Permit Application

Lea County, New Mexico
C.K. Disposal E & P Landfill and
Processing Facility
Permit No. TBD

Volume II



ATTACHMENT G HYDROGEOLOGY REPORT

PROPOSED C.K. DISPOSAL E&P LANDFILL AND PROCESSING FACILITY

Eunice, New Mexico

Project No: 15-04-22

Prepared for:

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1.0 INTRODUCTION

The proposed C.K. Disposal E&P Landfill and Processing Facility, henceforth known as "Site", is a proposed Surface Waste Management Facility for oilfield waste processing and disposal services. The proposed Site is subject to Title 19 Chapter 15 Part 36 of the New Mexico Administrative Code (NMAC). Specifically the facility is subject to 19.15.36 NMAC, which is administered by the Oil Conservation Division (OCD).

The proposed tract of land encompasses 316.97 acres and is located in the north half of Section 5, Township 22 South, Range 38 East in Southern Lea County, New Mexico. It is situated approximately 4.16 miles east of the town of Eunice and one-half mile west of the New Mexico-Texas state border south of Highway 234.

The geology and hydrogeology portions of this attachment have been prepared by Kevin T. Carel P.G., a qualified groundwater scientist, for the C.K. Disposal LLC. The following sections are consistent with 19.15.36 NMAC.

2.0 REGIONAL GEOLOGY

2.1 Previous Work

A substantial amount of geologic and hydrogeologic information is available in the vicinity of the proposed Site. Most notably, Nicholson and Clebsch (1961) provide a thorough discussion of the geology and groundwater conditions in Southern Lea County. Geohydrology Associates, Inc. (1978) provide a collection of hydrologic data including water quality information in the general vicinity of the Site. Well logs were derived from the New Mexico Office of State Engineer. Lehman and Rainwater (2000) discuss the geology and groundwater of an area of extreme eastern New Mexico and western Andrews County, Texas that adjoins the proposed Site on the east. Some information is also available from reports by the Texas Commission on Environmental Quality and Cooke-Joyce of a low-level radioactive waste and RCRA waste disposal site located near the proposed Site in nearby Andrews County.

Due to the proposed Site's proximity to the New Mexico-Texas border, a substantial amount of information is relied upon that is located within the State of Texas. Much of the stratigraphic nomenclature used in Texas differs from that used in New Mexico. In order to avoid confusion the stratigraphic names used by Nicholson and Clebsch have been adopted herein with a few minor exceptions.

2.2 Regional Physiography and Topography

The project Site is located in the Pecos Valley section of the Great Plains physiographic province. The Pecos Valley section is a very irregular erosional surface which slopes toward the Pecos River, generally southwestward in the vicinity of the proposed Site. The topography of the Pecos Valley section is complicated by areas of interior drainage which appear to be the result of deep-seated collapse due to dissolution and by vast areas of stabilized and drifting dune sand.

Locally the proposed Site is located on the west flank of a topographic high known as Rattlesnake Ridge. Rattlesnake Ridge, also known as the Dockum Red Bed Ridge or Red

Bed Ridge, in adjacent Andrews County, Texas, is a northwest-southeast trending topographic high. In the vicinity of the proposed site, the crest of the ridge roughly parallels the boundary between Texas and New Mexico. It is regarded as the drainage divide between the Pecos River basin and the Colorado River basin in Texas.

The Eunice Plain is situated west of the Rattlesnake Ridge. The term Eunice Plain has been applied by Nicholson and Clebsch (1961) to refer to the eastern part of Lea County New Mexico that has no other specific geographic designation. It is bounded on the north by the Llano Estacado, on the southwest by the San Simon Ridge and Antelope Ridge, on the west by the Grama Ridge, and on the south by a south-facing scarp that is most prominent at Custer Mountain. The Eunice Plain is underlain by a hard caliche surface and is covered by reddish-brown dune sand.

Monument Draw, a major drainage channel in Lea County, is located approximately one and one-half miles west of the proposed Site. Monument Draw traverses the eastern part of Lea County from north to south for a distance of approximately 35 miles.

Approximately five miles northeast of the proposed Site is the Mescalero Ridge, which is the southwestern edge of the Llano Estacado part of the High Plains physiographic province. The physiographic features of Southern Lea County are illustrated on Figure G.1. A map illustrating the locations of streams, springs or other water courses including water wells within one mile of the proposed Site is provided as Figure G.2 in accordance with 19.15.36.8.C.15(a) NMAC. No streams are located with a one-mile radius of the proposed Site. However, Monument Draw, a major drainage course in Southern Lea County is located approximately one and one-half miles west of the Site. Baker Spring, a local groundwater spring, is located one and one-half miles north of the Site. Thirty-seven wells/geotechnical borings are located within a one-mile radius of the proposed Site. The wells, discussed in detail in Section 3.5 of this report, consist entirely of groundwater monitoring wells, vadose zone monitoring points, geotechnical borings and one exploratory well.

2.3 Regional Stratigraphy and Lithology

According to the Geologic Map of New Mexico, the project Site is underlain by strata deposited during the Holocene Series to middle Pleistocene of the Quaternary System. This Quaternary strata is mostly composed of interlayered sands and was deposited by eolian (wind generated) geologic processes.

Regional stratigraphy includes the geologic units (listed from oldest to youngest) of the Santa Rosa Formation and the Chinle Formation of the Triassic Dockum Group, Cretaceous rocks undifferentiated, the Tertiary Ogallala Formation, and various Holocene to Pleistocene age deposits. According to Nicholson and Clebsch (1961), the Santa Rosa is a red to white poorly sorted, coarse-grained, cross bedded sandstone. The Chinle Formation is described as a red and green claystone with minor siltstone and fine-grained sandstone. The Ogallala Formation is chiefly sand that is poorly to well-cemented with calcium carbonate. It contains some clay, silt and gravel and is capped in most places by caliche. The Holocene and Pleistocene deposits are chiefly sand with some silt and gravel. The stratigraphic positions of these formations, along with their approximate maximum thicknesses, are presented in Table G.1. Figure G.3 illustrates the limits of the local geologic strata. The Quaternary deposits mapped as Qep, which underlie the project Site,

are composed of eolian sands and piedmont-slope deposits along the eastern flank of the Pecos River Valley (Scholle, 2003).

As illustrated in Figure G.3, the closest outcrop of the Ogallala Formation is located approximately one mile north of the project Site and Quaternary alluvial deposits are located approximately one and one-half mile west of the Site. The nearest Cretaceous rocks and Triassic deposits of the Dockum Group are located in a rock quarry located in Section 29, T. 21 S., R. 38 E. approximately one mile north of the proposed Site. The Dockum Group is often locally referred to as "Red Beds".

Table G.1

C.K. Disposal E&P Landfill and Processing Facility

General Regional Stratigraphic Column

General Regional Straugraphic Column								
Era	Period	Series/Epoch	Group	Formation	Maximum Thickness (+/-ft)			
_	Quaternary	Holocene		Sand	30			
Cenozoic		Pleistocene		Alluvium	400			
	Tertiary	Pliocene		Ogallala	300			
M i-	Cretaceous			Undifferentiated	35			
Mesozoic	Tr.'	Lata	Dockum	Chinle	1,270			
	Triassic	Late	Group	Santa Rosa	300			

Source: Nicholson and Clebsch, 1961

2.4 Structural Features

The major structural features of Southern Lea County are the Delaware Basin and the Central Basin Platform (Figure G.4). Regionally, the proposed Site is situated on the northern flank of the Central Basin Platform (CBP). The CBP is a northwest trending uplifted basement block that separates the Midland Basin (to the east) from the Delaware Basin (to the west). According to Hoak et.al. the CBP was uplifted in the mid to late Pennsylvanian time. Before that time, the two basins and the CBP were relatively low relief features within a shallow Paleozoic-age basin called the Tabosa Basin.

In early Permian (i.e. Wolfcampian) time, the uplift of the CBP ceased, and a regional erosional unconformity developed that beveled off the top of the underlying structures. Above this unconformity, carbonate reef and related proximal facies were deposited on the relatively flat erosional surface. A consequence of the erosional event and subsequent deposition is that deeper fold and thrust structures are capped by flat-lying carbonates at shallower depths. The northern termination of the CBP is the Northwest Shelf (NWS). The NWS represents a broad shelf extending northward to the Palo Duro Basin.

Figure G.5 is a regional geologic cross-section of the area modified from DuChene and Cunningham (2006). The cross-section is oriented from southwest to northeast and extends from the Guadalupe Mountains through southern Lea County and to the New Mexico – Texas border. In the center of the cross-section is the Delaware Basin, and the Central Basin Platform is located on the east (right) side. The location of the proposed Site is projected onto the east side of the cross-section. As can be seen on the cross-section, the Delaware Basin is asymmetrical and deepens to the east. Tectonic development of the

Delaware Basin began by the late Pennsylvanian period and major basin subsidence took place during the late Pennsylvanian period and early Permian period. Basin development ended in the late Permian period (Brokaw, et al, 1972). Thickness of sediment in the basin exceeds 20,000 feet and Permian strata alone account for more than 13,000 feet of basin fill materials (Oriel, et al., 1967). During the Triassic period, the area was uplifted resulting in deposition of clastic continental shales (red beds). Continuing uplift resulted in erosion and/or non-deposition until the middle to late Cenozoic period, when regional eastward tilting completed structural development of the basin as it exists today (Stipp, 1954). The western margin of the Delaware Basin is the Guadalupe Mountains and the Salt Flat Graben, which is a Tertiary-age system related to the Basin-and-Range extensional tectonics.

Regionally, the dip of the Triassic rocks is reportedly less than 1 degree to the east and south. However, locally the proposed Site is located on the west flank of topographic high known as Rattlesnake Ridge where the local dip of the Triassic rocks is to the southsouthwest. As previously mentioned, Rattlesnake Ridge, is also known as the Dockum Red Bed Ridge (Grisak, et al. 2007) or Red Bed Ridge (Lehman and Rainwater, 2000) in Texas. Nicholson and Clebsch (1961) state that the Rattlesnake Ridge roughly coincides with the New Mexico-Texas state border. However, Lehman and Rainwater (2000) indicated it is a northwest-southeast trending topographic high that extends for at least 100 miles from northern Lea County to Ector County, Texas. According to Grisak et al., the ridge is capped by Cretaceous Antlers sands and gravels that are highly silicified in places. They suggest that the Antiers may have acted as an erosion-resistant cap throughout late Cenozoic time, maintaining the ridge as a drainage divide while late Tertiary Ogallala and partially age-equivalent Gatuna Formation sediments were deposited on either side of the ridge. Lehman and Rainwater (2000) indicate that the crest of the ridge, approximately a mile northeast of the proposed Site, is capped by caliche at the land surface. Regardless of its orientation or exact location, the topographic feature located east and northeast of the proposed Site is herein referred to as "Rattlesnake Ridge".

Nicholson and Clebsch (1961) propose that the ridge is potentially a fault, or gentle flexure produced by differential compaction of sediments to the west. However the Texas Commission on Environmental Quality suggest that it is a gentle fold resulting from dissolution-induced subsidence (TCEQ, 2008). Lehman and Rainwater (2000) point out that the southwest flank of the ridge (on which the proposed Site is located) is more steeply inclined than the northeast flank. They state that the ridge is not likely a fault but rather is a gentle fold.

2.4.1 Triassic Erosional Surface

The top of the Dockum Group is an erosional surface in southern Lea County. The surface is highly irregular but has only moderate relief. It has undergone two to three episodes of erosion, depending on the location. Beneath the erosional surface, the Dockum Group thickens regionally toward the southeast. The erosional surface truncates the southeast dipping Triassic formations. As a result, the Santa Rosa Formation subcrops beneath the Quaternary deposits in the western part of Lea County, whereas the younger Chinle Formation subcrops in the eastern part of the County. While the top of the Dockum Group is an erosional surface, closed depressions exist over the area that are believed to be the

result of the collapse of the Dockum Group into cavities formed by subsidence in the underlying Permian formations due to salt dissolution.

2.5 Regional Hydrogeology

According to Nicholson and Clebsch (1961), all the potable groundwater used in southern Lea County is derived from three principal geologic units, the Dockum group, the Ogallala Formation, and Quaternary Alluvium. Potable groundwater is not available below the Permian and Triassic unconformity but, because this boundary is not easily defined, the top of the Rustler anhydrite formation is regarded as the effective lower limit of potable groundwater. Virtually all the water wells in the area are completed in Triassic or younger rocks.

A few wells reportedly derive water from several aquifers, but most wells are completed in the shallowest zone that will produce the desired quantity of water. This is because the shallow groundwater in the Quaternary Alluvium and the Ogallala Formation is of better chemical quality than that from the rocks of the Dockum Group and the younger rocks are more permeable, and therefore permit greater well yields.

2.5.1 Dockum Group

In New Mexico, groundwater can be obtained from both the Santa Rosa and the Chinle formations of the Dockum Group. No water is known to be derived from the Permian strata, except possibly from well Section 2 T. 21 S., R. 33 E (T21SR33ES2). Triassic rocks underlie all of southern Lea County but are exposed only in minor outcrops. The lower part of the exposed Dockum Group, the Santa Rosa sandstone, crops out in the north-trending scarps which are located a few miles to the west of the Lea-Eddy County line and in the south-facing scarps of Paduca Breaks. The overlying Chinle Formation is exposed at Custer Mountain and in a large excavation about 2 miles southeast of Monument. The recharge area of the Triassic rocks is in the western part of southern Lea County and the eastern part of Eddy County. Some recharge is derived also from the overlying Ogallala formation and the Quaternary alluvium where they overlie permeable beds of Dockum Group in the subsurface.

The Santa Rosa sandstone is the principal aquifer in the western third of southern Lea County. The unit is recharged by precipitation on the sand dunes, both in Lea County and a few miles to the west in Eddy County; by precipitation and runoff directly on the outcrop; and by groundwater flow from the overlying Ogallala Formation and alluvium. Recharge to the Triassic rocks in Lea County appears to be concentrated in three areas:

- Recharge on the outcrop and infiltration through the dune-sand cover located in the western portion of T. 22 S., R. 32 E;
- A groundwater ridge in T. 21 S., R. 33 E. and;
- A mound in T. 24 S., R. 33 E.

The last two recharge areas are both beneath a cover of younger rocks and presumably they indicate recharge from the discontinuous aquifers in these rocks. Wells completed in the Dockum Group generally have low yields, as the formations have a low permeability. Available hydraulic properties of the Dockum Group are provided in Table G.2.

A well drilled for Waste Control Specialists in 2008 located approximately 580 feet northeast of the proposed Site encountered the Santa Rosa Formation at a depth of 1,092 feet below ground surface (bgs). The depth to which groundwater was first encountered is listed on the well log as 1,092 feet bgs. The well log indicates the Santa Rosa is 292 feet thick and describes it as a gray, fine sandstone with interbedded reddish brown and weak red siltstone and claystone. The well number is TRN 396028 and the well log is provided in Appendix G.C.

A low-level radioactive waste disposal site operated by The United Waste Control Specialists (WCS) is located approximately one-mile northeast of the proposed Site. The WCS site identifies a saturated zone termed the 225-foot zone as the uppermost aquifer beneath the disposal facility (TCEQ, 2008). The 225-foot zone is situated within the Chinle Formation of the Dockum Group. This zone is also identified as the uppermost aquifer in a RCRA hazardous waste permit adjacent to the low-level waste site. The 225 zone reportedly ranges from 25 to 30 feet thick over the entire WCS facility. Further, a uranium enrichment facility, URENCO, is located immediately north of the proposed Site and southwest of the WCS site. According to an environmental assessment report for the URENCO facility, the shallowest groundwater below the site reportedly also occurs within an undifferentiated siltstone seam of the Chinle Formation at depths of 214 to 222 feet bgs (US Nuclear Regulatory Commission, 2015).

In Texas, the saturated Triassic rocks are termed the Dockum Aquifer, which is classified as a minor aquifer by the Texas Water Development Board (TWDB). According to Report 308 by the TWDB, the Dockum Aquifer consists of gravel, sandstone, siltstone, mudstone, shale, and conglomerate. The highest groundwater yields come from the coarsest grained deposits (i.e. sandstone and conglomerate) located at the middle and base of the group. The water-bearing sandstones are often typically referred to as the Santa Rosa Aquifer on a local basis. The water quality in the aquifer is generally poor with freshwater in outcrop areas in the east and brine in the western subsurface portions of the aquifer and the water is very hard. Naturally occurring radioactivity from uranium present within the aquifer can result in gross alpha radiation in excess of the primary drinking water standard. Radium-226 and -228 also occur in amounts above regulatory standards.

Groundwater flow in the Dockum Group in southern Lea County is highly variable but the overall flow pattern is toward the south based on the groundwater contour map prepared by Nicholson and Clebsch (1961). In Andrews County, Texas, just east of the proposed Site, the groundwater flow is to the south and east based on a groundwater contour map of the Dockum Aquifer by Bradley and Kalaswad (2003).

2.5.2 Ogallala Formation and Quaternary Alluvium

According to George et al. (2011), the Ogallala Aquifer is a major aquifer of Texas and is the largest aquifer in the United States. The Ogallala Formation covers the High Plains

immediately north of the southern Lea County area, where it ranges in thickness from 100 to 250 feet. The saturated thickness of the Ogallala Formation on the High Plains ranges from 25 feet to 175 feet because of the very irregular Triassic erosion surface which underlies it. Groundwater within the Ogallala is under water table conditions. The recharge of the Ogallala on the High Plains is due entirely to precipitation, as the formation is topographically high and isolated.

A groundwater contour map of the Ogallala Formation and the Quaternary alluvium in the vicinity of the proposed Site is provided as Figure G.6. The groundwater contours are said to be generalized, and in areas with limited subsurface data they are dashed where approximated. As can be seen by the map, the overall groundwater flow pattern is toward the southeast. The boundaries of the aquifer are shown by heavy dashed lines, which delineate the areas in which the Dockum Group and overlying strata project above the water table. The map indicates that the Ogallala Formation is not saturated beneath the proposed Site. This is due to the fact that as the Ogallala Formation rises in elevation toward the crest of Rattlesnake Ridge, its entire section projects above the water table. Based on information provided by Lehman and Rainwater (2000), the strata above the Dockum Group become saturated again on the northeast flank of the ridge approximately two miles east of the proposed Site in Andrews County, Texas where it plunges back below the saturated zone.

An east-west oriented hydrogeologic cross-section B-B' (Figure G.7), was constructed using information from two site borings (BH-01 and BH-02) and six (6) other wells located in the general vicinity of the proposed Site. The well logs are provided in Appendix G.A. The surface geology was taken from Scholle (2003) and elevation of water table within the Ogallala was taken from Nicholson and Clebsch (1961). The cross-section illustrates how the Ogallala Formation rises above the saturated zone along the southwest flank of Rattlesnake Ridge in the vicinity of the proposed Site. As a result, the 225-foot zone within the Chinle Formation discussed in Section 2.5.1 is believed to be the shallowest fresh water aquifer beneath the proposed Site as required by 19.15.36.8.C.15(c) NMAC.

Where saturated, hydraulic continuity occurs between the Ogallala Formation and porous or permeable sections of the underlying Dockum Group. Available hydraulic properties of the Ogallala Aquifer are provided in Table G.2 (page 8).

Table G.2
C.K. Disposal E&P Landfill and Processing Facility
Hydraulic Properties of Regional Aquifers

Property	Ogallala	Dockum Group	
Composition	Sand, silt and gravel	Sandstone, siltstone and shale	
Transmissivity	315-201,000 gpd/ft (2)	1,500 ft²/d* (1)	
Permeability/Hydraulic Conductivity	232 gpd/ft ^{2 (2)}	Not Available	
Porosity	Not Available	13% (Santa Rosa)	
Specific Yield	16.06 % ⁽²⁾	Not Available	
Specific Capacity	Not Available	3.84 gpd/ft (1)	
Storativity	Not Available	1.9×10 ^{-4(I)}	

^{* -} Average
(1) - Bradley, R.G. and Kalaswad, S., 2003
(2) - Knowles, 1984

3.0 SITE GEOLOGY AND HYDROGEOLOGY

The proposed Site was evaluated with an investigation of the geology, hydrogeology and geotechnical properties of the site in a total of 5 borings. Based on the site characterization, a sufficient number of borings were drilled to establish subsurface site stratigraphy and to determine the geotechnical properties of the soils beneath the Site. Geologic strata have been characterized to depths of more than 175 feet below ground surface (bgs) and up to 130 feet below the elevation of the deepest excavation.

The borings were drilled in accordance with established field exploration methods. Installation, abandonment, and plugging of borings were performed in accordance with applicable regulations. Drilling was performed by HCI Drilling, of Lubbock, Texas, who is a licensed driller in the state of New Mexico. A discussion of the aforementioned tasks is provided below.

3.1 Drilling Activities

3.1.1 Site Exploration Borings

Field exploration activities were conducted May 26 and 27, 2015. As part of this investigation, 5 borings were drilled using air-rotary techniques. The boring locations are illustrated on Figure G.10 and a summary of the borings is provided in Table G.3. Cuttings from the drilling operations were visually observed by a qualified geologist employed by The Carel Corporation and used to prepare lithologic logs of the borings. The boring logs provided in Appendix G.B.

Table G.3
C.K. Disposal E&P Landfill and Processing Facility
Summary of Borings

Boring ID	Date	Northing	Easting	Surface Elevation	Depth (ft)	Bottom Hole Elevation (msl)	Above or Below (-) EDE (3,329.2 ft msl)
BH-01	5/26/2015	521233.9	924924.7	3382	175	3207	122.2
BH-02	5/26/2015	521273.7	928310.3	3391.8	175	3216.8	112.4
BH-03	5/26/2015	520437.2	926605.3	3386.3	175	3211.3	117.9
BH-04	5/26/2015	519600.9	924941.3	3374.1	175	3199.1	130.1
BH-05	5/27/2015	519636.2	928326.9	3386.1	175	3211.1	118.1

Notes:

EDE - Elevation of Deepest Excavation

Geotechnical information from these borings is provided in Attachment C, Appendix A.

3.1.2 Surface Penetration Plugging

The cuttings from the drilling operations were observed for moisture and the bore holes were left open to allow for groundwater measurements. The cuttings were observed to be only slightly moist in some places and no groundwater was observed after a 24-hour period, therefore no piezometers were installed and the bore holes were subsequently plugged and abandoned.

3.2 Site Stratigraphy

According to the Geologic Map of New Mexico, the project Site is underlain by strata deposited during the Holocene Series to middle Pleistocene of the Quaternary System. This Quaternary strata is mostly composed of interlayered sands and was deposited by eolian (wind generated) geologic processes. The eolian sediments at the Site consist of well-sorted fine-grain sands to silty sands, largely composed of quartz and secondary feldspar minerals.

The following paragraphs present an interpretation of the stratigraphy beneath the Site. In accordance with 19.15.36.8.C.(15)(d) NMAC, two geologic cross-sections, Cross-Section C-C' and D-D', Figure G.8 and Figure G.9, respectively illustrate the stratigraphy and lithology present beneath the Site. Detailed descriptions of these strata are included in the following sections in accordance with 19.15.36.8.C.(15)(d) NMAC.

3.2.1 Stratum I - Clayey Sand

This stratum is composed of brown to reddish brown clayey sand. This stratum represents Quaternary aged eolian and piedmont deposits (Scholle, 2003) or drift sand (Nicholson and Clebsch, 1961). Stratum I was deposited by eolian (i.e. wind) processes. The materials observed are composed largely of quartz and secondary feldspar minerals. Stratum I appears to be the thinnest in the northern part of the site near BH-02 where it is about 7 feet thick and thickest in the northwestern part of the site near boring BH-01 where it is at least 17 feet thick.

3.2.2 Stratum II - Silty Sand with Caliche

Stratum II is composed of light brown to white silty clayey sand with caliche. This stratum represents the Ogallala Formation. Similar to Stratum I, Stratum II is also composed largely of quartz and secondary feldspar minerals. Two of the borings, BH-03 and BH-05, contained gravels composed of quartz and caliche nodules up to one inch in diameter. Stratum II was fully penetrated by each of the five (5) borings. Based on analysis of the boring logs, Stratum II appears to be the thinnest in the northwestern part of the site near BH-01 (23 feet) and where Stratum I is thickest. The thickest section of Stratum II encountered was 36 feet in BH-04.

3.2.3 Stratum III - Claystone

Stratum III is described as a reddish brown claystone. The claystone contains some silt and sand layers. The color is predominantly reddish brown but changes to brown, dark brown and purple. This claystone belongs to the Triassic Chinle Formation of the Dockum Group and is locally referred to as "Red Bed". According to Nicholson and Clebsch (1961), the Chinle Formation is as much as 1,270 feet thick.

Each of the five borings encountered Stratum III at depths ranging from 35 to 50 feet bgs. Figure G.10 is a structure map of the top of the Dockum Group that was prepared from the boring information. The structure map indicates that the surface of the Stratum III has a gentle arcuate shape that generally dips to the west-southwest. The surface does not conform to the regional dip in southern Lea County which is easterly toward the Delaware

Basin. Thus the surface of Stratum III appears to be the result of the Site's proximity to Rattlesnake Ridge.

Nicholson and Clebsch (1961) and Lehman and Rainwater (2000) each prepared contour maps of the surface of the Dockum Group. Nicholson and Clebsch's map is of an area west of the proposed Site. Their data was limited in the area of the proposed Site as indicated by dashed contour lines. Lehman and Rainwater's contour map is located east of the proposed Site. The two maps were combined with the site specific contours from Figure G.10 to construct a local structure map of the top of the Dockum Group, Figure G.11. The site specific contours for the proposed Site fit nicely with both Nicholson and Clebsch's and Lehman and Rainwater's maps. Only minor adjustment and extension of Nicholson and Clebsch's 3,350' contour line is required to conform to the site specific contour lines. Further, minimal adjustments are needed to conform Lehman and Rainwater's 3,360, 3,350 and 3,340 contours to the contours for the proposed Site. It is noted that Nicholson and Clebsch used a 25-foot contour interval, Lehman and Rainwater used a 20-foot contour interval and a five-foot contour interval was used on Figure G.10. Hence, each of the original three contour maps use different contour intervals. In order to best illustrate the Dockum structure, several contours were added or extended to provide a 10-foot contour interval in the vicinity of the proposed Site (i.e. between contours 3,300 and 3,360).

3.3 Groundwater Occurrence

As previously stated, five (5) borings were advanced each to a depth of 175-feet bgs. No groundwater was observed in the cuttings obtained during advancement of the borings nor was any groundwater observed in any of the bore holes after a 24-hour period. No groundwater is present within the upper 175-feet of the Ogallala Formation or Chinle Formation because they rise above the saturated zone of the Ogallala Formation as illustrated in Figure G.6 and Figure G.7.

Rule 19.15.36.13A.(1) NMAC restricts landfills where groundwater is less than 100 feet below the lowest elevation of the design depth at which oilfield waste will be placed. The lowest elevation of the proposed Site is 3,329.2 ft msl. Therefore, no groundwater is present within 100-feet of the proposed Site as prohibited by 19.15.36.13A.(1) NMAC.

As previously mentioned in Section 2.5.1, a low-level radioactive waste disposal site operated by United Waste Control Specialists (WCS) is located approximately one-mile northeast of the proposed Site. The WCS site identifies a saturated zone termed the 225-foot zone as the uppermost aquifer beneath the disposal facility. The 225-foot zone is situated within the Chinle Formation. This zone is also identified as the uppermost aquifer in a RCRA hazardous waste permit adjacent to the low-level radioactive waste site. Similarly, the URENCO facility located immediately north of the proposed Site identifies the shallowest saturated zone as being between 214 to 222 feet bgs. While not encountered by site borings, the 225-foot zone is considered to be the shallowest fresh water aquifer beneath the proposed Site as required by 19.15.36.8.C.15(c) NMAC.

3.4 Groundwater Quality Data

Since this Site is not permitted and thus has no existing groundwater monitoring wells, there is no existing analytical data. However, published data is available for some but not all constituents required by 19.15.36.8.C.(15)(b) and is provided in Table G.4 below. The data taken from Geohydrology Associates (1978) was for a well located in Section 33 Township 21 South, Range 37 East completed in the Dockum Group. The well depth is reported to be 350 feet and the well is believed to be completed in the Chinle Formation. It is the closest well to the proposed Site known to be completed in the Dockum Group in their dataset. The data from Cooke-Joyce (2003) represents a range of concentrations for wells that are apparently completed in the 225-foot zone of the Chinle Formation based on reported well depths. The data from URENCO is the maximum detected concentration in groundwater samples collected through April 2011 from monitor wells completed in the Chinle Formation.

Table G.4
C.K. Disposal E&P Landfill and Processing Facility
Groundwater Quality Data

		Jrounuw:	ater Quality	Data
Constituent	Concentration	Unit	Well Location	Source
BTEX	N/A			
TDS	11,600(1)	mg/L	URENCO	New Mexico Environment Dept., 2012
	=	Ma	jor Cations	
Calcium	50	ppm	22.37.33	Geohydrology Associates, 1978
Magnesium	31	ppm	22.37.33	Geohydrology Associates, 1978
Sodium	563	ppm	22.37.33	Geohydrology Associates, 1978
Potassium	N/A	ppm	22.37.33	Geohydrology Associates, 1978
		Ma	jor Anions	
Bicarbonate	360	ppm	22.37.33	Geohydrology Associates, 1978
Chloride	3,750(1)	ppm	URENCO	New Mexico Environment Dept., 2012
Sulfate	855	ppm	22.37.33	Geohydrology Associates, 1978
		RC	RA Metals	
Arsenic	N/A		I .	
Barium	0.01 – 0.09	mg/L	WCS Site	Cook Joyce, 2003
Cadmium	N/A			
Chromium	0.005 - 0.015	mg/L	WCS Site	Cook Joyce, 2003
Lead	0.051 ⁽¹⁾	mg/L	URENCO	New Mexico Environment Dept., 2012
Mercury	N/A			
Selenium	0.21(1)	mg/L	URENCO	New Mexico Environment Dept., 2012
Silver	N/A			

Notes

N/A - Not Available

(1) - Maximum Detected Concentrations through April 2011

3.5 Area Water Wells

A water well search was conducted for a one-mile radius around the Site. The search identified 37 wells/borings within one (1) mile of the Site (see Appendix G.C). The water

well search included a review of the interactive search engine and well records available through the New Mexico Office of the State Engineer. An internet search was also conducted in an effort to locate additional water well data in the surrounding one (1) mile radius.

The water wells within one (1) mile of the site are illustrated on the Local Streams, Springs and Water Well Map (Figure G.2) and listed in Tables G.5a and G.5b. Table G.5a contains wells logs derived from the New Mexico Office of the State Engineer. Table G.5b contains logs of borings from the Lea County Landfill, which were derived from the internet search for other possible well locations.

No water wells were identified from the New Mexico Office of the State Engineer in Township 21S, Range 38E, Section 31 and Township 22S, Range 38E, Sections 4-9.

Table G.5a
C.K. Disposal – E&P Landfill and Processing Facility
Water Wells within One Mile
New Mexico Office of the State Engineer

New Mexico Office of the State Engineer											
Well Tracking No.	Depth (ft)	Completion Date	Completion Formation	Well Use	Latitude	Longitude	Initial Depth to Water (ft)				
415642	231.5	12/5/2008	Chinle	Monitor	32°26'14.9" N	103°4'49.9" W	Dry				
415643	36	12/5/2008	Chinle	Monitor	32°26'14.9" N	103°4'45.5" W	Dry				
376945	220.5	4/3/2007	Chinle	Monitor	32°26'21.9" N	103°4'27.1" W	178.83				
376946	32.2	4/3/2007	Chinle	Monitor	32°26'33.1" N	103°4'27.6" W	Dry				
376947	240.9	4/3/2007	Chinle	Monitor	32°26'32.9" N	103°4'39.2" W	Dry				
376959	231	3/29/2007	Chinle	Monitor	32°26'16.2" N	103°5'21.2" W	Dry				
376958	246.3	3/29/2007	Chinle	Monitor	32°26'23.4" N	103°4'57.8" W	217.14				
376949	261.3	3/29/2007	Chinle	Monitor	32°26'33.1" N	103°5'2.1" W	243.31				
376948	22	3/30/2007	Ogallala	Monitor	32°26'32.8" N	103°4'59.9" W	Dry				
376950	26.9	3/29/2007	Ogallala	Monitor	32°26'33.0" N	103°5'8.3" W	Dry				
376952	257.5	3/29/2007	Chinle	Monitor	32°26'32.9" N	103°5'19.3" W	241.26				
376954	236.4	3/30/2007	Chinle	Monitor	32°26'27.6" N	103°5'22.7" W	Dry				
418652	38	12/5/2008	Chinle	Monitor	32°26'14.8" N	103°4'40.3" W	Dry				
418653	39	12/5/2008	Chinle	Monitor	32°26'13.4" N	103°4'52.2" W	Dry				
376955	236	3/29/2007	Chinle	Monitor	32°25'56.9" N	103°5'23.7" W	Dry				
415856	43	12/4/2008	Chinle	Monitor	32°26'1.2" N	103°5'5.5" W	Dry				
418655	250	12/4/2008	Chinle	Monitor	32°26'1.1" N	103°5'3.1" W	Dry				
418654	40	12/4/2008	Chinle	Monitor	32°26'1.1" N	103°5'1.1" W	Dry				
376956	237	4/3/2007	Chinle	Monitor	32°25'52.5" N	103°5'7.6" W	Dry				
376944	225.8	4/3/2007	Chinle	Monitor	32°26'5.3" N	103°4'26.9" W	220.49				
376887	241.2	4/3/2007	Chinle	Monitor	32°25'46.8" N	103°4'31.8" W	Dry				
376957	231.4	4/3/2007	Chinle	Monitor	32°25'50.4" N	103°4'52.5" W	Dry				
399475	28	2/20/2008	Ogallala	Monitor	32°26'29.0" N	103°3'58.0" W	Dry				
396028	2,020	4/29/2008	Santa Rosa	Exploratory	32°25'45.8" N	103°4'20.4" W	1,092				
395941	75	Unknown	Chinle	Piezometer	32°26'30.1" N	103°4'10.9" W	Unknown				
395941	49	2/9/2008	Chinle	Monitor	32°26'29.0" N	103°4'13.0" W	Dry				

Note:

Formation names have been modified to conform to the stratigraphic nomenclature adopted by Nicholson and Clebsch.

The wells in Table G.5a are located north and northeast of the site. The wells are all completed in the Ogallala Formation or Chinle Formation at varying depths, and listed as monitor wells except for well 396028, which was drilled to a depth of 2,020 feet bgs in the Upper Permian. However, that well is completed in the Santa Rosa Formation.

Table G.5b
C.K. Disposal – E&P Landfill and Processing Facility
Water Wells within One Mile
Internet Search

ALIVE DV DV DV									
Well/Boring ID	Depth (ft)	Completion Date	Deepest Formation Encountered	Well Use	Northing	Easting	Initial Depth to Water (ft)		
VMP/B-101	50	11/22/1997	Chinle	Geotechnical/ Monitoring	9800.52	9898.97	Dry		
VMP/B-102	50	11/20/1997	Chinle	Geotechnical/ Monitoring	8467.05	7193.22	Dry		
B-103	55	11/21/1997	Chinle	Geotechnical	9711.58	8682.07	Dry		
B-104	60	11/21/1997	Chinle	Geotechnical	8518.93	9678.16	Dry		
B-105	50	11/19/1997	Chinle	Geotechnical	6609.23	7335.60	Dry		
B-106	65	11/21/1997	Chinle	Geotechnical	5968.89	9285.60	Dry		
B-107	92	11/22/1997	Chinle	Geotechnical	4016.88	9228.40	Dry		
B-108	215	11/20/1997	Chinle	Geotechnical	9696.33	7439.48	Dry		
B-109	120	11/21/1997	Chinle	Geotechnical	7717.16	9920.72	Dry		
B-110	600	11/19/1997	Chinle	Geotechnical	7924.34	8019.53	Dry		
B-111	598	11/13/1997	Chinle	Geotechnical	9140.96	9138.76	Dry		

Note: VMP - vadose zone monitoring point

The wells in Table G.5b are located east of the proposed Site. The wells/borings were all drilled to Chinle Formation at varying depths. Two of the borings were converted to vadose zone monitoring points (VMP).

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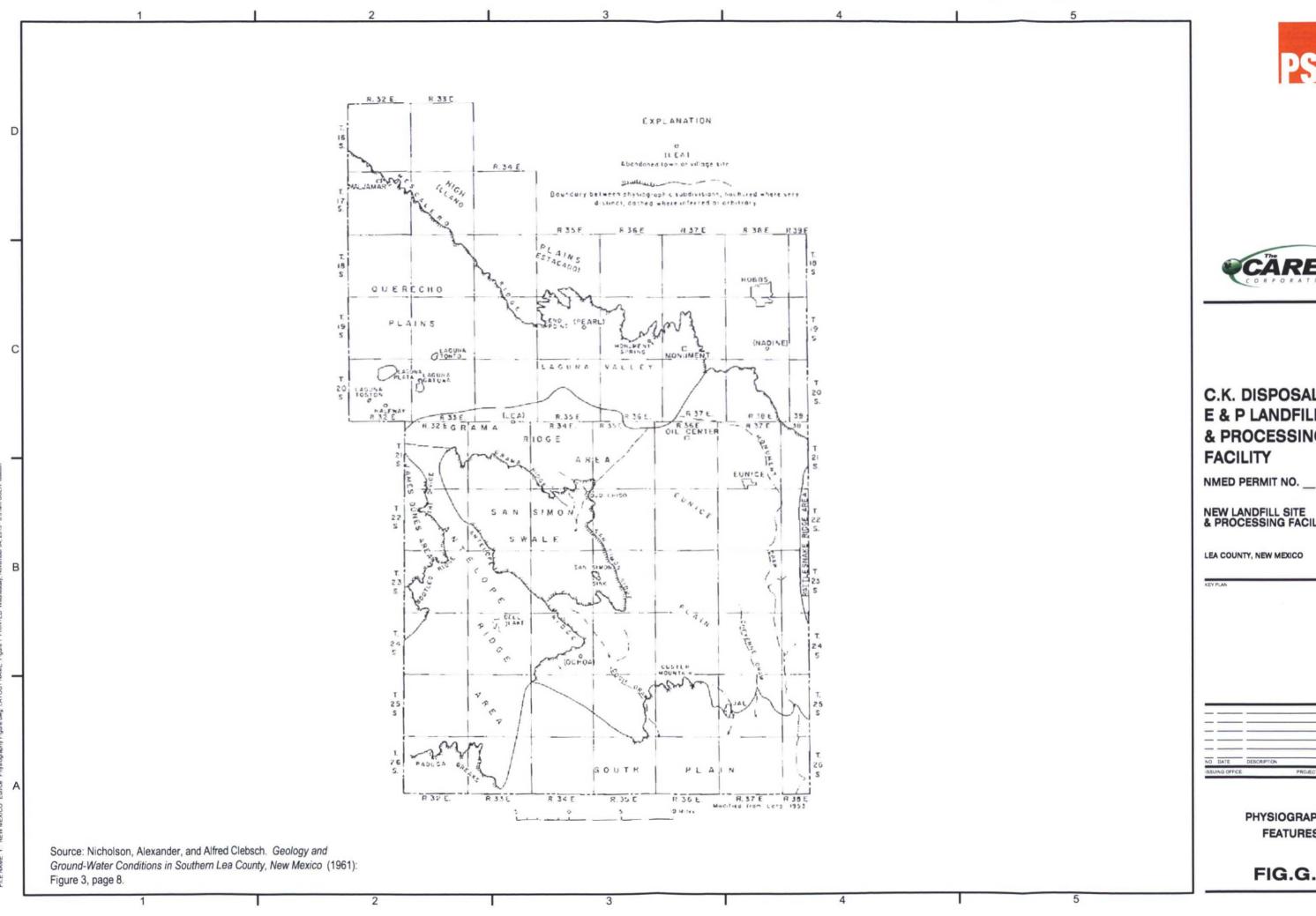
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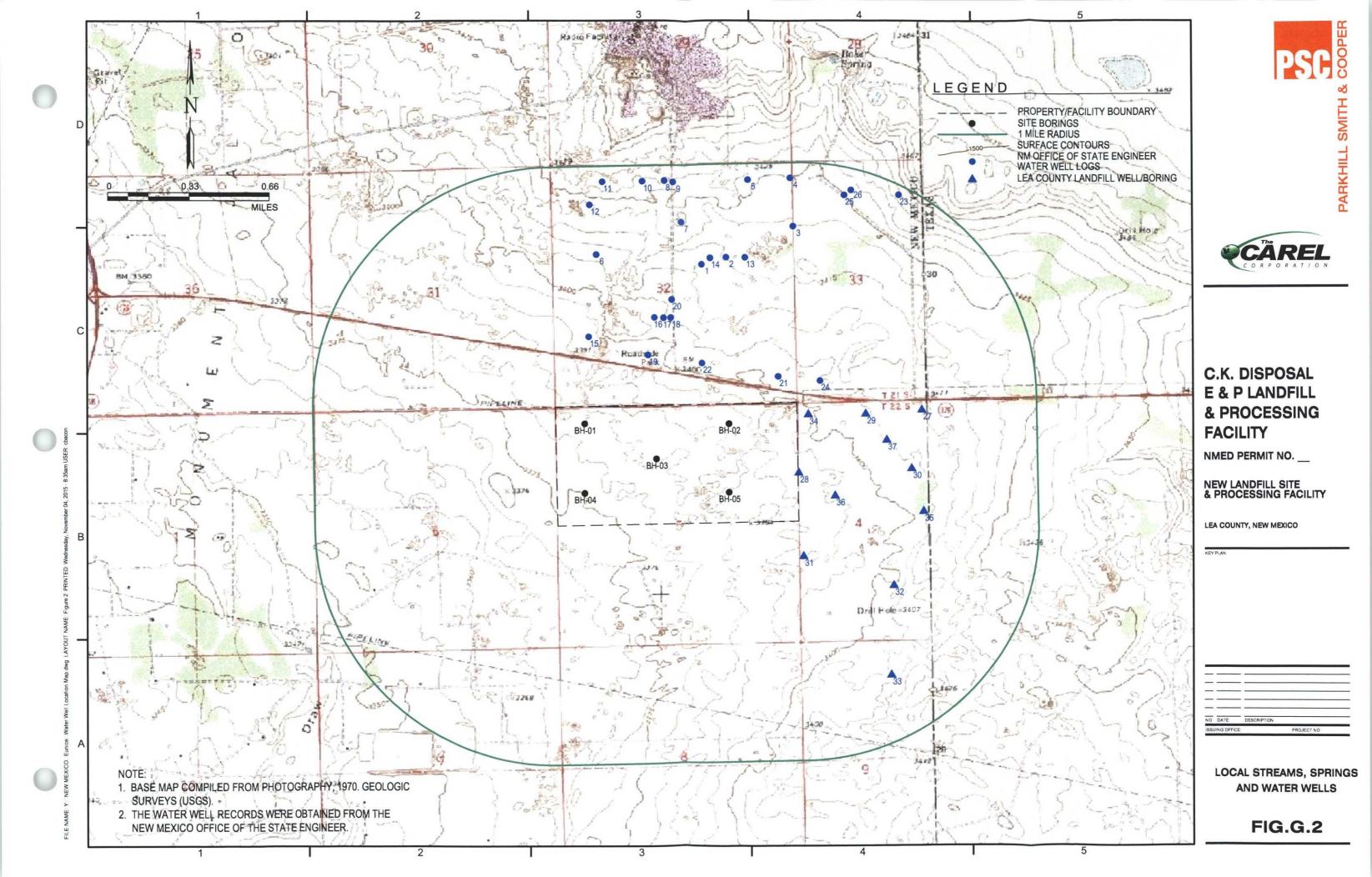


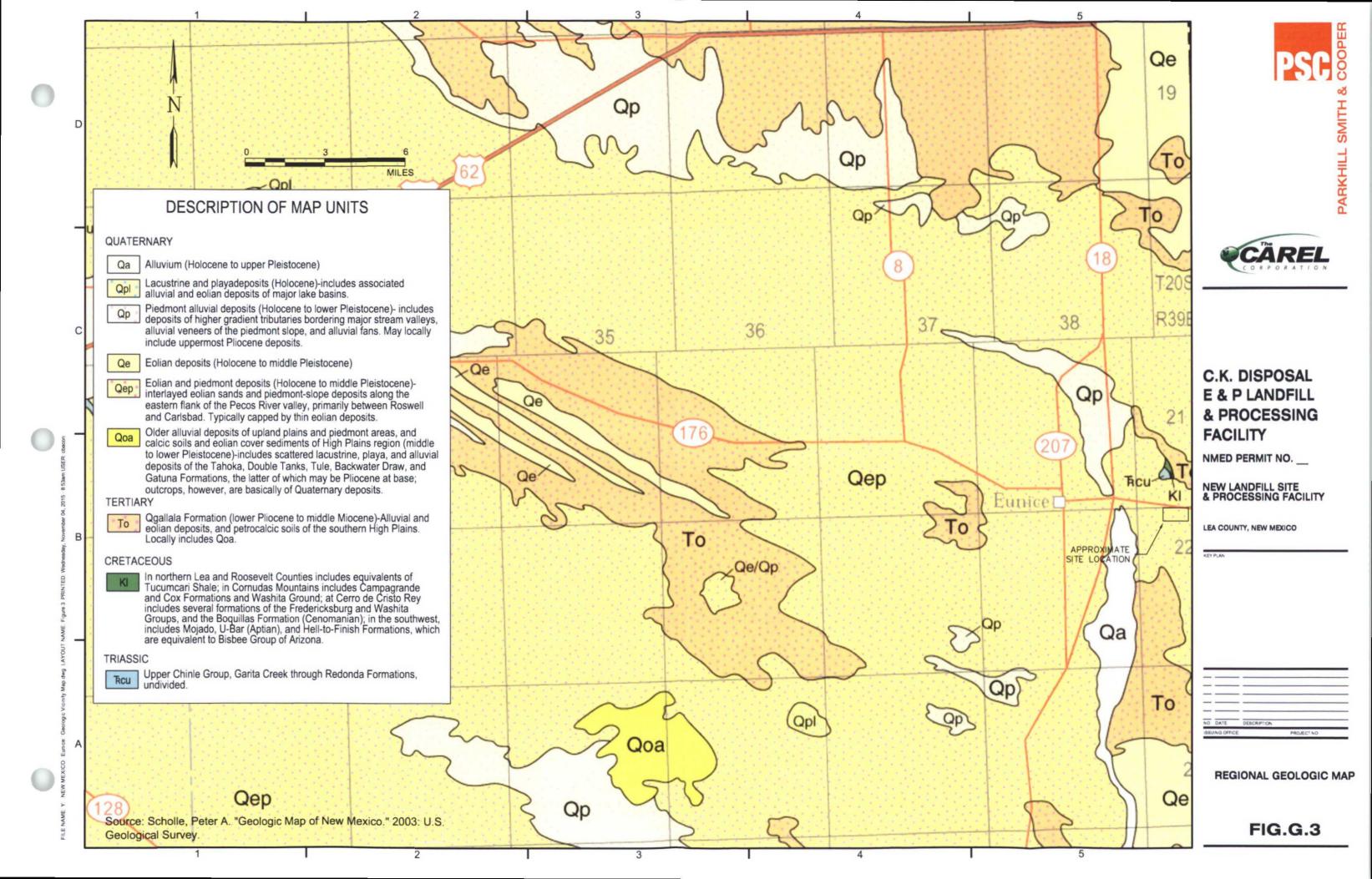


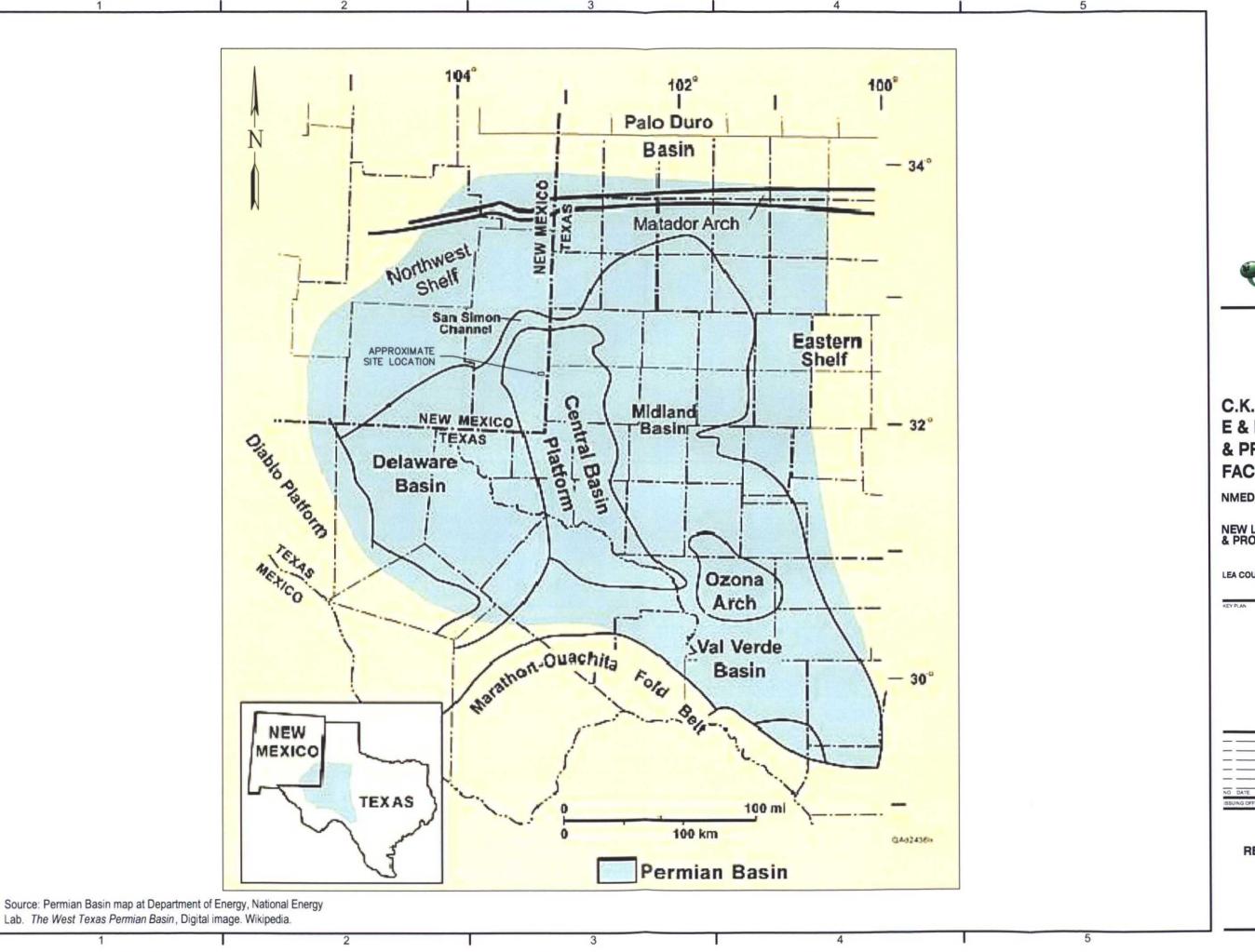
C.K. DISPOSAL **E & P LANDFILL** & PROCESSING

NEW LANDFILL SITE & PROCESSING FACILITY

PHYSIOGRAPHIC FEATURES







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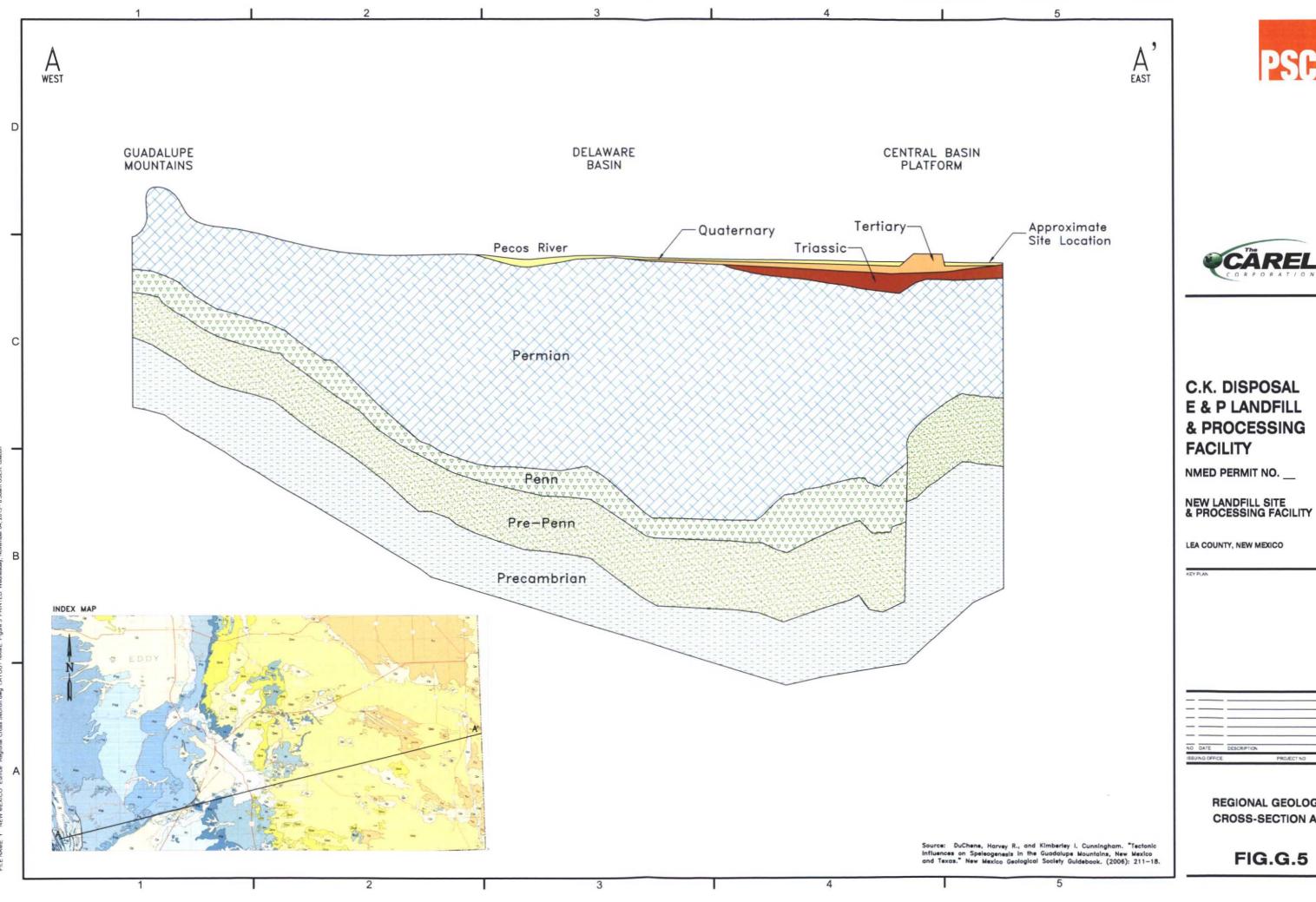
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NEW LANDFILL SITE & PROCESSING FACILITY

