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Subtask: CPN Monitoring

EDF Page 1 of 1

TITLE: Large Scale Infiltration Test CPN Data Analysis

SUMMARY

The summary briefly defines the problem or activity to be addressed in the EDF, gives a summary of the activities performed in addressing the problem and states the conclusions, recommendations, or results arrived at from this task.

The Large-Scale Infiltration Test (LSIT) was conducted at the Idaho National Engineering Laboratory (INEL) during the summer of 1994. One aspect of the test, as documented in the "Integrated Large-Scale Aquifer Pumping and Infiltration Tests - Vadose Zone Monitoring Test Plan" (Porro, et al., 1994), was monitoring moisture movement in the vadose zone using Boart Longyear CPN Co.(CPN) neutron probes. This Engineering Design File (EDF) documents the evaluation of the CPN neutron probe data. It contains a brief introduction describing the need for the LSIT, a description of materials and methods used during the test's field and subsequent data validation activities, and analyses of the data to determine the hydrological behavior of the vadose zone. Included in this EDF are an evaluation of CPN neutron probe usefulness at the test site and a comparison of CPN neutron probe and truck-mounted neutron tool data (Appendix A), a verification of monitoring well completions using the CPN neutron probe data (Appendix B), and the CPN neutron probe data base in graphical form (Appendix C).

Analyses of the CPN neutron probe data indicate that the movement of water below the infiltration basin was confined to a cylinder defined by the basin until the water reached the 55-m (180-ft) sedimentary interbed. The interbed impeded vertical water flow. Water ponded on the interbed and flowed laterally along its surface outside the bounds of the cylinder. Lateral flow also occurred in the basalt vadose zone between the surface soil and the interbed in fractures and rubble zones, but did not extend to wells located outside the basin (the closest of which are 50 ft from the edge of the basin). The vertical rate of advance of the wetting front was estimated to be about 5.0 m/day (16.4 ft/day), and it was fairly uniform between land surface and the 55-m (180-ft) sedimentary interbed. The wetted porosity (determined from the average infiltration and wetting front travel rates) was 0.02.

Analyses of CPN neutron probe data collected in test pits indicated that the CPN neutron probes could be standardized to one another and verified that these probes could distinguish moisture level changes beyond the boreholes. Analysis of LSIT data indicated that CPN neutron probe data was comparable to truck-mounted neutron tool (far detector) data in delineating moisture movement in the vadose zone. Near detectors on the neutron tools were less useful for this purpose. CPN neutron probe data also appeared to be more useful than truck-mounted neutron tool data for verification of well completions.

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VADOSE ZONE WATER MOVEMENT DURING THE INEL LARGE-SCALE INFILTRATION TEST

INTRODUCTION

The Radioactive Waste Management Complex (RWMC) at the Idaho National Engineering Laboratory (INEL) includes one of the largest subsurface radioactive waste disposal facilities in the United States, containing up to one-third of the United States (U.S.) Department of Energy's total inventory of plutonium-contaminated waste. Low-level, mixed, and transuranic radioactive wastes have been disposed in unlined shallow pits and trenches in surficial sediments at a 3.6×10^5-m^2 (88-acre) site from the early 1950s until 1970. Since 1970, transuranic wastes have been disposed in above-grade facilities. The RWMC was added to the U.S. Environmental Protection Agency's National Priorities List of Superfund sites in 1989, and remediation efforts are currently underway.

The RWMC has been flooded three times from natural events. Water infiltrating the buried wastes and the underlying vadose zone is a likely mechanism for contaminant migration from this site. An understanding of migration pathways is essential for the successful remediation of this site. The RWMC is located in the Snake River Plain of southeastern Idaho and overlies a thick vadose zone [~180 m (590 ft)] consisting of numerous basalt lava flows, lava flow units, lava flow groups, and sedimentary interbeds (Anderson and Lewis, 1989; Knutson et al., 1992). A lava flow is a single body of lava formed by outpouring of molten lava from a vent or fissure. Lava flow units consist of several flows with similar petrographic characteristics that are believed to be from a common magma source. Flow groups are comprised of lava flows that are lithologically distinct from overlying and underlying basalts. In general, individual flows are longer than they are wide, and wider than they are thick. The length:width:thickness proportions

of individual lava flows are about 10:5:1 (Knutson et al., 1990) with typical thicknesses of the flows ranging from 3.1 to 12.2 m (10 to 40 ft). Permeability in the basalt is thought to be controlled by the distribution of rubblized and brecciated basalt interflow zones (zone between the top of a basalt flow and the bottom of the overlying basalt flow) with some additional permeability contributed by fractures, vesicles, and intergranular pore spaces (Mundorff et al., 1964).

Movement of water through the thick sequences of basalt flows where sedimentary interbeds are absent can be relatively rapid during periods of saturated flow. Morris et al. (1963) observed a rise of the water table at a depth of about 142 m (465 ft) in well 5 on the INEL about 15 to 20 days after the beginning of runoff from the rapid spring thaw in 1962. The water table rose from 142 m (466 ft) to about 141 m (463 ft) below land surface. Barraclough et al. (1967) report the water level in well 78 [62 m (203 ft) deep and 72 m (235 ft) from the Big Lost River] starting to rise within 4 days after water first flowed in the Big Lost River channel. Pittman et al. (1988) report water levels in some wells at the INEL rising as much as 1.8 m (6 ft) or more in a few months following high flows in the Big Lost River.

These observations notwithstanding, detailed knowledge of the advance of saturated wetting fronts and subsequent wetting patterns in the complex vadose zone at the INEL (and the RWMC in particular) remain unknown. The Large-Scale Infiltration Test (LSIT) at the INEL was conducted, in part, to characterize the advance of a saturated water front and subsequent wetting patterns to gain a better overall understanding of the subsurface water pathway. This section reports the findings from this test. These results, combined with others from the LSIT, will be used in future work for modeling potential migration of contaminants from the RWMC.

Neutron probes were used to track water movement in depths up to 55 m (180 ft) within the vadose zone below and adjacent to a 2.6×10^4-m^2 (6.5-acre) circular basin filled with water. The 55-m (180-ft) depth represents the top of a 21.4-m (70-ft) thick sedimentary interbed that appears to be continuous beneath the test site. The neutron probes employ a 50-mCi Americium-241/Beryllium neutron source and have traditionally been used in agricultural applications in

relatively shallow soils. Recently, probes of this type have been used in welded and nonwelded tuff (Elder and Rasmussen, 1994). The data from the Large Scale Infiltration Test are used to demonstrate that this type of neutron probe is useful for characterizing water movement in a deep, layered, fractured-basalt vadose zone.

MATERIALS AND METHODS

A 2.6×10^4-m^2 (6.5-acre) circular basin was constructed in the Snake River Plain about 1.4 km (0.9 mi) south of the RWMC at the INEL (Figure 1). The relatively thin soil cover in the basin area was scraped to remove existing vegetation and provide soil to build a 1.2-m (4-ft) high water-confining berm. In general, the basin bottom was planed to a consistent level. However, the underlying basalt was encountered in some areas of the basin during this operation. Consequently, the basin bottom is not entirely flat. The resulting soil cover thickness in the basin ranges from zero near the center to about 3.7 m (12 ft) near the southwest portion of the basin.

Well water from a concurrent aquifer pumping test conducted about 1.5 km (0.9 mi) from the basin was pumped to the basin from 25 July to 31 July 1994 and from 11 August to 31 August 1994. Water was pumped into the basin at a rate of 11,370 L/min (3,000 gpm) until the basin was filled [approximately 31.65×10^6 L (8.35×10^6 gal)]. Filling required about two days. The infiltration rate was fairly consistent during the experiment at about 11 cm/d (0.4 ft/d). Since the infiltration rate was less than the pumping rate, excess water was diverted to a spreading area 1.8 km (1.1 mi) from the aquifer pump test well. Figure 2 shows basin water levels during the LIST. The large decrease in water level in the basin beginning on 1 August 1994 follows the addition of tracers into the basin water. No water was added to the basin during an 11-day period following tracer addition in order to maintain a constant concentration of tracers during infiltration. During this interval, the basin drained to approximately 3.03×10^6 L (0.80×10^6 gal), roughly one-tenth of the original volume. After 11 days, tracer-free water was again added to the basin. Tracer transport aspects of the Large Scale Infiltration Test are discussed by Newman et al. (1995).

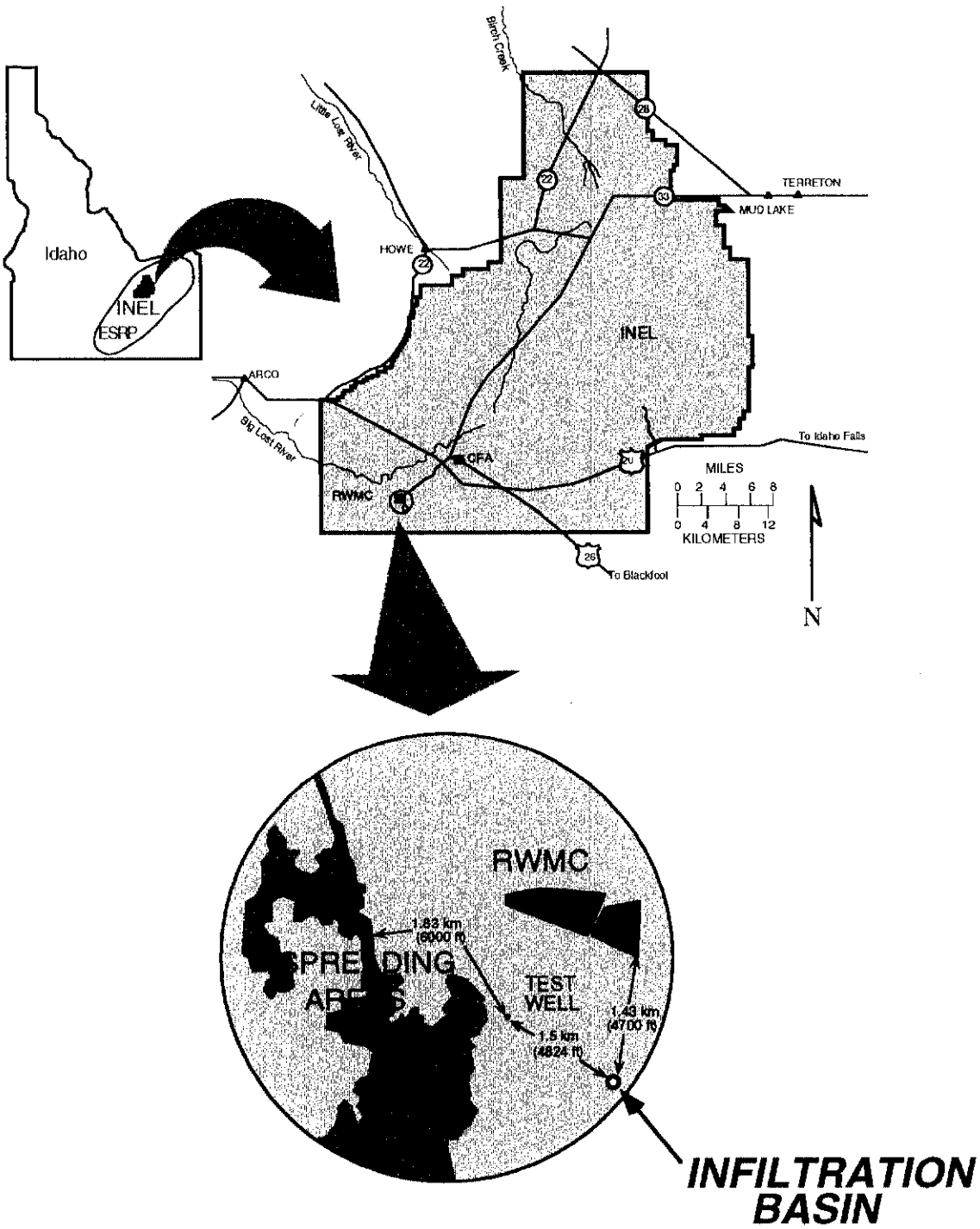

Figure 1. Location of the Large-Scale Infiltration Test with respect to the INEL and the state of Idaho.

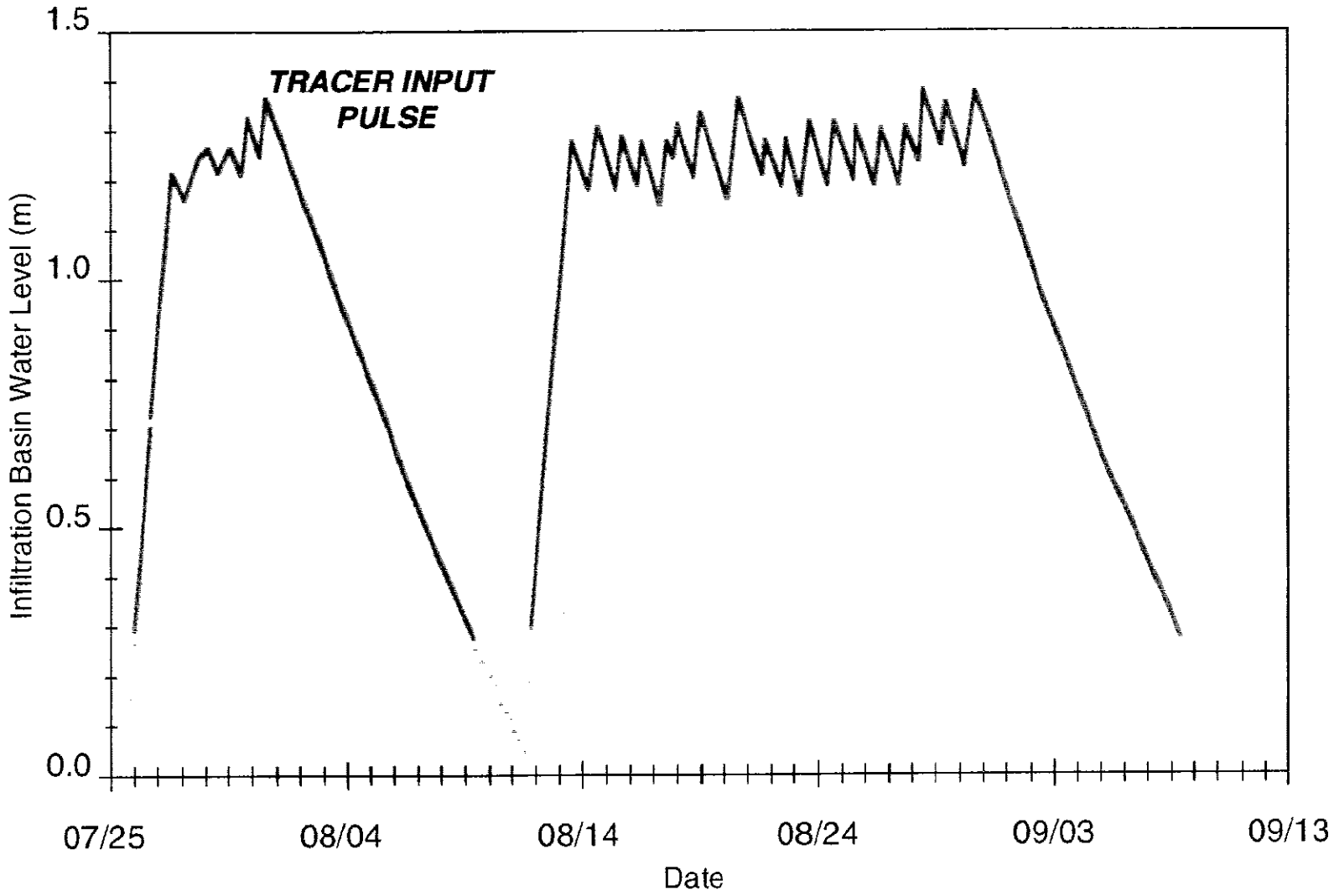

Figure 2. Infiltration basin water levels during the Large-Scale Infiltration Test.

Monitoring wells were drilled to track water movement in the vadose zone both beneath and adjacent to the infiltration basin (Figure 3). At each monitoring location, a well was drilled to the top of the 54.9-m (180-ft) sedimentary interbed. At the four locations within the basin (the "A" ring of wells) and at eight locations surrounding the basin (the "C" ring of wells), two additional wells were drilled to shallower levels anticipated to be high permeability zones based on caliper and video log analyses of the deeper wells. The "A" ring wells are located about 46 m (150 ft) from the center of the basin. The "B", "C", and "E" ring wells are located 15, 92, and 229 m (50, 300, and 750 ft) from the edge of the basin.

Each neutron probe monitoring well had three names during the infiltration test (each name was used for a different purpose). A six- or seven-digit alpha-numeric name was initially assigned to each well uniquely identifying the well location, type, and depth. The first digit of this name is a letter indicating distance from the center of the infiltration basin [A=46 m (150 ft), B=107 m (350 ft), C=183 m (600 ft), and E=320 m (1,050 ft)]. The second two digits (numbers) indicate the radial on which the well is located. Radials are numbered sequentially clockwise around the infiltration basin. The fourth digit (letter) indicates the well type (A=aquifer, B=backfill, C=cluster, N=neutron probe, and O=open). The last two digits (numbers) indicate well depth [11-19=surface to 55 m (180 ft), 21-29=55 m (180 ft) to 73 m (240 ft), and 31-39=73 m (240 ft) to aquifer]. A seventh digit was used, as necessary, to indicate a second well drilled at a location where the first well had to be abandoned due to drilling difficulties. A unique two-letter code was subsequently assigned to each well to serve as part of the filename for data files generated during the test. A unique two-number code was also assigned to each neutron probe monitoring well for use in each neutron probe data file. The names for these wells are shown in Table 1.

The wells were air-rotary drilled with a 20.0-cm (7-⅞-in.) diameter bit. After drilling, the wells were characterized using caliper, gamma, gamma-gamma, neutron, and video logs. Most of these wells were cased with 10.2-cm (4-in.) diameter schedule 40, PVC pipe, which was slotted and open at the bottom end. Four of the wells (the "E" ring wells) were cased with

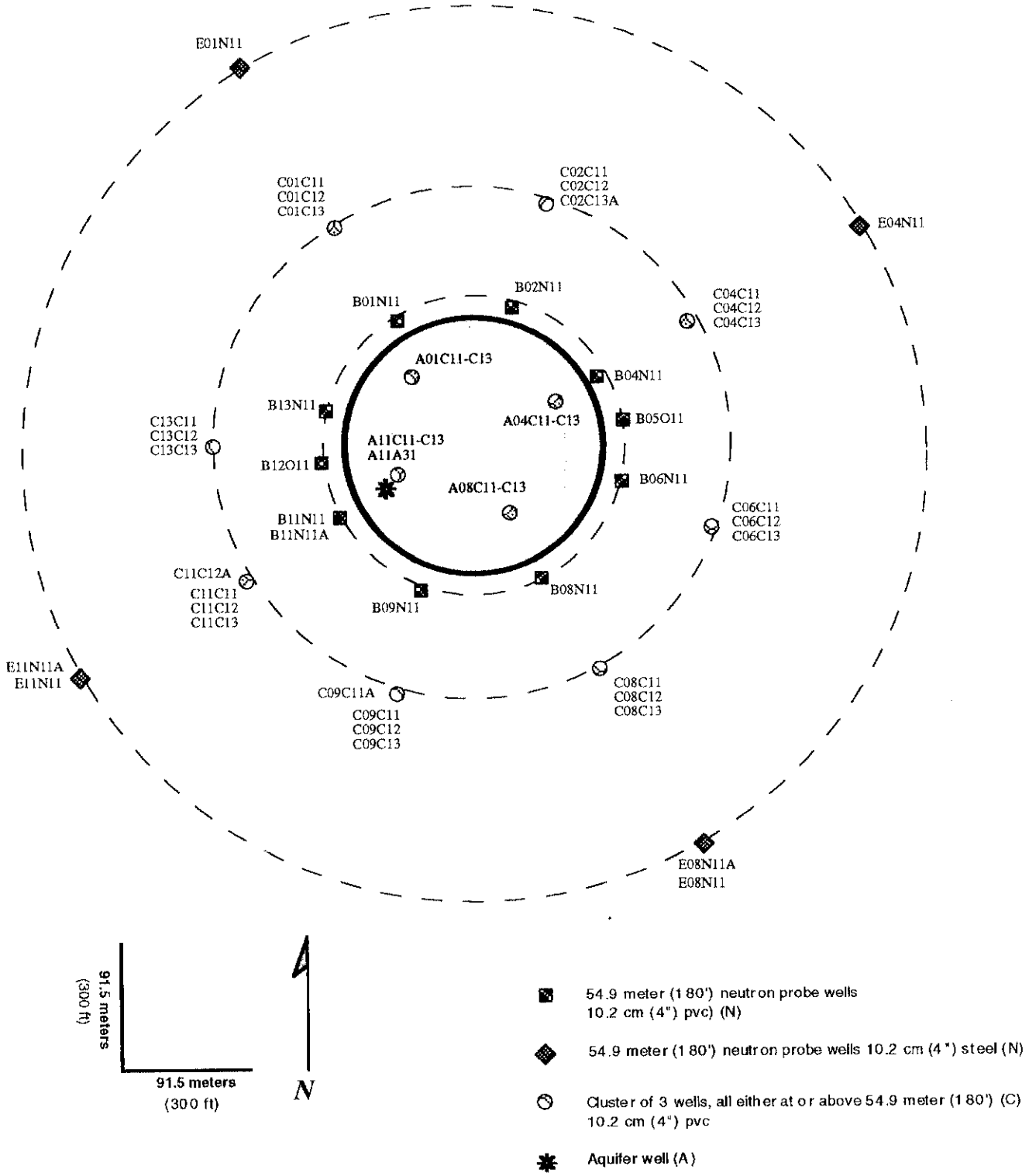

Figure 3. Neutron probe monitoring well network at the Large-Scale Infiltration Test.

Table 1. Neutron probe monitoring well names.

CPN Code	Filename Code	Well Name	CPN Code	Filename Code	Well Name	CPN Code	Filename Code	Well Name
1	MA	A11A31	20	EF	B04N11	39	KD	C09C12
2	AJ	E01N11	21	EG	C04C11	40	KE	C09C13
3	EJ	E04N11	22	EH	C04C12	41	MC	A11C11
4	IK	E08N11A	23	EI	C04C13	42	MD	A11C12
5	MN	E11N11A	24	GA	B06N11	43	ME	A11C13
6	AB	A01C11	25	GB	C06C11	44	MH	B11N11A
7	AC	A01C12	26	GC	C06C12	45	MI	C11C11
8	AD	A01C13	27	GD	C06C13	46	MK	C11C12A
9	AF	B01N11	28	IB	A08C11	47	ML	C11C13
10	AG	C01C11	29	IC	A08C12	48	OA	B13N11
11	AH	C01C12	30	ID	A08C13	49	OB	C13C11
12	AI	C01C13	31	IF	B08N11	50	OC	C13C12
13	CA	B02N11	32	IG	C08C11	51	OD	C13C13
14	CB	C02C11	33	IH	C08C12	52	FA	B05O11
15	CC	C02C12	34	II	C08C13	53	LB	B09G11
16	CD	C02C13A	35	IJ	E08N11	54	LC	B10G11
17	EB	A04C11	36	KA	B09N11	66	NA	B12O11
18	EC	A04C12	37	KB	C09C11			
19	ED	A04C13	38	KC	C09C11A			

10.2-cm (4-in.) diameter steel pipe, open and slotted at the bottom. In addition to serving as neutron probe monitoring wells, all of these wells were designed to allow the collection of water samples from the bottom of the wells and for measuring the depth of any standing water at the bottom of the wells. [Standing water was measured daily using a water level indicator consisting of an electrode attached to a depth-incremented cable that sounds a buzzer if the electrode encounters water. The collection of water samples is described in Newman et al. (1995).] Slotted lengths were determined based on the length of fracture or rubble zone within that immediate area (which varied from well to well). The annular space around the casing was filled with alternating layers of granular bentonite (10-20 mesh) and silica sand (8-12 mesh). Layering was uniquely determined for each well based on analysis of its caliper, gamma, and video logs. The annular space within zones anticipated to have high permeability was filled with sand to provide a zone around the well casing that was better suited than bentonite for neutron and gamma probe monitoring. The vertical length of the sand zones was minimized to limit vertical water flow in the annular space. Bentonite was used to seal the annular space, thus preventing it from serving as a conduit for vertical water flow. Figure 4 shows a typical completion diagram for the neutron probe monitoring wells. Most of the monitoring wells were completed in the fall of 1993.

Water movement and changes were monitored using 503DR HYDROPROBES® (Boart Longyear CPN Co., Martinez, CA). Neutron probe monitoring during the LSIT was based on plans outlined in previous project documents (Norrell et al., 1994a; Norrell et al., 1994b; Porro et al., 1994). Measurements were made at 0.3-m (1-ft) increments. Typically, the probe was lowered to the deepest depth to be measured, a 16-second count was made and recorded, the probe was raised to the next measurement position, another 16-second count was made and recorded, and so on until the entire well was logged. One 183-m (600-ft) cable and six 61-m (200-ft) cables were selectively used for lowering the probes into the wells. Records of which probe and cable were used to log a particular well were maintained by labelling probes and cables and recording this information in the logbook during logging. Eighteen college students from around the country were hired to operate the probes. Each operator received required Nuclear Regulatory Commission (NRC) training as well as safety, Rad Worker II, equipment

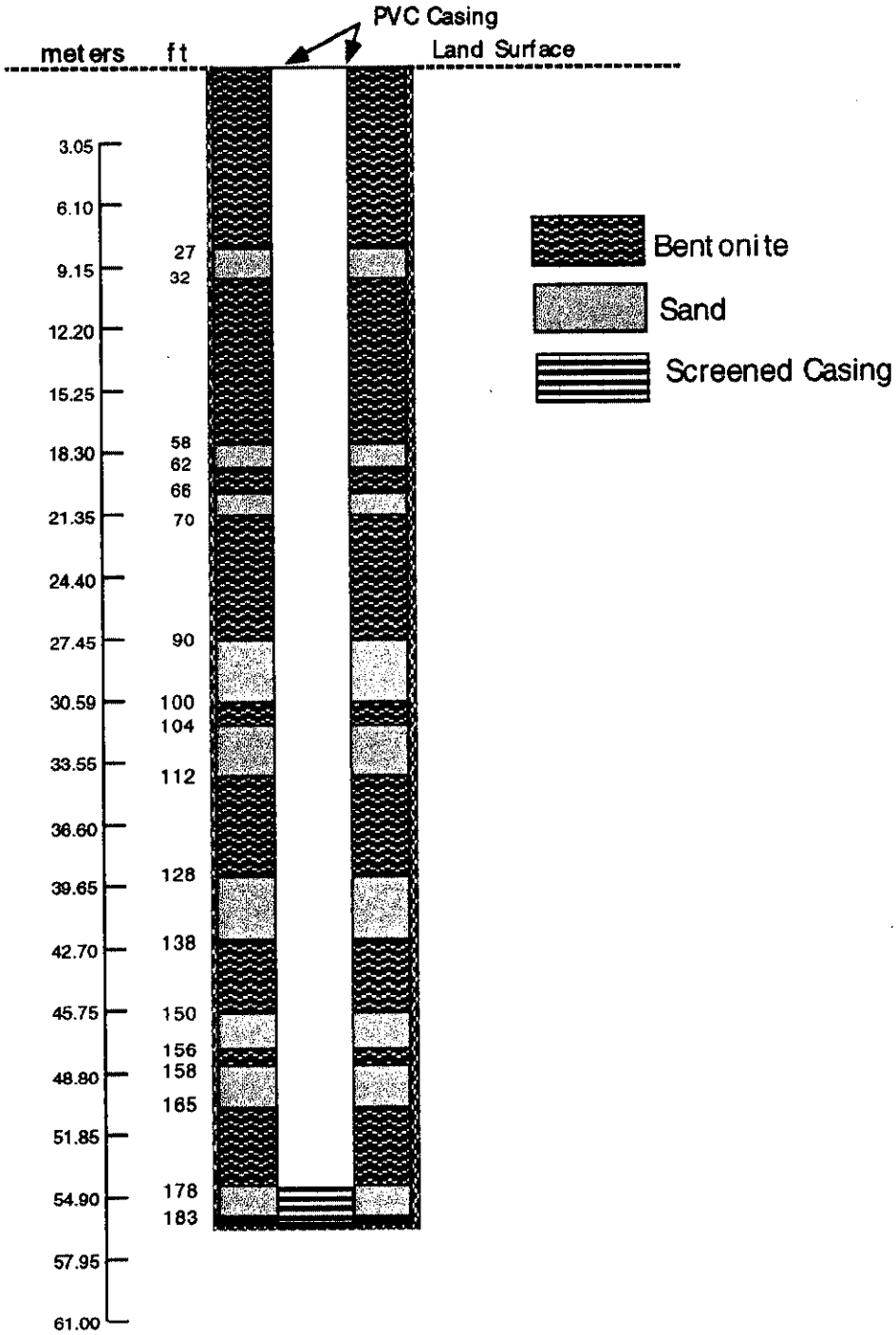

Figure 4. Typical completion diagram for neutron probe monitoring wells at the Large-Scale Infiltration Test.

operation, application, and field maintenance training.

Initially, the downward rate of water movement was unknown; therefore, only selected depth zones (those thought to contain flow paths) were monitored to cover as many wells as possible in the shortest period of time. As the pattern of water movement became more obvious during the test, monitoring efforts were concentrated in wells where water movement was evident, with each well being logged in its entirety. The other wells continued to be monitored, but on a less frequent basis. Logging was performed around-the-clock. Approximately 1091 CPN neutron probe logs were generated from the start of infiltration on 25 July 1994 to 10 November 1994. Table 2 summarizes the frequency of wells logged.

Because the distances between the wells were extensive, and the neutron probes, cables, and associated materials needed at each well were heavy and cumbersome to carry from well to well, several carts were fabricated to assist the loggers. Each cart provided a storage and use reel for the cable and secure storage space for the probe (in its protective case) and miscellaneous materials.

Seven neutron probes of the same model were used during the test to provide increased coverage of the test wells. Readings from the different probes were correlated to one another (see Appendix A) using test pits set up with different moisture conditions. This allowed readings made with one probe in a given well to be compared to readings made with one of the other probes in the same well. Five of the neutron probes produced counts that did not significantly deviate from one another. Counts from a sixth probe displayed a similar but elevated profile, and counts from the last probe randomly deviated from the others. The head from the last probe was returned to the Boart Longyear CPN Co. for factory calibration. When it was returned, counts from this probe were similar to the others. Test pit data also showed that the CPN probes could distinguish moisture changes beyond the boreholes, i.e., through PVC casing and wet bentonite - the well completion materials used at the LSIT that minimize the radius of influence of these probes (see Appendix A).

Table 2. Frequency of CPN neutron probe logs generated from initiation of infiltration.

Frequency	Well Name	Frequency	Well Name	Frequency	Well Name
48	A08C11	25	C08C11	11	C04C13
45	A11C11	24	A04C13	11	C09C13
45	A08C12	22	C02C11	10	C06C13
44	A08C13	21	C04C11	10	C02C12
41	A01C11	20	A04C11	10	A11A31
40	A11C12	17	C06C11	10	C01C13
39	B11N11A	17	C01C11	9	C13C13
38	B06N11	16	C09C11	9	C11C13
36	B01N11	15	C04C12	6	C11C12A
36	A01C13	14	B12O11	6	C09C11A
36	A04C12	14	C06C12	6	E04N11
36	A01C12	14	C13C11	6	B10G11
33	A11C13	13	C11C11	4	E11N11A
32	B02N11	12	C08C13	3	E01N11
30	B04N11	12	C09C12	2	E08N11A
30	B09N11	12	C08C12	2	E08N11
30	B13N11	11	C02C13A	1	B09G11
30	B08N11	11	C13C12		
25	B05O11	11	C01C12		

The test pits were constructed from corrugated steel highway culvert with a metal plate welded to the bottom, forming a container sealed at the bottom end and open at the top. Wells identical to those installed in the field were constructed and installed in the center of the containers. The wells were surrounded by crushed basalt. The material used to fill the annular space of the wells was either sand or bentonite in a given pit and not layered. Eight pits were constructed with various combinations of air-dry or saturated crushed basalt and annular fill material. A ninth pit was constructed with just a 10.2-cm (4-in.) diameter PVC casing surrounded by water. Details describing the test pit construction and use are provided in Appendix A.

All neutron probe wells at the test site were monitored at least once during the month just prior to the experiment to determine background moisture levels. In most cases, wells were logged several times with several different probes. Measurements made during the test were compared to the appropriate background log measurements to determine whether changes were occurring. Raw neutron probe counts were used in the analyses and no attempt was made to calibrate probe counts to water content. At each depth of measurement, a higher number of counts compared to the background level was taken as an increase in moisture. The positive difference between a given reading and the background was considered a real increase in moisture and not just the result of natural variation in readings if the difference continued to increase in subsequent logs.

The neutron probes were loaded with software written specifically for the LSIT project. The software, installed at the Boart Longyear CPN Co. headquarters, permitted logging 48 records (wells) to a 61-m (200-ft) depth at 0.3-m (1-ft) increments. The automated features of the probes were used to store neutron counts in the instrument's electronic memory until these data could be downloaded onto a diskette. Typically, several wells were logged with a probe before data were downloaded to a diskette. Upon successful downloading, procedures called for reformatting the probe, thus erasing all previous records from its electronic memory. Diskettes containing the downloaded CPN neutron probe data were routinely given to the project data management personnel.

At the conclusion of the LSIT, incomplete sets of CPN neutron probe data files existed in five places: (1) on the original data diskettes, (2) on the project archive Bernoulli disk, (3) on a UNIX workstation hard drive in association with PV-Wave visualization and processing software, (4) in a Quattro Pro spreadsheet, and (5) in backup files maintained during data management activities. These sets were considered incomplete because each set was missing some files that could be found in one or more of the other sets. All five sources were used to compile a complete set of CPN neutron probe data files prior to data analysis. This comprehensive CPN neutron probe data base was built around the set of files associated with the PV Wave software (set 3) because access to these files during the test was more limited than access to files in the other sets and because this file set was the most complete. Access to files on the project archive Bernoulli disk (set 2) was also limited compared to the remaining file sets. Because of increased access to approximately one-half of the original data diskettes (set 1) and file sets 4 and 5, these file sources were used only if missing files could not be found in the other sets and any of these files that were used were flagged (see Table 3).

The set of files associated with the PV Wave software (set 3) was copied to a separate computer directory. Missing files were then obtained from the controlled set of original data diskettes (set 1) and from the archive Bernoulli disk (set 2) and added to this directory. All remaining missing files at this point were obtained from the remaining file sets.

Table 3 lists the files that were added to the original PV Wave-assorted file set. Table 4 lists the complete set of CPN neutron probe data files in chronological order. Table 5 lists the complete set of CPN neutron probe files sorted by well name and includes data on date and time the well was logged, specific CPN neutron probe used, and the tracking number of the original diskette where the data resides.

Files in this database were then processed by utilizing PV Wave software. This process checked approximately ten parameters for reasonableness. These included file name, date, time, well name, elevation, neutron count, and probe name. These parameters were checked to ensure

Table 3. List of files added to files in PV Wave directory.

E187s1wa.a*

E218m1wc.a*

E232c1wf.a*

E232d1wa.a*

E232d1wg.a*

E242r1wa.a*

E242r1wb.a*

E242r1wf.a*

E243p1wa.a*

E243q1wf.a

E244q1wa.a*

E244q1wb.a*

E244q1wf.a*

E245p1wa.a

E245p1wf.a

E247h1wa.a

E247h1wb.a

E249h1wa.a

E250k1wa.a

E250p1wa.a

E250p1wb.a

*Indicates files obtained from an uncontrolled source.

