 03/17/04 Date received:

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REPORT OF WATER ANALYSES

					ebm					0.01						0.00		
		04-0062		269	mdd	< 0.0001	< 0.001	< 0.001	< 0.001	0.3	12	< 0.001	< 0.001	0.002	0.001	< 0.001	0.002	
Township, Range	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)	Titanium (Ti)	
					ebm	0.00									0.00			0.00
				200	uudd	0.042	< 0.001	0.081	< 0.001	900.0	< 0.001	0.002	< 0.001	< 0.001	0.05	< 0.001	0.003	0.014
County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
					epm		0.00	2.74	0.00	0.12	0.01	0.00	0.00	0.62	0.25	0.02	0.53	2.59
			Embuda	7.78	udd	156		167	< 0.1	4.4	0.15	0.17	< 0.5	30	5.8	0.93	6.4	52
Basin	Collection Date	Well Depth	Sample Description Embuda	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO_3^{2-})	Bicarbonate (HCO ₃ ⁻)	Bromide (Br)	Chloride (Cl ⁻)	Fluoride (F)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO_4^{2-})	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

Name, Address and Phone:	ohnson	New Mexico Bureau of Geology
me, Addres	Peggy Johnson	w Mexico I
Na	Pe	Ne

3.50 3.41 Total epm Cations Total epm Anions % Difference

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REPORT OF WATER ANALYSES

					epm			6		0.01						0.00							
		04-0060		312	mdd	< 0.0001	< 0.001	< 0.001	< 0.001	0.41	13	< 0.001	< 0.001	0.002	0.001	< 0.001	0.002			1	Mu		
Township, Range	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)	Titanium (Ti)				Approved by:		
					epm	0.00									0.00			0.00	Ju				
				220	mdd	0.03	< 0.001	0.069	< 0.001	0.006	< 0.001	0.002	< 0.001	< 0.001	< 0.05	< 0.001	0.004	0.007		3.82	4.10	-3.46	
County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)		Total epm Cations	Total epm Anions	% Difference	
					epm		0.00	3.23	0.00	0.15	0.01	0.01	0.00	0.71	0.26	0.02	0.63	2.89					
			RPasp	7.84	mdd	177		197	< 0.1	5.2	0.17	0.36	< 0.5	34	9	98.0	7.7	58		ione:		f Geology	
Basin	Collection Date	Well Depth	Sample Description	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO_3^{2-})	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (Cl-)	Fluoride (F)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO_4^{2-})	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)		Name, Address and Phone:	Peggy Johnson	New Mexico Bureau of Geology	

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					ebm			Š.		0.01						0.00		
		04-0066		278	udd	< 0.0001	< 0.001	< 0.001	< 0.001	0.36	7.3	< 0.001	< 0.001	0.002	< 0.001	0.002	< 0.001	
Township, Range	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)	Titanium (Ti)	
				7	epm	0.00									0.00			0.00
				190	uudd	0.014	< 0.001	0.048	< 0.001	0.004	< 0.001	0.001	< 0.001	< 0.001	< 0.05	< 0.001	0.002	0.017
County	Collected By	Water Depth	above Telephone cyn	TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	2.59 Manganese (Mn)
					epm		0.00	2.67	0.00	0.14	0.01	0.00	0.00	0.73	0.21	0.02	0.56	2.59
			Rio Pueblo	7.59	mdd	158		163	< 0.1	4.8	0.14	0.19	< 0.5	35	4.8	0.59	8.9	52
Basin	Collection Date	Well Depth	Sample Description Rio Pueblo	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO_3^{2-})	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (CI-)	Fluoride (F)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO ₄ ²⁻)	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

Name, Address and Phone:
Peggy Johnson
New Mexico Bureau of Geology

Total epm Cations3.39Total epm Anions3.55% Difference-2.26

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Basin

					ebm					0.01	h,		1			0.00		
		04-0063		264	mdd	< 0.0001	< 0.001	< 0.001	< 0.001	0.37	12	< 0.001	< 0.001	0.002	0.001	< 0.001	0.003	
Township, Range	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)	Titanium (Ti)	
					ebm	0.01									0.01			0.00
				200	udd	0.094	< 0.001	990.0	< 0.001	900.0	< 0.001	0.002	< 0.001	< 0.001	0.094	< 0.001	0.003	0.02
County	Collected By	Water Depth	,	TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
					epm		0.00	2.75	0.00	0.16	0.01	0.00	0.00	0.65	0.25	0.02	0.58	2.64
			RPaE	7.37	mdd	161		168	< 0.1	5.5	0.16	0.25	< 0.5	31	5.8	98.0	7	53
Basin	Collection Date	Well Depth	Sample Description	Hd	ANALYSIS	Fardness (CaCO ₃)	Carbonate (CO_3^{2-})	Sicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (CI ⁻)	luoride (F)	Vitrate (NO ₃ -)	hosphate (PO ₄ ³⁻)	ulfate (SO_4^{2-})	odium (Na)	otassium (K)	Aagnesium (Mg)	Calcium (Ca)

ress and Phone:	son	New Mexico Bureau of Geology
Name, Address and Phone:	/ Johnson	Aexico Bureau of
Name,	Peggy	New N