LEA COUNTY, NEW MEXICO

DATE DESCRIPTION
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REGIONAL STRUCTURAL FEATURES

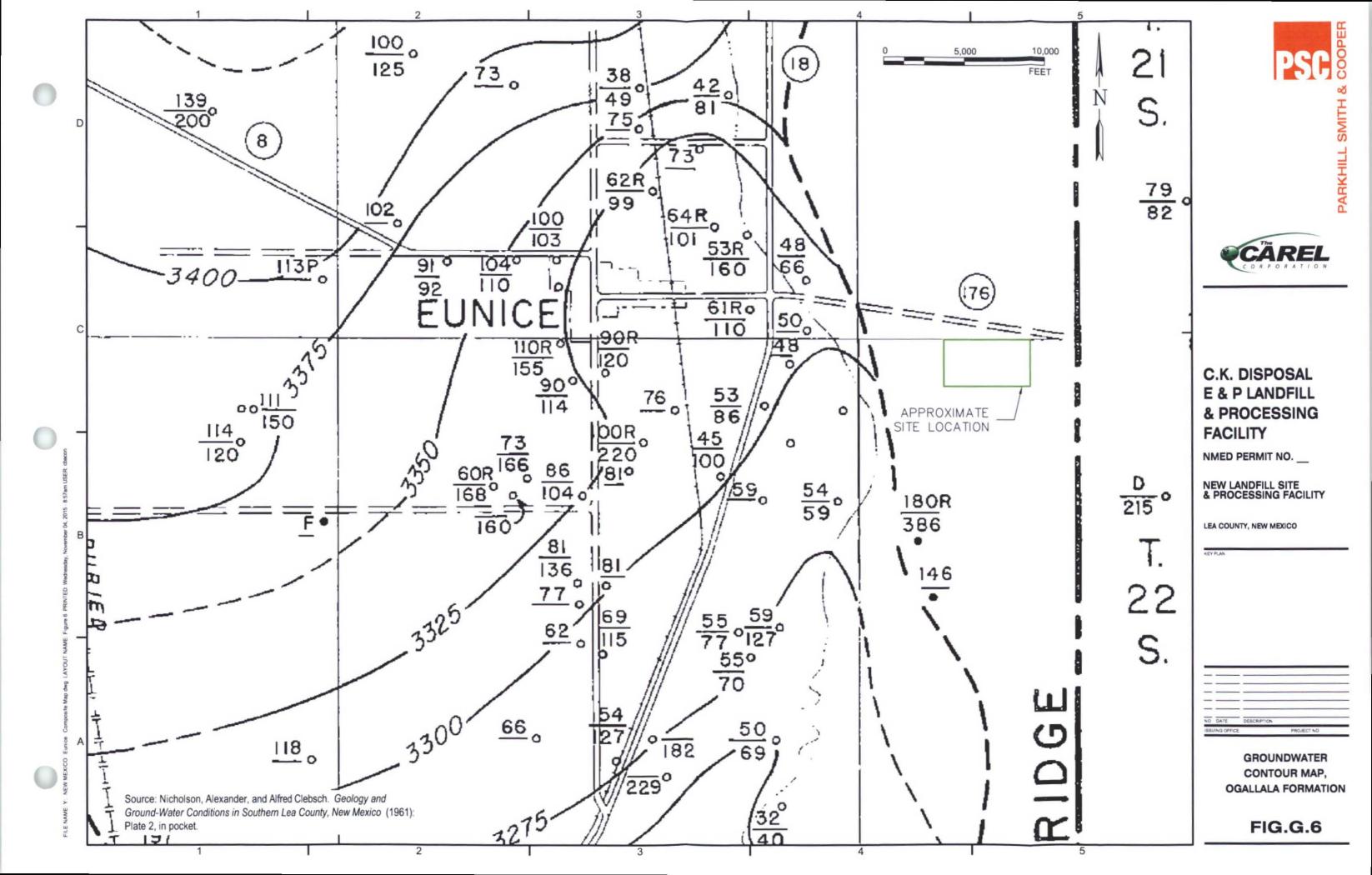


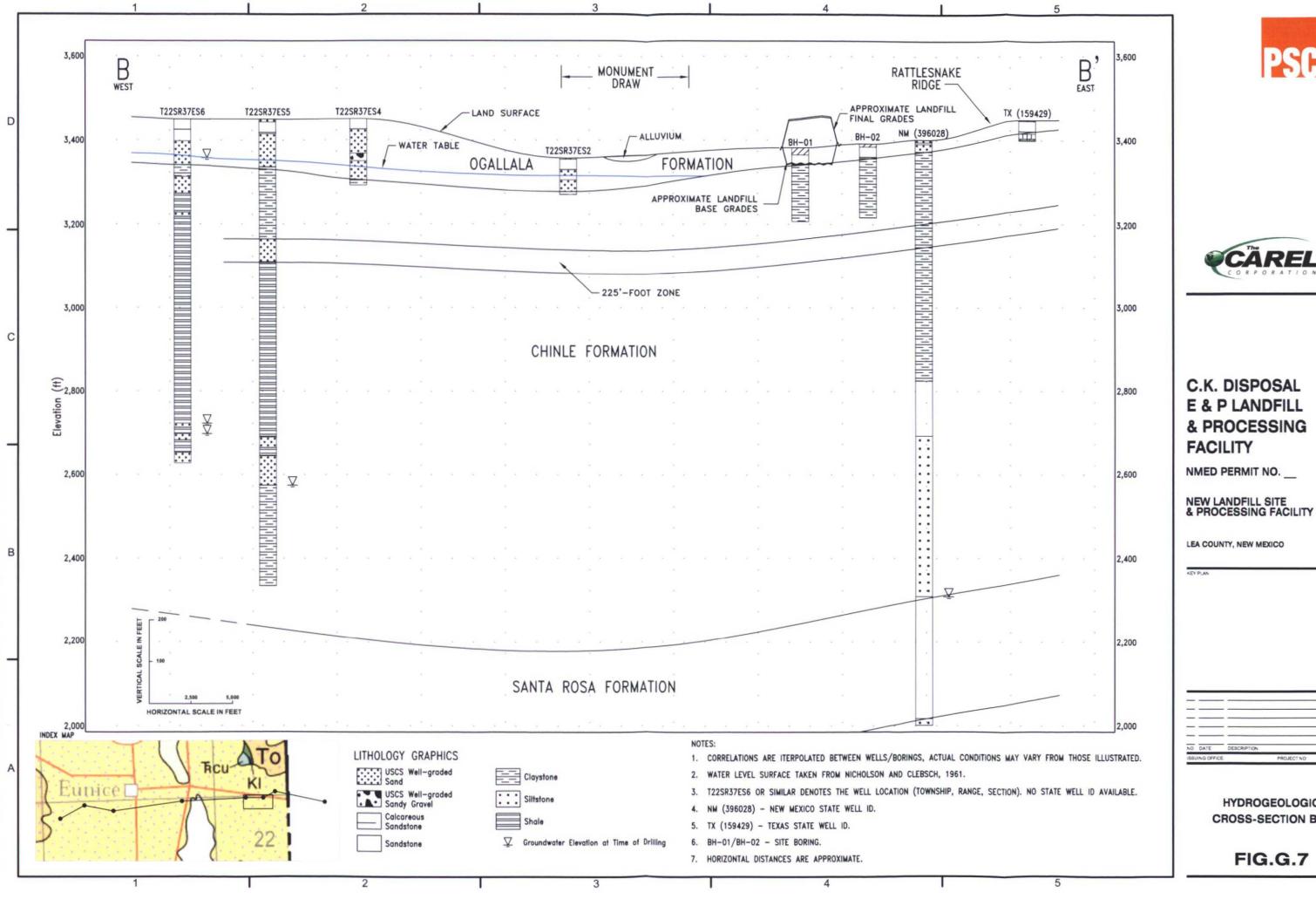




E & P LANDFILL & PROCESSING

REGIONAL GEOLOGIC CROSS-SECTION A-A'



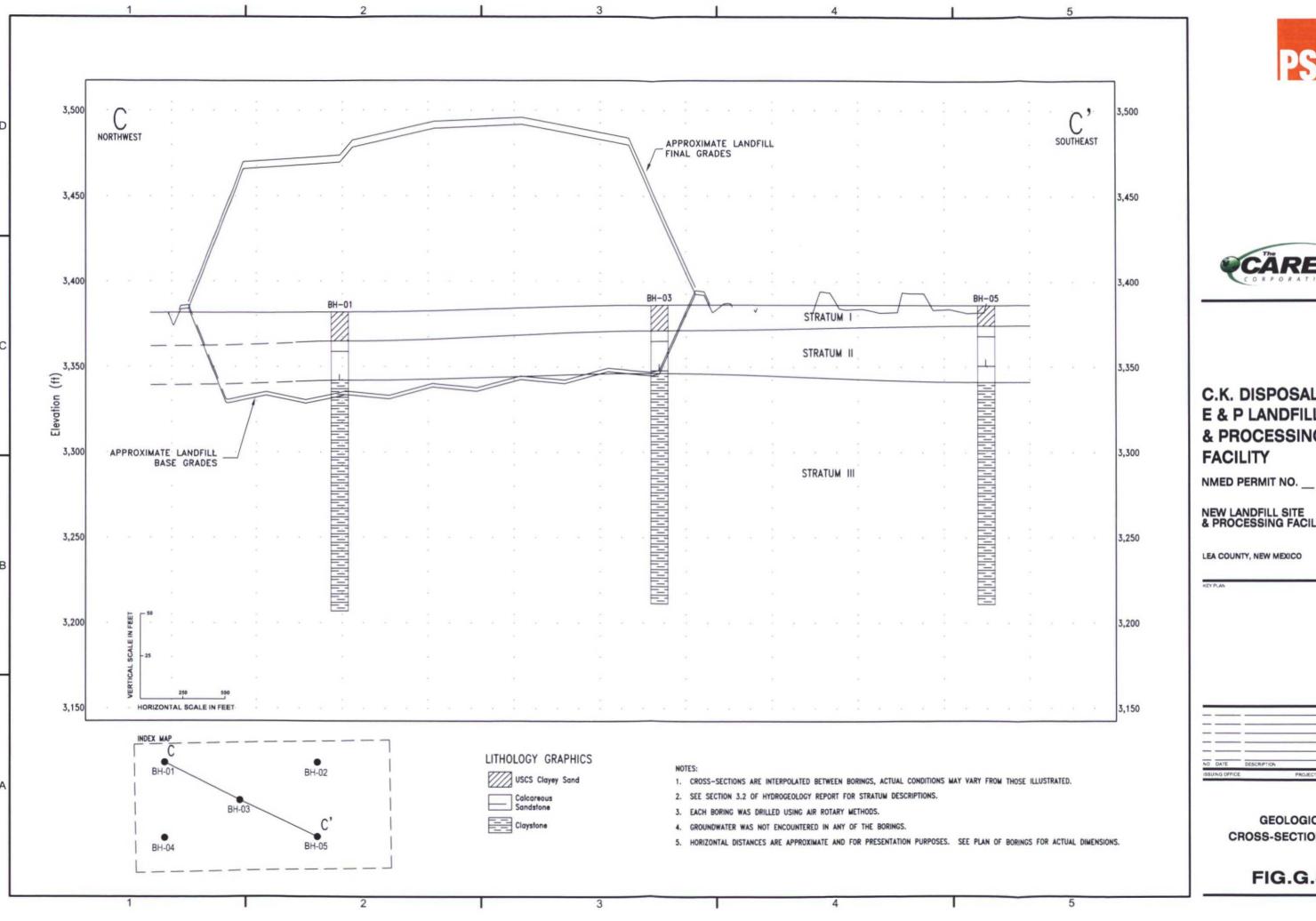






E & P LANDFILL & PROCESSING

HYDROGEOLOGIC CROSS-SECTION B-B'





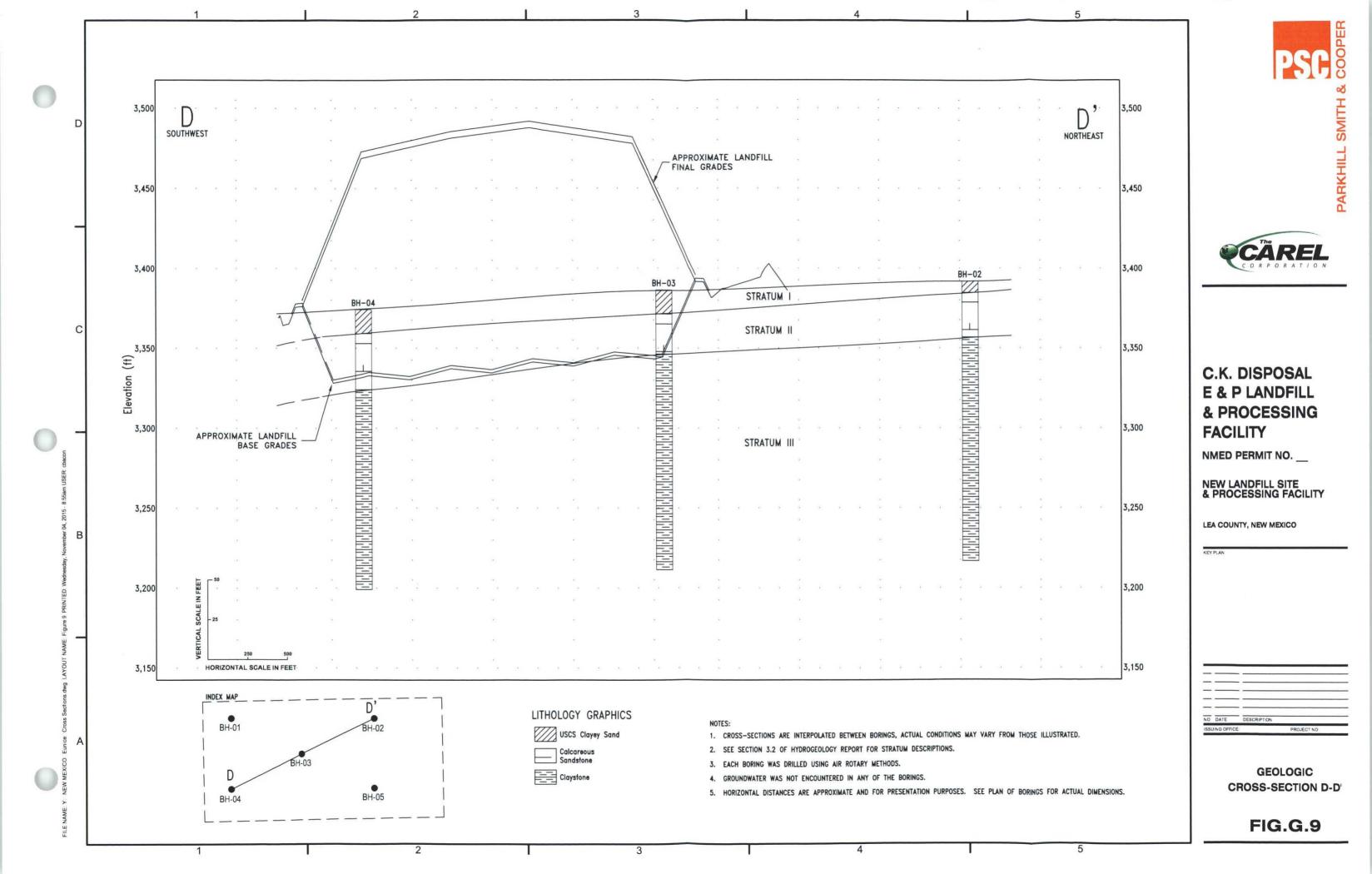


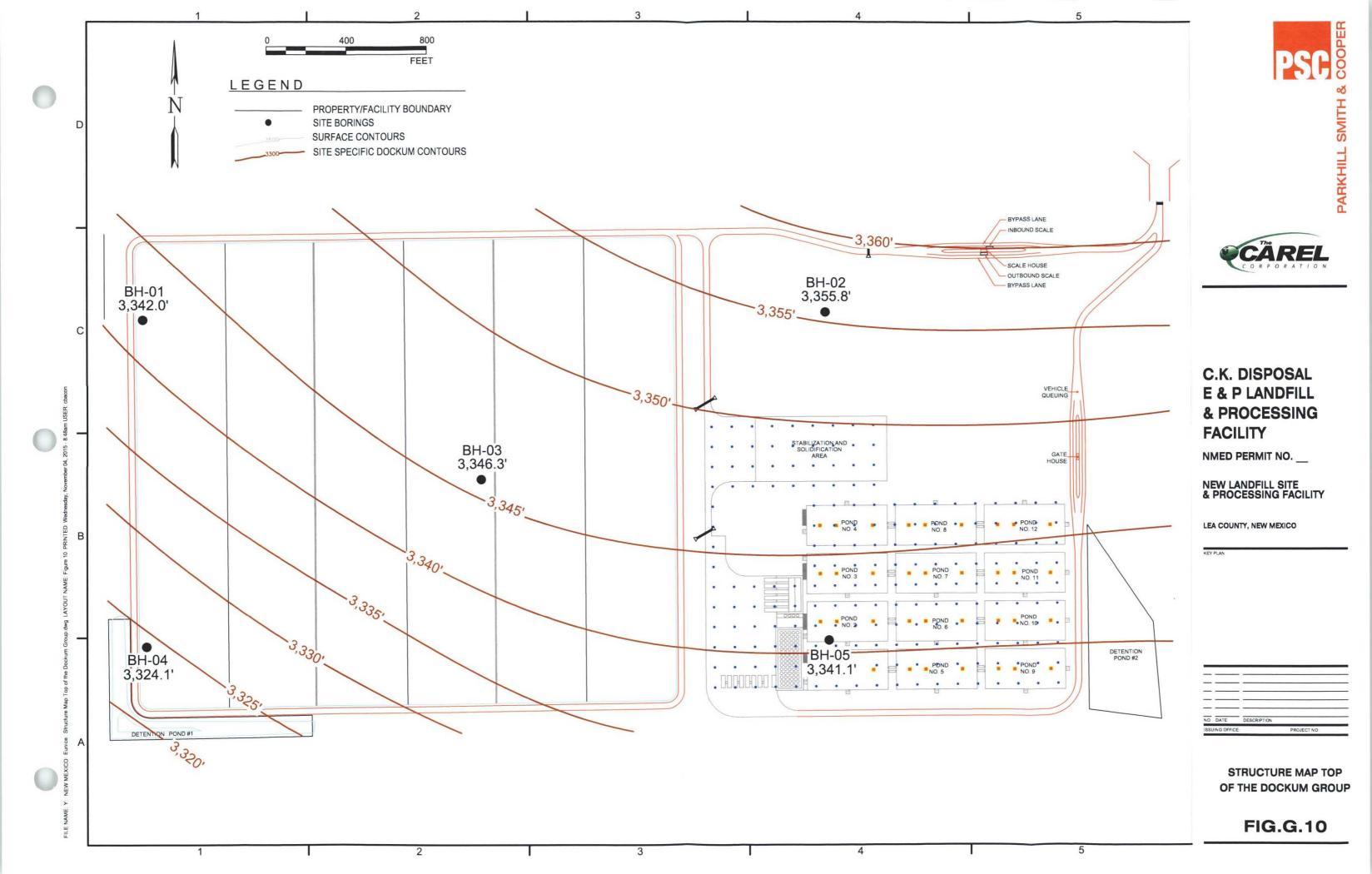
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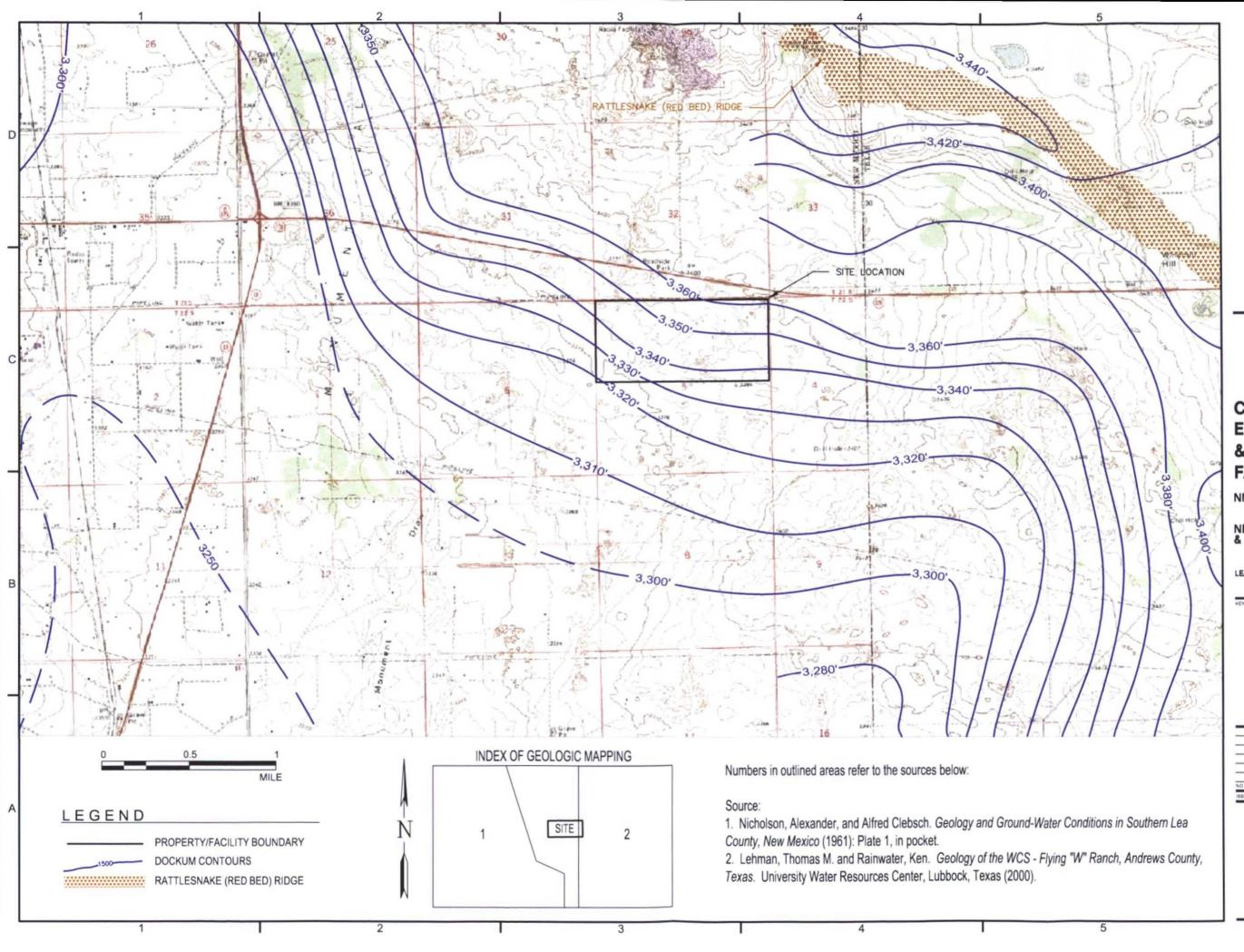
NEW LANDFILL SITE & PROCESSING FACILITY

LEA COUNTY, NEW MEXICO

GEOLOGIC CROSS-SECTION C-C











C.K. DISPOSAL E & P LANDFILL & PROCESSING FACILITY

NMED PERMIT NO. __

NEW LANDFILL SITE & PROCESSING FACILITY

LEA COUNTY, NEW MEXICO



LOCAL STRUCTURE MAP OF THE DOCKUM GROUP

APPENDICES

APPENDIX G.A WELLS USED ON CROSS-SECTION B-B'

STATE ENGINEER OFFICE WELL RECORD

Section 1. GENERAL INFORMATION

Ctrast Ar	Poet Office A	ddress					r's Well No.	
					and is locate	ed in the:		
a	_ ¼ ١	44	¼ of Sc	ction	Township	Ra	nge	N.M.P.M
b, Tract i	No	of Map No.		ot	the	<u> </u>		
		of Block No						
						e System		
						Livense No		
Address			,	-,				
								holein
titevation of lar Completed well		shallow 🗆 a		at v		ft. Total depth er upon completion		
•		Seci	tion 2. PRIN	CIPAL WAT	ER-BEAKING S			
Depth		Thickness in Feet	1	Description :	of Water-Bearing	Formation		nated Yield sperminute)
From	To			· · · · · · · · · · · · · · · · · · ·	·		(8=10)	y per intrinsery
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	<u> </u>	<u> </u>						
- 127.		, 			D OF CASING		<u> </u>	
Dinmeter (inches)	Pounds per foot	Threads per in.	Тор	in Feet Bottom	Length (feet)	Type of Sho	3e 	Perforations om To
<u>.</u>								
	·					 		\
		<u> </u>				<u></u>		
Death :	- 5				DOING AND CE	MENTING		
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			··· <u>·</u>	<u> </u>				
					ING RECORD			
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late Well Plugge lugging approve					[<u>-</u> -,			
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Date Received	Typed 1/	20/78				FWL _		FSI
File No				_ Use O	11	Location No. 2	2.37.6.4	1000

Section 6	: 11	വവ വ	JF.	ווחו ו	:

Depth in Feet Thickness			Section 6. LOC OF HOLE				
From	То	in Feet	Color and Type of Material Encountered				
0	55		Caliche and sand				
55	95	 _	Dry sand				
95	112		Water sand				
112	140		Red bed, shale				
140	180		Sand				
180	225		Shale				
225	235		Sand				
235	730	<u> </u>	Shale, red rock				
730	740		Water sond				
<u> 740</u> _	755	<u></u>	Shale				
<u>755</u>	770		Water sand				
770	800	·	Shaje				
800	825		Sand				
			L S Elev				
	·		Elev of K Trc 2000				
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	770'-775	2 BWPII					
							
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Section 7. REMARKS AND ADDITIONAL INFORMATION

Thie wall	record is an	AVCABLE	from Dil	Conservation	Commission	files of	- Nobbe	M M

Location: 22.37.6.41000 Owner: Gulf Oil Corp.

Elevation: 3453' GL

South Penrose Skelly Unit 109 Record of Casing: 16"

Cable

1980' FSL - 1980' FEL

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 hale.

	Driller

STATE ENGINEER OFFICE WELL RECORD

Section 1. GENERAL INFORMATION

Well was drilled under Permit No
b. Tract No of Map No of the
c. Lot No of Block No ef the County. d. X= feet, Y= feet, N.M. Coordinate System Zounty. (B) Drilling Contractor License No Address Drilling Began Completed Type tools Size of hole Began Completed at well is ft. Total depth of well Completed well is shallow artesian. Depth to water upon completion of well Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness Description of Water-Benning Formation
Subdivision, recorded in
Completed well is Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness Description of Water-Bearing Formation Estimated Yield Description of Water-Bearing Formation Estimated Yield Description of Water-Bearing Formation Estimated Yield Description of Water-Bearing Formation Description Description of Water-Bearing Formation Description De
Address
Drilling Began
Completed well is Shallow artesian. Depth to water upon completion of well
Completed well is Shallow artesian. Depth to water upon completion of well Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness Description of Water-Bearing Formation (Estimated Yield)
Section 2. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness Description of Water-Bearing Formation (Stimated Yield)
Depth in Feet Thickness Description of Water-Bearing Formation Estimated Yield
Description of Water-Bearing Formation
Section 3. RECORD OF CASING
Diameter Pounds Threads Depth in Feet Length Type of Shoe Perforation
(inches) per foot per in Top Bottom (feet) Type of Bridge From
Forder A RECORD OF MURDING AND WARRANT
Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Sacks Cubic Feet
From To Dinneter of Mud of Coment Method of Placement
Section 5. PLUCGING RECORD
Plugging Contractor Address Depth in Feet Cubic F
Plugging Method Of Com
Date Well Plugged
3
State Engineer Representative 4
FOR USE OF STATE ENGINEER ONLY Date Received Typed 1/20/78
Quad FSL
File No. Use 011 Location No. 22.37.5.12000

			Section 6. LOG OF HOLE
	in Feet	Thickness	Color and Type of Material Encountered
From	To	in Feet	
0	12	<u> </u>	Cellar
12	40		Calicho
40	118		Sand
118	290		Red bed
290	345		Sand
345	765	<u> </u>	Shale, red rock
765	790		Sand
790	810		Shale
810	880		Sand
088	1120		Red bed (water 220'-235')
	<u> </u>	<u> </u>	
	<u> </u>		
			L S Elev
	_		Depth to KTrc

Section 7, REMARKS AND ADDITIONAL INFORMATION

This	uell	record	is	an	excerpt	from	011	Conservation	Commission	files at	Hobbs.	N . 14

Location: 22.37.5.12000 Owner: Gulf Oil Corp.

Elevation: 3455' GL

South Penrose Skelly Unit #106
Record of Casing: 16" - 122' - 1221 - 2881 13"

10 3/4" - 677' 3445 650

Cable

660' FNL - 1980' FVL

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 hale.

Driller

STATE ENGINEER OFFICE

ELCLU ENGR. LOG

WELL RECORD

INSTRUCTIONS: 'This form should be executed in triplicate, 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 or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section :	1		(A) ()	on of well	Skellv	Gasoline)	Oil Compar	1 y
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<u> </u>	 						•	se No. WD-46
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	<u> </u>							
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								tion 90
Section 2						ING STRATA	ov apon ovarpro	
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5			<u> </u>	<u> </u>		<u>.</u>		<u> </u>
Section :	B			RECOR	D OF CAS	ing		
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	 -	 			<u> </u>		· 	
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Section 4	}		RECOR	D OF MUD	DING AN	D CEMENTING		
Depth	in Feet	Diame		No. Sa			Methods Used	
From	То	Hole in	in. Clay	Cem	ent		Methods Osed	
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	l	<u> </u>						
	i	<u> </u>		<u> </u>				
				BULCC	INC BEC	200		
Section 5					ING RECO		_	
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	_					- -		<u>-</u>
lugging	method u	sed			· · · - · · · · · · · · · · · · · ·	Date Plu	gged	
Plugging	approved	by:				Cement Plug	s were placed as	follows:
						Depth of Pl	սց	
		•1- 1	Basin Sup	crvisor	No.	From T	No. of	Sacks Used
	FOR USE	OF STAIR	E KNGDNEER OF				_	_
	- 04. OOD			1 n				
Date R	Received				_	-	 j	
Date I	MW 1 LUGGE	81 18 1	7 EZ ES E	111		- 		
						<u> </u>		<u> </u>
	.e.s	-	/		<u> </u>			
File No.	(f.)	25	4:	Use/	nd.	Location	No. 22.37	4. THAL
L MC 710"				.,			1 ~ 1	

Section 6

LOG OF WELL

	in Feet	Thickness	Солог	Type of Material Encountered
From	То	in Feet		Type or manufactured and other
0	4	44	brown	soil
4	30	26	gray	caliche
_30	68	38	brown	sand
68	87	19	brown	tight sand
87	105	118	hrown	sand & gravel
105	150	45	brown	Sand
150	62	12	red	clay
	<u> </u>	·}		
				L S Elev
	{- 			Depth to K Tree 2305
	 		_ _	Elev of K Trc. 2305
 -	}	 		
	}			soc 16. 22.37. 4. 14242
				Hydro, Survey Fleid Chack X
		<u> </u>		SOURCE OF ALTITUDE GIVEN
		 		Interpolated from Topo. Sheut X
	<u> </u>	<u> </u>	-	Determinad by Inst. Leveling
<u> </u>				Other
·				
	, 			
	- -		· • · • • • • • • • • • • • • • • • • •	
		 		
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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 well.

Mell Driller Call

File No...

STATE ENGINEER OFFICE

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to t nearest district office of the State Engineer. All sections, except 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 pluggir record, only Section 1A and Section 5 need be completed.

Section	1			(A) Ouma	r of wall	н	ımble Oil	Co.				
			\neg									
ſ		l	- 1							State		
-			I	•						and		
										wp.22S		
<u> </u>										Licer	-	
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ļ	_		- 1							State		
i			- 1				•					
				~								
•	Plat of 640 ac											
Elevation	on at top-of-	casing- ir	i fee	t above set	a level 🚅	<u> </u>	To	tal de	pth of	well	B7	
State w	hether well	is shallo	w o	r artesian_			Depth	to wa	ter uj	on comple	tion	
Section	2			PRIN	CIPAL WA	TER-BEA	RING STRA	ATA			<u>. · </u>	
No.	Depth in	Feet To	Thi	ckness in Feet		E	escription of	f Wate	r-Bear	ing Formatio	n	
1	tt											····
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	<u>li_</u>											
Section	3				RECOR	D OF C	SING			<u> </u>		_,
Dia in,	Pounds ft.	Threa in	ds	Тор	Boltom	Feet	Type S	hoe	<u> </u>	From Perfor	retions	То
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	-	}] "							<u> </u>	
									!			
Section	4			RECORI	OF MUE	DING A	ND CEMEN	ITING				
Dept	th in Feet	Diame		Tons	No. Sa				1fat	hods Used		
From	To	Hole in	in.	Clay	Cem	ent			Met	nous Useu		
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	<u> </u>	<u> </u>			<u> </u>			-				
Section	5				PLUGG	ING RE	CORD					
	f Plugging	Contract	0 r						1	icense No		
	nd Number.											
	Clay used					_						
	g method us								•			
	g approved l									e placed as		
Luggme	g approved .	.				_				e praced as	TOHOWS	<u> </u>
.				Basin Supe	rvisor	_ N	o. From	of P	o lug	No. of	Sacks U	sed
	FOR USE	OF STAT	E EN	GINEER ON	ILY			<u> </u>		·		
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	Received					_ _						
Sche	dule by A	. Nicho	lsor	1 10/9/53		"	-	 				
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						7	,					- :
File No	D				.Use		L	ocatio	n No.	22,37.2.	222 3 C	?:

22.37.2.222
Humble Oil Co.

Section 6

LOG OF WELL

Depth	in Feet	Thickness	~	Type of Material Encountered
From	To	in Feet	Color	type of Blaterial Encountered
0	3			soil
3	28			cal i che
28	42	<u> </u>		sand
42	52	J		lime
52	80			sand.
80	87		rmighterament (the confidence)	red bed
		<u> </u>		
	 	 		
	\ 	 		3357 × 3357
		 		Dept. 1. 80 80
		<u> </u>	······································	3357 3357 80' 80 Eiev oi : 1:327.8' 3277
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	 _	<u> </u>		SOURCE OF RECOUSE CIVEN
	ļ	<u> </u>		Interpotent for the short X
·	<u></u>	└		Determined by onsil Euvelda;
		<u> </u>		Other
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		<u> </u>		
	1			

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 well.

E. 🔼 Burke		
147	oll Deiller	

LOG OF BORING NO. BH-01 Project Description: CK Disposal	\neg
Location: Eurice, NM Northing: 160.00 Top of PVC Et. Sett MSL Easting: 1650.00 Surface Et. 3382 feet MSL Completion Depth: 175 feet Date Boring Sarried: 5/26/2015 Date Boring Completed: 5/26/2015 Date Boring Completed: 5/26/2015 MATERIAL DESCRIPTION CLAYEY SAND, brown to reddish brown, moderately well sorted, subrounded, fine to medium grained, slightly moist, none HCL reaction SILTY SAND, with caliche, light brown to white, well sorted, well rounded, very fine to fine grained, dry, strong HCL reaction CLAYSTONE, reddish brown some gray, slightly moist to dry, weak HCL reaction CLAYSTONE, reddish brown some gray, slightly moist to dry, weak HCL reaction	
Top of PVC Bt. Iseet MSL Surface Bt. 3382 feet MSL Completion Depth: 175 feet Date Boring Sariest: 5/26/2015 Date Boring Sariest: 5/26/2015 Date Boring Completed: 5/	'
CLAYEY SAND, brown to reddish brown, moderately well sorted, subrounded, fine to medium grained, slightly moist, none HCL reaction SILTY SAND, with caliche, light brown to white, well sorted, well rounded, very fine to fine grained, dry, strong HCL reaction CLAYSTONE, reddish brown some gray, slightly moist to dry, weak HCL reaction CLAYSTONE, reddish brown some gray, slightly moist to dry, weak HCL reaction	
SILTY SAND, with caliche, light brown to white, well sorted, well rounded, very fine to fine grained, dry, strong HCL reaction CLAYSTONE, reddish brown some gray, slightly moist to dry, weak HCL reaction CLAYSTONE, reddish brown some gray, slightly moist to dry, weak HCL reaction	
sorted, well rounded, very fine to fine grained, dry, strong HCL reaction CLAYSTONE, reddish brown some gray, slightly moist to dry, weak HCL reaction CLAYSTONE, reddish brown some gray, slightly moist to dry, weak HCL reaction Solution 60 60 60 60 60 60 60 60 60 6	
CLAYSTONE, reddish brown some gray, slightly moist to dry, weak HCL reaction CLAYSTONE, reddish brown some gray, slightly moist to dry, weak HCL reaction CLAYSTONE, reddish brown some gray, slightly moist to dry, weak HCL reaction Solution To a second secon	:
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85 90 90 106 106 106 106	
90 95 105 105	
105 The state of t	
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115 126	
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150 150 160 165	•
165 170 175	
Drilling Contractor: HCl Drilling Groundwater Observations Remarks: 5 1/8" diameter boring; TH60 Atlas Copco Drill Rig Drilling Method: Air Rotary Date Depth to Water (ft)	
Sampling Method: Cuttings 5/26/15 Dry	
Geologist: Steven J. Wimmer	
Project No.: 15-04-22 LOG OF BORING NO. BH-01 The stratification lines represent approximate strate boundaries. Water level at time of drilling.	

LOG OF BORING NO. BH-01 PAGE 1 of 1

The stratification lines represent approximate strata boundaries. In situ, the transition may be gradual.

Water level at time of drilling.
 Water level at end of drilling.
 Water level after drilling.
 Water level after drilling.

			ORING NO. BH-02 ption: CK Disposal				CAREL
Depth, tael	Samples	Symboliuscs	Location: Eunice, NM Top of PVC El.: feet MSL Surface El.: 3391.8 feet MS Completion Depth: 175 fee Date Boring Started: 5/26/2 Date Boring Completed: 5/	I SL 1 2015	Northing: 521273.70 Eastling: 928310.35	Monitor Wali Construction Details	Manitor Wall Description
╛	T	7//	MATERIA CLAYEY SAND, brown	L DESCRIP			
5 🖺	I		well sorted, subrounder slightly moist, none HC	d, fine to me			
5 10 15 15 15 15 15 15 15 15 15 15 15 15 15	}		SILTY SAND, with calic sorted, well rounded, vi strong HCL reaction	che, light br ery fine to fi	own to white, well ne grained, dry,		
25 30 35							. •
35 10 15	}		CLAYSTONE, reddish HCL reaction, some pu		gray, dry, weak		
55	1				,		
35 70			less gray and purple; s	lightly mois	t to dry		
35 70 11 11 11 11 11 11 11 11 11 11 11 11 11	{		•				
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10 15	1						
20 <u>.</u> 25 30.							
35 40							
45 50 55							
60 65							
70							
75 [⊥] i≣ne	Con	tractor hod: All lethod: steven 15-04	HCI Drilling	Groundy	vater Observations	Remarks:	5 1/8" diameter boring; TH60 Atlas Copco Drill Rig
iling	Met	hod; Al	Rotary	Date	Depth to Water (ft)		
eres i	na M	ethod:	Cuttings	5/26/15	Dry		

LOG OF BORING NO. BH-02 PAGE 1 of 1 The stratification lines represent approximate strata boundaries. In site, the transition may be gradual.

Water level at time of drilling.
 Water level at end of drilling.
 Water level after drilling.



OSE FILE NUMBER	
For OSE Use C,	

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD and DRILLING LOG

PERMIT HOLDER(S)	
Name:WASTE CONTROL SPECIALISTS	
Address: P.O. BOX 1129	Address:
City: ANDREWS	City:
State: TX Zip: 79714	State: Zip:
Phone: (505) 394-4300 Contact: MICHAEL BURNEY	Phone:
Contact Phone: (505) 394-4300	- .
Shiract 1 none. (303) 334 4300	-
2. STATE ENGINEER REFERENCE NUME File # CP 975 EXPLORE , We	
3. LOCATION OF WELL (The Datum Is Assi	umed To Be WGS 84 Unless Otherwise Specified)
Latitude: 32 Deg 2	25 <u>Min</u> 45.8 <u>Sec</u>
Longitude: 103 Deg (04 Min 20.4 Sec
(Enter Lat/Long To A	At Least 1/10th Of A Second)
Datum If Not WGS 84:	
4. DRILLING CONTRACTOR License Number: WD1184	
	RVICE Work Phone: (432) 530-2696
Maile. WEST TOARS WATER WESS SE	RVIOD WORLDONE. (432) 330 2070
Drill Rig Serial Number:	261602
List The Name Of Each Drill Dig Supervisor Th	nat Managed On-Site Operations During The Drilling
Process:	am Manager Ott-Stre Obergroup During Title Durining
RO?	NNY KEITH
	7. 3.1. 1.8
	සි නුදු
	
	
5. DRILLING RECORD	·
Drilling Began: 1-21-08; Completed:	4-29-08 Drilling Method MUD ROTARY
Diameter Of Bore Hole: 7-7/8 (in);	
Total Depth Of Well: 2,020	(ft);
Completed Well Is (Circle One): Shallow Arte	sian;
Depth To Water First Encountered: 1,09	92 (ft);
Depth To Water Upon Completion Of Well:	<u>N/A</u> (ft).
<u>Do Not Write Below Th</u>	uis Line
TRN Number: 396028	File Number:
Form: wr-20 May 07 3 / 00000	

21.38.33.333





OSE FILE NUMBER	
For OSE Use Oilly	

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD and DRILLING LOG

6. RECORD OF CASING

Diameter (inches)	Pounds (per ft.)	Threads (per inch)	Depth (feet)	Length Top to Bottom (feet)	Type of Shoe	Perforations (from to)
13-3/8	48	8	2' AGL	40'		
8-5/8	24	8	3' AGL	1,440'	FLOAT GUIDE	
		-				<u> </u>
			<u> </u>			
				·		<u> </u>
]	
 			 			

7. RECORD OF MUDDING AND CEMENTING

Hole (diameter)	Mud Used (# of sacks)	Cement (cubic feet)	Method of Placement
17-1/2		35	TRIMMIE
12-1/4		574	POSITIVE
7-7/8		275	TRIMMIE
·			
_			STA STA
·	1		
			× - :5
·			
			2 2:
	17-1/2	17-1/2	(diameter) (# of sacks) (cubic feet) 17-1/2 35 12-1/4 574

Trn Number: File Number: File Number: File Number:

page 2 of 4

OSE FILE NUMBER	
For OSE Use Only	

8. LOG OF HOLE. For Each Water Bearing Strata, Estimate The Yield Of The Formation In Gallons Per

Depth (feet)	<u>. </u>	Thickness	For Water Bearing		
From	То	(Feet)	Strata Enter The Estimated Yield in GPM	Color and Type of Material Encountered	
		,	SEE ATTACHED GE	OLOGIC LOG	
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-+	 _			<u> </u>	1.
				= =	
	-			7	
	_			20.	7
ater Me	thod l	sed To Estir	nate Yield: V/A	·	
			Do Not Write Be	low This Line	
m Numb	er: 20 May		page 3	File Number:	

CP-975 Geolo	gic log
0-6 ft (j	pad fill and fine brown sand
6-10 ft 4	white sandy limestone (Mescalero caliche)
· · · · · · · · · · · · · · · · · · ·	sand, light brown, and brown calcareous sandstone (Gatuña Formation)
29-576 ft 54	interbedded sandstone, siltstone, and claystone; reddish-brown to gray; bioturbated (Cooper Canyon Formation)
576-708 ft	sandstone and siltstone, gray to reddish brown (Trujillo Formation)
	interbedded very fine sandstone and siltstone, gray to dark reddish brown (Tecovas Formation)
1092-1384 ft [*]	gray, fine sandstone with interbedded reddish brown and weak red siltstone and claystone (Santa Rosa Formation)
1384-1566 ft	reddish brown, very fine sandstone and siltstone, with some fibrous gypsum in lower part (Dewey Lake Formation)
1566-1602 ft	gray anhydrite beds, with intermediate reddish-brown and gray siltstone (Forty-niner Member of the Rustler Formation)
	gray anhydrite and wavy thin laminae of dolomite (Magenta Dolomite Member of the Rustler Formation)
•	gray anhydrite beds, with intermediate halite including anhydrite and polyhalite (Tamarisk Member of the Rustler Formation)
1736-1807 ft 213	halite with thin two thin anhydrite beds and basal reddish-brown, very fine sandstone (Los Medaños Member of the Rustler Formation)
1807-2020 ft	halite with anhydrite/polyhalitic marker beds (MB103 and uppermost MB109) (Salado Formation)

OSE FILE NUMBER	
For OSE Use பயர	

9. ADDITIONAL STATEMENTS	S OR EXPLANATIONS:	
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<u> </u>	···	
and correct record of the above des	nat, to the best of his or her knowledge an cribed bore hole. The undersigned further Of The State Engineer and permit holders	er certifies that he or she will
Normy Kert	05-12-08	
Driller /	(mm/dd/year)	
	Do Not Write Below This Line	
Trn Number:	1	File Number:
Form wr-20 May 07	page 4 of 4	

STATE OF TEXAS WELL REPORT for Tracking #159429

Owner:

Waste Control Specialists

Owner Well #:

TP-62

Address:

P.O. Box 1129

Andrews, TX 79714

Grid #:

26-40-5

Well Location:

30 Miles NW of Andrews

Andrews, TX 79714

Latitude:

32° 25' 21" N

Well County:

Andrews

Longitude:

103° 02' 59" W

Elevation:

No Data

GPS Brand Used:

Garmin etrex

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 1/10/2008 Completed: 1/10/2008

Diameter of Hole:

Diameter: 5.625 in From Surface To 49 ft

Drilling Method:

Air Rotary

Borehole Completion:

Gravel Packed From: 35 ft to 49 ft

Gravel Pack Size: 8/16

Annular Seal Data:

1st Interval: From 0 ft to 5 ft with 20 Cement (#sacks and material)
2nd Interval: From 5 ft to 35 ft with 10 bentonite (#sacks and material)

3rd Interval: No Data Method Used: poured Cemented By: Talon

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion:

Surface Slab Installed

Water Level:

Static level: No Data
Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: fresh
Depth of Strata: No Data
Chemical Analysis Made: No

Did the driller knowingly penetrate any strata which contained undesirable

constituents: No

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled

under the driller's direct supervision) and that each and all of the

statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Well Report: Tracking #:159429

10 (1011+11

Company Information:

Talon Drilling, LP 921 N Blvins

Amarillo , TX: 79107

Driller License Number:

54499

Licensed Well Driller Signature:

Shane Currie

Registered Driller Apprentice Signature:

No Data

Apprentice Registration Number:

No Data

Comments:

No Data

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #159429) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft) To (ft) Description 0 to 2 Sandy SILT, tan. 2 to 32 CALICHE, light gray to tan. 32 to 43 Slity SAND, tan. 43 to 46.25 Sandy GRAVEL, various colored chert. 46.25 to 49 CLAY, maroon with gray mottling.

Dia. New/Used Type Setting From/To 2 new pvc casing 0 to 39 sch 40 2 new pvc screening 39 to 49 slot 0.010

File	Number	;			
		(For	OSE	Use	Only

1. OWNER OF WELL	
	Work Phone: 505-394-5204
Contact: Laurie Wetherell Address: P.O. Box 1789	Home Phone:
Address: P.O. BOX 1783	
City: Eunice	State: NM Zip: 88231
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. $\frac{NW}{1/4}$ $\frac{3W}{4}$ $\frac{1/4}{4}$ $\frac{NE}{1/4}$ Section: 32 Township	: <u>2/S</u> Range: <u>38E</u> N.M.P.M.
B. X = feet, Y = fe Zone in the	et, N.M. Coordinate System Grant.
C. Latitude: 32 d 26 m 14.8698 s Longitude:	
D. East (m), North (m), UTM	Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract	, of the
F. Lot No, Block No of Unit/Tract Subdivision recorded in	County
G. Other:	April 100
G. Other:	
H. Give State Engineer File Number if existing wel	1: <u>CP-993</u> \(\sigma\)
I. On land owned by (required): Louisiana Energ	y Services > 3
3. DRILLING CONTRACTOR	五 [編 切 [5]
License Number: 1575	
Name: Talon Drilling	Work Phone: 806.467.0607
Agent: Shane Currie Mailing Address: 921 N. Bivins	Home Phone: 806.467.0622
 -	
City: <u>Amarillo</u>	State: <u>TX</u> 2ip: <u>79107</u>
4. DRILLING RECORD	
Drilling began: 12/5/08; Completed: 12/5/08; Size of hole: 7-7/8 in.; Total depth of well: 231 Completed well is: Monitor (shallow, arted Depth to water upon completion of well: Dry	
Do Not Write Below This Li	
File Number: <u>CP-993</u>	415642
Form: wr=20	n Number:
Form: wr-20 page 1 of 4 Mositor	n Number: <u>415642</u> 21,38,32.231

File	Number	:			
		(For	OSE	Use	Only)

From To Dry	in feet	water-b	tion of earing form	ation		ted Yie GPM) ————	ld
							
					_		
ECORD OF CASI	√G						
Diameter Pour (inches) per 4 PVC Sch	ft. per in.	Top B	ottom (fee	t)	of Shoe	From	To
-							
ECORD OF MUNI							
ECORD OF MUDI			Gubia Past	Matha	4 - 5 D) -		
Depth in Feet From To	Diameter	Sacks of mud					_
							$-\infty$
20 206	7-7/8 7-7/8	61	20 Sacks	<u>Trimie</u> Poured	(Bento	nite c	hips
20 206	7-7/8			Poured	(Bento	nite c	hips
20 206 LUGGING RECOI	7-7/8 RD cactor:			Poured	(Bento	nite c	hips
LUGGING RECOI	7-7/8 RD ractor:			Poured	(Bento	nite c	hips
LUGGING RECOI	7-7/8 RD Factor: ddress: Method: Lugged:			Poured	(Bento	nite c	hips
LUGGING RECOMPLUGGING Control Plugging Control Plugging Note Well Pi	7-7/8 RD Factor: ddress: Method: Lugged:			Poured	(Bento	nite c	hips
LUGGING RECOMPLUGGING Control Plugging Control Plugging Note Well Pi	7-7/8 RD Factor: ddress: Method: Lugged: Dved by: No. Depth Top		State Engin	Poured	(Bento	nite c	hips
LUGGING RECOMPLUGGING Control Plugging Control Plugging Note Well Pi	7-7/8 RD Factor: ddress: Method: Lugged: No. Depth Top 1 2	n in Feet	State Engin	Poured	(Bento	nite c	hips
LUGGING RECOMPLUGGING Control Plugging Control Plugging Management	7-7/8 RD Factor: ddress: Method: Lugged: Dved by: No. Depth Top	n in Feet	State Engin	Poured	(Bento	nite c	hips
LUGGING RECOMPLUGGING Control Plugging Control Plugging Management	7-7/8 RD ractor: ddress: Method: Lugged: Dved by: No. Depth Top 1 2 3	n in Feet	State Engin	Poured	(Bento	nite c	hips (Ap)

File Number: <u>CP-993</u> Form: wr-20

Trn Number: 4/5642

page 2 of 4

File	Number:				
		For	OSE	Use	Only)

9. LOG OF HOLE

Depth in Ferficant Control of State Cont	in feet 5	Sandstone, lightly cemented, burnt orange Caliche, relatively soft, gray to lt orange Sand, minor chert gravel, lt orange sand Claystone, maroon Siltstone, hard gray Claystone, dark purple Sandstone, very fine-grained, hard, gray Clayston, maroon
		
		
		
		
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File Number:	CP-993					Trn Number:	415642

Form: wr-20 page 3 of 4

File	Number	:				
		(For	OSE	Use	Only	ì

The undersigned hereby certifies that, to the best of his known	
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he undersigned hereby certifies that, to the best of his kno	
elief, the foregoing is a true and correct record of the about the state of the state of the sta	ove described
FOR STATE ENGINEER USE ONLY	
Quad; FWL; FSL; Use; Location No	
Do Not Write Below This Line	

page 4 of 4

Form: wr-20

JL-B

File	Number:			
	(For	OSE	Use	Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

1. OWNER OF WELL	505 204 500
Name: Louisiana Energy Services	Work Phone: 505-394-5204
Contact: Laurie Wetherell Address: P.O. Box 1789	Home Phone:
Address. 1.0. Box 1.05	
City: Eunice	State: <u>NM</u> 2ip: <u>88231</u>
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. $\frac{NE_{1/4}}{in} = \frac{SW_{1/4}}{Lea} = \frac{NE_{1/4}}{NE_{1/4}} = \frac{32}{Lea}$ Townsh	nip: <u>2/5</u> Range:38E N.M.P.M. County.
B. X = feet, Y = Zone in the	feet, N.M. Coordinate System
U.S.G.S. Quad Map	Granc.
C. Latitude: <u>32</u> d <u>26</u> m <u>14.9172</u> s Longitud	de: <u>103</u> d <u>04</u> m <u>45.4866</u> s
D. East (m), North (m), U1	IM Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the County.
G. Other:	<u> </u>
H. Give State Engineer File Number if existing w	well: CP-994
I. On land owned by (required): Louisiana Ene	ergy Services
3. DRILLING CONTRACTOR	ergy Services : 20
License Number: 1575	
Name: Talon Drilling	Work Phone: 806.467.0697
Agent: Shane Currie Mailing Address: 921 N. Bivins	Home Phone: 806.4167.0622
City: <u>Amarillo</u>	State: <u>TX</u> Zip: <u>79107</u>
4. DRILLING RECORD	
Drilling began: 12/5/08; Completed: 12/5/08 Size of hole: 7-7/8 in.; Total depth of well: 36 Completed well is: Monitor (shallow, and Depth to water upon completion of well: Dry	ft.; rtesian);
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Form: wr-20 page 1 of 4	11.38,32.232

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File Number: (For OSE Use Only)

From To Dry		water-b	pearing	formati	on	(ted Yio GPM)	_
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RECORD OF CASIN								
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RECORD OF MUDD	ING AND CEM	ENTING						
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PLUGGING RECOR	RĎ:							
Plugging Contr Ad	dress:					- - 		in in
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Plugging appro	ved by:						<u> </u>	•
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	No. Depth Top 1	in Feet Bottom	Cubi	c Feetof	Cement			
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File Number:	

(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

	in Feet		Color and Type of Material Encountered
From	To	in feet	Outletone likebile computed been computed
0	10	10	Sandstone, lightly cemented, burnt orange
10 23	23	13	Caliche, hard, gray Gravelly sand, chert gravel, red sand matrix Claystone, dark purple
23	34	11	Gravelly sand, chert gravel, red sand matrix
3.4	36	2	Claystone, dark purple
	 		
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File	Number	: _			
		(For	OSE	Use	Only)

1. OWNER OF WELL	_
Name: 1 ouislanna Energy Services	_ Work Phone: <u>505-394,570</u> 4
Contact: Laurie wetherell	Home Phone:
Address: 7.0. Bux 1789	-
City: Evaice	State: <u>Aim Zip: 88231</u>
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. SE 1/4 NE1/4 NE1/4 Section: 32 Township in Lea.	o: <u>2/5</u> Range: <u>38E</u> N.M.P.M.
B. X = feet, Y =	eet, N.M. Coordinate System Grant.
C. Latitude: 37 d 26 m 21.407 s Longitude:	: <u>103 d 04 m 27.079</u> s
D. East (m), North (m), UTM	Zone 13, NAD (27 or 83)
F. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the County.
G. Other:	<u> </u>
H. Give State Engineer File Number if existing wel	1. (P. 947
I. On land owned by (required): Lez County,	NM
3. DRILLING CONTRACTOR	
License Number: (575	
Name: Talon LPE Agent: Shave Corrie Mailing Address: 921 N. Bivins	Work Phone: 806.467.0607 Home Phone: 806.416.8220
City: Amarillo	State: TX Zip: 79107
4. DRILLING RECORD	· · · · · · · · · · · · · · · · · · ·
Drilling began: 3/15/07; Completed: 4/03/07; Size of hole: 7-7% in.; Total depth of well: 220. Completed well is: Monitor (shallow, arte Depth to water upon completion of well: 178 43	<u>f</u> ft.; sian);
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	TATE ROSH
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File Number: $\frac{CP-947}{\text{Form: wr-20}}$ page 1 of 4	n Number: 376945 6
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File	Number:			
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9. LOG OF HOLE

Depth in Feet Thickne	ss Color and Type of Material Encountered
From To in fe	et
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2 25 23	caricité suft, dry aray
25 30 5	SANDY, gravel dry, orange to tan
30 130 100 13C 140 10	ciay, highly olastic, marcon with gray mothling
140 195 55	claystone, bardidry gray with marcon moltling
195 205 10	Silstone, hard dry gray wil maroon colotowing
705 707 7	claystone, from dry marcon w/ gray mottling
20.1 SIS X	S: Itstone with clarstone need grave marrow
7.15 23015	_ claystone, firm dry maroon w/ gray mottling
	
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Dri	ller (mm/dd/year)	1 281 F22
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File	Number	:			
		(For	OSE	Use	Only

1. OWNER OF WELL

Name: Louisianz Energy Services Contact: Lauric Wethereil	Work Phone: <u>605.394,52</u> 04 Home Phone:
Address: P.C. Box 1789	-
City: Eunice.	
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. $NE_{1/4}$ $NE_{1/4}$ $NE_{1/4}$ Section: 32 Townshi	p. <u>2/5</u> Range: <u>38</u> EN.M.P.M.
B. X = feet, Y = f. Zone in the U.S.G.S. Quad Map	eet, N.M. Coordinate System Grant.
C. Latitude: 37 d 26 m 33.09% s Longitude	: 103 d 04 m 27.582 s
D. East (m), North (m), UTM	Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrograph1c Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of theCounty.
G. Other:	
H. Give State Engineer File Number if existing we	11: CP-948
I. On land owned by (required): Lea County	, NM
3. DRILLING CONTRACTOR	
License Number: 1575 Name: Talon / LPE Agent: Shane Currie Mailing Address: 921 AL Bivins	- · · · · · · · · · · · · · · · · · · ·
City: Amarillo	State: 7X Zip: 79107
4. DRILLING RECORD	
Drilling began: 3/15/07; Completed: 4/05/07; Size of hole: 7-7/y in.; Total depth of well: 32. Completed well is: Monitor (shallow, arts Depth Lo water upon completion of well: DRY	<u>2</u> ft.;
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21, 38.32, 222