Table 4. List of files in the CPN database.

e175p1wa.a
e187s1wa.a
e187s1wb.a
e187s1wd.a
e187s1wf.a
e192v1wa.a
e192v1wb.a
e192v1wc.a
e192v1wd.a
e192v1we.a
e192v1wf.a
e193u1wa.a
e193u1wb.a
e193u1wd.a
e193v1wc.a
e194p1wa.a
e194s1wb.a
e194w1wb.a
e194w1wd.a
e194x1wc.a
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e199w1wb.a
e200t1wa.a
e206p1wc.a
e206p1we.a
e206q1wb.a
e206s1wa.a
e206w1wa.a
e206w1we.a
e206x1wb.a
e206x1wc.a
e207c1wb.a
e207d1we.a
e207e1wa.a
e207g1wa.a
e207g1wb.a
e207g1wc.a
e207k1wb.a
e207l1wa.a
e207l1wc.a
e207m1wf.a
e207q1wa.a
e207q1wb.a
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e207w1wa.a
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e207x1wc.a
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e208f1wa.a
e208f1wb.a
e208g1wh.a
e208i1wb.a
e208k1wh.a
e208n1wa.a
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e208o1wg.a
e209b1wa.a
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e209b1wf.a
e209c1wa.a
e209g1wb.a
e209g1wc.a
e209l1wa.a
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e210r1wb.a
e210s1wc.a
e210s1we.a
e211f1wa.a
e211f1wb.a
e211f1we.a
e211p1wb.a
e211p1wc.a
e211q1wa.a
e211r1wa.a
e211r1wb.a
e211s1wb.a
e211s1wc.a
e212a1wb.a
e212a1wc.a
e212a1we.a
e212c1wa.a
e212g1wb.a
e212g1wg.a
e212r1we.a
e212s1wa.a
e212s1wc.a
e214e1wb.a
e214f1wa.a
e214f1wc.a
e214f1we.a
e214k1we.a
e214m1wc.a
e214o1wa.a
e214p1wb.a
e214p1wc.a
e214r1wa.a
e214r1wb.a
e214s1wc.a
e215a1wb.a
e215e1wa.a
e215f1wc.a
e215f1wg.a
e215g1wa.a
e215h1wc.a
e215n1wb.a
e215p1wb.a
e215q1wa.a
e215s1wc.a
e215s1we.a
e215v1wb.a
e215x1wc.a
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e216g1wa.a
e216i1wb.a
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e216m1wa.a
e216n1wb.a
e216r1wb.a
e216r1we.a
e217b1wc.a
e217b1wg.a
e217j1wa.a
e217l1wc.a
e217o1wb.a
e217r1wa.a
e217r1wb.a
e217r1wc.a
e218d1wa.a
e218e1wc.a
e218f1wb.a
e218n1wa.a
e218o1wb.a
e218s1wa.a
e218u1wc.a
e219c1wb.a
e219g1wc.a
e219l1wb.a
e219m1wc.a
e219m1we.a
e219s1wc.a
e219u1wb.a
e219w1wa.a
e219w1we.a
e220f1wb.a
e220f1wc.a
e220f1wg.a
e220h1wb.a
e220i1wc.a
e220i1wg.a
e220q1wa.a
e220q1wc.a
e220q1wg.a
e221c1wg.a
e221e1wa.a
e221e1we.a
e221e1wg.a
e221m1wa.a
e221m1we.a
e221n1wg.a
e221r1wa.a
e221r1we.a
e222b1we.a
e222b1wg.a
e222c1wa.a
e222g1we.a
e222r1wb.a
e222s1wa.a
e222s1wg.a
e223g1we.a
e223g1wh.a
e223h1wb.a
e223p1wb.a
e223p1we.a
e224e1wa.a
e224e1wb.a
e224e1wc.a
e224e1we.a
e224p1wb.a
e224p1wc.a
e224q1we.a
e225d1wb.a
e225d1wc.a
e225d1we.a
e225e1wa.a
e225e1wb.a
e225e1wc.a
e225e1we.a
e225e1wg.a
e225q1wc.a
e225q1wg.a
e225u1wa.a
e226m1wb.a
e226m1we.a
e226m1wi.a
e226p1wb.a
e226p1we.a
e226p1wg.a
e227e1wa.a
e227e1wb.a
e227e1we.a
e227e1wg.a
e227q1wa.a
e227r1we.a
e228e1wa.a
e228e1wb.a
e228q1wc.a
e229b1wb.a
e229c1wa.a
e229d1wc.a
e229e1wa.a
e229e1wb.a
e229q1wa.a
e229q1wc.a
e229q1wg.a
e230e1wa.a
e230e1wc.a
e230e1wg.a
e230q1wa.a
e230q1wc.a
e230q1wg.a
e230x1a.a
e231e1f.a
e231e1wc.a
e231e1wg.a
e231q1wb.a
e231q1wf.a
e231q1wg.a
e232c1wf.a
e232d1wa.a
e232d1wg.a
e232e1wb.a
e232q1wb.a
e232q1wc.a
e233k1wa.a
e233k1wb.a
e233k1wc.a
e233q1wb.a
e234h1wa.a
e234o1wg.a
e234p1wa.a
e234p1wc.a
e235q1wa.a
e235q1wc.a
e236n1wc.a
e236q1wa.a
e236q1wf.a
e237l1wa.a
e237q1wc.a
e237q1wf.a
e238o1wa.a
e238q1wf.a
e238r1we.a
e239p1wa.a
e239q1we.a
e239q1wf.a
e241i1wb.a
e241o1wf.a
e241o1wg.a
e241q1wa.a
e242o1wa.a
e242o1wb.a
e242r1wa.a
e242r1wb.a
e242r1wf.a
e243p1wa.a
e243q1wf.a
e244q1wa.a
e244q1wb.a
e244q1wf.a
e245p1wa.a
e245p1wf.a
e247h1wa.a
e247h1wb.a
e249h1wa.a
e250k1wa.a
e250p1wa.a
e250p1wb.a
e313p1wb.a
e314p1wa.a

Table 5. CPN files for each well showing date and time logged and the diskette number.

Well	File name	Date	Time	Diskette
1	e200t1wa.a	719	1342	E051
1	e200t1wa.a	719	1424	E051
1	e200t1wa.a	719	1503	E051
1	e2071lwa.a	726	930	E056
1	e218o1wb.a	806	645	E550
1	e219g1wc.a	807	340	E154
1	e219g1wc.a	807	430	E154
1	e219g1wc.a	807	510	E154
1	e219g1wc.a	807	555	E154
1	e239p1wa.a	827	920	E356
1	e241q1wa.a	827	920	E352
2	e195u1wa.a	714	1710	E017
2	e239p1wa.a	827	1025	E356
2	e241q1wa.a	827	1025	E352
2	e243q1wf.a	831	1455	E353
3	e195u1wc.a	713	820	E017
3	e231e1wc.a	819	300	E263
3	e232q1wc.a	820	1043	E291
3	e241i1wb.a	828	1420	E350
3	e242o1wa.a	830	905	E352
3	e245p1wf.a	902	1325	E354
4	e195u1wa.a	714	940	E017
4	e247h1wb.a	903	1430	E355
5	e195u1wb.a	714	1527	E017
5	e244q1wa.a	901	1100	E353
5	e247h1wa.a	903	1240	E355
5	e250k1wa.a	906	930	E357
5	e250p1wa.a	906	930	E357
6	e175p1wa.a	622	1007	E015
6	e175p1wa.a	622	1347	E015
6	e192v1we.a	711	1910	E012
6	e193u1wa.a	712	855	not found
6	e193u1wb.a	712	1030	not found
6	e193u1wd.a	712	1530	not found
6	e193v1wc.a	712	730	not found
6	e206p1we.a	725	1200	E052
6	e206s1wa.a	725	1545	E052
6	e206w1we.a	725	1200	E051
6	e206x1wb.a	725	2215	E054
6	e207c1wb.a	726	110	E055
6	e207k1wb.a	726	650	E056
6	e207q1wb.a	726	1410	E058
6	e209m1wb.a	728	1055	not found
6	e209m1we.a	728	800	not found
6	e209m1we.a	728	900	not found
6	e210b1wb.a	728	2300	E092
6	e211f1wa.a	729	2255	E098
6	e211p1wc.a	730	1035	E100
6	e211q1wa.a	729	2255	E098
6	e211r1wa.a	729	2255	E106
6	e212c1wa.a	730	2014	E107
6	e212c1wa.a	730	2321	E107
6	e214f1wa.a	801	2250	E133
6	e215f1wc.a	803	1	E135
6	e215q1wa.a	803	1218	E139
6	e215x1wc.a	803	2040	E505
6	e216m1wa.a	804	920	E549
6	e2171lwc.a	805	415	E145
6	e218e1wc.a	706	130	E548
6	e219c1wb.a	806	1525	E152
6	e2191lwb.a	807	757	E153
6	e220f1wc.a	808	303	E157
6	e221m1we.a	809	500	E164
6	e222c1wa.a	809	2100	E167
6	e222c1wa.a	809	2100	E167
6	e222r1wb.a	810	821	E168
6	e227q1wa.a	815	945	E640
6	e231e1wc.a	818	2130	E263
6	e233q1wb.a	821	1320	E293
6	e234h1wa.a	821	2045	E294
6	e238r1we.a	826	800	E323
6	e239q1we.a	826	800	E356
7	e192v1we.a	711	1807	E012
7	e193u1wa.a	712	745	not found
7	e193u1wb.a	712	900	not found
7	e193v1wc.a	712	1015	not found
7	e206p1we.a	725	1300	E052
7	e206s1wa.a	725	1431	E052
7	e206w1we.a	725	1300	E051
7	e206x1wb.a	725	2140	E054
7	e207c1wb.a	726	200	E055
7	e207k1wb.a	726	635	E056
7	e207q1wb.a	726	1309	E058
7	e207w1wa.a	726	2001	E039
7	e209b1wb.a	727	1225	E067
7	e209g1wc.a	728	504	not found
7	e209m1we.a	727	1730	not found
7	e209m1we.a	728	1039	not found
7	e210b1wb.a	728	1955	E092
7	e210s1wc.a	729	1535	E095
7	e211p1wc.a	730	900	E100
7	e212c1wa.a	731	4	E107
7	e214f1we.a	801	2339	E133
7	e215f1wc.a	803	419	E135
7	e215q1wa.a	803	1000	E139
7	e215x1wc.a	803	2200	E505
7	e216m1wa.a	804	1040	E549
7	e2171lwc.a	805	855	E145
7	e218e1wc.a	705	2245	E548
7	e219c1wb.a	806	1751	E152
7	e220f1wc.a	807	2145	E157
7	e221m1we.a	809	620	E164
7	e222c1wa.a	810	15	E167
7	e222r1wb.a	810	1054	E168
7	e224e1wb.a	811	2050	E223
7	e230q1wg.a	818	1230	E256
7	e235q1wc.a	823	725	E295
7	e238r1we.a	826	915	E323
7	e239q1we.a	826	915	E356
8	e192v1wa.a	711	2030	E012
8	e193u1wb.a	712	745	not found
8	e193u1wd.a	712	1733	not found
8	e193v1wc.a	712	900	not found
8	e206p1we.a	725	1330	E052
8	e206s1wa.a	725	1515	E052
8	e206w1we.a	725	1330	E051
8	e206x1wb.a	725	2300	E054
8	e207c1wb.a	726	40	E055
8	e207k1wb.a	726	705	E056
8	e207m1wf.a	726	1125	E057
8	e207w1wa.a	726	2140	E039
8	e207x1wc.a	726	1755	E039
8	e209b1wb.a	727	1120	E067
8	e209m1we.a	728	945	not found
8	e210b1wb.a	729	40	E092
8	e211f1wb.a	730	402	E098
8	e211p1wb.a	730	402	E100

Well	File name	Date	Time	Diskette
8	e211p1wc.a	730	1235	E100
8	e211r1wb.a	730	402	E098
8	e212c1wa.a	731	114	E107
8	e214f1we.a	801	2250	E133
8	e215f1wg.a	803	420	E135
8	e215q1wa.a	803	1440	E139
8	e215x1wc.a	803	2305	E505
8	e216m1wa.a	804	1140	E549
8	e217j1wa.a	804	1450	E144
8	e217l1wc.a	805	953	E145
8	e217r1wa.a	804	1450	not found
8	e218e1wc.a	806	330	E548
8	e219l1wb.a	807	927	E153
8	e222c1wa.a	809	2250	E167
8	e222r1wb.a	810	1003	E168
8	e225e1wg.a	814	145	E214
8	e227q1wa.a	815	1150	E640
8	e231e1wg.a	818	2141	E263
8	e235q1wc.a	823	815	E295
8	e238r1we.a	826	1310	E323
8	e239q1we.a	826	1310	E356
9	e192v1wa.a	707	1500	E012
9	e192v1wb.a	711	850	E012
9	e192v1wc.a	711	1050	E012
9	e195u1wd.a	714	1900	E017
9	e206w1wa.a	725	2018	E051
9	e212s1wa.a	731	620	E131
9	e214o1wa.a	802	1223	E142
9	e215a1wb.a	802	2010	E135
9	e215n1wb.a	803	820	E137
9	e217o1wb.a	805	1035	not found
9	e218u1wc.a	806	1618	E152
9	e219s1wc.a	807	1355	E156
9	e221e1we.a	808	2255	E163
9	e221m1we.a	809	840	E164
9	e222g1we.a	810	253	E168
9	e223p1wb.a	811	1020	E205
9	e224p1wb.a	812	1459	E524
9	e225d1we.a	813	56	E214
9	e227e1wb.a	815	110	E219
9	e229q1wc.a	817	945	E254
9	e230q1wc.a	818	1024	E256
9	e231q1wb.a	819	950	E257
9	e233q1wb.a	821	1220	E293
9	e236q1wa.a	824	930	E296
9	e241o1wf.a	829	1010	E351
9	e244q1wb.a	901	1541	E353
10	e195a1wa.a	713	2045	not found
10	e195u1wb.a	714	1043	E017
10	e219m1we.a	807	1105	E155
10	e220q1wa.a	808	1510	E162
10	e222r1wb.a	810	1311	E168
10	e224q1we.a	812	850	E524
10	e225d1we.a	813	1921	E214
10	e225e1we.a	812	850	E202
10	e227e1wa.a	814	2305	E219
10	e230e1wg.a	817	2215	E255
10	e232d1wa.a	820	112	E290
10	e234o1wg.a	822	1036	E294
10	e241i1wb.a	828	948	E350
10	e241q1wa.a	829	1500	E352
10	e242r1wb.a	830	1515	E353
10	e243q1wf.a	831	1400	E353
10	e249h1wa.a	904	750	E355
11	e195a1wa.a	713	2200	not found
11	e195u1wd.a	714	1110	E017
11	e220q1wa.a	808	1410	E162
11	e222s1wa.a	810	1315	E168
11	e225d1we.a	813	1941	E214
11	e225e1wb.a	812	2137	E202
11	e227e1wg.a	814	1916	E219
11	e229q1wg.a	814	1916	E254
11	e230e1wg.a	818	5	E255
11	e232d1wa.a	820	222	E290
11	e234o1wg.a	822	1137	E294
11	e243q1wf.a	831	1315	E353
12	e195a1wa.a	713	2310	not found
12	e195u1wd.a	714	1035	E017
12	e195u1wd.a	714	1040	E017
12	e199t1wb.a	718	1624	E019
12	e199v1wf.a	714	1254	E019
12	e222b1we.a	809	1751	E167
12	e222r1wb.a	810	1420	E168
12	e228e1wb.a	816	320	E250
12	e236q1wa.a	824	1045	E296
12	e241q1wa.a	829	1600	E352
12	e242r1wb.a	830	1600	E353
13	e187s1wf.a	630	1435	not found
13	e187s1wf.a	630	1439	not found
13	e192v1wa.a	707	1338	E012
13	e192v1wb.a	707	1129	E012
13	e192v1wc.a	711	1207	E012
13	e193u1wd.a	712	1110	not found
13	e206w1wa.a	725	1948	E051
13	e212s1wa.a	731	736	E131
13	e214p1wb.a	802	1240	E142
13	e215a1wb.a	802	2230	E135
13	e215s1wc.a	803	825	E140
13	e216b1wa.a	803	1731	E505
13	e216l1wb.a	804	420	E148
13	e218e1wc.a	805	2030	E548
13	e219l1wb.a	807	345	E153
13	e219u1wb.a	807	1616	E156
13	e220f1wb.a	807	1616	E157
13	e220f1wb.a	808	317	E157
13	e221e1we.a	809	37	E163
13	e221n1wg.a	809	1028	E164
13	e222g1we.a	810	525	E168
13	e222s1wa.a	810	1640	E168
13	e223p1wb.a	811	830	E205
13	e224p1wb.a	812	1309	E524
13	e225u1wa.a	813	1915	E203
13	e227e1wb.a	815	235	E219
13	e229q1wc.a	817	1315	E254
13	e230q1wc.a	818	1120	E256
13	e231q1wb.a	819	1100	E257
13	e232q1wb.a	820	730	E291
13	e236n1wc.a	824	905	E296
13	e241o1wf.a	829	1100	E351
13	e244q1wa.a	901	1545	E353
14	e192v1wb.a	707	1300	E012
14	e195u1wa.a	714	1450	E017
14	e219c1wb.a	806	2100	E152
14	e221e1we.a	808	1650	E163
14	e221e1we.a	809	203	E163
14	e224e1wc.a	811	2005	E223
14	e225e1wc.a	813	330	E202
14	e227q1wa.a	815	1415	E640
14	e228q1wc.a	816	1400	E251
14	e228q1wc.a	816	1425	E251
14	e228q1wc.a	816	1500	E251
14	e229d1wc.a	816	1400	E552
14	e229d1wc.a	816	1425	E552
14	e229d1wc.a	816	1500	E552

Well	File name	Date	Time	Diskette
14	e230q1wa.a	818	1315	E256
14	e232e1wb.a	820	221	E291
14	e232e1wb.a	820	250	E291
14	e232e1wb.a	820	313	E291
14	e232e1wb.a	820	338	E291
14	e234h1wa.a	821	2115	E294
14	e241i1wb.a	828	815	E350
14	e245p1wf.a	902	1420	E354
15	e195u1wa.a	714	1200	E017
15	e195u1wb.a	714	745	E017
15	e221e1wa.a	809	155	E163
15	e225e1wb.a	813	324	E202
15	e226p1wb.a	814	1340	E216
15	e228q1wc.a	816	1210	E251
15	e228q1wc.a	816	1250	E251
15	e229d1wc.a	816	1210	E552
15	e229d1wc.a	816	1250	E552
15	e232q1wc.a	820	1410	E291
15	e234p1wa.a	822	1005	E294
15	e242o1wa.a	830	1000	E352
16	e195u1wa.a	714	1330	E017
16	e195u1wb.a	714	900	E017
16	e195u1wc.a	714	1200	E017
16	e220q1wc.a	808	1505	E162
16	e222b1we.a	809	1830	E167
16	e226p1wb.a	814	1500	E216
16	e228q1wc.a	816	1525	E251
16	e228q1wc.a	816	1545	E251
16	e229d1wc.a	816	1525	E552
16	e229d1wc.a	816	1545	E552
16	e232q1wc.a	820	1520	E291
16	e236n1wc.a	824	1000	E296
16	e245p1wf.a	902	1500	E354
17	e192v1wa.a	711	1830	E012
17	e192v1we.a	622	1055	E012
17	e193u1wb.a	712	1443	not found
17	e193v1wc.a	712	1805	not found
17	e194w1wd.a	713	1645	not found
17	e195a1wd.a	713	1645	E017
17	e206p1we.a	725	1425	E052
17	e206w1we.a	725	1425	E051
17	e206x1wb.a	725	1700	E054
17	e207e1wa.a	726	23	E055
17	e207g1wb.a	726	410	E055
17	e207l1wc.a	725	1035	E056
17	e207q1wc.a	725	1035	E058
17	e208o1we.a	727	1140	E068
17	e209b1wa.a	727	2350	E067
17	e209m1wb.a	728	901	not found
17	e209n1wg.a	728	525	not found
17	e210r1wb.a	729	1557	E095
17	e211f1wb.a	730	132	E098
17	e211p1wb.a	730	132	E100
17	e211r1wa.a	730	1236	E106
17	e211r1wb.a	730	132	E098
17	e212a1wb.a	730	2034	E107
17	e212r1we.a	731	1345	E131
18	e192v1wf.a	711	2009	E012
18	e193u1wa.a	712	1453	not found
18	e193v1wc.a	712	1120	not found
18	e193v1wc.a	712	1645	not found
18	e194w1wd.a	713	1520	not found
18	e195a1wd.a	713	1520	E017
18	e196t1wb.a	715	1124	E018
18	e199t1wb.a	715	1124	E019
18	e206p1wc.a	725	1110	E052
18	e206x1wb.a	725	1955	E054
18	e206x1wc.a	725	1110	E054
18	e206x1wc.a	725	1600	E054
18	e207g1wb.a	726	350	E055
18	e207l1wa.a	726	810	E056
18	e208a1wh.a	726	2200	E039
18	e208f1wa.a	727	315	E069
18	e208n1wa.a	727	315	E068
18	e209b1wa.a	727	2100	E067
18	e209b1wb.a	727	1420	E067
18	e209c1wa.a	728	210	not found
18	e209m1wb.a	728	735	not found
18	e209n1wg.a	728	411	not found
18	e210g1wb.a	729	315	E093
18	e210r1wb.a	729	1300	E095
18	e211f1wb.a	729	2020	E098
18	e211p1wb.a	729	2020	E100
18	e211r1wb.a	729	2020	E098
18	e212a1wc.a	730	2200	E107
18	e212a1wc.a	730	2330	E107
18	e225q1wc.a	813	955	E525
18	e229q1wa.a	817	1240	E254
19	e192v1wf.a	711	1908	E012
19	e193u1wa.a	712	1116	not found
19	e193v1wc.a	712	1455	not found
19	e194w1wd.a	713	1425	not found
19	e195a1wd.a	713	1425	E017
19	e196t1wb.a	715	1016	E018
19	e199t1wb.a	715	1016	E019
19	e206p1wc.a	725	1220	E052
19	e206p1we.a	725	1500	E052
19	e206w1we.a	725	1500	E051
19	e206x1wb.a	725	1850	E054
19	e206x1wb.a	725	2100	E054
19	e206x1wc.a	725	1220	E054
19	e207e1wa.a	725	2300	E055
19	e207g1wb.a	726	330	E055
19	e207l1wa.a	726	845	E056
19	e208a1wh.a	726	2045	E039
19	e208f1wa.a	727	230	E069
19	e208n1wa.a	727	230	E068
19	e209b1wa.a	727	2200	E067
19	e209b1wb.a	727	1735	E067
19	e209m1wb.a	728	1002	not found
19	e210g1wb.a	729	520	E093
19	e210j1wa.a	729	835	E093
19	e210r1wb.a	729	1451	E095
19	e212a1wb.a	730	2340	E107
19	e212r1we.a	731	1100	E131
19	e225q1wc.a	813	1120	E525
19	e229q1wa.a	817	1145	E254
20	e192v1wa.a	707	1130	E012
20	e192v1wb.a	707	1045	E012
20	e192v1wb.a	707	1508	E012
20	e192v1wf.a	711	1635	E012
20	e192v1wf.a	711	1658	E012
20	e195u1wd.a	714	1705	E017
20	e206w1we.a	725	1620	E051
20	e206x1wc.a	725	1948	E054
20	e209n1wg.a	728	1200	not found
20	e210b1wb.a	728	1801	E092
20	e212g1wb.a	731	410	E109
20	e212s1wc.a	731	925	E131
20	e214o1wa.a	802	950	E142
20	e215a1wb.a	803	0	E135
20	e216i1wb.a	804	610	E148
20	e218n1wa.a	806	552	E550
20	e218u1wc.a	806	1810	E152

Well	File name	Date	Time	Diskette
20	e219u1wb.a	807	1426	E156
20	e220f1wb.a	807	1426	E157
20	e220q1wa.a	808	1202	E162
20	e221m1we.a	809	1010	E164
20	e223p1wb.a	811	1420	E205
20	e224e1wc.a	812	227	E223
20	e226m1we.a	814	754	E215
20	e228e1wb.a	815	2301	E250
20	e229q1wc.a	817	1430	E254
20	e231e1wg.a	819	135	E263
20	e231q1wb.a	819	1315	E257
20	e234o1wg.a	822	1250	E294
20	e237q1wf.a	825	810	E297
20	e245p1wf.a	902	950	E354
21	e195a1wd.a	713	2255	E017
21	e199v1wc.a	718	935	E019
21	e199w1wa.a	718	1100	E019
21	e214f1wc.a	802	230	E133
21	e219c1wb.a	806	2330	E152
21	e219g1wc.a	806	2110	E154
21	e219m1wc.a	806	2110	E155
21	e221e1wa.a	808	1649	E163
21	e223g1we.a	811	35	E170
21	e224e1we.a	811	30	E223
21	e225d1we.a	812	805	E214
21	e225d1we.a	813	150	E214
21	e227r1we.a	815	1530	E640
21	e227r1we.a	815	1550	E640
21	e227r1we.a	815	1610	E640
21	e227r1we.a	815	1635	E640
21	e230e1wa.a	817	2230	E255
21	e231e1wg.a	819	310	E263
21	e232q1wc.a	820	925	E291
21	e234h1wa.a	821	1950	E294
21	e238r1we.a	826	1500	E323
21	e239q1we.a	826	1500	E356
21	e245p1wf.a	902	820	E354
22	e194w1wd.a	713	2115	not found
22	e195a1wb.a	713	2317	not found
22	e195a1wd.a	713	2115	E017
22	e199v1wc.a	718	1050	E019
22	e199w1wa.a	718	930	E019
22	e214f1wc.a	802	350	E133
22	e221e1wa.a	808	1802	E163
22	e223g1we.a	811	230	E170
22	e224e1we.a	812	200	E223
22	e225d1we.a	813	2215	E214
22	e225u1wa.a	813	808	E203
22	e227e1we.a	814	2210	E219
22	e229c1wa.a	816	1344	E552
22	e231q1wb.a	819	1515	E257
22	e236q1wa.a	824	1200	E296
23	e194w1wd.a	713	2030	not found
23	e195a1wd.a	713	2030	E017
23	e199v1wc.a	718	1145	E019
23	e199w1wa.a	718	1030	E019
23	e214f1wc.a	802	145	E133
23	e219c1wb.a	807	130	E152
23	e220f1wb.a	808	235	E157
23	e222b1wg.a	809	1828	E167
23	e226m1we.a	814	1113	E215
23	e230e1wc.a	817	2232	E255
23	e236q1wa.a	824	1300	E296
23	e238r1we.a	826	1610	E323
23	e239q1we.a	826	1610	E356
24	e192v1wa.a	711	700	E012

Well	File name	Date	Time	Diskette
24	e192v1wc.a	707	1605	E012
24	e193u1wd.a	712	855	not found
24	e195u1wc.a	714	1720	E017
24	e196t1wb.a	715	1347	E018
24	e196t1wb.a	715	1623	E018
24	e199t1wb.a	715	1347	E019
24	e199t1wb.a	715	1623	E019
24	e206q1wb.a	725	1415	E052
24	e206w1wa.a	725	1902	E051
24	e206x1wb.a	725	1415	E054
24	e211s1wc.a	730	1550	E106
24	e212g1wg.a	731	546	E109
24	e212r1we.a	731	701	E131
24	e214r1wb.a	802	1355	E144
24	e214r1wb.a	802	1605	E144
24	e214r1wb.a	802	1640	E144
24	e215h1wc.a	803	540	E137
24	e216r1wb.a	804	1535	E502
24	e218f1wb.a	805	2030	E548
24	e218n1wa.a	806	925	E550
24	e219m1we.a	807	605	E155
24	e220f1wg.a	808	107	E157
24	e220q1wa.a	808	926	E162
24	e221n1wg.a	809	1159	E164
24	e222s1wa.a	810	800	E168
24	e223g1we.a	811	409	E170
24	e223p1we.a	811	1345	E205
24	e224e1wc.a	811	2230	E223
24	e225u1wa.a	813	1450	E203
24	e227e1we.a	814	2331	E219
24	e229q1wg.a	817	1330	E254
24	e230e1wg.a	818	220	E255
24	e231e1f.a	819	300	E263
24	e232q1Wb.a	820	1120	E291
24	e235q1wc.a	823	1310	E295
24	e242r1wa.a	830	1430	E353
24	e249h1wa.a	904	845	E355
25	e192v1wb.a	708	1106	E012
25	e195u1wd.a	714	1343	E017
25	e195u1wd.a	714	1400	E017
25	e214e1wb.a	802	235	E133
25	e221e1we.a	808	1900	E163
25	e223h1wb.a	810	2245	E170
25	e224e1wc.a	812	49	E223
25	e225e1we.a	813	51	E202
25	e227e1we.a	815	304	E219
25	e230e1wc.a	817	1958	E255
25	e231q1wf.a	819	1120	E257
25	e232q1wb.a	820	1330	E291
25	e234o1wg.a	822	821	E294
25	e237l1wa.a	825	925	E297
25	e242r1wa.a	830	1522	E353
25	e243p1wa.a	831	1444	E353
25	e249h1wa.a	904	955	E355
26	e192v1wa.a	708	1105	E012
26	e192v1wa.a	708	1120	E012
26	e195u1wb.a	714	1340	E017
26	e214e1wb.a	801	2145	E133
26	e219w1wa.a	806	1955	E156
26	e221e1wa.a	808	2000	E163
26	e223h1wb.a	811	45	E170
26	e225e1we.a	813	230	E202
26	e226p1we.a	814	1401	E216
26	e230e1wa.a	817	2020	E255
26	e233k1wb.a	821	100	E292
26	e234o1wg.a	822	930	E294
26	e237l1wa.a	825	820	E297
26	e242o1wa.a	830	815	E352

Well	File name	Date	Time	Diskette
27	e195u1wc.a	714	1335	E017
27	e196t1wb.a	715	1745	E018
27	e199t1wb.a	715	1745	E019
27	e214e1wb.a	801	2320	E133
27	e220f1wb.a	808	150	E157
27	e221e1we.a	809	1822	E163
27	e222b1wg.a	809	1854	E167
27	e226p1we.a	814	1320	E216
27	e230e1wa.a	817	1945	E255
27	e236n1wc.a	824	1045	E296
27	e237i1wa.a	825	745	E297
28	e187s1wd.a	624	1115	E011
28	e192v1wb.a	711	1624	E012
28	e196t1wa.a	715	1010	E018
28	e196t1wc.a	715	824	E018
28	e196t1wd.a	715	1808	E018
28	e206p1wc.a	725	1255	E052
28	e206p1wc.a	725	1341	E052
28	e206s1wa.a	725	1715	E052
28	e206x1wc.a	725	1255	E054
28	e206x1wc.a	725	1341	E054
28	e206x1wc.a	725	2138	E054
28	e207g1wc.a	726	540	E055
28	e207l1wc.a	726	540	E056
28	e207l1wc.a	726	815	E056
28	e207q1wa.a	726	1255	E058
28	e207q1wc.a	726	540	E058
28	e207q1wc.a	726	815	E058
28	e207x1wb.a	726	2040	E039
28	e208k1wh.a	727	412	E063
28	e208n1wa.a	727	1015	E068
28	e209b1wf.a	727	2351	E067
28	e209l1wa.a	728	730	not found
28	e210b1we.a	729	15	E092
28	e210s1wc.a	729	1125	E095
28	e211f1we.a	729	2025	E098
28	e211f1we.a	730	230	E098
28	e211p1wb.a	730	1230	E100
28	e212s1wc.a	731	330	E131
28	e214f1we.a	802	303	E133
28	e215f1wc.a	803	133	E135
28	e215s1we.a	803	915	E503
28	e216b1wa.a	803	2057	E505
28	e216l1we.a	803	842	E549
28	e217j1wa.a	804	2200	E144
28	e217j1wa.a	805	209	E144
28	e217r1wa.a	704	2200	not found
28	e217r1wa.a	805	209	not found
28	e217r1wc.a	805	1300	not found
28	e218f1wb.a	806	35	E548
28	e218f1wb.a	806	110	E548
28	e218o1wb.a	806	1053	E550
28	e219m1wc.a	807	1005	E155
28	e219w1wa.a	807	1930	E156
28	e220q1wc.a	808	900	E162
28	e222b1wg.a	809	2310	E167
28	e222s1wa.a	810	955	E168
28	e224e1we.a	811	1610	E223
28	e224q1we.a	812	1455	E524
28	e225e1wc.a	812	1945	E202
28	e225e1we.a	812	1455	E202
28	e227e1wa.a	814	2113	E219
28	e230q1wg.a	818	925	E256
28	e235q1wa.a	823	1030	E295
28	e241o1wg.a	829	755	E351
29	e187s1wd.a	624	1342	E011
29	e187s1wd.a	624	1424	E011
29	e192v1wb.a	711	1920	E012
29	e196t1wa.a	715	805	E018
29	e196t1wc.a	715	1045	E018
29	e196t1wd.a	715	1630	E018
29	e206p1wc.a	725	1427	E052
29	e206x1wc.a	725	1427	E054
29	e206x1wc.a	725	1822	E054
29	e207g1wc.a	726	315	E055
29	e207l1wc.a	726	315	E056
29	e207l1wc.a	726	945	E056
29	e207q1wa.a	726	1500	E058
29	e207q1wc.a	726	315	E058
29	e207q1wc.a	726	945	E058
29	e207x1wb.a	726	2210	E039
29	e208g1wh.a	727	122	E069
29	e208k1wh.a	727	122	E063
29	e208n1wa.a	724	740	E068
29	e209b1wa.a	727	1815	E067
29	e209b1wf.a	727	2104	E067
29	e209l1wa.a	728	900	not found
29	e209q1wb.a	728	1535	E092
29	e210b1we.a	728	810	E092
29	e210g1we.a	729	240	E093
29	e210s1wc.a	729	954	E095
29	e211f1we.a	730	45	E098
29	e211p1wb.a	730	835	E100
29	e212r1we.a	731	300	E131
29	e212s1wc.a	731	1318	E131
29	e214f1wa.a	802	350	E133
29	e215f1wc.a	803	245	E135
29	e216b1wa.a	803	2353	E505
29	e217j1wa.a	805	51	E144
29	e217r1wa.a	805	51	not found
29	e217r1wc.a	805	1500	not found
29	e218f1wb.a	806	400	E548
29	e218f1wb.a	806	425	E548
29	e218o1wb.a	806	1242	E550
29	e220f1wg.a	807	2240	E157
29	e222b1wg.a	809	2118	E167
29	e222s1wa.a	810	1110	E168
29	e225e1wg.a	813	2318	E214
29	e228q1wc.a	816	835	E251
29	e228q1wc.a	816	900	E251
29	e228q1wc.a	816	925	E251
29	e229d1wc.a	816	835	E552
29	e229d1wc.a	816	900	E552
29	e229d1wc.a	816	925	E552
29	e231e1f.a	818	2245	E263
29	e235q1wa.a	823	820	E295
29	e241o1wg.a	829	900	E351
30	e187s1wd.a	624	1256	E011
30	e192v1wc.a	629	1315	E012
30	e194p1wa.a	713	1405	E014
30	e195a1wa.a	713	1405	not found
30	e196t1wb.a	715	805	E018
30	e196t1wc.a	715	946	E018
30	e196t1wd.a	715	1500	E018
30	e199t1wb.a	715	805	E019
30	e206q1wb.a	725	1230	E052
30	e206q1wb.a	725	1530	E052
30	e206x1wb.a	725	1230	E054
30	e206x1wb.a	725	1530	E054
30	e206x1wc.a	725	1730	E054
30	e206x1wc.a	725	2229	E054
30	e207g1wc.a	726	507	E055
30	e207l1wc.a	726	507	E056
30	e207l1wc.a	726	900	E056
30	e207q1wa.a	726	1420	E058
30	e207q1wc.a	726	507	E058
30	e207q1wc.a	726	900	E058