3.57 3.52 Total epm Cations Total epm Anions % Difference

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					epm					0.01						0.01		
		04-0061		296	udd	< 0.0001	< 0.001	< 0.001	< 0.001	0.4	13	< 0.001	< 0.001	0.002	0.001	0.32	0.002	
Township, Range	Section	Lab. number		Conductivity (uS/cm) 296	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)	Titanium (Ti)	
					epm	0.00									0.00			0.00
				220	mdd	0.036	< 0.001	0.071	< 0.001	0.007	< 0.001	0.002	< 0.001	< 0.001	990.0	< 0.001	0.003	0.014
County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
					epm		0.00	3.16	0.00	0.15	0.01	0.01	0.00	69.0	0.26	0.02	0.63	2.84
			RPbsp	7.53	mdd	174		193	< 0.1	5.3	0.19	0.4	< 0.5	33	9	0.97	9.7	57
Basin	Collection Date	Well Depth	Sample Description	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO_3^{2-})	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (Cl ⁻)	Fluoride (F)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO_4^{2-})	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

Name, Address and Phone:	Peggy Johnson	New Mexico Bureau of Geology

3.78	4.02	-2.99
Total epm Cations	Total epm Anions	% Difference

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REPORT OF WATER ANALYSES	

		04-0064		260	mdə mdd	< 0.0001	< 0.001	< 0.001	< 0.001	0.24 0.01	11	< 0.001	< 0.001	*000
Township, Range	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	
					ebm	0.00								
				190	mdd	0.022	< 0.001	0.094	< 0.001	0.005	< 0.001	0.002	< 0.001	
County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	
					epm		0.00	2.72	0.00	0.12	0.01	0.00	0.00	
			SBaE	7.70	mdd	154		166	< 0.1	4.2	0.21	0.2	< 0.5	000
Basin	Collection Date	Well Depth	Sample Description	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO_3^{2-})	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (Cl-)	Fluoride (F)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	C-15-4- (CO) 2-1

Name, Address and Phone:	Peggy Johnson	New Mexico Bureau of Geology
Name,	Peggy.	New M

3.34	3.48	-1.96
Total epm Cations	Total epm Anions	% Difference

Approved by:

0.00

0.001

0.00 Vanadium (V)

< 0.05 < 0.001 < 0.001

Iron (Fe) Lead (Pb)

0.24

Sodium (Na)

0.02

0.95 5.8 52

0.001

Zinc (Zn) Titanium (Ti)

0.00

0.003

Lithium (Li) Manganese (Mn)

0.48

Potassium (K) Magnesium (Mg)

Calcium (Ca)

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					epm					00.0						0.00		
		04-0065		237	udd	< 0.0001	< 0.001	< 0.001	< 0.001	0.2	9.9	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	
Township, Range	Section	Lab. number		Conductivity (uS/cm)	ANALYSIS	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Silica (SiO ₂)	Silver (Ag)	Thorium (Th)	Uranium (U)	Vanadium (V)	Zinc (Zn)	Titanium (Ti)	
					epm	0.00									0.00			0.00
				170	mdd	0.002	< 0.001	0.053	< 0.001	0.003	< 0.001	0.001	< 0.001	< 0.001	< 0.05	< 0.001	0.001	0.004
County	Collected By	Water Depth		TDS (ppm)	ANALYSIS	Aluminum (Al ₂ O ₃)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Manganese (Mn)
					epm		0.00	2.08	0.00	0.11	0.01	0.00	0.00	0.77	0.16	0.02	0.39	2.25
			SBaC	7.54	udd	132		127	< 0.1	3.9	0.14	0.16	< 0.5	37	3.7	0.79	4.8	45
Basin	Collection Date	Well Depth	Sample Description	Hd	ANALYSIS	Hardness (CaCO ₃)	Carbonate (CO_3^{2-})	Bicarbonate (HCO ₃ -)	Bromide (Br)	Chloride (Cl ⁻)	Fluoride (F)	Nitrate (NO ₃ -)	Phosphate (PO ₄ ³⁻)	Sulfate (SO_4^{2-})	Sodium (Na)	Potassium (K)	Magnesium (Mg)	Calcium (Ca)

Name, Address and Phone:	eggy Johnson	New Mexico Bureau of Geology	
Name,	Peggy.	New M	

2.83	2.97	-2.51
Total epm Cations	Total epm Anions	% Difference

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