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(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

Depth ir From C 30	Feet To 30	Thickness in feet 3 27	Color and Type of Material Encountered Topsoil - Silt loose: dry brown Caliche, bard, dry, tan to gray Clay, highly paric, dry, maroon & gray	_
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File Number: P-948
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page 3 of 4

Monitor

21,38,32,222

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W.D

File	Number	: _			
		(For	OSE	Use	Only)

I. OWNER OF W				_
Name: _	LOUISIANZ ENEVE	y Services	Work Phone: 5	05.394.5204
Contact: _	P.O. Box 1789	<u> </u>	Home Phone: _	
Address: _	r. o. Box 1187	*		
City: _	Eunice		State: NM Zip:	88231
2. LOCATION OF	WELL (A, B, C, or D req	quired, E or F if known)		·
A. <u>NW</u> 1/4	<u>NE</u> 1/4 <u>NE</u> 1/4 Lea	Section: 32 Town	ship: <u>2/5</u> Range: <u>38</u>	EN.M.P.M. County.
B. X =	feet, Y = Zone in the Quad Map		_ feet, N.M. Coordi	nate System Grant.
			ude: <u>103</u> d <u>04</u> m	39.176 s
D. East	(m), North	(m),	UTM Zone 13, NAD	(27 or 83)
E. Tract No	o, Map No	of the	Hydrogra	phic Survey
F. Lot No.	, Block No.	of Unit/Tractivision recorded in	t	of the County.
G. Other:				
H. Give Sta	ate Engineer File N	Number if existing	well: _CP-949)
			NM	<u> </u>
3. DRILLING CO	NTRACTOR	·		
License N	umber: 1575			
riceuse M		°E	Work Phone: 8	06.467.06DT
,	Agent: Shane Cu	ייירול	Home Phone: 8	
Mailing Add				
	City: Amarillo		State: TX Zip:	79107
4. DRILLING REC	CORD			
Drilling be Size of ho	le: ገ- ሃ _ደ ່in.; Tota	al depth of well: 2	7 ; Type tools: Ac 240.4 ft.;	<u>r Rotary</u> ;
	well is: Montto			
55F 511 50 114	1401 abou 00 p2 0020			2 2 E
·				io FE
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	(20) (2) (2)	.t==us Delon IIIIe		CILL TER
File Number: _	C.P. 444	_	Trn Number: 376	74% 西岛
Form:	wr-20	page 1 of 4	•	
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		Monitor	11 28 2	22,221

File Number: (For OSE Use Only)

	in Feet To	Thickness in feet	water-		format		(ted Yield GPM)	
RECORD	OF CASIN	ig							
	s) per <u>5th 4t</u>	ds Threads ft. per in. PV Z PV Z	Top	220.9 240.9	(feet) 270.4 20	N/A	(Jp	· ·	
 RECORD	— OF MUDD	ING AND CEN	 MENTING						
Depth : From O 15	in Feet To 	Hole Diameter 7-7% 7-7%	Sacks of mud		ment O	Method Aremid pour - b	<u>ben</u>	tonite/ce	reca
LUGGIN	G RECOR	 D	- 	, <u></u>				····································	
Plı	ng Contro Ado ugging Mo Well Plo	dress:		·					<u> </u>
	ng appro	ved by:		State i	Engineer	r Represe	entativ	e	
Pluggi									
Pluggi		Top 1 2 3 4	h in Feet Bottom		: Feeto:	f Cement		1931 AFR 27	POSKEL IS
Pluggii		Top 1 2 3 4 5						1931 M.T. 27 P 2 114	ROSWELL, REMINEARCH
Le Numbe	er: Ch	Top 1 2 3 4 5	Bottom		a This I	Line Trn Numbe		1911 MER 27 P 2 112	7

File	Number	:			
		{For	OSE	Use	Only

9. LOG OF HOLE

	n Feet	Thickness	Color and Type of Material Encountered
rom C	To ui	in feet	SAND. LOOSE dry, orange to light and
- У -	30	- الل	CALICITE, moderately hand, chert, dry oranged con
30	50	20	SANDY, Gravel chert, dry, ten to light orange
50_	115	<u> </u>	Clay, highly plastic, firm, dov, 19124 & Marcon
115	125		Silstone hard moist grav
125	_(70_	55	claystone, dry, marcon wil gray motiling
170	140.		siltsmae & claystone interbedded dry gray
190	2.35	45	Claystone hard Dry , marrow w/ gray veining
235	240		at the interest of the control of the same
240	2.45	5	Claystone, hard , dry, marcon wi gray korma mo
			
			
			
			
			
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File Number: CP-949
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File Number:

(For OSE Use Only)

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he undersigned belief, the foregote.	nereby certingoing is a total	ifies that, true and co	to the be rect reco	st of his rd of the	knowledg above de	e and scribed
elief, the fore	nereby certigoing is a to	ifies that, true and co	to the be rect reco	st of his rd of the e4/07 d/year)	knowledg above de	e end scribed
elief, the fore	poing is a to	true and co	rrect reco <u>D4/z</u> (mm/d	rd of the cu/07 d/year)	above de	scribed
elief, the forecole.	poing is a to	true and co	rrect reco <u>D4/z</u> (mm/d	rd of the cu/07 d/year)	above de	scribed
elief, the forecole.	Driller	true and co	Prect reco	rd of the	above de	scribed
elief, the forecole.	Driller	true and co	Prect reco	rd of the	above de	scribed
elief, the foregole.	Driller	TATE ENGINE	D4/2 (mm/d	rd of the	above de	scribed
elief, the forecole.	Driller	TATE ENGINE	D4/2 (mm/d	rd of the	above de	scribed
elief, the foregole.	Driller	TATE ENGINE	D4/2 (mm/d	rd of the	above de	scribed Name 27
elief, the foregole.	Driller	TATE ENGINE	D4/2 (mm/d	rd of the	above de	scribed NUMBER 27 0 2
elief, the foregole.	poing is a top of the point of	TATE ENGINE	ER USE ONI	rd of the	above de	scribed Name 27
uad; FWL	poing is a top of the point of	TATE ENGINE	ER USE ONI	rd of the	above de	scribed RUMINER 27 D 2: 02

WLB

File	Number	:			
		(For	OSE	Use	Only)

Name: Louisiana Energy Services Contact: Laurie Wetherell	Work Phone: 505 394,5704 Home Phone:
Address: P. D. Box 1789 City: Eunice	<u>.</u> _
	_ scace:///// 21p. // 25/25/_
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. NW 1/4 SW 1/4 NW 1/4 Section: 32 Township in Lea	0:2/5 Range: 38 EN.M.P.M. County.
B. X = feet, Y =	eet, N.M. Coordinate System Grant.
0.0.6.B. Quad Nap	_
C. Latitude: 32 d 26 m 16,2 s Longitude:	: <u>103 a 5 m 2/12</u> s
D. East (m), North (m), UTM	Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the County.
G. Other:	
H. Give State Engineer File Number if existing wel	1: <u>CP-959</u>
I. On land owned by (required): Lea County	, NM
B. DRILLING CONTRACTOR	
License Number: 1575 Name: Talon (LPE Agent: Shawe Curvie Mailing Address: 92(A. Bivins	Work Phone: <u>\$06.461.06</u> 07 Home Phone: <u>\$06.676.\$220</u>
city: Amarillo	State: TX Zip: 79107
. DRILLING RECORD	
Drilling began: 3/23/c7; Completed: 3/24/07; Size of hole: 7-7/y in.; Total depth of well: 22. Completed well is: Monitor (shallow, arted Depth to water upon completion of well: DRV	Lft.; RNA
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0 0 1	21, 38, 32, 131
Form: wr-20 page 1 of 4	
Monitori	21,38,32,131

(For OSE Use Only)

From T	' 0	Thickness in feet	water	-bearing	format	ion		GPM)	
 -									
ECORD O	F CASING	_					· · · · ·		
		Threads						Perfo From	
<u> 4</u>	Sch 40P Sch 40P	VC _ Z PV _ Z				- PVC A			
									
		NG AND CEM				•• ••	6 53		
Depth in From T (2)		Hole Diameter 7-78		Cubic of Ce (9		Method <i>fremie</i>			,
70		7-7/8_	<u> 48</u>			Posi -	bento	uite.	_ <i>Chup</i>
LUGGING	RECORD								
Plugging Plug	Contrac Addr ging Met	etor: ress: nod:							
Plugging Plug Date W	Contrac Addr ging Met ell Plug	ress: nod: ged:							
Plugging Plug Date W	Contrac Addr ging Met ell Plug	ress: nod: ged:							
Plugging Plug Date W	Contrac Addr ging Met ell Plug	ress:							
Plugging Plug Date W	Contrac Addr ging Met ell Plug approve	No. Depth		State t Cubi	Enginee:	r Represe			
Plugging Plug Date W	Contrac Addr ging Met ell Plug approve	No. Depth	in Fee	State t Cubi	Enginee:	r Represe			
Plugging Plug Date W	Contrac Addr ging Met ell Plug approve	No. Depth	in Fee	State t Cubi	Enginee:	r Represe			POSSELL PER 27
Plugging Plug Date W	Contrac Addr ging Met ell Plug approve	No. Depth	in Fee	State t Cubi	Enginee:	r Represe			Rossell is likely
Plugging Plug Date W	Contrac Addr ging Met ell Plug approve	No. Depth	in Fee	State t Cubi	Enginee:	r Represe			SIME TO 27 O
Plugging Plug Date W Plugging	Contract Addr ging Met ell Plug approve	No. Depth Top	in Fee	State t Cubi	Enginee: c Feeto	r Represe	entativo		ROSSELL DEFINEATOR OF CO

(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

3. LOG OF 1	IOLL		
Denth 1	in Feet	Thickness	Color and Type of Material Encountered
From	То	in feet	SOLON SING TYPE ON MUSCILLE BILOUMIECE
C	2	7	SAND loose moist ovange/brown
	75	-/3	CHUCKE SOFT dry ton
			
-12-	30	10	Claustone we sitts home marcon & grav
<u>20</u>	45	-65	
30_	-75	15	Clarstone of Marcon WI gray Mottling
- 7/2-	470		Clarstone of sitting only marrows quar
110	/30	<u></u>	claystone, have, dry marcon w/ gray mothling
130	735		Clarstone if sitistane dry marrow & giray
<u> </u>	<u> 210</u>		clarstone, parc) dry marron & dusk
210	215		- Siltstone wi claystone have, gray & marcon
715	<u> </u>	25	Clay stone, modelate hand dry marron & gray
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Monitor

(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

			
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The undersigned hereby coelief, the foregoing is	ertifies that, to th	e best of his knowl	ledge and
The undersigned hereby coefficient, the foregoing is note.	ertifies that, to th	e best of his knowl	ledge and e described
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elief, the foregoing is	ertifies that, to th	e best of his knowl	ledge and e described
elief, the foregoing is	ertifies that, to the a true and correct	e best of his knowl record of the above 04/24/zco7 mm/dd/year)	described
Drill	ertifies that, to the a true and correct Her	e best of his knowl record of the above 04/24/zco7 mm/dd/year)	described
Drive	ertifies that, to the a true and correct	e best of his knowl record of the above 04/24/zco7 mm/dd/year)	described
pelief, the foregoing is note. Drive	ertifies that, to the a true and correct Her (e best of his knowledge record of the above	described
Drive	ertifies that, to the a true and correct Her (e best of his knowledge record of the above	described
pelief, the foregoing is note. Drive	ertifies that, to the a true and correct Her (e best of his knowledge record of the above	described
pelief, the foregoing is note. Drive	ertifies that, to the a true and correct Her (e best of his knowledge record of the above	described
Pelief, the foregoing is note. Drive FO Quad; FWL; FSL	ertifies that, to the a true and correct Her (e best of his knowle record of the above 04/24/zco7 mm/dd/year)	described
Pelief, the foregoing is note. Drive FO Quad; FWL; FSL	ertifies that, to the a true and correct Her (OR STATE ENGINEER USI ; Use; Locate	e best of his knowle record of the above 04/24/zco7 mm/dd/year)	described

Monitor

File	Number	:			
		(For	OSE	Use	Only)

1. OWNER OF WELL	60= 70W (70)
Name: Lowsland Energy Services Contact: Laurie Weihereil	Work Phone: <u>50</u> 5.374.5709
Address: P.O. Box 1789	Home Phone:
1.01 BOX 118	
city: Eunice	State:NM Zip: 88731
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. SE 1/4 NE 1/4 NW 1/4 Section: 32 Township in Lea	: <u>215</u> Range: <u>38E</u> N.M.P.M.
B. X = feet, Y = feet. Zone in the U.S.G.S. Quad Map	et, N.M. Coordinate System Grant.
C. Latitude: 3Z d Z6 m 23.387 s Longitude:	103 d A4 m 57.403 s
D. East (m), North (m), UTM	
E. Tract No, Map No of the	
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the County.
G. Other:	
H. Give State Engineer File Number if existing well	1: _ <i>CP.95</i> %_
I. On land owned by (required): Lea County,	
3. DRILLING CONTRACTOR	

License Number: 1575	Work Phone: 806.467.0607
Name: Tolon LPE Agent: Shane Currie	Home Phone: 806, 676, 8720
Mailing Address: 971 N. Bivins	2001 M. S. 200
city: Amarillo	State: 7X 2ip: 79107
4. DRILLING RECORD	ROS ROS
Drilling began: 3/20/07; Completed: 3/29/07;	Type tools: His Ortanian
Size of hole: /- /k in.; Total depth of well: 246.	3ft.; :: :: :: :: :: :: :: :: :: :: :: :: ::
Completed well is: Monitor (shallow, artes	sian);
Depth to water upon completion of well: 217.19	_ et
	2: XX
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File Number: CF 958 Trr Form: wr-20 page 1 of 4	Number: <u>376958</u>
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Monitor	21.38.32.124

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From 217.19	To	Thickness in feet 29.11	water-	pearing	format	ion	Estima (O-S	GPM)	
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RECORD C	F CASING								
(inches) per ft <u>≲h40Pt</u> <u>≈h40P</u> t	Threads per in.	Top 1	30ttom 226.3 246.3	(feet) 7263 20	PUC END	Cap	From NIA 226.3	то 246.3
RECORD O	F MUDDIN	IG AND CEMI	ENTING						
From	70 70 70	Hole Jiameter 7- 7/8	of mud	of Cem	ent <u>1</u>	Method Comil	Cemen	4 / bei	atori le
Pluq Date V	Contract Addr Gging Met Well Plug	ged:							
Pluggino	g approve	d by:		State E	nginee	Repres	entatív	e	
	1 2 3 4 5	-	in Feet Bottom		Feeto	Cement		[80]	SIASWELL TENT
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ile Number For	:: <u>CP</u> -	958		page 2	of 4	rn Numbe			78 1.124

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(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

From	To	in feet	
0	5	5	SAND, loose, damp, burnt avange
<u> </u>	35	30	CALICHE, hard dry light orange to civar
35	40	5	SANDY Gravel, Grav Sand matrix
40	70	30	CLAY, Plastic firm grave marcon
70	80	(1)	Clarstone WI siltiture down marcon karay
80	77.5	145	Claystone firm dry marcon wy gray moth
225	245	20	claistone ul siltstone dry, light red
245	250	5	clarstone Stiff dry marionn ist gray mottle
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elief, the fore	hereby certifi	les that, to the best of his k	nowledge and
pelief, the foremole.	Driller	les that, to the best of his keep and correct record of the and correct record	bove described
pelief, the foremole.	Driller	of the a of	bove described
pelief, the foremote foremote.	Driller FOR STAT	oy/24/2007 (mm/dd/year)	bove described
pelief, the foremote	poing is a true Driller FOR STAT _; FSL: Use	TE ENGINEER USE ONLY	bove described

File	Number	:			
		(For	OSE	Use	Only)

Name: LOWSIANA ENERGY Services	Work Phone	: <u>505. 394.57</u> 04
Contact: Lauria Wetherall	Home Phone	2:
Address: Po. Box 1789	•	
City: Eunice	State: NM 2	ip: 88231
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)		
A. <u>NE 1/4 NE 1/4 NW 1/4 Section: 32</u> Township in <u>Sea</u>	: <u>2/5</u> Range	e: <u>386</u> N.M.P.M. County.
B. X = feet, Y = fe Zone in the U.S.G.S. Quad Map	et, N.M. Coo	ordinate System Grant.
C. Latitude: 32 d 26 m 33.072 s Longitude:	103 d 05	m <u>Z.178</u> s
D. East (m), North (m), UTM	Zone 13, NAI	(27 or 83)
E. Tract No, Map No of the	Hydro	graphic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in		of the
G. Other:		
H. Give State Engineer File Number if existing wel	1: CP-9:	5 i
I. On land owned by (required): Lea County, /		
3. DRILLING CONTRACTOR		
Name: Talou LPE Agent: Share Covice Mailing Address: 921 N. Bivin S	Work Phone	: 806.467.0607 : 806.676.8220
city: <u>Amavillo</u>	State: TX z	ip: <u>79107</u>
4. DRILLING RECORD		
Drilling began: $\frac{3/29/07}{100}$; Completed: $\frac{3/29/07}{100}$; Size of hole: $\frac{7}{100}$ in.; Total depth of well: $\frac{261}{100}$; Completed well is: $\frac{1}{100}$ (shallow, arter Depth to water upon completion of well: $\frac{243}{100}$.	<u>5</u> It.; Sian);	STATE ENGINEER OR STATE ENGINEER OR STATE ENGINEER OR STATE OR STATE OF STA
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File Number: <u>(P-95/</u> Form: wr-20 page 1 of 4	Number: 3	769459 35
Ma to	21,38,	32,122

File	Number:				
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From To	Thickness in feet [7.49		ption o bearing one, h	format	ion Vay	· (ted Yio		
RECORD OF CASIN	IG .								
	ft. per in. PVC Z	Top O	Bottom 241.3	(feet) 24/.3	-NIK	<u> </u>	From	To	
<u>4 </u>	<u> </u>	2463	261.5	<u> 20</u>	PVC end	<u> </u>	<u>241.3 </u>	261	
ECORD OF MUDD	INC AND CEM	ENTING			· 				
Depth in Feet From To	Hole Diameter	Sacks of mud	Cubic of Ce	ment		of Pla			4
<u>0</u> <u>75</u> <u>235</u>	7-7/8	<u> 1</u> <u>6.5</u>	<u>2c</u>		tranie Pour be				<u> </u>
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Plugging Contra	actor:								_
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Add Plugging Mo Date Well Plu	actor: dress: ethod: ugged:								
Plugging Contra Add Plugging M Date Well Plu	actor: dress: ethod: ugged:		State	Enginee			e	76日 新27 ロ 2:00	

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		(For	OSE	Use	Only)	ŀ

WELL RECORD

9. LOG OF HOLE

Depth in Feet	Thickness	Color and Type of Material Encountered
From To	in feet	color and Type of Material Encountered
0 4	4	SAND loose, dry tan-brown
<u>4</u> 20	16	CALICHE, soft, chert, dry, tan
20 25	5	CTURVELLY SAND, CHEET, OF ENGE SAND MUSTIN
25 45	_ 2c	CIAY, highly plastic, firm dry Maroon
<u> 45 (2) .</u>	05	Sittstone, hard, dry, gray
<u>120</u> 120	55 5	Claystone, hard, dry marcon w/ gray mottling
125 240	115	Claystone, interbedded wil siltstone marcon Claystone dry marcon wi gray moffling
240 260	50	siltstone, have, damp ciray
260 265	5	claystone, dry, marcon with gray mottling
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Trn Number: 376949

21.38.32,122

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belief	dersigned , the for	hereby ce	ertifies a true a	that, to	the best	of his kr of the ak	nowledge bove des	and cribed
belief	dersigned, the fore	hereby ce egoing is ————————————————————————————————————	ertifies a true a	that, to	the best t record O4/24 (mm/dd/y	of his krof the about 10.7 ear)	nowledge bove des	and cribed
belief	dersigned, the fore	hereby ce egoing is ————————————————————————————————————	ertifies a true a ler	that, to	t record	of his kr of the ak 07 ear)	nowledge pove des	and
oelief nole.	, the for	hereby ce egoing is /(Drill	a true a	nd correc	t record O4/24 (mm/dd/y	of the ab	ove des	cribed
oelief nole.	, the for	egoing is Drill	a true a	nd correc	OY/24 (mm/dd/y	of the ab	ove des	cribed
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belief hole.	, the for	egoing is Drill	ler	nd correct	OY/24 (mm/dd/y	of the ab	ove des	cribed
belief hole.	, the for	egoing is Drill	ler	nd correct	OY/24 (mm/dd/y	of the ab	ove des	cribed
belief hole.	, the for	Pril) FOI	a true a	nd correct	OY/24 (mm/dd/y	of the ab	ove des	cribed
Quad	, the for	Pril) FOI	a true a	nd correct	OY/24 (mm/dd/y	of the ab	eove des	Cribed 1991 1992 1992 1992 1992 1992 1992 199
Quad	, the for	FOI	a true a	NGINEER L	OY 24 (mm/dd/y) USE ONLY cation No. This Lin	e Number:	376	7631 MR. 2.1 D 2: 0.3
Quad	FWL_	FOI	a true and t	nd correct	OY/24 (mm/dd/y) USE ONLY cation No. This Lin Trn of 4	e Number:	eove des	7631 MR. 2.1 D 2: 0.3

W-B

File	Number:				
		(For	OSE	Use	Only)

1. OWNER OF WELL	
Name: Louisiana Every S	ervices Work Phone: 506.394, 5201
Contact: Laurie wetherell Address: P.O. Box 1789	Home Phone:
City: <u>Evnice</u>	State: Non Zip: 58231
2. LOCATION OF WELL (A, B, C, or D required,	, E or F if known)
A. NE 1/4 NE 1/4 NW1/4 Sect in /ea	ion: 32 Township: 215 Range: 386 N.M.P.M. County.
B. $X = $ feet, $Y = $ Zone in the U.S.G.S. Quad Map	feet, N.M. Coordinate System Grant.
oio.oio. gada imp	_
	s Longitude: <u>103</u> d <u>04</u> m <u>59.861</u> s
D. East (m), North	(m), UTM Zone 13, NAD (27 or 83)
E. Tract No, Map No	of the Hydrographic Survey
F. Lot No, Block No Subdivisi	of Unit/Tract of the on recorded in County.
G. Other:	
H. Give State Engineer File Numbe	r if existing well: <u>CP-950</u>
	Lea County, NM
	272 COURT NIVI
3. DRILLING CONTRACTOR	
License Number: 1575 Name: Talon/LPE Agent: Shawe Correct Mailing Address: 921 N. Bivins	Work Phone: <u>806.467.0607</u> Home Phone: <u>806.616.822</u> 0
	State: TX 2ip: 79107
4. DRILLING RECORD	
Drilling began: 3/21/07; Complessive of hole: 7-7/2 in.; Total deposition of the completed well is: Monitor	(shallow, artesian);
Depth to water upon completion of	well: ft.
	SW SWE
Do Not Wr:	ite Below This Line
File Number: <u>CP-950</u>	Trn Number: 376948
Form: wr-20	page 1 of 4
	Monitor 2 ES
	21,38,32,122

File	Number:				
	15	or	OSE	Use	Only

	in feet	water		format	ion		ted Yi GPM)	eld
ECORD OF CASING	G						-	
Diameter Pound (inches) per f <u>4 x040</u> Pc	t. per in.	Top 	Bottom 	(feet) _(O.	_ N/A		From _ <i>N/A</i> _	To
	v:				PVC end	(4b	70:1	
ECORD OF MUDDI	ING AND CEM	ENTING						
Depth in Feet From To C Z 7	Hole Diameter 7-7/8	Sacks of mud	of Ce	<u> </u>	Method of temperature in the second s	penton	ite la	
								
Plugging Contra	ctor:							
Plugging Contra Add Plugging Me Date Well Plu	ctor: ress: thod: gged:							
Plugging Me	ctor: lress: thod: gged: red by: No. Depth Top 1 2 3		State t Cubi	Enginee	r Represei			
Plugging Contra Add Plugging Me Date Well Plu	No. Depth Top 1 2 3 4 5	in Fee Botton	State t Cubi	Enginee c Feeto	r Represer			ROSH

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(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

epth in rom	reet To	in feet	Color and Type of Material Encountered
Ġ	Z	Z	SAND, loose moist, tan to brown
2 -	15	13	CALICHE, SOFF, chest graves, moist, orange - tain,
<u> </u>	19	4	Gravelly SAND, light rementation moist red sand
4	.72		Clav, highly plastic; firm, moist, Marron w/ gray n
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		n	Trn Number: 3769483
		<u> </u>	Trn Number: 3769482

Fil

Form: Wr-20

21,38.32,122

page 3 of 4

File	Number	:		_	
		{For	OSE	Use	Only)

				
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pelief, the foregoing is	a true and corre	the best of the cord of the co	of his knowl of the above 2001 ear)	edge and described
pelief, the foregoing is note.	a true and corre	the best of the ct record of the cold of t	of his knowl of the above 2001 ear)	edge and described
Drill	e true and corre	04/24/ (mm/dd/yd	of the above <u>200</u> 7 ear)	e described
Pelief, the foregoing is note. Drill	e true and corre	O4/24/ (mm/dd/yd	of the above	described
Pelief, the foregoing is note. Drill	e true and corre	O4/24/ (mm/dd/yd	of the above	described
Pelief, the foregoing is note. Drill	e true and corre	O4/24/ (mm/dd/yd	of the above	described 7601 APR
pelief, the foregoing is note. Drill	e true and corre	O4/24/ (mm/dd/yd	of the above	described 7807 APR 27
Pelief, the foregoing is note. Drill FOI Quad; FWL; FSL	e true and corre	O4/24/ (mm/dd/yd	of the above	described 7807 APR 27
Pelief, the foregoing is note. Drill FOI Quad; FWL; FSL	a true and corre	O4/24/ (mm/dd/yd	of the above	described 7807 APR 27
FOI Quad; FWL; FSL	a true and corre	USE ONLY cocation No. Trn	of the above	described 780 APR 27
FOI Number:	R STATE ENGINEER ; Use; L	USE ONLY cocation No. Trn of 4	Number:	described 760 APR 27

WLB

File	Number	:			
		(For	OSE	Use	Only

Name: Louisiana Energy Services	Work Phone: 505.394.5204
Contact: Laurie Wetherell Address: P.O. Box 1789	Home Phone:
City: EUNICE	State: Zip: _8823(
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. $NW_{1/4}$ $NE_{1/4}$ $NW_{1/4}$ Section: 32 Township in Lea	:215 Range: 38EN.M.P.M. County.
B. X = feet, Y = fe Zone in the U.S.G.S. Quad Map	et, N.M. Coordinate System Grant.
C. Latitude: 37 d 26 m 35.007 s Longitude:	107 da5 m \$ 300 .
D. East (m), North (m), UTM	
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the County.
G. Other:	
H. Give State Engineer File Number if existing wel	1: <u>CP- 952</u>
I. On land owned by (required): Lea County ,)	Um
3. DRILLING CONTRACTOR	
License Number: 1575 Name: Talon LPE Agent: Shave Currie Mailing Address: 921 N. Bivins	Work Phone: 806.467.0607 Home Phone: 806.676.8770
City: Amarillo	State: TX Zip: 79107
4. DRILLING RECORD	
Drilling began: 3/21/07; Completed: 3/2/07; Size of hole: 7-78 in.; Total depth of well: 26.4 Completed well is: Monitor (shallow, artempth to water upon completion of well: DRY	ft.; Sian);
Do Not Write Below This Lin	
File Number: <u>(P-952)</u> Form: wr-20 page 1 of 4 Montae	21, 38, 32, 121

File	Number	:			
		(For	OSE	Use	Only

	Thickness in feet	water-	_	format	ion	(ted Yield GPM)
ECORD OF CASIN	lG		_				
Diameter Poun (inches) per 4 SH40	ft. per in. PVC こ PVC こ	Top	Bottom 16.9 36.9	(feet) 	N/A PVC End	cap	From To
ECORD OF MUDD	ING AND CEM	ENTING					
Depth in Feet From To C 4 14	Diameter 7-7/g 7-7/x	of mud	of Cer	ment	Method Trewie	- Ceme	cement ut/benton ute chips
LUGGING RECOR Plugging Contro Add	actor:						
Plugging M							
Date Well Plu	подео:						
Prugging M	подео:				r Represe		
Date Well Plu	No. Depth Top		State 1	Enginee	r Represe		e [3]
Date Well Plu	ved by: No. Depth Top	in Feet	State 1	Enginee	r Represe		* 191 168 27 17 2:
Date Well Plu	No. Depth Top 1 2 3 4 5	in Feet	State 1	Enginee:	r Represe		191 MB 27 P

File	Number	: _				
		(For	OSE	Use	Only	

9. LOG OF HOLE

Depth i		Thickness in feet	Color and Type of Material Encountered
From O	oT S	2	Sand, losse, moist, burnt arrange
2.	20	15	Christia made in call of all documents with a succession
<u> </u>	27	7	CALICHE, realative soft, chest, dry tan-light orange
-22	<u> </u>	73	Cizy highly platic firm, dry marcon
			Tich Midnid Missill I Lowy Lord Missilland
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le Numbe	::: <u></u>	70 <u>8</u>	Trn Number:
Fo	rm: wr-	20	page 3 of 4
			21,00,02,121

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The undersig	ned hereby co	ertifies th	at, to the	best of his	knowledge	e and
The undersigned in the nole.	ned hereby conforegoing is	a true and	correct re	best of his cord of the 1/24/2001 /dd/year)	knowledge above de:	e and scribed
pelief, the mole.	foregoing is	a true and	correct re	cord of the	above de:	scribed
pelief, the mole.	foregoing is	a true and	correct re	cord of the	above de:	scribed
pelief, the mole.	foregoing is Drill	a true and	correct re	cord of the	above de:	scribed
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pelief, the nole.	foregoing is Drill	a true and	Correct re Out (num CINEER USE O	cord of the	above de:	ROSEELLIE 27
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pelief, the nole.	foregoing is Drill FOI	R STATE ENC	Correct re (mm GINEER USE O ; Location	cord of the	above de:	RISTER 27 5 2
Quad; FW	FOIL; FSL	R STATE ENC	Correct re Out (num CINEER USE O	cord of the	above des	SUSSECTION 27 D 2 03
pelief, the nole.	FOIL; FSL	a true and Ler R STATE ENC : Use Do Not Writ	Correct re (mm GINEER USE O ; Location	cord of the	above de:	SUSSECTION 27 D 2 03

File Number: (For OSE Use Only)

1. OWNER OF WELL
Name: Louisiana Energy Services Work Phone: 505.3914.5704 Contact: Laurie wethereil Home Phone:
Address: P.O. Box 1789
City: Eunice State: Nix Zip: \$8231
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)
A. $NE_{1/4} NW_{1/4} NW_{1/4}$ Section: 32 Township: $2/5$ Range: $38E$ N.M.P.M. in Lea County.
B. X = feet, Y = feet, N.M. Coordinate System Zone in the Grant. U.S.G.S. Quad Map
C. Latitude: 32 d 26 m 37.999 s Longitude: 103 d 05 m 19.283 s
D. East (m), North (m), UTM Zone 13, NAD (27 or 83)
E. Tract No, Map No of the Hydrographic Survey
F. Lot No. , Block No. of Unit/Tract of the Subdivision recorded in County.
G. Other:
H. Give State Engineer File Number if existing well: $CP - 953$
I. On land owned by (required): Lea County, NM
3. DRILLING CONTRACTOR
License Number: 1575
Name: Talon / LPE Work Phone: 806.467.0607
Agent: Shane Currie Home Phone: 806.676.8720
Mailing Address: 121 V. Biv:nS
City: _ Amarillo State: TX Zip: 79107
4. DRILLING RECORD
Drilling began: 3/22/07; Completed: 3/29/07; Type tools: Air Rotard Size of hole: 7-7k in.; Total depth of well: 257.5 ft.; Completed well is: Monitor (shallow, artesian); Depth to water upon completion of well: 24/.26 ft.
Do Not Write Below This Line
File Number: <u>CP-953</u> Trn Number: <u>376953</u> m
Monitor 21.38.32.112
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File	Number	:			
		(For	OSE	Use	Only)

5. PRINCIPAL WATER-BE	ARING STR	RATA						
From To 241.26 257.5 1	hickness in feet 6.24	water	-bearing	f format <i>Interbe</i> e	ion		PM)	
6. RECORD OF CASING								
Diameter Pounds (inches) per ft.	per in.	Top	Bottom	(feet)			From	
4 Sch 40 PUC 4 Sch 40 PUC	2	<u>237.5</u>	257.5	237.5 2c	PUC Code	∂ p	<u> 237.5</u>	<u> 257.5</u>
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7. RECORD OF MUDDING	AND CEME	ENTING						
From To Dia	Hole ameter	Sacks of mud	of Ce	Feet ment	Method o		_	ما ملہ
$\frac{0}{15}$ $\frac{75}{230}$ $\frac{7}{1}$	-7/8 -7/K	<u>i(5</u>	Z() [<u>//</u>	tremie - 1	bento	wite	chips
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8. PLUGGING RECORD Plugging Contracto Addres Plugging Metho	3s:				·			
Date Well Plugge		<u>-</u>						<u>~~</u>
Plugging approved	by:	- <u></u>						SH
			State	Engineer	Represen	tative	: · ·	
1	No. Depth Top	in Feet Botton		c Feetof	Cement		•	でなる。
2 - 3 -								2: OH
4 - 5 <u>-</u>								<u> </u>
		Not Wri	te Belo	w This I	ine		.	
File Number: CP of Form: wr-20	953		page 2		rn Number	: <u>37</u>	<u>695</u>	2
		フ	Marit	i	.,≼	1.38.	3.2.	11.2

ile	Number	:			
		(For	OSE	Use	Only)

9. LOG OF HOLE

Depth in From C	10 5 15 35 50 200 210 245 255	Thickness in feet 5 10 20 /5 150 10 35 10	SAND, loose moist bount orange CRLICHT, hard dry orange CIAY, high Plastic marron w/ gray mottling Stateme, hard dry gray Claystone, by marron Claystone, wi interbedded siltstone, hard dry marron Claystone, bard, dry marron w/ gray splothing Claystone, w/ interbedded siltstone hard, dry marron
255	200	<u> </u>	claystone, hard, dry marson gray mottling
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page 3 of 4

7rn Number: <u>376952</u> 21.38.32.112

File	Number	:			
		(For	OSE	Üse	Only

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.			
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 FOR STATE ENGINEER USE ONLY Quad; FWL; FSL; Use; Location No Do Not Write Below This Line			
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 FOR STATE ENGINEER USE ONLY Quad; FWL; FSL; Use; Location No Do Not Write Below This Line			· · · · · · · · · · · · · · · · · · ·
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 FOR STATE ENGINEER USE ONLY Quad; FWL; FSL; Use; Location No Do Not Write Below This Line			
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 FOR STATE ENGINEER USE ONLY Quad; FWL; FSL; Use; Location No Do Not Write Below This Line			
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 (mm/dd/year) FOR STATE ENGINEER USE ONLY Quad; FWL; FSL; Use; Location No Do Not Write Below This Line			
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 FOR STATE ENGINEER USE ONLY Quad; FWL; FSL; Use; Location No Do Not Write Below This Line			
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 FOR STATE ENGINEER USE ONLY Quad; FWL; FSL; Use; Location No Do Not Write Below This Line			
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 FOR STATE ENGINEER USE ONLY Quad; FWL; FSL; Use; Location No Do Not Write Below This Line			
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. 4/24/2007			
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. 4/24/2007			
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. 4/24/2007			
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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. 4/24/2007			
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 Driller FOR STATE ENGINEER USE ONLY Do Not Write Below This Line			
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 Driller FOR STATE ENGINEER USE ONLY Do Not Write Below This Line	:		
belief, the foregoing is a true and correct record of the above described hole. 4 24 2007			
FOR STATE ENGINEER USE ONLY Quad; FWL; FSL; Use; Location No Do Not Write Below This Line	belief, the foregoing is a t	ifies that, to the best of his known true and correct record of the about	wledge and we described
Do Not Write Below This Line	belief, the foregoing is a thole.	true and correct record of the above 24/24/2007 (num/dd/year)	ve described ROSWELL, REAL
	belief, the foregoing is a thole. Driller	True and correct record of the above	ve described RGSWELL, WELL O
e Number: <u>CP-953</u> Form: wr-20 page 4 of 4	belief, the foregoing is a thole. Driller FOR ST	TATE ENGINEER USE ONLY	ve described RGSWELL, NEW O
	belief, the foregoing is a thole. Driller FOR ST	TATE ENGINEER USE ONLY Use; Location No	ve described RGSWELL, WELL O
$\sum_{i=1}^n 2/.5\delta.52.77$	belief, the foregoing is a thole. Driller FOR ST Quad; FWL; FSL; Do N e Number:	TATE ENGINEER USE ONLY Use; Location No	ve described RGSWELL, NEW 27 17 20 CL

Moniter

W. B

File	Number	:			
		(For	OSE	Use	Only)

Name: Louis and Energy Services Work Phone: 505.344.55 Contact: Laurie Wellarell Home Phone: Address: P.O. Box 1789 State:NM Zip: 88231 City: Eunice State:NM Zip: 88231 2. LOCATION OF WELL (A, B, C, or D required, E or Fif known) A. MW1/4 NW1/4 NW 1/4 Section: 32 Township 2/5 Range: N.M.P.M County B. X = feet, Y = feet, N.M. Coordinate System Grant U.S.G.S. Quad Map Grant C. Latitude: 32 d 26 m 27.146 s Longitude: 103 d 05 m 22.714 s D. East (m), North (m), UTM Zone 13, NAD (27 or 83) E. Tract No. , Map No. of the Hydrographic Survey F. Lot No. , Block No. of Unit/Tract Of the Subdivision recorded in County County Subdivision recorded County County Subdivision recorded County County Subdivision recorded County County Subdivision recorded County County Subdivision recorded County County Subdivision recorded County County Subdivision recorded County County Subdivision County County Subdivision County County County Count
City: Eunice State: NM Zip: 88231 2. LOCATION OF WELL (A, B, C, or D required, E or F if known) A. NW1/4 NW1/4 NW 1/4 Section: 32 Township: 3/5 Range: N.M.P.M County B. X = feet, Y = feet, N.M. Coordinate System Zone in the
City: Eunice State: NM Zip: 88731 2. LOCATION OF WELL (A, B, C, or D required, E or F if known) A. NW1/4 NW1/4 NW1/4 Section: 32 Township: 2/5 Range: 32 N.M.P.M. County B. X = feet, Y = feet, N.M. Coordinate System Zone in the Grant U.S.G.S. Quad Map C. Latitude: 32 d 26 m 27.446 s Longitude: 103 d 05 m 22.714 s D. East (m), North (m), UTM Zone 13, NAD (27 or 83) E. Tract No, Map No of the Hydrographic Survey
A. NW1/4 NW1/4 NW 1/4 Section: 32 Township: 3/5 Range: N.M.P.M. County B. X = feet, Y = feet, N.M. Coordinate System Zone in the Grant U.S.G.S. Quad Map C. Latitude: 32 d 26 m 27.446 s Longitude: 103 d 05 m 22.714 s D. East (m), North (m), UTM Zone 13, NAD (27 or 83) E. Tract No, Map No of the Hydrographic Survey
B. X =
C. Latitude: 32 d 26 m 27.446 s Longitude: 103 d 05 m 22.714 s D. East
D. East (m), North (m), UTM Zone 13, NAD (27 or 83) E. Tract No, Map No of the Hydrographic Survey
E. Tract No, Map No of the Hydrographic Survey
F. Lot No, Block No of Unit/Tract of the Subdivision recorded in County.
G. Other:
H. Give State Engineer File Number if existing well: <u>CP-954</u> I. On land owned by (required): <u>Lea County</u> , <u>NM</u>
3. DRILLING CONTRACTOR
License Number: 1575 Name: Talou / LPE Agent: Shanf Curric Home Phone: 806.4676.872 Mailing Address: 921 N. Rivins
City: Amarillo State: TX Zip: 79/07
4. DRILLING RECORD
Drilling began: 3/22/07; Completed: 3/30/07; Type tools: Air 20/32/07; Size of hole: 7-7/x in.; Total depth of well: 23/24 ft.; Completed well is: Monitor (shallow, artesian); Depth to water upon completion of well: DRY ft.
Do Not Write Below This Line 3 CF G54 File Number: CF G54 Trn Number: 376954
File Number: <u>CP-054</u> Form: wr-20 page 1 of 4 April 21, 38, 32, 111

File	Number:				
	()	or	OSE	Use	Only

DRY.		Thickness in feet							
			·						
ECORD C	OF CASING								
Diamete:	r Pounds	Threads	Depth	in Feet	Length	Type of	f Shoe	Perfo	ration
(inches) per ft	. per in.		Bottom 216.4				From	To
ㅂ	<u> </u>	K _ Z	_0_	216.4	2164	NIA		NIA	
4	<u> </u>	K 2	216.4	236.4	_20_	PUL. PUL	CZD	264	2360
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COPD C	E MUDDIN	G AND CEM		· 					
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_	n Feet To D		Sacks			Method	of Pla	cement	
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(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

Depth in Fee	t Thickness	Color and Type of Material Encountered
From To	o in feet	
<u>C 10</u>	10	SAND, fine loose moist, burnt orange
10 20		CALICHE GOFF light orange
<u> 20 35</u>	15	Siltstone have any gray
35 45		- claystone, have shy marrown wherey mothery
45 30		claystone intented and siltstone marons toray
<u>50 15</u>	25	claystone dry maroon wi gray mottling
<u>75 </u>		siltstone of interbeded claystone
<u>85 (0)</u>		Claystone, hand dry marron u/gray mottling
105 110	<u> </u>	- Silt stone wi intersected clayStone hard dry gray & mavor
110 130		- Claystone, city marrow wy gray mottling
130 160		Clarstone, with siltstone bry marcon & gray.
160 <u>170</u>		Claristone, dry marcoin to purple w/ grow mothing
170 - 175		siltstone, handidry gray
175 180		claystone, hand dry maroon we grav mottling
180 190		Siltstone w/ Claystone dry gray & margon
190 215		(laystone, hard, dry, marcon w/ gray & marron
215 235		silt Home, hard, dry, gray
235 245	10	claystone, hard, dry maronn w/ gray
		
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(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

		
		
		
		
		
		
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The undersigned h	ereby certifies that, to the best of his oing is a true and correct record of the	knowledge and
The undersigned hole.	ereby certifies that, to the best of his oing is a true and correct record of the Driller O4/24/2007 (mm/dd/year)	knowledge and above described
The undersigned holeinef, the foreghole.	\bigcirc	knowledge and above described
The undersigned holief, the foreghole.	\bigcirc	1897 - F. S.
The undersigned holief, the foreghole.	Driller (mm/dd/year)	180 K
The undersigned holief, the foreghole.	Driller O4/24/2007 (mm/oid/year)	1911 MA 27
hole.	Driller O4/24/2007 (mm/dd/year) FOR STATE ENGINEER USE ONLY	7001 MA 27 D
hole.	Driller (mm/dd/year)	1911 MA 27
hole.	Driller O4/24/2007 (mm/dd/year) FOR STATE ENGINEER USE ONLY	7001 MA 27 D
hole.	Driller (mm/dd/year) FOR STATE ENGINEER USE ONLY ; FSL; Use; Location No Do Not Write Below This Line 754 Trn Number	7001 MA 27 D

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File	Number:			
	(For	OSE	Use	Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

Name: Louisiana Energy Services	Work Phone: 505-394-5204
Contact: Laurie Wetherell	
Address: P.O. Box 1789	
City: Eunice	State: NM 2ip: 88231
2. LOCATION OF WELL (A, B, C, or D required, E or F if know	vn)
Cal Cul NE 22	218 286
A. $\frac{SW}{in}$ 1/4 $\frac{SW}{ea}$ 1/4 $\frac{NE}{E}$ 1/4 Section: $\frac{32}{E}$ To	ownship:X/\to Range:\(\frac{\cappa_0}{\cappa_0}\) N.M.P.M.
1n <u>1,etc</u>	County.
B. X = feet, Y =	feet, N.M. Coordinate System
B. X = feet, Y = Zone in the	Grant.
U.S.G.S. Quad Map	
C. Latitude: <u>32 d 26 m 14.8482</u> s Lond	gitude: <u>103</u> d <u>04</u> m <u>40.2564</u> s
D. East (m), North (m), UTM ZONE 13, NAD (27 OF 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/T	ract of the
Subdivision recorded	d in County,
G. Other:	co (life
	7 3
H. Give State Engineer File Number if exist	ing well: CP-995
T On land arrand by two-sizeds. Tanksians	
I. On land owned by (required): <u>Louisiana</u>	ing well: CP-995 0
3. DRILLING CONTRACTOR	
License Number: 1575	
Name: Talon Drilling	Work Phone: 806 467 0607
Agent: Shane Currie	Home Phone: 806.467.0622
Mailing Address: 921 N. Bivins	
City: Amarillo	State: <u>TX</u> Zip: <u>79107</u>
•	
4. DRILLING RECORD	
Drilling began: <u>12/5/08</u> ; Completed: <u>12/</u>	5/08 : Type tools: Air-Rotary:
Size of hole: 7-7/8 in.; Total depth of wel	1: 38 ft.;
Completed well is: Monitor (shallo	
Depth to water upon completion of well: <u>Dr</u>	y ft.
:	
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File Number: $CP-995$	Trn Number: 418652 £ 4 21,38,32,233
Form: wr-20 page 1 o	f 4
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File	Number	:			
		(For	OSE	Use	Only)

From To Dry		water-b	earing formati	.on	((ted Yiel GPM)	
ECORD OF CASING	}			-			
Diameter Pounds (inches) per f 4 PVC Sch 4	t. per in. 0 2	Top B	Feet Length ottom (feet) 38 41	end	cap	78 <u>28</u>	70 38
ECORD OF MUDDI						 .	
<u>0</u> <u>5</u> <u>25</u>	Hole Diameter 7-7/8 7-7/8	of mud	of Cement 20 Sacks T	oured (Bento	nite/C	emen hips
LUGGING RECORD						;;;à	
Plugging Contra						7-5	
Add Plugging Me	thod:						
Add Plugging Me	thod: gged:		<u> </u>) -
Add Plugging Me Date Well Plu Plugging approve	thod:gged: ed by: No. Depth Top			r Represe		e .) -
Add Plugging Me Date Well Plu Plugging approve	thod:gged: ed by: No. Depth	i in Feet	State Enginee	r Represe		e .	} -

File Number: CP-995
Form: wr-20 page 2 of 4

File	Number	:			
		(For	OSE	Use	Only

9. LOG OF HOLE

Depth From	in Feet To	in feet	Color and Type of Material Encountered
		9	Sand, lightly cemented, tan to lt orange
<u>0</u>	9	13	Caliche, relative soft, lt gray
. 3	36	12	Gravelly sand, chert, tan to lt red matrix
<u>4</u> 36	38	2	Claystone, purple
30			Clayscone, purple
			
			
			
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page 3 of 4

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belief, hole.	the fore	going is a	true and	correct	record of /2/29/() [mm/dd/yea	the abov	vledge and ve describ	ed
belief, hole.	the fore	Driller	true and	correct	record of 2 29 () () () () () () () (the abov	vledge and ve describ	ed
belief, hole.	the fore	Driller	TATE ENG	INEER US	record of /2/29/Cimm/dd/yea	the abov	vledge and ve describ	ed
belief, hole.	the fore	Driller FOR S	TATE ENG	INEER US	record of /2/29/C mm/dd/yea E ONLY This Line	the above	vledge and ve describ	ed
belief, hole.	the fore	Driller FOR S	TATE ENG	INEER US	record of /2/29/C mm/dd/yea E ONLY This Line	the above	vledge and ve describ	ed

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File	Number:			
	(For	OSE	Use	Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

1. OWNER OF WELL	505 504 5004
Name: Louisiana Energy Services	Work Phone: 505-394-5204
Contact: Laurie Wetherell Address: P.O. Box 1789	Home Phone:
Address: F.O. BOX 1789	
City: Eunice	State: NM Zip: 88231
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. $\frac{5W}{1/4} \frac{5W}{5W} \frac{1/4}{1/4} \frac{NE}{1/4} \frac{1/4}{1/4} \frac{32}{1/4} \frac{1}{1/4} \frac{1}{1/4} \frac{32}{1/4} \frac{1}{1/4} \frac{1}{1/4} \frac{32}{1/4} \frac{1}{1/4} \frac{1}{1/$: <u>2/S</u> Range: <u>38</u> EN.M.P.M. County.
B. X = feet, Y = fe Zone in the U.S.G.S. Quad Map	et, N.M. Coordinate System Grant.
0.5.6.5. Quad Map	
C. Latitude: <u>32</u> d <u>26</u> m <u>13.383</u> s Longitude:	<u>103</u> d <u>04</u> m <u>52.212</u> s
D. East (m), North (m), UTM	Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract	of the
Subdivision recorded in	County-
	<u></u>
G. Other:	
H. Give State Engineer File Number if existing wel	1; <u>CP-996</u>
I. On land owned by (required): Louisiana Energ	in the second se
3. DRILLING CONTRACTOR	
License Number: 1575 Name: Talon Drilling Agent: Shane Currie Mailing Address: 921 N. Bivins	Work Phone: 806.467.0607 Home Phone: 806.467.0622
City: Amarillo	State: <u>TX</u> Zip: <u>79107</u>
4. DRILLING RECORD	
Drilling began: 12/5/08; Completed: 12/5/08; Size of hole: 7-7/8in.; Total depth of well: 39 Completed well is: Monitor (shallow, arted Depth to water upon completion of well: Dry	ft.; esian);
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File Number: <u>CP-996</u> Tr	21.38.32.233
Form: wr-20 page 1 of 4	21.38.32.233

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File	Number	:			
		(For	OSE	Use	Only)

-	in feet wat	scription o cer-bearing	, formatio	n (ted Yiel (GPM)	_
		<u>.</u>	 		_	
RECORD OF CASING				· · · · · · · · · · · · · · · · · · ·		
Diameter Pounds	Threads Deni	th in Feet	Length	Type of Shoe	Perfora	ation:
(inches) per ft. 4 PVC Sch 40	per in. Top	Bottom 39	(feet) 42	end cap	From	70 36
			_ 			
RECORD OF MUDDING	AND CEMENTIN	NG				
0_57~	meter of 1	20	ement <u>Sacks Tr</u>	Method of Pla	onite/C	emen
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PLUGGING RECORD Plugging Contracto Addres Plugging Metho	ss:					
Date Well Plugge					·	(7)
Plugging approved					ۇ. قىرى	្តីស្តែ ភ្នំស្តែ
	-	State	Engineer	Representativ	ve (i	
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page 2 of 4

File	Number:			
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9. LOG OF HOLE

Depth	in Feet	Thickness	Color and Type of Material Encountered
From	To	in feet	
0 10	10	10	Sandstone, lightly cemented, burnt orange Caliche, soft, lt orange to tan Gravelly sand, abundant chert, lt orange-tan
10	21	11	Caliche, soft, lt orange to tan
21	<u>21</u> 37	16	Gravelly sand, abundant chert, lt orange-tan
21 37	39	2	Claystone, purple
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The undersigned hereby certi-	fies that.	to the bes	t of his kn	owledge å	md
pelief, the foregoing is a t	fies that,	to the besorrect record	d of the ab	owledge å ove desci	md ∷bed ∵
=======================================	rue and co	/Z/Z (mm/dd	d of the ab //year)	ove descr	iped:
Driller	THE ENGIN	EER USE ONLY	d of the ab	ove descr	ibed:
FOR ST.	ATE ENGIN	EER USE ONLY	d of the ab	ove descr	ibed:
FOR ST.	ATE ENGIN	EER USE ONLY _; Location No.	d of the ab	ove descr	ibed

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File	Number:		_	
	(For	OSE	Use	Only)

1. OWNER OF WELL	_
Name: Louisiana Energy Services	Work Phone: 505. 394.6204
Contact: Laurie Wetherell	Home Phone:
Address: P. C. Box 1789	
City: Eunice	State: VM Zip: <u>\$8231</u>
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. $SW_{1/4} NW_{1/4} SW_{1/4} Section: 32$ Towns in Lea	hip: <u>2/5</u> Range: <u>38</u> N.M.P.M.
B. X = feet, Y = Zone in the U.S.G.S. Quad Map	feet, N.M. Coordinate System Grant.
C. Latitude: 32 d 25 m 56.857 s Longitu	de: <u>103</u> d <u>05</u> m <u>23.671</u> s
D. East (m), North (m), U	TM Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the County.
G. Other:	
H. Give State Engineer File Number if existing	well: <u>CP-955</u>
I. On land owned by (required): Lea County	1 NIM
3. DRILLING CONTRACTOR	
Name: 1575 Name: Tolon/LPC Agent: Shake Currie Mailing Address: 921 A). Biving	Work Phone: <u>806.467.06</u> 07 Home Phone: <u>YOO, 676.87</u> 20
City: Amarillo	State: TX 2ip: <u>19107</u>
4. DRILLING RECORD	
Drilling began: 3/23/07; Completed: 3/29/0 Size of hole: 7-7/x in.; Total depth of well: 3 Completed well is: Monitor (shallow, a Depth to water upon completion of well: DRY	7; Type tools: Air Cotary; 236 ft.; rtesian);
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File Number: CP-955 Form: wr-20 page 1 of 4	Trn Number: 376 955
Marta	21, 38, 32, 313

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Depth in Feet Thickness From To in feet D2Y	water-				Estimated Yield (GPM)		
							
CORD OF CASING			_ .		·		
Diameter Pounds Threads (inches) per ft. per in.	Top	Bottom <u>とし</u>	(feet) - <u>ろ</u> し	NIA		From Nig	То
4 407VC 2						<u> </u>	_225
ECORD OF MUDDING AND CEN	AENTING	,					
0- 75 7-7/8	i	Z	r, ,	tromie.	- 10000	201 / K	an tour
UGGING RECORD Plugging Contractor: Address:	<u> </u>			260V - 1	b <i>en</i> to,	nite.	Chips
UGGING RECORD Plugging Contractor: Address:	<u> </u>			260V	<u>bento</u> ,	nite.	Chips
UGGING RECORD Plugging Contractor: Address: Plugging Method:	<u> </u>			260V	bento.	nite.	Chips
Date Well Plugged: No. Dept.	<u> </u>	State	Engineer	Represe	bento.	nite.	Chips

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File	Number	i			
		(For	OSE	Use	Only)

9. LOG OF HOLE

	in Feet	Thickness	Color and Type of Material Encountered
From	То	in feet	
0	_10		SAND, loose damp tan
	<u>_3c_</u>	20	CALICHE, seft chert gravel with crange pink
20	_35	5	SANDY Gravel, chest dry light sed sand
35	_55_		CLAY, higher plastic firm
55_	100		Claystone wi sitistone have dry marcon & gray
60	220	160	Claystone dry marcon w/ gray motiling
220_	225		Siltstone w/ clarstone involvery grave marrow
225	240	15	Slity claystone, dry, lightired to dank red/marcon
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Trn Number: <u>376955</u>

page 3 of 4

21.38.32.313

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File Number:

(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

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elief, the foregoing	y certifies that is a true and o	t, to the b	est of his	s knowledg	ge and
elief, the foregoing	y certifies that is a true and of	t, to the b correct rec O4 (mm/	est of his ord of the /24/2007 dd/year)	s knowledg e above de	ge and escribed
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elief, the foregoing	y certifies that is a true and of	t, to the b correct rec <u>O4</u> (mm/	est of his ord of the /24/2007 dd/year)	s knowledg e above de	ge and escribed
elief, the foregoing ole.	y certifies that is a true and of the property	COTTECT TEC	ord of the /24/2007 (dd/year)	s knowledge above de	scribed
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Name: Louisiana Energy Services	Work Phone: 5	05-394-5204
Contact: Laurie Wetherell Address: P.O. Box 1789	Home Phone:	
Address: P.O. Box 1789		
City: Eunice	State: NM Zip:	88231
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)		
A. $\frac{NW}{in}$ 1/4 $\frac{NE}{Lea}$ 1/4 $\frac{SW}{a}$ 1/4 Section: $\frac{32}{32}$ Township	: <u>2/</u> 5 _{Range:} 3	SEN.M.P.M. County.
B. X = feet, Y = fe Zone in the U.S.G.S. Quad Map	et, N.M. Coordi	nate System Grant.
C. Latitude: 32 d 26 m 1.1718 s Longitude:		•
D. East (m), North (m), UTM	Zone 13, NAD	(27 or 83)
E. Tract No, Map No of the	Hydrogra	phic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in		of′the County.
G. Other:		ाता जि
H. Give State Engineer File Number if existing wel		-
I. On land owned by (required): Louisiana Energ	y Services	<u>57</u>
3. DRILLING CONTRACTOR		
Manage Number 1575		- 13 A
License Number: 1575 Name: Talon Drilling	Work Phone: 8	06.467 0607
Agent: Snane Currie	Home Phone: 8	06.467.0622
Mailing Address: 921 N. Bivins	•	
City: Amarillo	State: <u>TX</u> 2ip:	79107
4. DRILLING RECORD		
Drilling began: 12/4/08; Completed: 12/4/08; Size of hole: 7-7/8 in.; Total depth of well: 43 Completed well is: Monitor (shallow, arted Depth to water upon completion of well: Dry	ft.; :sian);	ir-Rotary:
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21.38.32.321