Well	File name	Date	Time	Diskette
30	e207x1wb.a	726	1930	E039
30	e207x1wb.a	726	1935	E039
30	e208g1wh.a	727	253	E069
30	e208n1wa.a	727	920	E068
30	e209b1wa.a	727	1720	E067
30	e209g1wb.a	728	526	not found
30	e209l1wa.a	728	1000	not found
30	e209m1wb.a	728	526	not found
30	e209q1wb.a	728	1320	E092
30	e210b1we.a	728	2315	E092
30	e210g1we.a	729	530	E093
30	e210s1wc.a	729	840	E095
30	e211f1we.a	730	145	E098
30	e211p1wb.a	730	1400	E100
30	e212a1we.a	730	2100	E107
30	e214f1wa.a	802	258	E133
30	e215f1wg.a	803	310	E135
30	e215s1we.a	803	1436	E503
30	e216b1wa.a	803	2245	E505
30	e216g1wa.a	804	356	E148
30	e216l1we.a	804	1000	E549
30	e217j1wa.a	804	2350	E144
30	e217r1wa.a	704	2350	not found
30	e217r1wc.a	805	1605	not found
30	e218f1wb.a	806	210	E548
30	e219m1wc.a	807	1135	E155
30	e220q1wc.a	808	1024	E162
30	e228q1wc.a	816	950	E251
30	e228q1wc.a	816	1010	E251
30	e229d1wc.a	816	950	E552
30	e229d1wc.a	816	1010	E552
30	e231e1f.a	819	130	E263
30	e235q1wa.a	823	730	E295
30	e238o1wa.a	826	1315	E323
31	e192v1wa.a	707	945	E012
31	e192v1wb.a	711	1020	E012
31	e192v1wc.a	711	847	E012
31	e193u1wd.a	712	735	not found
31	e208g1wh.a	727	412	E069
31	e210b1we.a	728	1820	E092
31	e212s1wc.a	731	515	E131
31	e214p1wc.a	802	1430	E142
31	e215s1wc.a	803	945	E140
31	e216r1we.a	804	1436	E502
31	e217j1wa.a	805	400	E144
31	e217r1wa.a	805	400	not found
31	e218f1wb.a	805	2200	E548
31	e218n1wa.a	806	1114	E550
31	e219u1wb.a	807	1236	E156
31	e220f1wb.a	807	1236	E157
31	e220f1wg.a	808	307	E157
31	e221r1wa.a	809	1330	E166
31	e222s1wg.a	810	415	E168
31	e223p1we.a	811	1120	E205
31	e224e1wa.a	812	32	E223
31	e226m1wi.a	814	1115	E215
31	e228e1wb.a	815	2140	E250
31	e229q1wg.a	817	1045	E254
31	e230x1a.a	818	2045	E263
31	e230x1a.a	818	2130	E263
31	e230x1a.a	818	2150	E263
31	e232q1wb.a	820	930	E291
31	e235q1wa.a	823	1300	E295
31	e239q1we.a	827	1435	E356
31	e242r1wf.a	830	1520	E353
31	e249h1wa.a	904	1045	E355
32	e187s1wa.a	630	1431	E011
32	e187s1wf.a	630	1350	not found
32	e192v1wa.a	630	1431	E012
32	e194w1wb.a	713	1955	not found
32	e195a1wb.a	713	1955	not found
32	e196t1wa.a	715	1705	E018
32	e196t1wc.a	715	1445	E018
32	e214f1wc.a	801	2345	E133
32	e215e1wa.a	803	230	E135
32	e219w1we.a	807	1535	E156
32	e221c1wg.a	808	1710	E163
32	e221e1we.a	807	1535	E163
32	e223h1wb.a	811	249	E170
32	e224e1wa.a	812	244	E223
32	e225e1wb.a	813	38	E202
32	e227r1we.a	815	1125	E640
32	e229e1wb.a	817	220	E253
32	e230q1wa.a	818	1045	E256
32	e231q1wf.a	819	1441	E257
32	e233k1wb.a	820	2255	E292
32	e234p1wa.a	822	1240	E294
32	e237q1wc.a	825	1400	E297
32	e239q1we.a	827	1320	E356
32	e241o1wg.a	829	1010	E351
32	e243p1wa.a	831	1400	E353
32	e247h1wb.a	903	1551	E355
33	e194w1wb.a	713	2122	not found
33	e195a1wb.a	713	2122	not found
33	e196t1wa.a	715	1525	E018
33	e196t1wc.a	715	1715	E018
33	e214f1wc.a	801	2125	E133
33	e215e1wa.a	803	54	E135
33	e221c1wg.a	808	1840	E163
33	e225e1wb.a	812	2320	E202
33	e226p1wg.a	814	1400	E216
33	e229e1wb.a	817	339	E253
33	e233k1wb.a	820	2145	E292
33	e234p1wa.a	822	1130	E294
33	e237q1wc.a	825	1155	E297
34	e187s1wa.a	630	1345	E011
34	e192v1wa.a	630	1345	E012
34	e194w1wb.a	713	1915	not found
34	e195a1wb.a	713	1915	not found
34	e196t1wa.a	715	1845	E018
34	e196t1wc.a	715	1630	E018
34	e214f1wc.a	801	2300	E133
34	e215e1wa.a	803	411	E135
34	e222b1we.a	809	2010	E167
34	e226p1wg.a	814	1540	E216
34	e229b1wb.a	817	0	E552
34	e236n1wc.a	824	1115	E296
34	e237q1wc.a	825	1500	E297
34	e242o1wa.a	830	745	E352
35	e195u1wa.a	714	810	E017
35	e244q1wa.a	901	1145	E353
36	e187s1wa.a	706	1500	E011
36	e192v1wa.a	706	1500	E012
36	e192v1wa.a	707	1632	E012
36	e192v1wb.a	711	705	E012
36	e192v1wc.a	708	1035	E012
36	e206w1wa.a	725	2125	E051
36	e212s1wc.a	731	740	E131
36	e214m1wc.a	802	1050	E142
36	e215e1wa.a	802	2257	E135
36	e215n1wb.a	803	1116	E137
36	e216i1wb.a	804	145	E148
36	e217r1wb.a	805	1538	not found
36	e218n1wa.a	806	352	E550

Well	File name	Date	Time	Diskette
36	e219m1we.a	807	329	E155
36	e219s1wc.a	807	1710	E156
36	e220q1wa.a	808	752	E162
36	e221r1we.a	809	1440	E166
36	e222r1wb.a	810	1654	E168
36	e222s1wa.a	810	330	E168
36	e223p1we.a	811	925	E205
36	e224e1wb.a	812	45	E223
36	e224q1we.a	812	1150	E524
36	e225e1we.a	812	1150	E202
36	e226m1wi.a	814	940	E215
36	e228e1wa.a	815	2215	E250
36	e229q1wa.a	817	810	E254
36	e230q1wc.a	818	855	E256
36	e232q1wc.a	820	1210	E291
36	e235q1wc.a	823	1052	E295
36	e239q1wf.a	827	1315	E356
36	e242r1wb.a	830	1420	E353
36	e249h1wa.a	904	1300	E355
37	e194x1wc.a	713	2054	not found
37	e199t1wb.a	718	1319	E019
37	e215v1wb.a	803	1815	E204
37	e219w1we.a	807	1400	E156
37	e220q1wg.a	808	1330	E162
37	e221e1we.a	807	1400	E163
37	e223h1wb.a	811	537	E170
37	e224p1wb.a	812	858	E524
37	e225d1wb.a	813	2240	E214
37	e229b1wb.a	816	2055	E552
37	e230q1wa.a	818	830	E256
37	e232c1wf.a	819	2017	E290
37	e233q1wb.a	821	1524	E293
37	e234p1wa.a	822	730	E294
37	e239q1wf.a	827	1430	E356
37	e242o1wa.a	830	1111	E352
37	e245p1wa.a	902	1400	E354
38	e194x1wc.a	713	2234	not found
38	e195u1wd.a	714	820	E017
38	e220q1wg.a	808	1110	E162
38	e227r1we.a	815	900	E640
38	e242o1wb.a	830	1115	E352
38	e242r1wb.a	830	1115	E353
38	e249h1wa.a	904	1415	E355
39	e194x1wc.a	713	1735	not found
39	e199t1wb.a	718	942	E019
39	e215v1wb.a	803	1705	E204
39	e220q1wg.a	808	1530	E162
39	e225e1wc.a	813	120	E202
39	e226m1wi.a	814	755	E215
39	e229b1wb.a	816	2215	E552
39	e233k1wb.a	820	2020	E292
39	e234p1wa.a	822	854	E294
39	e236q1wf.a	824	1410	E296
39	e238q1wf.a	826	1515	E323
39	e245p1wa.a	902	1445	E354
40	e194x1wc.a	713	2006	not found
40	e199t1wb.a	718	1122	E019
40	e199w1wa.a	718	2055	E019
40	e199w1wa.a	718	2059	E019
40	e215v1wb.a	803	1625	E204
40	e215v1wb.a	803	1645	E204
40	e222c1wa.a	809	1830	E167
40	e226m1wi.a	814	900	E215
40	e229b1wb.a	816	2327	E552
40	e236n1wc.a	824	1155	E296
40	e245p1wa.a	902	1515	E354

Well	File name	Date	Time	Diskette
41	e192v1we.a	711	1540	E012
41	e194s1wb.a	713	1535	E014
41	e194w1wb.a	713	1535	not found
41	e195a1wb.a	713	1535	not found
41	e196t1wc.a	715	1212	E018
41	e196t1wc.a	715	1200	E018
41	e206s1wa.a	725	1145	E052
41	e206s1wa.a	725	1210	E052
41	e206w1we.a	725	1915	E051
41	e207e1wa.a	726	311	E055
41	e207g1wa.a	726	519	E055
41	e207l1wa.a	726	519	E056
41	e207l1wa.a	726	1010	E056
41	e207q1wc.a	726	1405	E058
41	e207w1wa.a	726	1745	E039
41	e207x1wc.a	726	2035	E039
41	e208f1wb.a	727	143	E069
41	e208i1wb.a	727	143	E063
41	e209b1wb.a	727	2350	E067
41	e210b1wa.a	728	1900	E092
41	e210g1wa.a	729	304	E093
41	e210s1we.a	729	1533	E095
41	e211r1wa.a	730	837	E106
41	e211s1wb.a	730	1555	E106
41	e212g1wb.a	731	230	E109
41	e215s1wc.a	803	1227	E140
41	e215s1wc.a	803	1338	E140
41	e216n1wb.a	804	935	E549
41	e216n1wb.a	804	1220	E549
41	e217b1wc.a	804	100	E502
41	e217b1wg.a	804	2105	E502
41	e217b1wg.a	805	55	E502
41	e217o1wb.a	805	1145	not found
41	e218d1wa.a	805	2319	E547
41	e218o1wb.a	806	902	E550
41	e219g1wc.a	806	2300	E154
41	e219m1wc.a	806	2300	E155
41	e220f1wb.a	807	2017	E157
41	e221c1wg.a	808	2245	E163
41	e222b1we.a	809	2100	E167
41	e222s1wg.a	810	1230	E168
41	e224p1wc.a	812	930	E524
41	e225e1wg.a	813	2143	E214
41	e227e1we.a	814	2009	E219
41	e229c1wa.a	818	206	E552
41	e229e1wa.a	817	320	E253
41	e229q1wa.a	817	320	E254
41	e230e1wc.a	818	225	E255
41	e231e1wg.a	818	2007	E263
41	e234h1wa.a	822	45	E294
41	e313p1wb.a	908	850	not found
42	e192v1wa.a	711	1505	E012
42	e195u1wb.a	714	1915	E017
42	e196t1wa.a	715	1307	E018
42	e206s1wa.a	725	1240	E052
42	e206w1we.a	725	1810	E051
42	e206w1we.a	725	2105	E051
42	e207e1wa.a	726	226	E055
42	e207g1wa.a	726	544	E055
42	e207l1wa.a	726	544	E056
42	e207q1wc.a	726	1250	E058
42	e207x1wb.a	726	1825	E039
42	e207x1wc.a	726	2155	E039
42	e208f1wb.a	727	326	E069
42	e208i1wb.a	727	326	E063
42	e208n1wa.a	727	1215	E068
42	e208o1wg.a	727	1350	E064
42	e209b1wb.a	727	2135	E067
42	e209g1wb.a	728	238	not found

Well	File name	Date	Time	Diskette
42	e209glwb.a	728	255	not found
42	e209mlwb.a	728	238	not found
42	e209mlwb.a	728	255	not found
42	e210blwa.a	729	3	E092
42	e210glwa.a	729	515	E093
42	e210glwa.a	729	600	E093
42	e211flwe.a	730	440	E098
42	e211rlwa.a	730	934	E106
42	e212slwa.a	731	244	E131
42	e215slwc.a	803	1645	E140
42	e216nlwb.a	804	1130	E549
42	e217blwc.a	804	220	E502
42	e217blwg.a	804	2335	E502
42	e217olwb.a	805	1300	not found
42	e218dlwa.a	805	2354	E547
42	e220flwb.a	807	2055	E157
42	e221clwg.a	809	15	E163
42	e222blwe.a	809	2355	E167
42	e222slwg.a	810	1700	E168
42	e224elwb.a	811	2230	E223
42	e224plwc.a	812	1200	E524
42	e229clwa.a	816	838	E552
42	e231elwc.a	818	2000	E263
42	e235qlwc.a	823	915	E295
42	e238olwa.a	826	830	E323
42	e313plwb.a	908	1000	not found
43	e192vlwb.a	711	1412	E012
43	e194slwb.a	713	1404	E014
43	e194wlwb.a	713	1404	not found
43	e195alwb.a	713	1404	not found
43	e196tlwa.a	715	1206	E018
43	e196tlwc.a	715	1324	E018
43	e206slwa.a	725	1342	E052
43	e207dlwe.a	725	2230	E055
43	e207elwa.a	726	133	E055
43	e207glwa.a	726	604	E055
43	e207llwa.a	726	604	E056
43	e207qlwc.a	726	1455	E058
43	e207xlwb.a	726	1755	E039
43	e207xlwc.a	726	1940	E039
43	e208flwb.a	727	55	E069
43	e208ilwb.a	727	55	E063
43	e209blwb.a	727	2020	E067
43	e209glwb.a	728	150	not found
43	e209mlwb.a	728	150	not found
43	e210blwa.a	728	2310	E092
43	e211rlwa.a	730	1032	E106
43	e211slwb.a	730	1723	E106
43	e212slwc.a	731	230	E131
43	e215slwc.a	803	1600	E140
43	e216nlwb.a	804	1040	E549
43	e217blwc.a	804	330	E502
43	e217blwg.a	804	2230	E502
43	e217olwb.a	805	1350	not found
43	e218dlwa.a	806	202	E547
43	e219glwc.a	807	25	E154
43	e219mlwc.a	807	25	E155
43	e222blwe.a	809	2215	E167
43	e222slwg.a	810	1445	E168
43	e229clwa.a	816	945	E552
43	e230elwc.a	818	359	E255
43	e230qlwg.a	818	800	E256
43	e235qlwc.a	823	1005	E295
43	e238olwa.a	826	755	E323
43	e250plwa.a	907	1045	E357
44	e187slwa.a	706	1401	E011
44	e187slwb.a	706	1120	E011
44	e187slwf.a	706	1252	not found

Well	File name	Date	Time	Diskette
44	e192vlwa.a	706	1401	E012
44	e192vlwb.a	706	1120	E012
44	e192vlwc.a	711	717	E012
44	e192vlwd.a	711	1100	E012
44	e192vlwe.a	711	1452	E012
44	e206wlwa.a	725	2200	E051
44	e214plwc.a	802	1325	E142
44	e214slwc.a	802	1720	E144
44	e215plwb.a	803	1420	E139
44	e216glwa.a	804	225	E148
44	e217olwb.a	805	940	not found
44	e218ulwc.a	806	1411	E152
44	e219slwc.a	807	1820	E156
44	e219wlwa.a	807	234	E156
44	e220hlwb.a	808	615	E158
44	e221elwa.a	809	2	E163
44	e221rlwe.a	809	1330	E166
44	e222rlwb.a	808	615	E168
44	e222slwa.a	810	230	E168
44	e223hiwb.a	810	1815	E170
44	e223plwe.a	811	820	E205
44	e224elwe.a	811	1830	E223
44	e224qlwe.a	812	1025	E524
44	e224qlwe.a	812	1025	E524
44	e225dlwc.a	813	2200	E214
44	e225elwe.a	812	1025	E202
44	e225elwe.a	812	1025	E202
44	e227elwb.a	814	2000	E219
44	e229dlwc.a	817	212	E552
44	e230qlwc.a	818	755	E256
44	e231qlwg.a	819	1507	E257
44	e233qlwb.a	821	1429	E293
44	e234plwa.a	822	1431	E294
44	e236qlwf.a	824	1540	E296
44	e239qlwf.a	827	1615	E356
44	e241ilwb.a	828	1320	E350
44	e244qlwf.a	901	1530	E353
44	e250plwb.a	907	1437	E357
45	e192vlwa.a	711	1150	E012
45	e214mlwc.a	802	910	E142
45	e220ilwg.a	808	735	E158
45	e222rlwb.a	810	1526	E168
45	e224elwe.a	811	2020	E223
45	e225dlwb.a	814	120	E214
45	e225elwc.a	812	2215	E202
45	e228elwa.a	816	115	E250
45	e232dlwg.a	820	200	E290
45	e234plwc.a	822	1030	E294
45	e241ilwb.a	828	1109	E350
45	e242rlwf.a	830	1600	E353
45	e245plwa.a	902	930	E354
46	e194xlwc.a	713	1520	not found
46	e214mlwc.a	802	810	E142
46	e225elwe.a	812	2215	E202
46	e229qlwa.a	817	1500	E254
46	e233klwb.a	820	1945	E292
46	e234plwc.a	822	1200	E294
47	e192vlwa.a	711	1100	E012
47	e192vlwb.a	711	1155	E012
47	e206qlwb.a	725	1050	E052
47	e206xlwb.a	725	1050	E054
47	e214olwa.a	802	900	E142
47	e219wlwa.a	807	530	E156
47	e222clwa.a	809	1745	E167
47	e222clwa.a	809	2010	E167
47	e229qlwa.a	817	1540	E254
47	e236qlwa.a	824	1500	E296

Well	File name	Date	Time	Diskette
48	e187s1wb.a	706	1417	E011
48	e187s1wd.a	706	1140	E011
48	e192v1wa.a	711	830	E012
48	e192v1wb.a	706	1417	E012
48	e192v1we.a	707	1611	E012
48	e206w1wa.a	725	2055	E051
48	e208o1wg.a	721	1222	E064
48	e208o1wg.a	727	1254	E064
48	e212s1wa.a	731	423	E131
48	e215g1wa.a	803	532	E137
48	e216r1we.a	804	1615	E502
48	e217r1wa.a	805	1530	not found
48	e218s1wa.a	806	1450	E152
48	e219m1we.a	807	910	E155
48	e220i1wc.a	808	623	E158
48	e221n1wg.a	809	749	E164
48	e224e1we.a	811	2215	E223
48	e224p1wc.a	812	1415	E524
48	e225q1wg.a	813	845	E525
48	e226m1wb.a	814	1020	E215
48	e227e1wb.a	814	2140	E219
48	e229c1wa.a	816	2340	E552
48	e229d1wc.a	816	2358	E552
48	e232e1wb.a	819	2315	E291
48	e233k1wa.a	820	2122	E292
48	e236n1wc.a	824	750	E296
48	e241o1wf.a	829	900	E351
48	e244q1wa.a	901	1500	E353
48	e250k1wa.a	906	1535	E357
48	e250p1wa.a	906	1535	E357
48	e314p1wa.a	1109	1325	not found
49	e195a1wa.a	713	1930	not found
49	e214k1we.a	802	950	E142
49	e218u1wc.a	806	1500	E152
49	e220f1wg.a	808	509	E157
49	e220q1wc.a	808	1310	E162
49	e222s1wa.a	810	1530	E168
49	e224e1wb.a	811	1940	E223
49	e225e1wa.a	812	2100	E202
49	e226m1wb.a	814	850	E215
49	e228e1wb.a	816	130	E250
49	e230q1wc.a	818	1444	E256
49	e234p1wc.a	822	910	E294
49	e241q1wa.a	829	1400	E352
49	e245p1wa.a	902	800	E354
50	e195a1wa.a	713	1830	not found
50	e199w1wb.a	718	2045	E019
50	e214k1we.a	802	855	E142
50	e220q1wc.a	808	1200	E162
50	e225e1wa.a	812	1937	E202
50	e226m1wb.a	814	745	E215
50	e230e1wg.a	817	1945	E255
50	e230q1wc.a	818	1321	E256
50	e232q1wb.a	820	1545	E291
50	e234p1wc.a	822	800	E294
50	e245p1wa.a	902	850	E354
51	e195a1wa.a	712	1700	not found
51	e199v1wc.a	718	2047	E019
51	e214k1we.a	802	800	E142
51	e220f1wb.a	808	453	E157
51	e222b1wg.a	809	1743	E167
51	e223g1wh.a	810	2246	E170
51	e226m1wb.a	814	940	E215
51	e230e1wg.a	817	2045	E255
51	e236q1wa.a	824	1400	E296
52	e195u1wa.a	714	1905	E017
52	e195u1wd.a	714	1533	E017
52	e206q1wb.a	725	1340	E052
52	e206x1wb.a	725	1340	E054
52	e206x1wc.a	725	2052	E054
52	e212s1wa.a	731	922	E131
52	e214r1wa.a	802	1506	E144
52	e215n1wb.a	803	930	E137
52	e216a1wb.a	803	2200	E505
52	e216r1wb.a	804	1415	E502
52	e219u1wb.a	807	1737	E156
52	e220f1wb.a	807	1737	E157
52	e221e1wa.a	808	2230	E163
52	e221m1wa.a	809	1025	E164
52	e222s1wg.a	810	830	E168
52	e223p1wb.a	811	1230	E205
52	e225d1we.a	813	1440	E214
52	e225e1wb.a	812	1940	E202
52	e226m1we.a	814	941	E215
52	e228e1wb.a	815	2016	E250
52	e229q1wg.a	817	1500	E254
52	e231e1wc.a	818	35	E263
52	e233k1wb.a	821	205	E292
52	e235q1wc.a	823	1435	E295
52	e237q1wf.a	825	932	E297
52	e245p1wf.a	902	910	E354
52	e247h1wa.a	903	1545	E355
53	e232e1wb.a	819	2110	E291
54	e232d1wg.a	819	2105	E290
54	e233k1wc.a	820	1840	E292
54	e233k1wc.a	820	2110	E292
54	e241i1wb.a	828	1545	E350
54	e247h1wa.a	903	1405	E355
54	e250k1wa.a	906	1300	E357
54	e250p1wa.a	906	1300	E357
55	e247h1wb.a	903	1230	E355
66	e218d1wa.a	805	2101	E547
66	e218s1wa.a	806	1650	E152
66	e220f1wc.a	807	1945	E157
66	e221e1wg.a	809	250	E163
66	e222s1wg.a	810	305	E168
66	e225e1wg.a	814	248	E214
66	e228e1wa.a	815	2030	E250
66	e229q1wc.a	817	750	E254
66	e230q1wa.a	818	1540	E256
66	e230q1wa.a	818	1615	E256
66	e232d1wg.a	819	2320	E290
66	e236q1wa.a	824	745	E296
66	e241o1wf.a	829	745	E351
66	e244q1wa.a	901	1400	E353

that they fell within certain specified ranges. If the parameter did not fall within a given range, it was considered unreasonable, and the file was diverted to a 'files with errors' directory. A hardcopy printout of the process file indicated what parameter had failed. Files in this directory were corrected by checking the original record of the data found in the CPN logbook. Table 6 is a listing of the failed files, the reason the file failed, and corrective action taken.

Passing this initial check, however, did not necessarily mean that the parameter or file was correct. A file passing this screening could still contain errors. Some of the remaining errors were detected by selecting a baseline log (a log taken early in the test before water had been added to the basin) for each of the wells and comparing each additional log of that specific well to the baseline. Where incompatibility in the name or depth was detected between the two logs, the file was corrected to reflect the correct well name or depth. Errors in depth resulted from two causes: first, probe readings were not sequenced with cable depth, and second, the extension of casing on the basin wells resulted in depth shifts up to 3 m (10 ft). These files were corrected by adding and subtracting the required depth from the top and bottom of the neutron count files or, in some cases, at a specified depth. Errors in time and date entries were not as easily detected, but, in cases where found, they were corrected. Table 7 is a listing of files with incorrect well names and the correction. Table 8 lists files where depth errors were encountered and the amount and direction of adjustment made.

Well A11A31 is the basin well that extends down into the aquifer. Because the CPN neutron probes were formatted to accept counts to a maximum depth of 61 m (200 ft) and since the depth of A11A31 was in excess of 183 m (600 ft), CPN neutron probe readings for this well were divided into three 61-m (200-ft) records. From the surface to 61 m (200 ft) below land surface, counts were taken every 0.3 m (1 ft); below this depth [61 m to 183 m (200 to 600 ft) below land surface], counts were recorded in 1.5-m (5-ft) increments.

The H probe, borrowed from the U.S. Geological Survey, was not formatted to record 200 readings per well. This probe was limited to 99 readings, which resulted in a 30-m (99-ft) limitation on depth of reading [using 0.3-m (1-ft) depth increments]. Since many of the neutron

Table 6. Listing of CPN files failing initial computer screening, error, and correction.

Filename	Well	Error	Correction
E111eewh.a		filename, probe number	E
E172e1wh.a		probe number	added 5700 to program
E175p1wd.a	99	incorrect well name	practice file, deleted
E175p1wd.a	99	unreasonable well name	practice file, deleted file
E187s1wa.a	36	date and time error	corrected (706; 300)
E187s1wd.a	99	incorrect well name	practice file, delete file
E192v1wa.a	36	date and time error	corrected (706; 1500)
E192v1wb.a		sample date error	corrected date
E192v1wc.a	31,9,13	sample date error	corrected date (711)
E192v1we.a	-----	date and time error	deleted record 11, empty
E193u1wa.a	-----	unreasonable well name	calibration data; deleted
E193u1wb.a	-----	unreasonable well name	calibration data; deleted
E193u1wd.a	-----	unreasonable well name	calibration data; deleted
E193v1wc.a	-----	unreasonable well name	calibration data; deleted
E195a1wd.a	-----	sample date error	deleted lines at bottom of file
E196t1wa.a	-----	sample date error	corrected (715 record 2)
E196t1wb.a	27	sample date error	record 2 time/date transposed
E199v1we.a	-----	unreasonable well name	calibration data; deleted file
E207c1wb.a	8	incorrect time	corrected (0040 record 3)
E207d1we.a	-----	no well name	deleted record 1; empty
E207g1wb.a	----	no probe information	added header data
		unreasonable well name	removed 6 or 9 from well name
E207m1wf.a	8	date and time error	corrected, transposed date and time
E207s1wh.a	----	unreasonable probe name	added probe H to program

Filename	Well	Error	Correction
E208a1wh.a	----	unreasonable probe name	added probe H to program
	698	incorrect well name	changed to 19
E208g1wh.a	----	unreasonable probe name	added probe H to program
E208k1wh.a	----	unreasonable probe name	added probe H to program
E211f1wa.a	----	date and time error	empty records; deleted record 1 and 2
E211q1wa.a	----	date and time error	deleted empty records 1 and 2
E211r1wa.a	----	date and time error	deleted records 5-8; empty
E215a1wb.a	----	sample date error	deleted lines at end of file
E215f1wc.a	----	sample time error	corrected time (0001) record 1
E215d1we.a	66	unreasonable well name	added 66 to program
E218s1wa.a	66	unreasonable well name	added 66 to program
E220f1wb.a	51	well name missing	added 51 to record 1
E220f1wg.a	111	unreasonable well name	deleted record 5; empty
E220f1wc.a	----	missing probe name	added probe header
E221e1wa.a	44,15	time and date error	corrected, reversed time and date
E221e1wg.a	66	unreasonable well name	added 66 to program
E222s1wg.a	66	unreasonable well name	added 66 to program
E225elwa.a	50	sample date error	time and date reversed
E224e1wg.a	66	unreasonable well name	added 66 to program
E228e1wa.a	66	unreasonable well name	added 66 to program
E229q1wc.a	66	unreasonable well name	added 66 to program
E230q1wc.a	100	unreasonable well name	corrected name
E231e1f.a	100	sample date error	deleted record 4; empty

Filename	Well	Error	Correction
E232d1wg.a	54	unreasonable well name, rec 1	added 54 to program
		no well name, record 3	deleted record 3, empty
E323e1wb.a	66	elevation error	added information for 66 and
	53	unreasonable well name	53 to program
E233k1wc.a	54	unreasonable well name	added 54 to program
E236q1wa.a	66	unreasonable well name	added 66 to program
E236q1wa.a	----	calibration data	deleted file
E238r1we.a	----	calibration data	deleted file
E239q1we.a	----	calibration data	deleted file
E241i1wb.a	54	unreasonable well name	added well 54 to program
E241o1wf.a	66	elevation error	added well 66 to program
E241o1wg.a	----	calibration data	deleted file
E245p1wa.a	50	unreasonable well name	added well 50 to program
E245p1wf.a	52	unreasonable well name	added well 52 to program
E247h1wa.a	54	unreasonable well name	added well 54 to program
E247h1wb.a	55	unreasonable well name	added well 55 to program
E249h1wa.a	----	time and date error	deleted extra lines at bottom of file
E250k1wa.a	54	unreasonable well name	added well 54 to program

Table 7. CPN files corrected for name.

File name	Incorrect well name	Corrected well name
E187s1wa.a	11	32
E187s1wa.a	13	34
E187s1wf.a	11	32
E187s1wa.a	11	42
E192v1wc.a	27	24
E194x1wc.a	39	38
E209g1wb.a	43	42
E239p1wa.a	2	18
E241q1wa.a	2	18
E245p1wa.a	48	49

Table 8. CPN files adjusted for depth.

File	Well name and adjustment made
E175p1wa.a	Well 6; 1347; 1.5 m (5 ft) adjustment downward
E175p1wa.a	Well 6; 1007; 0.9 m (3 ft) adjustment downward
E187s1wa.a	Well 32, 0.3 m (1 ft) adjustment downward
E187s1wd.a	Well 28; 3.1 m (10 ft) adjustment downward
	Well 30; 3.1 m (10 ft) adjustment downward
E187s1wf.a	Well 32; 0.3 m (1 ft) adjustment downward
E192v1wa.a	Well 32; 1.2 m (4 ft) adjustment downward
	Well 34; 0.3 m (1 ft) adjustment downward
E192v1wb.a	Well 25; 0.3 m (1 ft) adjustment downward
E192v1wc.a	Well 30; 3.1 m (10 ft) adjustment downward
	Well 17; 0.6 m (2 ft) adjustment upward
E193u1wa.a	Well 18; 0.9 m (3 ft) adjustment upward
E193v1wc.a	Well 18; 0.9 m (3 ft) adjustment upward
E195a1wa.a	Well 10; 0.6 m (2 ft) adjustment upward
E195u1wb.a	Well 10, 0.3 m (1 ft) adjustment upward
E196t1wa.a	Well 34; 0.6 m (2 ft) adjustment upward
E199t1wb.a	Well 12; 0.3 m (1 ft) adjustment downward
	Well 37; 0.3 m (1 ft) adjustment downward
	Well 39, 0.6 m (2 ft) adjustment upward
E208a1wh.a	Well 18, 3.4 m (11 ft) adjustment downward
E208k1wh.a	Well 28, 0.6 m (2 ft) adjustment upward at 27.4 m (90 ft) level
	Well 29; 0.6 m (2 ft) adjustment upward
E209n1wg.a	Well 20; 0.3 m (1 ft) adjustment upward
E210b1wb.a	Well 42; 0.6 m (2 ft) adjustment downward at 26.8 m (88 ft) level

File	Well name and adjustment made
E214f1wc.a	Well 21; 0.3 m (1 ft) adjustment upward
E214m1wc.a	Well 45, 0.3 m (1 ft) adjustment downward
E215v1wb.a	Well 40; 1625; 0.3 m (1 ft) adjustment upward
	Well 40; 1645; 0.6 m (2 ft) adjustment downward
E215v1wb.a	Well 40; 1645; 0.3 m (1 ft) adjustment upward
E217o1wb.a	Well 41; 0.3 m (1 ft) adjustment upward
E220 f1wc.a	Well 66; 0.3 m (1 ft) adjustment downward at 31.7 m (104 ft) level
E221m1we.a	Well 20; 0.3 m (1 ft) adjustment upward at 48.8 m (160 ft) level
E223g1we.a	Well 24; 1.5 m (5 ft) adjustment upward
E223h1wb.a	Well 26; 0.3 m (1 ft) adjustment downward at 18.3 m (60 ft) level
E224e1wc.a	Well 25, 0.3 m (1 ft) adjustment downward
	Well 49; 0.6 m (2 ft) adjustment upward
	Well 45: 0.3 m (1 ft) adjustment downward
E224e1we.a	Well 45, 0.3 m (1 ft) adjustment upward
E225e1wb.a	Well 15, 0.3 m (1 ft) adjustment upward
E225q1wc.a	Well 18; 0.9 m (3 ft) adjustment downward
E225q1wc.a	Well 19; 0.6 m (2 ft) adjustment downward
E226p1wb.a	Well 15, 0.3 m (1 ft) adjustment upward
E228e1wa.a	Well 36; 1.2 m (4 ft) adjustment downward at 31.4 m (103 ft) level
	Well 66: 0.9 m (3 ft) adjustment upward at 39.6 m (130 ft) level
E229q1wa.a	Well 18, 0.9 m (3 ft) adjustment downward
E229q1wa.a	Well 19; 0.6 m (2 ft) adjustment downward
E230e1eg.a	Well 24; 0.3 m (1 ft) adjustment upward
E232q1wc.a	Well 21; 0.3 m (1 ft) adjustment upward
E234p1wa.a	Well 44; 0.3 m (1 ft) adjustment downward at 15.2 m (50 ft) level

File	Well name and adjustment made
E239p1wa.a	Well 18; 1.2 m (4 ft) adjustment downward
E241q1wa.a	Well 18, 0.6 m (2 ft) adjustment downward
E243q1wf.a	Well 10; 0.3 m (1 ft) adjustment upward at 33.5 m (110 ft) level
	Well 19: 0.3 m (1 ft) adjustment upward at 36.6 m (120 ft) level
	Well 68, 0.3 m (1 ft) adjustment downward
E245p1wa.a	Well 39, 0.3 m (1 ft) adjustment upward at 43 m (141 ft) level

probe access holes were in excess of this depth, some files where the H probe was used were divided into two records--one from land surface to 30 m (99 ft) and another for depths greater than 30 m (99 ft). These records were subsequently combined into one record.

Files can contain one or more records. A record was generated each time a well was logged. Some records have been duplicated in several files by downloading the same data more than once. This happened when the probe was not reformatted following downloading, and additional logging was preformed. Some records are empty resulting from an aborted logging attempt or an erasure of the data. The duplicated and empty records have generally not been deleted from affected files to keep manipulation of the files to a minimum.

In general, the errors involving file names, dates, times, well names, and depth of readings described above were obvious and easy to correct, although the process of making the corrections was time consuming. The data validation activities were performed and checked by the authors of this Engineering Design File. The corrected database was then used to determine vadose zone wetting patterns resulting from the LSIT (see the following analyses). Calibration pit and field well data were used to compare CPN neutron probe and truck-mounted neutron tool readings (see Appendix A: Comparison of Neutron Tools and Moisture Gauges for Moisture Monitoring in a Thick Fractured-Basalt Vadose Zone). Appendix A supports the following analyses by showing that the CPN neutron probes can distinguish moisture changes in the basalt surrounding the boreholes and are not limited to measuring only borehole effects. The CPN neutron probe data also were used to verify the neutron probe monitoring well completions (Appendix B: Verification of Neutron Probe Monitoring Well Completions). Finally, the database, in graphics form, is presented in Appendix C. The figures in Appendix C are arranged by ascending CPN data file well codes (two-number code) and by date and time within each well code.

RESULTS

All of the monitoring wells were logged within a few days after completion by U.S.

Geological Survey personnel stationed at the INEL using a truck-mounted neutron probe with a 1-Ci neutron source. Two wells (B13N11 and C08C11) were logged with this same tool approximately 6 months later (February 1994). These logs (see Figure 5) indicate that moisture level changes occurred at the wells during this period. Since water had not yet been pumped to the basin during this time and precipitation at the site is relatively low [average annual precipitation = 22.1 cm (8.71 in)], these changes are attributed to equilibration of moisture levels in the sand and bentonite in the annular space with existing moisture in the vadose zone. Additional monitoring at the test site during this period indicated that all of the wells were experiencing this type of equilibration. Comparison of background measurements made in the wells during the month (June-July 1994) prior to the test to logs made as late as November 1994 in wells that never saw any effect from infiltration indicates that moisture levels had reached equilibrium by the time background measurements were made and did not change due to this phenomenon during the test (Figure 6).

After water was pumped into the infiltration basin, moisture level changes could be observed in logs collected from the "A" wells located inside the basin. Neutron probe readings increased compared to background logs, indicating increases in moisture content. These increases progressed, for the most part, from land surface to the sedimentary interbed at the 55-m (180-ft) depth (see Figure 7), and indicate the downward advance of the wetting front. Similar changes were not observed in the "B", "C", and "E" wells surrounding the infiltration basin (with the exception of B05O11 and B12O11 discussed below). The logs shown in Figure 6 are typical of those from the "B", "C", and "E" wells. These observations indicate that, in a general sense, water moved downward from land surface to the sedimentary interbed within a cylinder defined at the upper end by the infiltration basin.