File	Number	:				
		(For	OSE	Use	Onl	v)

From To	Thickness in feet	water-b	earing ———	formati	on (ted Yie GPM)	
							
LECORD OF CASIN	٧Ġ						
Oiameter Pour (inches) per 4 PVC Sch	ft. per in. 40 2	Top B	ottom 43.	(feet) 46	Type of Shoe end cap	From 28	To 43
RECORD OF MUDI		·					
_5 _22	Diameter 7-7/8 7-7/8	of mud	of Cei	acks T	Method of Pla rimie (Bento oured (Bento	onite/Conite o	hips
Plugging M	actor:						
Plugging appro						1 - 2	VIS
			State	engineer	Representativ	/e . 	
	No. Depth Top	in Feet Bottom	Cubi	Feetof	Cement	ָּ ט 	20 C.3
	3					63	

Form: wr-20

page 2 of 4

File	Number:	:	_		
		(For	OSE	ปรe	Only

9. LOG OF HOLE

	in Feet	Thickness	Color and Type of Material Encountered
From	To	in feet	
0	11	11	Sand, lightly cemented, burnt orange
11	29	18	Caliche, relatively soft, gray to 1t orange
23	34	11	Gravelly sand, chert gravel, red sand matrix
0 11 23 34	36	2	Caliche, relatively soft, gray to 1t orange Gravelly sand, chert gravel, red sand matrix Claystone, dark purple
			
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Form: wr-20 page 3 of 4

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The undersigned hereby certifies t	hat, to the best of his known	owledge and
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FOR STATE EN Quad; FWL; FSL; Use	d correct record of the about 12/24/08 (mm/dd/year)	ove described
FOR STATE EN Quad; FWL; FSL; Use Do Not Wri	d correct record of the about 12/24/08 (mm/dd/year) GINEER USE ONLY ; Location No te Below This Line	ove described
FOR STATE EN Quad; FWL; FSL; Use		ove described



File	Number	:			
		(For	OSE	Use	Only)

News Louisiana Phorov Services	Mark Dhans	E0E-204-E20
Name: Louisiana Energy Services Contact: Laurie Wetherell	Home Phone:	303-334-320
Address: P.O. Box 1789		
City: Eunice	State: NM Zir	o: <u>88231</u>
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)		
A. $\frac{NE}{in} = \frac{1/4}{Lea} = \frac{NE}{1/4} = \frac{SW}{1/4} = \frac{32}{Lea}$ Townsh	ip: <u>2/</u> 5 Range: <u>s</u>	386 N.M.P.M. County.
B. X = feet, Y = Zone in the U.S.G.S. Quad Map	feet, N.M. Coord	dinate System Grant.
C. Latitude: 32 d 26 m 1.071 s Longitud	e: <u>103</u> d <u>05</u>	m <u>3.048</u> s
D. East (m), North (m), UT	M Zone 13, NAD _	(27 or 83)
E. Tract No, Map No of the	Hydrog	caphic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in		of The County.
G. Other:		- i-m
H. Give State Engineer File Number if existing w	ell: <u>CP-998</u>	<u> </u>
I. On land owned by (required): Louisiana Ene	rgy Services	7 3
3. DRILLING CONTRACTOR		L-0 PH 21
License Number: 1575 Name: Talon Drilling Agent: Shane Currie Mailing Address: 921 N. Bivins	Work Phone:	806.467.060° 806.467.062°
City: Amarillo	State: <u>TX</u> 2ig	o: <u>79107</u>
4. DRILLING RECORD		
Drilling began: 12/4/08; Completed: 12/4/08 Size of hole: 7-7/8 in.; Total depth of well: 25 Completed well is: Monitor (shallow, ar Depth to water upon completion of well: Dry	<pre>0 ft.; tesian);</pre>	Air-Rotary;
:		
Do Not Write Below This	Line	
File Number: CP-998 Form: wr-20 page 1 of 4	Trn Number: 4	18655

Monitor

21,38.32,322

File	Number	: _ _			
		(For	OSE	Use	Only)

Depth in Feet Thickness From To in feet Dry		t water	water-bearing formation			Estimated Yield (GPM)				
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	eter			ds Depth	in Feet Bottom			f Shoe	Perfo From	
4 E	VC	per Sch	ft. per i 40 2	.n. 10p +3	250	253	end	cap		
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RECO	RD OF	MUDI	DING AND C	EMENTING						
		Feet				Feet	Method	of Pla	cement	
From	T	0						.		_
0 20		20_	7-7/8		20 5	Sacks T	<u>rimie</u> oured	(Bento	nite/	Cement
	'		7-7/8		<u> </u>	<u> </u>	oured	(Bence	mirce	cuips,
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Plug	ging		ractor:							
		ging l	ddress: Method: lugged:					· · · · · · · ·		
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Da	te W	ging l	Method: lugged:				<u></u> :		/e	
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Da	te W	ging l	Method:	:	State	Engineer	Repres	entativ	re	င္၁
Da	te W	ging l	Method:	pth in Fee	State	Engineer	Repres	entativ	/e	C) T
Da	te W	ging l	Method:	pth in Fee	State	Engineer	Repres	entativ	re	C) T
Da	te W	ging l	No. De Top 1 2 3 4	pth in Fee	State	Engineer	Repres	entativ	7 e	C) T
Da	te W	ging l	Method:	pth in Fee	State	Engineer	Repres	entativ	/e	C) T
Da	te W	ging l	No. De Top 1 2 3 4	pth in Fee	State	Engineer	Repres	entativ	ve	C) T
Da	te W	ging l	No. De Top 1 2 3 4	pth in Fee	State	Engineer	Repres	entativ	re	C) T
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File	Number	:			
		(For	OSE	Use	Only)

9. LOG OF HOLE

Depth in Feet From To	Thickness in feet	Color and Type of Material Encountered
<u>0</u> 12	12	Sand, lightly cemented, burnt orange
$\frac{3}{12}$ $\frac{12}{25}$	13	Caliche, relatively soft, gray to 1t orange
25 <u>36</u>	 11	Sandstone, lightly cemented, burnt orange
36 70	34	Claystone, maroon
70 72	2	Siltstone, hard gray
72 153	81	Claystone, light red with maroon to purple
<u>153</u> <u>215</u>	62	Claystone, maroon to lt red
215 218	3	Siltstone, interbeded w/claystone, gray
<u>218 230</u>	12	Claystone, interbeded siltstone, maroon-gray
230 235	55	Siltstone, interbeded w/claystone, gray
<u>235 250</u>	15	Claystone, lt red to maroon
		
		
		
		
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belief, the f	ed hereby cer oregoing is a Drille	true and co	to the best priect record $\frac{12/29}{(\text{mm/dd/})}$	of the abo $i/0$	wledge and ve describ	ec
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File	Number	:				
		(For	OSE	Use	Only)	

1. OWNER OF WELL			
Name: Louisiana Energy Services	Work Phone:		<u> 2</u> 04
Contact: Laurie Wetherell Address: P.O. Box 1789	Home Phone:		-
	•		
City: Eunice	State: NM Zip:	88231	-
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)		•	
A. $\frac{3E}{1/4}$ $\frac{NE}{NE}$ 1/4 Section: $\frac{32}{32}$ Township	: <u>2/5</u> Range:3	SEN.M.P.M.	, •
B. X - feet, Y = fe	et, N.M. Coord	inate System	n
U.S.G.S. Quad Map			
C. Latitude: <u>32</u> d <u>26</u> m <u>1.0998</u> s Longitude:	<u>103</u> d <u>05</u> r	n <u>1.086</u> s	5
D. East (m), North (m), UTM	Zone 13, NAD _	(27 or 83)	1
E. Tract No, Map No of the	Hydrogra	aphic Survey	7
F. Lot No, Block No of Unit/Tract		of the	.
Subdivision recorded in		County	-
G. Other:		<u>د</u> ت	
H. Give State Engineer File Number if existing wel	•	:==	
		00 3	
I. On land owned by (required): Louisiana Energ	y Services		-:;
3. DRILLING CONTRACTOR			2
License Number: 1575		7.3	`::]
Name: Talon Drilling	Work Phone: {	306.467.06	o7
Agent: Shane Currie	Home Phone:	306.467.06	22
Mailing Address: 921 N. Bivins			
City: Amarillo	State: <u>TX</u> Zip	79107	_
4. DRILLING RECORD			
Orilling began: 12/4/08; Completed: 12/4/08; Size of hole: 7-7/8in.; Total depth of well: 40 Completed well is: Monitor (shallow, arted Depth to water upon completion of well: Dry	ft.; sian);	<u>ir-Ro</u> tary	÷
De New Maine Delay This ti			
File Number: $\frac{P-997}{\text{Form: } \text{wr-20}}$ page 1 of 4	111	18654	7
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File Number:

(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

Depth in Feet From To Dry	in feet	water-b	earing	formati	on 	ated Yie (GPM)	
RECORD OF CASIN	K G						
Diameter Poun (inches) per 4 PVC Sch	ft. per in. 40 2	Top 8	40	(feet) 43	end cap	25	ations To 40
RECORD OF MUDD Depth in Feet		Sacks		Fe et	Method of Pla	acement	
From To 5 20	Diameter 7-7/8 7-7/8	of mud	of Ce 20 S	acks T	rimie (Bento oured (Bento		
PLUGGING RECOR			-				
Plugging Contr Ad Plugging M Date Well Pl	dress:						
Plugging appro	ved by:		State	Engineer	Representati	VA :	
			•	,			1
	No. Depth Top	in Feet Bottom	Cubi	c Feetof	Cement	:5 :5	·
	•		Cubi	c Feetof	Cement		
	Top 1 2 3 4		Cubi	c Feetof	Cement		2 A A A A A A A A A A A A A A A A A A A

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page 2 of 4

File	Number	:			
		(For	OSE	Use	Only)

9. LOG OF HOLE

Depth	in Feet	Thickness	Color and Type of Material Encountered	
From	To	in feet		
0 11 29	11	11	Sandstone, slight cemented, burnt orange	_
11	<u>29</u> 37	18	Caliche, soft, gray to lt orange Gravelly sand, abundant chert, orange san	_
29	37	. 8	Gravelly sand, abundant chert, orange san	<u>.d</u>
37	40	3	Claystone, maroon	
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Form: wr-20 page 3 of 4

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Quad; FWL;	FOR STATE E FSL; Use Do_Not_Wr		ntion No	4/8659

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File	Number:				
	(Fo	r	OSE	Use	Only)

I, OWN	VER OF WELL	and the second of the second of the second of
Cor	Name: Louisiana Energy Services ntact: Laurie Wetherell dress: P.O. Por 1749	Work Phone: <u>505. 394. 5704</u> Home Phone:
Add	dress: P.O. Box 1789	none inone.
	City: Eunice	State: NM Zip: <u>8823</u>
	ATION OF WELL (A, B, C, or D required, E or F if known)	
Α.	NW1/4 SE 1/4 SW 1/4 Section: 32 Townshi	ip: <u>215</u> Range: 38 EM.P.M. County.
В.	X =feet, Y =f Zone in the	eet, N.M. Coordinate System Grant.
	Latitude: 32 d 25m 52.499s Longitude	
D.	East (m), North (m), UTh	1 Zone 13, NAD (27 or 83)
E.	Tract No, Map No of the	Hydrographic Survey
F.	Lot No, Block No of Unit/Tract Subdivision recorded in	of the County.
G.	Other:	
н.	Give State Engineer File Number if existing we	ell: CP-956
	On land owned by (required): Lez County,	,
	LLING CONTRACTOR	
7.	icense Number: 1575	
	Name: Talou / LPF	Work Phone: 306.467.0607
Ma	Agent: SHANE CUEVICE iling Address: 921 N. Biv: NS	Home Phone: 806. 676. 8720
	City: Amarillo	
4. DRII	LLING RECORD	
		1 -0
Dr:	illing began: $\frac{3/28/07}{1}$; Completed: $\frac{4/3/07}{1}$ ze of hole: $\frac{7-7}{1}$ in.; Total depth of well: $\frac{7-7}{1}$	Type tools: Hiv votaris
Cor	mpleted well is: Monifor (shallow, art	tesian);
	pth to water upon completion of well: DRY	ft. 3 22
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	(8.22.60	.

File	Number:			
	(For	OSE	Use	Only)

Depth in Feet From To DIZY		water-bearing formation	
RECORD OF CASIN	IG		
(inches) per	ds Threads ft. per in. PK 2.	Top Bottom (feet) C 217.1 217.1	From To V/A
4 sch 40		Z.17.1 231.1 20 PV	- end czp 217.1 237.1
RECORD OF MUDD	ING AND CEM	ENTING	
Depth in Feet From To 0 15	Hole Diameter 1-7/4 7 7/4	of mud of Cement	nod of Placement ie - cement bentom -bentonite chips
LUGGING RECOR	D		
	dress:		
Plugging appro		State Engineer Rep	<u> </u>
	No. Depth Top 1 2 3 4 5	in Feet Cubic Feetof Cen	nent
	·		5 0 5 US
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le Number: C/	0-956		'J''\ . ! J E '

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9. LOG OF HOLE

Depth in Feet Thickne From To in fe O S S S S S S S S S S S S S S S S S S	
	
	
	
	
	
	
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21.38.32.341

Form: wr-20

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elief, the for	i hereby cer	tifies tha	at, to the	best of hi	s knowled	ige and lescribed
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elief, the for ole.	Drille	STATE ENG	COTTECT TO	cord of the	e above d	lge and lescribed
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pelief, the for	Pegoing is a Drille FOR:	STATE ENG	COTTECT TO	NLY S Line	e above d	ge and lescribed



File	Number	:					
		(For	OSE	Use	Onl	y.	۱

1. OWNER OF WELL	
Name: Louisiana Energy Services	Work Phone: 505, 394, 5204
Contact: Laurie Wetherell	Home Phone:
Address: P.O. Box 1789	
City: Eunice	State: NM Zip: 88231
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	•
A. $NE_{1/4}$ $NE_{1/4}$ $NE_{1/4}$ $NE_{1/4}$ Section: $NE_{1/4}$	nship: <u>2/</u> 5 Range: <u>38</u> EN.M.P.M. County.
B. X = feet, Y = Zone in the U.S.G.S. Quad Map	feet, N.M. Coordinate System Grant.
C. Latitude: 32 d 26 m 5.327 s Longi	tude: <u>103 d 04 m 26.985</u> s
D. East (m), North (m),	UTM Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No. , Block No. of Unit/Trac	ct of the
Subdivision recorded	in County.
, -	
G. Other:	
H. Give State Engineer File Number if existing	g well: <u>CP-946</u>
I. On land owned by (required): Lea Coun-	ty, um
3. DRILLING CONTRACTOR	
License Number: (575	
Name: Taicn/LPE	Work Phone: <u>\$66.461.066</u> 1
Agent: Shave Currie	
Mailing Address: 92(A) Bivins	· · · · · · · · · · · · · · · · · · ·
city: Amarillo	State: TK Zip: 79107
4. DRILLING RECORD	
Drilling began: 3/16/07; Completed: 4/03/Size of hole: 7-1/k in.; Total depth of well: Completed well is: Monitor (shallow, Depth to water upon completion of well: 220	275,8 ft.;
	27 38
Do Not Write Below Th	is Line
CP 946	27/ Qx//F.9
File Number: CP-946 Form: wr-20 page 1 of	Trn Number: J/G/1978-
	T 37 35 68
Monitor	Trn Number: 37694457 21,38,32,422

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フラト ゴダ ファビ ひ	Thickness in feet 5.31	water-	ption of bearing	f formati	on	t	ted Yiel GPM) 	
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RECORD OF CASIN	G							
Diameter Pound (inches) per	ft. per in.	Top I	Bottom	(feet)			From T	°0
4 Sch 40 f	PVC Z	205.8	225.8	Z.C	PVC CNC	cap	205.X	<u> </u>
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RECORD OF MUDD			O	Deat	Manhad	- -		
Depth in Feet From To	Hole Diameter				Method	or Pla	cement	
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	Top	Bottom		c Feeto	- Cement		<u> 1</u> 091 / 111 6	ROSVELLA
	Top 1 2 3	Bottom		c Feetor	Cement		<u>-</u>	
	Top 1 2 3 4	Bottom		c Feetor	- Cement		<u>-</u>	
	Top 1 2 3 4	Bottom		c Feetor	Cement			NEW STATE
	Top 1 2 3 4	Bottom		c Feetor	Cement			T C C C C C C C C C C C C C C C C C C C
	Top 1 2 3 4 5							NEW STATE
le Number:	Top 1 2 3 4 5 Do	Bottom		w This !		er: 3		TEEL TEENER OF LOOK

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9. LOG OF HOLE

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35	<u>76</u> -	35	CLAY, highly plastic, tirm, dry, Marcon
	<u> </u>		CIAY Stone, ory light red cuttings
<u>60</u>	45	<u> 15 </u>	Claystone, and maroon with gray and green mot
<u> 95</u> 100	. 100 . 115	15	Claystone, interbedded sittstone, dry marround gra
110	125	· · · · · · · · · · · · · · · · · · ·	Claystone, firm dry marcont gory
175	125	50	Clarstone dry maron
175	185	10	claystone, interbedded of suspense, dry maranin
185	195		Siltstone, hard dry grav
195	200	5	Siltstance hard diry gray
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Monitor

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WLB

File	Number:			_
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1. OW!	NER OF WEL	L Louisianz	CARIFFILL		Work Phono.	505 314.5204
Co		Laurie Wie			Home Phone:	
	dress:	P.O. BOX 17	89			
		Eunice			State: NM Zip	o: <u>88231</u>
2. LOC	ATION OF W	ELL (A, B, C, or D	required. E or F	if known)		
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Α.		<u>SE</u> 1/4 <u>SE</u> 1			: <u>حُرُرُك</u> Range : و	
В.	X =	feet, one in the Quad Map	Y =	fe	et, N.M. Coord	dinate System Grant.
		32 d 25				_
D.	East	(m), No	orth	(m), UTM	Zone 13, NAD	(27 or 83)
E.	Tract No.	, Map No	o of the	ne	Hydrog:	raphic Survey
F.	Lot No	, Block No	of Unbdivision re	nit/Tract corded in		of the County.
G:	•				<u> </u>	
Н.	Give State	e Engineer Fil	e Number if	existing wel	1: CP-94	5
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1.	On land of	wned by (requi	rea): <u> </u>	County	NW(
3. DRI	LLING CONT	RACTOR	•			
T.	icense Num	ber: 1575				
_	N.	ame: Talon/	PE.		Work Phone:	806.467.060T
Ma	Ag iling Addr	ent: Shawe ess: 921 N.	Currie Bivins		Home Phone:	806.676,8220
	С	ity: Amarilla			State: TX Zij	p: 79107
4. DRI	LLING RECO	RD				STA: ROS 700
Si Co	ze of hole mpleted we	an: 3/14/07 : 1/y in.; 1 ll is: Moni er upon comple	otal depth o	f well: <u>२५</u> [. hallow, arte	ሪ ft.;	Air Republic His
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	<u> </u>							·	
ECORD (OF MUDI	DING AND CEM	ENTING						
Depth i	in Feet	Hole	Sacks	Cubic	Feet	Method	of Pla	cement	
From	To	Diameter	of mud	of Ce					
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75	215	7-7/8	48	N/	——————————————————————————————————————	حدينه جر)	- bento	onite	chips
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File Number:

(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

Depth From	in Feet To	Thickness in feet	Color and Type of Material Encountered
0	10		SAND, fine-grained, loose dry, brown to light orange
10	25		CALICLE, McDevately soft, dry, orange and white
25	<u> </u>	35	Clay, stiff dry, gray and margon, mottled
60	19 6		clarstone, dry marcon marcon, morrison
i10 700	200	10	Siltstone, hard damp light gray
200	<u> </u>		claystone, firm dry marrows
			
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ile	Number:			
	(For	OSE	Use	Only)

Name: Louisiana Energy Services	Ward Phone [AC 294 6204
Contact: Laurie Wetherell	Home Phone: 505.517.5209
Address: P.O. Box 1789	
City: Eunice	State:NM Zip: 88231
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. $\frac{NW}{1/4} \frac{SW}{SE} \frac{1/4}{1/4} \frac{SE}{SE} \frac{1/4}{Section} = \frac{32}{1/4} \frac{SW}{Section}$	ip: <u>3/5</u> Range: <u>38E</u> N.M.P.M. County.
B. X = feet, Y = Zone in the	feet, N.M. Coordinate System Grant.
C. Latitude: 37 d 25 m 50.439 s Longitude	e: <u>103 d 04 m 57.541</u> s
D. East (m), North (m), UTI	
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the County.
G. Other:	
H. Give State Engineer File Number if existing we	ell: CP-957
I. On land owned by (required): Lea County	
3. DRILLING CONTRACTOR	
License Number: (575	
Name: Taion /LPE Agent: Shave Correct Mailing Address: 921 N. Bivins	Work Phone: <u>806.461.06</u> 07 Home Phone: <u>806.676.82</u> 20
City: Amarillo	State: <u>TX</u> 2ip: <u>79107</u>
. DRILLING RECORD	
Drilling began: 3/20/07; Completed: 4/3/07 Size of hole: 7-7/8 in.; Total depth of well: 23 Completed well is: Monthow (shallow, are Depth to water upon completion of well: DRV	1.4 ft.;
Do Not Write Below This I	Line 12
File Number: $\frac{CP-957}{\text{Form: wr-20}}$ page 1 of 4	Trn Number: 376957
\mathcal{M}_{\bullet} : $+$	» \$\frac{\fir}{\fint}}}}}}{\frac{\fir}{\fint}}}}}}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\fir}{\fint}}}}}}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\fir}{\fint}}}}}}}{\frac{\frac{\frac{\frac{\frac{\frac{\fir}{\fir}}}}}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\fir}}}}}{\frac{\frac{\frac{\frac{\fir}{\firac{\fir}}}}{\firac{\firi}}}}{\firac{\fira}{\firac{\f{\fir}}}{\firan{\frac{\f{\fir}}}}
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ECORD OF MUDD	ING AND CEM	ENTING				
Depth in Feet	Hole	Sacks	Cubic Feet	Method	of Plac	ement
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Fi	le	Number:

(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

		
Depth in Feet	Thickness	Color and Type of Material Encountered
From To	in feet	
0	10	SAND fine, loose, dry orange to tan
10 35	25	CALICHE have dry orange & gray
35 40	_5	SANDY GRAVEL, MZ'VOON
40 85	45	Clay, highly plastic firm dry marcon
<u>85 95</u>	10	Siltstone hand dry gray
95 105		claystone, light red
105 110		sitstone w/ claystone gray & marcon
110 170	0	claystone, dry marconi w/ gray motiling
170 195	2.5	Siltstone wil claystone have dry grav for averon
195 220	<u> </u>	CLAYSTONE, OUT, MAYOON
220 230	10	Siltstone w/ Claystone dry gray & Marron.
230 240		Clarstone wil some silt marrow wil gray mothing
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NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

1. OWNER OF WELL Name: Waste Control Specialists, LLC Work Phone: 888-789-2183 Contact: Mike Burney Home Phone: 505-394-4300 Address: 9998 W Highway 176
City: Andrews State: TX Zip: 79714
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)
A. NE 1/4 NE 1/4 NW 1/4 Section: 33 Township: ZIS Range: 38 E N.M.P.M. County.
B. X = feet, Y = feet, N.M. Coordinate System Zone in the Grant. U.S.G.S. Quad Map
C. Latitude: 37 d 26 m 29 s Longitude: 103 d 03 m 58 s
D. East (m), North (m), UTM Zone 13, NAD (27 or 83)
E. Tract No, Map No of the Hydrographic Survey,
F. Lot No, Block No of Unit/Tract Subdivision recorded in Sounty.
G. Other:
H. Give State Engineer File Number if existing well: $\frac{CP-979}{CP-979}$
I. On land owned by (required): Waste Control Specialists, L年 页界
3. DRILLING CONTRACTOR
License Number: 1575 Name: Talon Drilling, L.P. Work Phone: 806-467-0607 Agent: Shane Currie. Home Phone: 806-676-8220
City: Amarillo State: TX Zip: 79107
4. DRILLING RECORD
Drilling began: 2/20/08; Completed: 2/20/08; Type tools: Air Rotary Rig Size of hole: 5% in.; Total depth of well: 28 ft.; Completed well is: Monitor (shallow, artesian); Depth to water upon completion of well: ft.
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File Number: <u>CP-979</u> Form: wr-20 page 1 of 4 Trn Number: <u>399475</u>

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From To	Thickness in feet	Descr water Dvy	iption o -bearing	f formati	on	Estima (ted Yie.	ld
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Diameter Poun		Denth	in Feet	Longth	Time of	Shoe	Porfor	ation
(inches) per	ft. per in.	GOT	Bottom	(feet)			From 7	Γo
2 sn 40	Rve Z	_0_	28	28	Puc end	CZD	13	28
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ECORD OF MUDD	ING AND CEM	ENTING						
Depth in Feet	Hole			l'eet	Method	of Pla	cement	
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Plugging Me Plugging Me Plugging approv	No. Depth Top 1 2 3 4 5	in Feet Bottom	State :	Engineer Feetof	Represer	ntativ	e >	

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NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

Depth : From	in Feet To	Thickness in feet		
0	0.5	0.5	Surface Soil	
0.5		14.5	Caliche	
			Gravelly Sand	
17	_25_	8	clavey Silty sand	
25	28.5	3.5	gray sandstone	
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The undersigned hereby certifies that, to the best of h	> is knowledg e and
The undersigned hereby certifies that, to the best of h belief, the foregoing is a true and correct record of thole. O3/03/20 Omm/dd/year)	> is knowledg∉and he above describ W
belief, the foregoing is a true and correct record of thole. 03/03/20	is knowledge and he above describ
belief, the foregoing is a true and correct record of the hole. O3/03/20 (mm/dd/year) FOR STATE ENGINEER USE ONLY	ne above describ
belief, the foregoing is a true and correct record of thole. OS/03/20 (mm/dd/year)	ne above describ



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NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD and DRILLING LOG

1. PERMIT HOLDER(S) Name:WASTE CONTROL SPECIALISTS	Name:	
Address: P.O. BOX 1129		
City: ANDREWS	Address:	
State: TX Zip: 79714	State: Zip:	 _
Phone: (505) 394-4300	Phone:	
Contact: MICHAEL BURNEY		
Contact Phone: (505) 394-4300		
2. STATE ENGINEER REFERENCE NUMBE File # CP 975 EXPLORE Well		
3. LOCATION OF WELL (The Datum ls Assum	ed To Be WGS 84 Unless Otherwise Spe	cified)
Latitude: 32 Deg 25	Min 45.8 Sec	;
	Min 20.4 Sec	?
(Enter Lat/Long To At	Least 1/10th Of A Second)	La la Rosa
Datum If Not WGS 84:		1,000
4: DRILLING CONTRACTOR License Number: WD1184		·
Name: WEST TEXAS WATER WELL SER	TCE Work Phone: (432) 530-	-2696
Drill Rig Serial Number:	_	
Din Ng Seriai Number.	201002	
List The Name Of Each Drill Rig Supervisor That	Managed On-Site Operations During The	: Drilling
Process:		
RONN	Y KEITH	
	<u> </u>	
		<u> </u>
		
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5. DRILLING RECORD		2:
Drilling Began: <u>1-21-08</u> ; Completed: _	4-29-08 : Drilling Method MUD	ROTARY 5
Diameter Of Bore Hole: 7-7/8 (in),		
Total Depth Of Well: 2,020	_	
Completed Well Is (Circle One): Shallow Artesia	n;)	
Depth To Water First Encountered: 1,092	(ft);	
Depth To Water Upon Completion Of Well:	N/A (ft).	
Do Nos William D. L The	· .	
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TRN Number: 396028	File Number:(1-7/3
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NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD and DRILLING LOG

6. RECORD OF CASING

6. RECORD (Diameter (inches)	Pounds (per fl.)	Threads (per inch)	Depth (feet)	Length Top to Bottom (feet)	Type of Shoe	Perforations (from to)
13-3/8	48	8	2' AGL	401	•	1
8-5/8	24	8	3' AGL	1,440'	FLOAT GUIDE	
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7. RECORD OF MUDDING AND CEMENTING

Depth (feet)	Hole (diameter)	Mud Used (# of sacks)	Cement (cubic feet)	Method of Placement
0 - 40	17-1/2		35	TRIMMIE
0 - 1,440	12-1/4		574	POSITIVE
1,380-2,020	7-7/8		275	TRIMMIE
				70 55 63 775
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NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

8, LOG OF HOLE. For Each Water Bearing Strata, Estimate The Yield Of The Formation In Gallons Per

Dept (fee	:) .	Thickness	For Water Bearing	
From	То	(Feet)	Strata Enter The Estimated Yield in GPM	Color and Type of Material Encountered
			SEE ATTACHED	GEOLOGIC LOG
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nter M	ethod (Jsed To Estir	nate Yield:/A_	
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CP-975 Geolog	ic log
0-6 ft (p p	pad fill and fine brown sand
6-10 ft 4	white sandy limestone (Mescalero caliche) Oga la a
•	sand, light brown, and brown calcareous sandstone (Gatuña Formation)
	interbedded sandstone, siltstone, and claystone; reddish-brown to gray; pioturbated (Cooper Canyon Formation)
576-708 ft s	sandstone and siltstone, gray to reddish brown (Trujillo Formation)
(nterbedded very fine sandstone and siltstone, gray to dark reddish brown (Tecovas Formation)
1092-1384 ft g	i2_ gray, fine sandstone with interbedded reddish brown and weak red siltstone and claystone (Santa Rosa Formation)
1384-1566 ft r	reddish brown, very fine sandstone and siltstone, with some fibrous gypsum in lower part (Dewey Lake Formation)
1566-1602 ft g	gray anhydrite beds, with intermediate reddish-brown and gray siltstone (Forty-niner Member of the Rustler Formation)
	gray anhydrite and wavy thin laminae of dolomite (Magenta Dolomite Member of the Rustler Formation)
1609-1736 ft g	gray anhydrite beds, with intermediate halite including anhydrite and polyhalite (Tamarisk Member of the Rustler Formation)
_ s	nalite with thin two thin anhydrite beds and basal reddish-brown, very fine andstone (Los Medaños Member of the Rustler Formation)
<i>上</i> ら 1807-2020 ft h か	nalite with anhydrite/polyhalitic marker beds (MB103 and uppermost MB109) (Salado Formation)
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). ADDITIONAL STATES	MENTS OR EXPLANATIONS:	
		
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and correct record of the abo	tifies that, to the best of his or her knowledge and belove described bore hole. The undersigned further cer Office Of The State Engineer and permit holder willing.	tifies that he or she will
Sonny lend	05-12-08	
Oriller /	(mm/dd/year)	
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Гrn Number:	Cile N	lumber:
ого wr-20 May 07	page 4 of 4	

File Number:

For Os Fonly

NEW MEXICO OFFICE OF THE STATE ENGINEER APPLICATION FOR PERMIT TO DRILL AN EXPLORATORY WELL 13.20°

Name: Waste Control Specialists LLC	Work Phone:	888-789-2783	
		505-394-4300	<u></u>
A 1d: %35: 9998 W. Highway 176			_ _
City: Andrews	State: TX Zir	p: 79714	
	<u> </u>	•	_
2. LOCATION OF WELL (A, B, C, or D required, E or F if known):			
A. NE 1/4 NW 1/4 NIC1/4 Section: 33 Township in Lea	: <u>2/</u> 5 Range:	38E N.M.F.	М. У·
B. X = feet, Y = fe	et, N.M. Coord	dinate Syst	em t.
U.S.G.S. Quad Map			
C. Latitude: 32 d 26 m 30.145 s Longitude:	103 d 04	_m 10.962	_s `
D. East (m), North (m), UTM	Zone 13, NAD	(27 or 8	3)
E. Tract No, Map No of the	Hydrog:	raphic Surv	еy
F. Lot No , Block No. of Unit/Tract		of t	he
F. Lot No, Block No of Unit/Tract Subdivision recorded in		Count	у.
G. Other:			
H. Give State Engineer File Number of existing wel		<u>~</u>	ROS
		20	سائير سائير
I. On land owned by (required): Waste Control Specialists		<u>c</u>	
3. WELL INFORMATION:		-	
Approximate depth 75 feet; Outside diameter of c	asing 2_ incl	hes. >	EE EE
Name of well driller and driller license number J	ose Salas/#1575	-ು	
4. ADDITIONAL STATEMENT OR EXPLANATIONS:		ა	<u>3</u> 2
This piezometer (TP- 63) is being installed to determine the presence or absolute Ogallala/Antlers/Gatuna formations on top of the Triassic Dockum group "recactivities by Waste Control Specialists LLC. No pumping or use of groundwater levels if any.	l bed clays" in suppo	ert of licensing	ing
RENAMED " PZ-41"			
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(For OS. Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER **APPLICATION FOR PERMIT** TO DRILL AN EXPLORATORY WELL

ACKNOWLEDGEMENT

(f, We) Mike Burney	a:f	irm that the
	(Please Frint)	
foregoing statements are	true to the best of my knowledge and be	lief.
Applicant Signature	Applicant Signature	·
	ACTION OF STATE ENGINEER	
This application is appro	ovednakkkaakakakakakakakakakakakakakakakaka	it is not
exercised to the detrime	nt of any others having existing rights,	and is not
	tion of water in New Mexico nor detrimen	
public welfare, and furt	her subject to the following conditions:	
		
		N
see atts	ached conditions of approval	
See acce	ched conditions of approval	= =
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	$\eta_{\rm in} 0$	20 08
Witness my hand and seal	this <u>Inl</u> day of <u>January</u> ,	20 .00
John R. D'Artonio, Jr., P	P.F. State Engineer	
at at) 14 A	A	,
By: Yourston W.	tress ref	
Kenneth M. Fresquez, Act	ing District IO Supervisor	
	V	DEC TELL
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File	Number	:			:	
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	Name: Waste Control Specialists	Work Phone:	888 - 189 - 2783
Co: Add	ntact: Mike Burney dress: 9998 W. Highway 176	Home Phone:	505 - 394 - 4300
	City: Andrews		p: <u>797(4</u>
2. LOC	ATION OF WELL (A, B, C, or D required, E or F if known)		
Α.	NE 1/4 NW 1/4 NW 1/4 Section: 33 Township		
В.	X = feet, Y = fe Zone in the fe U.S.G.S. Quad Map	et, N.M. Coor	dinate System Grant.
c.	Latitude: 32 d 26 m 29 s Longitude:	103 d 04	_m <i>,13</i> s
D.	East (m), North (m), UTM	Zone 13, NAD	(27 or 83)
E.	Tract No, Map No of the	Hydrog	raphic Survey
F.	Lot No, Block No of Unit/Tract Subdivision recorded in		of then Egunty
	Other:		
н.	Give State Engineer File Number if existing well On land owned by (required): waste Control	1: <u>CP-9</u>	72 2
I.	On land owned by (required): waste Contro	al Specialis	당 > 중
3. DRII	LLING CONTRACTOR		OFFICE EXIC II. 31
L. Ma	icense Number: 1575 Name: Talon Drilling, L.P. Agent: Shawe Currie illing Address: 921 At. Bivins	Work Phone: Home Phone:	806-467-8607 806-676-8220
	city: <u>Amavilla</u>	State: TK Zi	p: <u>79107</u>
4. DRII	LLING RECORD		
Şi: Cor	illing began: 1/21/08; Completed: 2/4/08; ze of hole: 5-5/2 in.; Total depth of well: 49 mpleted well is: Manitor (shallow, artepth to water upon completion of well: Dry	_ ft.; sian);	Air Rotary Rig
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Depth in From T	Feet o	Thickness in feet	water Dry		format			
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ECORD O	F CASING						_	
Diameter	Pounds	s Threads	Depth	in Feet	Lenath	Type of Sho	e Perfo	rations
(inches)		. per in.		Bottom	(feet)		From	То
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ECORD O	 MUDDIN	NG AND CEM						
Depth in	Feet	Hole	Sacks			Method of P	lacement	
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		<u>5-5/8</u>						
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Plugging	approve	ed by:		State	Enginee	r Representat	ive	 20
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NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

	in Feet	Thickness	Color and Type of Material Encountered		
From 6	то Z	in feet Z	Silly Sand, tan		
	<u>~</u>	- 5	Caliche Hard tan		
7	30				
30		<u>23</u>	Caliche, moderate hard, tan		
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belief, the foregoing	by certifies tha g is a true and	t, to t	the best of record of	of his kn	owledge ove desc	and	d
belief, the foregoing hole.	by certifies that g is a true and controller	t, to t	the best of record of the condition of t	of the ab	owledge ove desc	and cribe	d
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belief, the foregoing hole.	g is a true and	correct	OZ/Z6 (mm/dd/y	of the ab	ove des	cribe	
belief, the foregoing hole.	g is a true and Priller FOR STATE ENGI	COTTECT	OZZZG (mm/dd/yd	2003	ove des	cribe	
	g is a true and Control FOR STATE ENGI	INEER U	OZ Z Z & (πm/dd/yd	2008 ear)	ove des	cribe	
belief, the foregoing hole.	g is a true and e Driller FOR STATE ENGI SL; Use Do Not Write	INEER U	SE ONLY	2008 ear)	ove desc	cribe	==



STATE OF NEW MEXICO OFFICE OF THE STATE ENGINEER ROSWELL

John R. D'Antonio, Jr., P.E. State Engineer

1900 WEST SECOND STREET ROSWELL, NM 88201 Phone: (575) 622-6521 Fax: (575) 623-8559

January 3, 2008

Waste Control Specialists LLC % Mike Burney 9998 W. Hwy 176 Andrews, TX 79714

RE: CP-971; CP-972; CP-973: CP-974

Greetings:

Enclosed is your copy of the Exploratory / Monitoring Permits, which have been approved subject to the conditions set forth on the approval page thereof.

In accordance with Condition C, a well record shall be filed in this office twenty days after completion of drilling. The well record is proof of completion of well. IT IS YOUR RESPONSIBILITY TO ASSURE THAT THE WELL LOGS BE FILED WITHIN 20 DAYS OF DRILLING OF THE WELLS.

These permits will expire on or before 01/31/09 unless the wells have been drilled and the well logs filed in this office.

Sincerely.

Andy Morley

(575) 622-6521, ext 113

Enclosure

cc: Santa Fe Office

209 FEB 29 A II. 3

NEW MEXICO STATE ENGINEER PERMIT TO EXPLORE / MONITOR

SPECIFIC CONDITIONS OF APPROVAL

- 4 No water shall be appropriated and beneficially used under this permit.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C Driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.
- C2 No water shall be diverted from this well except for testing purposes which shall not exceed ten (10) cumulative days, and well shall be plugged or capped on or before 01/31/09, unless a permit to use water from this well is acquired from the Office of the State Engineer.

The well shall be constructed, maintained and operated that each water shall be confined to the aquifer in which it is encountered.

LOG The Point of Diversion CP-972 Monitor Well must be completed and the Well Log filed on or before 01/31/09.

ACTION OF STATE ENGINEER

Notice of Intention Royd: Formal Application Revd:

12/31/07

Date Revd. Corrected: Pub. Of Notice Ordered:

Date Returned - Correction:

Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 2 Nday of January, 2008.

John R. D'Antopio, Jr., P.E., State Engineer

Kenneth M. Fresquez, Acting District

File Nbr: CP-972 Monitor Well

	W E	 }_	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	LO		OIL BO	RING NO	O. B-1	
	(B	NE FT. FT. FT.	ER LEYEL DATA Started 11/22/97 Not Encountered Completed 11/22/97 W.D. Completed Allan Eades AT COMPLETION Driller Allan Eades Helper Freddy Drilling Method Air Rotary		TION Pron	osed Lea Co ce, New Mer ino Real Lar	ıdfill		
 =	==	- -	AT HR. A.D. Sampling Method Drill Custings NIND ELEVATION, 1408 62 (St. MSL) Northing: 9800.52 Con	pletion	<u> </u>	and Park, N	IPLE DATA		
1 3	(52)	GRO	DUND ELEVATION: 3408.62 (Ft., MSL) Resting: 9898.97 Dep	th: 50.0]	THE DATA		8g
150	Depm (r 1., ogs)	Lithology	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strate Depth (FT.,bgs)	Calcareous	Moisture	Munsell	Notes	Depth (FT.,bgs)
	-	: :	Dark reddish-brown, fine SAND, some roots, no organics	2.0	No	Dry	7.5YR 5/6	···	1
ا ا	.0 -		Reddish-brown, sandy LOAM to poorly cemented loamy SAND, blocky, friable		No	Dry	7.5YR 6/6		5.0
ţ).0		Pinkish-white, sandy CALICHE, moderately weak structure, friable nodules of caliche	-					10.0
15	5.0 - -		Reddish-brown, loamy fine SAND with moist friable sandy nodules very few calcareous nodules	12.0	Moderale	Dry	2.5YR 8/2		15.0
- 20	3.0 -			1	Į	{			20.0
ŀ	5.0 -		Light red to pink, calcareous pebbly SAND, pebbles are dominantly quartzite, some rose color banded gniess, little chert, angular. Pebbles increase with depth	21.0	 Moderale	Dry	2.5YR 7/6		25.0
<u> </u>	- 0.c								30.0
ļ					Moderate	Dry	5YR 7/4		F =
- 35	5.0 -	7.5	Pink, sandy, pebbly fine GRAVEL, dominantly quanzite, well grad	ed, 36.0	1	}.	,		35.0
ŀ			angular	_	Slight	Dry	2.5YR 7/3		E 3
- 40).O -		Reddish-brown MUDSTONE/CLAYSTONE, sandy, dry, blocky cultings, some chert pebbles and calcareous clasts, poorly indure	ued	ļ	<u> </u>			- 40.0
4:	5.0 -				Slight	Barely Damp	2.5YR 4/6		45.0
- 50	o.o -		BORING TERMINATED AT 50.0'	50.0					50.0
		}	,			1	}		
				ĺ			!		
1				1	1		1		
1									
				1	1		İ		
				ĺ	Ì				
)				
N	OTE:	<u>S;</u>	Dry monitoring well installed in borehole. L	EGEND	<u> </u>		<u> </u>	<u>.</u>	
	-		2. Drilling Company: Eades Drilling and Pump Service.	17.D W1	ile drilling	₹ A.D AFTE	r drilling .V	HOUR(S) AFTER D	RILLING
7									

W F	\mathbf{C}	WEAVER BOOS (200 S. MICHIGAN AVENUE (312) 922-1030 * * INDIANA ER LEVEL DATA	, CHICAGO IL, 60604 (219) 923-9609		FILE	<i>y</i> 9504	2.10	RING NO), <u>B-1</u> Sheet	
NE NE	FT.	W.D. Com AT COMPLETION Help AT HR. A.D. Drill	pleted 11/20 ier Allan E	J97 Bades Idy Diary	CLIEN	Eunic	e, New Mex no Real Lan	anst		
<u>—</u> —	 -	OUND ELEVATION: 3,392.63 (F	No-1-1- 0467 05	Compl		Opine		PLE DATA		T 🖀
Depth (FT.,bgs)	Lithology Type	STRATA SOIL DESC GRAPHI	DEPTH CRIPTION		Strata Depth (FT.,bgs)	Calcareous	Moisture	Munseli	Notes	Depth (FT., bgs)
- 5.0 -		Brown, fine to medium SAND some roots, no organics	with caliche grains, granul	ar sincture,	7.0	No Minor	Dry Dry	7.5YR 4/6 7.5YR 5/6		20.00
10.0		Brownish-white calcarcous fine nodules, not as floury as oth and chert when wetted	SAND, some calcareous e aer caliche, gritty, abundant	ement sand t coarse sand		Yα	Dry	7.5YR 7/3		10.0
- 15.0 - - - 20.0 -		Pinkish-white sandy CALICHE fine sandstone (not friable)	, many pebbles of hard ang	gular cherty	21.0	Yes	Dry	7.5YR 7/3		20.0
- 25.0 -		Pink, fine to medium SAND, c and cemented sandstone				Yes	Dry	2.5YR 7/3		25.0
- 30.0 -		White sandy CALICHE with or chert clasts. Clasts are anguand black, some quartite	lar, coarse gravel size, bro	wn, white	33.0	Yes	Dry	2.5YR 8/2		30.0
35.0 - - 40.0 -		Rose and white PEBBLES, with angular quantzite. White pe grains Reddish-brown MUDSTONE/C sandy, micaceous clasts info	bbles are hard limestone wi	ith quartzite	36.0	Yes	Barely Danip	2.5YR 6/4		- 35.0- - 40.0-
- 45.0 <i>-</i>						Yes	Barely Damp	2.5YR 4/4		- 45.0
: - 50.0 -		BORING TERMINATED AT	50.0*		50.0	Yes	Barely Damp	2.5YR 4/6		50.0
		·								
						}				
				T						
NOTE		. Dry monitoring well installed in . Dritling Company: Eades Dritti		-	<u>'END</u> '.D W HI	LE DRILLING	;, ¥ a.d afte	R DRILLING. ♥	HOUR(S) AFTER D	RHUING
	•	. Draining Company, Seuts Delini	ng mio s unip ocerito.	- "	,υ, - HIU	Drudging	u mo m le	T. VINSEPLE	-ioungy Ar IEN D	· ·
7				1						

								<u> </u>
W	7 - 10	WEAVER BOOS CONSULTANTS, INC.	LO	G OF S	OIL BO	RING NO	. B-1	03
ļ	$^{\mathbf{B}}\mathbf{C}$	200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	FILE		2.10		SHEET	
	WĂŢ	ER LEVEL DATA Started 11/21/97				unty Landfili		
NE		W.D. Completed 11/21/97						
NE	FT	AT COMPLETION Driller Allan Eades		Eunic	e. New Mex	ico		
·	FT	Helper Pready AT HR. A.D. Drilling Method Air Rotary	CLIEN	VT <u>Caini</u>	no Real Lar	विद्या		
	FT	AT HR. A.D. Sampling Method Drill Cuttings		<u>Sunta</u>	nd Park, N	ew Mexico		
જ	GR	OUND ELEVATION: 3,402.54 (Ft., MSL) Northing: 9711.58 Complete			SAM	IPLE DATA		٦
Depth (FT.,bgs)							-	Depth (FT.,bgs)
更	Lithology Type	STRATA DEPIH	Strate Depth (FT.,bgs)					E
뒱	itholog Tytic	SOIL DESCRIPTION	를분	Calcareous	Moisture	Munsell	Notes	[4
ے ا	μ.	GRAPHIC LOG	120			1		ឝ
			1					
E	1	Reddish-brown, sandy LOAM to poorly cemented loamy SAND, blocky, friable		No	Dry	7.5YR 4/6		E :
5.0	1		6.0	No	(Barely Damp	7.5YR 5/6		- 5.0 -
Ė	長	Pinkish-white, sandy CALICHE, moderately weak structure, friable nodules of callehe		Yes	Dry	7.5YR 8/4		E :
10,0	擡	uddities of esticus	1		i	1		10.0
E			14.0					E 3
- 15.0	1	Reddish-brown, loamy fine SAND with moist friable sandy nodules,		Yes	Dry	7.5YR 7/3		15.0
-	1	very few exicareous nodules	ł	}	ł	}		E :
- 20,0	1				1	,		20.0
ŧ	1		1] [E :
- 25.0	1		26.0	ĺ	1	ļ		25.0
E		Light red to pink, calcareous pebbly SAND, pebbles are dominantly quartzite, some rose color banded gniess, little chert, angular.						E :
F 30.0		quartzite, some rose color banded gniess, little chert, angular. Pebbles increase with depth		Yes	Dry	7.5YR 8/2		30.0
Į.	188	P	33.0		5	0.5340.40		E
35.0	-	Rose and white PEBBLES, with very little sand, dominantly hard, ver	36.0	Yes	Dry	2.5YR 7/3		- 35.0-
E .:		grains Reddish-brown MUDSTONE/CLAYSTONE, sticky, occasionally sandy, micaceous clasts infrequently, poorly indurated	'	Yes	Barely Damp	2.5YR 4/4		E :
- 40.0	'	sandy, micaceous clasts infrequently, poorly indurated			ļ .			- 40.0
[Slight	Baselu	2.5YR 4/4		F:
- 45,0 t				Singuit	Barely Damp	2.51 K 4/4		45.0
ļ.,,								
- 50.0	'重		Ì		ł	1		E 50.0
ļ				No	Barcly	2.5YR 4/6		F
- 55.0	' —	BORING TERMINATED AT 55.0'	55.0	""	Damp	2.512470		- 55.0
1		}	1	-		1 1		
1			į	ļ		1 1		ĺ
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	·]		!		}			
			i					
J					J	}		•
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	-							
	⊥_	<u> </u>	1	<u> </u>	٠.		· · · · · · · · · · · · · · · · · · ·	
ЮТ	ES:	Boring grouted after completion with 95% portland cement LEG LEG LEG LEG LEG LEG LEG LE	END		:		÷	
		and 5% bentonite. 2. Drilling Company: Bades Drilling and Pump Service.	.D WH	ile drilling	₹ A.D AFTE	R DRILLING 🔊	iiour(s) after d	rilling
t								

W	,	WEAVER BOOS CONSULTANTS, INC.	LO	G OF S	OIL BO	RING N	NO. <u>B-10</u>	4
	\mathbf{C}	200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	FILE	#9504	2.10		SHEET 1	OF 1
NE	NE :	CR LEVEL DATA Not Encountered W.D. Started 11/21/97 Completed Driller Allan Bades	LOCA	TION Propo	···_		<u>u</u>	
NE	_ FT. _ FT.	AT COMPLETION Helper Freddy	CLIEN		ce, New Mex ino Real Lan		 	
		AT HR. A.D. Drilling Method Air Rotary AT HR. A.D. Sampling Method Drill Cuttings	CLISI	-	and Park, No			
ଜ	GRO	OUND ELEVATION: 3,404.38 (Ft., MSL) Northing: 8518.93 Compl Easting: 9678.16 Depth:			SAM	PLE DATA		ୁ
Depth (FT.,bgs)				i				Depth (FT.,bgs)
्य स	Lithology Type	STRATA DEPTH SOIL DESCRIPTION	Strata Depth (FT.,bgs)	Calcareous	Moisture	Munsell	Notes	
Den	בַּיִּ	GRAPHIC LOG	SE					Dep
<u> </u>		Dark reddish-brown, fine SAND, some roots, no organics					<u> </u>	<u> </u>
- 5.0 -		Reddish-brown, sandy LOAM to poorly cemented loanty SAND, blocky, friable	3.0	Slight Slight	Barely Damp Dry	7.5YR 5/4 7.5YR 6/4		E 5.0
		Pinkish-white, sandy CALICHE, moderately weak structure, friable nodules of caliche	6.0	-	51,9	1		E 3
10.0		nodules of caliche		Moderate	Dry	2.5YR 8/4		[0.04
			}					F 4
- 15.0 -					!			15.0
20.0 -		j .	,, ,			1	ŀ	20.0
	[[]	Light red to pink, calcareous pebbly SAND, pebble are dominantly	21.0				ļ	F
25.0 -		Light red to pink, calcareous pebbly SAND, pebble are dominantly quartzite, some rose color banded gniess, little chert, angular. Pebbles increase with depth	-	Moderate	Dry	2.5YR 8/2		25.0
200			ł	}			1	F.,,}
30.0					-		1	30.0
35.0 -			İ					35.0
[l i		
40.0	6	Very light brown medium GRAVEL with calcareous sand matrix,	40.0	}				40.0
45.0 -	- N	gravel is brown when wet, very cherty, angular, white and brown	44.0	Moderate	Dry	2.5YR 8/2		45.0
		White to light brown pebbly coarse GRAVEL with some fine calcareous sand matrix. Pebbles are less angular, mostly chert but	46.0					E :
50.0 -		also gniess and quartzite Reddish-brown MUDSTONE/CLAYSTONE, sandy, dry, poorly	'	Moderate	Dry	2.5YR 7/4	l:	50.0
		indurated, cuttings are blocky, some chart pebbles and white calcareous clasts	}	Moderate	Dry	2.5YR 4/6]	
- 55.0 -		·		011-1-4	Do solo	2 6777 416	Pitcher Bell Sample obtained at 60.0"	55.0
60.0		BORING TERMINATED AT 60.0'	60.0	Slight Slight	Barely Damp Barely Damp	2.5YR 5/6 2.5YR 4/4	obtained at 60.0°	60.0
	<u> </u>			<u></u>				
NOTE		and 5% heatonite	<u>end</u> '.D W10	ile drilling	🛂 A.D AFTE	R DRILLING	♥ HOUR(S) AFTER DR	ILLING
[-	
		·						

W.		WEAVER BOOS CONSULTANTS, INC.	LC	G OF S	OIL BO	RING NO). B-1	105
Į ,£	3	200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	MLI				SHEET	
1	YĂŢI	ER-LEVEL DATA Not Encountered Started 11/19/97				unty Landfill		
NE		w n Completed 11/19/97	-					
NE	_ _ Ff.	AT COMPLETION Dritter Allan Eades Helper Freddy		Euni	e, New Me	deo		· · ·
	_FI.	AT HR. A.D. Drilling Method Air Rotary	CLIE	VT <u>Cam</u>	no Real Lar	dfill		
]	_FI.	AT HR. A.D. Sampling Method Drill Cuttings		Sunk	ind Park, N	ew Mexico		
ि	GR	OUND ELEVATION: 3,388.07 (Ft., MSL) Northing: 6609.23 Comp.	itelion 1: 50.0		SAN	TLE DATA		প্র
Deptit (FT., bgs)	Ė		1					Depth (FT.,bgs)
	g o	STRATA DEPITI		\	 	1 1		\ E
콅	Lithology Type	SOIL DESCRIPTION	Strata Depth (FTbgs)	Calcarcous	Moisture	Munseli	Notes	ά
្រង		GRAPHIC LOG	/\ &		İ			Ă
		Grayish-brown loamy fine SAND, granular, no organies, few		V	5-	C 43/77 0/9		<u> </u>
. :	[[]	Grayish-brown loamy fine SAND, granular, no organics, few calcareous nodules increasing with depth, small roots, no iron staining, friable cemented sandstone nodules (Windblown Sands)		Yes	Dry	7.5YR 8/2		F
- 5.0 -	,			ļ				5.0
	1		1					F=
- 10.0 - 		•	-	ł	i	}		10.0
<u> </u>	10000		14.0					F
- 15.0 -		Pink fine to medium calcareous SAND, with few calcareous nodules that are friable, no other large clasts	ŀ	1	_			- 15.0-
!				Yes	Dry	7.5YR 7/4		
- 20.0 - 	·		1	{	Ì			- 20.0-
			1					
- 25.0 -	}	· -		}	•			25.0
	〓	Pink calcareous fine SAND to very fractured sandy CALICHE, few	28.0	ļ				F.,,:
├ 30.0 : 		no chert or other clasts. Caliche is very hard, not friable (CAPROCK?)			{			30.0-
		(-13-13-13-14)	35.0					35.0
35.0	宣	White sandy CALICHE with calcareous sand matrix and abundant chert clasts. Clasts are angular, coarse gravel size, brown, white		1				233.0
		and black, some quartzite	_∫ 38.0	ł	,			40.0
40.0		Rose and white PEBBLES, with very little sand, dominantly hard ver angular quartzite. White pebbles are hard limestone with quartzit	cy			a som an		= 40.0
ا م	***	grains. Reddish-brown sandy LOAM with pebbles of calcareous cemented	44.0	Yes	Dry	7.5YR 7/2		45.0
45.0		sandstone (friable).	_ 47.0	Yes	_{P-}	2.5YR 6/4		ļ - 3.0
- 50.0		Reddish-brown MUDSTONE/CLAYSTONE, sandy, dry, blocky cuttings, some calcareous stains, poor indurated/friable.	_ 50.0	Yes	Dry Dry	2.51R 6/4		50.0
L 20.0 .			_ 30.0					730.0
	1							
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1	.		-	1	1			-
<u> </u>		<u> </u>		<u> </u>	<u></u>			
NOTE	<u>s.</u>	Boring grouted after completion with 95% portland cement and 5% bentonite.	GEND					
'		2. Drilling Company: Eades Drilling and Pump Service.	W.D WF	ile drilling	₹ A.D AFTI	r drilling 🔻	Hour(s) after t	DRILLING
ì		·						