Wells B05O11 (Figure 8) and B12O11 are the only wells outside of the basin that exhibited significant increases in moisture between land surface and the 55-m (180-ft) interbed during the test. The changes occurred primarily at depths corresponding to bentonite zones in the annular space and not at depths corresponding to sand zones. Bentonite generally was used to fill the annular space adjacent to massive basalt where little water flow was expected during

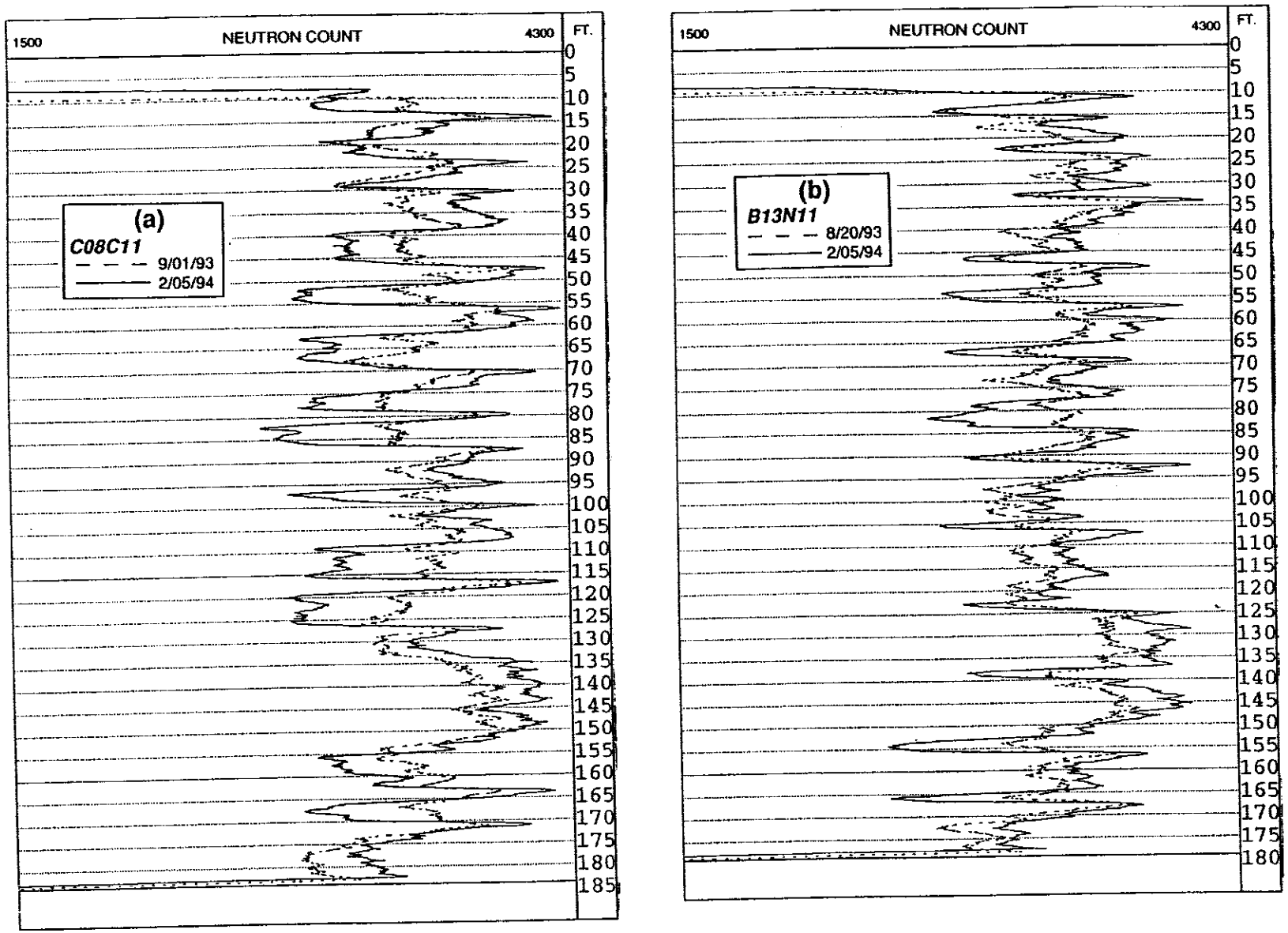

Figure 5. Moisture level changes in wells B13N11 and C08C11 during the 6 months following well completion, indicating equilibration of moisture in the sand and bentonite layers and in the surrounding vadose zone.

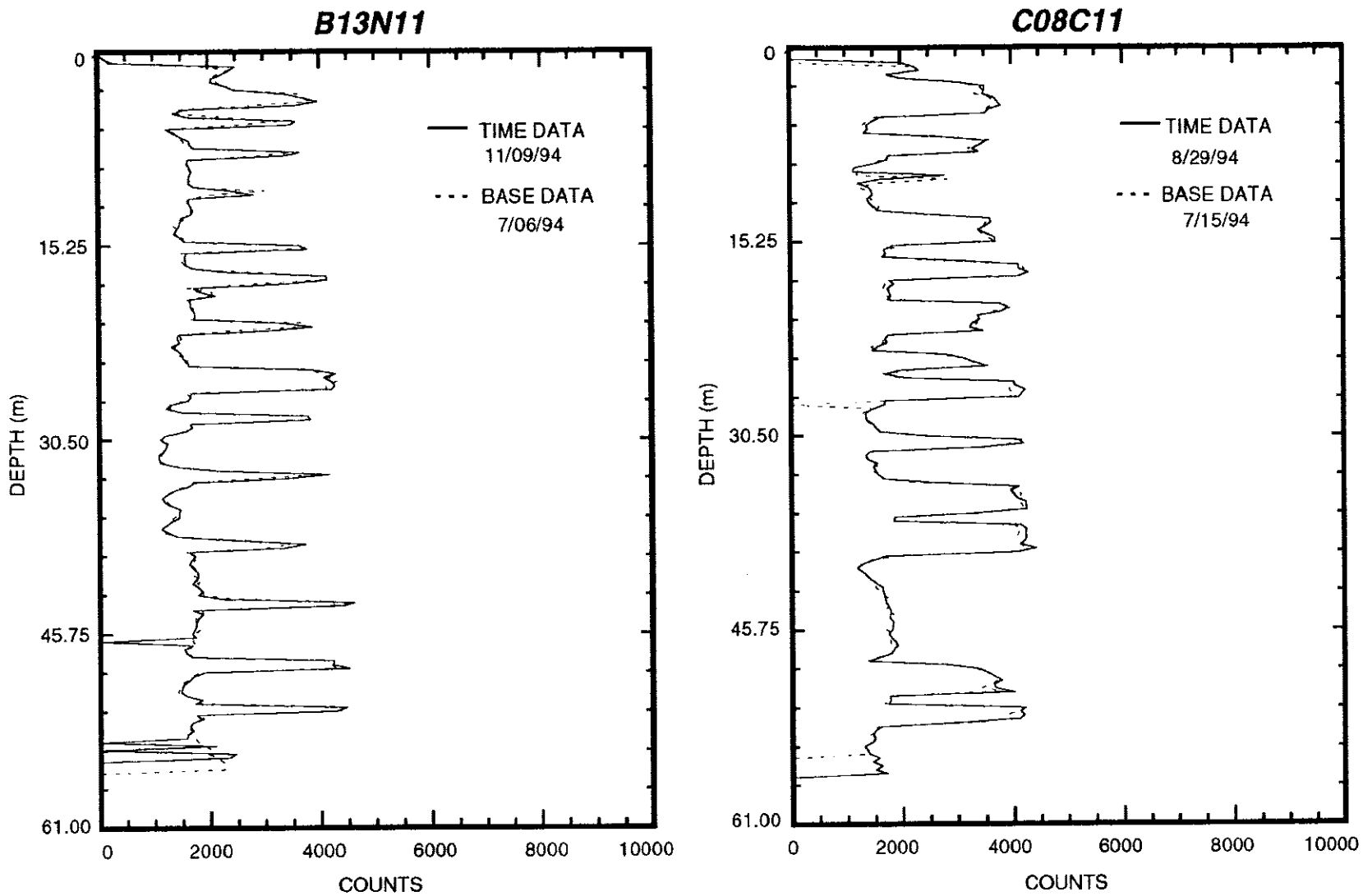

Figure 6. Neutron probe logs from wells B13N11 and C08C11 made just prior to the test (dotted line) and after over 1 month of infiltration (solid line), indicating that moisture levels in annular space sand and bentonite had reached equilibrium.

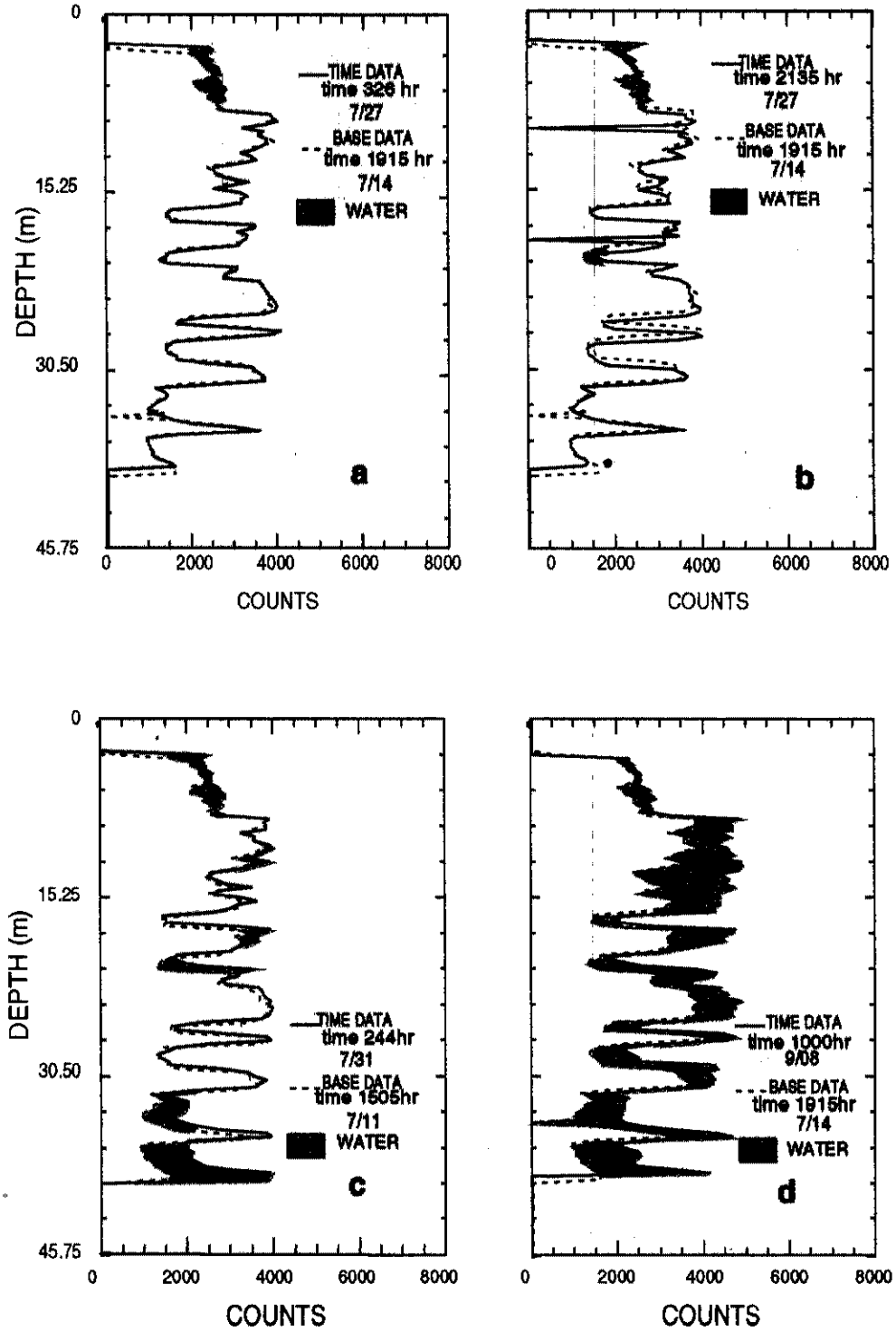

Figure 7. Selected neutron probe logs from well A11C12 illustrating the downward wetting progression from (a) 2 days after initiation of infiltration to (d) 8 days after pumping into the basin ceased.

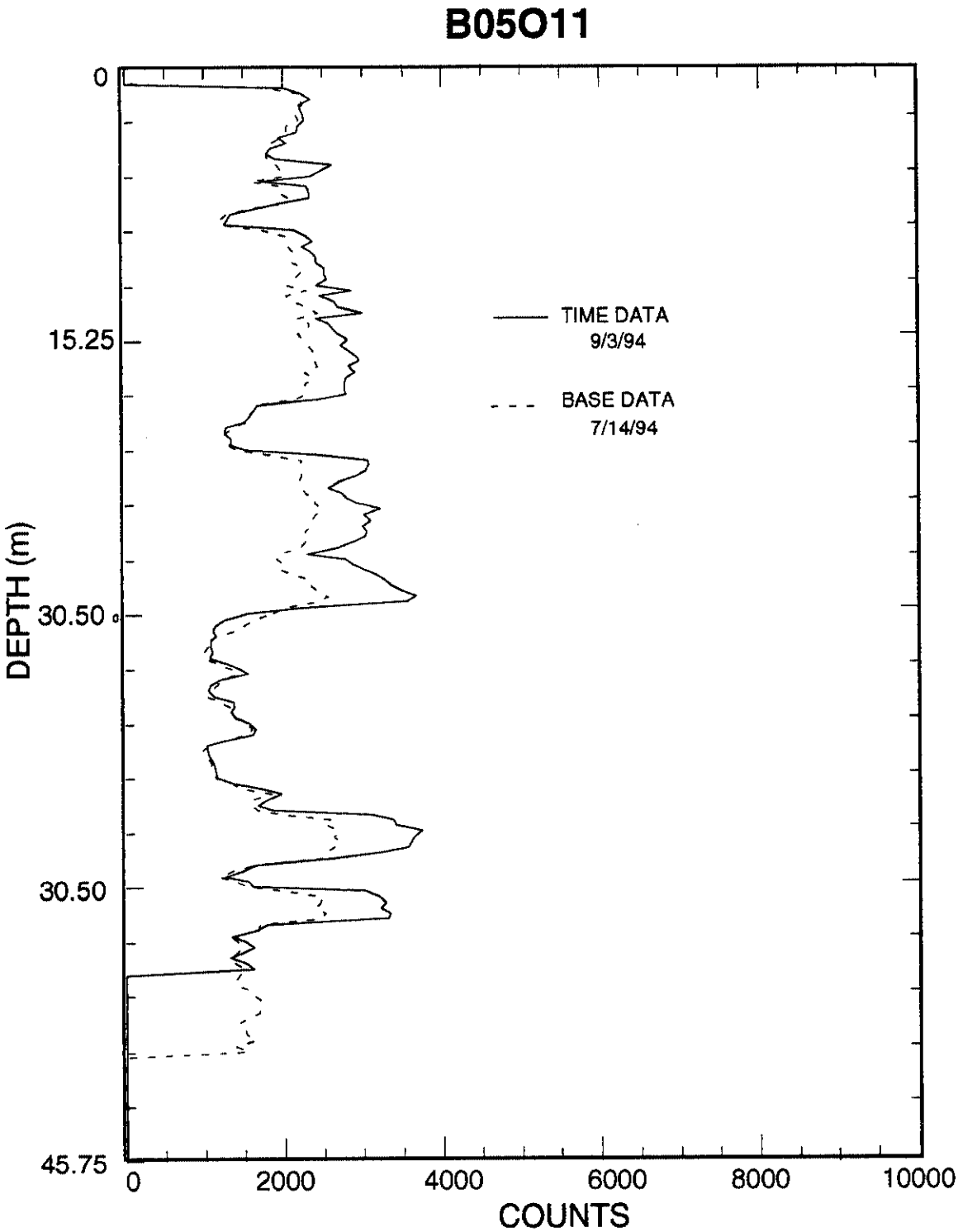

Figure 8. Moisture level changes in well B05O11 from 14 July 1994 to 3 September 1994.

the test, whereas sand zones were created in regions anticipated to have significant water flow (fractures and rubble zones). Furthermore, these changes seemed to occur uniformly throughout the well and did not progress from land surface to well bottom. These moisture increases were probably due to hydration of the bentonite as the moisture content of the bentonite equilibrated with that of the surrounding basalt, similar to what was observed in the other wells that were drilled and completed in 1993, as described above. These two wells were completed much later (7/15/94) than the other monitoring wells (1993) and had not had time to fully equilibrate before the start of the test, as had the other wells.

Water travel times directly beneath the infiltration basin were determined by noting the deepest, first occurrence of water (increase in moisture level) in each well over time. Since we had no means to determine lateral flow paths, all flow is assumed to be vertical. Thus, minimum distances from the source (basin) are assumed. Although there is evidence that lateral flow actually occurs, as discussed below, the vertical component of flow appears to dominate. Table 9 summarizes the calculated travel times. The average of all wetting front vertical travel times determined is 5.0 m/day (16.4 ft/day) with a standard deviation of 2.9 m/day (9.4 ft/day). Figure 9 shows the relationship between wetting front travel time observed in the "A" wells and depth below land surface. Wetting front travel times are linearly related to depth. The slope of the regression line provides another estimate of the rate of travel equal to 5.9 m/day (19.3 ft/day). These data indicate that the vertical permeability of the vadose zone between land surface and the 54.9-m (180-ft) sedimentary interbed appears to be fairly uniform on the scale of this investigation. The average vertical wetting front travel time based on the first instance of being able to draw water from suction lysimeters buried under the infiltration basin (see Newman et al., 1995) is 4.8 m/day (15.6 ft/day) with a standard deviation of 5.4 m/day (17.7 ft/day). The two methods of determining travel times produce consistent results and indicate that the neutron probes, as used here in sand and bentonite-sealed wells, may be able to detect water at a slightly lower saturation level than that required for the lysimeters to function.

Although downward water movement appeared to occur within a cylinder defined by the basin, the wetting did not progress as a front uniformly distributed across the area defined by the

Table 9. Vertical water travel times and rates of travel based on CPN neutron probe data.

	Deepest First Occurrence of Moisture Increase				
Well	Time	Date	Depth from Land Surface (m)	Travel Time from Surface (days)	Rate of Travel (m/day)
A01C11	0900	07/28/94	22.68	2.89	7.8
A01C11	2250	08/01/94	28.78	7.47	3.9
A01C11	0001	08/03/94	51.66	8.52	6.1
A01C12	1225	07/27/94	6.44	2.04	3.2
A01C12	0504	07/28/94	10.10	2.73	3.7
A01C12	0900	07/30/94	30.23	4.89	6.2
A01C12	2339	08/01/94	37.55	7.51	5.0
A01C13	0114	07/31/94	26.11	5.57	4.7
A04C11	1557	07/29/94	17.38	4.18	4.2
A04C11	1236	07/30/94	21.65	5.04	4.3
A04C11	1345	07/31/94	38.12	6.09	6.3
A04C12	1955	07/25/94	6.18	0.35	17.7
A04C12	1300	07/29/94	24.78	4.06	6.1
A04C12	2330	07/30/94	32.71	5.50	5.9
A04C12	0955	08/13/94	36.68	18.93	1.9
A04C13	1002	07/28/94	18.03	2.94	6.1
A04C13	1120	08/13/94	27.18	18.99	1.4
A08C11	2351	07/27/94	5.57	2.51	2.2
A08C11	0230	07/30/94	27.22	4.62	5.9
A08C11	0303	08/02/94	50.40	7.65	6.6
A08C12	2104	07/27/94	4.93	2.40	2.1
A08C12	0810	07/28/94	17.44	2.86	6.1
A08C12	0954	07/29/94	24.45	3.93	6.2

Well	Deepest First Occurrence of Moisture Increase		Depth from Land Surface (m)	Travel Time from Surface (days)	Rate of Travel (m/day)
	Time	Date			
A08C12	0300	07/31/94	38.79	5.64	6.9
A08C12	0350	08/02/94	42.75	7.68	5.6
A08C13	2315	07/28/94	8.03	3.49	2.3
A08C13	0145	07/30/94	24.50	4.59	5.3
A08C13	1400	07/30/94	26.33	5.10	5.2
A11C11	1338	08/03/94	33.91	9.09	3.7
A11C11	0935	08/04/94	44.28	9.92	4.5
A11C12	2155	07/26/94	5.39	1.43	3.8
A11C12	1215	07/27/94	15.76	2.03	7.8
A11C12	0515	07/29/94	34.67	3.74	9.3
A11C13	2020	07/27/94	4.28	2.37	1.8
A11C13	2310	07/28/94	9.16	3.49	2.6
A11C13	1032	07/30/94	12.82	4.96	2.6
A11C13	1600	08/03/94	15.26	9.19	1.7
A11C13	1350	08/05/94	21.97	11.10	2.0

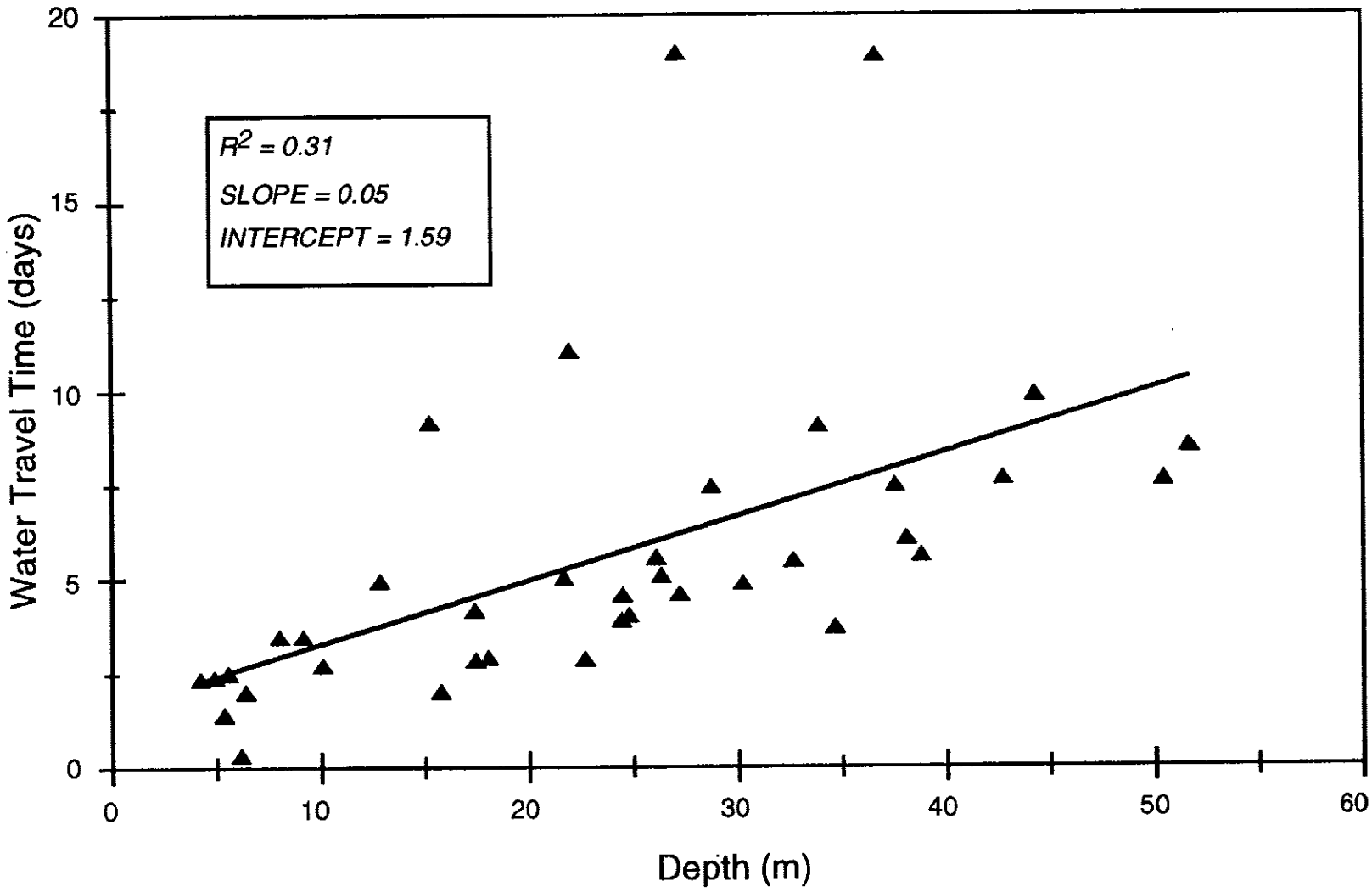

Figure 9. Relationship between water travel times observed in the "A" wells and depth below land surface.

basin. Figure 7 illustrates that preferential, lateral flow occurred within the cylinder. Figure 7b shows that moisture changes were occurring at the 19.8 to 21.4-m (65 to 70-ft) depths while measurements above in the 9.2 to 19.8-m (30 to 65-ft) depths remained unchanged from background levels. Likewise, Figure 7c shows that moisture levels were increasing at the 32.0 to 39.7-m (105 to 130-ft) depths while measurements above in the 25.9 to 32.0-m (85 to 105-ft) depths remained unchanged from background levels. The fact that wetting at the wells occurred in discrete zones separated by zones that were not wetted indicates that water had to move laterally to get to the wells. The lateral flow in the vadose zone beneath the infiltration basin occurs on a scale less than 15.3 m (50 ft), which is the distance to the "B" wells closest to, but outside, the basin. With the exception of wells B05O11 and B12O11 discussed above, moisture level changes were not observed in any of the "B" (or "C" and "E") wells at depths between land surface and the sedimentary interbed, indicating that lateral flow did not occur to those wells. Vertical flow paths appear to control movement of the water above the 55-m (180-ft) interbed.

Infiltrating water in the vadose zone between the infiltration basin and the 54.9-m (180-ft) sedimentary interbed appears first in the fracture or rubble zones rather than the more massive basalt zones. This is illustrated in Figure 10, which shows the completion diagram, caliper log, and vertical water travel times for well A11C12. This figure shows intermediate-level water arrival times in addition to the deepest, first arrival times given in Table 9. The fastest travel times coincide with spikes in the caliper log, which designate enlargement of the borehole due to rubble zones and fractures. The presence of a fracture or rubble zone, however, does not guarantee the fast arrival of water. Some fractures may exhibit relatively slow travel times. Caliper log spikes at about 14.0 m and 25.3 m (46 ft and 83 ft) coincided with water travel times 4.7 and 2.5 times greater than arrival times at about 17.1 and 29.0 m (56 and 95 ft), respectively. This is undoubtedly the result of water flowing in a complex interconnecting network of fractures and rubble zones.

Figure 11 further illustrates some of the variability inherent in the vadose zone at the test site. Wells A01C11, A01C12, and A01C13 were drilled to depths of 51.2, 37.8, and 25.6 m (168, 124, and 84 ft), respectively. The wells were drilled in a triangular cluster within about

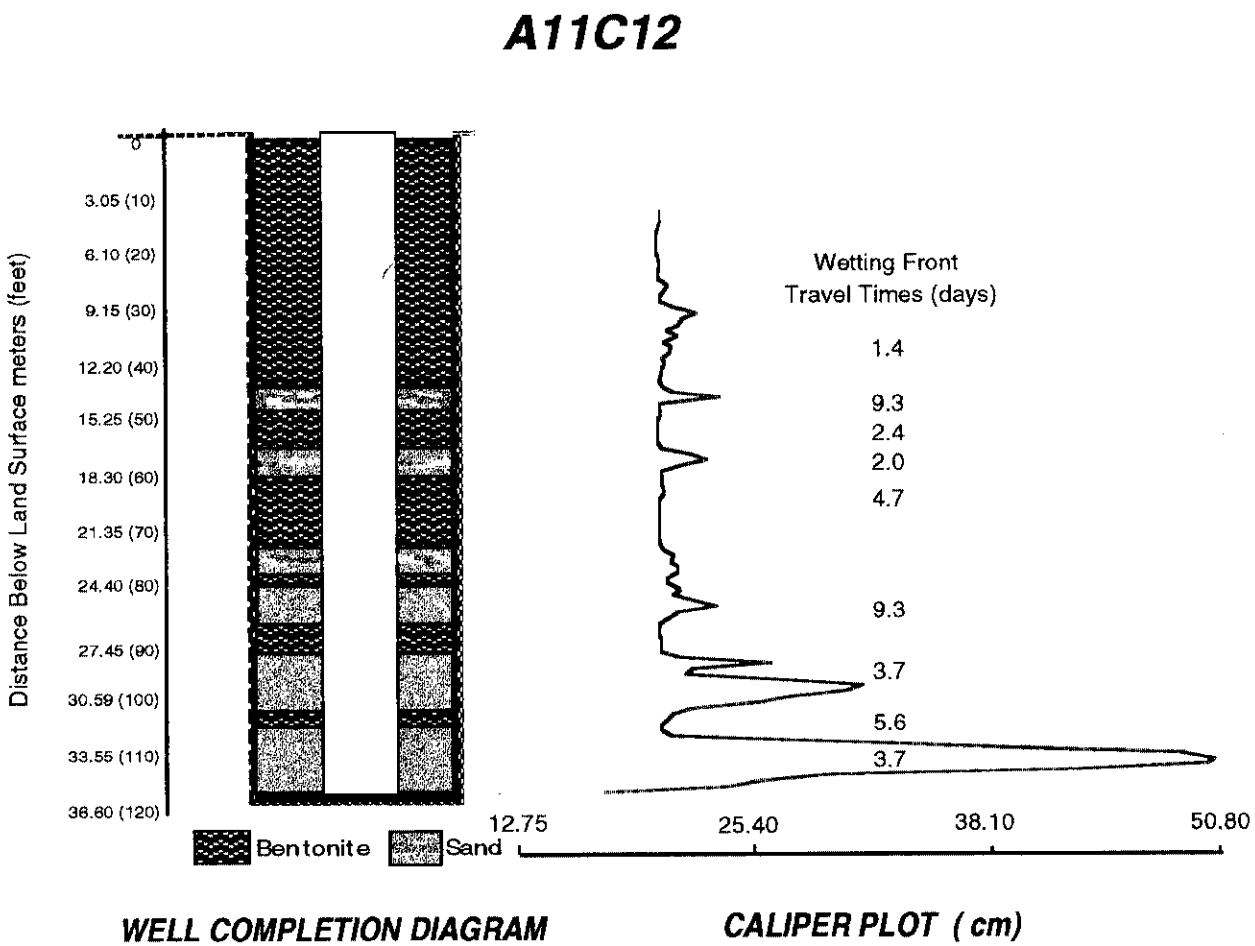

Figure 10. Well completion diagram, caliper log, and vertical water travel times for well A11C12.

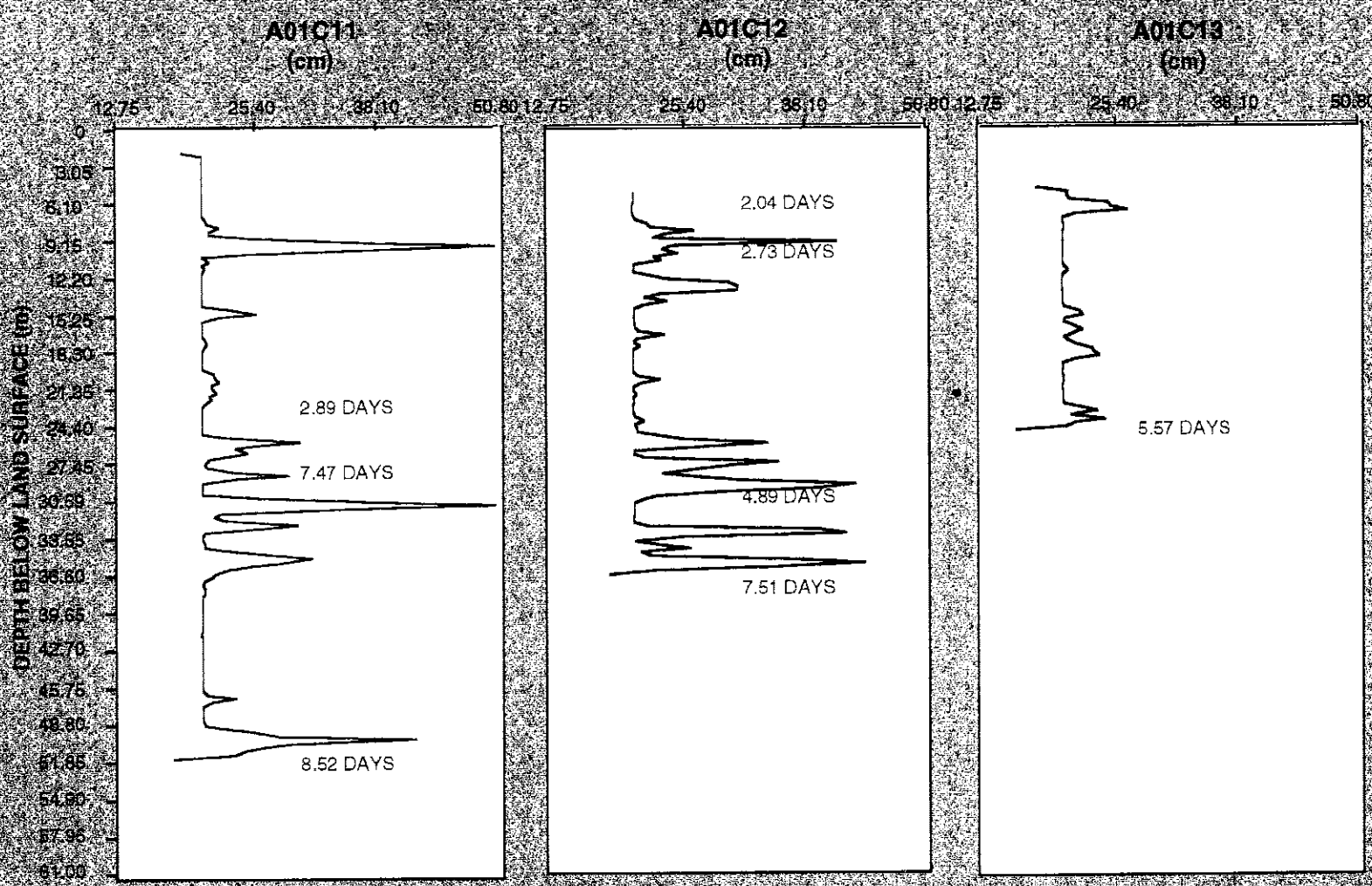

Figure 11. Caliper logs and vertical water travel times for wells A01C11, A01C12, and A01C13 clustered together inside the infiltration basin.

7.3 m (24 ft) of one another. The figure shows the caliper log and the deepest, first occurrence of moisture level increase from all the logs for each well. The caliper logs illustrate the difficulty in tracing a given fracture or rubble zone from one well to another, over distances of 7.3 m (24 ft). The group of caliper log spikes from about 24.5 to 36.6 m (80.3 to 120.0 ft) in well A01C11 appears to be present in the other wells at about the same depths, indicating that this feature(s) may be continuous across the cluster of three wells at this location. However, water travel times observed in these wells indicate that the relationship of these features may not be as obvious as it appears. Moisture increases at the 28.8-m (94.4-ft) depth in well A01C11 were first observed 7.47 days after start of infiltration, but moisture increases at the 30.2-m (99.1-ft) depth in well A01C12 were observed 2.6 days earlier. The relationship of the caliper log features above these depths [from 0 to 24.5 m (0 to 80.3 ft)] is even less obvious. This also is reflected in the moisture travel time observations. For example, moisture increases in well A01C12 were observed at the 10.1-m (33.1-ft) depth 2.73 days after start of infiltration, but, at about the same time (2.89 days), moisture increases were already being observed at the 22.7-m (74.4-ft) depth in well A01C11. Given the variability in vadose zone structure and in the moisture travel times observed within this cluster of wells 7.3 m (24 ft) apart, it is not surprising that water movement was not observed in the wells located outside the infiltration basin. The closest wells to the basin (the "B" ring wells) were located about 15 m (50 ft) from the edge of the basin.

The movement of water in only a portion of the available subsurface pathways is also suggested by the wetted porosity (0.02) of the vadose zone. The wetted porosity was calculated by dividing the average infiltration rate during the experiment [about 11 cm/day (0.4 ft/day)] by the wetting front travel rate [about 5.0 m/day (16.4 ft/day)]. The porosity of small, vesicular basalt cores from the RWMC is about 0.23 (Bishop, 1991). The presence of fractures and rubble zones in the vadose zone undoubtedly would increase the overall porosity of the basalt beyond this value. Thus, less than 10% of the total porosity of the vadose zone conducted the infiltrating water to the sedimentary interbed. Bishop (1991) also measured the saturated hydraulic conductivity of a vesicular basalt block to be on the order of 9×10^{-8} m/day (3×10^{-3} ft/day). The much faster advance of the wetting front observed in this experiment indicates that the vesicles

played a minimal role in conveying the water through the vadose zone and that fractures and rubble zones constituted the primary pathways.

A frequent question that arises in vadose zone monitoring is whether the wells are serving as conduits for downward water flow. Figure 7 indicates that this was not the case, at least during the initial wetting phase. Initial moisture level increases occurred in disconnected zones around the well. The depths where these increases were observed progressed from land surface to the bottom of the well before all the zones were connected by apparent moisture level increases. The intermediate zones that were not wetted during the downward progression include both sand and bentonite layers in the annular space. Therefore, it is obvious that the wetting was not the result of water flowing down the well annulus. Figure 7d is typical of all "A" wells within the basin at the cessation of infiltration. At that time, virtually the entire vadose zone beneath the infiltration basin appears to be wetted. Undoubtedly, water entering a sand layer (through a fracture or rubble zone) would wet the sand layer and the bentonite surrounding this zone. The depth of wetting in the bentonite layer depends on the amount of water present, the density of the bentonite fill (or the number, size, and continuity of voids in the bentonite fill), and the time required for bentonite to wet up. Basalt fractures may also intersect and serve as water pathways to bentonite-filled zones. Additionally, the wetting may be the result of water movement in small fractures in the borehole wall created during the drilling of the well with the percussion hammer. The mechanism(s) that caused virtually the entire well to appear wetted is unknown.

The 54.9-m (180-ft) sedimentary interbed served as an impediment to vertical water movement. Standing water was measured with the water level indicators in three "A" wells, ten "B" wells, three "C" wells, and one "E" well after infiltration was initiated. Since neither moisture increases nor downward movement were observed in any of the "B", "C", or "E" wells outside the infiltration basin, the path taken by water reaching these wells was almost certainly a lateral one along the top of the interbed. A typical hydrograph of the perched water at the interbed is shown in Figure 12. Measured water depths ranged from 0.031 to 2.1 m (0.1 to 7 ft). Water flow along the top of the interbed appeared to be controlled by the topography of the

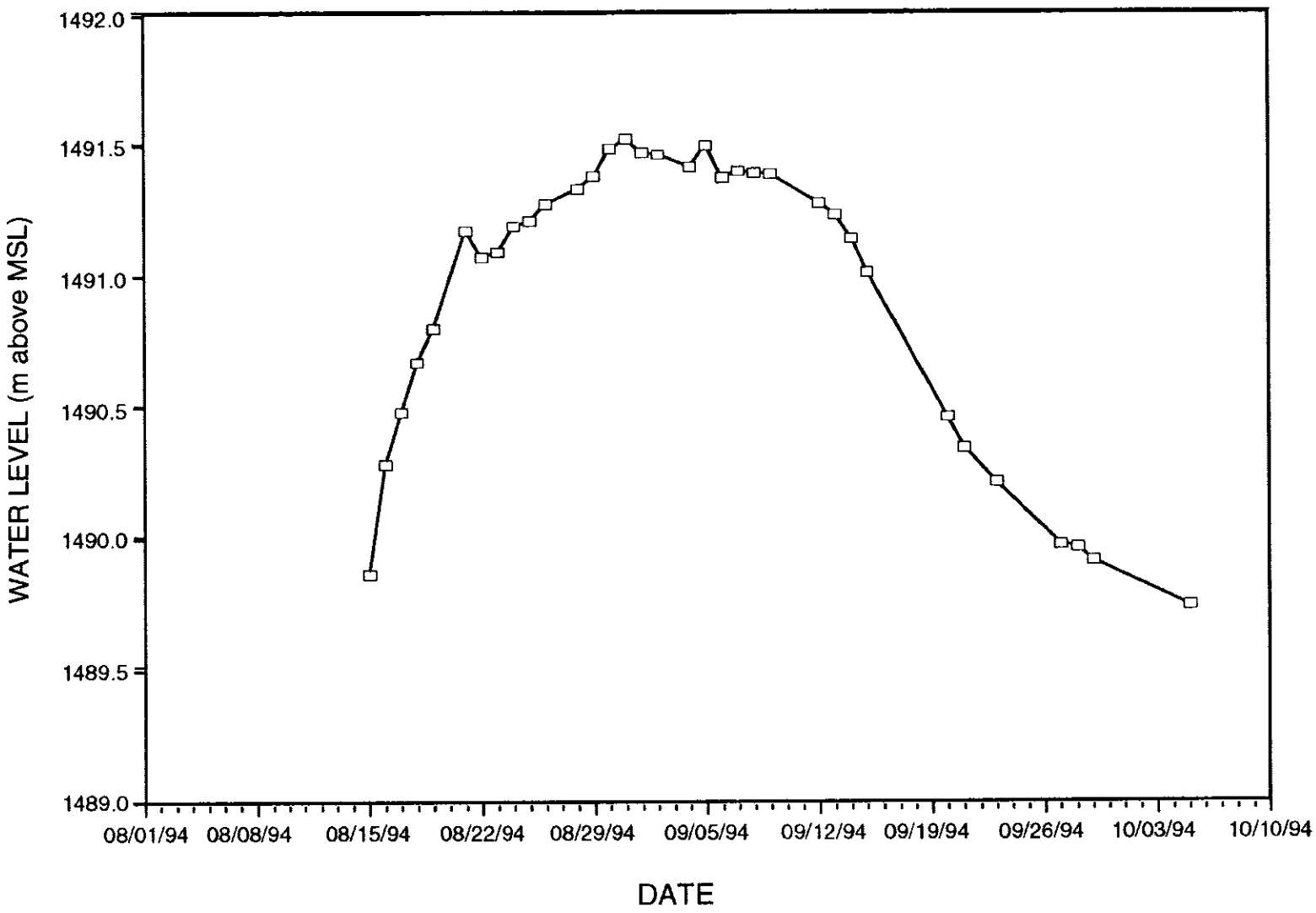

Figure 12. Hydrograph of perched water in well B08N11.

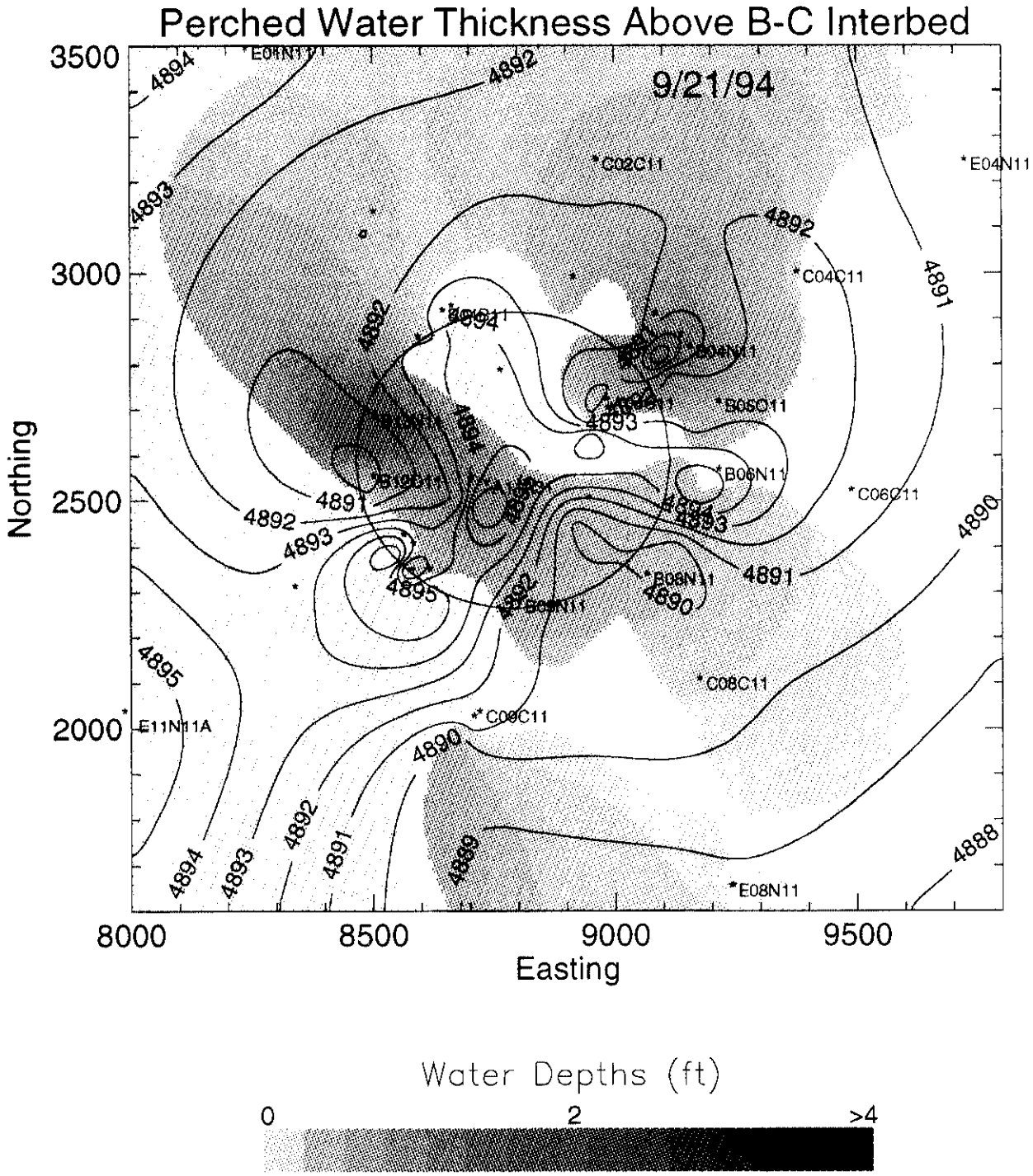

Figure 13. Perched water formation on the interbed on 21 September 1994.

interbed surface. Figure 13 (based on relatively few data point locations for the area covered) is a conceptualization of the perched water formation on the interbed on 21 September 1994. The perched water on the interbed was not confined laterally and disappeared within 58 days from cessation of infiltration. A more extensive discussion of the perched water can be found in Burgess (1994).

CONCLUSIONS

Water movement in the fractured basalt vadose zone beneath and adjacent to the infiltration basin during the LSIT was monitored using neutron probes that have generally been applied in shallow soil, agricultural environments. Wetting fronts and wetted zones were readily distinguished using these probes. Moisture changes in the sand and bentonite used to fill the annular space between casing and basalt in the neutron probe monitoring wells could also be monitored during equilibration with antecedent vadose zone moisture. These changes occurred during the few months after well completion so equilibrium was reached before infiltration was initiated in the basin. These observations indicate that vadose zone wells constructed in this manner and used in this type of subsurface environment should be installed and allowed to equilibrate sufficiently before they are used for moisture measurements.

In general terms, water flow in the vadose zone during the infiltration test was confined within a vertical cylinder, the top of which was defined by the infiltration basin. The rate of advance of the wetting front was estimated to be about 5.0 m/day (16.4 ft/day), and it was fairly uniform between land surface and the 54.9-m (180-ft) sedimentary interbed. The relatively uniform behavior of water flow may be significant in terms of risk assessment modeling by providing the opportunity to build a numerical flow model that can mimic this overall behavior. The model could then be used for the Subsurface Disposal Area Pits and Trenches Comprehensive Baseline Risk Assessment.

While there was evidence of lateral flow within this cylinder, lateral flow did not extend to the wells just outside [~15 m (~ 50 ft)] the basin. Fractures and rubble zones were the

principal areas where first wetting was observed, but the water arrival time in a given fracture or rubble zone was unpredictable. The wetted porosity of the basalt between land surface and the 54.9-m (180-ft) sedimentary interbed was 0.02. Water movement outside the cylinder occurred only along the upper surface of the 54.9-m (180-ft) sedimentary interbed, which served as an impediment to vertical flow, and its direction was controlled by the topography of the interbed.

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Appendix A

Comparison of Neutron Tools and Moisture Gauges for Moisture Monitoring in a Thick Fractured-Basalt Vadose Zone

COMPARISON OF NEUTRON TOOLS AND MOISTURE GAUGES FOR MOISTURE MONITORING IN A THICK FRACTURED-BASALT VADOSE ZONE

ABSTRACT

Two neutron thermalization techniques, the moisture gauge (50-mCi source) and the neutron tool (3-Ci source), were evaluated and compared in calibration pits designed for these purposes and in actual monitoring wells constructed in a fractured-basalt vadose zone for the Idaho National Engineering Laboratory's Large Scale Infiltration Test (LSIT). Calibration pit and field data indicated that several moisture gauges (all from the same manufacturer) could be standardized to produce equivalent results. Calibration pit data also confirmed that both moisture gauges and neutron tools could distinguish moisture changes beyond the 10-cm radius of the field wells, which were completed with PVC casing and sand and bentonite fill in the annular space. LSIT moisture monitoring data from the moisture gauge and the far detector (62.2 cm) on the neutron tool appeared to be comparable. Near detectors (27.4 to 33 cm) on the neutron tools appeared to be less sensitive to formation moisture changes than moisture gauges and far detectors.

INTRODUCTION

Neutron thermalization techniques have successfully been used to monitor moisture movement in a variety of geologic media. Neutron thermalization involves lowering an emitter of fast neutrons down an access port. The fast neutrons are radiated outward from the emitter and are slowed (or thermalized) by collisions with materials with low atomic numbers. Hydrogen nuclei, part of the water molecule, are among the most effective neutron thermalizers. The thermalized neutrons are counted and can be related to moisture content.

There are two methods for monitoring moisture using neutron thermalization. One is the moisture gauge, which has a small source and is hand-held and operated. Monitoring moisture in soils using the moisture gauge is a well-established method (Greacen et al.,1981) and has been successfully performed at several sites in fractured tuff (Elder and Rasmussen, 1994;

Hammermeister et al. 1985). A second neutron thermalization method, widely used by the petroleum industry, is the truck-mounted neutron tool. It differs from the moisture gauge in that it has a stronger source and a long source-detector spacing.

Abeele (1979) and Kramer et al. (1992) found that casing material, hole diameter, and well grouts can significantly affect moisture gauge readings. Kramer et al. (1992) demonstrated that although the readings are affected by various construction materials, the moisture gauge can detect saturation fronts in these materials. Hearst and Carlson (1994) found that the two instruments differed in their sensitivity to moisture levels in the formation surrounding the borehole. Hammermeister et al. (1985) compared calibration techniques for the moisture gauge and the neutron tool. Although characteristics of the individual instruments have been studied and some comparisons exist, the choice of which instrument to use in environmental studies remains unclear because side-by-side comparisons of the instruments are rare for the many conditions of well construction and formation material encountered.

Moisture gauges and neutron tools are often calibrated to provide the moisture content of the formation being studied, but calibrations are only as good as the representativeness of the samples on which they are based. It can be difficult to obtain a representative sample with respect to moisture content from deep fractured-rock environments. Furthermore, in a vadose zone consisting of massive basalt, vesicular basalt, fractures, and rubble zones, different monitoring depths may require different calibration curves. The different curves may be difficult to establish. Using some kind of average curve to cover these differences may reduce the instrument's sensitivity to moisture changes at a given position. Kramer et al. (1992) indicated that a more sensitive method for tracking moisture movement through fractured-rock environments is the comparison of neutron counts through time to an established baseline of counts.

Recently, both moisture gauges and truck-mounted neutron tools were used to monitor a thick [up to 183 m (600 ft)], fractured-basalt vadose zone during a Large-Scale Infiltration Test

(LSIT) at the Idaho National Engineering Laboratory (INEL) in southeastern Idaho (Figure 1). Instrument readings during the test were compared to baseline measurements made prior to the test to determine moisture movement. The LSIT consisted of constructing a $2.6 \times 10^4 m^2$ (6.5-ac) circular basin in shallow surface sediments, underlain by hundreds of meters of "plains-style" (Greeley, 1982) basalt flows. Approximately 14,600 m^3 (38,600,000 gal) of water were pumped into the basin (over a 5-week period) and allowed to infiltrate into the subsurface. Sixty-six wells were installed in the basin ("A" wells) and around the basin ("B", "C", and "E" wells) (Figure 2). Most wells were terminated at or above the 54.9-m (180-ft) sedimentary interbed with one drilled to 207.4 m (680 ft), approximately 24.4 m (80 ft) below the water table. The 20-cm (7-7/8-in.) diameter wells were completed with 10.16-cm (4-in.) diameter PVC casing with the annular space filled with alternating layers of bentonite and sand (Porro et al., 1995; Newman et al., 1995). Both types of neutron thermalization instruments were used to monitor infiltration from the basin because it was unclear which would be most efficient at detecting moisture changes in the fractured basalt through the PVC casing and the rather large annular space filled with sand and bentonite.

This paper compares the responses from moisture gauges and neutron tools used at the LSIT. First, readings from several moisture gauges used during the test were standardized to one another using calibration pits. Second, the pits were used to investigate the radius of influence of both moisture gauges and neutron tool instruments with the particular well construction used at the test site. Third, measurements from both types of instruments were compared using actual infiltration test monitoring data.

MATERIALS AND METHODS

Neutron Instruments

Six Boart Longyear Co. CPN 503DR Hydroprobe moisture gauges with 50-mCi Am-Be sources and two truck-mounted tools (a Century 9072 logging tool and a Gearhart-Owen natural gamma and thermal-neutron tool) were used to monitor moisture movement in the basalt during the LSIT. Both of the truck-mounted tools had 3-Ci Am-Be sources. Detector spacing for the

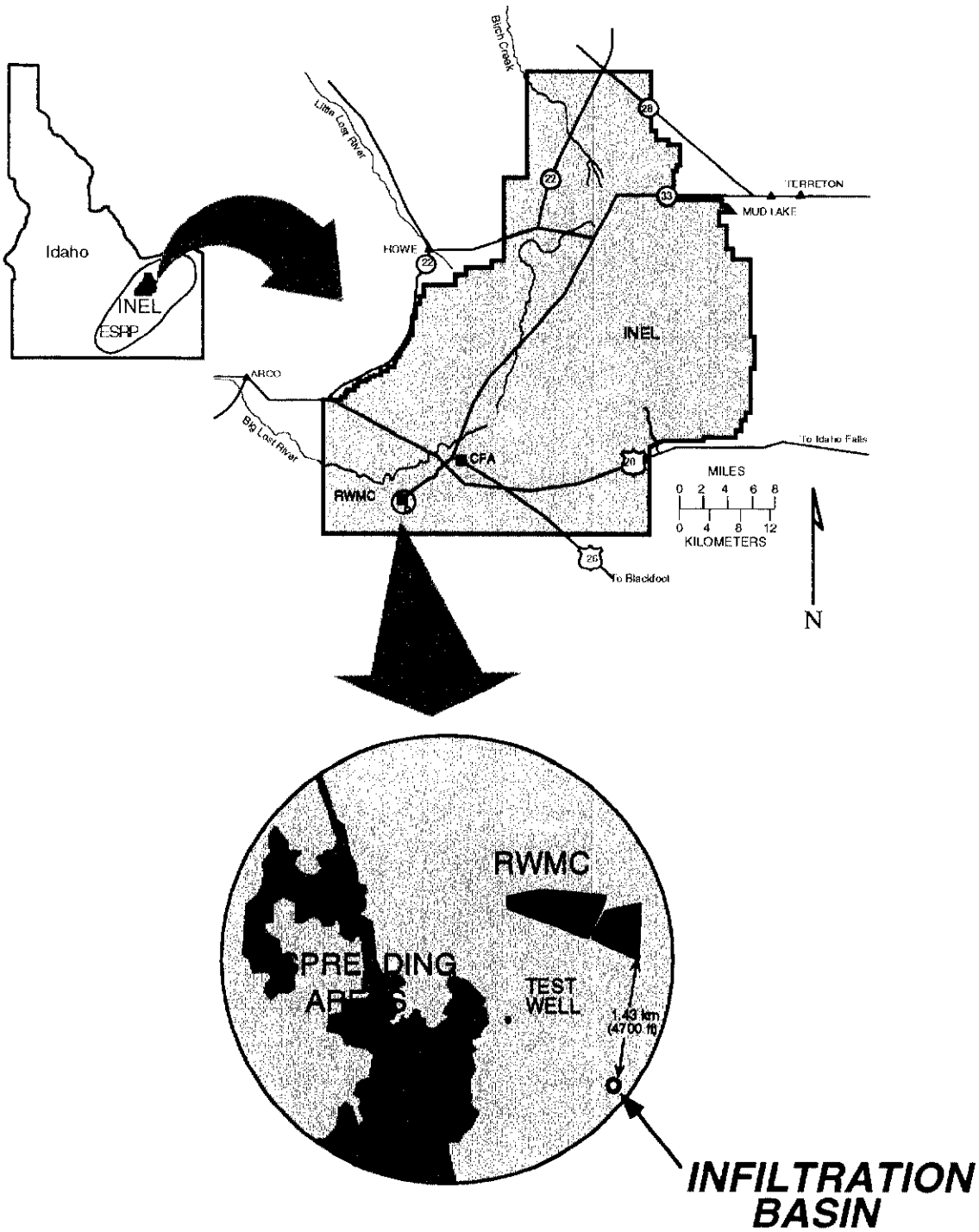


Figure A-1. Location of the Large-Scale Infiltration Test with respect to the Idaho National Engineering Laboratory and the state of Idaho.

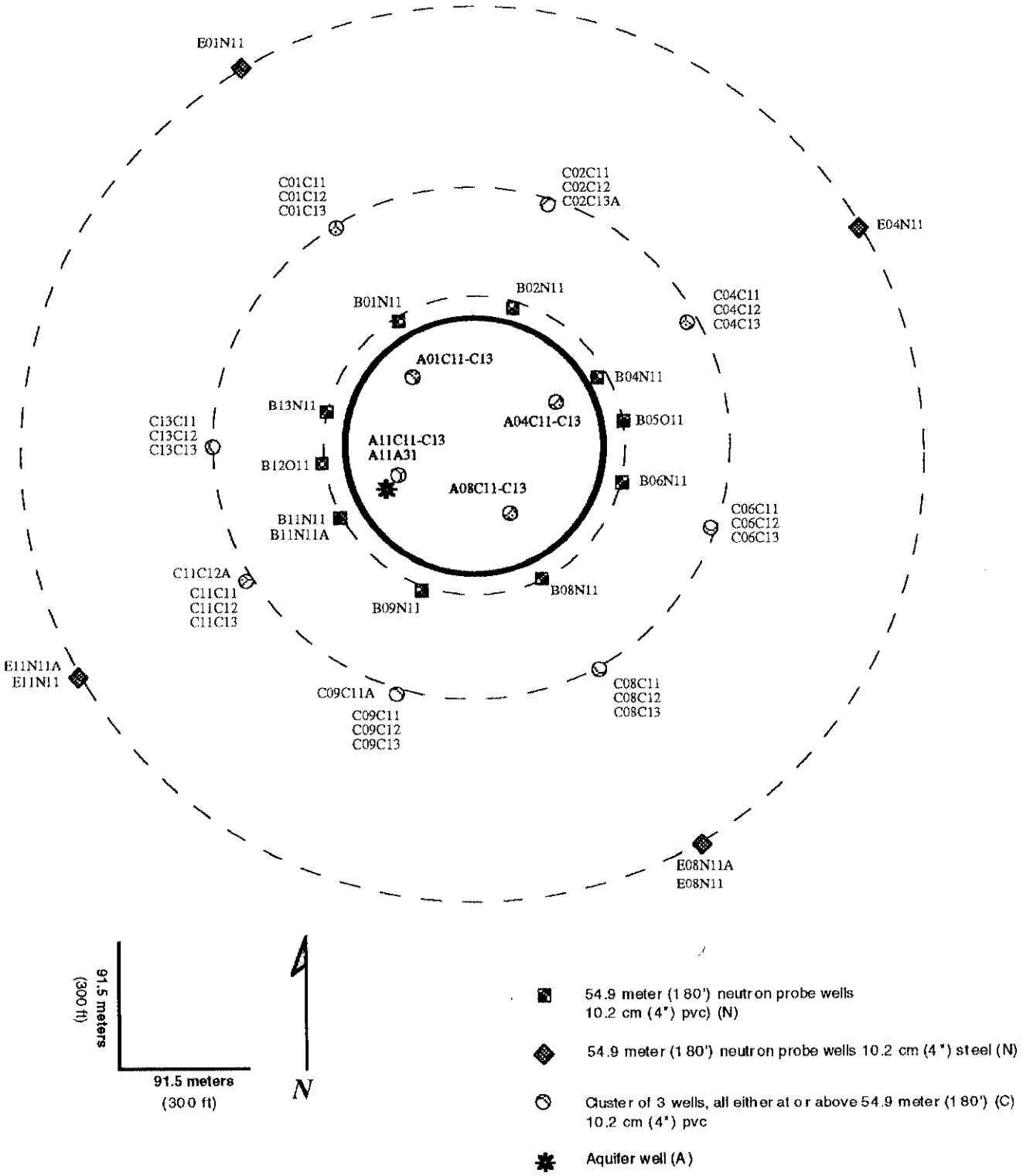


Figure A-2. Large-Scale Infiltration Basin diagram showing monitoring well locations.

Century tool was 27.4 cm (10.8 in.) for the near detector and 62.2 cm (24.5 in.) for the far detector. The Gearhart was a single spaced-probe with an adjustable spacing of 33 to 43.2 cm (13 to17 in.), set at 33 cm (13 in.).

Calibration Pit Construction

Nine calibration pits were built to reproduce completion conditions in wells drilled to monitor moisture movement during the LSIT. The pits were constructed of corrugated steel with water-tight steel plates welded to the bottoms. Thin-walled 20.32-cm (8-in.) aluminum tubes, sealed on the bottom end, served to simulate boreholes and separate the crushed basalt from the materials used to fill the annular space. Although aluminum tubing was not used in the construction of the field wells, it was necessary in the calibration pits. The effects of aluminum tubing on the moisture gauge counts is commonly assumed to be negligible (Greacen, 1981; Abeele, 1979). PVC tubing [10.2 cm (4 in.) diameter], capped at the bottom to keep the interior dry, duplicated field casing. The pits were filled with crushed basalt of a size that can pass a No 8 sieve with no limit on the fines. The annular spaces were completed to reproduce field conditions with either bentonite or sand. Figure 3 shows construction of a typical calibration pit.

Crushed basalt was used (of necessity) to fill the calibration pits due to the difficulty of obtaining a large mass of intact basalt. However, crushed basalt is not a perfect representation of the formation because some properties of the basalts may differ; for example, the dry-bulk densities of the crushed basalt in the calibration pits ranged from 1.77 to 1.96 Mg/m^3 with an average of 1.86 Mg/m^3. Measured bulk density of basalt cores from this area average 2.5 Mg/m^3 (Bishop, 1991; Knutson et al., 1990).

Two moisture treatments were established for the crushed basalt in the calibration pits. In the wet treatment, the crushed basalt was saturated (pits 5 through 8); in the dry treatment, the basalt was air-dry (pits 1 through 4). Both moisture treatments included saturated and air-dry conditions for the materials that filled the annular space. Figure 4 shows the calibration scheme.

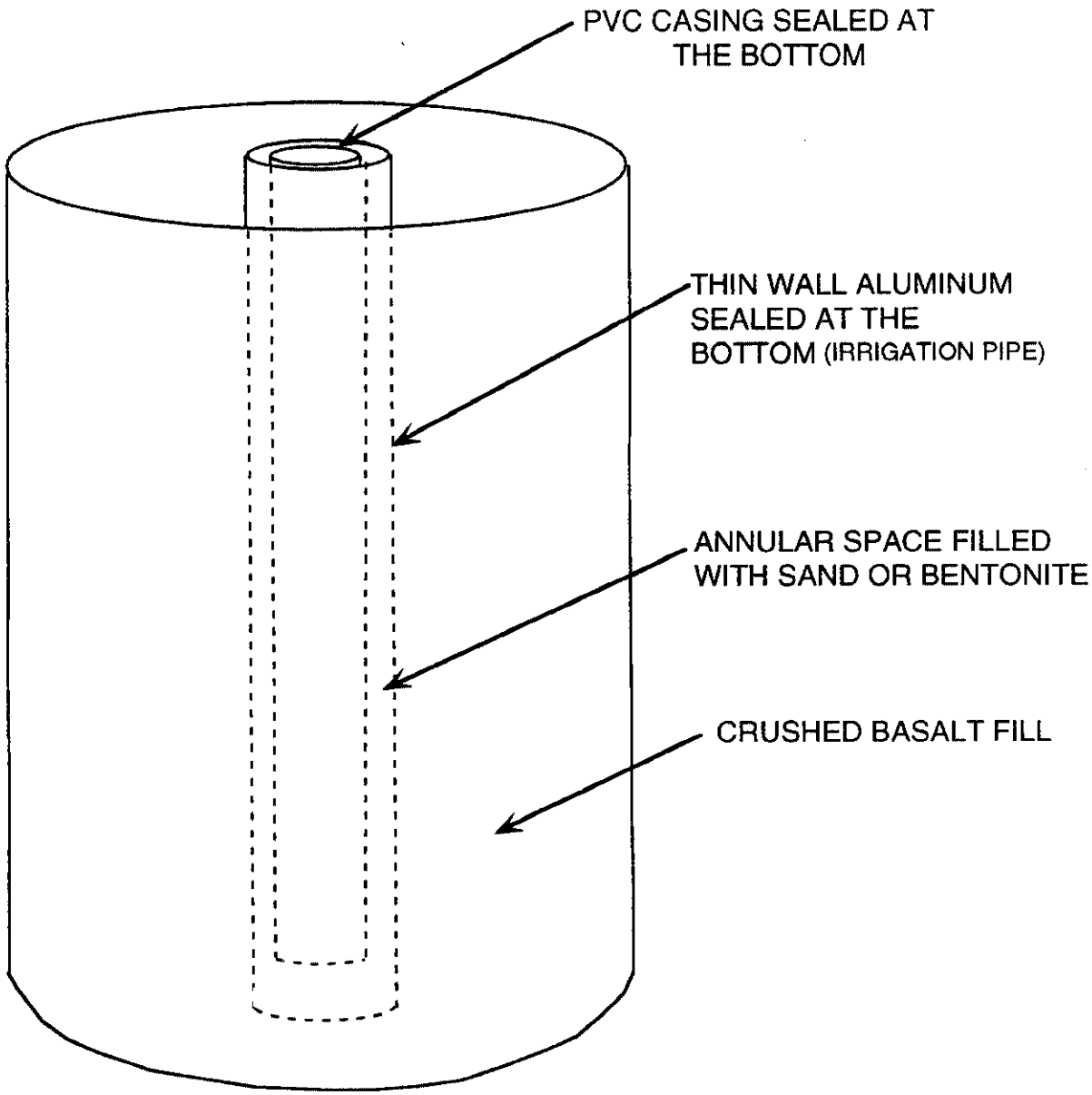
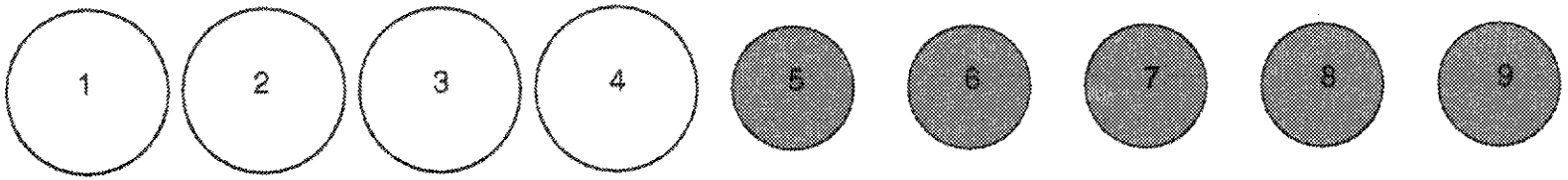


Figure A-3. Diagram of materials and construction of typical calibration pit.



CONTAINER #	CONTAINER SIZE (diameter X height)	ANNULAR SPACE FILL MATERIAL	CALIBRATION CONTAINER FILL MATERIAL
1.	1.83 m (6 ft) X 1.83 m (6 ft)	Air Dry Sand	Air Dry Basalt
2.	1.83 m (6 ft) X 1.83 m (6 ft)	Air Dry Bentonite	Air Dry Basalt
3.	1.83 m (6 ft) X 1.83 m (6 ft)	Saturated Sand	Air Dry Basalt
4.	1.83 m (6 ft) X 1.83 m (6 ft)	Saturated Bentonite	Air Dry Basalt
5.	.915m (3ft) X 1.22 m (4 ft)	Air Dry Sand	Saturated Basalt
6.	.915m (3ft) X 1.22 m (4 ft)	Air Dry Bentonite	Saturated Basalt
7.	.915m (3ft) X 1.22 m (4 ft)	Saturated Sand	Saturated Basalt
8.	.915m (3ft) X 1.22 m (4 ft)	Saturated Bentonite	Saturated Basalt
9.	.915m (3ft) X 1.22 m (4 ft)	----------	Water

Figure A-4. Schematic of various configurations of the nine calibration pits.

Annular spaces for pits 1 and 5 were filled with dry sand, while annular spaces for pits 3 and 7 were filled with saturated sand. Annular spaces for pits 2 and 6 were filled with dry fine bentonite crumbles, while bentonite in pits 4 and 8 was saturated. Pit 9 was water-filled except for the PVC casing, which was sealed on the bottom to maintain a dry interior. All pits were buried in the ground with a 1.8 to 3-m (6 to 10-ft) spacing between the pits.

The size of the pits varied depending on the moisture content of the crushed basalt. Neutrons are generally thermalized within a spherical region surrounding the source, with the spherical region becoming smaller as the surrounding media increases in saturation due to the compaction of thermalized neutrons in wet conditions. Pits where the crushed basalt was maintained at an air-dry moisture content were larger, measuring 1.83 m (6 ft) in diameter and 1.83 m (6 ft) tall, while pits with saturated basalt treatments measured 0.9 m (3 ft) in diameter and 1.22 m (4 ft) tall. Appropriate calibration pit sizes were based on a review of literature (Kramer et al. 1992; Hearst amd Carlson 1994; American Petroleum Institute 1974).

To ensure an even saturation of the crushed basalt (in the saturated pits), one 2.54-cm (1-in.) diameter PVC tube was placed in either side of the pits as the basalt was added. These were used to introduce water into the pits from the bottom up, avoiding air entrapment. Saturation of the bentonite in the annular space was achieved by adding an excess amount of water to the annular space, pouring 7.6 to 10.2 cm (3 to 4 in.) of bentonite into this water and allowing it to hydrate, then repeating the process until the annular space was filled. Saturated sand was achieved by pouring sand into standing water in the annular space. Annular spaces were sealed to prevent moisture content changes. Before calibration readings were taken, water was added to the saturated crushed basalt pits until water was at the surface.

Calibration Pit Readings

Readings were made with moisture gauges and truck-mounted neutron tools in the calibration pits. Moisture gauge readings were made by positioning the neutron emitter (source) at the bottom of the sealed PVC casing inside the calibration pit. A 16-second count was taken at

this position; the source was raised 0.3 m (approximately 1 ft) to the next cable stop and another count taken. This was repeated at subsequent cable stops [0.3-m (1-ft increments)] until the source was within 0.3 m (1 ft) of the surface. The procedure was repeated for each moisture gauge in all calibration pits. The truck-mounted neutron tools were also placed at the bottom of the PVC, and counts were taken as the instrument was withdrawn. The Century tool took readings every 0.03 m (0.1 ft), while the Gearhart continuously recorded counts.

Monitoring Well Completion

The wells drilled for monitoring moisture movement in and adjacent to the infiltration basin were designed to serve several purposes. These included monitoring moisture and tracer movement and water sampling. Because each well served multiple uses, the overall construction design had to be broad enough to accommodate these purposes. Wells were drilled 20 cm (7-7/8 in.) in diameter and completed with 10.16-cm (4-in.) inner diameter schedule 40 PVC casing. The casing was slotted at the bottom to serve as a screen, and the bottom end was open. The annular space between the casing and the formation was filled with either dry, fine bentonite crumbles (10 to 20 mesh) or a fairly coarse mesh (some 6 to 9, most 8 to 12) silica sand. Figure 5 is a completion diagram for a typical well drilled for LSIT monitoring purposes. Permeable zones in the formation were identified with open-hole TV and caliper logging. The annular spaces next to areas that were identified from the logs as highly permeable (fractures or rubble zones) were filled with sand; other sequences of the annular space were filled with bentonite. During the LSIT, the bentonite served as a seal preventing water from channeling down the annular space. None of the drilling or completion activities added moisture to the formation.