	W	\ \		OS CONSULTANTS, I	INC.	LO	G OF S	OIL BO	RING NO	. <u>B-1</u>	06
	بد 	<u>'C</u>	(312) 922-1030 * * IND			FILE	#9504	2.10		SHEET	1 OF 1
	NE NE		R LEVEL DATA Not Bricountered	Started 11/21/ Completed 11/21/		LOCA	TION Prop	osed Lea Co	unty Landfill		
	NB		W.D. AT COMPLETION	Driller Allan E			Eunio	ce, New Mex			
1	٠,	_	AT HR. A.D.	L treihei —————		CLIEN		no Real Lar			
ľ	·	_ FT.		Disting Michiga				and Park, N			
ľ	-	GR	OUND BLEVATION: 3,401	1.06 (Ft., MSL) Northing: 5968.89 Easting: 9285.60	Comple			SAN	TPLE DATA		
ļ	Depth (FT.,bgs)	-		LOSTINE: 9205.00	Depth:	T	 -		 	 	Depth (FT.,bgs)
1	Ę	SZ .		RATA DEPTH		Sept (SS)			1		E
ļ	ð,	Cichalogy Type	_ +	DESCRIPTION APHIC LOG		Strate Depth (FT.,bgs)	Calcareous	Moisture	Munsell	Notes	fig.
١	Ă	7	GR	APRIC LOG		8			}		ă
ŀ			Grayish-brown loamy fin	ne SAND, granular, no organics, f creasing with depth, small mots, r	ew						1
ŀ			staining, friable ceme	ented sandstone nodules (Windblov	yn Sands)	¦	No	Dry	7.5YR 5/6		5.0
F	5.0 -										F" =
Ŀ	10.0					'					F 10.0
ŧ						11.0	Moderate	Dry	2.5YR 8/3		E
E	- 15.0 -		Pink fine to medium calc that are friable, no of	careous SAND, with few calcareou her large clasts	is nodules		ļ)			15.0
ŧ						16.0			l i		E 3
þ	20.0		Pink calcareous fine SA?	ND to very fractured sandy CALIC	CHE Cew to		Moderate	Dry	2.5YR 7/6		20.0
ŀ	:		no chert or other clas (CAPROCK?)	ND to very fractured sandy CALIG its. Caliche is very hard, not friab	le		i				E 3
ŧ	25.0		(CAI ROCKI)								25.0
ŀ		团							1		F 3
Ė	- 30.0	三				Ì					20.0
ŀ						33.0					+ =
	35.0 -	擡	White sandy CALICHE	with calcaceous sand matrix and a	bundant		1	ļ	i i		35.0
7		雹	and black, some quar	ro angular, coarse gravel size, brov rizite	vn, white	1	Moderate	Dry	2.5YR 8/3		
F	- 40.0 -							1	1		= 40.0
ŧ		擡				ļ					E 1
ŀ	- 45.0 -	壹	,								45.0
ŀ		澅					ļ		1		E 3
Ė	- 50.0 -	臺					İ				50.0
ŀ		書		٠.		Ì					F
Ē	- 55.0 -	懛									- 55.0-
Ė	- 60.0 -	擡									60.0
ŀ	- 00.0 -	劃					Moderate	Dry	2.5YR 7/3		F 3
Ė	- 65.0 -	橛	Rose and white PEBBLE	ES, with very little sand, dominant hite peobles are hard limestone wi	ly hard very		Moderate	Diy.	2.318 //3		65.0
ŀ		m	grains.		-	66.0	Slight	Dry	2.5YR 5/6		- ""-
ł		1	cuttings, some calcar	ONE/CLAYSTONE, sandy, dry, cous stains, poor indurated/friable	olocky	/					
J			BORING TERMINATE	D AT 66.0'							
1		1									-
ŀ		<u></u>	Design constant	mulation with Add		<u> </u>			1 .		
	NOTE		and 5% bentonite.	ripletion with 95% portland cement		END	ILE DRILLING	Yan as-	r drilling 🔊 1	UOID/O APTOR O	יאין זום:
1			c. Draining Company: 1590C	s Drilling and Pump Service.	= "	.v. • 17A	LEE DIGILIANG	e n.v AFII	. • • • • • • • • • • • • • • • • • • •	mounta) ve i RK I	MILLUIT O
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7					}					:	

WE	 }	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604	LO	G OF SO	OIL BO	RING NO		
_	\mathbf{C}	(312) 922-1030 * * INDIANA (219) 923-9609	FILE			unty Landfill	SHEET	1 OF 2
		W.D. Completed 11/22/97	DUCA			·		
NB	_ FT.	AT COMPLETION Helper Freddy	CLIEN		e, New Mex no Real Lan			
		AT HR. A.D. Dritting Method Air Rolary AT HR. A.D. Sampling Method Dritt Cutlings	CLIE		nd Park, No			
(Signature)	CRO	OUND ELEVATION: 3,405.43 (Ft., MSL) Northing: 4016.88 Comple Easting: 9228.40 Depth:			SAM	IPLE DATA		(82
Depth (FT.,bgs)	22							Depth (FT.,bgs)
변	Lithology Type	SOIL DESCRIPTION	Strata Depth (FT.,bgs)	Calcareous	Moisture	Munsell	Notes	pth (F
ᇫ	 	GRAPHIC LOG	ES E			<u> </u>		짇
		Reddish-brown, leamy fine SAND to sandy LOAM, blocky, friable, very few organics, grading to light brown leamy SAND		Nο	Dry	7,5YR 6/6		[]
5.0			6.0					5.0
ļ .		Reddish-brown, sandy LOAM to poorly cemented loamy SAND, blocky, friable Plot candy CALICHE medicately week with friable pedules of	8.0	No Moderate	Dry	7.5YR 5/6 2.5YR 8/3		<u> </u>
10.0		Pink, sandy CALICHE, moderately weak with friable nodules of caliche and poorly comented sand, fewer nodules with depth	,, ,	Monetare	Dry	2.318.00		10.0
15.0			13.0	Moderate	Dry	2.5YR 5/6		15.0
		Pink, fine to medium SAND, calcareous very small nodules of caliche and cemented sandstone		[-			Ē ‡
20.0		and comonos sanstrony		}				20.0
25.0 -								25.0
ţ :					<u> </u>			
30.0			31.0]				30.0
35.0 -		Light red to pink calcareous nebbly SAND, nebbles are dominantly		Moderate	Dry	2.5YR 6/4		35.0
7		Light red to pink, calcareous pebbly SAND, pebbles are dominantly quartzite, some roase color banded gniess, little chert, angular. Pebbles increase with depth			-			= =
40.0								40.0
45.0 -								45.0-
					1			
50.0								50.0
		•						F.,
55.0 -								55.0
60.0						1 1		60.0
								Ė,,;
65.0 -								65.0
70.0								70.0
<u> </u>						1		<u> </u>
75.0		Pink, sandy CALICHE with caprock chips (Continued)	75.0	Moderate	Dry	2.5YR 8/3		75.0
Ē	三			· ·	2.,	2.511.015	 _	
NOTE		1. Boring grouted after completion with 95% portland cement and 5% bentonite. 2. Drilling Company: Bades Drilling and Pump Service.		ilb drilling	¥ a.d afte	m norring Y	P HOUR(S) AFTER D	ייין ז דייני
	•	L. Druting Company, Baues Driving and Fump Service.	,Џ, - 17 ги	IFE BILIPPERA	す A.D.・AELE	K DIGIDENTS	L HOOK(3) VEITEV D	Kithiy
								÷

ſ	W		WEAVER BOOS CONSULTANTS, INC.	Y (*		OIL NO	יייייייייייייייייייייייייייייייייייייי	J P 10	
	''E	3	200 S. MICHIGAN AVENUE, CHICAGO IL, 60604	LC FILI	OG OF S	OIL BO 12.10	WIIIQ IV	IO. <u>B-1(</u> SHEET 2	
l	<u> </u>		(312) 922-1030 * * INDIANA (219) 923-9609		- #		PLE DATA	JIEL Z	
C	Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Stratz Depth (FT., bgs)	Calcareous	Moisture	Munsell	Notes	Depth (FT., bgs)
		Ē	(Continued from page 1) Pink, sandy CALICHE with caprock chips	83.0					
	- 85.0 -		Reddish-brown, sandy MUDSTONE/CLAYSTONE, dry, poorly indurated, some small calcareous cemented sandstone nodules, litt to no mica	le	Moderate Slight	Dry Barely	2.5YR 5/6 2.5YR 7/3		85.0
	- 90.0 -		BORING TERMINATED AT 92.0'	92.0	Slight No	Damp Barely Damp Barely Damp	2.5YR 5/3 2.5YR 5/2		90.0
						Damp			
			•						
) 							
)								
						:			
			<u>-</u>				1		
			• •						
								,	
	NOTE	<u> </u>	and 5% bentonite.	<u>GEND</u>			1		
_		1	2: Drilling Company: Eades Drilling and Pump Service.	W.D W1	TLE DRILLING		R DRILLING	V HOUR(S) AFTER DR	ILLING
						٠.			

W	3	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUB, CHICAGO IL, 60604		G OF S		RING N		
	TÃV	(312) 922-1030 * * INDIANA (219) 923-9609 ER LLEYEL DATA Not Recognized Stated 11/20/97	FILE	TION Prop	2.10	unty Landfi	SHEET 1	OF 3
NE		W D Completed 11/20/97	LOCA		OOÇU DEN CO	JIN'J DUBUH		
NE	_ _ FT.) Delifer Allan Eados		Eunic	ce, New Mex	ico		
Í <u> </u>	_ FT.	AT HR. A.D. Drilling Method Air Rotary	CLIEN	VT <u>Cami</u>	ino Real Lan	वहार		
	FT.	AT HR. A.D. Sampling Method Drill Cuttings		Sunk	and Park, No	w Mexico		
ଛ	GRO	OUND ELEVATION: 3,396.15 (Fl., MSL) Northing: 9696.33 Complex			SAM	PLE DATA		ୁ ଅଧି
Depth (FT., bgs)		STRATA DEPTH	a l					Depth (FT.,bgs)
E	Lithology Type	SOIL DESCRIPTION	Del Des	Calcareous	Moisture	Munsell	Notes	E
Per	3,	GRAPHIC LOG	Strata Depth (FT.,bgs)					Per
		Brown, fine to medium SAND with caliche grains, granular structure,						
<u> </u>		some roots, no organics		Yes	Dry	1.5YR 6/3		
5.0 -		Brownish-white calcareous fine SAND, some calcareous cement sand	4.0					5.0
Ė	1	nodules, not as floury as other caliche, gritty, abundant coarse sand and chert when wetted						<u> </u>
10.0 -				Strong	Dry	7.5YR 8/2		10.0
£								F=
15.0			17.0					15.0
20.0	証	Pinkish-white sandy CALICHE, many pebbles of hard angular cherty fine sandstone (not friable)						20.0
F 20.0				Strong	Dгу	2.5YR 8/2		[20.0
25.0 -		Disk was Gas GANO antersease with acceptant while of annies	24.0					25.0
<u> </u>		Pink, very fine SAND, calcareous with occasional pebbles of granite, chert		Mild	Dry	2,5YR 7/4		
30.0 -			Ì					30.0
		· · · · · · · · · · · · · · · · · · ·	33.0					F 3
35.0		Dark brown sandy CLAYSTONE, weathered, blocky, very few calich clasts, dry, friable/poorly indurated	þ			İ		35.0
Ŧ				Mild	Dry	2.5YR 6/2		
40.0				}				40.0
Ī			1	Mild	Dry	2.5YR 5/3		F 3
45.0		B. History MIDOTONIDOLA WORDNID distances design	46.0					45.0
50.0		Reddish-brown MUDSTONE/CLAYSTONE, slicky, occasionally sandy, micaceous clasts infrequently, poorly indurated		Mild	Dry	2.5YR 5/2		50.0
1 20.0	薑	:		1				- 30.0
- 55.0		••						55.0
F				Mild	Dry	2.5YR 5/3		F 3
60.0			}	Mild	Dry	2.5YR 7/3	Pitcher Bell Sample	60.0
Ė							obtained at 60.0"	<u> </u>
65.0				Mild	Dry	2.5YR 4/3	1	65.0
70.0					:.			70.0
75.0					1			75.0
ļ '''		(Continued)						- 73.05
<u> </u>	픨	(Contrade)		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
NOTE	<u>\$; </u>	I. Backfilled with cuttings to 120', grouted to surf-ce with 95 with 95% portland cement and 5% bentonite.	KND					
	7	2. Dellling Company: Endes Dellling and Pump Service.	.D WIU	ile drilling	¥ A.D. • AFTE	R DRILLING	♥ HOUR(S) AFTER DRI	LLING

W _B C	WEAVER BOOS CONSULTANTS, INC 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	C. LO	G OF S	12.10		NO. <u>B-1</u> SHEET:	
(52)				SAN	IPLE DATA	I	- T
Depth (FT., bgs) Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Stratz Depth (FT., bg3)	Calcaregus	Moisture	Munself	Notes	Pantly (GT hee)
85.0	(Continued from page 1) Reddish-brown MUDSTONE/CLAYSTONE, slicky, occasions sandy, micaccous class infrequently, poorly indurated	ally	Mild	Barely Damp	2.5YR 5/3		85
90.0							- 90
95.0			Mild	Barely	2.5YR 5/3		E 95
105.0				Damp		Pitcher Bell Sample obtained at 100.0'	11111
110.0		1					E11
115.0	•						[-11 [-11
120.0			Mild	Barely Damp	2.5YR 4/4		-12 - - -
130.0			,				-13
135.0	-		No	Barely Damp	2.5YR 5/6		E12
145.0			No	Barely	2.5YR		-14
150.0-				Damp		Pitcher Bell Sample obtained at 150.0	- - - - - - -
155.0						Average Br 19010	- E 1:
160.0							
170.0	(Continued)		No	Barely Damp	2.5YR 4/3		- 16
NOTES: 1	. Backfilled with cuttings to 120', grouted to surf-ce with 95	LEGEND	 -	weiny .	1		
	. Backfilled with cuttings to 120°, grouted to surf-ce with 95 with 95% portland coment and 5% bentonite. 2. Drilling Company: Eades Drilling and Pump Service.	1	ile drilling	🕏 J.D AFTU	R DRILLING	♥ HOUR(5) AFTER DE	ulln

137		WEAVER BOOS CONSULTANTS, INC.						<u></u>	
YY	3	200 S. MICHIGAN AVENUE, CHICAGO IL, 60604				KING I		D. <u>B-108</u>	
<u></u>	<u>C</u>	(312) 922-1030 * * INDIANA (219) 923-9609	FILE	9504	12.10 SAN	IPLE DATA	SHEET 3		
Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strata Depth (FT., bgs)	Calcarcous	Moisture	Munsell	Notes	Depth (FT., bgs)	
-175.0- -180.0- -185.0-		(Continued from page 2) Reddish-brown MUDSTONE/CLAYSTONE, slicky, occasionally sandy, micaceous clasts infrequently, poorly indurated Light reddish-gray SILTSTONE, with green lantinge, slick, less sand	191.0	Mild	Barely Damp	2.5YR 7/2		175.0 -180.0 -185.0 -190.0	
-195.0- -200.0-		poorly indurated, dry	201.0	Mild	Barcly Damp	2.5YR 7/1		195.0	
-205.0-		Reddish-brown CLAYSTONE, dry, poorly indurated, no bedding or laminae		Mild	Barely Damp	2.5YR 5/2		205.0	
210.0-		BORING TERMINATED AT 215.0	215.0	No	Barely Damp	2.5YR 4/3	Pitcher Bell Sample obtained at 215.0°	215.0	
		••			11 ₁				
							:		
NOTE	<u>S:</u> :	with 95% portland coment and 5% bentonite.	(<u>CEND</u> V.D WH	LE DRILLING	A.D APTE	R DRILLING	7 Hour(5) after dr	ILLING	

W	3,	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604			OIL BO	RING I		
		Completed 11/71/97	FILE LOCA		osed Lea Cou	inty Landfi	SHEET 1	OF 2
NE NB		AT COMPLETION Driller Allan Eades Helper Freddy	CLIEN	T Cami	ce, New Mex ino Real Lan	afin		
<u> </u>	_ FT.	AT HR. A.D. Sampling Method <u>Drill Caulings</u> OUND FI EVATION: 3 404 76 (6) MS(1) Northling: 7717.16 Complete	la-	Sunta	and Park, Ne	м Мехісо	·	
ଞ୍ଚ	GR	OUND ELEVATION: 3,404.76 (FL., MSL) Resting: 7777.10 Complex			SAM	PLE DATA		(880
Depth (FT.,bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Stratz Depth (FT.,bgs)	Calcareous	Moisture	Munsell	Notes	Depth (FT., bgs)
5.0		Grayish-brown loamy fine SAND, granular, no organics, few calcareous nodules increasing with depth, small roots, no iron staining, friable cemented sandstone nodules (windblown sands)	8,0					5.0
10.0		Pinkish-white, sandy CALICHE, moderately weak structure, friable nodules of caliche						15.0
20.0		Light red to pink, calcareous pebbly SAND, pebbles are dominantly quartile, some rose color banded enjess, little chert, angular.	21.0					20.0
25.0		quartzite, some rose color banded gniess, little chert, angular. Pebbles increase with depth						25.0
30.0	literit.	·						30.0
- 35.0 - 40.0		White, sandy CALICHE with calcarcous sand matrix and abundant chericlasts. Clasts are angular, coarse gravel size, brown, white and black, some quartite	36.0					- 35.0
- 45.0 - 50.0			51.0					- 45.0 - 50.0
55.0		Rose and white PEBBLES, with very little sand, dominantly hard, very angular quartzite. White pebbles are hard limestone with quartzite grains Reddish-brown MUDSTONE/CLAYSTONE, sandy, dry, blocky	56.0					55.0
- 60.0 - 65.0		cuttings, some chert pebbles and calcareous clasts, poorly indurated						65.0
70.0								70.0
75.0		Dellish have seen GLAVETONE missesses with annulant	76.0					75.0
<u></u>		Reddish-brown, sandy CLAYSTONE, micaceous with occasional green siltstone beds		<u> </u>		<u> </u>	Pitcher Bell Sample	<u> </u>
NOTE		1. Boring grouted after completion with 95% portland cement and 5% bentonite. 2. Drilling Company: Eades Drilling and Pump Service. □ W.		ile drilling	₹ A.D AFTE	R DRILLING	♥ HOUR(S) AFTER DR	illing

$\mathbf{w}_{\mathbf{B}_{\mathbf{C}}}$	WEAVER BOOS CONSULTANTS, INC 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 • • INDIANA (219) 923-9609	٠, ١, ١,	LO		OIL BO	RING I	NO. B-1	
<u>हि </u>		<u></u>	ļ			PLE DATA		
Depth (FT., bgs) Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG		(FT., bgs)	Calcarcous	Moisture	Munseli	Notes	Denth (ET has)
- 85.0 - 90.0 - 95.0 - 100.0 - 115.0 - 115.0	(Continued) (Continued from page 1) Reddish-brown, sandy CLAYSTONE, micaceous with occasions green silistone beds BORING TERMINATED AT 120'		20.0				Pitcher Bell Sample obtained at 120°	90. - 95. - 100. - 105. - 112.
NOTES:	Boring grouted after completion with 95% portland cement and 5% bentonite. Drilling Company: Endes Drilling and Pump Service.	LEGENE ¥ W.D.		LE DRILLING	¥ A.D AFTE	R DRILLING	♥ HOUR(S) AFTER DI	RILLING

WE	3	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	LO			RING NO	D. <u>B-11</u>	
NB		W.D. Started 11/17/97 W.D. Completed 11/19/97 Driller Allan Eades		TION Propo	sed Lea Cou			
NB	_ FT. _ FT.	AT COMPLETION Helper Freddy AT HR. A.D. Drilling Method Air Rotary	CLIEN		e, New Mex no Real Lan			
	FT.	AT HR. A.D. Sampling Method Drill Cuttings		Sunla	nd Park, Ne	w Mexico		
(sg	GR	OUND ELEVATION: 3,397.38 (Ft., MSL) Northing: 7924.34 Comple Easting: 8019.53 Depth:			SAM	PLE DATA		<u>S</u>
Depth (FT.,bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strata Depth (FT.,bgs)	Calcareous	Molsture	Munsell	Notes	Depth (FT.,bgs)
		Yellowish-red to reddish-brown, loamy fine SAND, weak granular structure,	2.0	No	Dry	5YR 5/8		F :
- 5.0 -		Reddish-brown, loamy fine SAND to sandy LOAM, blocky, friable, very few organics, grading to light brown loamy SAND		No	Dry	5YR 6/8		5.0
- 10.0 -			11.0	No	Dry	5YR 6/8		10.0
- 15.0 -		Pink, sandy CALICHE, moderately weak with frlable nodules of caliche and poorly cemented sand, fewer nodules with depth	11.0	Strong	Dry	5YR 8/4		15.0
20.0				Mild	Dry	5YR 8/3		20.0
- 25.0 -	墨		24.0					25.0
23.0		Pink, fine to medium SAND, calcareous very small nodules of caliche and cemented sandstone	<u> </u>			\		
30.0								30.0
35.0								35.0
55.0				Mild	Dry	5YR 8/2		[55.0
40.0	3	Reddish-brown, peubly, coarse GRAVEL with loamy sand matrix.	39.0	ļ				40.0
45,0 -		Reddish-brown, peubly, coarse GRAVEL with loamy sand matrix. Peubles are predominantly chert, white, red, black and rose quartzite, all angular to subangular Light reddish-brown, CLAYSTONE with trace sand and calcarcous	43.0	Mild	Dry	2.5YR 6/4		-
F 43.0		cemented sandtone pebbles, cuttings are blocky, some chert			İ			- 45.0-
- 50.0 -		Reddish-brown, sandy MUDSTONE/CLAYSTONE, dry, poorly	49.0	Mild	Dry	2.5YR 6/3		- 50.0-
		indurated, some small calcareous cemented sandstone nodules, little to no mica		Mild	Dry	2.5YR 4/6		<u> </u>
- 55.0 -				Mild	Dry	2.5YR 6/3		≥ 55.0÷
60.0				ļ				60.0
- 65.0 -				Mild	Dry	2.5YR 4/6		F.,
								65.0
70.0 -								70.0
76.0								F
- 75.0 -				Mild	Dry	2.5YR 6/4		75.0
		(Continued)]	1	<u> </u>		<u></u>
NOTE		1. Boring grouted after completion with 95% portland cement and 5% bentonite. 2. Drilling Company: Bades Drilling and Pump Service.		ile drilling	¥ a.d afte	R DRILLING ♥	HOUR(S) AFTER DR	ILLING
							•	

ſ	W	.	WEAVER BOOS CONSULTANTS, INC.	ĹC	G OF S	OIL BO	RING I	NO. B-11	.0
	Е	$^{\circ}$ C	200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	FIL		12.10		SHEET 2	
Ì	ଛ					SAM	IPLE DATA		bgs)
	Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strate Depth (FT., bgs)	Calcareous	Moisture	Munsell	Notes	Depth (FT., b
	- 85.0 - - 90.0 -		(Continued from page 1) Reddish-brown, sandy MUDSTONE/CLAYSTONE, dry, poorly indurated, some small calcareous cemented sandstone nodules, litt to no mica Reddish-brown, sandy CLAYSTONE, micaceous with occasional green siltstone beds	ld 84.0	Minor	Barely Damp	2.5YR 4/4	Pitcher Bell Sample obtained at 90'	90.0
Ì	-100.0- -105.0- -110.0-			110.0					100.0
	-115.0- -120.0-		Reddish-brown, sandy MUDSTONE/CLAYSTONE, dry, poorly indurated, some small calcareous cemented sandstone nodules, litt to no mica	je	Slight	Barely Damp	2.5YR 4/4		120.0
	125.0- -130.0- -135.0-				Yes	Barely Damp	2.5YR 3/4		130.0
	-140.0- -145.0- -150.0-		· .		Yes	Barely Damp	2.5YR 4/4	Pitcher Bell Sample obtained at 140'	145.0
	-155.0- -160.0-				No	Barely Damp	2.5YR 4/6		155.0
	-165.0- -170.0-		(Continued)						165.0
	NOTE		and 5% hentonite	<u>gend</u> W.D Wi	alė drilling	¥ a.d afte	R DRILLING	♥ eour(s) after dri	LLNG

WB	C.	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	LOG OF SOIL BORING NO. B-110 FILE # 95042.10 SHEET 3 OF 7						
Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strate Depth (FT., bgs)	Calcareous	Moisture	Munsell	Notes	Depth (FT. bgs)	
-185.0- -185.0- -195.0- -205.0-		(Continued from page 2) Reddish-brown, sandy MUDSTONE/CLAYSTONE, dry. poorly indurated, some small calcareous cemented sandstone nodules, little to no mica Light reddish-brown MUDSTONE, slick, siltter, no bedding Reddish-brown MUDSTONE/CLAYSTONE, micaceous, no bedding	190.0	No	Barely Damp	2.5YR 6/3		185.0 -185.0 -195.0 -200.0 -210.0	
-215.0- -220.0-		or laminae"		No	Barely Damp	2.5YR 5/4		-215.0 -220.0	
-225.0- -230.0- -235.0-				No	Drý	2.5YR 4/6	Pitcher Bell Sample obtained at 230'	-225.0 -230.0 -235.0	
-240.0- -245.0-				No	Dry	2.5YR 5/4		240.0	
-250.0 -255.0			ļ !	No	Dry	2.5YR 4/6		250.0 255.0	
-260.0 NOTE:	s:	and 5% hentonite	IND D WH	<u> </u>	Dry		♥ HOUR(S) AFTER D)	260.0	

W	3 _C	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * INDIANA (219) 923-9609	LO	G OF S	2.10		O. <u>B-11</u> SHEET 4	OF 7
Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strate Depth (FT., bgs)	Calcareous	SAM Molsture	PLE DATA Munsell	Notes	Depth (FT., bgs)
-265.0- -270.0-		(Continued from page 3)		No	Dry	2.5YR 5/6	·	270.0
-275.0· -280.0·		Reddish-brown, MUDSTONE/CLAYSTONE, micaecous, no bedding or laminae						275.0
-285.0 -290.0				Yes	Dry	2.5YR 5/4		285.0
-295.0 -300.0								295.0
-305.0 310.0								305.0
-315.0 -320.0								315.0-
-325,0 -330.0				No	Dry	2.5YR 4/4		-325.0 -330.0
-335.0 -340.0								335.0
-345.0 -350.0				Yes	Dry	2.5YR 5/4	No.	345.0
-355.0 NOTE	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	and 5% bentonlie.	END		,.	<u> </u>	Pitcher Bell Sample obtained at 350'	-355.0-
		2. Drilling Company: Eades Drilling and Pump Service.	',D W I	ile drilling	₹ A.D AFTE	R DRILLING	♥ hour(s) after dr	ILLING

W _B C		WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	LO	G OF S	O. <u>B-11</u> Sheet 5	OF 7		
(550					SAN	IPLE DATA	 	- (8º
Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Surata Depth (FT., bgs)	Catcareous	Moisture	Munsell	Notes	Depth (FT., bgs)
-360.0-		(Continued from page 4)						360.0
-365.0-		Reddish-brown, MUDSTONE/CLAYSTONE, micaccous, no bedding or laminae		Minor	Dry	2.5YR 4/4		-365.0
370.0								370.0
-375.0-				Minor	Dry	2.5YR 4/6		375.0
-380.0-					٠			-380.0- -385.0-
390.0		•						390.0
-395.0 -								-395.0
-400.0-		•						400.0
-405.0-								405.0
-415.0-				ļ				415.0
420.0		, <u>.</u>						420.0
425.0		, ,						425.0
430.0				Minor	Dry	2.5YR 4/8		430.0
-435.0 -440.0				PAULV)	J.,	4.3 IX 7/0		435.0
445.0		(Continued)						445.0
NOTE	<u>}</u> <u>S:</u>	1. Boring grouted after completion with 95% portland cement and 5% bentonite. 2. Drilling Company: Eades Drilling and Pump Service.		ILE DRILLING	¥ A.D AFTE	R DRILLING V	' hour(s) after dr	ILLING

W _B C	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUB, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	LO	G OF S		110 160F7		
क्रा न	facility and make the characters and	1 1 1 1 1 1			IPLE DATA	Q11,434	
Depth (FT., bgs) Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Stratz Depth (FT., bgs)	Colcareous	Moisture	Munsell	Notes	Clearly (FT , bac)
450.0-	(Continued from page 5)						450
455.0	Reddish-brown, MUDSTONB/CLAYSTONE, micaceous, no beddi or laminae	ng					- - - - -
460.0-							-46
465.0							-46 -
470.0							-47 -
475.0							-47 -
480.0							-48 -
485.0							E48
490.0	·	,					F49
495.0	·						-49 -
500.0							-50 - -
505.0							-s(
510.0							-51 -
515.0			Minor	Dry	2.5YR 5/4		-51 - - - -52
525.0	,						- 5.5 - 5.5
530.0							- - - - - - 5:
-535.0							- E 5:
	(Continued)						<u>F</u>
NOTES:	and 5% beutonite.	EGEND W.D WH	ole drilling	¥ a.d afte	R DRILLING	♥ nour(s) after	DRILLIN

$W_{B_{C}}$		WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL. 60604	1	G OF S		B-110		
	<u>C</u>	(312) 922-1030 * * INDIANA (219) 923-9609	FILI	9504	12.10		SHEET 7	
Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Stratz Depth (FT., bgs)	Calcareous	Moisture	Munseli	Notes	Depth (FT., bgs)
		······································		Minor	Dry	7.5YR 5/4		E
-545.0-		(Continued from page 6) Reddish-brown, MUDSTONE/CLAYSTONE, micaceous, no bedding or laminae	ng					-545.0 -545.0
-550.0-				Minor	Dry	2.5YR 4/4		-550.0
-560.0-								-560.0
-565.0- -570.0-				Yes Yes	Dry Dry	2.5YR 6/3 2.5YR 6/2		-565.0 - - - - - - - -
-575.0-			576.0	Yes	Dry	2.5YR 4/4		-575.0
585.0-		Light reddish-gray, clayey SILTSTONE, gritty, sandy, no beddin		Yes	Dry	2.5YR 6/1		580. -585,
-590.0		Reddish-gray, silty SANDSTONE	588.0	Yes	Dry	2.5YR 6/1		- 590.
-595.0- -600.0-		Light reddish-gray, silty SANDSTONE BORING TERMINATED AT 600 FEET	595.0	Yes	Dry	2.5YR 7/1		-595 - -600
		·.			·			
1			na					
NOTE	<u>:S:</u>	and 5% bentonite.	EGEND W.D WH	end .d while drilling \$\ \foata, d apter drilling \$\ \tilde{\tau}\ \text{ hour(s) a}				illing
}	:	2. Drilling Company: Endes Orilling and Pump Service.	W.D. • WH	ile drilling	¥ A.D AFTE	r drilling 🦻	' Hour(S) After I	n

W	<u>. </u>		OS CONSULTANTS, IN	LOG OF SOIL BORING NOB-111_							
200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609						FILE # 95042.10 SHEET					
	NE	CR LEVEL DATA = Not Encountered	Started 11/13/9	LOCATION Proposed Lea County Landfill							
598.0			Driller Allan Ead		Funi	cc, New Me	·inn				
	FT. AT COMPLETION Helper Freddy FT. AT HR. A.D. Drilling Melbort Air Rotary				CLIEN						
	FT. AT HR. A.D. Drilling Method Air Rotary FT. AT HR. A.D. Sampling Method Drill Cuttings					ind Park, N					
8	Northling: 9140.96 Comp			Comp	letion : 598.0		SAN	TPLE DATA		اعرا	
Depth (FT.,bgs)				<u> </u>	7				. :.	Depth (FT.,bgs)	
Ē	ithology Type		rata depth Description		Dep.	Calcareous	Moisture	Munsell	Notes	E	
F. Te	2		APHIC LOG		Strata Depth (FT., bgs)					Jel	
<u> </u>			·		}		<u> </u>	ļ		 - 	
:]	Vallandah and an anddah	1							F 3	
- s.o -		structure, friable, ver	-brown loamy fine SAND, weak gra y few organies, some roots, increasing a slightly loamier with depth	ng calich	ε	No	Dry	5YR 5/6		5.0	
ŀ		• •			8.0					E 3	
- 10.0 -	查	Pale red to pinkish-white friable nodules of cali	fine sandy CALICHE, moderately iche	wcak,	12.0	Strong	Dux	2.5YR 7/2		[0.0]	
- 15.0 -	•	Reddish-hrown loamy fir	ne SAND with moist sandy loam noo	mies.		Mild	Dıy	2.5YR 6/6		15.0	
[13.0		nodules are friable an	d slightly sticky, very little calcareo	us,				İ		F '''	
20.0 -					20.0	Mild	Dry	2.5YR 6/6		20.0	
F		Light brown learny fine :	SAND, pisolitic, slightly indurated vision and sandy loam nodules, coated w	vith ith						E 3	
25.0		carbonates, some orga	anic matter, one chert pebble		25.0					25.0	
Ė	査	Pink to white CALICHE flour-like, few sandy	, probably massive, cuttings are very nodules, friable when wet	y line,		Strong	Dry	2.5YR 8/1		Εij	
- 30.0 ⋅										30.0	
.						Mild	Dry	2.5YR 8/L		F	
35.0	10.5	Very light brown medium	m GRAVEL with calcareous sand many wet, very cherty, angular, white an	atrix, d brown	35.0 37.0	Mild	Dry	2.5YR 8/3	•	35.0	
40.0		chert, some quartzite	•		11	Mild	Dry	2.5YR 5/3		40.0	
	置	White to light brown pebbly coarse GRAVEL with some fine calcareous sand marrix. Pebbles are less angular, mostly chen but also gniess and quartzite	trik. Pebbles are less angular, mostly chen but								
45.0		Reddish-brown MUDST	TONE/CLAYSTONE, sandy, dry, poc are blocky, some chert pebbles and wh	oorly	44.0	Mild	Dry	2.5YR 4/4		45.0	
		Reddish-hown sandy M	IJOSTONE/CLAYSTONE micacon	N15.	4	Ì				-	
50.0		especially biotile, occ beds, otherwise mass	easional chert pieces, occasional gree live, very few laminae or bedding, m	n siltston	ie e					50.0	
		indurated	· ,			No	Barely Damp	10R 4/6		F=	
55.0										55.0	
60.0		,								60.0	
						Mild	Barely	2.5YR 5/3		E 3	
65.0	Ⅲ			<u>-</u>			Damp			65.0	
ļ.		•					1			E :	
70.0]				70.0	
						Mild	Barely Damp	2.5YR 6/4		F., =	
75.0 -		(Continued)							Pitcher Bell Sample obtained at 80'	75.0	
<u> </u>		(Continued)		 _	<u></u> .	<u></u>	<u></u>			<u> </u>	
NOLE	<u>S:</u> 1	. Boring grouted after com	pletion with 95% portland coment	LEG	END						
	2		Drilling and Pump Service.	\$ "	.D YYDI	LE DRILLING	¥ A.D AFTE	R DRILLING	V 110UR(S) AFTER DRI	LLING	
						•					

W	3 _C	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	LOG OF SOIL BORING NO. B-11: FILE # 95042.10 SHEET 2 C					
Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strata Depth (FT., bgs)	Calcareous	SAN Moisture	Munsell	Notes	Depth (FT., bgs)
- 85.0 - - 90.0 - - 95.0 -		(Continued from page 1) Reddish-brown sandy, MUDSTONE/CLAYSTONE, micaceous, especially biotile, occasional chert pieces, occasional green sittstone beds, otherwise massive, very few laminae or bedding, moderately indurated		Minor Slight	Barety Damp Barety Damp	2.5YR 5/4 2.5YR 6/3		90.0
-105.0- -110.0-				Yes	Barely Damp	2.5YR 4/4		-105.
-115.0- -120.0- -125.0-				Yes	Barely Damp	2.5YR 5/3		115.
-130.0- -135.0- -140.0- -145.0-				Na	Barely Damp	2.5YR 5/3	Pitcher Bell Sample obtained at 140	130
-155.0 -160.0 -165.0		(Continued)	,					-155 -160 -165 -170
NOTES		Boring grouted after completion with 95% portland coment		LE DRILLING	₹ A.D AFTEI	DRILLING	U HOUR(S) AFTER DR	ILLING

WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL., 60604 (3)12) 922-1030 * * INDIANA (2)19) 923-9609				LOG OF SOIL BORING NO. B-111 FILE # 95042.10 SHEET 3 OF 7						
ন		(312) 722-1030 11-01/11/1 (213) 723-7903				IPLE DATA	- 01221			
Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strate Depth (FT., bgs)	Calcareous	Muisture	Munsell	Notes	Depth (FT., bgs)		
-175.0-		(Continued from page 2)						E175.		
-180.0-		Reddish-brown sandy MUDSTONE/CLAYSTONE, micaceous, especially biotile, occasional chen pieces, occasional green siltstone buls, otherwise mussive, very few laminae or bedding, moderately		No	Barely	2.5YR 5/6		E180		
-185.0-		indurated	185.0	No	Barely	2.5YR 4/4		-185		
-190.0-		Light reddish-brown, clayey SILTSONE Red, clayey SILTSTONE	187.0	No	Dry	2.5YR 6/4		- -190		
- 195.0-			195.0	No	Barely Damp	2.5YR 5/6		-195		
-200.0		Pink, clayey SILTSTONE		No	Barely Damp	7.5YR 7/3	Pitcher Bell Sample	200		
-205.0-							obtained at 200"	-205		
-210.0-			211.0	·				210		
-215.0-		Reddish-brown, sandy MUDSTONE/CLAYSTONE, micaceous, especially biolile, occasional chert pieces, occasional green silestone beds, otherwise massive, very few laminae or bedding, moderately indurated		No	Dry	2.5YR 6/2		215		
-220.0					<u> </u> 			-220		
-225.0-								-235		
-230.0-							·	-23:		
-235.0-								Ė		
-240.0-					!			-240 - - - -245		
-245.0-								Ē		
-250.0-				No	Dry	2.5YR 4/6		-250 - - - -		
-255.0-				Yes	Dry	2.5YR 4/4		-25		
-260.0		(Continued)				2.51.77		-260 -		
NOTE		1. Boring grouted after completion with 95% portland cement and 5% bentonite. 2. Drilling Company: Eades Drilling and Pump Service.		ILF DRU LING	🟅 A.D. • AFTE	B (MO11 1 (M/)	V HOUR(S) AFTER DE)		

	W _B		WEAVER BOOS CONSULTANTS, INC.	LO	G OF S	O. <u>B-11</u>	Sheet 4 of 7		
		<u>'C</u>	200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	FILE # 95042.10					
	Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strata Depth (FT., bgs)	Calcarcous	SAM Moisture	Munsell	Neics	Depth (FT., bgs)
	-265.0- -270.0-		(Continued from page 3) Reddish-brown, sandy MUDSTONE/CLAYSTONE, micaceous,	,					-265.0- -270.0- -275.0-
	-280.0- -285.0-		Reddish-brown, sandy MUDSTONE/CLAYSTONE, micaceous, especially biotile, occasional chert pieces, occasional green siltstone beds, otherwise massive, very few laminae or budding, moderately indurated						-280.0 -285.0
	-290.0 -295.0				No	Dry	10R 4/6		290.0
	-300.0 -305.0 -310.0								-300.0- -305.0-
	-315.0 -320.0		-						-315.0- -320.0-
	-330.0 -335.0 -340.0				Yes	Dry	10R 4/4		-330.0 -335.0 -340.0
	-345.0 -350.0 -355.0		(Continued)						-345.0 -350.0 -355.0
	NOTES		Boring grouted after completion with 95% portland cement and 5% bentonite. Drilling Company: Endes Drilling and Pump Service.		LE DRII.LING	3 a.d after	DRILLING V	HOUR(S) AFTER DRI	LLING

C 9 Depth (FT., bgs)	Type	STRATA DEPTH SOIL DESCRIPTION	# _	· · · · · · · · · · · · · · · · · · ·	SAN	IPLE DATA		- 3
60.0		STRATA DEPTH	_{= -}	1				1
		GRAPHIC LOG	Strata Depth (FT., bgs)	Calcareous	Moisture	Munself	Notes	
65.0		(Continued from page 4)						E -36
1		Reddish-brown, sandy MUDSTONE/CLAYSTONE, micaceous, especially biotile, occasional chert pieces, occasional green siltstone beds, otherwise massive, very few laminae or bedding, moderately						36.
70.0		indurated		Minor	Dry	2.5YR 4/6		E37
75.0								E37.
80.0					 		•	-38 - -38
90.0				Minor	Dry	2.5YR 5/6		-39:
95.0								E 39
0.00								40
05.0		•						<u> -</u> -40 -
10.0								41
15.0								-41 -
20.0-		·						E42
25.0 30.0							-	42 43
35.0-		,		Minor	Dry	2.5YR 4/6		-13
40.0								-44
45.0		(Continued)						- - -44
OTES:	_ 1	. Boring grouted after completion with 95% portland cement and 5% beatonite		LE DRILLING	¥ A.D AFTE	R DRILLING V	HOUR(S) APTER D	RILLIN
		_						

W _B	C,	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	LO		SHEET 6 OF 7			
Depth (FT., bgs)	Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strata Depth (FT., bgs)	Calcarcous	SAM Moisture	Munsell	Notes	Denth (FT., bes)
-455.0 -465.0 -475.0 -485.0 -485.0 -495.0 -505.0 -515.0		(Continued from page 5) Reddish-brown, sandy MUDSTONE/CLAYSTONE, micaceous, especially biotile, occasional chert pieces, occasional green siltstone beds, otherwise massive, very few laminae or bedding, moderately indurated		Minor	Dry	2.5YR 6/4	Pitcher Bell Sample obtained at 485'	1450. 1455. 1460. 1463. 1470. 1475. 1485. 1490. 1490. 1495. 1500. 1510. 1515. 1520. 1530.
NOTES:		(Continued) Boring grouted after completion with 95% portland cement and 5% bentonite. Drilling Company: Eades Drilling and Pump Service.		LE DRILLING	₹ A.D AFTEI	R DRILLING	♥ HOUR(S) AFTER DI	- - - - -

	B	C.	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (212) 922-1030 * - INDIANA (219) 923-9609	LO		OIL BO 12.10_	RING N	O. <u>B-11</u>	
Ţ.	<u> </u>		<u> </u>	1			IPLE DATA		
Death (FT has)		Lithology	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strate Depth (FT., bgs)	Calcarcous	Moisture	Munsell	Nues	Depth (FT., bgs)
-545 -550	1		(Continued from page 6) Reddish brown, sandy MUDSTONE/CLAYSTONE, micaceous, especially biotile, occasional chert pieces, occasional green siltstone beds, otherwise massive, very few laminae or bedding, moderately indurated						-545.0 -550.0
-555 -560	-0,								5555.0
-565	1			366.0	Minor	Dry	2.5YR 6/4		565.0
-570	0.0		Pink CLAYSTONE Light reddish-gray, clayey SILTSTONE	568.0	Minor	Dry	2.5YR 8/3		570.0
-575 -	-		Reddish-gray, sandy SILTSTONE	576.0	Acr Acr	Dry Dry	2.5YR 7/1		-575.0
-580 -585	-		Reddish-gray, silty SANDSTONE	581.0	Yes	Dry	10R 6/1		-580.0- -585.0-
-590	1					}			590.0
-595	.0- ਯੂ		BORING TERMINATED AT 598 FEET	598.0					595.0
			POWING IEROMINATED AT 396 FEET						
	i		· .						
					<u> </u> 				
NO	TES	 1 2	Boring grouted after completion with 95% portland cement and 5% bentonite. Drilling Company: Eades Drilling and Pump Service.		LE DRILLING	¥ A.D AFTEI	R DRILLING	7 hour(s) after dri	LLING

APPENDIX G.B SITE BORING LOGS

Proje			ORING NO. BH-01 ption: CK Disposal			CAREL
Depth, feet	Samples	Symbol/USCS	Location: Eunice, NM Top of PVC EL: feet MSL Surface EL: 3382 feet MSL Completion Depth: 175 fee Date Boring Started: 5/26/ Date Boring Completed: 5/	it 2015		Monitor Well Description
4		///		L DESCRIPTION to reddish brown, moderate	alv	
5 10 15	{		well sorted, subrounde slightly moist, none HC	d, fine to medium grained,	,,y	
20 25 30		.	SILTY SAND, with call sorted, well rounded, v strong HCL reaction	che, light brown to white, we ery fine to fine grained, dry,	H	
35 40 45 50			CLAYSTONE, reddish moist to dry, weak HCL	brown some gray, slightly reaction		
55 60 65						
65 70 75 80						
85 85 90 95	{					
05 10						
15 20 25						
30 35 40						
45 50 55 60						
65 70 75	•					. <u> </u>
			HCI Drilling Rotary	Groundwater Observations Date Depth to Water	Remarks:	5 1/8" diameter boring; TH60 Atlas Copco Drill Rig
			Cuttings	5/26/15 Dry	<u></u>	

LOG OF BORING NO. BH-01 PAGE 1 of 1

The stratification lines represent approximate strata boundaries in situ, the transition may be gradual.

¥Water level at time of drilling. ▼Water level at end of drilling. ¥Water level after drilling.

			ORING NO. BH-02				
Proj	ect C)escri	iption: CK Disposal				CAREL
Depth, feet	Samples	Symbol/USCS	Location: Eunice, NM Top of PVC El.: feet MSL Surface El.: 3391.8 feet MS Completion Depth: 175 fee Date Boring Started: 5/26/2 Date Boring Completed: 5/	SL t 2015	Northing: 521273.70 Easting: 928310.35	Monitor Well Construction Details	Monitor Well Description
		. , , ,	MATERIA	L D <u>ES</u> CRIF	PTION		
5			CLAYEY SAND, brown well sorted, subrounded slightly moist, none HC	d, fine to me			
15 20 25 30			SILTY SAND, with calic sorted, well rounded, ve strong HCL reaction	che, light br ery fine to fi	own to white, well ine grained, dry,		
35 40		<u>' </u>	CLAYSTONE, reddish HCL reaction, some pu	brown with	gray, dry, weak		
50 55	[
60 65 70			less gray and purple; s	ightly mois	t to dry		
75 80 85							
90 95 100							
105 110 115							
120 125 130							
135 140 145							
150 155							
165 170							
=175= Drilling	Cont	ractor:	: HCI Drilling	Groundw	vater Observations	Remarks	: 5 1/8" diameter boring; TH60 Atlas Copco Drill Rig
Crilling			r Rotary	Date	Depth to Water (ft)		
Samplii			Cuttings	5/26/15	Dry		
Geolog			J. Wimmer		<u> </u>		
LOGC	YE R		G NO. BH-02	The stratifical	tion lines represent approxi	nate strata h	oundaries. Valer level at time of drilling.

LOG OF BORING NO. BH-02 PAGE 1 of 1

The stratification lines represent approximate strata boundaries. In situ, the transition may be gradual.

¥Water level at time of drilling. ¥Water level at end of drilling. ¥Water level after drilling.

LOG OF BORING NO. BH-03 Project Description: CK Disposal Location: Eunice, NM Northing: 520437.21 Top of PVC El.: feet MSL Easting: 926605.28 Monitor Well Construction Details Depth, feet Surface El.: 3386.3 feet MSL Completion Depth: 175 feet Monitor Well Description Date Boring Started: 5/26/2015 Date Boring Completed: 5/26/2015 MATERIAL DESCRIPTION CLAYEY SAND, reddish brown, moderately well 5 10 15 5 🗏 sorted, subrounded, fine to medium grained, slightly moist, none HCL reaction SILTY SAND, with caliche, light brown to white, well sorted, well rounded, very fine to fine grained, dry, 20= 25 strong HCL reaction **≣30 ■35** Quartz and Caliche gravel up to 1" in diameter **■40** CLAYSTONE, reddish brown some gray, slightly **E**45∃ moist to dry, weak HCL reaction 50 55= 60≡ 65 **≣**70∃ 75 **≣80**≣ 85 90 95= **E100**€ 105 10 10 11 12 medium brown from 130' to 135' CAREL2 GDT 9 reddish brown to brown 150 155 160 **=**165<u>=</u> **=**170€ = 175 **Groundwater Observations Drilling Contractor: HCI Drilling** Remarks: 5 1/8" diameter boring; TH60 Atlas Copco Drill Rig Depth to Water (ft) Drilling Method: Air Rotary Date Sampling Method: Cuttings 5/26/15 Dry Geologist: Steven J. Wimmer Project No.: 15-04-22

LOG OF BORING NO. BH-03 PAGE 1 of 1 The stratification lines represent approximate strata boundaries. In situ, the transition may be gradual.

Water level at time of drilling.
 Water level at end of drilling.
 Water level after drilling.

-10)	ect	Descr	iption: CK Disposal		Carrie
Depth, teet	Samples	Symbol/USCS	Location: Eunice, NM Northing: 519600.94 Top of PVC El.: feet MSL Easting: 924941.30 Surface El.: 3374.1 feet MSL Completion Depth: 175 feet Date Boring Started: 5/26/2015 Date Boring Completed: 5/26/2015	Monitor Well Construction Details	Monitor Well Description
			MATERIAL DESCRIPTION	_	
5 10 15)		CLAYEY SAND, reddish brown, moderately well sorted, subrounded, fine to medium grained, slightly moist, none HCL reaction		
5 10 15 20 25	}		SILTY SAND, with caliche, light brown to white, well sorted, well rounded, very fine to fine grained, dry, strong HCL reaction		
30 35 10	1		intermixed reddish brown claystone to 50'		
15 50					
55			CLAYSTONE, reddish brown to purple, dry, weak HCL reaction		
35 35					
35 70 75	1				
30 35	}				
90 95 90 90	1		dark brown to reddish brown		
ᅋ					
10 15					
20 25					
30 35	1				
40 45	1				
50 55	ŀ				
60	1				
70 70					
_			HCI Drilling Groundwater Observations	Remarks:	5 1/8" diameter boring; TH60 Atlas Copco Drill Rig
i∏ng	Met	nod: Ai	r Rotary Date Depth to Water (ft)		

LOG OF BORING NO. BH-04 PAGE 1 of 1

The stratification lines represent approximate strata boundaries. In situ, the transition may be gradual.

Water level at time of drilling.
 Water level at end of drilling.
 Water level after drilling.

Proj	ect	Descri	iption: CK Disposal		
Depth, faet	Samples	Symbol/USCS	Location: Eurice, NM Northing: 519636.20 Top of PVC El.: feet MSL Surface El.: 3386.1 feet MSL Completion Depth: 175 feet Date Boring Started: 5/27/2015 Date Boring Completed: 5/27/2015	Monitor Well Construction Details	Monitor Well Description
			MATERIAL DESCRIPTION		
5 10	Ì		CLAYEY SAND, reddish brown, moderately well sorted, subrounded, fine to medium grained, slightly moist, none HCL reaction		
15 20 25		 	SILTY SAND, with caliche, light brown to white, well sorted, well rounded, very fine to fine grained, dry, strong HCL reaction		
30 35 40	1	-1	intermixed gravel to 45'	-	,
45 50 55 60	1		CLAYSTONE, reddish brown, slightly moist to dry, weak HCL reaction		
65 70 75	1				
80 85 90			medium brown, some sand		
95 100 105			dark brown to reddish brown		
100 105 110 115 120			dark brown and purple		
125 130 135			reddish brown to dark brown		
145 150 155					
160 165 170			dark brown and purple reddish brown		
175 Drilling	Cor	tractor:	HCI Drilling Groundwater Observations	Remarks:	5 1/8" diameter boring; TH60 Atlas Copco Drill Rig
Drilling	Met	hod: Air	r Rotary Date Depth to Water (ft) Cuttings		

LOG OF BORING NO. BH-05 PAGE 1 of 1 The stratification lines represent approximate strata boundaries. In situ, the transition may be gradual.