Monitoring Well Readings

Monitoring with the moisture gauge involved lowering the source down in the well to the desired level, usually to the bottom and taking 16-second counts at the lowest cable stop. The emitter was raised to the next stop, and another 16-second count was taken. The process continued until the entire well was logged in 0.3-m (1-ft) increments. Neutron logging with the truck-mounted tools consisted of withdrawing the tool from the bottom of the well while taking

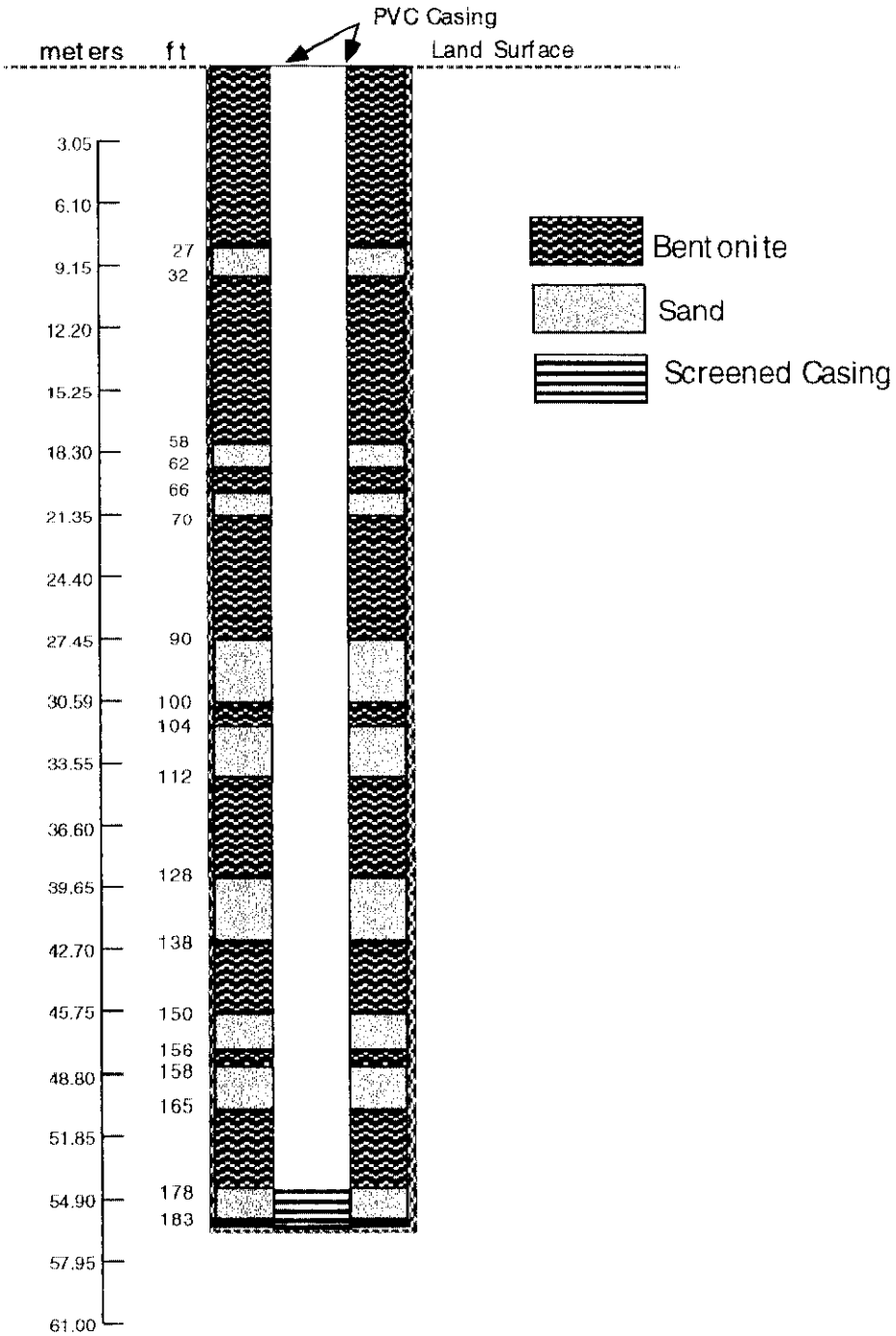


Figure A-5. Completion diagram for typical moisture monitoring well.

counts. Well-logging rates varied but averaged approximately 7.6 m/min (25 ft/min). Gearhart tool counts were taken continually while Century tool counts were taken in 0.03-m (0.1-ft) increments. Moisture movement in the basalt was tracked by comparing logs made over time with established baseline logs made before water was added to the basin. Approximately 1,200 moisture gauge logs and 3,000 truck-mounted neutron logs were generated during the test.

RESULTS

Moisture Gauge Standardization

Because all moisture gauges were used to log all wells (gauges were labeled A, B, C, D, E, and F), effective use of moisture monitoring data required that neutron counts measured by one gauge be directly comparable to those measured by another. To make them comparable, the gauges were standardized in the calibration pits prior to the start of the infiltration test. Initial standardization data (Figure 6a) show that all the gauges have similar trends. Counts from four of the moisture gauges (A, B, C, and F) were nearly identical in each container. Counts from the remaining two gauges (D and E) also had similar trends but were greater in magnitude. Calibration data for gauges B, C, D, E, and F were regressed to moisture gauge A data (Figure 6b). A summary of the regression data is shown in Table 1. The regression coefficients (slope, intercept, and R^2 values) confirm the similarity in readings between moisture gauges A, B, C, and F. Gauges D and E are clearly different.

It was necessary to validate the standardization coefficients in one of the wells constructed for monitoring moisture during the LSIT because crushed basalt and intact, fractured basalt are different. Besides differing in structure and moisture-holding capacity, they possibly differ in neutron thermalization responses. Field testing involved using all six moisture gauges to monitor well B11N11A. Figure 7 shows an overlay of logs made (by the six gauges) within several days of each other prior to adding water to the basin. In Figure 7a, the measurements are plotted before the corrections were applied. Responses are very similar to those observed in the calibration pits (Figure 6a). Gauges D and E, again, exhibit behavior unlike that of the other gauges. Figure 7b shows the same data with the corrections applied. Here, all gauges, except

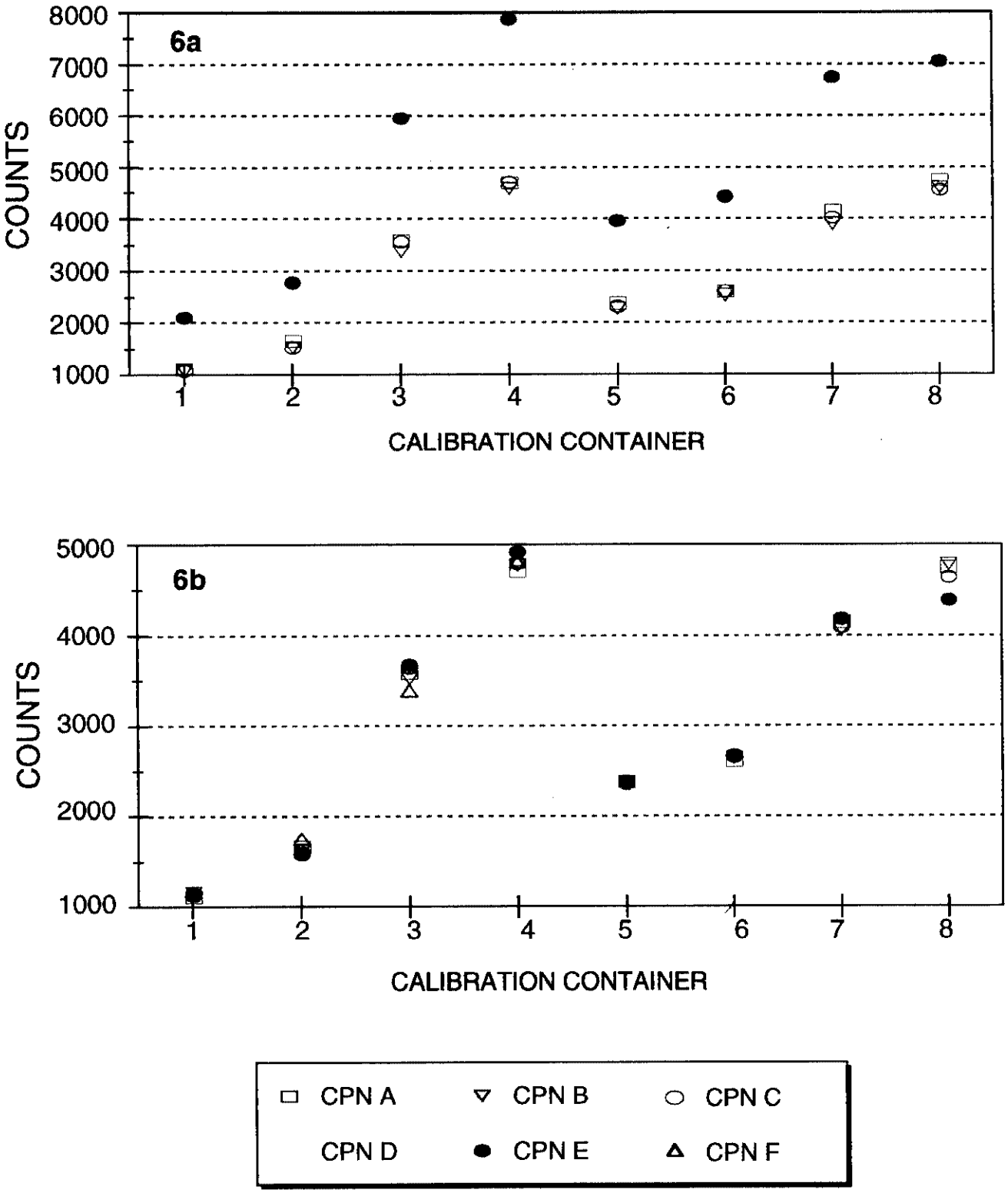


Figure A-6. Shown in diagram 6a is moisture gauge counts in the calibration pits. Diagram 6b shows the same data with the regression correction applied.

Table 1. Regression equations used to standardize moisture gauge readings to the "A" gauge.

Dependent Variable	=	Constant	+	Coefficient	*	Independent Variable	R^2
CPN A Counts		34.95		1.03		CPN B Counts	0.998
CPN A Counts		34.73		1.01		CPN C Counts	0.997
CPN A Counts		-110.69		0.79		CPN D Counts	0.999
CPN A Counts		-216.82		0.65		CPN E Counts	0.985
CPN A Counts		16.8		1.01		CPN F Counts	0.996

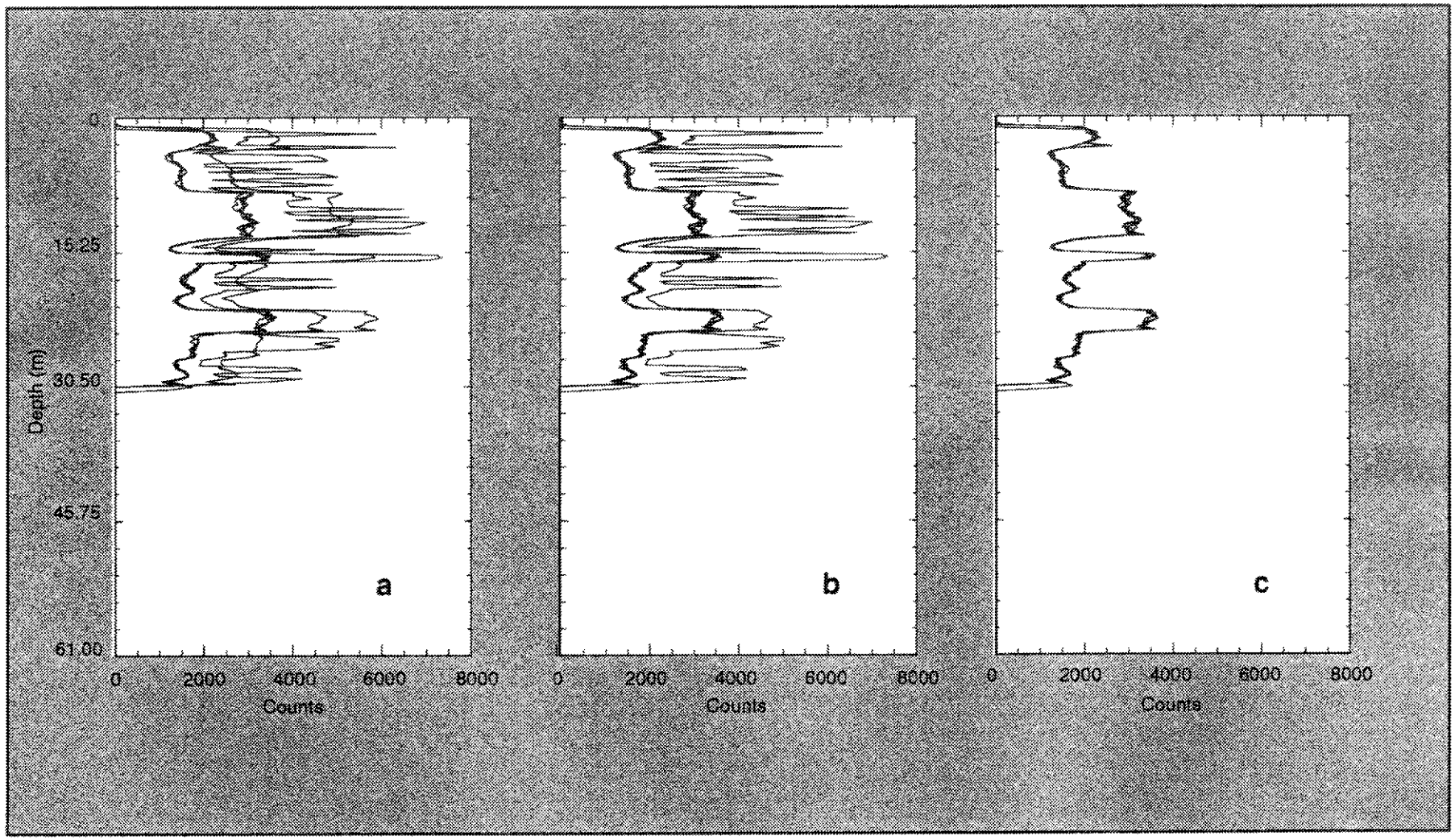


Figure A-7. Overlay of well B11N11A logs made by six moisture gauges. Data without correction (7a); data with correction applied (7b); and the same data as 7b with gauge D data removed (7c).

gauge D, are behaving similarly within an acceptably narrow range. Although moisture gauge D displays a trend similar to the other gauges, it also exhibits unacceptable random scatter. The instrument was sent back to CPN for adjustment, and after the adjustment and standardization, moisture gauge D performed as well as the other gauges. Figure 7c shows the same data as 7b but with data for gauge D removed. The general lack of variation in the measurements indicates that the corrections developed in the crushed-basalt calibration pits can also be applied in the field wells where the formation consists of intact, fractured basalt. The corrections permitted direct comparison of logs made with any of the moisture gauges.

Near the end of the LSIT, all moisture gauges were restandardized in the calibration pits to determine if instrument drift had occurred over the 3 months that the probes were in use and if the correction equations developed prior to the test were still reliable. Results indicated that the correction factors developed early in the test remained applicable through the entire test.

Radius of Influence

Calibration pit data were also used to investigate the radius of influence for the moisture gauges and neutron tools. Although Century tool data were collected in the calibration pits, the data became corrupted and are not included in this discussion.

Figure 8 shows the data for moisture gauge A in each of the calibration pits. Because the other gauges behaved similarly, this discussion focuses on gauge A. The container numbers correspond to those listed in Figure 4. One observation made (looking at Figure 8) is that for a given basalt moisture content, counts taken in pits with dry sand in the annular space were always lower than those taken in pits with dry bentonite in the annular space. Likewise, counts taken in pits with wet sand in the annular space were always lower than those taken in pits with wet bentonite in the annular space. This is not surprising due to the higher moisture content of the bentonite compared to the sand. Notice that pits 1 and 5 have identical dry sand treatments in the annular space, with the differences in count indicating that the moisture gauge is influenced by a volume larger than the borehole and is detecting moisture in the saturated basalt surrounding the

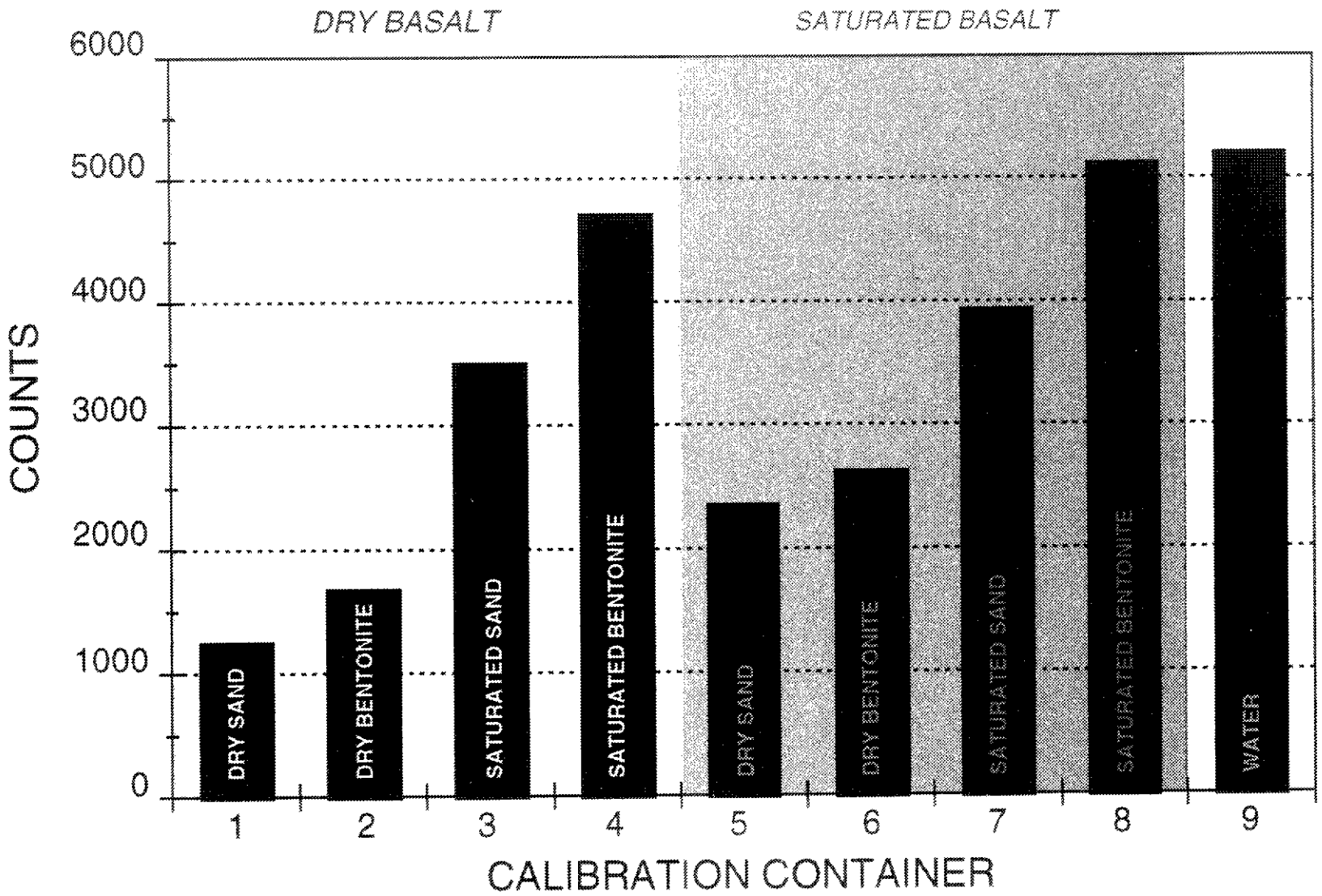


Figure A-8. Calibration container counts for moisture gauge A.

borehole. Pits 3 and 7 have saturated sand in the annular space. The higher counts in pit 7 indicate that the gauge is reading moisture in the saturated basalt surrounding the borehole. These observations are also true for the dry and saturated bentonite treatments (pits 4 and 8 and pits 2 and 6). The PVC casing coupled with a saturated bentonite annular space was expected to severely restrict the radius of influence of the moisture gauges. However, even in the saturated bentonite case (pits 4 and 8), the moisture gauge readings are influenced by the saturated basalt outside the annular space in the pit. These data indicate that the radius of influence for the moisture gauge (in all pits) extends through the PVC casing and annular materials and into the basalt surrounding the borehole.

To verify that these observed differences are experimentally significant, variability in the moisture gauge readings was explored. Because the saturated bentonite case (calibration pits 4 and 8, Figure 4) had the greatest neutron thermalization and, consequently, the highest counts, natural variability in neutron readings in bentonite at some field saturation was investigated. Three "A" wells (wells inside the basin where annular materials wetted to some field saturation level during the LSIT) were selected for comparison purposes. Each of the three wells had bentonite zones that wetted early in the test to moisture contents that remained fairly constant for the duration of the LSIT, i.e., counts taken by the moisture gauge at these depths were similar. Neutron counts taken at a specific depth were compared over time to determine the natural variability of counts. The count means from these three wells are intermediate to those found in pit 4 (4711) and pit 8 (5120). Data for the comparison were generated by all moisture gauges (except D), but the regression equation (Table 1) was only applied to probe E data. Table 2 is a tabulation of the comparison statistics. Because the continuous normal approximation of a Poisson distribution can be used to approximate moisture probe data (Kramer et al., 1992), the standard deviation can be used to evaluate the variation significance. For a normal distribution, 68.26% of the distribution is within one standard deviation of the mean; 95.44% is within two standard deviations of the mean; and 99.74% is within three standard deviations of the mean. The highest standard deviation in these comparisons (97.8) occurred in data from well A01C11. Even in this case, though, the count difference (409) between the two saturated bentonite pits (pits 4

Table 2. Statistics for selected neutron probe measurements (counts) from wells A01C11, A01C13, and A08C13.

Well Name	Depth of Reading	Maximum Count	Minimum Count	Mean	Difference (Max-Min)	Standard Deviation	Number of Measurements
A01C11	65'	5082	4768	4915	314	97.8	9
A01C13	55'	4980	4727	4821	253	96.8	5
A08C13	35'	4999	4779	4919	220	70.0	8

•

and 8) is greater than 3 standard deviations (294), which leads to the conclusion that the observed difference in the pit readings is significant. The probability of a value falling outside 3 standard deviations is only 0.0013. Finally, it should be noted that the calculated standard deviation also included variability due to (a) the probe, (b) use of six different probes (only E had the regression applied to the data), (c) depth positioning, and (d) possible moisture content changes.

The Gearhart neutron tool data, collected 0.3 m (1 ft) from the bottom of the calibration pits, is shown in Figure 9. Because detectors on the truck-mounted tools are separated from the neutron emitter, and fast neutrons are thermalized near the emitter, the detector counts fewer thermalized neutrons (than the moisture gauge); therefore, low counts correspond to high moisture contents. Counts are highest in the dry basalt-dry bentonite pit (2), followed by the dry basalt-dry sand pit (1). The highest counts were expected in the dry basalt-dry sand pit because hydrogen, bound in the bentonite, should thermalize some neutrons, which would reduce the count. Because this anomalous condition (higher counts in dry bentonite than in dry sand) was found in both dry and saturated basalt treatments, it appears to be real and is thought to be an artifact of the geometry of the calibration pit, indicating that (in the dry sand) some of the neutrons were travelling beyond the calibration pit and were consequently not counted. Other than the count reversal between the dry sand and dry bentonite treatments, counts from the calibration containers followed the expected trend of high counts in dry conditions and low counts in saturated conditions.

With the neutron tool, neutrons are expected to influence a smaller area under the saturated conditions than under dry conditions. The saturated cases (Figure 9) where the smallest radius of influence is expected are in pits 7 and 8. But when these cases are compared to those in pits 3 and 4, we can clearly see that conditions outside the borehole (in the basalt) are exerting influence on the measurements with a greater number of counts in the dry basalt, as expected. A larger radius of influence is expected under dry conditions. Pits 1 and 2 (dry sand-dry basalt and dry bentonite-dry basalt) show a greater number of counts than pits 5 and 6. As was the case with the moisture gauge, the Gearhart neutron tool can detect moisture differences beyond the

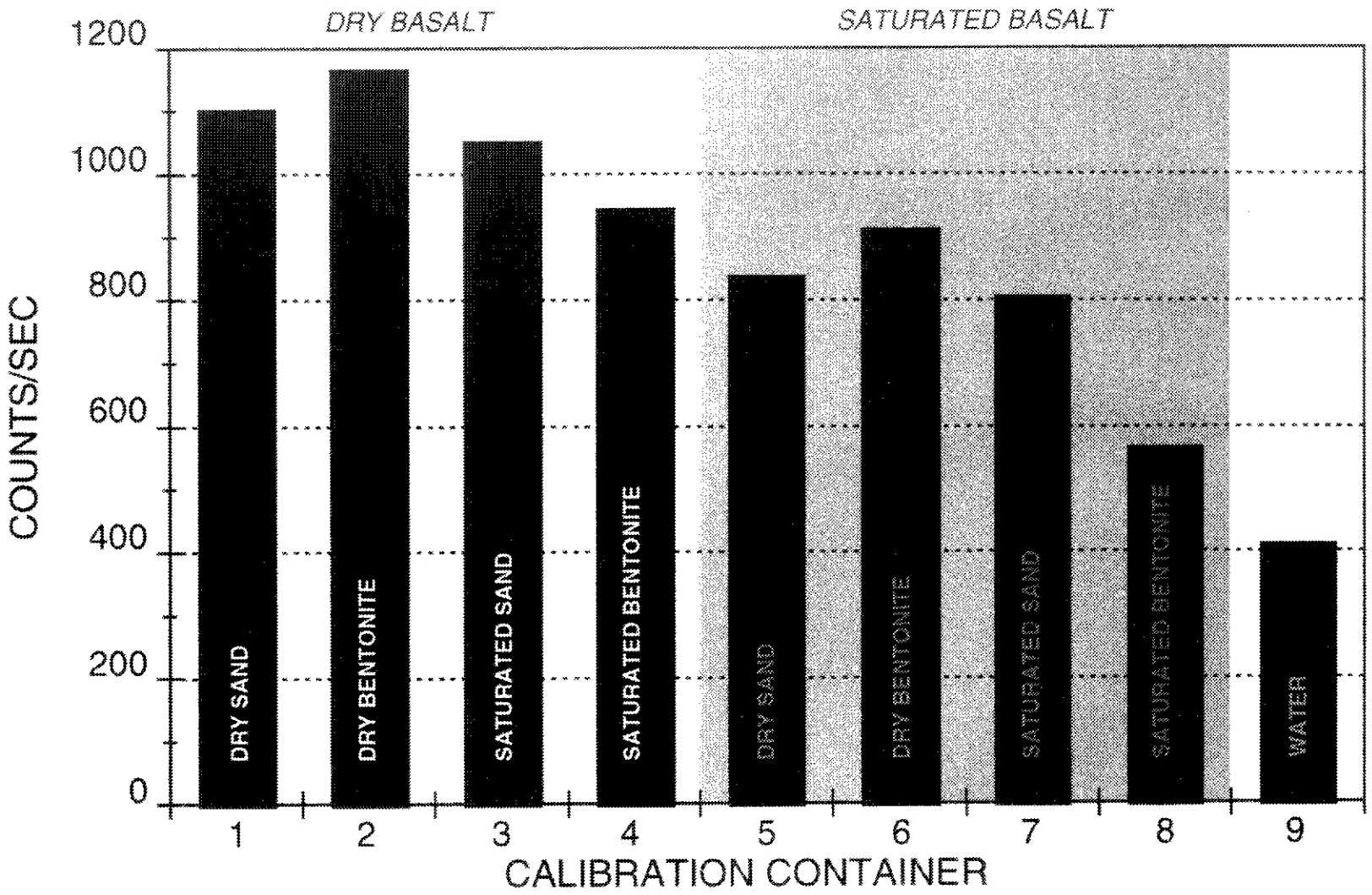


Figure A-9. Calibration container counts for Gearhart neutron tool.

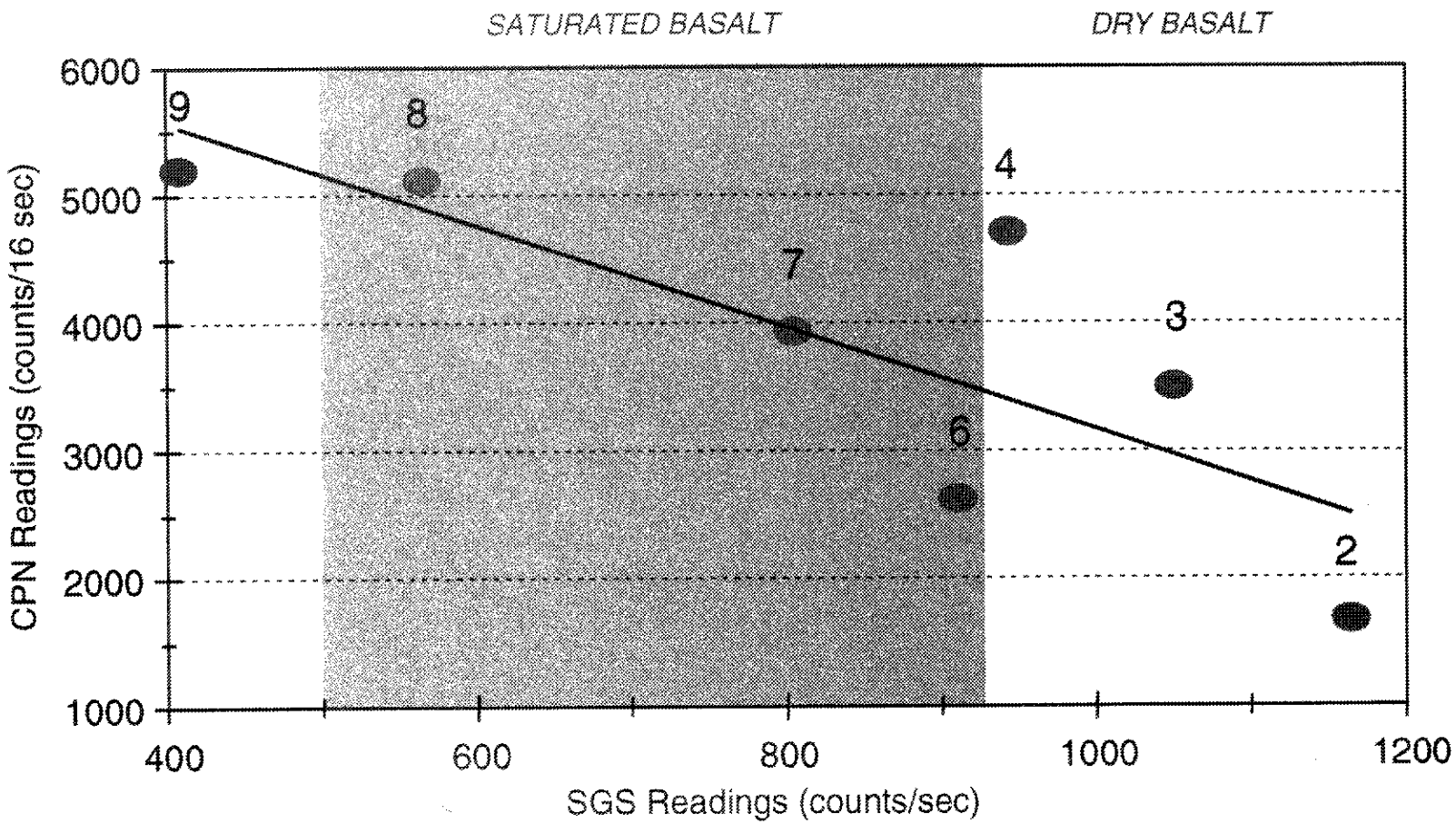
annular space in these calibration pits.

Although differences in instrument source strength and detector spacing between neutron tools and the moisture gauges result in data that require different interpretation, certain similarities in the data (e.g., the opposite response to moisture treatments in the calibration pits) promote the temptation to directly compare readings from the instruments. Accordingly, regression analysis was used to compare calibration pit responses for both instruments (Figure 10). The relationship between the neutron tool and moisture gauge data was poor. The saturated bentonite-saturated basalt data, the saturated sand-saturated basalt data, and the water pit data from both instruments appear to be related, but five other points appear to be randomly scattered. (Anomalous data from pits 1 and 5 were not plotted.) If a simple relationship (linear regression) between the raw data from the two types of instruments exists, it appears to be obscured by neutrons from the larger sources migrating beyond the calibration pits.

Infiltration Test Data Comparisons

The performances of the moisture gauge and the truck-mounted tools were compared in the field wells. Well A04C12 (located in the basin) showed evidence of moisture movement early in the LSIT. Logs taken at similar times in this well by the two neutron tools and the moisture gauge are compared in Figures 11 (Century tool and CPN moisture gauge) and 12 (Gearhart tool and CPN moisture gauge). Table 3 shows the date and time for logs used in the comparisons of the Century neutron tool and the moisture gauge. Although the times that the background logs were taken differed by several weeks, moisture conditions did not change during this period, and the logs are comparable. The differences in time for July 27 and July 30 logs may be more significant because these logs were made during the LSIT. Nevertheless, the comparisons between the instruments do not indicate that the time difference greatly affected the outcome.

Figure 11 shows the comparison between the near (11a) and far (11b) detectors for the Century tool and the moisture gauge (11c). Generally, the instruments show increased moisture in the same areas. Both detectors of the Century tool show moisture down to 6.86 m (22.5 ft) on



9 - WATER
8 - SATURATED BENTONITE
7 - SATURATED SAND
6 - DRY BENTONITE
4 - SATURATED BENTONITE
3 - SATURATED SAND
2 - DRY BENTONITE

Figure A-10. Regression line for calibration pit counts for moisture gauge A and Gearhart neutron tool.

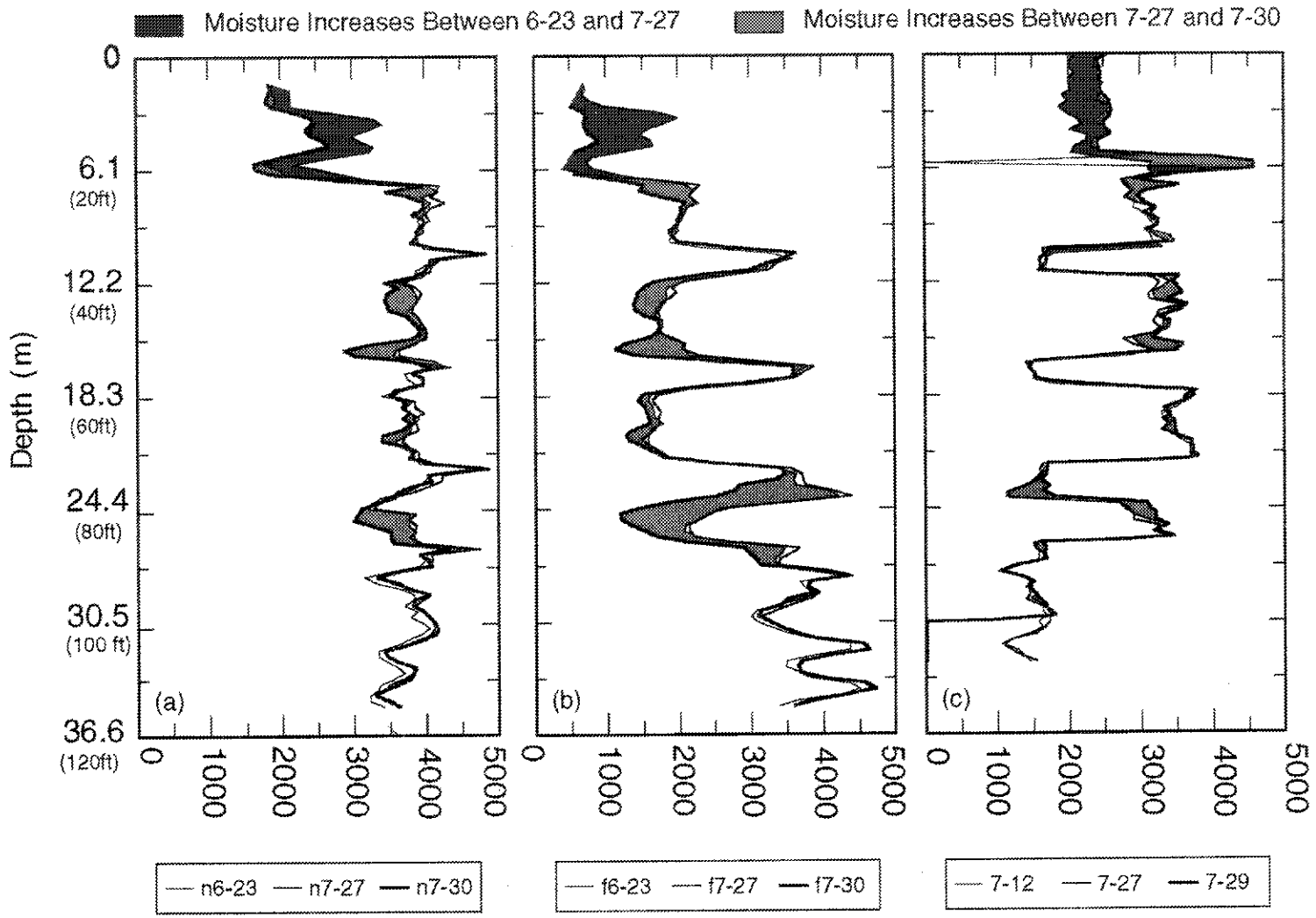


Figure A-11. Comparison of Century logs made by near (11a), far (11b) detectors with moisture gauge (11c) data.