APPENDIX G.C WATER WELLS WITHIN ONE MILE

NLB

File	Number:				
	(E	or	OSE	Use	Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

I. OWNER OF WELL	505 004 5004
Name: Louisiana Energy Services	Work Phone: 505-394-5204
Contact: Laurie Wetherell	_ Home Phone:
Address: P.O. Box 1789	-
City: Eunice	State: NM 2ip: 88231
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	·
A. $\frac{NW}{1/4}$ $\frac{SW}{LCa}$ $\frac{1/4}{NE}$ $\frac{NE}{1/4}$ Section: $\frac{32}{32}$ Townshi	p: <u>2/S</u> Range: <u>38E</u> N.M.P.M.
B. X = feet, Y = f Zone in the U.S.G.S. Quad Map	eet, N.M. Coordinate System Grant.
U.S.G.S. Quad Map	
C. Latitude: <u>32</u> d <u>26</u> m <u>14.8698</u> s Longitude	
D. East (m), North (m), UTM	Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	, of t <u>he</u>
Subdivision recorded in	County
	177
G. Other:	
H. Give State Engineer File Number if existing we	
I. On land owned by (required): Louisiana Ener	rgy Services > 3
3. DRILLING CONTRACTOR	<u> </u>
License Number: 1575	
Name: Talon Drilling	Work Phone: <u>806.467.06</u> 07
Agent: Shane Currie	Home Phone: <u>806.467.06</u> 22
Mailing Address: <u>921 N. Bivins</u>	_
City: Amarillo	State: <u>TX</u> Zip: <u>79107</u>
4. DRILLING RECORD	
Drilling began: 12/5/08; Completed: 12/5/08 Size of hole: 7-7/8 in.; Total depth of well: 233 Completed well is: Monitor (shallow, art Depth to water upon completion of well: Dry	1,5ft.; esian);
·	
Do Not Write Below This L	.ine
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Form: wr-20 page 1 of 4	rn Number: 4/5 642
Monitor	21.38,32.231
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File	Number	:				
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<u>Dry</u>	in feet		ing format.	Lon		
CORD OF CASIN					· · · · · ·	
Diameter Poun (inches) per 4 PVC Sch	ft. per in. 40 2	Top Bott 2	om (feet) 31 234	end car	From 211	231
CORD OF MUDE	DING AND CEM					
From To 20 20 206	Diameter 7-7/8 7-7/8	2	Cement <u>O Sacks T</u> P	rimie (Ber oured (Ber	ntonite/	Cemer chips
						,
UGGING RECORT Plugging Contr Ad Plugging M	actor:					
UGGING RECOR Plugging Contr Ad Plugging M Date Well Pl	actor:dress:					3
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UGGING RECOR Plugging Contr Ad Plugging M Date Well Pl	RD actor: dress: ethod: ugged: No. Depth Top		tc Enginee	r Representa	tive A	3
UGGING RECOR Plugging Contr Ad Plugging M Date Well Pl	actor: ddress: lethod: lugged: loved by:	Sta	tc Enginee	r Representa	tive A	

File Number: <u>CP-993</u>
Form: wr-20

Trn Number: 4/564-2

page 2 of 4

File	Number:			
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9. LOG OF HOLE

Depth From	in Feet	Thickness	Color and Type of Material Encountered
	To	in feet 5	Candatana lightly comented by
<u> </u>	_ 5		Sandstone, lightly cemented, burnt orange
5	15	10	Caliche, relatively soft, gray to lt orange
15	30	15	Sand, minor chert gravel, it orange sand
30	85	55	Claystone, maroon
85	90	5	Siltstone, hard gray
90	210	120	Claystone, dark purple
210	225	15	Sandstone, very fine-grained, hard, gray
225	231_	6	Clayston, maroon
			
			
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The under belief, the hole.	signed hereby he foregoing i Dri	certifies the sature and	nat, to the bal correct reco	ord of the abo $\frac{2800}{2800}$	wledge and ve described
belief, thole.	he foregoing i	a true and	i correct rec	ord of the abo 28/08 dd/year)	wledge and ve described
belief, thole.	he foregoing i	ller OR STATE ENG	i correct rec	crd of the about 28/08 add/year) LY	wledge and ve described

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File	Number:			
	(For	OSE	Üşe	Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

1. OWNER OF WELL		
Name: Louisiana Energy Services	Work Phone:	505-394-5204
Contact: Laurie Wetherell	Home Phone:	
Address: P.O. Box 1789	- -	
City: Eunice	State: NM 2i	p: <u>88231</u>
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)		
A. $\frac{NE_{1/4}}{Lea} = \frac{SW_{1/4}}{Lea} = \frac{NE_{1/4}}{Lea}$ Township	: <u>2/S</u> Range:	38E N.M.P.M County.
B. X = feet, Y = fe Zone in the	et, N.M. Coor	dinate System Grant.
U.S.G.S. Quad Map		
C. Latitude: <u>32</u> d <u>26</u> m <u>14.9172</u> s Longitude:	<u>103</u> d <u>04</u>	_m <u>45.4866</u> s
D. East (m), North (m), UTM	Zone 13, NAD	(27 or 83)
E. Tract No, Map No of the	Hydrog	raphic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in		of the
G. Other:		
H. Give State Engineer File Number if existing wel	1: CP-994	
I. On land owned by (required): Louisiana Energ		
1. on land owned by (requires). Doublatand Differ	1y Dervices	
3. DRILLING CONTRACTOR		
Markin Musham 1575		ာ (၁
License Number: 1575 Name: Talon Drilling	Wark Phana.	806.467.0697
		806.467.0622
Mailing Address: 921 N. Bivins	nome Fnone:	800.987.0022
	· ·	
City: Amarillo	State: <u>TX</u> Zi _I	p: <u>79107</u>
4. DRILLING RECORD		
Drilling began: $12/5/08$; Completed: $12/5/08$; Size of hole: $7-7/8$ in.; Total depth of well: 36	Type tools: I	Air-Rotary:
Completed well is: Monitor (shallow, arte	sian);	
Depth to water upon completion of well: Dry	ft.	
Do Not Write Below This Li	ne	
00.00.1		15/1/2
File Number: C1-414 Tr Form: wr-20 page 1 of 4	n Number: <u>'</u>	15643
page 1 Of 4	1100	20. 23.D

Monitor

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Dry	in feet	water-	-bearing	formati	.on 	(
<u>:</u>			 				<u></u>	
ECORD OF CASING								
Diameter Pound (inches) per 1 4 PVC Sch 4	t. per in.	Top	Bottom	(feet)			From	To
		<u> </u>						·
ECORD OF MUDD	— ———— ING AND CEM							<u>·</u>
Depth in Feet From To 0 5 5 23	Diameter 7-7/8 7-7/8	5	of Ce 20 S	Sacks T P	rimie (oured (Bento Bento	nite/ nite	
LUGGING RECOR	D							
Plugging Contra Add Plugging Me Date Well Plu	iress: ethod:		"					1
Plugging approv		_						J
			State	Enginee	Represe	ntativ	e	์ ปี
		Botto	n					
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Form: wr-20

page 2 of 4

File	Number	:					
		(For	OSE	Use	Only		

9. LOG OF HOLE

Depth From 0	in Feet To 10 23	Thickness in feet 10	Color and Type of Material Encountered Sandstone, lightly cemented, burnt orange Caliche, hard, gray
23	34	11	Gravelly sand, chert gravel, red sand matrix
34	36	2	Claystone, dark purple
			Clayscone, dark purple
			
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The undersigned hereby cert belief, the foregoing is a hole.	true and	correct reco	ord of the	knowledg above de	re and some soft in the control of t
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FOR S	STATE ENGI	NEER USE ON	LY		
				_	
Quad; FWL; FSL	; Use	; Location N	0		

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File	Number:	_		
	(For	OSE	Use	Onlv)

1. OWNER OF WELL	· Cam acu 4 744
Name: Louislanna Every Services Contact: Laurie Wetherell	Work Phone: <u>505.344,5204</u> Home Phone:
Address: P.O. Box 1789	nome Thone.
City: <u>Eunice</u>	
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)
A. $\frac{5E_{1/4}}{In} \frac{NE_{1/4}}{Lea} \frac{NE_{1/4}}{NE_{1/4}}$ Section: 32 Tow	
B. X = feet, Y = Zone in the U.S.G.S. Quad Map	feet, N.M. Coordinate System Grant.
C. Latitude: 37 d 26 m 21.907 s Longi	
D. East (m), North (m),	UTM Zone 13, NAD (27 or 83)
F. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tra	of the County.
G. Other:	
H. Give State Engineer File Number if existin	g well: (P-947
I. On land owned by (required): Lez Count	y, AM
3. DRILLING CONTRACTOR	
Name: 1575 Name: Talon ICPE Agent: Shane Currie Mailing Address: 921 N. Bivins	Home Phone: 806, 916, 820
city: Amarillo	State: TX Zip: 79107
I. DRILLING RECORD	
Drilling began: 3/5/07; Completed: 4/03/ Size of hole: 7-7% in.; Total depth of well: Completed well is: Monitor (shallow, Depth to water upon completion of well: 175	270.5 ft.; artesian);
Do Not Write Below Th	
File Number: <u>CP-947</u> Form: wr-20 page 1 of	Trn Number: 376945 63
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		(For	OSE	Use	Only)

Depth in Feet Thicknet From To in fee 178/83 2/8/1 39.27	et water-l	ption of bearing format cne & s()+s\o	ion	Estimat (G <u>O</u>		
	•					
						
	-					
ECORD OF CASING						
Diameter Pounds Threa (inches) per ft. per i		n Feet Length Bottom (feet)			Perforati From To	ion
4 Sch 40 PVC Z	O	198.1	1/4		.v./4	<u>.</u>
4 5th 40 PM 2	1981	218.1 20	PVC 2-10	Cap	188.1 21	81
						
						
ECORD OF MUDDING AND C	EMENTING					
Depth in Feet Hole	Sacks	Cubic Feet	Method o	of Place	ement	
From To Diameter	of mud	of Cement			_	
0 15 7.7/8			tremie.	brutou	rite /cen	10
15 47 7-78	<u> </u>		Poured)	-bent	cuite c	'nц
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.UGGING RECORD Plugging Contractor:						
Plugging Contractor: Address: Plugging Method:						
Plugging Contractor:						
Plugging Contractor: Address: Plugging Method:						
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Plugging Contractor:Address: Plugging Method: Date Well Plugged: Plugging approved by: No. De		State Enginee	r Represen			7.00
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Plugging Contractor:Address:Plugging Method:Date Well Plugged:Plugging approved by:No. De	pth in Feet Bottom	State Enginee:	r Represer		7001 APR 27 P	
Plugging Contractor:Address:Plugging Method:Date Well Plugged:Plugging approved by:No. De	pth in Feet Bottom	State Enginee: Cubic Feeto:	r Represer	ntative	7001 APR 27 17 2: 0'0')	

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File	Number	:		
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9. LOG OF HOLE

_	in Feet		Color and Type of Material Encountered
From	OT	in feet	CA118 1-1-1 1-1-1-1
<u> </u>	_2_	2 23	SAND, loose dry, brown - tan
	25	_ 	caliche, suft, dry, gray
	30		SANDY, gravel dry, orange to tan
	130		Clay, highly plastic, marcon with gray mottling
<u> 130</u> <u> 140</u>	140		siltstone, bandidry gray with marcon mottling
195	205	10	
205	707		Silstone, hard dry gray wi maroon splotching
207	215		Siltstone with claystone hard, gray & marpon
215	230	15	claystone, firm dry marcon we gray mothing
			CONSIDER FERRENCE OF THE DEST OF THE THING
			
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File Number: <u>CF-947</u>
Form: wr-20

page 3 of 4

Trn Number: 376945

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File Number:

(For OSE Use Only)

ADDITIONAL STATEMENTS OF	R EXPLANATIONS:		
	 		
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The undersigned hereby ce belief, the foregoing is hole.	rtifies that, to the	best of his knowl ecord of the above	edge and described
belief, the foregoing is	rtifies that, to the a true and correct r	best of his knowl ecord of the above $04/24/2007$	edge and described
belief, the foregoing is	a true and correct r	best of his knowl ecord of the above $\frac{\sqrt{24/2007}}{\sqrt{2007}}$	edge and described
belief, the foregoing is	a true and correct r	best of his knowl ecord of the above $04/24/2007$ m/dd/year)	edge and described
belief, the foregoing is	er (m	ecord of the above	described ROS
belief, the foregoing is hole. Drill	er (m	record of the above	described
belief, the foregoing is hole. Drill	er (m	record of the above	described ROS
belief, the foregoing is hole. Drill	er (m	ecord of the above O4/24/2007 m/dd/year) ONLY	described ROSVELL, Rolling 27
belief, the foregoing is hole. Drill	er (m	ecord of the above O4/24/2007 m/dd/year) ONLY	described Roswell, Rown
belief, the foregoing is hole. Drill	er (m	ecord of the above O4/24/2007 m/dd/year) ONLY	ROSWELL, REPLIES 1991 1992 27 5 2:
belief, the foregoing is hole. Drill	er (m	ecord of the above O4/24/2007 m/dd/year) ONLY	described Roswell, Rown
belief, the foregoing is hole. Drill FOR	er (m	OH/24/2007 um/dd/year) ONLY ON No.	ROSWELL, REPLIES 1991 1992 27 5 2:
belief, the foregoing is hole. Drill FOR Quad; FWL; FSL	er (m	ONLY ONLY On No.	ROSVIELL, NEW TRANSPORT
belief, the foregoing is hole. Drill FOR	er (m	ONLY ONLY On No.	ROSVIELL, NEW TRANSPORT
FOR Quad; FWL; FSL	er (m	ONLY ONLY Trn Number: 37	ROSVIELL, NEW TRANSPORT

File	Number	;			
		For	OSE	Use	On l v

1. OWNER OF WELL

Name: Louisianz Energy Services Contact: Lauric Wetherell	Work Phone: <u>505.394.52</u> 04 Home Phone:
Address: P.C. Box 1789	
City: Evnice	State: Zip:
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. NE 1/4 NE 1/4 NE 1/4 Section: 32 Township in	2/5 Range: 38EN.M.P.M.
B. X = feet, Y = feet Zone in the U.S.G.S. Quad Map	et, N.M. Coordinate System Grant.
C. Latitude: 37 d 26 m 33.09% s Longitude:	103 d 04 m 27.582 s
D. East (m), North (m), UTM :	Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the County.
G. Other:	
H. Give State Engineer File Number if existing well	
I. On land owned by (required): Lea County	NM
3. DRILLING CONTRACTOR	
License Number: 1575 Name: Talon / LPE Agent: Share Currie Mailing Address: 921 & Bivins	Work Phone: 866.467.0607 Home Phone: 866.467.0607
City: Amarillo	State: 7¥ Zip: 79107
4. DRILLING RECORD	
Drilling began: 3/15/07; Completed: 4/03/07; Size of hole: 7-7/y in.; Total depth of well: 37.2 Completed well is: Monitor (shallow, artes Depth Lo water upon completion of well: 027	ft.;
	<u> </u>
File Number: CP-948 Trn Form: wr-20 page 1 of 4 Monutar	Number: 376966 19 2 66

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		(For	OSE	Use	Only	,

From To	Thickness in feet	water-		mation 		M)
						
RECORD OF CASIN	G					
Diameter Pound (inches) per _ 4 _ 50440	ds Threads ft. per in. PVC Z	Top 1	Bottom (fee	et)	Fi	rom To
4 3440	PVC Z	27.2	32.2	o prc end	(20 2	2.2 32.2
RECORD OF MUDD	ING AND CEM	ENTING				
Depth in Feet	Hole	Sacks	Cubic Feet	Method	of Placen	nent
From To	Diameter フ・ツェ	of mud	of Cement	tremai-	- bent	يه مراصل من
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	ethod:					
Plugging approv						
			State Engin	eer Represe	entative	
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·	No. Depth	in Feet	Cubic Fee	tof Cement		_, 7
· ,	Top	in Feet Bottom		tof Cement		7991 7991
· ,	Top 1			tof Cement	·	7001 APG
· · · · · · · · · · · · · · · · · · ·	Top 1 2 3			tof Cement		1001 APG 2
·	Top 1			tof Cement		IBU APA 27
	Top 1 2 3 4			tof Cement		1881 APR 27 FO
	Top 1 2 3 4			tof Cement		7891 APR 27 FP 2:
	Top 1 2 3 4 5	Bottom				51 L2
le Number: CP	Top 1 2 3 4 5	Bottom		s Line	er: <u>376</u>	27 P 2: 01

Monitor

21,38.32.222

File Number:

(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

Depth From C 3	in Feet To 30 35	Thickness in feet 3 27 6	Topsoil - Silt loose: dry, brown Caliche, hard, dry, tan to gray Citay, highly platic, dry, marcon & gr	-a-v	<u> </u>
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pelief, the foregonous	Driller		r 1	e described

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Quad; FWL;		•		AFR
)uad; FWL;		•		25.5
)uad; FWL;	; FSL; Use	; Location I	No	75 US
Quad; FWL;	FSL; Use	•	No	AFR 27 F
Number:	FSL; Use	; Location I	No	AFR 27 P

Who

File	Number	:			
		(For	OSE	Use	Only)

1. OWNER OF WELL				
Name: Louisia	ina Energy Se	ייעוֹנכין		505.394.5704
Contact: Laurie Address: P.O.	<u>iselhevell</u>		_ Home Phone:	
Address: P.O.	BOX 1789			
City: <u>Eunic</u>	e e		State: <u>www</u> Zip	o: <u>88731</u>
2. LOCATION OF WELL (A	A, B, C, or D required,	E or F if known)		
		27	115	205
A. <u>NW</u> 1/4 <u>NE</u> 1/ in <u>Lea</u>	'4 <i>NE</i> 1/4 Secti ——————	lon: 💋 d Townshi	: Range <u>(۱/کو</u> : p	County.
B. X =	feet, Y	<u> </u>	eet, N.M. Coord	inate System
B. X = Zone in U.S.G.S. Quad N	the		<u></u>	Grant.
_				
C. Latitude: 37	_d <u>Z6_</u> m <u>32-89</u>	S Longitude	: 103 d 04	m 39.176 s
D. East	(m), North	(m), UTM	Zone 13, NAD	_ (27 or 83)
E. Tract No.	_, Map No	of the	Hydrogi	caphic Survey
F. Lot No,	Block No	of Unit/Tract _		of the
	Subdivisio	n recorded in _		County,
G. Other:	<u> </u>	· · · · · · · · · · · · · · · · · · ·		
H. Give State Engi	.neer File Number	if existing we	11: <u>CP-44</u>	19
I. On land owned b	y (required):	Lea County	NM	
3. DRILLING CONTRACTO	OR		•	
License Number:	1575			
	Talon /LPF		- Work Phone:	806.467.06DT
Agent:	Strane Currix		Home Phone:	806. 676. 8720
Mailing Address: _			<u>-</u>	<u> </u>
City: _	Amarillo		State: TX Zip	: 79/07
4. DRILLING RECORD				
Drilling began:	3//6/07 : Comple	ted: 4/03/07	: Type tools: A	Air Potony:
Size of hole: 7-7	in.; Total dep	th of well: 240	9 ft.;	118 120 4
Completed well is:	Monitor	_ (shallow, art	esian);	~ ~ <u>~</u> ~
Depth to water upo	n completion of	well: <u>DRY</u>	fi.	
				27 - 22
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Form: wr-20	<u> </u>	page 1 of 4	THE MONDET:	**************************************
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	11	wulde	11 28	22,221

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From To	Thickness in feet	water-b	etion of earing for	nation -	(ted Yield GPM)
			·			
ECORD OF CASIN	iG					
Diameter Poun (inches) per 4.0 sch 40	ft. per in.	Top B	ottom (fee	14 N/A		From To
		·		<u> </u>		
ECORD OF MUDD	ING AND CEM	ENTING	·			
Depth in Feet	Hole	Sacks	Cubic Feet	Method	of Plac	cement
From To O 15	Diameter フィッパ	i	of Cement	1 remit	bent	touite leese
15 7is	7-7/8	53		pour - b	ntoni	e pollet
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LUGGING RECOR	 D					
Plugging Contr Ad Plugging M	actor: dress: ethod:				·	
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Plugging Contr Ad Plugging M Date Well Pl	actor:dress: ethod:					
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Plugging Contr Ad Plugging M Date Well Pl	No. Depth Top 1 2 3 4 5	in Feet Bottom	State Engin	eer Represe		

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(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

Depth:	in Feet	Thickness	Color and Type of Material Encountered
From	To	in feet	· ·
<u>C_</u>	<u> </u>		SAND, loose dry orange to light and
<u> </u>	30	<u>ما ت</u>	CALICITE Moderately hard, chert, dry oranged rec)
<u> 30</u>	<u>5c</u>	20	SANDY, Gravel chert, dry, tax to light orange
<u>_50_</u>	115	<u>65</u>	Clay, highly plastic, firm day, gray of marrow
115	_125_		Silstone hard moist gray
125	<u>071</u>	55	claystone, dry, marcon wilgray mottling,
180	<u> 190</u>		Siltstone & claystone interbedded dry gray
-180-	2.35	45	Claystone hand Dry, margon w/ gray veining
235	240		Silfstone, where to have dry gray
2.40	245	5	Claystone, hard, dry, marcon w/ gray form nothing
		 	
			
			
			
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le Numb	er: <u>CP</u>	-949	Trn Number: 3769472

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The undersigned he belief, the forego hole.	ereby certifies that, to the best oping is a true and correct record o	f his knowledge and f the above described
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pelief, the foregonole.	FOR STATE ENGINEER USE ONLY ; FSL; Use; Location No Do Not Write Below This Line	the above described 7 ar)

WLB

File	Number	:	_		
		(For	OSE	Use	Only)

1. OWNER OF WELL . Name: Louisland Energy Services	Work Phone: 505 394.570
Contact: Laurie Wetherell	Home Phone:
Address: 2.0. Box 1789	
	-
City: EUNICE	State:NM Zip: 88731
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. NW 1/4 SW 1/4 NW 1/4 Section: 32 Townshi	p:215 Range: 38EN.M.P.M.
B. X = feet, Y = f Zone in the U.S.G.S. Quad Map	eet, N.M. Coordinate System Grant.
C. Latitude: 32 d 26 m 16,2 s Longitude	1: <u>103</u> 0 5 m <u>21,2</u> s
D. East (m), North (m), UTM	Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the County.
G. Other:	
H. Give State Engineer File Number if existing we	11: <u>CP-959</u>
I. On land owned by (required): Lea County	, NM
3. DRILLING CONTRACTOR	
License Number: 1575 Name: Talon / LPE Agent: Shave Currie Mailing Address: 92(N. Bivins	Work Phone: <u>806,417.06</u> 07 Home Phone: <u>806,676,822</u> 0
City: Amarillo	State: TX 2ip: 79107
4. DRILLING RECORD	
Drilling began: $3/23/c7$; Completed: $3/24/c7$; Size of hole: $7-7y$ in.; Total depth of well: 23 Completed well is: $900 cm$ (shallow, arts Depth to water upon completion of well: 927	L ft.;
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File Number: CP 959 Form: wr-20 page 1 of 4	rn Number: 376959 EFF
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From To DRY	Thickness in feet	water-	_	format		(GPM)	-
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Diameter Pound		Denth i	n Feet	Ionath	Type of Shoe	Porfo	ratione
(inches) per		Top	Bottom	(feet)		From	
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RECORD OF MUDD	ING AND CEM	ENTING	•				
	Hole Diameter		of Ce		Method of Pl		,
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Plugging Me Date Well Plu	No. Depth Top 1 2 3 4	in Feet	State Cubi	Enginee	r Representati		F.
Plugging Me Date Well Plu	No. Depth Top 1 2 3 4	in Feet	State Cubi	Enginee	r Representati		ROSWELL DESIGNATION OF C
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(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

Depth i	То	in feet	Color and Type of Material Encountered
	2	2	SAND loose moist overnoe/brown
7	75	(3	CHUICHE SOFT dry tan
15	20	5	Gavelly sand inose city arrange to tan
20	30_	10	claustone w/ siltstone marcon & grav
30.	45	65	Clarstone ory marcon w/ gray mostling
95	110	15	Claristone of silt stone city marrows gray.
110	/30	20	claystone, have, dry marcon w/ gray moth
130	135	5	claystone us sitistane dry marrow & gray
135	210	75	clarstone have dry marcon & grav
210	215	5	Sutstone wi claystone have, gray & mare
215	2.40	25	Clay stone, moderate hand dry marrow & gr
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elief, the for	hereby certiegoing is a to	fies that, true and corr	o the best ect record OW 29 (mm/dd/)	of his kno of the abo (/zco7 /ear)	wledge and ve describe	ed
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pelief, the formole.	Driller FOR ST	ATE ENGINEE	Cect record OH / 24 (mm/dd/)	of the abo	ve describe	7300 00 +
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File	Number	:			
		(For	OSE	Use	Only)

1. OWNER OF WELL	
Name: LOUISIANA ENergy Servi	ces Work Phone: <u>505.384.5</u> 704
Contact: Laurie wethereil	Home Phone:
Address: P.O. Box 1789	
City: Eunice	State:NM Zip: 88731
2. LOCATION OF WELL (A, B, C, or D required, E	•
A. SE 1/4 NE 1/4 NW 1/4 Section	n: <u>32</u> Township: <u>2/S</u> Range: <u>38E</u> N.M.P.M.
B. X = feet, Y = Zone in the U.S.G.S. Quad Map	feet, N.M. Coordinate System Grant.
C. Latitude: 32 d 26 m 23,387	_s Longitude: <u>/03 d 04 m 57.803</u> s
D. East (m), North	(m), UTM Zone 13, NAD (27 or 83)
E. Tract No, Map No of	the Hydrographic Survey
F. Lot No, Block No of Subdivision	Unit/Tract of the recorded in County.
G. Other:	
H. Give State Engineer File Number i	f existing well: <u>CP95%</u>
	a County, NM
3. DRILLING CONTRACTOR	
157	
License Number: 1575	More Phase VAL 1117 MART
Name: Talon LPE Agent: Shane Currie	Work Phone: <u>806.467.06</u> 07 Home Phone: <u>806.676.87</u> 20
Mailing Address: 971 N. Bivins	
	State: <u>7X</u> 2ip: <u>79107</u>
4. DRILLING RECORD	ROS
Drilling began: 3/20/07: Complete Size of hole: 7-7/2 in.; Total depth Completed well is: Monitor Depth to water upon completion of we	d: 3/29/07; Type tools: Air (5tar) of well: 246.3ft.; (shallow, artesian);
peben co water abou combinetion of Me	11: <u>217.19</u> ft.
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	0.100
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217.19 246.3	Thickness in feet 29.11	Description of water-bearing formation Claystone w/s.Ttsfone	Estimated Yield (GPM) 0-5
ECORD OF CASIN	 IG	· 	
Diameter Poun (inches) per 4 Sch 40	ft. per in. PVC 2	Top Bottom (feet) <u>C 226.3 7263</u>	Type of Shoe Perforation From To NA VC End Cap 226.3
ECORD OF MUDD			
Depth in Feet From To	Hole Diameter 7-7/8	of mud of Cement	Method of Placement Mile - Cement / bentanil No - bentanile objects
Plugging Contr Add Plugging M Date Well Pl	dress: ethod: ugged:		
	ved hv:	State Engineer F	
Plugging appro		State Engineer F	Representative
Plugging appro	No. Depth Top 1 2 3 4 5		•
Plugging appro	No. Depth Top 1 2 3 4 5	in Feet Cubic Feetof Control Bottom Not Write Below This Line	Cement 27 27 27 29 0

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NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

Depth in Feet Thickness From To in feet O 5 5 G 35 30 35 40 5 40 70 30 70 80 70 30 80 77.5 145 245 250 5	SAND, loose, damp, burnt orange CALICHE, hard, dry light orange to gray SANDY Gravel, GRAY Sand matrix City, Plastic, firm gray & marcon Claustone wi sitting dry marcon & gray Maystone, firm, dry marcon will gray mottling Claystone wisiltstone dry, light red Claystone Stiff, dry marcon will gray mottling
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	ENGINEER O
File Number: <u>CP - 958</u> Form: wr-20	page 3 of 4 Printer Trn Number 376958 0 577 Page 3 of 4 21, 38, 32, 124

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belief, the foregoing hole.	riller OY / 24 / 2007 riller (mm/dd/year) FOR STATE ENGINEER USE ONLY L: Use: Location No Do Not Write Below This Line	pove describe

File	Number	:				
		(For	OSE	Use	Only	Ž)

1. OWNER OF WELL	
Name: LOIUSIANA Energy Services	Work Phone: 505. 394.5204
Contact: Laurie Wetherell Address: P.O. Box 1789	Home Phone:
address: P.O. Box 1189	
City: Eunice	State: <u>NM</u> Zip: <u>8 8771</u>
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. NE 1/4 NE 1/4 NW 1/4 Section: 32 Township in Yea	: <u>2/5</u> Range: <u>386</u> N.M.P.M.
B. X = feet, Y = fe Zone in the U.S.G.S. Quad Map	et, N.M. Coordinate System Grant.
C. Latitude: 32 d Z6 m 33.072 s Longitude:	103 d 05 m 2.128 s
D. East (m), North (m), UTM	Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of theCounty.
G. Other:	·
H. Give State Engineer File Number if existing wel	1: <u>CP- 951</u>
I. On land owned by (required): Lea County, /	UM
3. DRILLING CONTRACTOR	
License Number: 1575	
Name: Talou LPE Agent: Shave Covvia Mailing Address: 921 N. Bivin 5	Work Phone: 806,467,0607 Home Phone: 606,676,8220
city: Amarillo	State: TX Zip: 79107
4. DRILLING RECORD	
Drilling began: 3/29/07; Completed: 3/29/07; Size of hole: 7-1/2 in.; Total depth of well: 261.3 Completed well is: Monitor (shallow, arter Depth to water upon completion of well: 243.31	ft.; SM Sian); SM SM
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Form: wr-20 page 1 of 4	
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From To <u>Z438 Z61.3</u>	Thickness in feet	water-bea	on of ring format e, Navo, c	tion	(ted Yie GPM) ー <u>こ</u>	ld
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RECORD OF CASIN	IG						
4 sch 40	ft. per in.	Top Bot	eet Length tom (feet) 1.3 24/.3 i.3 20			Perfor From ASIA 241.3	To
Depth in Feet From To D 75 75 235	Hole Diameter 7-7%	Sacks C	ubic Feet f Cement 20	Method Framie Paul: bre	<i>benton</i> i	ite/ce.	nent os
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(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

Depth in Feet From To 10 4 20 20 25 25 45 45 65 65 120 170 125 125 240 240 260	Thickness in feet 4 16 5 20 20 55 6 115	SAND lose, Dry tan-brown CALICHE, soft, chert, dry, tan CARLOHE, soft, chert, dry, tan CARVELLY SAND, Chert, orange ship involved CLAY, highly plastic firm dry Marron Sittstone, hard, dry, gray Claystone, hard, dry, marron w/ gray mottling Claystone, interbedded w/ siltstone marron Claystone, dry marcon w/ gray mottling Siltstone, hard, damp gray mottling Siltstone, hard, damp gray
260 765		claystone, dry, marcon with gray mottling
		STATE ENGINEER OR ROSWELL NEW AND APR 27 P
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File	Number	:			
		(For	OSE	Use	Only)

1. OWNER OF WELL			_
Name: Louisiana Energy	Services	Work Phone:	
Address: P.O. Box 1789		Home Phone: _	
		_	
City: Evinice		State: New Zip:	88231
2. LOCATION OF WELL (A, B, C, or D require	ed, E or F if known)		
A. NE 1/4 NE 1/4 NW1/4 Section 1/4 Section 1/4			SEN.M.P.M. County.
B. X = feet, Y = Zone in the U.S.G.S. Quad Map	fe	et, N.M. Coordi	nate SystemGrant.
C. Latitude: 32 d 26 m 32	S Longitude:	<u>103</u> d <u>04</u> m	59.861 s
D. East (m), North	(m), UTM	Zone 13, NAD	(27 or 83)
E. Tract No, Map No	of the	Hydrogra	phic Sur ve y
F. Lot No, Block No Subdivis	_ of Unit/Tract sion recorded in		of the County.
G. Other:			-
H. Give State Engineer File Numb	per if existing wel	1: CP-950	
I. On land owned by (required):			<u></u>
	Era Court 1		
3. DRILLING CONTRACTOR			
License Number: 1575 Name: Talon LPE Agent: Shawe Curri Mailing Address: 921 N. Bivins	<u> </u>	Work Phone: &	6.676.8220
City: Amarillo	·	State: TX Zip:	79107
4. DRILLING RECORD			
Drilling began: $\frac{3/21/07}{100}$; Comp Size of hole: $\frac{1-7x}{100}$ in.; Total of Completed well is: Montov	iepth of well: 22 (shallow, arte	_ ft.; sian);	· rotary;
Depth to water upon completion o	of well:	ft.	00.7 71.5
			SWE SWE
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File Number: CP- 950		n Number: 374	948
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File	Number:				
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Depth in Feet From To DRY	Thickness in feet	water-	iption o -bearing	format	ion		ted Yi (GPM)	eld
						••		<u></u>
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RECORD OF CASIN	IG							
Diameter Poun	ds Threads	Depth i	in Feet	Length	Type o	f Shoe	Perfo	rations
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<u>Ч</u> эсн 40 г	PUC Z				PVC end		10:1	ZC.1
RECORD OF MUDD	OING AND CEM	ENTING						
Depth in Feet From To	Hole Diameter	Sacks of mud		Feet	Method	of Pla	cement	
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$\frac{2}{2}$	7-7/8	7		- -	trèmie Pour be	pent cy	<u> </u>	CONCRI
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File Number:

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NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

Depth i From C Z 15 19	n Feet To Z 15 19 72	Thickness in feet Z 13 4 2	Color and Type of Material Encountered SAND, loose, moist, tan to brown CALICHE, soft, chert gravel, moist, orange -tan, Grivelly SAND, light cementation moist red Sand Clay, highly plastic; firm, moist, Marcon w/ gray mottling
			TATE ENG
			27 温度
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FOF Quad; FWL; FSL	er R STATE ENC _; Use O Not Writ	GINEER USE	ONLY on No. Trn i	f the abo	ve descr	ibed 755 27

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File	Number: _			_
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1. OWNER OF WELL Name: Louisiana Energy Services	Work Phone: 505.394.5204
Contact: Laurie wetherell	Home Phone:
Address: P. O. Box 1789	
City: EUNICE	State: _ Zip: <u>8823(</u>
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. NW 1/4 NE 1/4 NW 1/4 Section: 32 Township in Lea	:215 Range:38EN.M.P.M. County.
B. X = feet, Y = fee Zone in the fee U.S.G.S. Quad Map	et, N.M. Coordinate System Grant.
C. Latitude: 37 d 26 m 35.007 s Longitude:	103 d 05 m 8.300 s
D. East (m), North (m), UTM	Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the County.
G. Other:	
H. Give State Engineer File Number if existing wel:	1: CP. 952
I. On land owned by (required): Lea County, M	
3. DRILLING CONTRACTOR	
Tipongo Numbou	·
License Number: 1575 Name: Talon LPE	Work Phone: 206.467.0607
Agent: Shave Currie Mailing Address: 921 N. Bivins	Home Phone: 80. 10. 8170
	State: TX Zip: 79107
•	7/10/5
4. DRILLING RECORD	
Drilling began: $3/21/07$; Completed: $3/21/07$;	Type tools: Hir Rotary
Size of hole: 7.7% in.; Total depth of well: 76.4 Completed well is: Monitor (shallow, artes	
Depth to water upon completion of well: DRY	_ ft
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	5. 2. XIC
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RECORD OF CASIN	IG							
Diameter Poun	ds Threads	Depth i	in Feet Le	enath	Type of	Shoe	Perfo	rations
Diameter Poun (inches) per	ft. per in.	Top	Bottom (i	eet)	••		From	To
4 SCH 40	PVC Z	16.9	76.9	<u>6.9</u> _	DVC 4		169	269
								
RECORD OF MUDD	OING AND CEM	ENTING						
Depth in Feet	Ноје	Sacks	Cubic Fe	el	Method	of Plac	cement	
From To	Diameter 7-7/g	of mud			i .	_	1 11	1 7
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1. OWNER OF WELL		'AC ZOU EZAL
Name: Louisiana Energy Services	Work Phone: 5	
Contact: Laurie wetherell Address: P.O. Box 1789	nome rhome	
		60221
City: <u>Eunice</u>	State: 🏰 Zip:	08651
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)		
A. $\frac{NE}{1/4}$ $\frac{NW}{NW}$ 1/4 $\frac{NW}{1/4}$ Section: 32 Townsh in2ea_	ip: <u>2/5</u> Range: <u>3</u>	8E N.M.P.M. County.
B. X = feet, Y =	feet, N.M. Coordi	nate System Grant.
C. Latitude: <u>32</u> d <u>26</u> m <u>32.999</u> s Longitud	e: <u>/03</u> d <u>05</u> m	<u>19.283</u> s
D. East (m), North (m), UT		
E. Tract No, Map No of the	Hydrogra	phic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in		of the County.
G. Other:		
H. Give State Engineer File Number if existing w	ell: <u>CP-953</u>	<u>.</u>
I. On land owned by (required): Lea County,	NM	
3. DRILLING CONTRACTOR		
License Number: 1575		
Name: Talon/LPE Agent: Shane Currie Mailing Address: 421 N. Bivins	Work Phone: &	<u>06.467.060</u> 7 <u>06.676.872</u> 0
city: Amarillo	State # TX Zip:	79107
4. DRILLING RECORD		,
Drilling began: $3/22/07$; Completed: $3/29/07$ Size of hole: $7-7/2$ in.; Total depth of well: 25 Completed well is: M_{ONI} (shallow, ar Depth to water upon completion of well: 24/. 20	<u>7.5</u> ft.; tesian);	E ENGINEE WELL, NEV LAPR 27
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5. PRINCIPAL WATER	R-BEARING ST	RATA					
Depth in Feet From To 241.26 267.5	Thickness in feet 16.24	water-	ption of bearing	format	_	timated Y: (GPM) 6-Z	
6. RECORD OF CASIN							
6. RECURD OF CASIN	lG.						
Diameter Poun	ds Threads	Depth i	n Feet	Length	Type of S	hoe Perfe	rations
(inches) per		-		(feet)	,	From	
	PVC _ Z			<u> 237.5</u>		NIM	3=3-
<u>4 x640</u>	PVL 2	<u>751.3</u>	25/.5	_2c	PUC CAC CZ	p 237.5	<u> 25 65</u>
							
							-
7. RECORD OF MUDD	ING AND CEM	ENTING					
Depth in Feet	Hole	Sacks	Cubic	Feet	Method of	Placement	-
From To	Diameter	of mud	of Ce		_	_	
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9. LOG OF HOLE

	in Feet	Thickness	Color and Type of Material Encountered
From	То	in feet	
<u> </u>		5	SAND, loose moist bornt orange
5	_15		CALICHE, hard dry orange
15	35	20	CLAY, high plastic marrier w/ gray mottling
<u> 35 </u>	50	15	Stistone, hard dry gray
50	500	150	Clarstone dry, maronn
700	210	10	Claystone, wi interbedded siltstone hard dry marion
210	245	35	Claystone, hard dry maroon w/ gray splatlying
245	255	10	Claystone, wil interbedded siltstone hand, dry marcon
255	260	ت	claystone, hard, dry maroon gray motiling
			
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The undersigned h	ereby certifies	that, to the b	pest of his kn	owledge and
The undersigned hoelief, the foregood	ereby certifies of oing is a true and other description.	end correct rec	zy/zw7 dd/year)	ove described RGS%CFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
pelief, the foreg	Driller	that, to the hand correct reconstruction (mun)	zy/zw7 dd/year)	owledge and ove described NGS: 27 7 27 7 4 64
pelief, the foreg	Driller	VGINEER USE ON	cord of the about 24/2007 dd/year)	ove described RGS%CFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
pelief, the foreg	Driller FOR STATE EN	VGINEER USE OF	ZY/2007 dd/year) NLY	ove described RGS%CFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
pelief, the foreg	Driller FOR STATE EN _; FSL; Use Do Not Wri	VGINEER USE ON	ZY/2007 dd/year) NLY No	ove described RGS%CFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF

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21.38.32.112

MrB

File	Number	:			
		(For	OSE	Use	Only

1. OWNER OF WELL	_
Name: Louisiana Energy Services	Work Phone: 505.344.6204
Contact: <u>Laurie Wetherell</u> Address: P. O. Box 1789	Home Phone:
city: <u>Eunice</u>	State: NM Zip: 88231
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. $\frac{NW}{1/4}$ $\frac{NW}{Lea}$ 1/4 Section: 32 Township	Range 36 N.M.P.M. County.
B. X = feet, Y = fe Zone in the	et, N.M. Coordinate System
U.S.G.S. Quad Map	Grant.
	100 , 00 27 711
C. Latitude: 32 d 26 m 27.446 s Longitude:	
D. East (m), North (m), UTM	Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the County.
G. Other:	
H. Give State Engineer File Number if existing wel	1: CP-954
1. On land owned by (required): Lea County	
3. DRILLING CONTRACTOR	
License Number: 1575	
Name: Talon / LPE	Work Phone: 806.467.0607
vacue - Julyof Carle	Home Phone: 806.676.8270
Mailing Address: 921 N. Ruins	
city: Amavillo	State: TX 2ip: 79/07
4. DRILLING RECORD	SUN THIS
Drilling began: $3/22/07$; Completed: $3/20/07$; Size of hole: $7-7\%$ in.; Total depth of well: 23% ; Completed well is: Mon_1/ov (shallow, arter Depth to water upon completion of well: DRV	Type tools: //w /eofacus;
	TO THE
	POFF 2:
Do Not Write Below This Lin	
File Number: CP-954	n Number: 376954
Form: wr-20 page 1 of 4	n Number: <u>376954</u> 21,38,32,111
	21,36,32,111
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File	Number:	_	_		
		For	OSE	Use	Only

From To	Thickness in feet	water-	-bearing	format:	ion	(ted Yio GPM)	
								
RECORD OF CASIN								<u> </u>
Diameter Poun (inches) per 나 도요 40	ft. per in.	Top	Bottom 216.4	(feet) 2/6/4	Type of		From	To
4 Sch 40	PUC 2	216.4	236,4	<u> 20 </u>	PUC PNO	CZD	2/6.4	2360
ECORD OF MUDD		ENTING						
Depth in Feet	Hole	Sacks			Method	of Pla	cement	
From To	Diameter	of mud	of Ce	ment			// .	
0 15 15 710	7-7/8	$-\frac{1}{112}$		<u> </u>	COMIP 1	COME	ut /be	Putouc
					<u> </u>			
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Plugging Contra	actor:				 			
Plugging Contra	actor: dress: ethod:						 -	
Plugging Contra Add Plugging Me	actor: dress: ethod: ugged:							
Plugging Contra Add Plugging Mo Date Well Plu	actor: dress: ethod: ugged:							
Plugging Contra Ada Plugging Ma Date Well Plu	actor: dress: ethod: ugged: ved by: No. Depth	in Feet	State Cubi	Engineer	r Represe			
Plugging Contra Add Plugging Mo Date Well Plu	No. Depth		State Cubi	Engineer	r Represe			
Plugging Contra Add Plugging Mo Date Well Plu	No. Depth Top 1	in Feet	State Cubi	Engineer	r Represe		e	7.0SY
Plugging Contra Add Plugging Mo Date Well Plu	No. Depth	in Feet	State Cubi	Engineer	r Represe		e	7.0SY
Plugging Contra Add Plugging Mo Date Well Plu	No. Depth Top 1 2 3	in Feet	State Cubi	Engineer	r Represe		e	7.0SY
Plugging Contra Add Plugging M Date Well Plu	No. Depth Top 1 2 3 4	in Feet	State Cubi	Engineer	r Represe		e	קמלאיבררי גיבו
Plugging Mo	No. Depth Top 1 2 3 4	in Feet	State Cubi	Engineer	r Represe		e	7.0SY
Plugging Contra Add Plugging M Date Well Plu	No. Depth Top 1 2 3 4 5	in Feet Bottom	State Cubi	Engineer c Feetoi	r Represe		e	קמלאיבררי גיבו
Plugging Contro Add Plugging Me Date Well Plugging appro	No. Depth Top 1 2 3 4 5	in Feet	State Cubi	Engineer c Feeton	r Represe	ntativ	e 55 31 31 31 31 31 31 31 31 31 31 31 31 31	AUST NEW MEXIC
Plugging Contro Add Plugging Mo Date Well Plugging approve	No. Depth Top 1 2 3 4 5 Do	in Feet Bottom	State Cubi	Engineer c Feeton	r Represe	ntativ	e 55 31 31 31 31 31 31 31 31 31 31 31 31 31	AUST NEW MEXIC
Plugging Contro Add Plugging Me Date Well Plugging appro	No. Depth Top 1 2 3 4 5 Do	in Feet Bottom	State Cubi	Engineer c Feetor	r Represe	ntativ	e 55 31 31 31 31 31 31 31 31 31 31 31 31 31	FIGSWELL, LEW MEXICO

File Number:

(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

Depth i		Thickness	Color and Type of Material Encountered
From	То	in feet	main Comment of the land of th
<u>-</u>	10	10	SAND, fine, losse moist, burnt orange
10_	<u> 20</u>		- CALICILE coft light avange
<u> </u>	<u>-35</u>		Siltstone hand dry gray
<u> </u>	<u>45</u>	<u> </u>	Claristone, have chy Marcon wi gray mottleng
- <u>45</u> -	75	25	
	35		claystone dry marrow wil gray mottling
<u> 85</u>	105	7.0	Claystone hand dry marron u/gray mothing
105	110		Siltstone wi interpercied classione band dry grava mavor
(10)	130	_ 20	Claustone any marons we gray mottling
130	160	30	clarstone, with siltstone dry marcon & gray
160	170	10	Claristone, dry marroin to purple w/ gray mottling
170	175		Siltstone hardidry grav
175	180		claystone, hand dry maroon w/ gray mottling
180	(90)	10	Siltstone wi claystone dry gray & marcon
190	215	25	Clarstone, hard dry, marcon w/ gray & marcon
215	<u> 255</u>	25	silt stone, hand, dry, gray
235	245		claystone, hard dry marcon w/ Gray
			
			
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Trn Number: <u>376954</u> 21,39,32,111

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belief, the foregoing is a tru hole.	ies that, to be and correc	t record of	f his know f the abov	ledge and e described
belief, the foregoing is a tru hole.	e and correc	ct record of	f his know f the abov <u>200</u> 7 ar)	ledge and e described
belief, the foregoing is a tru hole.	e and correc	ct record of	f his know f the abov	ledge and e described
Driller	e and correc	o 4/24/2 (num/ad/yea	f the abov	e described
belief, the foregoing is a tru hole.	e and correc	o 4/24/2 (num/ad/yea	f the abov	e described
Driller	e and correc	04/24/2 (num/dd/yea	f the abov	e described
Driller	e and correct	04/24/2 (num/dd/yea	f the abov	e described
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belief, the foregoing is a trunchole. Driller FOR STATE	TE ENGINEER I	OY/24/Z (num/od/yea	the abov	e described
belief, the foregoing is a tru hole. Driller	TE ENGINEER I	OY/24/Z (num/od/yea	the abov	e described
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pelief, the foregoing is a trubhole. Driller FOR STAT	TE ENGINEER I	OH/24/2 (mm/od/yea	the abov	e described
pelief, the foregoing is a trubhole. Driller FOR STAT	TE ENGINEER I	OH/24/Z (mm/od/yea	the abov	e described
pelief, the foregoing is a trubhole. Driller FOR STATE Quad; FWL; FSL; Use Do Note Number: CP-954	TE ENGINEER I	USE ONLY This Line Trn 1	the abov	e described

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File	Number:			
	(For	OSE	Use	Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

1. OWNER OF WELL	
Name: Louisiana Energy Services	Work Phone: 505-394-5204
Contact: Laurie Wetherell Address: P.O. Box 1789	Home Phone:
Address: F.O. BOX 1765	
City: Eunice	State: <u>NM</u> Zip: <u>88231</u>
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. $\frac{SW}{I}$ 1/4 $\frac{SW}{I}$ 1/4 $\frac{NE}{I}$ 1/4 Section: $\frac{32}{I}$ Township	:215 Range: 386 N.M.P.M. County.
B. X = feet, Y =	et, N.M. Coordinate System Grant.
C. Latitude: 32 d 26 m 14.8482 s Longitude:	<u>103</u> d <u>04</u> m <u>40.2564</u> s
D. East (m), North (m), UTM	Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the County,
G. Other:	co dia
H. Give State Engineer File Number if existing wel	1: <u>CP-995</u> 7 7
I. On land owned by (required): Louisiana Energ	• =
3. DRILLING CONTRACTOR	
License Number: 1575	
Name: Talon Drilling	Work Phone: 806.467.0607
Agent: Shane Currie	Home Phone: 806.467.0622
Mailing Address: <u>921 N. Bivins</u>	
	State: TX Zip: 79107
City: Amarillo	State: TX Zip: 79107 Type tools: Air-Rotary; ft.; esian);
City: Amarillo 4. DRILLING RECORD Drilling began: 12/5/08; Completed: 12/5/08; Size of hole: 7-7/8 in.; Total depth of well: 38 Completed well is: Monitor (shallow, arte	State: TX Zip: _79107 Type tools: Air-Rotary; _ft.; esian); _ft.
City: Amarillo 4. DRILLING RECORD Drilling began: 12/5/08; Completed: 12/5/08; Size of hole: 7-7/8 in.; Total depth of well: 38 Completed well is: Monitor (shallow, arted Depth to water upon completion of well: Dry Do Not Write Below This Lie	State: TX Zip: _79107 Type tools: Air-Rotary; _ft.; esian); _ft.

Monitor

File	Number:				
	(F	or	OSE	Use	Only)

Depth in Feet							ted Yi	eld
	in feet					_	GPM)	
<u>Dry</u>								
					-			
								·
RECORD OF CASI	NG							
Diameter Pour						f Shoe	Perfo	rations
(inches) per	ft. per in.	Top I	Bottom	(feet)			From	
4 PVC Sch	40 2				end			38
		·						
RECORD OF MUD	DING AND CEM	ENTING						
Depth in Feet	Hole	Sacks	Cubic	Feet	Method	of Pla	cement	
	Diameter						_	
0:5	7-7/8	- 	20 5	Backs _	<u>Trimie</u>	(Bento	<u> nite/</u>	<u>Cemen</u>
<u> 5</u> <u>25</u>		6			Poured	(Bento	nite	<u>chips</u>
								
							:	
PLUGGING RECO	RD						<u> </u>	
Plugging Cont	ractor:						:	
	ddress:						<u>:</u>	
Plugging (Mathad.						;	<u>5</u>
Date Well P		· · · · · · · · · · · · · · · · · · ·						-1
Dluggia,								<u> </u>
Plugging appr	ovea by:	<u> </u>	State	Engine	er Repres	sentativ		• •
			••					(A)
	No Donti	in Feet	Cubi	e Feet	of Coment	-		
	Top	Bottom	Cubi	.c reet	or cement	L		
	1	20000						
	2			-				
	3			-		-		
	4							
	5							

File	Number	:			
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9. LOG OF HOLE

Depth in Feet	Thickness	Color and Type of Material Encountered
From To	in feet	Cond lightly company has be in anymon
0 9 9 24	<u>9</u>	Sand, lightly cemented, tan to lt orange Caliche, relative soft, lt gray
$\frac{9}{4} - \frac{24}{36}$	12	Gravelly sand, chert, tan to lt red matrix
36 38	$\frac{12}{2}$	Claystone, purple
36 30		Clayscone, pulpie
		
		
		
		
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pelief, the foregoing is a tr	e and correct	e best of his record of the /2/29/08/mm/dd/year)	knowledge above des	. ①
belief, the foregoing is a tr hole.	e and correct	record of the /2/29/08/mm/dd/year)	above des	and cribed
belief, the foregoing is a translated belief. Driller	e and correct	record of the /2/29/08 mm/dd/year)	above des	and cribed
belief, the foregoing is a translate translate. Driller FOR STA	TE ENGINEER USI	record of the /2/29/08 mm/dd/year)	above des	and cribed
poelief, the foregoing is a translated priller FOR STA	TE ENGINEER USI	record of the /2/29/UX mm/dd/year) E ONLY ion No.	above des	and cribed
FOR STA Quad; FWL; FSL; U	TE ENGINEER USI	record of the /2/29/UX mm/dd/year) E ONLY ion No.	above des	and cribed

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File	Number	:			
		(For	OSE	Use	Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

Name: Louisiana Energy Services	Work Phone: 505-394-5204
Contact: Laurie Wetherell	Home Phone:
Contact: Laurie Wetherell Address: P.O. Box 1789	
City: Eunice	
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	:
A. $\frac{5W_{1/4}}{Lea} \frac{5W_{1/4}}{Lea} \frac{NE}{1/4}$ Section: $\frac{32}{10}$ Towns	hip:2/5 Range:38En.M.P.M.
B. X = feet, Y = Zone in the U.S.G.S. Quad Map	feet, N.M. Coordinate System Grant.
C. Latitude: <u>32 d 26 m 13.383</u> s Longitu	de: <u>103</u> d <u>04</u> m <u>52.212</u> s
D. East (m), North (m), U	
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the County
G. Other:	· · · · · · · · · · · · · · · · · · ·
H. Give State Engineer File Number if existing	well: CP-996
I. On land owned by (required): Louisiana En	ergy Services
3. DRILLING CONTRACTOR	
License Number: 1575 Name: Talon Drilling Agent: Shane Currie Mailing Address: 921 N. Bivins	Work Phone: 806.467.0607 Home Phone: 806.467.0622
City: Amarillo	
4. DRILLING RECORD	
Drilling began: 12/5/08; Completed: 12/5/0 Size of hole: 7-7/8in.; Total depth of well: 5 Completed well is: Monitor (shallow, a Depth to water upon completion of well: Dry	<pre>39 ft.; artesian);</pre>
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File Number: CP-996 Form: wr-20 page 1 of 4	Trn Number: 418653 21,38,32,233
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File	Number	:				
		(For	OSE	Use	Only	

Depth in Feet From To Dry	in feet	water-b	earing :	formati	on .		GPM)	
RECORD OF CASIN	NG							
Diameter Pour (inches) per 4 PVC Sch	ft. per in. 40 2	+3	ottom 39	(feet) 42	end	cap	21	36
RECORD OF MUDI			·		· · · · · · · · · · · · · · · · · · ·			
<u>5</u> <u>20</u>	Diameter 7-7/8 7-7/8	of mud	of Cemo	ent acks T	rimie oured	(Bento	nite/o	Cement chips
PLUGGING RECOR								<u></u>
Plugging N	ldress: Method:	<u> </u>						
	ugged:						<u>و يو</u> د از دريو	(A)
Plugging appro	oved by:		State E	ngineer	Repres	entativ	e (1-10
•	Top 1 2	Bottom	Cubic	Feetof	Cement		© 120 120 120 120 120 120 120 120 120 120	
	3 4 5							
	. Do	Not Writ	e Below		ine rn Numb			

page 2 of 4

File	Number:					
		For	OSE	Use	Only	

9. LOG OF HOLE

Depth	in Feet	Thickness	Color and Type of Material Encountered
From	То	in feet	
0	10	10	Sandstone, lightly cemented, burnt orange
10	<u>21</u> 37	11	Caliche, soft, lt orange to tan
10 21		16	Caliche, soft, lt orange to tan Gravelly sand, abundant chert, lt orange-tan
37	39	2	Claystone, purple
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pelief, the foreg	pereby certifies to going is a true and Driller	d correc	trecord of 17/29/0	the above 08	e described
	FOR STATE EN	====== Gineer I			0 C C C C C C C C C C C C C C C C C C C
Qùad; FWL	_; FSL; Use	; Lo	cation No		

File	Number	:			
		(For	OSE	Use	Only)

1. OWNER OF WELL	
Name: Louisiana Energy Services	Work Phone: 505.394.6704
Contact: Laurie Wetherell Address: P. C. Box 1789	Home Phone:
7. C. 50k / 10-	 _
City: <u>Eunice</u>	State: VM Zip: 88231
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
	215 200
A. $SW_{1/4} NW_{1/4} SW_{1/4} Section: 32$ Town in Lea	nship: 3/0 Range: D&C N.M.P.M. County.
B. X = feet, Y = Zone in the	feet, N.M. Coordinate System
Zone in the	Grant.
U.S.G.S. Quad Map	
C. Latitude: <u>32</u> d <u>25</u> m <u>56.857</u> s Longi	tude: <u>103</u> d <u>05</u> m <u>23.671</u> s
D. East (m), North (m),	UTM Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tra	ct of the
Subdivision recorded	inCounty.
G. Other:	
H. Give State Engineer File Number if existing	
I. On land owned by (required): Lea Count	ty / NIM
3. DRILLING CONTRACTOR	
License Number: (575	
	Work Phone: <u>806, 467,06</u> 07
Agent: Shane Currie	Home Phone: 806, 676, 8720
Mailing Address: 971 N. Biving	
City: Amarillo	State: TX 2ip: 79107
4. DRILLING RECORD	
•	lon 4. 0.1
Drilling began: $3/23/07$; Completed: $3/29$	Type tools: Mir lotary;
Size of hole: 7-7/g in.; Total depth of well: Completed well is: Manifor (shallow,	
Depth to water upon completion of well: DR	artesian); SA
•	<u> </u>
No. Alex VIII.	
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File Number: CP-955	Trn Number: 376 955
Form: wr-20 page 1 of	
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	11 XX 251 717

File	Number	:			
		(For	OSE	Use	Only)

		Description of Estimated	Yield
		water-bearing formation (GPM)	
	· _ · · · · · · · · · · · · · · · · · · 	- 	
RECORD OF CASIN	IG		
Diameter Poun	ds Threads	Depth in Feet Length Type of Shoe Per	forations
(inches) per	ft. per in.	Top Bottom (feet) Fro 216 216 N/A N/A	m To
	NC 2	216 236 20 PUC GOD 21	4
RECORD OF MUDD	ING AND CEM		
Depth in Feet	Но 1е	Sacks Cubic Feet Method of Placeme	ent
From To	Diameter	of mud of Cement	/ Lautou'
75 210	7-7/8	1 20 tremie - cement	Chips
		- 	
Plugging Contra	actor:		
Plugging M	ethod:		
Plugging M	ethod:		
Plugging M	ethod:		
Plugging Mo Date Well Pl	ethod:		
Plugging Mo Date Well Pl	No. Depth		SINSWELL ROSWELL
Plugging Mo Date Well Pl	No. Depth Top 1	State Engineer Representative h in Feet Cubic Feetof Cement	ROSWELL PAT LPR
Plugging Mo Date Well Pl	No. Depth	State Engineer Representative h in Feet Cubic Feetof Cement	1931 127 27
Plugging Mo Date Well Pl	No. Depth Top 1 2 3	State Engineer Representative h in Feet Cubic Feetof Cement	ROSWELL RESIDENCE OF PARTY AND 27 P
Plugging Mo Date Well Pl	No. Depth Top 1 2 3 4	State Engineer Representative h in Feet Cubic Feetof Cement	103 ET 27
Plugging Mo Date Well Pl	No. Depth Top 1 2 3 4 5	State Engineer Representative h in Feet Cubic Feetof Cement Bottom	ROSNELL, REMINER 1931 ISN 27 P 2: 00
Plugging Mondate Well Plugging Plugging appro	No. Depth Top 1 2 3 4 5	State Engineer Representative h in Feet Cubic Feetof Cement Bottom	ROSHELL, REMILED 2: 0:3
Plugging Mondate Well Plugging Plugging appro	No. Depth Top 1 2 3 4 5	State Engineer Representative h in Feet Cubic Feetof Cement Bottom	ROSHELL, REMILED 2: 0:3
Plugging Mondate Well Plugging Plugging approvements of the Number:	No. Depth Top 1 2 3 4 5	State Engineer Representative h in Feet Cubic Feetof Cement Bottom D Not Write Below This Line Trn Number: 3766	ROSHELL REMINER

File Number:

(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

Depth in Feet	Thickness	Color and Type of Material Encountered
From To	in feet	21 · · ·
0 10	.10	SAND, loose damp tan
10: 30	20	CALICHE, soft chert gravel with orange pink
20 35	<u> </u>	SANDY Gravelichert, dry light red sand
35 55	20	CLAY, highly plastic firm
<u> </u>	<u> </u>	Claystone wi sitstone hard dry marron & gray
6D 220	160	Claystony dry marcon of gray mottling
220 225		
225 240	15_	Siltstone of claystone family gray & Marcon Silty Maystone, bry light red to dank red/marcon
_ 223 _ 240	1.2	2 that traditional tides becade beath tentament
		
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File	Number	:			
		(For	OSE	Use	Only

1. OWNER OF WELL	
Name: Louisiana Energy Services	Work Phone: 505-394-5204
Contact: Laurie Wetherell	Home Phone:
Address: P.O. Box 1789	
City: Eunice	State: <u>NM</u> Zip: <u>88231</u>
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. $NU_{1/4} NE_{1/4} SW_{1/4} Section: 32$ Township in Lea	: <u>2/5</u> Range: <u>38 E</u> N.M.P.M. County.
B. X = feet, Y = fee	et, N.M. Coordinate System Grant.
U.S.G.S. Quad Map	
C. Latitude: 32 d 26 m 1.1718 s Longitude:	<u>103</u> d <u>05</u> m <u>5.5062</u> s
D. East (m), North (m), UTM	Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the
G. Other:	- 171 - 171
H. Give State Engineer File Number if existing wel	1: CP-999
I. On land owned by (required): Louisiana Energ	y Services 7
3. DRILLING CONTRACTOR	+ P.
License Number: 1575	i i i i i i i i i i i i i i i i i i i
Name: Talon Drilling	Work Phone: 806.467.0603
Agent: Shane Currie	Home Phone: 806.467.0622
Mailing Address: 921 N. Bivins	
City: Amarillo	State: TX 2ip: 79107
4. DRILLING RECORD	_ ·
Drilling began: 12/4/08; Completed: 12/4/08; Size of hole: 7-7/8 in.; Total depth of well: 43 Completed well is: Monitor (shallow, arte Depth to water upon completion of well: Dry	sian):
	ne n Number: <u>4/5856</u>
Form: wr-20 page 1 of 4	

Monitor

21.38.32.321



File	Number	:			
		(For	OSE	Use	Onlyl

From To Dry	Thickness in feet	water-	_	formati			ted Yie GPM)	eld
								
					 -			
ECORD OF CASIN								
Olameter Pound (inches) per	ft. per in.	Top	Bottom	(feet)			From	To
4 PVC Sch		· - +3	43			cap		43
	 	· · · · · · · · · · · · · · · · · · · 						
ECORD OF MUDD	ING AND CEM	ENTING						
Depth in Feet From To	Hole Diameter	Sacks of mud			Method	of Pla	cement	
0 5	7-7/8	· <u> </u>	20 5	acks T	rimie	(Bento	nite/	Ceme
	7-7/8			<u>P</u>			nite o	<u>chip</u>
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LUGGING RECOR								
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Plugging Contra	actor:						·	
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Plugging Contro Add Plugging Mo Date Well Pla	actor: dress: ethod: ugged: wed by:	in Feet	State Cubi		Repres		re	
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Plugging Contro Add Plugging Mo Date Well Pla	No. Depth Top 1 2	in Feet	State Cubi	Engineer	Represe	entativ	re	
Plugging Contro Add Plugging Mo Date Well Pla	No. Depth Top 1 2 3	in Feet	State Cubi	Engineer c Feetof	Represe	entativ	re	
Plugging Contro Add Plugging Mo Date Well Pla	No. Depth Top 1 2	in Feet	State Cubi	Engineer c Feetof	Represe	entativ	re	
Plugging Contro Add Plugging Mo Date Well Pla	No. Depth Top 1 2 3 4	in Feet	State Cubi	Engineer c Feetof	Represe	entativ	re	
Plugging Contro Add Plugging Mo Date Well Pla	No. Depth Top 1 2 3 4	in Feet	State Cubi	Engineer c Feetof	Represe	entativ	re	
Plugging Contro Add Plugging Mo Date Well Pla	No. Depth Top 1 2 3 4 5	in Feet Bottom	State	Engineer c Feetof	Represe	entativ	re	
Plugging Contra Add Plugging Me Date Well Plugging approv	No. Depth Top 1 2 3 4 5	in Feet	State	Engineer c Feetof	Represe	entativ	e	

page 2 of 4

File	Number:			
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9. LOG OF HOLE

Depth in Feet From To 0 11 11 29 23 34 34 36	Thickness in feet 11 18 11 2	Sand, lightly cemented, burnt orange Caliche, relatively soft, gray to lt orange Gravelly sand, chert gravel, red sand matrix
34 36		Claystone, dark purple
		
		
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Form: wr-20	page 3 of 4	

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ne undersigned hereby cert elief, the foregoing is a ole.	tifies that, to the best of true and correct record of	his knowledge and the above described
Drille:	12/24/0 (mm/dd/year	
Drille	iz/24/0 (mm/dd/year	
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FOR S	STATE ENGINEER USE ONLY ; Use; Location No Not Write Below This Line	

WEB

File	Number:		<u>_</u>		
	(For	OSE	Use	Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

Name: Louisiana Energy Services	Work Phone: 505-394-5204
Contact: Laurie Wetherell	Home Phone:
Contact: Laurie Wetherell Address: P.O. Box 1789	
	•
City: Eunice	State: NM Zip: 88231
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. $\frac{NE}{\ln 2} \frac{1/4}{2} = \frac{NE}{2} \frac{1/4}{4} = \frac{SW}{2} \frac{1/4}{4} = \frac{SW}{2} = \frac{1/4}{4} = $	o: <u>215</u> Range: <u>386</u> N.M.P.M.
B. X = feet, Y =	et, N.M. Coordinate System Grant.
U.S.G.S. Quad Map	
C. Latitude: 32 d 26 m 1.071 s Longitude:	•
D. East (m), North (m), UTM	Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the
Subdivision recorded in	COUNTY.
G. Other:	
H. Give State Engineer File Number if existing we	11: CP-998 3
I. On land owned by (required): Louisiana Energ	gy Services
3. DRILLING CONTRACTOR	1: 21
License Number: 1575	
Name: Talon Drilling	Work Phone: 806.467.0607
Agent: Shane Currie	Home Phone: 806.467.0622
Mailing Address: <u>921 N. Bivins</u>	<u>-</u>
City: Amarillo	State: <u>TX</u> 2ip: <u>79107</u>
4. DRILLING RECORD	
Drilling began: 12/4/08; Completed: 12/4/08 Size of hole: 7-7/8 in.; Total depth of well: 250 Completed well is: Monitor (shallow, arts Depth to water upon completion of well: Dry	ft.; esian);
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File Number: CP-998 Tree Form: wr-20 page 1 of 4	on Number: 418655
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Monitor

21,38.32,322



File	Number	:			
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From To		water-b	earing format:	ion (ted Yield (GPM)
<u>Dry</u>					
ECORD OF CASIN	_	· 			
	_	Donth in	Feet Length	Type of Shoe	Perforation
(inches) per	ft. per in.	Top B	ottom (feet)		From To
4 PVC Sch	40 2	+3	250 253	<u>end</u> cap	<u>230</u> <u>250</u>
					
	••				
ECORD OF MUDD	ING AND CEM	ENTING			
Depth in Feet				Method of Pla	cement
From To				Bulada (Boata	
$\frac{0}{20} = \frac{20}{206}$	<u>7-7/8</u> 7-7/8		20 Sacks 1	<u> Primie (Bento</u> Poured (Bento	nite/Cemer
				Outed Inence	MILCE CHIDS
LUCCING RECOR					·
Plugging Contr Ad Plugging M	actor: dress:			· · · · · · · · · · · · · · · · · · ·	
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Plugging Contr Ad Plugging M Date Well Pl	No. Depth Top Top	in Feet Bottom	State Enginee Cubic Feeto	r Representativ	/e , ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;
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Ad Plugging M	No. Depth Top Top	in Feet	State Enginee Cubic Feeto	r Representativ	/e , ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;
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Plugging Contr Ad Plugging M Date Well Pl	No. Depth Top Top	in Feet Bottom	State Enginee Cubic Feeto	r Representativ	/e , ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;
Plugging Contr Ad Plugging M Date Well Pl	No. Depth Top Top	in Feet Bottom	State Enginee Cubic Feeto	r Representativ	/e 1 CO

Form: wr-20

page 2 of 4

File	Number	:	<u>. </u>		
		(For	OSE	Use	Onlv)

9. LOG OF HOLE

Depth From	in Feet	Thickness in feet	Color and Type of Material Encountered
0 .	то 12	12	Sand, lightly cemented, burnt orange
12	25	13	Caliche, relatively soft, gray to lt orange
25	36	— <u>13</u>	Sandstone, lightly cemented, burnt orange
36	70	34	Claystone, maroon
70	72		Siltstone, hard gray
72	153	81	Claystone, light red with maroon to purple
153	215	62	Claystone, maroon to lt red
215	218		Siltstone, interbeded w/claystone, gray
218	230	12	Claystone, interbeded siltstone, maroon-gray
230	235	5	Siltstone, interbeded w/claystone, gray
<u> 235</u>	250	15	Claystone, lt red to maroon
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page 3 of 4

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he undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole. J / Z / 4 / 0 \	MW-25			·	······	
he undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole.	<u>. </u>					
he undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole.						
he undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole.	 	,				
he undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole.						
he undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole. 12/24/0 \(\text{(mm/dd/year)} \) Driller	***					
he undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole.						
The undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole.						•
The undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole.		· .				· · · · · · · · · · · · · · · · · · ·
The undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole.						
The undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole.						
The undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole.			••••			
The undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole.						
re undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole.						
The undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole. 12/29/0 (mm/dd/year)						
The undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole. 12/29/0 (mm/dd/year)						
The undersigned hereby certifies that, to the best of his knowledge and elief, the foregoing is a true and correct record of the above described ole. 12/29/0 (mm/dd/year)						
FOR STATE ENGINEER USE ONLY J Z Z O mm/dd/year FOR STATE ENGINEER USE ONLY J J J J mad; FWL; FSL; Use; Location No						<u> </u>
FOR STATE ENGINEER USE ONLY uad; FWL; FSL; Use; Location No Do Not Write Below This Line	elief, the foregoing is a	true and	correct	c best of hi	S about c	de and
pad ; FWL ; FSL ; Use ; Location No Do Not Write Below This Line	SI-e ()	· .	_	12/29/04	/	lescribed
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Number: 02-998 Trn Number: 4/8/255	Drille	STATE ENGI	NEER USI	12/29/0 (mm/dd/year)		
	FOR uad; FWL; FSL	STATE ENGI	NEER USI	12/29/0 (xmm/dd/year) CONLY ion No		1225 0 0255

WLB

File	Number:				
	(For	OSE	Use	Only)

1. OW)	NER OF WELL		
•	Name: Louisiana Energy Services	_ Work Phone: 5	<u> 505-394-52</u> 04
7 A	ntact: Laurie Wetherell dress: P.O. Box 1789	Home Phone:	
AU		_	
	City: Eunice	State: <u>NM</u> Zip:	88231
	ATION OF WELL (A, B, C, or D required, E or F if known)		,
Α,	$\frac{SE_{1/4}}{\sin \frac{NE_{1/4}}{NE_{1/4}}} \frac{SW}{SW} \frac{1/4}{Section} = \frac{32}{32}$ Townshi	p: <u>2/</u> 5 Range: <u>3</u>	SEN.M.P.M.
₿,	X - feet, Y = f	eet, N.M. Coordi	nate System Grant.
c.	Latitude: 32 d 26 m 1.0998 s Longitude	: <u>103</u> d <u>05</u> m	n <u>1.086</u> s
D.	East (m), North (m), UTM	Zone 13, NAD _	(27 or 83)
£.	Tract No, Map No of the	Hydrogra	aphic Survey
F.	Lot No, Block No of Unit/Tract Subdivision recorded in	···	of the County
G.	Other:		
н.	Give State Engineer File Number if existing we	11: <u>CP-997</u>	
ı.	On land owned by (required): Louisiana Ener	gy Services	
3, DRII	LLING CONTRACTOR		
	icense Number: 1575		- 83 음
L.	Name: Talon Drilling	 Work Phone: 8	306 467 0607
	Agent: Shane Currie	Home Phone:	306.467.0622
Ma	iling Address: 921 N. Bivins	 	
	City: Amarillo	State: <u>TX</u> Zip:	79107
4. DRH	LLING RECORD		
Si: Cor	illing began: 12/4/08; Completed: 12/4/08 ze of hole: 7-7/8in.; Total depth of well: 4 mpleted well is: Monitor (shallow, art pth to water upon completion of well: Dry	<u>0</u> ft.;	ir-Rotary:
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Dry	Thickness in feet	water-bea	ring formati	Estima Lon (GPM)
					
RECORD OF CASIN					
Diameter Pound	ds Threads	Depth in F	eet Length	Type of Shoe	Perforation
(inches) per		Top Bot			From To
4 PVC Sch	40 2	<u>+3</u>		end cap	<u>25</u> 40
RECORD OF MUDD	ING AND CEME	NTING			·
Depth in Feet			ubic Feet	Method of Pla	cement
From To	·		f Cement	rimio /Bonto	nita/Caman
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	Top 1 2		Cubic Feetoi	f Cement	
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	Top 1 2		Cubic Feeto	f Cement	12 + 21 6 - 21
	Top 1 2 3 4		Cubic Feeto:	f Cement	12 + G 8-E
	Top 1 2 3 4		Cubic Feeto	E Cement	13 + C 18-21
	Top 1 2 3 4		Cubic Feeto:	f Cement	7-8 P = 21
	Top 1 2 3 4 5	Bottom	Cubic Feetof		13 + G R-12

File	Number	:			
		(For	OSE	Use	Only)

9. LOG OF HOLE

	in Feec		Color and Type of Material Encountered
From	Ţο	in feet	
0 11	11	11	Sandstone, slight cemented, burnt orange
11	<u>11</u> 29	18	Caliche, soft, gray to 1t orange Gravelly sand, abundant chert, orange sand
29	3:7.	8	Gravelly sand, abundant chert, orange sand
37	40	. 3	Claystone, maroon
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ile Number: CP-907		Trn Number:	418654

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The undersigned hereboelief, the foregoing nole.	is a true ar	nd correc	12/24/ (mm/dd/ye	f the above	desc el bec
	FOR STATE EN		JSE ONLY	=======	*******
Quad; FWL; FS	L; Use	; Loc	cation No		

J.B

File	Number	:		_	
		(For	OSE	Use	Only

1. OWNER OF WELL	ra a sala ana distri	sau čanu
Name: Louisiana Energy Services Contact: Laurie Wetherell	Work Phone: <u>SÛS.</u> Home Phone:	<u> 514. 57</u> 04
Address: P.O. Box 1789		
City: Eunice	State: NM Zip: 8	8231
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)		
A. $\frac{NW_{1/4}}{\ln \frac{SE}{A}} = \frac{3W}{4}$ Section: 32 Township	o:215 Range: 38 E.	.M.P.M. County.
B. X = feet, Y = fe		
C. Latitude: 37 d 25m 52.499s Longitude:	103 d 05 m 7	,607_s
D. East (m), North (m), UTM	Zone 13, NAD (2	7 or 83)
E. Tract No, Map No of the	Hydrographic	Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in		of the County.
G. Other:	<u> </u>	
H. Give State Engineer File Number if existing well	•	
I. On land owned by (required): LCZ County, A	JW	
3. DRILLING CONTRACTOR		
License Number: 1575 Name: Talon/LPG Agent: Shane Curric Mailing Address: 971 N. Bivins	Work Phone: 306.	. 467. 0607 676. 8220
City: Amavillo	State: <u>TX</u> Zip: <u>7</u>	107_
4. DRILLING RECORD		
Drilling began: 3/28/07; Completed: 4/3/07 Size of hole: 7-7% in.; Total depth of well: 23 Completed well is: Monitor (shallow, arte Depth to water upon completion of well: 0/29	; Type tools: <u>Air v</u> <u>1</u> ft.; esian); ft.	SIMIE ENGIHEER RESWELL, NEWI
Do Not Write Below This L:	ine	2 Fig
File Number: CP-956 page 1 of 4	rn Number: 3760	7875E
Mexitar	21.38.32	.341

File	Number:			
	(For	OSE	Üse	Only)

5. PRINCIPAL WATER								
Depth in Feet From To _D2Y	Thickness in feet	water-	ption o bearing	format	ion	(ced Yie GPM)	
		- 	.		<u> </u>			
6. RECORD OF CASING	G							
Diameter Pound	is Threads	Depth i	n Feet	Length	Туре с	f Shoe	Perfo	rations
(inches) per i	t. per in.	Top	Bottom		,		From	
- 4 Sh40	<u>PK _ Z </u>	<u> </u>	217.1	1.715	V/#	1	NA	
4 sch 481	<u>'VC Z</u>	Z.17·1	237.(_20_	<u> PVC. 00</u>	10 CZP	217.1	237.1
							· ——	
7. RECORD OF MUDD	ING AND CEM	ENTING						
Depth in Feet	Hole	Sacks		Feet	Method	of Pla	cement	
From To	Diameter			ment	1		1 /	ra J. 4.
<u> </u>	7-7/4	1.50		<u> </u>	<u>remie</u>	<u>- cem</u>	e4+/1	benton: H
	-1.78	<u> 48</u>	_ _ v /		20US -			MPZ
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B. PLUGGING RECORI Plugging Contra Add Plugging Me Date Well Plu	ictor:							
Plugging approv	ved by:		State	Enginee	r Repres	entativ	'e	
	No. Depth Top 1	in Feet Botton		c Feeto	f Cement			STATE ENGI SOSWELL-
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	5 ———							
	3							717
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	Do	Not Wri	te Belo	ω Thiα	Line			
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File Number: <u>C/</u> Form: wr-2			page 2	of 4	Trn Numb			
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(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

Depth in Feet Thickne	ss Color and Type of Material Encountered
From To in fe	et Chair Civia da Ludd a saucas
5 25 20	SAND, fine, damp, burnt orange Caliche, soft, dry, gray to tan
75 40 15	SANDY Gravel, chert, dry, burnt orange
40 60 20	Clay firm, dry, marron w/ grav mothling
60 85 25	claystone wis siltstone bains dry maroomer grav
\$5 165 80	claystone, dry marron who gray mothling
165 190 25	clarstone wil siltstone, hard, dry maroon
190 270 30	clarstone, hard, dry marcon w/ oray mottling
224 235 15	clarstone, w/ siltstone hard, dry light red
235 240 15	claustone hand, dry, marron ill grow motting
	
	
	
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le Number: <u>CP-950</u>	6 Trp Number: 376956
<u> </u>	7.64

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Form: wr-20

page 3 of 4

21.38.32.341

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elief, cle.	the fore		a true a	and corre	O4/ (mm/d	rd of the 2 <u>4/07</u> d/year)	above	describe	
elief, cle.	the fore	egoing is	a true a	and corre	04/ (mm/d	rd of the 24/07 d/year)	above	describe	
elief, cle.	the fore	egoing is	a true a	and corre	04/ (mm/d	rd of the 24/07 d/year)	above	describe	
elief, cle.	the fore	Dril	ler	end corre	O4/ (mm/d	rd of the 24/07 d/year)	above	describe	
elief, ole.	the fore	egoing is	ler	end corre	O4/ (mm/d	rd of the 24/07 d/year)	above	describe	
elief, cle.	the fore	Dril	ler	end corre	O4/ (mm/d	rd of the 24/07 d/year)	above	describe	
elief, cle.	the fore	pril FO; FSL	ler R STATE E	ENGINEER	O4/ (mm/d) USE ONL	rd of the 24/07 d/year)	above	describe	
elief, cle.	the fore	egoing is Dril	ler R STATE E ; Use Do Not Wr	ENGINEER	OH/ (mm/d) USE ONL	rd of the 24/07 d/year)	above	describe	
elief, cle.	the fore	FO; FSL	ler R STATE E ; Use Do Not Wr	ENGINEER	OH/ (mm/d) USE ONL	rd of the 24/07 d/year)	above	describe	

WHB

File	Number:			
	(For	OSE	Use	Only

1. OWNER OF WELL	•		
Name: Louisiana Energy Se	vvices	Work Phone: 50	
Contact: Laurie Wetherell		Home Phone:	 -
Address: P. O. Box 1789	· · · · · · · · · · · · · · · · · · ·		
City: Eunice		State: NM Zip:	<u>88231</u>
2. LOCATION OF WELL (A, B, C, or D required,	•		
A. $NE1/4$ $NE1/4$ $SE1/4$ Sect in Lea	ion: <u>32</u> Township	: <u>2/</u> 5 Range: <u>38</u>	County.
B. X = feet, Y = Zone in the U.S.G.S. Quad Map	fe	et, N.M. Coordin	ate System Grant.
C. Latitude: 32 d Z6 m 5.32	7 s Longitude:	103 d 04 m	26.985 s
D. East (m), North	(m), UTM	Zone 13, NAD	(27 or 83)
E. Tract No, Map No	of the	Hydrograp	hic Survey
F. Lot No, Block No Subdivisi	of Unit/Tract on recorded in		of the County.
G. Other:		. <u> </u>	:
H. Give State Engineer File Numbe	r if existing wel	1: CP-946	
I. On land owned by (required):	Lez County,	NM	
3. DRILLING CONTRACTOR			
License Number: 1575			
Name: Taion LPE		Work Phone: 80	6.467.06C7
Agent: <u>Shawe Curri</u>	<u>e</u>	Home Phone:	6 676 822C
Mailing Address: 92(A). Bivin		•	
City: <u>Amavillo</u>		State: 🏋 Zip:	79167
4. DRILLING RECORD			
Drilling began: 3/16/01; Compl Size of hole: 7.7k in.; Total de Completed well is: Mexitor Depth to water upon completion of	pth of well: <u>275.</u> (shallow, arte	<pre>g ft.; sian);</pre>	STATE ENGINE STATE ENGINE
Do Not Wr	ite Below This Li	nė	J SA
00011	<u> </u>	201	QuIJF.0
File Number: Wr-20		n Number: 374	
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	Montes)	d1.38,	32.4.2.2

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Company Comp	Depth in From To 220.49 2	0	Thickness in feet 5.31	Description of water-bearing formation Claystowne		Estimated Yield (GPM)				
Diameter Pounds Threads Depth in Feet Length Type of Shoe Perforations (inches) per ft. per in. Top Bottom (feet) From To 4		 -				-				
Second of Mudding And Cementing Depth in Feet Hole Sacks Cubic Feet Method of Placement From To Diameter of mud of Cement O 15 1.7/8 (70 irraic beatouit /cement To Diagong Contractor: Address: Plugging Method: Date Well Plugged: Plugging approved by: State Engineer Representative No. Depth in Feet Cubic Feetof Cement Top Bottom 1 2 3 4 5 5 5 5 7 6 7 7 8 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	ECORD O	CASIN	G					_	- .	
## SENSON CONTROL CONT							Type of	E Shoe		
ECORD OF MUDDING AND CEMENTING Depth in Feet Hole Sacks Cubic Feet Method of Placement of mud of Cement O 15 1.7/8 1 70 top-mic bentouite /cement O 15 200 1.7/8 48 J/P 2001c0 bentouite /cement Address: Plugging Contractor: Address: Plugging Method: Date Well Plugged: No. Depth in Feet Cubic Feetof Cement Top Bottom 1 2 3 3 4 5 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7							. 1.4	ı		-
ECORD OF MUDDING AND CEMENTING Depth in Feet Hole Sacks Cubic Feet Method of Placement of mud of Cement of Top Diameter of mud of Cement of Top Bottom No. Depth in Feet Cubic Feetof Cement Plugging approved by: No. Depth in Feet Cubic Feetof Cement Top Bottom 1	9	Ser 40 1	<u> </u>	0						
Depth in Feet Hole Sacks Cubic Feet Method of Placement From To Diameter of mud of Cement O 15 1-7/8		<u> </u>	<u> </u>	265.8						775
Depth in Feet Hole Sacks Cubic Feet Method of Placement From To Diameter of mud of Cement O 15 1-7/8				. <u>-</u>		-				
From To Diameter of mud of Cement O 15 17/8	ECORD O	F MUDD	ING AND CEM	ENTING	•					
O 15 1-7/8 20 1-7/R 20 1-7/R 20 1-7/R 20 1-7/R 20 1-7/R 20 1-7/R 20 1-7/R 20 1-7/R 20 1-7/R 20 1-7/R 20 1-7/R 20 1-7/R 20 1-7/R 20 1-7/R 20 1-7/R 20 20 1-7/R 20 20 20 20 20 20 20 2	-						Method	of Pla	ecement	
LUGGING RECORD Plugging Contractor: Address: Plugging Method: Date Well Plugged: Plugging approved by: State Engineer Representative No. Depth in Feet Cubic Feetof Cement Top Bottom 1 2 3 4 5 Do Not Write Below This Line Plugber: Plugging approved by: Trn Number: 3769444 Page 2 of 4							1 Coming	- bout	mile	icana n
LUGGING RECORD Plugging Contractor: Address: Plugging Method: Date Well Plugged: Plugging approved by: State Engineer Representative No. Depth in Feet Cubic Feetof Cement Top Bottom 1 2 3 4 5 Do Not Write Below This Line Plugging approved by: Trn Number: 3769444 Form: Wr-20 Page 2 of 4							1200500) - 60	atc.vite	pollet
Plugging Contractor: Address: Plugging Method: Date Well Plugged: Plugging approved by: State Engineer Representative No. Depth in Feet Cubic Feetof Cement Top Bottom 1 2 3 4 5 Do Not Write Below This Line Plugging approved by: Trn Number: 376944 Form: Wr-20 page 2 of 4										
Plugging Contractor: Address: Plugging Method: Date Well Plugged: Plugging approved by: State Engineer Representative No. Depth in Feet Cubic Feetof Cement Top Bottom 1 2 3 4 5 Do Not Write Below This Line Plugging Approved by: State Engineer Representative No. Depth in Feet Cubic Feetof Cement Top Bottom 2 3 4 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		 .								
No. Depth in Feet Cubic Feetof Cement Top Bottom 1 2 3 4 5 Do Not Write Below This Line Page 2 of 4 1/28 27 44								·		
Top Bottom 1 2 3 4 5 Do Not Write Below This Line Porm: Wr-20 Page 2 of 4 1/ 28 27 44	Plugging	appro	ved by:		State	Enginee	r Repres	entativ	ve	
Top Bottom 1 2 3 4 5 Do Not Write Below This Line Porm: Wr-20 Page 2 of 4 1/ 28 27 44										
Do Not Write Below This Line Porm: Wr-20 Do Not Write Below This Line Trn Number: 376944 1/ 28 37 44			Top			.c Feeto	f Cement			1997 ASO3
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9. LOG OF HOLE

	•
Depth in Feet Thickness	Color and Type of Material Encountered
From To in feet	and type of motorial amountains
S S	SAND, longe dry, boant orange
2 25 5	CALICHE, Moderately hand, dry gray
20 35 15	Gravely SAND, fine grained light array
35 70 35	clay, highly plastic, firm, dry, Marcon
70 80 10	Charstone, ory light red cuttings
80 45 IS	Clay Stone, sirv maroon with gray and green moit!
95 100 5	claystone, interbedded siltstone, dry, marnon & gray
100 115 15	claystone, firm dry marcon & gray
115 125 10	clarstone, interhedded sittstone margon
125 125 50	claystone, dry maronn
175 185 10	darstone, interprished of systeme, dry maronn
185 195 10	Siltstone hard dry grav
195 700 5	Siltstone, nard dirv arav
200 215 15	claystone, hard dry martion
215 270 5	silfstone, damp, grav
220 135 15	claystone, firm dry, marcon
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page 3 of 4

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belief, 1	signed hereby the foregoing	y certifi is a tru	es that, le and co	to the i	pest of h	is knowle ne above	dge and describe	ed.
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belief, the hole.	signed herebythe foregoing	riller	e and co	rrect red <u>04</u> (num,	/24/07 /dd/year)	ne above	describe	d SOS
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belief, the hole.	the foregoing	riller FOR STAT	TE ENGINE	Oquation (mm,	/24/07 /dd/year)	ne above	describe	SOSTELL: NEW YORK
belief, the hole.	the foregoing	riller FOR STAT	TE ENGINE	Oquation (mm,	/24/07 /dd/year)	ne above	describe	ROSECT : EXTENS
belief, the hole.	the foregoing	riller FOR STAT	TE ENGINE	Oquation (mm,	/24/07 /dd/year)	ne above	describe	SOS FELL : THE SECOND
belief, hole.	the foregoing	riller FOR STAT	TE ENGINE	Oy (mm,	/zy/o7 /dd/year)	ne above	describe	ROSETLA: TEATER NO.
Delief, hole.	; FWL; FSI	FOR STAT	TE ENGINE	Oquation (mm,	/zy/o7 /dd/year)	ne above	describe	SOS FEET LINE FRANCE
Quad	; FWL; FSI	FOR STAT	TE ENGINE	mm, EER USE Of	/zy/o7 /dd/year)	ne above	describe	ROSECTION PROPERTY
Quad	; FWL; FSI	FOR STAT	Write B	Oy (mm,	/24/07 /dd/year) NLY No Line Trn Num	ne above	describe 193, 27 10 2: 00 7694	SOSTELL TEMPERATOR

WLB

File	Number	:			
		For	OSE	Use	Only

1. OWNER OF WEL	L La viriana a Can		March Dhana	506 7011 C7011
Name:			Work Phone: Home Phone:	505.394.5204
Address:	P.O. Box 1789	- 6 (1	nome rhone.	
	TIC. BOX III		- :	
City:	Eunice		State: NM Zip	: 88231
2. LOCATION OF W	VELL (A, B, C, or D require	ed, E or F if known)		
	<u>SE</u> 1/4 <u>SE</u> 1/4 Sec 1 ect	ction: 32 Townsh	ن: Range ک <u>ر / 2</u>	38En.M.P.M. County.
B. $X = \frac{z}{U.S.G.S.}$	feet, Y = one in the Quad Map		feet, N.M. Coord	dinate System Grant.
·	32 d 25 m 46.	ー イイラ s Longitud	e: 103 d 4	m 31,815 s
	(m), North			
E. Tract No.	, Map No.	of the	Hydrog	caphic Survey
F. Lot No.	, Block NoSubdivi	of Unit/Tract	· · · · · · · · · · · · · · · · · · ·	of the County.
G. Other:	 	 :		
H. Give Stat	e Engineer File Num	ber if existing w	ell: <u>CP-94</u>	5
I. On land o	wned by (required):	Lea County	, NM	
3. DRILLING CONT	TRACTOR	•		
N Ag	ber: 1575 lame: Talon/LPE lent: Shawe Corress: 921 N. Bivi	16		806.467.0607 806.676.8220
	ity: Amorillo		— State: TX Zip	o: .79107
4. DRILLING RECO	-		<u> </u>	= v
Size of hole Completed we	e: 3/14/01; Completion of the completion of the	depth of well: <u>2^t</u> (shallow, ar	∥.ፒ ft.;	TATE ENGINEER OSWILL NEVER 1891-1897 27 12
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		Write Below This		
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Depth in Feet From To	in feet	water- _DRY_	-bearing	format:	ion		(GPM)	
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ECORD OF CASIN	IG							
Diameter Poun						f Shoe		
(inches) per	ft: per in.	Top	Bottom	(feet)	4.5	1 20	From NA	To
<u> </u>	PVL Z	2212	201.0	201.6	PVC c	rd Cap		241,2
	<u> </u>							47110
ECORD OF MUDD	ING AND CEM	ENTING						
Depth in Feet	Hole	Sacks	Cubic	Feet	Method	of Pla	acement	
From To	Diameter	of mud	of Cen	nent				
0 15	7 · 7/x		20	<u>) </u>	tremie	- bent	tonite/	cemen
<u>75 215 </u>	<u> </u>	<u> 48</u>	~ ~/ #	1	<u> محدثة ودا</u>	- pent	onite i	rvibs
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9. LOG OF HOLE

Depth in Feet Thickness	Color and Type of Material Encountered
From To in feet	
	SAND, fine-grained, loose dry, brown to light orange
10 25 15	Cariche, moderately soft, dry, orange and white
<u> 75 </u>	clay, stiff dry, gray and maroon, mottled
60 146 130	claystone, dry maron
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Siltstone, hair's damp light gray
<u> </u>	claystone, firm dry marron
	
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belief,	ersigned he	oing is a	tifies th	nat, to t	he best record	of his b	nowledg bove de	e and	d
The unde belief, hole.	ersigned he	ereby certoing is a	tifies the true and	nat, to t	record	of his boot the a	snowledge bove de	e and	d
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Tile	Number	: _			
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Name: Louisiana Energy Services	Work Phone: EAS 294 6704
Contact: Laurie Wetherell	Home Phone:
Address: P.O. Box 1789	
City: Eunice	State: NM Zip: 88231
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)	
A. $\frac{NW}{1/4} \frac{SW}{SW} \frac{1/4}{2} \frac{SE}{2} \frac{1/4}$	ip: <u>3/5</u> Range: <u>38E</u> N.M.P.M. County.
B. X = feet, Y = Zone in the U.S.G.S. Quad Map	feet, N.M. Coordinate System Grant.
C. Latitude: 32 d 25 m 50.439 s Longitude	e: 103 d 04 m 52.541 s
D. East (m), North (m), UTI	M Zone 13, NAD (27 or 83)
E. Tract No, Map No of the	Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in	of the County.
G. Other:	<u> </u>
H. Give State Engineer File Number if existing we	ell: CP-957
I. On land owned by (required): Lea County	
3. DRILLING CONTRACTOR	
License Number: (575	
Name: Taion /LPE Agent: Shake Corcle Mailing Address: 921 N. Bivins	_
City: Amarillo	State: <u>TX</u> 2ip: <u>79107</u>
4. DRILLING RECORD	
Drilling began: 3/20/07; Completed: 4/3/07 Size of hole: 7-7/8 in.; Total depth of well: 23 Completed well is: Monthor (shallow, are Depth to water upon completion of well: DRV	1.4 ft.;
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Depth in Feet From To		water-bearing formation	Estimated Yield (GPM)
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ECORD OF CASI	NG		
Diameter Pour	nds Threads	Depth in Feet Length Type	of Shoe Perforations
(inches) per	ft. per in.	Top Bottom (feet)	From To
	DPUL Z	0 211.4 211.4 1)/A N/A
<u> </u>	<u> </u>	211.4 231.4 20 PUC	nd rap 21.4 241.4
ECORD OF MUDI	DING AND CEM	ENTING	
Depth in Feet			d of Placement
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NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

LOG OF HOLE		
Depth in Feet From To O (U) 10 35 35 40 40 85 85 75 95 105 105 100 110 170 170 175 195 220 230 230 230 240	Thickness in feet 10 25 5	Color and Type of Material Encountered SAND fine, loose, dry orange to tain CHICHE, hard dry, orange to fain SANDY gravel, marcon Clay, highly plactic firm dry marcon Siltstone, hard dry gray Claystone, hard dry gray Claystone, dry marcon whorey mothling Siltstone who claystone gray to marcon Claystone dry marcon Siltstone who claystone hard dry gray to marcon Siltstone who claystone dry gray to marcon Claystone, dry marcon Siltstone who claystone dry gray to marcon Claystone who claystone dry gray to marcon Claystone who claystone dry gray to marcon Claystone who claystone dry gray to marcon Claystone who claystone dry gray to mothling
		
		
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NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

1. OWNER OF WELL Name: Waste Control Specialists, LLC Contact: Mike Burney Address: 9998 W. Highway 176 Work Phone: 888-789-2183 Home Phone: 505-394-4300
City: Andrews State: TX Zip: 79714
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)
A. NE 1/4 NE 1/4 NW 1/4 Section: 33 Township: 2 S Range: 38 E N.M.P.M. in County.
B. X = feet, Y = feet, N.M. Coordinate System Zone in the Grant.
U.S.G.S. Quad Map s Longitude: 103 d 03 m 58 s
D. East (m), North (m), UTM Zone 13, NAD (27 or 83)
E. Tract No, Map No of the Hydrographic Survey
F. Lot No, Block No of Unit/Tract Subdivision recorded in Sunty!
G. Other:
H. Give State Engineer File Number if existing well: $\frac{CP-979}{CP-979}$
I. On land owned by (required): Waste Control Specialists, LE
3. DRILLING CONTRACTOR
License Number: 1575 Name: Talon Drilling, L.P. Work Phone: 806-467-0607 Agent: Shane Currie Home Phone: 806-676-8220 Mailing Address: 921 N. Rivins
City: Amarillo State: TX Zip: 79107
4. DRILLING RECORD
Drilling began: \[\frac{7/20/08}{20/08} ; Completed: \[\frac{7/20/08}{20/08} ; Type tools: \[\frac{Air Rotary Rig}{Air Rotary Rig} \] Size of hole: \[\frac{5}{5/8} \] in.; Total depth of well: \[\frac{28}{28} \] ft.; Completed well is: \[\frac{Monifor}{Monifor} \] (shallow, artesian); Depth to water upon completion of well: \[\frac{Dry}{2} \] ft.
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	Thickness in feet	water-b	earing	formati	.on		GPM)		
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RECORD OF CASIN	G								
Diameter Pound (inches) per 1	ft. per in. RvZ	Top E	ottom 28	(feet) <u> </u>	Puc end	CZP	From 13	To	8
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RECORD OF MUDD	ING AND CEM	ENTING							
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510	5-5/8			_		<u>pen</u>	PONTH	<u>. Cu</u>	4
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Add Plugging Me Date Well Plu	No. Depth Top	in Feet	State 1	Engineer	Represe		ę	新-6 AII.3	
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NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

Depth From	in Feet To	Thickness in feet		
0	0.5	0.5	Surface Soil	
0.5	15	74.5	Caliche	
15	17	2	Gravelly Sand	
17	25	4	clayer Silty sand	
25	28.5	3.5	grav sandstone	
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NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD and DRILLING LOG

I. PERMIT HOLDER(S) Name:WASTE CONTROL SPECIALISTS	Name
Address: P.O. BOX 1129	Name:
City: ANDREWS	Address: City:
State: TX Zip: 79714	State: Zip:
Phone: (505) 394-4300	Phone:
Contact: MICHAEL BURNEY	
Contact Phone: (505) 394-4300	
	:
2. STATE ENGINEER REFERENCE NUMBI File # CP 975 EXPLORE , Well	ERS: 1# C.P. 975
FIRE# CF 973 EXPLORE , WEIL	1#
3. LOCATION OF WELL (The Datum is Assur	med To Be WGS 84 Unless Otherwise Specified)
Latitude: 32 Deg 25	
Longitude: 103 Deg 04	4 Min 20.4 Sec
	4 Min 20.4 Sec t Least 1/10 th Of A Second)
Datum If Not WGS 84:	
4. DRILLING CONTRACTOR	
License Number: WD1184	
Name: WEST TEXAS WATER WELL SER	VICE Work Phone: (432) 530-2696
	0/1/00
Drill Rig Serial Number:	<u> 261</u> 602
List The Name Of Each Drill Rig Supervisor That	at Managed On-Site Operations During The Drilling
Process:	transaged on-one operations builting the braning
	NY KEITH
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5. DRILLING RECORD	2
Orilling Began: <u>1-21-08</u> ; Completed: _	4-29-08 Drilling Method MUD ROTARY
Diameter Of Bore Holo: 7-7/8 (in);	
	(0).
·	(ft);
Completed Well Is (Circle One): Shallow Artesia	an,
Depth To Water First Encountered: 1,092	<u>(ft);</u>
Depth To Water Upon Completion Of Well:	
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NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD and DRILLING LOG

6. RECORD (Diameter (inches)	Pounds (per fl.)	Threads (per inch)	Depth (feet)	Length Top to Bottom (feet)	Type of Shoe	Perforations (from to)
13-3/8	48	8	2' AGL	401		
8-5/8	24	8	3' AGL	1,440'	FLOAT GUIDE	
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7. RECORD OF MUDDING AND CEMENTING

Depth (feet)	Hole (diameter)	Mud Used (# of sacks)	Cement (cubic feet)	Method of Placement
0 - 40	17-1/2		35	TRIMMIE
0 - 1,440	12-1/4		574	POSITIVE
1,380-2,020	7-7/8		275	TRIMMIE
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8. LOG OF HOLE. For Each Water Bearing Strata, Estimate The Yield Of The Formation In Gallons Per

Dept (fee	th t)	Thickness	For Water Bearing			
From	To	(Feet)	Strata Enter The Estimated Yield in GPM	Color and Type of Material Encountered		
			SEE ATTACHED GE	OLOGIC LOG		
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CP-975 Geold	ogic log
0-6 ft (4	pad fill and fine brown sand
6-10 ft 4	white sandy limestone (Mescalero caliche)
	sand, light brown, and brown calcareous sandstone (Gatuña Formation)
	interbedded sandstone, siltstone, and claystone; reddish-brown to gray; bioturbated (Cooper Canyon Formation)
132 576-708 ft 3	sandstone and siltstone, gray to reddish brown (Trujillo Formation)
708-1092 ft	interbedded very fine sandstone and siltstone, gray to dark reddish brown (Tecovas Formation)
ا 1092-1384 ft انجار	gray, fine sandstone with interbedded reddish brown and weak red siltstone and claystone (Santa Rosa Formation)
1384-1566 ft	reddish brown, very fine sandstone and siltstone, with some fibrous gypsum in lower part (Dewey Lake Formation)
1566-1602 ft	gray anhydrite beds, with intermediate reddish-brown and gray siltstone (Forty-niner Member of the Rustler Formation)
	gray anhydrite and wavy thin laminae of dolomite (Magenta Dolomite Member of the Rustler Formation)
1609-1736 ft	gray anhydrite beds, with intermediate halite including anhydrite and polyhalite (Tamarisk Member of the Rustler Formation)
77 1736-1807 ft 213	halite with thin two thin anhydrite beds and basal reddish-brown, very fine sandstone (Los Medaños Member of the Rustler Formation)
1807-2020 ft	halite with anhydrite/polyhalitic marker beds (MB103 and uppermost MB109) (Salado Formation)
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9. ADDITIONAL STATEMENT	rs or explanations:	
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and correct record of the above de-	that, to the best of his or her knowle escribed bore hole. The undersigned the Of The State Engineer and permit	dge and belief, the foregoing is a true I further certifies that he or she will tholder within 20 days after
Tonny with	05-12-08	
Driller	(mm/dd/year)	
	Do Not Write Below This Lin	<u>e</u>
Trn Number:		File Number:
Form wr-20 May 07	page 4 of 4	

For Os Jonly

NEW MEXICO OFFICE OF THE STATE ENGINEER APPLICATION FOR PERMIT TO DRILL AN EXPLORATORY WELL

1. APPLICANT:		000 700 2702	
Name: Waste Control Specialists LLC	Work Phone: Home Phone:	505-709-2703	-
Contact: Mike Burney A 1dsess: 9998 W. Highway 176	nume roome.	303-334-4300	-
City: Andrews	State: TX Zig	o: 79714	-
2. LOCATION OF WELL (A, B, C, or D required, E or F if known):			
A. $NE_{1/4}$ $NW_{1/4}$ $NU_{1/4}$ Section: 33 Township in Lea	: <u>2/5</u> Range:	38E N.M.P.M. County.	,
B. X = feet, Y = fe	et, N.M. Coord	iinate System Grant.	n
U.S.G.S. Quad Map			
C. Latitude: 32 d 26 m 30.145 s Longitude:	103 d 04	m 10.962 s	S
D. East (m), North (m), UTM	Zone 13, NAD	(27 or 83))
E. Tract No, Map No of the	Hydrog	raphic Survey	Y
F. Lot No, Block No of Unit/Tract Subdivision recorded in			
G. Other:	····		ċ∧
H. Give State Engineer File Number of existing wel		2997	ZOS ZOS
I. On land owned by (required): Waste Control Specialists	LLC	030	THE PERSON NAMED IN COLUMN TWO
3. WELL INFORMATION:		ω	
76		hos > :	
Approximate depth 75 feet; Outside diameter of on Name of well driller and driller license number 16	casing 2 incl ose Salas/#1575	nes.	
4. ADDITIONAL STATEMENT OR EXPLANATIONS:		ري دي دي	
This piezometer (TP- 63) is being installed to determine the presence or absorptions of the Triassic Dockum group "reductivities by Waste Control Specialists LLC. No pumping or use of groundward installed solely to monitor groundwater levels, if any.	l bed clays" in suppo	ort of licensing	9
RENAMED " PZ -41"		Po. 1	· - 66
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10000		17/12/1	1
	rn Number: <u>I</u>	75741	
Form: wr-07 page 1 of 2			Ä
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NEW MEXICO OFFICE OF THE STATE ENGINEER APPLICATION FOR PERMIT TO DRILL AN EXPLORATORY WELL

ACKNOWLEDGEMENT

: I, We) Mike Burney		affirm that the
foregoing statements a	(Please Frint) re true to the best of my knowl	edge and belief.
Applicant Signatu	Applicant Applicant	Signature
	ACTION OF STATE ENGINEER	
exercised to the detri	provedXxxXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	ing rights, and is not consor detrimental togghe
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 		N = 2
200 21	ttached conditions of approva	,
see at	tached conditions of approva	
		ليا ﷺ
Witness my hand and se	al this <u>Inl</u> day of <u>Jar</u>	nuary , 20 08
John R. D'Antonio, Jr.,	P.F. State Engineer	
By: Xanath W	1. Fresoner	ار ج
Cenneth M. Fresquez. Ac	cting District IO Supervisor	
		Vieti DEC
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11 00	 	m-n.//
le Number: <u>CP-97</u>		lumber: 39594/
Form: wr-07	page 2 of 2	

WEIS

File	Number	•						
•		(For	OSE	Use	Only)			

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

1. OWNER OF WELL
Name: Waste Control Specialists Work Phone: 888-789-2783
Contact: Mike Burney Home Phone: 505 - 394 - 4300 Address: 998 W. Highway 176
Address: 4448 W. Highway 176
City: Andrews State: TX Zip: 79714
2. LOCATION OF WELL (A, B, C, or D required, E or F if known)
A. NE 1/4 NW 1/4 NW 1/4 Section: 33 Township: 215 Range: 386 N.M.P.M. in County.
B. X = feet, Y = feet, N.M. Coordinate System Zone in the Grant.
U.S.G.S. Quad Map
C. Latitude: 37 d 26 m 29 s Longitude: 103 d 04 m .13 ; s
D. East (m), North (m), UTM Zone 13, NAD (27 or 83)
E. Tract No, Map No of the Hydrographic Survey
F. Lot No, Block No of Unit/Tract of the Subdivision recorded in County
G. Other:
H. Give State Engineer File Number if existing well: CP-972
I. On land owned by (required): Waste Control Specialists > =
3. DRILLING CONTRACTOR
License Number: 1575
Name: Talon Drilling, L.P. Work Phone: 806-467-8607 Agent: Share Currie Home Phone: 806-616-8220 Mailing Address: 921 N. Bivins
City: Amavillo State: TX Zip: 79107
4. DRILLING RECORD
Drilling began: 1/21/08; Completed: 2/9/08; Type tools: Air Relay Rig Size of hole: 5-98 in.; Total depth of well: 49 ft.; Completed well is: Manitar (shallow, artesian); Depth to water upon completion of well: Dry ft.
Do Not Write Below This Line
File Number: <u>CP-972</u> Form: wr-20 page 1 of 4 Trn Number: <u>395941</u> page 1 of 4 21, 38, 33, 112
Mr. + 21,38,33,112

File	Number	:			
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NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

From To	Thickness in feet	water-h	pearing	formati	.on 	(+		
								
RECORD OF CASI								_
Diameter Pour	nds Threads	Depth i	n Feet	Lenath	Type of	Shoe	Perforatio	ns
(inches) per	ft per in	Ton 5	Bottom	(feet)			From To	
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<u>z</u> <u>sh</u> 4	0 PVL 2	<u> </u>	49	_12_	PVC end	cap_	<u> 37 49</u>	<u> </u>
RECORD OF MUDI	DING AND CEM						 	
Depth in Feet	Hole	Sacks	Cubic	Feet	Method o	f Pla	cement	
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<u> </u>	<u>5-5/8</u>	_ 20_			4 LEWIE	. · DC	SMICHLE /C	evu
5	5-5/8 5-5/8				poured	<u>~ Da</u>	ntanite cu	11152
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Plugging Cont								
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Plugging N		<u> </u>					(2) (2)	<u>∵</u>
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	Top 1 2 3 4			c Feeto	f Cement		. 31	
	Top 1 2 3 4			c Feeto	f Cement		 	
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ile Number:	Top 1 2 3 3 4 5 Do	Bottom		w This]	Line			
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File	Number	:				
		(F	or	OSE	Use	Only

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

9. LOG OF HOLE

	in Feet	Thickness	Color and Type of Material Encountered	
From	oT S	in feet Z	Silly Sand, tan	
<u>0</u>	<u> </u>	<u> </u>		
	30			
<u> </u>	<u> </u>	<u>23</u> 	Caliche, Moderate hard, tan	
<u>36</u> 45	44		Clay ceddish	
75			CIAV CFOPTISM	
				
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File Number: <u>CF-972</u> Form: wr-20

Trn Number: 395941 21,38.33.112

File Number: (For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

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belief, the foregoing is	ertifies that, to the best of his knowledge and a true and correct record of the above describ	l ed
belief, the foregoing is	a true and correct record of the above describ	ed
belief, the foregoing is hole.	a true and correct record of the above describ	ed
Drill	er and correct record of the above described	ed
belief, the foregoing is hole. Drill FOR	er oz/zu/zocs (mm/dd/year)	ed
belief, the foregoing is hole. Drill FOR	a true and correct record of the above described of the above descri	ed
belief, the foregoing is hole. Drill FOR Quad; FWL; FSL	a true and correct record of the above described of the above descri	ed
belief, the foregoing is hole. Drill FOR Quad; FWL; FSL	a true and correct record of the above described of the above descri	ed



STATE OF NEW MEXICO OFFICE OF THE STATE ENGINEER ROSWELL

John R. D'Antonio, Jr., P.E. State Engineer

1900 WEST SECOND STREET ROSWELL, NM 88201 Phone: (575) 622-6521 Fax: (575) 623-8559

January 3, 2008

Waste Control Specialists LLC % Mike Burney 9998 W. Hwy 176 Andrews, TX 79714

RE: CP-971; CP-972; CP-973: CP-974

Greetings:

Enclosed is your copy of the Exploratory / Monitoring Permits, which have been approved subject to the conditions set forth on the approval page thereof.

In accordance with Condition C, a well record shall be filed in this office twenty days after completion of drilling. The well record is proof of completion of well. IT IS YOUR RESPONSIBILITY TO ASSURE THAT THE WELL LOGS BE FILED WITHIN 20 DAYS OF DRILLING OF THE WELLS.

These permits will expire on or before 01/31/09 unless the wells have been drilled and the well logs filed in this office.

Sincerely,

Andy Morley

(575) 622-6521, ext 113

Enclosure

cc: Santa Fe Office

Z09 FEB 29 A II. 31

NEW MEXICO STATE ENGINEER PERMIT TO EXPLORE / MONITOR

SPECIFIC CONDITIONS OF APPROVAL

- 4 No water shall be appropriated and beneficially used under this permit.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C Driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.
- C2 No water shall be diverted from this well except for testing purposes which shall not exceed ten (10) cumulative days, and well shall be plugged or capped on or before 01/31/09, unless a permit to use water from this well is acquired from the Office of the State Engineer.

The well shall be constructed, maintained and operated that each water shall be confined to the aquifer in which it is encountered.

LOG The Point of Diversion CP-972 Monitor Well must be completed and the Well Log filed on or before 01/31/09.

ACTION OF STATE ENGINEER

Notice of Intention Revd:

Date Revd. Corrected:

Formal Application Rcvd:

12/31/07 Pub. Of Notice Ordered:

Date Returned - Correction:

Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 2 N day of January, 2008.