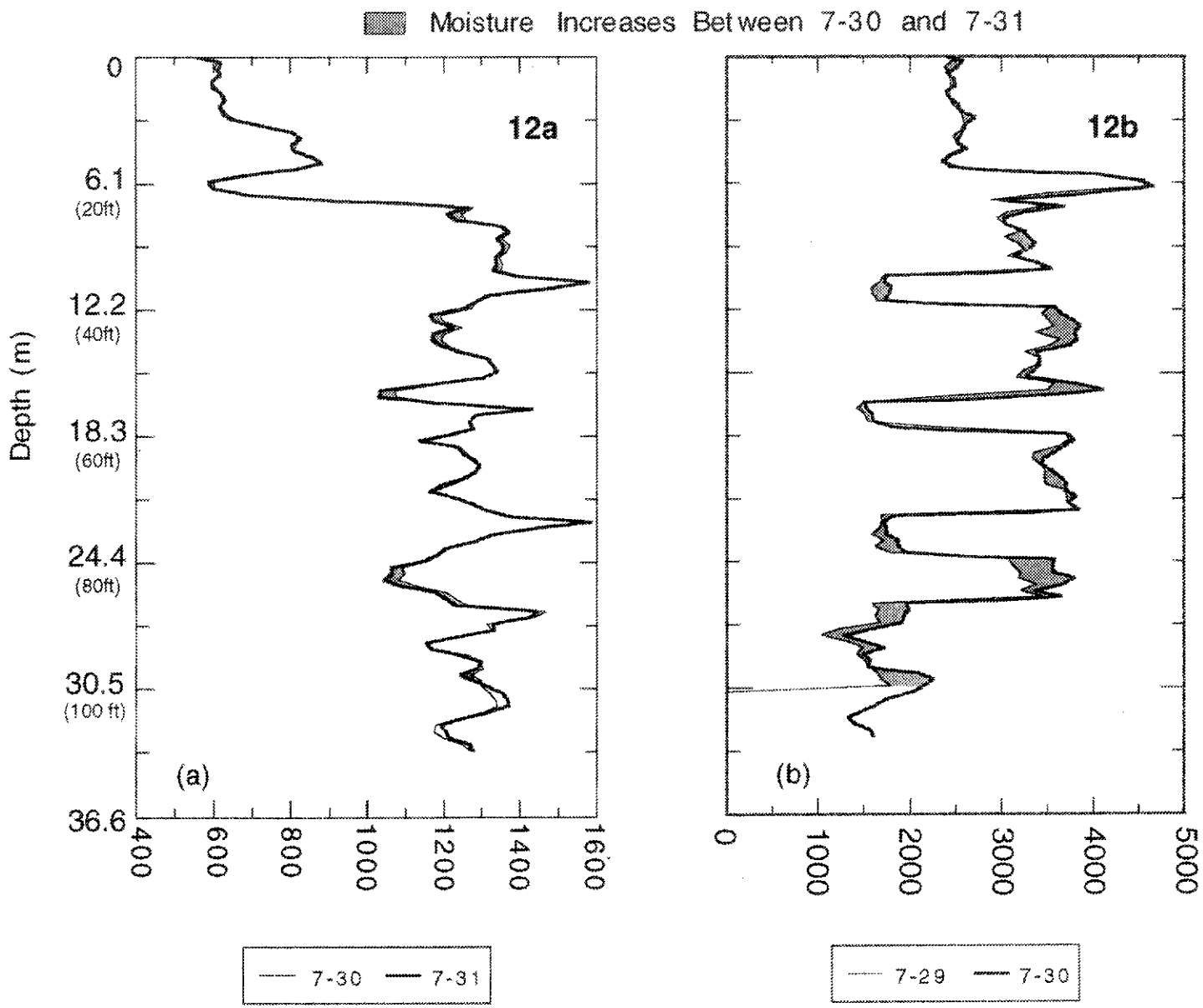


Figure A-12. Comparison of Gearchart (12a) and CPN moisture gauge logs (12b).

Table 3. Date and time of logs used to compare field performance of Century neutron tool to CPN moisture gauge.

Instrument	Time	Date
Century (background)	1346	6/23/94
Century	0126	7/27/94
Century	0849	7/30/94
CPN moisture gauge (background)	1453	7/12/94
CPN moisture gauge	0315	7/27/94
CPN moisture gauge	2020	7/29/94

July 27. Below that depth, there appears to be no change in moisture. The moisture gauge also detected an increase in moisture content down to this level; below this level, moisture content did not appear to change. However, by July 30, the far detector (and generally the near detector) on the Century tool show increases in moisture down to the 8.5-m (28-ft level) and in four additional locations [11.3 to 14.3 m (37 to 47.5 ft); 15.1 to 17.4 m (49.5 to 57 ft); 18.3 to 21.7 m (60 to 71 ft); and 22.6 to 27.8 m (74 to 91 ft)]. The moisture gauge also detected increased moisture in the same intervals, indicating that the Century tool (far detector) and the moisture gauge are equally able to detect increased moisture in the annular space materials and in the surrounding formation. The moisture gauge, and to a lesser extent, the far detector (Century tool) are effective in contrasting the sand and bentonite layers in the annular space.

The near detector on the Century neutron tool routinely indicated less moisture than the far detector because measurements may be masked by borehole effects (PVC casing, annular fill materials, and void spaces in the annular space or formation). This is especially evident at the 22.9-m (75-ft) level. Moisture at this level cannot be seen in Figure 11a (due to borehole effects) while both Figures 11b and 11c show moisture.

Table 4 lists the time and date of logs used to compare the Gearhart neutron tool and the CPN moisture gauge. Figure 12 shows the Gearhart neutron tool (12a) and CPN moisture gauge (12b) logs that are compared. Increased moisture contents in the Gearhart logs are at approximately 9.5 m (31 ft), 10.6 to 11.9 m (35 to 39 ft), 14.6 to 15.6 m (48 to 51 ft), 18.6 m (61 ft), 27.1 to 29 m (89 to 95 ft), and 31.7 to 32.3 m (104 to 106 ft). The moisture gauge indicated increased moisture content at 2.7 to 6.1 m (9 to 20 ft), 9.8 m (32 ft), 10.9 to 12.2 m (36 to 40 ft), 14.9 to 16.5 m (49 to 54 ft), 18.6 m (61 ft), 26.5 to 28.4 m (87-93 ft), 29.2 to 29.9 m (96 to 98 ft), and 32.6 to 33.6 m (107 to 110 ft). These are generally comparable given that some uncertainty exists in matching the logs with respect to depth. Because the moisture gauge and the Century far detector discriminate between the sand and bentonite in the annular space, logs made by these instruments can be matched in relation to depth with relative ease. Spacing of the Century near detector and the Gearhart detector are similar [27.4 and 33 cm (10.8 and 13

Table 4. Date and time of logs used to compare field performance of the Gearhart neutron tool to the CPN moisture gauge.

Instrument	Time	Date
Gearhart (background)	0332	7/30/94
Gearhart	0157	7/31/94
CPN moisture gauge (background)	2020	7/29/94
CPN moisture gauge	2330	7/30/94

in.)], which results in comparable logs (Figures 11a and 12a). Differentiation of the sand and bentonite layers in the annular space with the Gearhart neutron tool (and the Century neutron tool's near detector) appears to be complicated by borehole effects and perhaps other unknown factors, and matching the logs to the moisture gauges with respect to depth is more uncertain. The Gearhart tool has difficulty detecting the increased moisture at the top of the well probably due to the stronger source not permitting logging as near to the surface as the moisture gauge.

CONCLUSIONS

Two types of neutron thermalization instruments, the truck-mounted neutron tool and the moisture gauge, were evaluated and compared in calibration pits designed specifically for these purposes and in actual monitoring wells constructed for the INEL LSIT. Calibration pit data indicate that the CPN moisture gauges can be standardized to produce equivalent results. Calibration pit data also demonstrated that although materials used in the well completions (PVC casing, 5 cm (2 in.) of bentonite, and saturated conditions) tend to attenuate neutron readings, both moisture gauges and the truck-mounted neutron tools can distinguish moisture changes beyond the 10-cm (3.9-in.) radius of the borehole. Calibration pit data also suggest that a simple linear relationship between the neutron tools and the moisture gauges may not exist or is obscured by the neutron flux extending beyond the calibration pit in some instances. Nevertheless, field data indicate that the two types of instruments yield the same information (identify moisture at the same depths) when comparing counts to established baseline data.

Both neutron thermalization methods worked well for monitoring moisture movement in the thick, fractured-basalt vadose zone. Even though logs made using the far detector on the neutron tool and the moisture gauge are inverses of each other, they seem to be more sensitive to moisture changes in the formation than measurements made with a neutron tool near detector. Both methods generated reproducible data sets. However, each method has benefits and drawbacks. The moisture gauges are relatively inexpensive, have a smaller source resulting in fewer regulatory requirements and less potential for health impacts, and in some situations are

easier handled. Gauges can be standardized to each other with relative ease. They also did the best job of discriminating between the bentonite and sand in the annular space (the Century neutron tool's far detector could also discriminate between the bentonite and sand). However, moisture monitoring with the gauge can be time-intensive and cumbersome. Costs involved with using the truck-mounted neutron tools can range from relatively expensive to very expensive. The potential for human health impacts is greater as are Nuclear Regulatory Commission requirements and paperwork associated with the stronger source. The neutron tool, however, generates data much more rapidly, can be easier to use in some environments, and can be used in a water-filled borehole. Since both are effective in measuring moisture in the vadose zone, the choice of which to use depends upon a careful review of the environment and resources.

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Appendix B

Well Completion Validation

WELL COMPLETION VALIDATION

Wells constructed for monitoring moisture movement in the subsurface below and adjacent to the infiltration basin were drilled with a 20-cm (7-⅞-in.) diameter bit. PVC tubing [10.2 cm (4 in.) in diameter] served as casing. Sand and bentonite were layered in the annular space by pouring (from the surface) the dry material down the annular space. Depths were checked using a steel tag line. Sand was placed in areas adjacent to permeable zones in the formation and bentonite in other areas. The bentonite was used to prevent water from channeling down the annular space.

Well completion diagrams are drawings showing total depth of well (TD), completion depth (for most cases, this is the same as TD), and thickness and location of the bentonite and sand layers. Well completion diagrams have been prepared for most of the wells drilled in and around the infiltration basin based on field notes that were made during completion. Well completion diagrams are unavailable for wells B05O11, B09G11, B10G11, and B12O11.

The Boart Longyear Co. CPN 503DR Hydroprobe® (CPN) neutron logs proved to be excellent discriminators between the sand and bentonite layers used to fill the annular space during well completions. Fast neutrons emitted by the CPN 50-mCi Am-Be source are slowed when they encounter hydrogen present in either the water molecule or bound in the chemical structure of the surrounding medium. The CPN neutron probe counts slow neutrons, with high counts being correlated to high hydrogen content. Unlike sand, the chemical composition of bentonite includes hydrogen. Also, because the clay structure of bentonite attracts available moisture (as apposed to the sand), bentonite tends to have a higher moisture content than sand. Both of these conditions contribute to the higher counts observed in bentonite than in sand.

The objectives of comparing the CPN logs with the well completion diagrams are to verify that the well completion diagrams are correct and to identify anomalous areas within the borehole. To meet these objectives, the well completion diagrams and background CPN logs (those taken prior to introduction of water into the infiltration basin) have been plotted next to

each other and adjusted for depth (Figures B-1 to B-49). These figures permit direct comparison the well completion diagrams and the neutron logs. Generally, the well completion diagrams and the CPN logs are in agreement. Where disagreement exists, causes of the differences generally can be attributed to four areas — surface casing, missing or shifted layers, bridging in the borehole, and possible mixing of the annular materials. It is not possible to determine the exact cause of a difference; therefore, suggestions of possible causes are offered.

Generally, surface casing (carbon steel pipe) was set through surficial sediments down to the basalt. For the majority of "A" wells, it was set approximately 6.1 m (20 ft) below land surface. The surface casing and the grout used around the surface casing attenuate the neutrons resulting in lower counts near the top of the hole. This can be observed in most of the CPN logs. An example of this phenomenon is seen in the log for well A04C13 (Figure B-6). The bentonite zones yield about 4,500 counts at each depth, except near the top of the well where they yield about 3,000 counts. The well completion diagram, however, indicates that the annular space at the top of the well is filled with bentonite. This attenuation in neutron counts is caused by the 5.8 m (19 ft) of 20.3-cm (8-in.) carbon-steel surface casing that has been grouted in place.

Some logs exhibit shifts in bentonite or sand layers or layer thicknesses. An example of both of these is found in well B02N11 (Figure B-14). The sand layer at approximately 16.8 m (55 ft) is slightly thicker than the well completion diagram indicates, and the bentonite layer immediately below the sand layer is shifted downhole from the location indicated in the well completion diagram. The shifts result from the difficulty of accurately placing materials downhole in the annular space. Some logs indicate that a layer has been missed, as seen in well B09N11 (Figure B-18). The bentonite layer between 25-27.5 m (82-90 ft) is totally missing.

In other logs, such as the log for well A01C11 (Figure B-1), a portion [at about the 9.1 m (30-ft) depth] of the uppermost bentonite zone that is not associated with surface casing shows lower counts than the other bentonite zones in this well. This can be attributed to bridging in the bentonite resulting in a void space, a collapse of the borehole resulting in native materials being placed around the borehole, or possibly other causes.

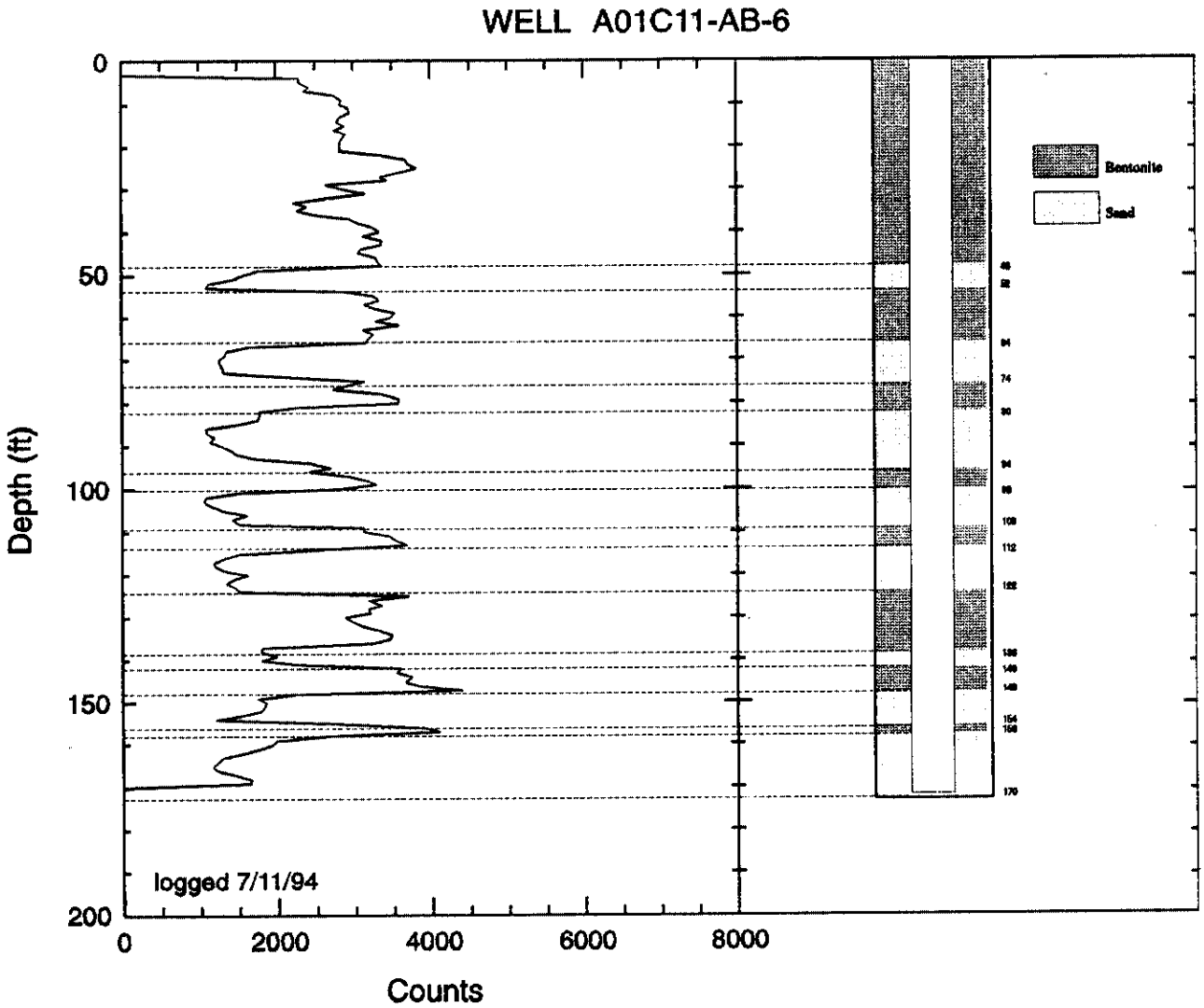


Figure B-1. CPN neutron log (left) and well completion diagram (right) for well A01C11.

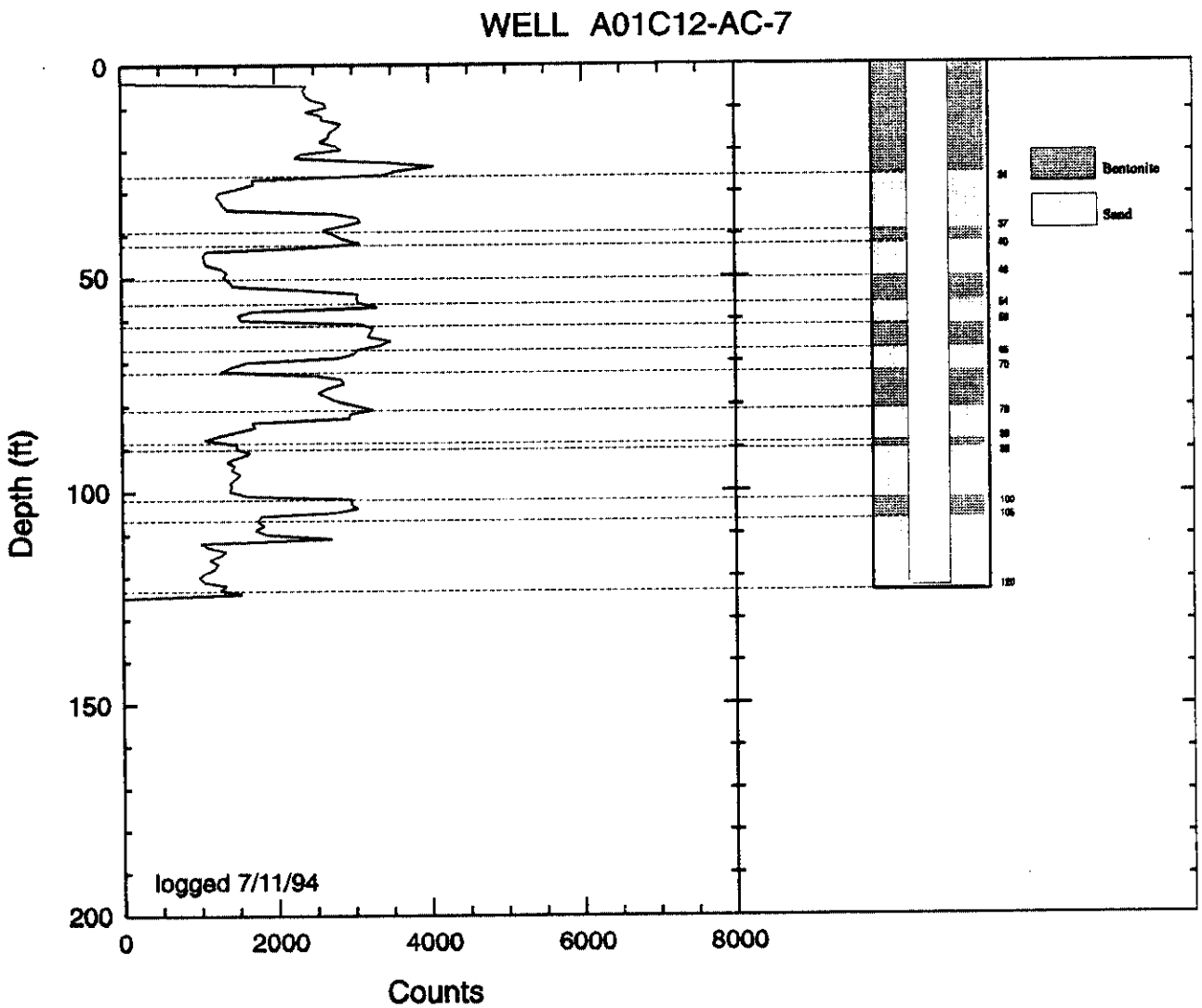


Figure B-2. CPN neutron log (left) and well completion diagram (right) for well A01C12.

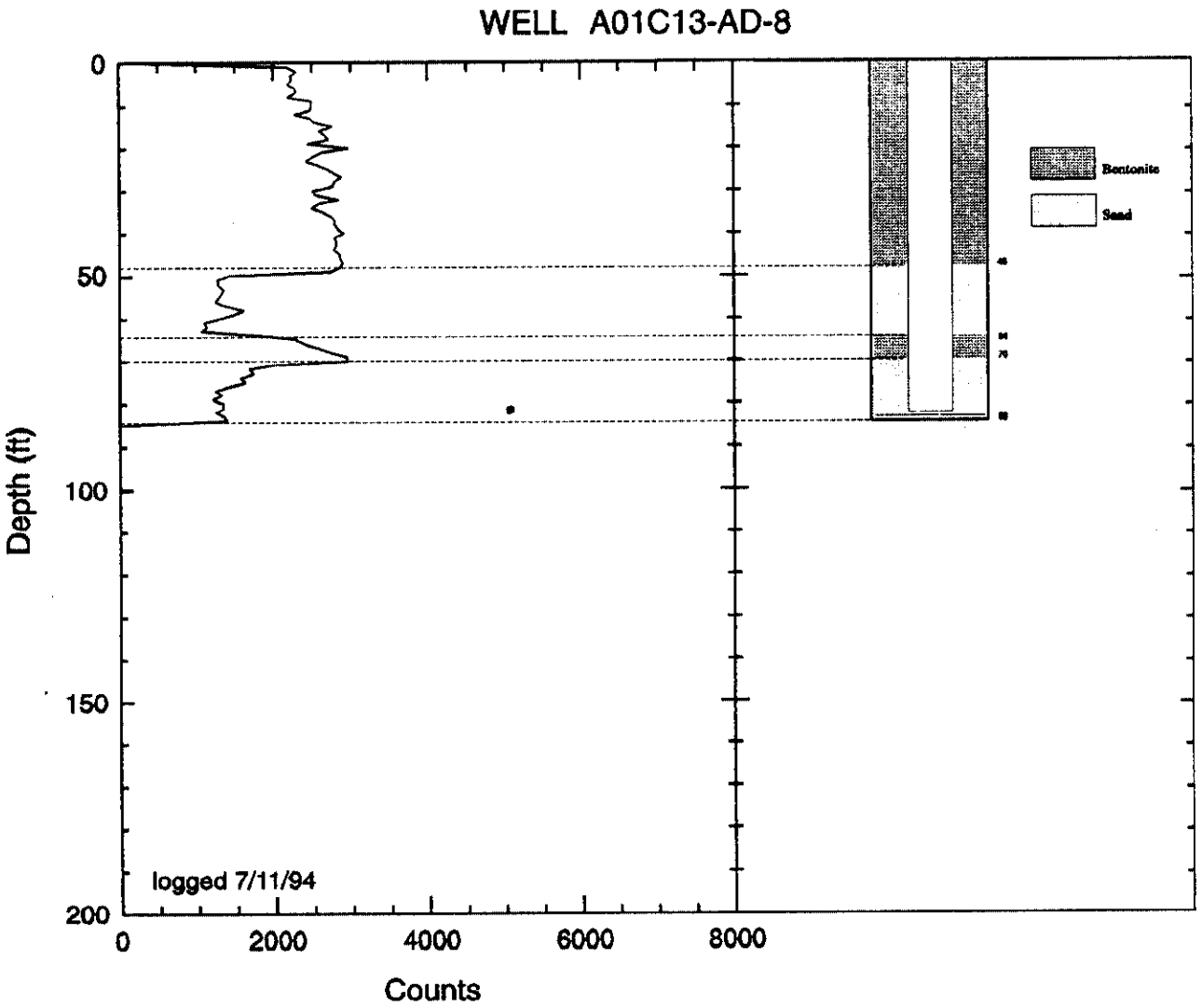


Figure B-3. CPN neutron log (left) and well completion diagram (right) for well A01C13.

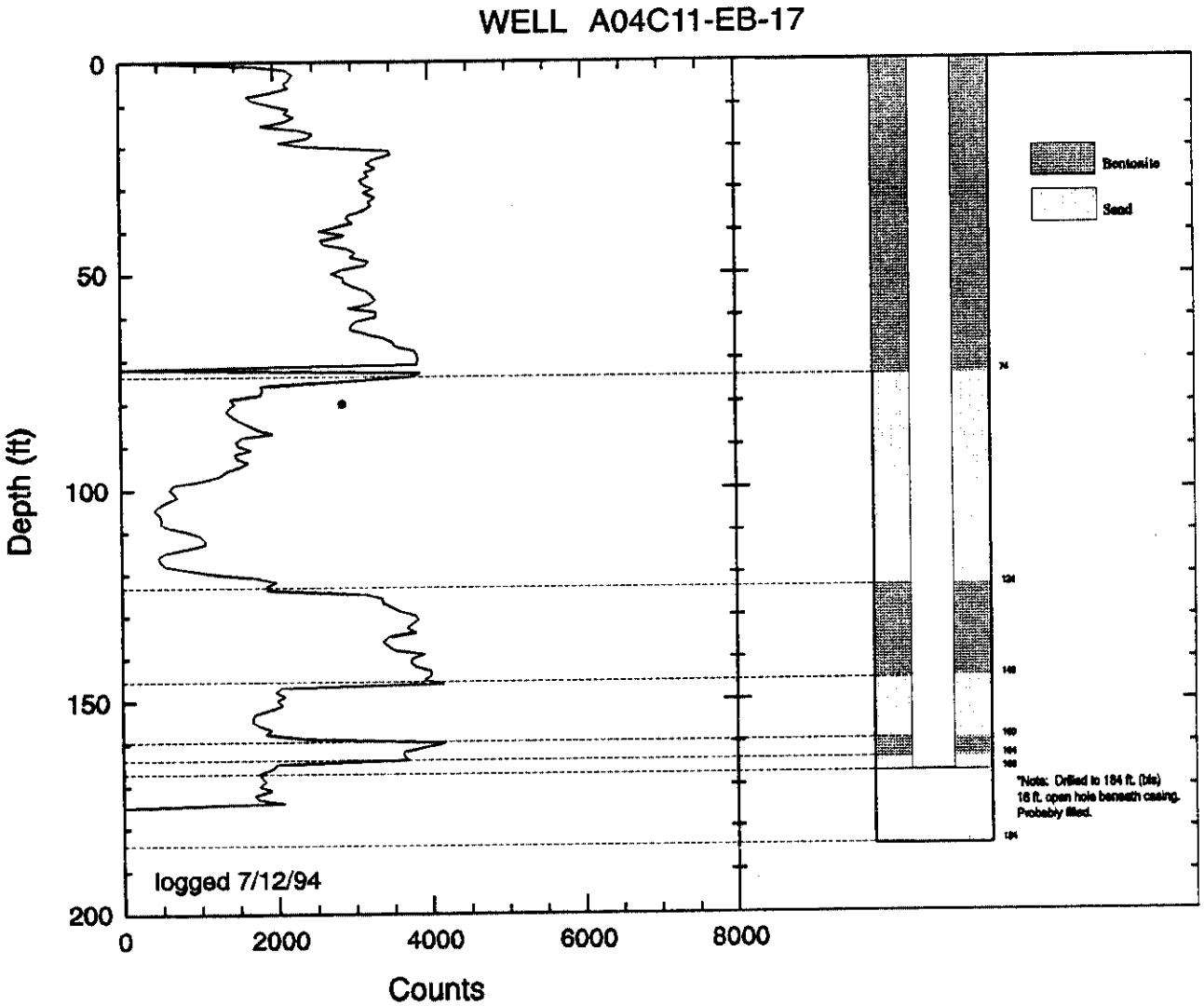


Figure B-4. CPN neutron log (left) and well completion diagram (right) for well A04C11.

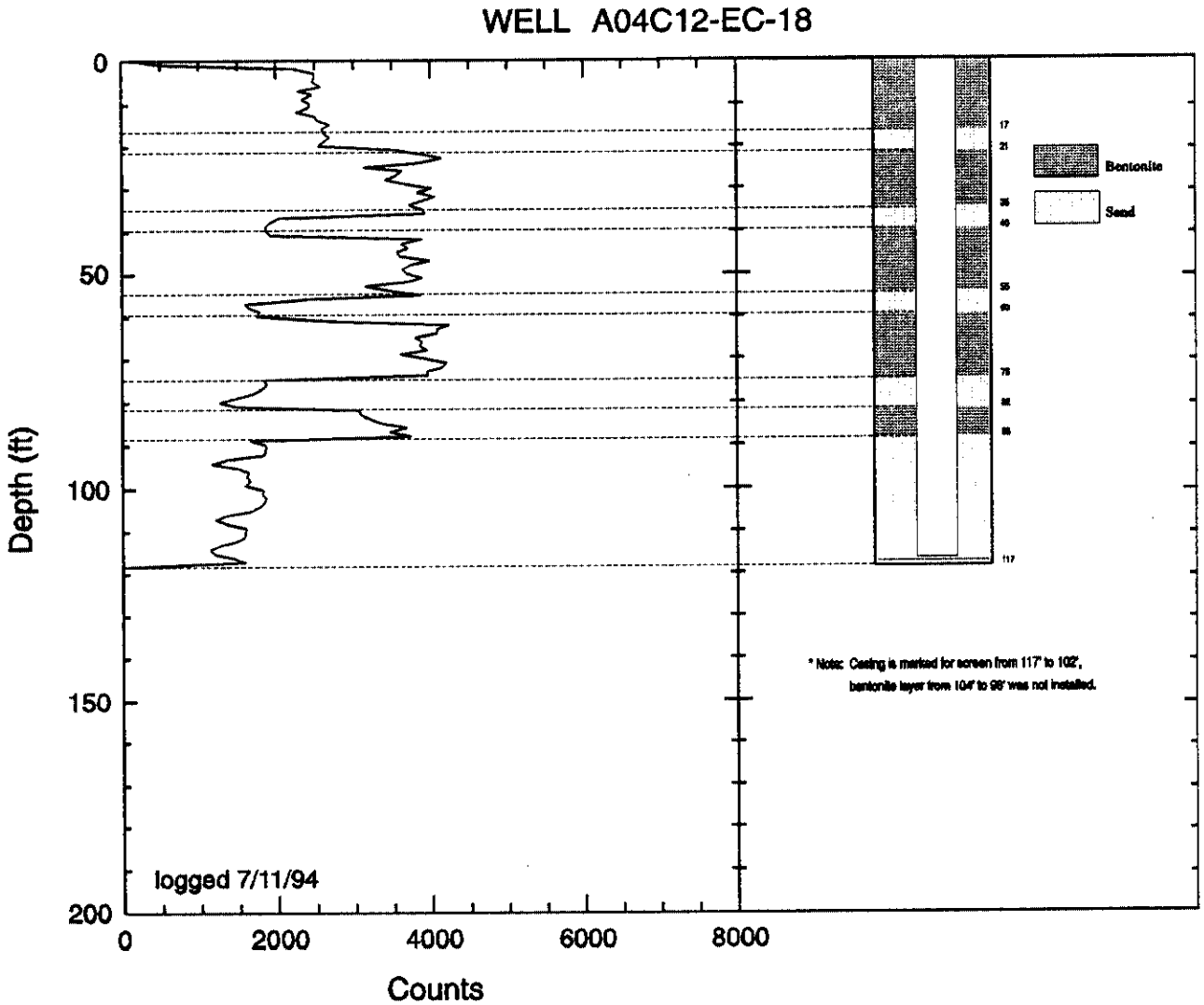


Figure B-5. CPN neutron log (left) and well completion diagram (right) for well A04C12.

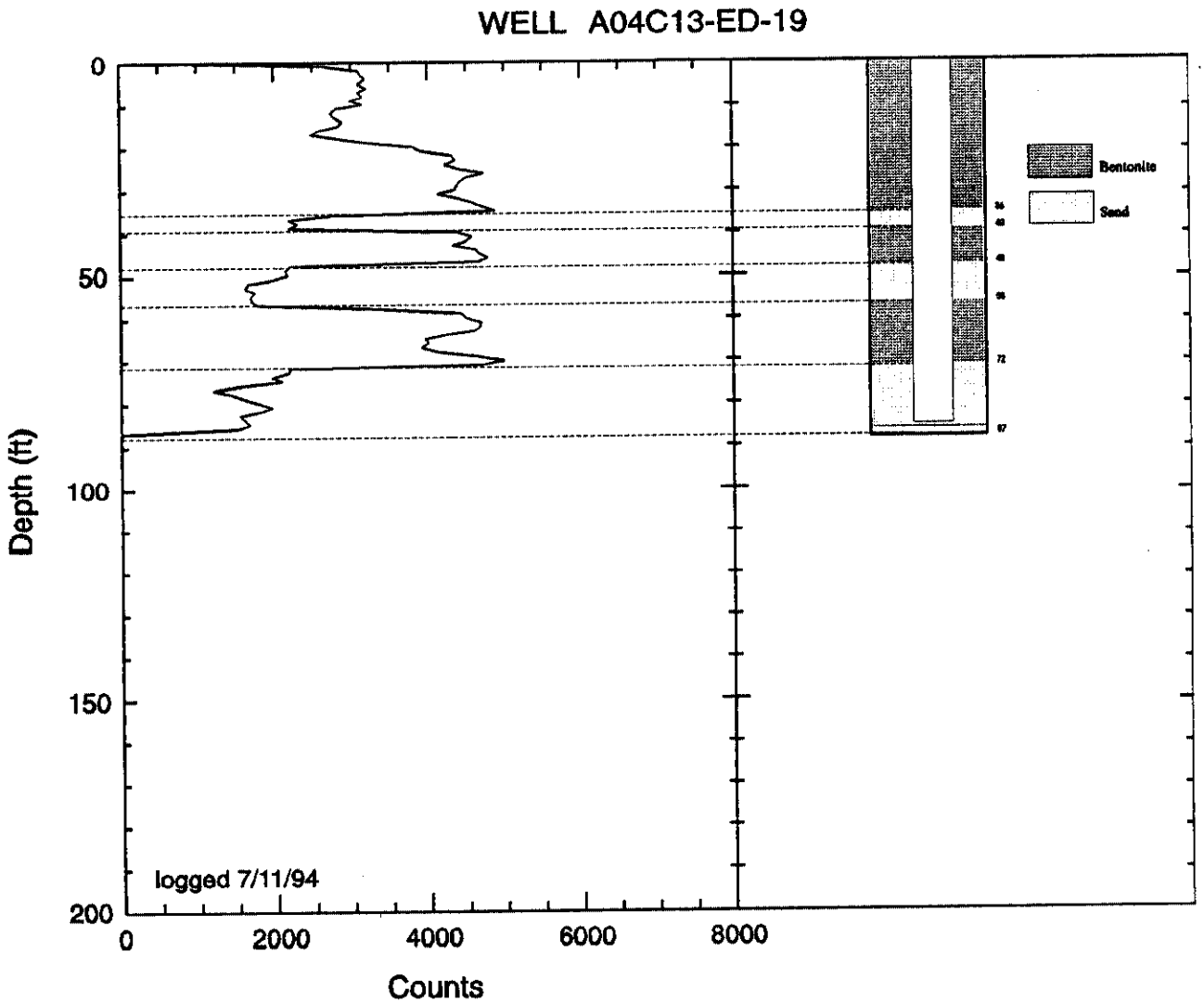


Figure B-6. CPN neutron log (left) and well completion diagram (right) for well A04C13.