John R. D'Antopie, Jr., P.E., State Engineer

Kenneth M. Fresquez, Acting District II Superviso

File Nbr: CP-972 Monitor Well

W			WEAVER BO			NC.	LOG OF SOIL BORING NO. B-10					
	В	\sim	200 S. MICHIGAN AV (312) 922-1030 * * INI				FILE				SHEET	
-	W	ĂŢĿ	R LEVEL DATA Not Bricountered	Started	11/22/9	7	LOCA			unty Landfill_		
NB			W.D.	Completed								
NE	_	FT.	AT COMPLETION	Driller Helper	Allan Eac			Eunic	e, New Mex	dico		
		FT.	AT HR. A.D.	Drilling Method	Alr Rota		CLIEN	₹T <u>Cami</u>	no Real Lar	dfill		
\ <u></u>	_	PT.	AT HR. A.D.	Sampling Method	Drill Cutt		<u></u>	Sunla	nd Park, N	ew Mexico		
ନ	Ţ	GRC	UND ELEVATION: 3408	t., MSL) Northing: 9800.52 Completion SAMPLE DATA Depth: 50.0					-	ે જિ		
Depth (FT., bgs)	r	丁	STRATA DEPTH									Depth (FT.,bgs)
E		g 8	• • • • • • • • • • • • • • • • • • • •	rata depih Description	į			Caicareous	Moisture	Munscii	Notes	E
l 유	- 1	Type		APHIC LOG	ı		Stratz Depth (FTbgs)	Calcalcous	Moistaic	Widisch	HUICS	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
A	ſ	٦.			8					Ω		
	1		Dark reddish-brown, fine	SAND, some root	s, no organics		2.0	No	Dry	7.5YR 5/6	: -	7 3
5.0	1	<u> </u>	Reddish-brown, sandy L blocky, friable	OAM to poorly cer	nented loamy SA	ND,		No	Dry	7.5YR 6/6		5.0
F 3.0	7	킄	Pinkish-white, sandy CA	LICUE moderately		friable	6.0	ļ	Ţ			F
10.0	1	퓔	nodules of caliche	LICHE, IIIOGEIRIEI	y weak suncture	, maore]				10.0
F 10.0	1	트					12.0	Moderate	Dry	2.5YR 8/2		Ļ ""‡
15.0	1		Reddish-brown, loamy fi	ine SAND with mo	ist friable sandy	nodules,)	2.7		÷	E 35.0
ļ	-{		very few carcareous i		Į.	ļ				[]		
20.0	1		4 4					Į		,		20.0
ŧ	ţ	=	7									E 3
25,0	,]	=]	Light red to pink, calcan quartzite, some rose (Pobbles increase with	cous pebbly SAND color banded gniess	, pebbles are do: , little chert, ang	minantly Julac.	}	Moderate	Dry	2.5YR 7/6		25.0
ŀ	1		Pobbles increase with	depth	,,,		ļ	ļ				E 3
30.0	, 🚽	<u>=</u>								}]		30.0
	-	=						Moderate	Dry	5YR 7/4		E 3
35.0	, [3	Pink, sandy, peobly fine	GRAVEL, domina	intly quartzite, w	ell graded,	34.0	[35.0
	, I		angular				1 36.0	Slight	Dry	2.5YR 7/3		F 3
40.0	٠.		Reddish-brown MUDST cuttings, some chert j	ONE/CLAYSTON	E, sandy, dry, b	locky						40.0
	1		- cardu82' some cuert l	hennies aug careate	ous ciesis, poors	y maderates	1	Slight	Barely	2.5YR 4/6		F 3
45.0)-[Ш					}	}	Damp			45.0
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- 50.0	۱-۲	1	BORING TERMINATE	D AT 50.0'			50.0			1	-	F 50.0
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NOT	ES	 :_ !	. Dry monitoring well inst	alled in borchole.		LEG	END					
			. Drilling Company: Eader		Service.	(ILE DRILLING	T A.D AFTE	R DRILLING .V	HOUR(S) AFTER D	RILLING
				•							•	
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	WEAVER BOOS CONSULTANTS, INC. B 200 S. MICHIGAN AVENUB, CHICAGO IL, 60604					LOG OF SOIL BORING NO. B-102							
-		\mathbf{C}	(312) 922-1030 * * INC ER LEVEL DATA	DIANA (219) 923-9609		_	MLE				SHRET	1 OF 1	
		NE	W.D.	Started Completed	11/20/97 11/20/97		LOCA	TION Prope	osed Lea Co	unty Landfill			
	NE	_ FT.		Driller Helper	Allan Bades Preddy			Eunic	e, New Mex	lco			
1		_	AT HR. A.D.	Drllling Method	Air Rosary	_	CLIENT Camino Real Landfill Sunland Park, New Mexico						
ł		FT. AT HR. A.D. Sampling Method Drill Cuttings GROUND ELEVATION: 3,392.63 (Ft., MSL) Northing: 8467.05 Complete						Shure		PLE DATA			
-[in 193,42 1 pepin; 30							 					
	Depth (FT.,bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG				Strata Depth (FT.,bgs)	Calcareous	Moisture	Munseli	Notes	Depth (FT., bgs)	
	5.0		Brown, fine to medium S some roots, no organ	SAND with caliche graics	ains, granular sto	ucture,		No noniM	Dry Dry	7.5YR 4/6 7.5YR 5/6		5.0	
	- 10.0 -		Brownish-white calcareon nodules, not as floury and chert when wetter	us fino SAND, some (as other caliche, gritted	enicareous cemer y, abundant coat	nt sand rse sand	7.0	Yes	Dry	7.5YR 7/3		10.0	
	- 15.0 - - 20.0 -	啪啪	Pinkish white sandy CAI fine sandstone (not fr	LICHE, many pebbles	of hard angular	cherty	21.0	Yes	Dry	7.5YR 7/3		15.0	
	- 25.0 -		Pink, fine to medium SA and cemented sandsto	ne			1	Yes	Dīy	2.5YR 7/3		25.0	
	- 30.0		White sandy CALICHE chert clasts. Clasts an and black, some quar	e angular, contse grav	matrix and abund tel size, brown, t	lont white	33.0	Yes	Dry	2.5YR 8/2		30.0	
	35.0 - - 40.0 -		Reddish-brown MUDST	hite pebbles are hard i	limestone with quality occasions	uartzite	36.0	Yes	Barely Damp	2.5YR 6/4		35.0	
	- 45.0 -		sandy, incaccous eta.	sa unrequently, poor	y muuracu		<u>.</u>	Yes	Barely Damp	2.5YR 4/4	-	45.0	
	- 50.0 -		BORING TERMINATE	D AT 50.0'			50.0	Yes	Barely Damp	2.5YR 4/6		50.0	
	•												
			·										
											·	:.	
	NOTE	<u>s:</u>	1. Dry monitoring well inst	alled in borehole.		LEG	END		<u>.</u>				
		;	2. Drilling Company: Eade	s Drilling and Pump Sc	rvice.	Ê₩	.D Wil	LE DRILLING	¥ A.D AFTE	r drilling .V	HOUR(S) AFTER U	RILLING	

W	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604						LOG OF SOIL BORING NO. B-103					
	<u>'C</u>	(312) 922-1030 • • IND	LANA (219) 923-96	L, 00004 09		FILE				SHEET	1 OF 1	
<u> </u>	NAT.	ER LEVEL DATA = Not Encountered	Started	11/21/97		LOCA	TION Prope	osed Lea Co	unty Landfill			
NE	_	W.D.	Completed Driller	Allan Eade								
NE		AT COMPLETION AT HR. A.D.	Helper	Freddy		CLTEN		ce, New Mex ino Real Lar				
	_	AT HR. A.D.	Drilling Method Sampling Method	Air Rosary Drill Cuttin		CLIE			-			
	_	OUND ELEVATION: 3,402	Ed (S) Mgr No	rthing: 9711.58	Compl	Sunland Park, New Mexico pletion SAMPLE DATA						
Depth (FT.,bgs)	-	7,3,3,0,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1	55.0			1		Depth (FT.,bgs)				
E	3	ST	RATA DEPIH			(25)					E	
를	Lithology Type	SOIL	DESCRIPTION			Strate Depth (FT.,bgs)	Calcareous	Moisture	Munsell	Notes	4	
<u>គ</u>	ן ו	GR.	APHIC LOG			Su					ద్ది	
		Reddish-brown, sandy L	OAM to poorly cen	nented loamy SAI	ND.		No	Dry	7.5YR 4/6			
5.0 -	 ;	blocky, friable	• •	•	·	1.	No	Barcly	7.5YR 5/6		5.0	
		Dinkish white sends CA	TICUE		C-l-bla	6.0	Yes	Damp Dry	7,5YR 8/4		<u> </u>	
10.0		Pinkish-white, sandy CA nodules of caliche	LICHE, INDEFACE	y weak succiuie,	MADIC		,				10.0	
		·									E 3	
15.0		Dagich	04ND with			14.0	Yes	Dry	7.5YR 7/3	•	15.0	
	. · ·	Reddish-brown, loamy fi very few calcareous n	ine sand willi moi lodules	st triable sandy n	oduics,						F 3	
20.0											20.0	
<u> </u>) .										ļ :	
25.0 -	<u>] </u>					26.0		1			25.0	
£ :		Light red to pink, calcard	cous pebbly SAND	, pebbles are dom	inandy	-		1 _			<u> </u>	
30.0		quartzite, some rose o Pebbles increase with	color banded gniess depth	, little chert, angu	ılar.	İ	Yes	Dry	7.5YR 8/2		30.0	
[.		Rose and white PEBBLE	 	and deminestly	hand year	33.0	Yes	D	2 570 7/2		E. 3	
35.0 -	***	h , j angular quartzite. Wi	hite pebbles are har	d limestone with	quartzite	36.0		Dry	2.5YR 7/3		- 35.0	
		Reddish-brown MUDST sandy, micaceous clas	ONE/CLAYSTON	E, slicky, occasion	nally	1	Yes	Barely Damp	2.5YR 4/4		= = =	
40.0		sandy, micaceous clas	sts infrequently, po	orly indurated							- 40.0	
- 45.0 -							Slight	Barely	2.5YR 4/4		45.0-	
]	Damp		•	F	
50.0 -							!				F 50.0	
											<u> </u>	
55.0	F	BORING TERMINATE	, , D AT 55 Å'			55.0	No	Barcly	2.5YR 4/6		55.0	
		DOIGHO I BROWN WITH	D AT 55.0					Damp				
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1]						}					
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<u></u>	<u> </u>			<u> </u>	,	<u></u>						
NOTE	<u>S:</u>	Boring grouted after com and 5% bentonite.	ipleilon with 95% po	rtland cement	LEG	END		:		•		
]	:	2. Drilling Company: Eades	s Drilling and Pump	Service.	Ā M	.D WH	Le drilling	¥ A.D AFTE	r drilling .♥	ILOUR(S) AFTER D	RILLING .	
1												
											-	

							 		<u> </u>	<i></i>	<u>U</u>
W	`	WEAVER BOO	,		C.	LO	G OF S	OIL BO	RING N	NO. B-10	D4
1 1	³ C	200 S. MICHIGAN AVI (312) 922-1030 * * IND	enue, chicago I Iana (219) 923-960	., 60604 19	Ì	FILE			,	SHEET 1	
<u> </u>	VĂT NB	ER LEVEL DATA = Not Encountered	Started	11/21/97			TION Prop	osed Lea Co	unty Landfi	11	
NE		W.D.	Completed	11/21/97 Allan Bades				<u></u> -			
NE	_ FT.	AT COMPLETION	Driller . Helper -	Freddy	<u></u>		Euni	ce, New Mex	rico		
ļ	_ FT.	AT HR, A.D.	Drilling Method	Air Rotary	\	CLIEN		ino Real Lar			
<u></u>	FT.	AT HR. A.D.	Sampling Method	Drill Cuttings			<u>Sunl</u> ı	ind Park, N	ew Mexico		
ଜୁ	GR	OUND ELEVATION: 3,404		thing: 8518.93 ting: 9678.16	Comple Depth:			SAN	IPLE DATA		(\$2
Depth (FT.,bgs)		0.70		_		e l	i —				Depth (FT.,bgs)
E	Lithology	211	RATA DEPTH DESCRIPTION			Strate Depth (FT.,bgs)	Calcareous	Moisture	Mursell	Notes	Ε
1 gs	ig F	GR	APHIC LOG			E F	Calcalcons	Moistore	Maidell	140162	cpet
L_A_						S					А
		Dark reddish-brown, fine	SAND, some root	s, no organica			Slight	Danaha	7,5YR 5/4		
£ 5.0 .		Reddish-brown, sandy Le	OAM to poorly cem	ented loanty SANI	D,	3.0	Slight	Barely Damp	7.5YR 5/4 7.5YR 6/4		5.0
	達	blocky, friable Pinkish-white, sandy CA	I ICUE mademately	week emichica fr		6.0		Dry			
10.0	臺	nodules of caliche	EICHE, Moderatory	weak situature, it	Iabic		Moderate	Dry	2.5YR 8/4	}	10.0
ļ 10.0											- 10.0
15.0	擡]		-			- 15.0-
1	壹										
20.0	壹								1	i	20.0
	唇					21.0					ļ
25.0		Light red to pink, calcare quartzite, some rose c Pebbles increase with	ous pebbly SAND, blor banded gniess,	pebble are domina little chert, angula	andy ar.		Moderate	Dry	2.5YR 8/2	ţ	25.0
	E	Pebbles increase with	depth	_			<u> </u>				
30.0	三									Į.	30.0
Į	<u>-</u>					ļ	!	•		1	ţ ::::::::::::::::::::::::::::::::::::
35.0 -	E					1			1		35.0
ř	三								Į.	'	£ :::
40.0	E					40.0	ļ				40.0
•	9	Very light brown medium gravel is brown when				1	Moderate	Dry	2.5YR B/2		E
45.0	-	chert, some quartzite		•		44.0				1	45.0
ŧ	E	White to light brown peb	x. Pebbles are less		ert but	46.0			ł		E
50.0		also gniess and quartz Reddish-brown MUDST	ONE/CLAYSTON	sandy, dry, poor	rly	1	Moderate	Dry	2.5YR 7/4		50.0
E	≣	indurated, cuttings are calcareous clasts	e blocky, some che	t pebbles and whit	le		Moderate	Dry	2.5YR 4/6		Ė:
55.0	▤		•			ŀ	}				55.0
<u>[</u>	\equiv						Slight	Barcly	2.5YR 5/6	Pitcher Bell Sample obtained at 60.0'	E
60.0	==	BORING TERMINATE	D AT 60 O'			60.0	Slight	Damp Barely	2.5YR 4/4		60.0
1		DOIGH TO TOUGHT WITH DE	711 00.0				ļ	Damp			
										1	
1											
1											
							}				
									1	1	
1	1							}	1	1	1
N		l Borlug comunit 6	aladan wist 000	alami a	1.50	ENT	ــــــــــــــــــــــــــــــــــــــ	1 ',		<u> </u>	•
NOTE	<u>3:</u>	i. Boring ground after com and 5% beatonite.	pietion widt 93% po	ruanu ceineni	LEGI		II D DDII I DIA	V	m no	7 Norman	
1	:	2. Drilling Company: Eades	THING and Pump :	Service.	₽ w.	און	ILE DKILLING	♦ A.D APTE	K DHILLING	V hour(s) after dr	aLLING

	- 				<u></u>				31 <u> </u>
W	`	R BOOS CONSULT	- 1	LO	G OF S	OIL BO	RING NO). <u>B-1</u>	L 05
1 7	C (312) 922-1030) + + INDIANA (219) 923-9609		FILE	# 9504	2.10		SHEET	1 OF 1
	WATER LEVEL DAT	Started Completed	11/19/97 11/19/97	LOCA	TION Propo	sed Lea Co	unty Landfill	· · · · · · · · · · · · · · · · · · ·	 -
NE NE	_ Ff. W.D. _ Ff. AT COMPLET	TON Driller _	Allan Endes Freddy		Eunic	e, New Mex	 tico		
-	- 	R. A.D. Drilling Method	Air Rotary	CLIE	-	no Real Lan			
<u></u>	_ FT. AT H	R. A.D. Sampling Method	Drill Cuttings		Sunta	nd Park, N	ew Mexico		
8	GROUND ELEVATIO			letion : 50.0	<u> </u>	SAM	IPLE DATA		(§
Depth (FT.,bgs)	Lithology	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG		Strata Depth (FT.,bgs)	Calcarcous	Moisture	Munseli	Notes	Depth (FT., bgs)
5.0	Grayish-brown ld calcareous no staining, friab	oamy fine SAND, granular, adules increasing with depth, ole cemented sandstone nodul	no organies, few small roots, no iron les (Windblown Sands)		Yes	Dry	7.5YR 8/2		5.0
15,0	Pink fine to med	ium calcareous SAND, with	few calcareous nodules	14.0	_	_			- 10.0 - 15.0
20.0					Yes	Dry	7.5YR 7/4		20.0 20.0 25.0
30.0	Pink calcareous no chert or of (CAPROCK?	fine SAND to very fractured ther clasts. Caliche is very h	sandy CALICHE, few (ard, not friable	28.0					30.0
- 35.0 - 40.0	chert clasts. (LICHE with calcareous sand Clasts are angular, coarse gra me quartzite PRRBLES, with very little sa	ivel size, brown, white	35.0					35.0 - 40.0
45.0	Reddish-brown s		f calcareous cemented	44.0	Yes	Dry	7.5YR 7/2		45.0
50.0	Reddish-brown I cuttings, som	MUDSTONE/CLAYSTONE te calcareous stains, poor ind	, saudy, dry, blocky urated/friable.	50.0	Yes Yes	Dry Dry	2.5YR 6/4 2.5YR 6/4		50.0
		·							
:									
NOTE	and 5% bentoni	after completion with 95% por ite. ny: Eades Drilling and Pump S		GEND W.D WH	ile drilling	₹ A.D. • AFTE	ZR DRILLING .V	Hour(s) after 1	DRILLING

_					<u> </u>						· · · · · · · · · · · · · · · · · · ·	<u></u>
	W_		WEAVER BOO	OS CONSULT	ANTS, INC	C.	1.0	G OF S	OII. BO	RING N	O. B-1	106
	Ę	3	200 S. MICHIGAN AV		60604					11110	SHEET	
ŀ		VĂTI	(312) 922-1030 * * IND CR LEVEL DATA * Not Bacountered		11/01/07		FILE				SHEBI	IOFI
				Started Completed	11/21/97		LUCA	TION Propo	isca Lea Co	mry rangem		
	NE		W.D.	Driller	Allan Eades	3		Famile	e, New Mex	la-		
,	NE	_FT.		Heiper —	Freddy	—	ar itis				<u> </u>	
ı		_ FT. 		Drilling Method	Air Rotary		CLIEN		no Real Lau			
- }		_FT.		Sampling Method	Drill Cutting	Comple	ellon T	Dunia	nd Park, No			
ı	(Sg	GRO	OUND ELEVATION: 3,401	.06 (Ft., MSL) Easth	ng: 9285.60	Depth:			SAM	PLE DATA		(58
- 1	Depth (FT.,bgs)		CIPO	a i m i manmet			 g _			"		Depth (FT.,bgs)
ı	E	Lithology Type		RATA DEPTH			Strate Depth (FT.,bgs)	0.1	36.2	36	N I	E
	反			DESCRIPTION			큐토	Calcarcous	Moisture	Munsell	Notes	50
- 1	Ď	-	GR	APHIC LOG			as c		,			ļĂ
- {			Geswich benun loamy fin	a CAND granular n	o organics few		╫╌┥			 -		
		1 1	Grayish-brown loamy fin calcareous nodules in	creasing with depth, s	mall mots, no in	on .				<u> </u>		
	- 5.0 -		staining, friable ceme	nted sandstone nodule	s (Winapiown 2	ands)	1	No	Dry	7.5YR 5/6		5.0
Į	:									1		
- 1	100	[.:]										F 10.0
	- 10,0 -						11.0					E 10.0=
			Pink fine to medium calc	areous SAND, with f	ew calcareous no	odules		Moderate	Dry	2.5YR 8/3	•	‡ :
	- 15.0 -		that are friable, no of	her large clasts			16.0				•	15.0
	. :											F 3
	20.0		Pink calcareous fine SAN	ND to very fractured a	andy CALICHE	. few to	,	Moderate	Dry	2.5YR 7/6		20.0
		=	no chert or other class	s. Caliche is very ha	rd, not friable]					E :
	- 25.0 -		(CAPROCK?)				1			1		₽ _{25.0} =
-!	25.0						1			1		
												F.,
	- 30.0 -						ľ					- 30.0
							33.0					E :
	35.0 -	擅	White sandy CALICHE	with calcareous sand	matrix and abun	dant				}		35.0
		擅	chert clasts. Clasts an and black, some quar	o angular, coarse grav tzite	el size, brown,	wnite	1	Moderate	Dry	2.5YR 8/3		
Ì	- 40.0 -	臺										- 40.0
		壹								}		E
•	- 45.0 -	這					}		ļ			45.0
- 1	13.0	澅	:							1		<u> </u>
		臺						ļ	}	1	•	F.a.
	- 50.0 -											E 50.0
			,				1					E
	55.0 -	臺		• •								55.0
	, .	臺						1	ł			Ę:
	60.0	橿	-				1					60.0
ı		量					63.0	Moderate	Dry	2.5YR 7/3		E
	- 65.0 -	₩	Rose and white PEBBLE	S, with very little sar hite pebbles are hard	id, dominantly h	act very	/			1		65.0
		1	grains.				66.5	Slight	Dry	2.5YR 5/6		-
			Reddish-brown MUDST cuttings, some calcar	ONE/CLAYSTONE,	sandy, dry, bloc trated/friable	cky	11					
			BORING TERMINATE	D AT 66.0'	Haltorillatio.		1					
		1										
į								1				
						; :	ــــــــــــــــــــــــــــــــــــــ		<u> </u>	<u> </u>	 	
	NOTE	<u>S:</u>	 Boring grouted after com and 5% bentonite. 	pletion with 95% port	land cement	LEG	END		-	-		
		:	and 5% bentonite. 2. Drilling Company: Bade:	s Drilling and Pump Se	rvice.	₽w	.D WH	LE DRILLING	¥ A.D. • AFTE	R DRILLING	♥ HOUR(S) AFTER	DRILLING
	l		•			1						
	k											

	W _B	\mathbf{C}	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	FILE		2.10		SHEET	
			RR LEVEL DATA Not Bacountered Started 11/22/97 Completed 11/22/97	LOCA	TION Propo	sed Lea Co	onty Landfill		
		_ FT. _ FT.	AT COMPLETION Driller Allan Eades		<u>Eunic</u>	e, New Mex	ico		
- 1		_ PT.	Helper	CLIEN	VT <u>Cami</u>	no Real Lan	वेहम		
		_ FT.			<u>Sunla</u>	nd Park, No	w Mexico		
	(82)	GRO	OUND ELEVATION: 3,405.43 (Ft., MSL) Northing: 4016.88 Complete Easting: 9228.40 Depth:			SAM	IPLE DATA	· <u> </u>	(8.5)
	Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strate Depth (FT.,bgs)	Calcareous	Moisture	Munself	Notes	Depth (FT.,bgs)
	5.0		Reddish-brown, loamy fine SAND to sandy LOAM, blocky, friable, very few organics, grading to light brown loamy SAND	6.0	No	Dry	7,5YR 6/6		5.0
	10.0		Reddish-brown, sandy LOAM to poorly cemented loamy SAND, blocky, friable Pink, sandy CALICHB, moderately weak with friable nodules of caliche and poorly comented sand, fewer nodules with depth	8.0	No Moderate	Dry Dry	7.5YR 5/6 2.5YR 8/3		10.0
	- 15.0 -		Pink, fine to medium SAND, calcareous very small nodules of caliche and cemented sandstone		Moderate	Dry 	2.5YR 5/6		15.0
	- 20.0 - - 25.0 -								20.0
	- 30.0 -			31.0	!				30.0
	35.0		Light red to pink, calcareous pebbly SAND, pebbles are dominantly quartzite, some roase color banded gniess, little chert, angular. Pebbles increase with depth		Moderate	Dey	2.5YR 6/4	·	- 35.0
	- 40.0 - - 45.0 -								40.0
	50.0								50.0
	55.0								55.0
	60.0								60.0
	- 65.0 - - 70.0 -								70.0
	- 75,0 -		Pink, sandy CALICHE with caprock chips (Continued)	75.0					75.0
			(Continued)		Moderate	Dry	2.5YR 8/3		
	NOTE		and 5% bentonite.	end .d Wil	ilė drilling	¥ a.d afte	R DRILLING	Y HOUR(S) AFTER DI	RILLING
)								

W	3	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUB, CHICAGO IL, 60604		G OF S		RING N	VOB-1	
<u>-</u> -	$\mathbf{C}_{\mathbf{i}}$	(312) 922-1030 + + INDIANA (219) 923-9609	FILE	. # <u></u>	2.10SAN	PLE DATA	SHEET	
Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Stratz Depth (FT., bgs)	Catcareous	Moisture	Mursell	Notes	
- 85.0 - - 90.0 -		(Continued from page 1) Pink, sandy CALICHE with caprock chips Reddish-brown, sandy MUDSTONE/CLAYSTONE, dry, poorly indurated, some small calcareous cemented sandstone nodules, little to no mica BORING TERMINATED AT 92.0'	83.0 - 92.0	Moderate Slight Slight No	Dry Barely Damp Barely Damp Barely Damp	2.5YR 5/6 2.5YR 7/3 2.5YR 5/3 2.5YR 5/2		85
					·		·	
					;			
		`.						
NOTE		and 5% bentonite.	FEATD					
}	:	2. Drilling Company: Eades Drilling and Pump Service.	Y.D WII	ilk drilling	¥ A.D AFTE	R DRILLING	♥ hour(s) after i	orili. i nc

	W	}	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL. 60604			OIL BO	RING N		
			(312) 922-1030 * * INDIANA (219) 923-9609 ER LIEVEL DATA Not Encountered Started 11/20/97 U.D. Completed 11/20/97	LOCA		2.10 osed Lea Cou	nty Landfi	SHEET 1	OF 3
	NE	FT.	AT COMPLETION Driller Allan Eades Helper Freddy	OI IBN		ce, New Mex		· · · · · · · · · · · · · · · · · · · ·	
ı		_	AT HR. A.D. Drilling Method Air Rotary AT HR. A.D. Sampling Method Drill Cuttings	CLIEN		ino Real Lan and Park, Ne			\
ĺ		 -	Northing: 9696.33 Comple				PLB DATA		
١	sgq.		Basting: 7439.48 Depth:		<u> </u>			· · · · · · · · · · · · · · · · · · ·	👸
	Depth (FT.,bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strata Depth (FT.,bgs)	Calcareous	Moisture .	Munsell	Notes	Depth (FT.,bgs)
			Brown, fine to medium SAND with caliche grains, granular structure, some roots, no organics		Yes	Dry	7.5YR 6/3		
	- 5.0 -		Brownish-white calcareous fine SAND, some calcareous cement sand nodules, not as floury as other caliche, gritty, abundant coarse sand "and their when wetted	4.0					5.0
	10.0		and their whose works		Strong	Dry	7.5YR 8/2		10.0
	- 15.0 -			17.0					15.0
	- 20.0 -		Pinkish-white saudy CALICHE, many pebbles of hard angular cherty fine sandstone (not friable)		Strong	Dry	2,5YR 8/2		20.0
	: - 25.0 -		Pink, very fine SAND, calcareous with occasional pebbles of granite,	24.0					25.0
	,		Cher		Mild	Dry	2.5YR 7/4		
	- 30.0 -			33.0					30.0
	35.0 -	1	Dark brown sandy CLAYSTONE, weathered, blocky, very few caliche clasts, dry, friable/poorly indurated						35.0
	- 40.0 -			!	Mild	Dry	2.5YR 6/2		40.0
		-			Mild	Dry	2.5YR 5/3		
	- 45.0 -		Reddish-brown MUDSTONE/CLAYSTONE, slicky, occasionally	46.0					45.0
	- 50.0 -		sandy, micaceous clasts infrequently, poorly indurated	}	Mild	Dry	2.5YR 5/2		50.0
	- 55.0 -		· .						55.0
					Mild	Dry	2.5YR 5/3		
	- 60.0 -				M‼d	Dry	2.5YR 7/3	Pitcher Beil Sample obtained at 60.0'	60.0
	- 65.0 -				Mild	Dry	2.5YR 4/3		65.0
	70.0			u N					
	- 70.0 -					:.			70.0
ļ	- 75,0 -			,					75.0
ŀ			(Continued)						
	NOTE	Si. 1	Backfilled with cuttings to 120°, grouted to surf-ce with 95 with 95% portland cement and 5% bentonite. Drilling Company: Eades Drilling and Pump Service.		LE DRILLING	¥ a.d aftri	R DRILLING	♥ HOUR(S) AFTER DR	ILLING

·	W	3_	WEAVER BOOS CONSULTANTS, INC 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604	1		OIL BO	RING I		
		C	(312) 922-1030 * • INDIANA (219) 923-9609	FIL	ይ# <u>950</u>	42.10	4DI T D 4TA	SHEET 2	
	Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strate Depth (FT., bgs)	Calcareous	Moisture	Munsell	Notes	Depth (FT., bgs)
	85.0		(Continued from page 1) Reddish-brown MUDSTONE/CLAYSTONE, slicky, occasional sandy, micaccous class infrequently, poorly indurated	lly	Mild	Barely Damp	2.5YR 5/3		85.0
	95.0 -100.0				Mild	Barely Damp	2.5YR 5/3	Pitcher Bell Sample obtained at 100.0'	95.0
	-110.0 -115.0 -120.0				Mild	Bärely Damp	2.5YR 4/4		-110.0 -115.0 -120.0
	-130.0 -135.0 -140.0				No	Barely Damp	2.5YR 5/6		-130.0 -135.0 -140.0
	-145.0- -150.0-		••		No	Barely Damp	2.5YR	Pitcher Beil Sample	-145.0 -150.0
	-155.0 -160.0-								155.0
	-170.0- NOTES		(Continued) 1. Backfilled with cuttings to 120', grouted to surf-ce with 95	LEGEND	No	Barely Damp	2.5YR 4/3		-165.0
)		Backfilled with cultings to 120', grouted to surf-ce with 95 with 95% portland coment and 5% bentonite. Drilling Company: Eades Drilling and Pump Service.		ile drilling	¥ A.D AFTE	R DRILLING	♥ HOUR(S) AFTER DR	ILLING

	W	3_	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604			OIL BO	RING I		
		<u>C</u>	(312) 922-1030 * * INDIANA (219) 923-9609	FILE	950	42.10		SHEET 3	
	Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strate Depth (FT., bgs)	Calcarcons	Moisture	Munsell	Notes	Depth (FT., bgs)
	175.0- -185.0- -195.0- -200.0-		(Continued from page 2) Reddish-brown MUDSTONE/CLAYSTONE, slicky, occasionally sandy, micaecous clasts infrequently, poorly indurated Light reddish-gray SILTSTONE, with green laminae, slick, less sar poorly indurated, dry Reddish-brown CLAYSTONE, dry, poorly indurated, no bedding of laminae	191.0 dy,	Mild Mild	Barely Damp Barely Damp	2.5YR 7/2 2.5YR 7/1 2.5YR 5/2		-175.0 -180.0 -185.0 -190.0
	-205.0- -210.0- -215.0-		BORING TERMINATED AT 215.0'	215.0	No	Barely Damp Barely Damp	2.5YR 3/2	Pitcher Bell Sample obtained at 215.0*	205.0 -210.0 -215.0
						in in			
j	NOTE	<u></u>	I. Backfilled with cuttings to 120', grouted to surf-ce with 95	GEND				· ··········	
		_ 2	with 95% portland coment and 5% bentonite.		ile drilling	¥ A.D. • APTE	R DRILLING	V Hour(s) after dr	ILLING

	W	····	WEAVER BO		•	C.	LO	G OF S	OIL BO	RING I	VO. <u>B-1</u>	09
L		C .	75 (312) 922-1030 * * INT				FILE	# 2504	2.10	_ <u>::</u>	Sheet 1	OF 2
		VATI NE	ER LEVEL DATA Not Encountered	Started	11/21/97		LOCA	TION Prop	osed Lea Cou	inty Landfi	D	 -
7	NE	_ FT.	W.D.	Completed	Allan Bad			<u></u>				
ŀ	NB	_ FT.		Helper -	Freddy				e, New Mex	:		Ì
ŀ		_ FT.		Drilling Method	Air Roury		CLIE		no Real Lan			
ŀ	-	_ FT.		Sampling Method	<u>Drill Cutto</u> thing: 7717.16	Comple	Hlon	Sums	ind Park, Ne		··	┯╼╾┥
1	(Såq	GRO	OUND ELEVATION: 3,404		ilng: 9920,71	Depth:			SAM	PLE DATA		(880
	Depth (FT.,bgs)	Lithology Type	SOIL	rata depth description aphic log			Strata Depth (FT.,bgs)	Calcareous	Moisture	Munsell	Notes	Depth (FT.,bgs)
	5.0 -		Grayish-brown loamy fit calcareous nodules in staining, friable come	inted sandstone nodu	les (windblown s	sands)	8,0			;		5.0
	10.0 - 15.0 - 20.0 -		Pinkish-white, sandy CA nodules of caliche	maysa, muddally	more structure,	LIAVIC			-			15.0
	25.0 - 30.0 -		Light red to pink, calcar quantille, some rose Pebbles increase with	color banded gniess.	pebbles are dom little chert, angu	inantly tlar.	21.0					25.0
	35.0 - 40.0 -		White, sandy CALICHE chen clasts. Chats are and black, some quar	e angular, coarse gra	d matrix and abu	indant , white	36.0					35.0
	45.0 - 50.0 -	柳帆帆帆柳										- 45.0 - - 50.0 -
	55.0		Rose and white PEBBLE angular quartzite. W grains Reddish-brown MUDST	hite pebbles are hard ONE/CLAYSTONE	l limestone with , sandy, dry, blo	quartzite 	56.0					55.0
	60.0 -		cuttings, some chert	pebbles and calcareo	us clasts, poorly	indurated		,				60.0
	70,0 -											70.0
	75.0		Reddish-brown, sandy C	LAYSTONE, micac	eous with occasi	onal	76.0				Pitcher Bell Sample	75.0
F	: ::	〓	green siltstone beds	1		Τ.	<u> </u>	<u> </u>	<u>I-</u>	l	i noice pen strubte	<u> </u>
	<u>NOTE</u>		. Boring grouted after com and 5% bentonite. . Drilling Company: Eade:	•		¥ w.		LB DRILLING	🔻 A.D AFTEI	R DRILLING	♥ hour(s) after dr	illing

	W	3°C	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609		LO		OIL BO		NO. B-10	
) Egg				}		SAM	PLE DATA	T : :	bgs)
	Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG		Strate Depth (FT., bgs)	Calcareous	Moisture	Muasell	Notes	Depth (FT., bgs)
ł			(Continued)	_	7 7	 -	<u> </u>		obtained at 80°	
	85.0 -		(Continued) (Continued from page 1) Reddish-brown, sandy CLAYSTONE, micaceous with occasional green siltstone beds	İ						85.0
ļ	- 90.0 -								ļ	90.0
	-				ļ		[
	- 95.0 - -									- 95.0 -
	-100.0									100.0
	- 105.0-			•						105.0
	-110.0						 	i		110.0
	115.0			}						115.0
	- 120.0-		BORING TERMINATED AT 120'		120.0				Pitcher Bell Sample obtained at 120'	120.0
							,			
İ										
ļ		٠٠,							·	
				,						
	NOTE	<u>s:</u>	and 5 % herronite	LEGEN	_				_	
		7	2: Drilling Company: Eades Drilling and Pump Service.	W.D	, - VHI	LE DRILLENG	🕏 A.D AFTE	R DRILLING	V HOUR(S) AFTER DR	ILLING
	7						•	111		

T W	7	WEAVER BOOS CONSULTANT	S. INC.	T ^	C OT C	OTT DO	DING NO		10
''	B	200 S. MICHIGAN AVBNUB, CHICAGO IL, 60604					RING NO	•	
-	WA'E	(312) 922-1030 * * INDIANA (219) 923-9609		FILE				SHEET	OF 7
700		- Rot Eliconitated	11/17/97	LOCA	TION Tropo	sed Lea Co	unty Landfill	·	
NB NB		W.D. Driller A	llan Eades		Ennie	e, New Mex	ico		
NB	FT. FT.	Helper	Freddy Ar Rotary	CLIEN		no Real Lon	•		
1		Diming premod	ili Cuttings	CLE	·	nd Park, No		- -	
		Northing: 79	24.34 Comple				IPLE DATA		┯┪
Depth (FT.,bgs)	J	Easting: 80.	19.53 Depth:	T			[Depth (FT.,bgs)
1	[a]	STRATA DEPTH		Strata Depth (FT.,bgs)			1		
۱ ặ	Lithdogy Type	SOIL DESCRIPTION		T C	Calcareous	Malsture	Munsell	Notes	풀
8	i i	GRAPHIC LOG		S.E.					🖺
 		Yellowish-red to reddish-brown, loamy fine SAND,	veak granular		No No	Dav	5YR 5/8		
Ė		Structure, Reddish-brown, loamy fine SAND to sandy LOAM,		2.0		Dry	1		E 3
5.0	1	very few organics, grading to light brown loamy	SAND		No	Dry	5YR 6/8		5.0
ţ.	1::					_	ł l		E 3
10.0			<u> </u>	11.0	No	Dry	5YR 6/8		10.0
ŀ	擡	Pink, sandy CALICHE, moderately weak with frlable caliche and poorly cemented sand, fewer nodules	nodules of		Strong	Dry	5YR 8/4		E 3
15.0	量	tancia and poorly commend said, form industria							15.0
F	臺					_			F 3
20.0	星				Mild	Dry	5YR 8/3		20.0
ţ.	三			24,0	1	 			E 3
25.0	1	Pink, fine to medium SAND, calcareous very small r and cemented sandstons	odules of caliche						25.0
F] :	and cemence saids one			ļ		}		<u> </u>
- 30.0	' †			1					30.0
	1					ļ			E 3
25.0 E	1			İ		1			35.0
				39.0	Mild	Dry	5YR 8/2		Ę3
40.0		Reddish-brown, pebbly, coarse GRAVEL with loam	sand matrix.			_	1		40.0
ļ		Pebbles are predominantly chert, white, red, blac quartzite, all angular to subangular	, and 1030	43.0	Mild	Dry	2.5YR 6/4		
45,0	'≣	Light reddish-brown, CLAYSTONE with trace sand cemented sandtone pebbles, cuttings are blocky.	ome chert				i		45.0
١.,,	ቘ			49.0	Mild	Dry	2.5YR 6/3		F
50.0		Reddish-brown, sandy MUDSTONE/CLAYSTONE,	dry, poorly		1		1 1		50.0
ļ.,,		indurated, some small calcareous cemented sands to no mica	tone noquies, little		Mild	Dry	2.5YR 4/6		F
- 55.0	'				Nama .	D-:	2 5300 600		55.0~
60.0				1	Mild	Dry	2.5YR 6/3		- 60.0-
F 00.0					MILE .		2 5 VD 4/6		F 80.0=
65.0	量				Mild	Dry	2.5YR 4/6		65.0
- 33.0					1	[F 3.9
70.0					}	•			70.0
'"."					1				þ ″
75.0]				75.0
'-"		* : :			Mild	Dry	2,5YR 6/4		
<u></u>		(Continued)			MIN	biy	2,318 9/4		<u> </u>
NOT	RS: "	. Boring grouted after completion with 95% portland cer and 5% bentanite.	nent <u>LEG</u>	END					
1		and 5% pentonite. 2. Drilling Company: Bades Drilling and Pump Service.	₽ w.	D WIII	ile drilling	👺 A.D AFTE	R DRULLING .V	HOUR(S) AFTER D	RILLING
						-			
_		.,							

STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG (Continued from page 1) Reddish-brown, sandy MUDSTONE/CLAYSTONE, dry indurated, some small calcareous cemented sandstone to no mica Reddish-brown, sandy CLAYSTONE, micaceous with o green sittstone beds	- 1	Strata Dopoth S (FT., bgs)	Calcareous Minor	Moisture Barely Damp	Munsell 2.5YR 4/4	Notes	SS Dendy (ET has)
(Continued from page 1) Reddish-brown, sandy MUDSTONE/CLAYSTONE, dry indurated, some small calcareous cemented sandstone to no mica Reddish-brown, sandy CLAYSTONE, micaceous with o green siltstone beds	- 1			Barely		Notes	7117
Reddish-brown, sandy MUDSTONE/CLAYSTONE, dry indurated, some small calcareous cemented sandstone to no mica Reddish-brown, sandy CLAYSTONE, micaceous with o green sittstone beds 95.0	- 1	84.0	Minor		2.5YR 4/4		- - - 85
Reddish-brown, sandy MUDSTONE/CLAYSTONE, dry indurated, some small calcareous cemented sandstone to no mica Reddish-brown, sandy CLAYSTONE, micaceous with o green sitistone beds	- 1	84.0	Minor		2.5YR 4/4		E - 85
95.0 green siltstone beds	DCCSSIQUEL		142111101		2.518 717	l .	
		 		1		Pitcher Bell Sample obtained at 90'	Ę 90
00.0		ł .				-	95
≒							E100
05.0							EIO
10.0		110.0					E 1.4
Reddish-brown, sandy MUDSTONE/CLAYSTONE, dry indurated, some small calcareous comented sandstone to no mica	ry, poorly e nadules, little		Slight	Barely Damp	2.5YR 4/4		Ę.,
20.0							Ei2
25.0							12
30.0			Yes	Barely Damp	2.5YR 3/4		E 13
35.0							E 13
10.0						Pitcher Bell Sample obtained at 140'	14
45.0			Yes	Barely Damp	2,5YR 4/4	obtained at 140°	14
50.0							<u> </u> - -
55.0			No	Barely Damp	2.5YR 4/6		E13
60.0			<u> </u> 				Ē1e
65.0-	,						Ę,16
70.0 (Continued)							Ė,7
I. Boring grouted after completion with 95% portland cemen and 5% bentonite. 2. Drilling Company: Eades Drilling and Pump Service.			LE DRILLING	& a.d afte	R DRILLING	♥ HOUR(S) AFTER DI	RILLIN

	W		WEAVER BOOS CONSULTANTS, INC.	L	G OF S	OIL BO	RING N	NO. B-11	0
-	B	C	200 S. MICHIGAN AVENUB, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	FIL		42.10		SHEET 3	
_	(53)	ΓĪ			ļ	SAM	PLE DATA		(52
	Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strate Depth (FT., bgs)	Calcareous	Moisture	Munsel)	Notes	Depth (FT., bgs)
	-175.0		(Continued from page 2)						175.0
	-180.0		Reddish-brown, sandy MUDSTONE/CLAYSTONE, dry, poorly indurated, some small calcareous comented sandstone nodules, lit to no mica	itle					180.0
	-185.0-								185.0
	-190.0-		Light reddish-brown MUDSTONE, slick, siltier, no bedding	190.0		Parela	2.5YR 6/3	 	190.0
ł	-195.0- -200.0-				No	Barely Damp	2.518 0/5		-195.0 -200.0
	-205.0-								205.0
	-210.0-			211.0					210.0
	-215.0-		Reddish-brown MUDSTONE/CLAYSTONE, micaceous, no beddin or laminne	g	No	Barcly	2.5YR 5/4		215.0
	-220.0-					Damp	1.518.514		220.0
	-225.0-		·		No	Dry	2.5YR 4/6		225.0
	–230.0- –235.0-					ļ		Pitcher Bell Sample obtained at 230'	230.0
	-240.0-		٠,						240.0
	-245.0-		·		No	Dry	2.5YR 5/4		245.0
	-2 <i>5</i> 0.0-				No	D _D ,	2.5YR 4/6		250.0
	-255.0-								255.0
	-260.0-		(Continued)		No	Dry	2.5YR 6/3		260.0
	NOTE	<u>s:</u>	and 5% bentonite.	egend W.D W	IILE DRILLING	S A.D AFTE	R DRILLING	V hour(s) after dri	LTTZ/C

W _E	3 _C	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 • * INDIANA (219) 923-9609	LO FILE	G OF S	2.10		IO. B-11	OF 7
Depth (FT., bgs)	Libology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strata Depth (FT., bgs)	Calcareous	SAN	Munsell	Notes	7 TO 1 TO 1
265.0- 270.0-		(Continued from page 3)		No	Dry	2.5YR 5/6		26:
275,0-		Reddish-brown, MUDSTONE/CLAYSTONE, micaccous, no bedding or laminae						27
280.0- 285.0-			<u> </u> 					-28 -28
290.0-				Yes	Dry	2.5YR 5/4		29
295.0-			<u>;</u>					- - 29
300.0-								-30 -30
305.0- 310.0-								-31 -31
315.0-								3:
320.0-				No	Dry	2.5YR 4/4		-3: -3:
325.0- 330.0-		•••						33
335.0-								<u> </u> -
340.0- 345.0-				Yes	Dry	2.5YR 5/4		-34 -34
350.0							Pitcher Bell Sample	-3
355.0-		(Continued)				<u> </u>	destrict at 350	-3:
NOTE	<u>is:</u>	1. Boring grouted after completion with 95% portland cement and 5% bentonite. 2. Drilling Company: Eades Drilling and Pump Service.		ile drilling	¥ a.d afti	ER DRILLING	V HOUR(S) AFTER DR	ULLIN :

	W	 ع	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	LO		OIL BO	RING N	O. B-1	L10
ŀ		 \	A10) 246-1000 manual (413) 243-2003		, # <u></u>		APLE DATA	SUEEL	
	Depth (FT bgs)	Libology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strate Depth (FT., bgs)	Calcareous	Moisture	Munsell	Notes	Depth (FT., bgs)
	-360.0-		(Continued from page 4)						360.0
	-365.0-		Reddish-brown, MUDSTONE/CLAYSTONE, micaceous, no bedding or laminae		Minor	Dry	2.5YR 4/4		-365.0
	-370.0- -375.0-				Minor	Dry	2.5YR 4/6		-370.0- -375.0-
	-380.0-								-380.0-
	-38Ŝ.O-								-385.0
	-390.0 -395.0		-						-390.0 -395.0
	400.0								400.0
	-405.0								405.0
	-410.0 -415.0								-410.0 -415.0
	-420.0		`						420.0
	-425.0-								425.0
	-430.0 -435.0				Minor	Dry	2.5YR 4/8		430.0 - - 435.0
:	-440.0								-440.0
	-445.0-		(Continued)						- -445.0 -
	<u>note</u>	<u>s:</u> 1	and 5% hentonite	<u>end</u> .d W10	ile drilling	🖫 A.D AFTE	R DRILLING	V hour(s) after 1	PRILLING
)								

W _B	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUB, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	LO			RING NO		B-110 SHEET 6 OF 7	
<u> </u>	- Pres ton Timping (\$15) 200-2005	FILE	,		IPLE DATA	GHALL		
Depth (FT., bgs)	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Stratz Depth (FT., bgs)	Colcareous	Moisture	Munsell	Notes	Dendt (FT., bes)	
450.0-	(Continued from page 5)		·		Ì	-	450	
455.0	Reddish-brown, MUDSTONE/CLAYSTONE, micaceous, no bedding or laminae			-			45:	
460.0-							E464	
465.0-							-46	
475.0		,					-47 - - -47	
480.0			}				- - -48	
485.0							-48	
490.0							E E49	
495.0							- - -	
500.0-							-50 -	
505.0							= 50 = =	
510.0- 515.0-							-51 - -51	
520.0-			Minor	Dry	2.5YR 5/4		- - - - - -	
525.0-							E 52	
530.0							53	
535.0	(Continued)						- 52 - 52	
NOTES:	1. Boring grouted after completion with 95% portland cement	SEND	ile drilling	XAD AFF	Buniling A	DOUR(S) AFTER !	noti i re	
	2. Samue Company, pages String and Pump Scrence.	·.ሁ 11 D	- PO AVIPPRÍO	₩ n.u. · AFII	V. SPEILELEN	mountal Ar LER I	will	
	·							

W	}	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604	LO	G OF S	OIL BO	RING NO		
	<u>C</u>	(312) 922-1030 * * INDIANA (219) 923-9609	FILE	# <u>950</u>	2.10	· ·- ·	SHEET 7	
1 (8)		·			SAN	IPLE DATA	 -	- (§
Depth (FT., bgs)	Lithology	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strate Depth (FT., bgs)	Calcareous	Moisture	Munsell	Notes	Depth (FT., bgs)
ļ			 	Minor	Dry	7.5YR 5/4		_
-545.0- -550.0-		(Continued from page 6) Reddish-brown, MUDSTONE/CLAYSTONE, micaceous, no bedding or laminae						-545.0 -550.0
-555.0- -560.0-		-		Minor	מתם	2.5YR 4/4		555.0
-565.0-		·						-565.0
ŧ :				Yes	Dry	2.5YR 6/3		ļ: :
-570.0-			İ	Yes	Dry	2.5YR 6/2		570.0
: :				Yes	Dry	2.5YR 4/4		Ę.
-575.0-			576.0]	}			575.0
-580.0- -585.0-		Light reddish-gray, clayey SILTSTONE, gritty, sandy, no bedding	370.0	Yes	Dry	2.5YR 6/1		580.0
-590.0-		Reddish-gray, silty SANDSTONE	588.0	Yes	Dry	2.5YR 6/1		- 590.0
-595.0-			595.0	Yes	Dry	2.5YR 6/1		-595.0
333.0		Light reddish-gray, silty SANDSTONE	375.0	Vaa	Davi .	2 600 20		E.393.0
-600.0-		BORING TERMINATED AT 600 FEET	600.0	Yes	Dry	2.5YR 7/1		-600.0
		• . 3						
<u></u>	Ļ		1	<u> </u>	<u> </u>	<u> </u>		<u> </u>
NOTE	<u>s:</u> :	LEG and 5% bentonite. 2. Drilling Company: Eades Drilling and Pump Service.		LE DRILLING	¥ a.d apte	R DRILLING 🦃	HOUR(S) AFTER DR	ILLING

	W	3	WEAVER BOOS CONSULTANTS, INC. 200 S: MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 • • INDIANA (219) 923-9609	LC	G OF S	OIL BO	RING I	NO. <u>B-11</u>	——
			CR LEVEL DATA Started 11/13/97 W.D. Completed 11/13/97	†			unty Landfi	il	
		_ FT. _ FT.	Helper ————————————————————————————————————	CLIE		ce, New Mex ino Real Lai		•	
-		FT.	AT HR. A.D. Sampling Method Drill Cuttings	1	Sunl	and Pack, N	ew Mexico		
ſ		GR		pletion h: 598.0		SAN	TLE DATA		٦
	Depth (FT.,bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strata Depth (FTbgs)	Calcareous	Moisture	Munsell	Notes	Depth (FT.,bgs)
-				-	<u> </u>				
-	- 5.0 -		Yellowish-red to reddish-brown loamy fine SAND, weak granular structure, friable, very few organics, some roots, increasing calic nodules with depth and slightly loaniter with depth	he 8.0	No	Dry	5YR 5/6		5.0
-	- 10.0		Pale red to pinkish-white fine sandy CALICHE, moderately weak, friable nodules of caliche		Strong	Dry	-2.5YR 7/2		E 10.0
ŀ	160			12.0	Mild	Dry	2.5YR 6/6		E., =
	- 15.0 - - - 20.0 -		Reddish-brown loamy fine SAND with moist sandy loam nodules, nodules are friable and slightly sticky, very little calcareous concretions	20.0	Mild	Dry	2.5YR 6/6		15.0-
	- 25.0 -		Light brown loamy fine SAND, pisolitic, slightly indurated with calcareous concretions and sandy loam nodules, coated with carbonates, some organic matter, one chert pebble	25.0		5.,			25.0
	- 30.0		Pink to white CALICHE, probably massive, cuttings are very fine, flour-like, few sandy nodules, friable when wet		Strong	Dry	2.5YR 8/1		30.0
) [
	- 35.0 -	160	Very light brown medium GRAVEL with calcareous sand matrix, gravel is brown when wet, very cherry, angular, white and brown	35.0	Mild Mild	Dry Dry	2.5YR 8/L 2.5YR 8/3		35.0
ŀ	- 40.0 -	*	Chert, some quartzite White to light brown pebbly coarse GRAVEL with some line calcareous sand matrix. Pebbles are less angular, mostly chert bu also gnicss and quartzite	40.0	Mild	Dry	2.5YR 5/3		40.0
	- 45.0		Reddish-brown MUDSTONE/CLAYSTONE, sandy, dry, poorly indurated, cuttings are blacky, some chert pebbles and white calcareous clasts	44.0	Mild	Dry	2.5YR 4/4		45.0
	- 50.0 - 55.0 -		Reddish-brown sandy MUDSTONE/CLAYSTONE, micaccous, especially biotile, occasional chert pieces, occasional green siltsto beds, otherwise massive, very few laminae or bedding, moderate indurated	ne ly	No	Barely Domp	10R 4/6		50.0
	- 65.0 -				Mild	Barely Damp	2.5YR 5/3		60.0
	70.0				Mild	Barely	2.5YR 6/4		70.0
	75.0 -		(Continued)			Damp		Pitcher Bell Sample obtained at 80'	75.0
	NOTES		and 5% bentonite.	GEND W.D 1911	ILE DRILLING	¥ ለ.D AFTE	R DRILLING	V HOUR(S) AFTER DRI	LLING
)					-			

WE	<u>C</u>	200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	FILE	950	42,10	ent E h	SHEET	
)gs)			ļ		SAN	IPLE DATA	,	Η'
Depth (FT., bgs)	ا د	STRATA DEPTH	Strato Depth (FT., bgs)					
F	Lithology Type	SOIL DESCRIPTION	<u> </u>	Calcareous	Maisture	Munsell	Notes	
듩	ЩP		돌는		"""		145,625	- 1
2	<u> </u>	GRAPHIC LOG	<u> </u>					
		(Continued from page 1)						<u> </u>
85.0 -		Reddish-brown sandy, MUDSTONE/CLAYSTONE, micaceous, especially biotile, occasional chert pieces, occasional green siltstone beds, otherwise massive, very few laminae or bedding, moderately			l	}	ļ	F 8
		beds, otherwise massive, very few laminae or bedding, moderately	1	A4!	5		1	ţ.
		indurated	}	Minor	Barely Damp	2.5YR 5/4		Ę,
90.0 -								E'
				Slight	Barely Damp	2.5YR 6/3		E
95.0 -					1			۲,
-	閆		ļ		•		}	E
00.0			Ì				1	Eid
:		•						þ
05.0	目			Yes	Barely Domp	2.5YR 4/4]	Eu
-							ì	Ļ
10.0]	1	F1
:					ł			E
15.0-	昌		ļ			1	ļ	ļ,
-			.					F
20.0~				Yes	Barely	2.5YR 5/3		F1:
20.0					Damp	1		F.,
	昌					}	}	E
25.0- -					[}	E"
								F.,
30.0-					}	}		FI:
:	Ħ							Ŀ
35.0-								F1:
-					 			E
40.0-			i	No	Barely Damp	2.5YR 5/3	Pitcher Bell Sample obtained at 140'	-14
-	텕						obtained at 140'	E
45.0-		••				-		- E1
1					ļ		}	-
50.0-				}		1		E1:
-								E
55.0-		•					1	-3.
-				ł				E
60.0								Ę,
-								ļ."
46 N.			1					Ę,
65.0-			}					E''
-								Ė.
70.0-		(Continued)		L	<u> </u>	<u> </u>	<u> </u>	-1
OTES		Boring grouted after completion with 95% portland cement and 5% bentonite.						
	2	Drilling Company: Eades Dritting and Pump Service.	D, - WHI	i.e. drilling	₹ A.D AFTE	r drii.ling	V HOUR(S) AFTER DE	HLLR
		(
		1						

	W	 3 C	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL. 60604 (312) 922-1030 * * INDIANA (219) 923-9609	LC	OG OF S	OIL BO	RING I	NO. B-1	
) 	1				SAN	(PLE DATA		1 8
		Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strata Depth (FT., bgs)	Culcareous	Muisture	Munsell	Notes	Depth (FT., bgs)
			(Continued from page 2)	1		<u> </u>		i	1
	-175.0- -180.0-		Reddish-brown sandy MUDSTONE/CLAYSTONE, micaceous, especially biotile, occasional chert pieces, occasional green silisto buds, otherwise massive, very few laminae or bedding, moderatel	ne	No	Barely	2.5YR 5/6		180.0
	106.0		indurated	185.0	No	Barely	2.5YR 4/4		1,000
	-185.0-		Light reddish-brown, clayey SILTSONE	187.0		D-1	2 51/2 6/4	}	185.0
	-190.0-		Red, clayey SILTSTONE	_	No	Dry	2.5YR 6/4		190.0
	-195.0-		Pink, clayey SILTSTONE	195.0	No	Barely Damp	2.5YR 5/6		-195.0
	-200.0-		Fink, Clayey SIL1310NE		No	Barely Damp	7.5YR 7/3	Pitcher Bell Sample	200.0
	-205,0-								-205.0
	-210.0-			211.0				i	210.0
	-215.0 -220.0-		Reddish-brown, sandy MUDSTONE/CLAYSTONE, micaceous, especially biotile, occasional chert pieces, occasional green situsto beds, otherwise massive, very few laminae or bedding, moderatel indurated	ne y	No	Dry	2.5YR 6/2		215.0
	-225.0-				<u> </u>		j 		-225.0
	-230.0-								-230.0
	-235.0-		•						235.0
	-240.0		•						240.0
	-245.0-								245.0
	-250.0-				<u> </u>				-250.0
	-255.0-				No.	Dry	2.5YR 4/6		-255.0
	-260.0				Yeş	Dry	2.5YR 4/4		260.0
	<u></u> 1	==	(Continued)	<u></u>		<u> </u>		<u> </u>	
	NOTES		and \$% bentagite	<u> </u>	ILE DRILLING	¥ a.d. • aftei	R DRILLING	V HOUR(S) AFTER DR	II.I.ING
4)								

	W	3 C	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	LO		2.10	RING NO	D. <u>B-1</u>	
	(sg					SAX	PLE DATA		(88
	Depth (FT., bgs)	Lichology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strata Depth (FT., bgs)	Calcareous	Moisture	Munsell	Nates	Depth (FT., bgs)
	-265.0- -270.0-		(Continued from page 3)						-265.0- -270.0-
	-275.0		Reddish-brown, sandy MUDSTONE/CLAYSTONE, micaceous, especially biotile, occasional chert pieces, occasional green siltstone beds, otherwise massive, very few laminae or bedding, moderately						-275.0
į	-280.0-		indurated	:					280.0
	-285.0- -290.0-		•						290.0
	-295.0-				No	Dry	10R 4/6		295.0
	-300.0- -305.0-			-					305.0
C	-310.0-								310.0
	-315.0- -320.0-			'					315.0
	-325.0				Yes	Dry	10R 4/4		-325.0
	-330.0 -335.0		··		113	ы	101.4/4	:.	330.0
	-340.0								340.0
	-345.0- -350.0-			- 					345.0
	-355.0-		(Continued)					•	355.0
	NOTES	<u>:</u> 1	Boring grouted after completion with 95% portland centent		LE DRILLING	S A.D AFTER	DRILLING V	Hour(s) apter dr	

	W	 ³ с	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	L(42.10	RING NO	D. <u>В-</u>]	5 OF 7
	Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strata Depth (FT bgs)	Calcarcous	Moisture	Munsell	Notes	Depth (FT., bgs)
منديآ تنييا ليمييا أميمه	365.0- 370.0- 375.0-		(Continued from page 4) Reddish-brown, sandy MUDSTONE/CLAYSTONE, micaceous, especially biotile, occasional chert pieces, occasional green siltst beds, otherwise massive, very few lanninge or bedding, moderate indurated	one ety	Minor	Dry	2.5YR 4/6		365.4 -365.4 -375.4
ميدلنديد	385.0- 390.0- 395.0- 400.0-		·		Minor	Dry	2.5YR 5/6		-385. -390. -395. -400.
	405.0- 410.0- 415.0- 420.0-		•••						410 -415 -420
معتمل مستمالية	425.0- 430.0- 435.0- 440.0-				Minor	Dry	2.5YR 4/6	·	-440
-	445.0- NOTE		and \$2 beatonite	EGEND W.D WII	ILE DRILLING	¥ A.D AFTE	R DRILLING V	HOUR(S) APTER D	RILLING

W	B C	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604 (312) 922-1030 * * INDIANA (219) 923-9609	LO		OIL BO 42.10	RING i	NO. <u>B-1</u> SHEET	
<u>্</u> প	 ~					IPLE DATA		
Depth (FT., bgs)	Lithelogy	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strata Depth (FT., bgs)	Calcareous	Moisture	Munsell	Notes	
-450.0 -455.0 -465.0 -470.0 -475.0 -475.0 -485.0 -490.0 -505.0 -505.0 -510.0 -525.0 -535.0		(Continued from page 5) Reddish-brown, sandy MUDSTONE/CLAYSTONE, micaeeous, especially birotile, occasional chert pieces, occasional green silistone beds, otherwise massive, very few laminae or bedding, moderately indurated		Minor	Dry	2.5YR 6/4	Pitcher Bell Sample obtained at 485'	1 450 1 451 1 466 1 466 1 47 1 48 1 48 1 49 1 49 1 49 1 49 1 49 1 49 1 49 1 49
		(Continued)					1	<u>-</u>
		1. Boring grouted after completion with 95% portland cement <u>LEGE</u>		LE DRILLING	₹ A.D AFTEI	DRILLING	V HOUR(S) AFTER DE	RILLING

WB	}	WEAVER BOOS CONSULTANTS, INC. 200 S. MICHIGAN AVENUE, CHICAGO IL, 60604	LO			RING NO	O. <u> </u>	1_
	<u>C</u>	(312) 922-1030 * * INDIANA (219) 923-9609	FILE	# 9504		ADV C DAG	SHEET 7	
Depth (FT., bgs)	Lithology Type	STRATA DEPTH SOIL DESCRIPTION GRAPHIC LOG	Strata Depth (FT., bgs)	Calcareous	Moisture	Munsell	Notes	- Constant
545.0~		(Continued from page 6)		!				-54
550.0-		Reddish-brown, sandy MUDSTONE/CLAYSTONE, micaceous, especially biotile, occasional chert pieces, occasional green siltstone beds, otherwise massive, very few laminae or bedding, moderately indurated		i				-55
555.0-								-55
560.0		:			_			- - 56
565.0		Pink CLAYSTONE	566.0 568.0	Minor Minor	Dry Dry	2.5YR 6/4		- 56
570.0		Light reddish-gray, clayey SILTSTONE	J00.U	Yes	Dry	2.5YR 7/1		-57
575.0		Reddish-gray, sandy SILTSTONE 576.0 Reddish-gray, silty SANDSTONE		Ϋ́c7	Dry	10R 6/1		-57 -
580.0 585.0			Yes	Dry	IOR 6/1		-58	
590.0-								- 59
595.0-								-59
Ź		BORING TERMINATED AT 398 FEET	598.0					F
		•	 					
					,			
								1
NOTES	l : 1 2	Boring grouted after completion with 95% portland cement and 5% bentonite. Drilling Company: Eudes Drilling and Pump Service.		LE DRILLING	I	PRILLING 9	NOUR(S) AFTER ORI	LLIN