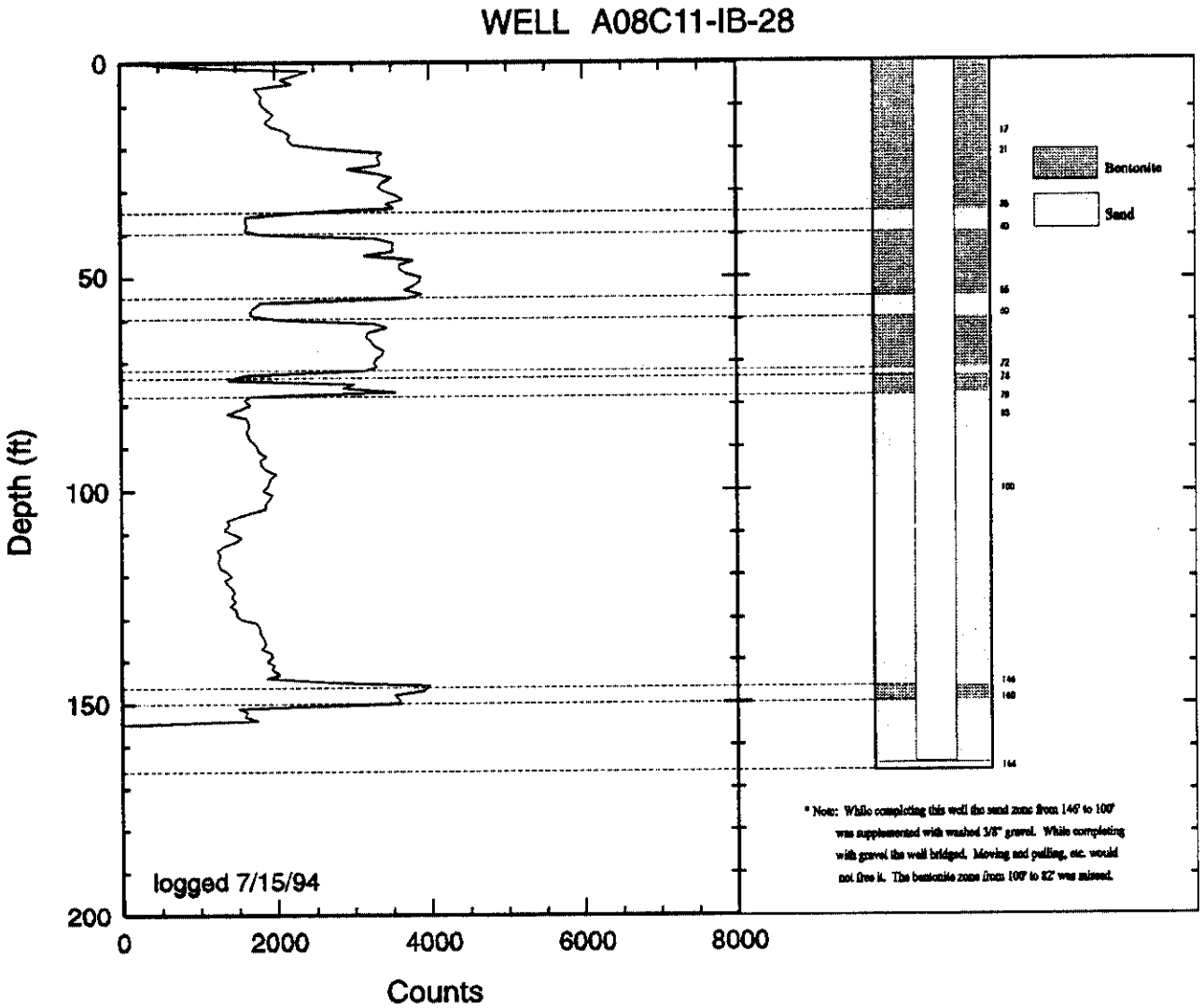


Figure B-7. CPN neutron log (left) and well completion diagram (right) for well A08C11.

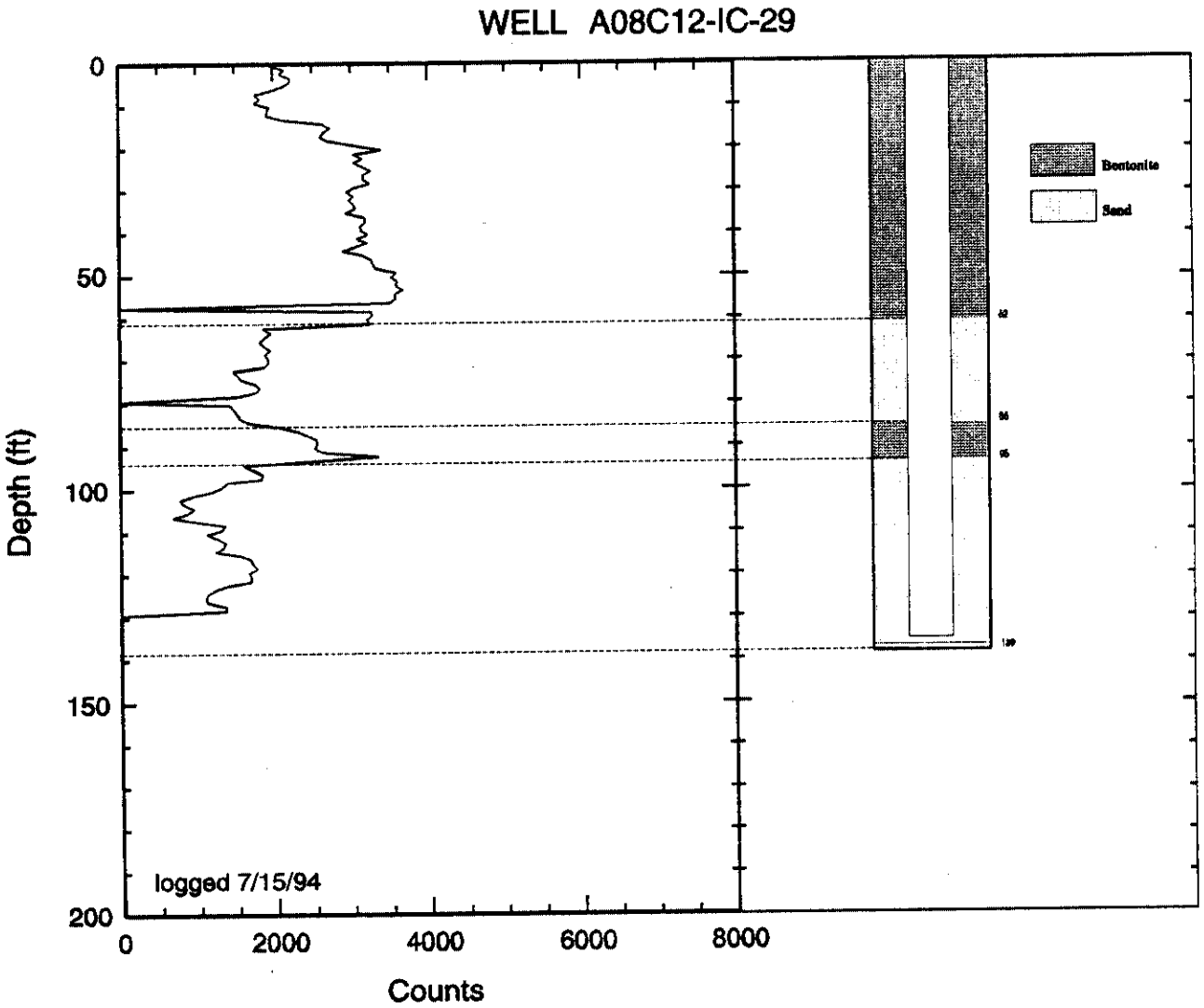


Figure B-8. CPN neutron log (left) and well completion diagram (right) for well A08C12.

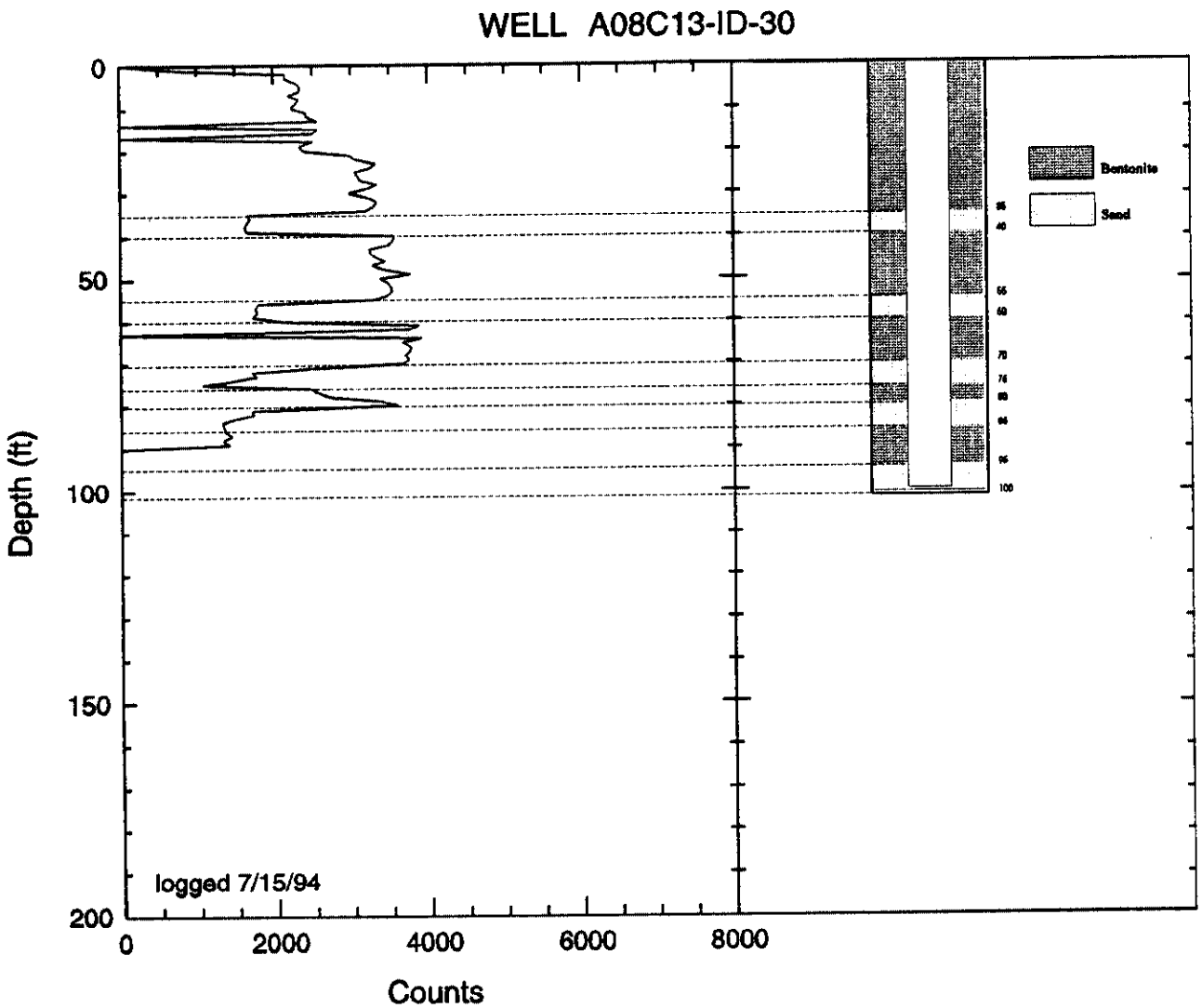


Figure B-9. CPN neutron log (left) and well completion diagram (right) for well A08C13.

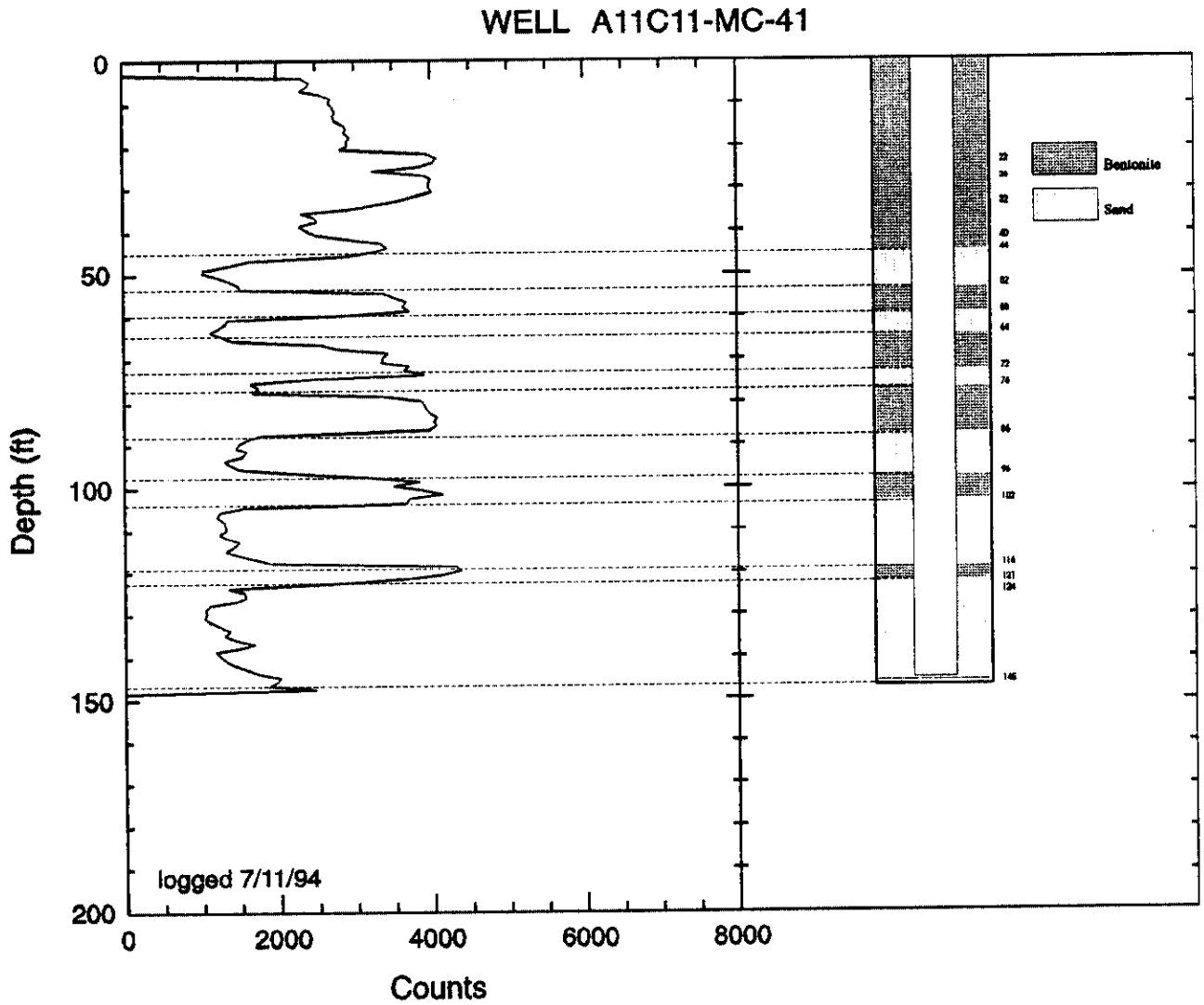


Figure B-10. CPN neutron log (left) and well completion diagram (right) for well A11C11.

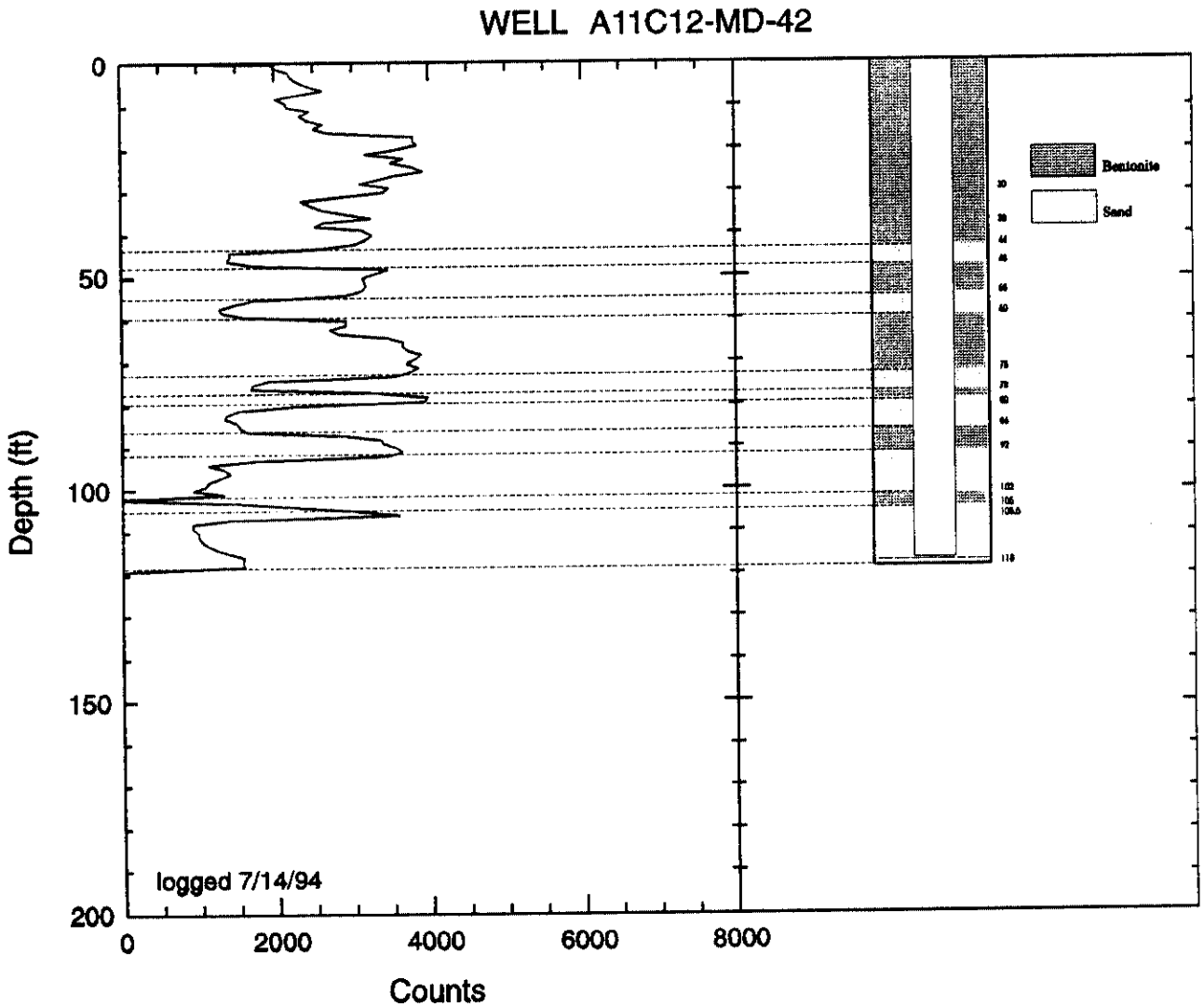


Figure B-11. CPN neutron log (left) and well completion diagram (right) for well A11C12.

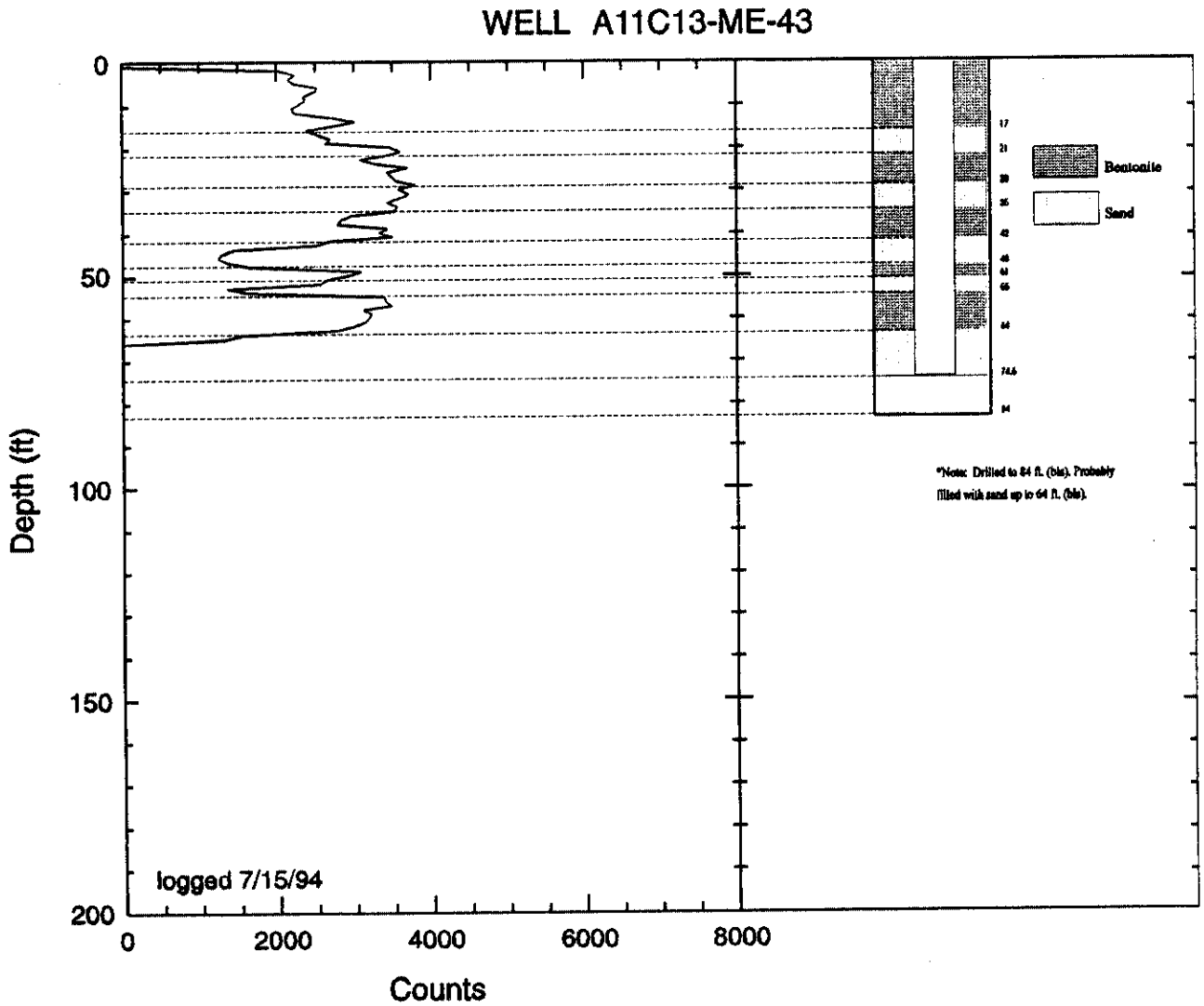


Figure B-12. CPN neutron log (left) and well completion diagram (right) for well A11C13.

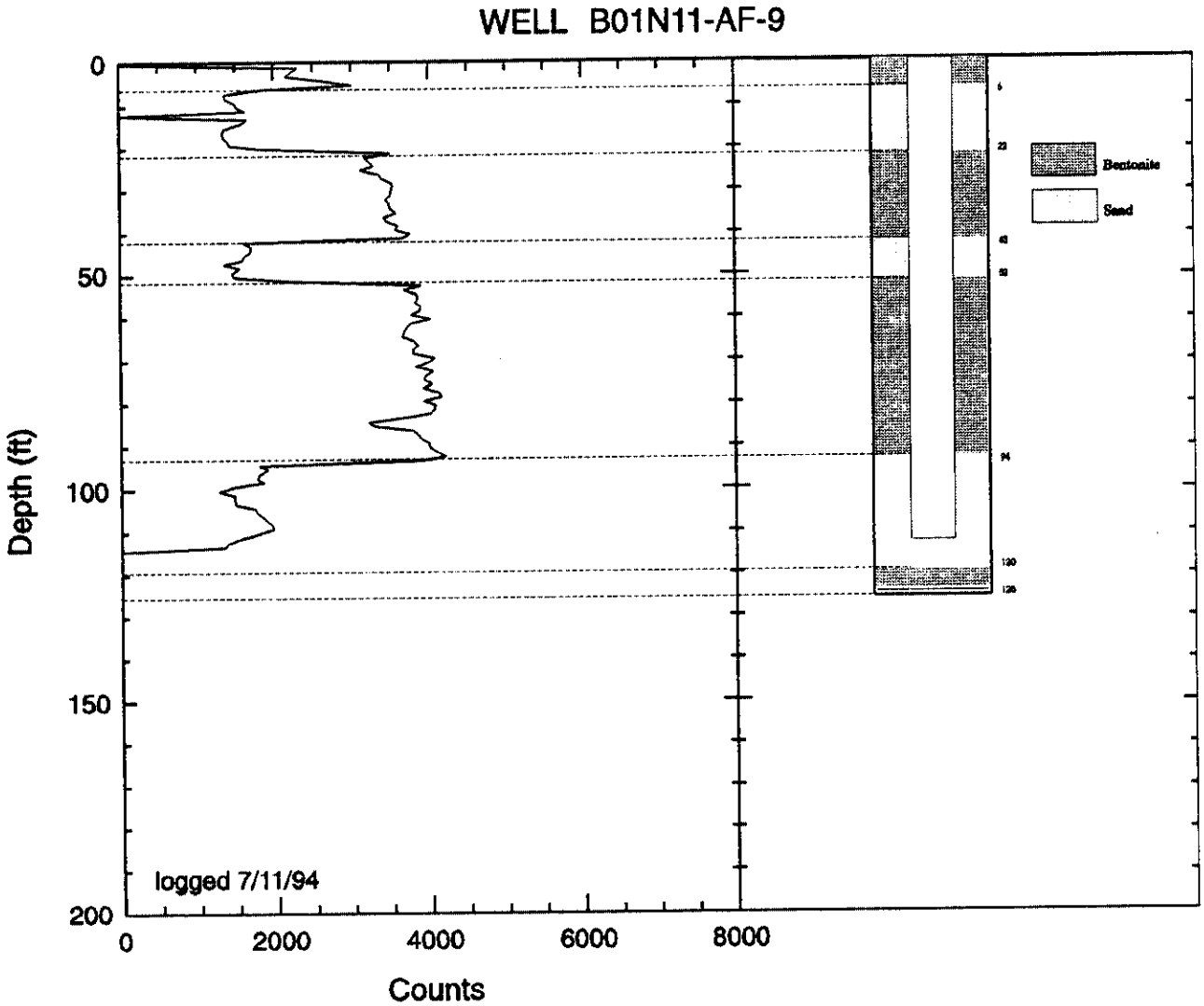


Figure B-13. CPN neutron log (left) and well completion diagram (right) for well B01N11.

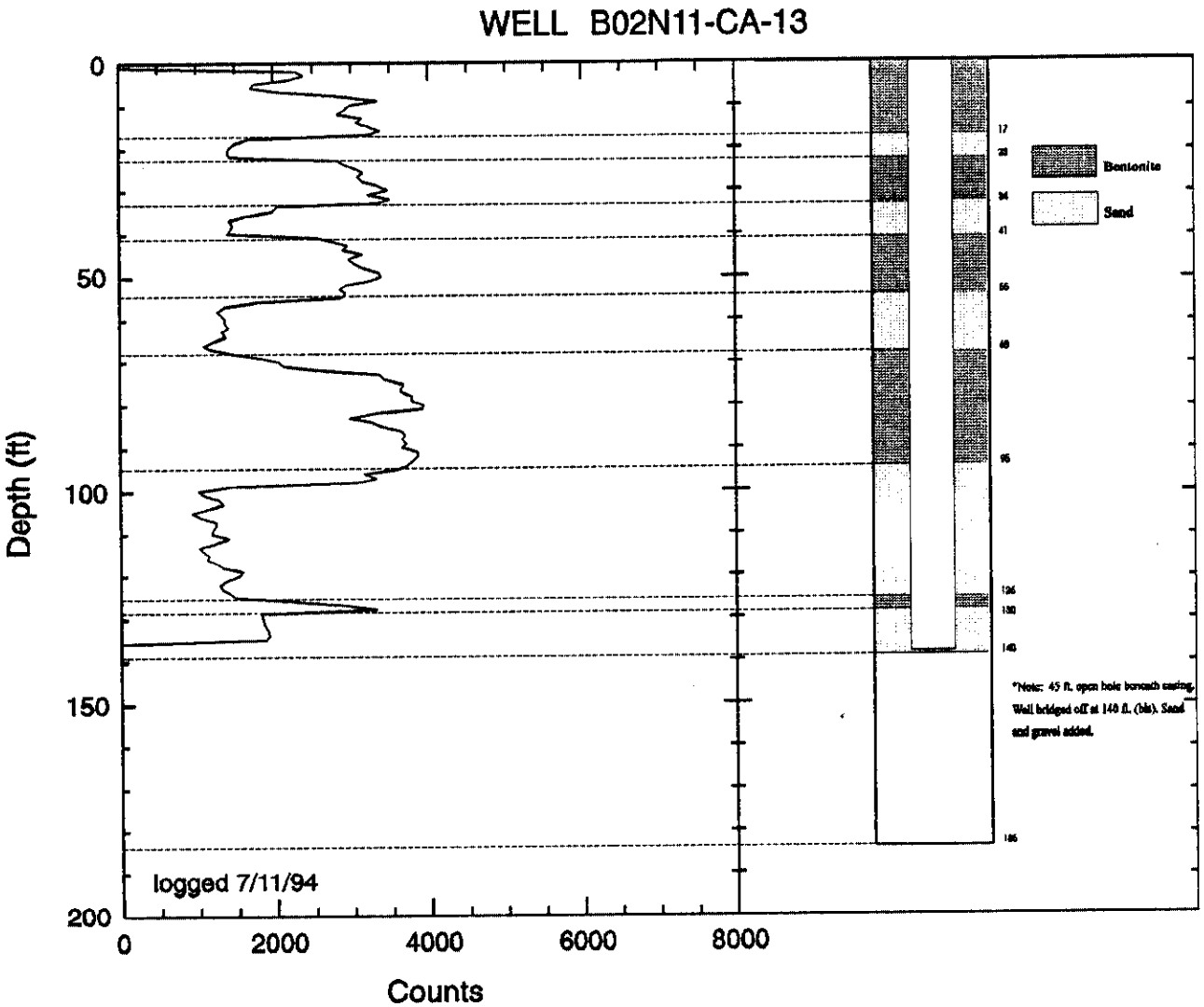


Figure B-14. CPN neutron log (left) and well completion diagram (right) for well B02N11.

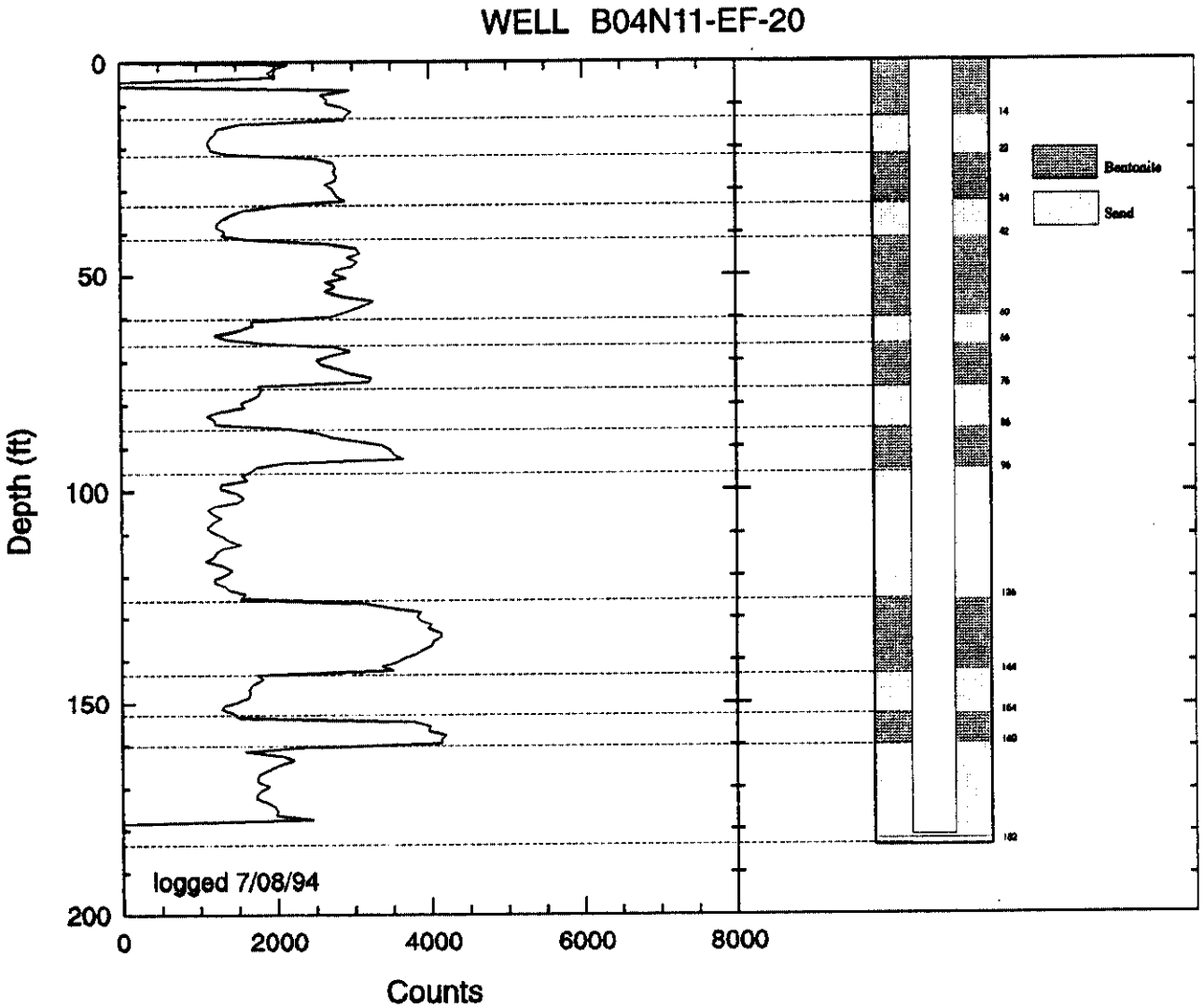


Figure B-15. CPN neutron log (left) and well completion diagram (right) for well B04N11.

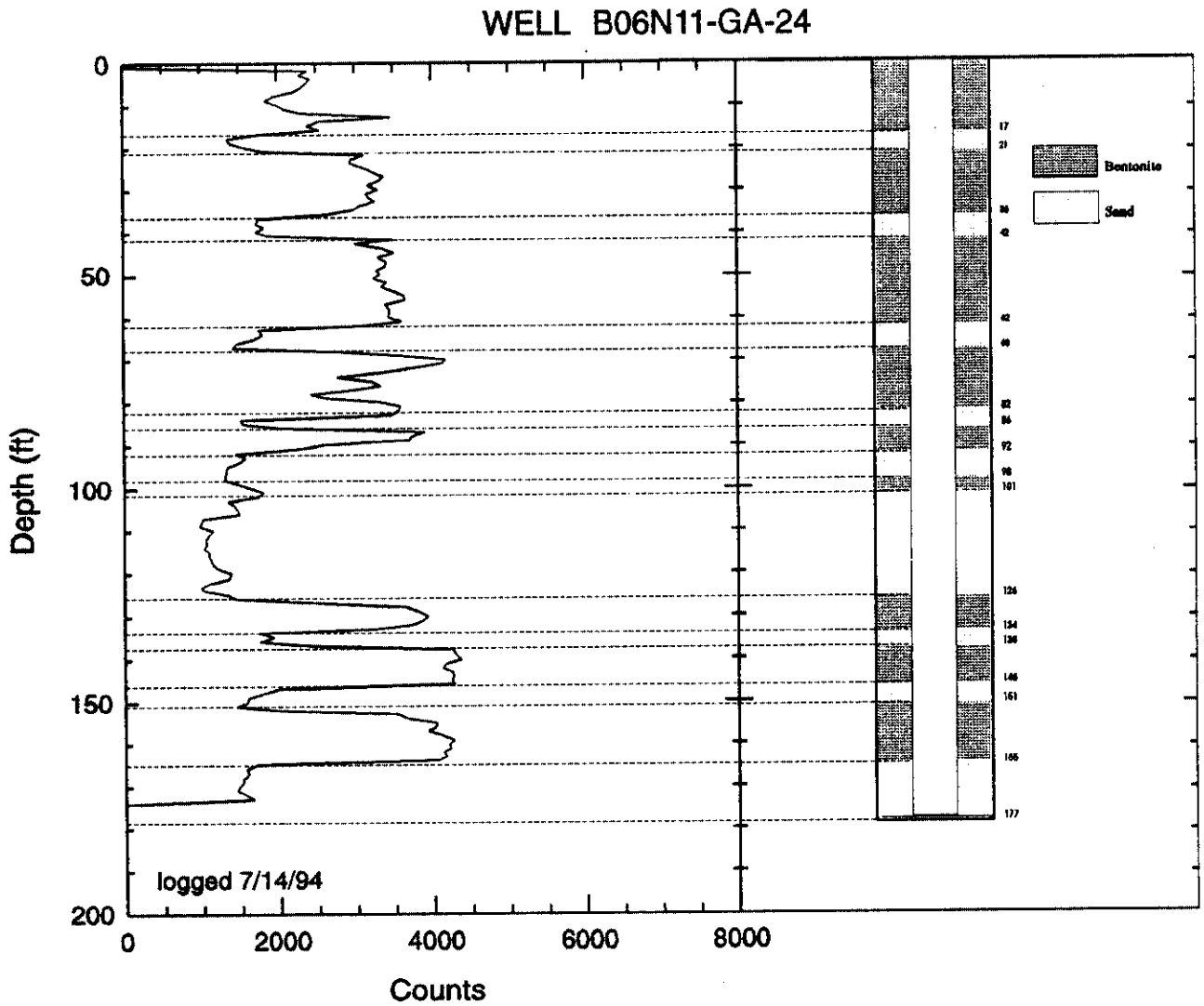


Figure B-16. CPN neutron log (left) and well completion diagram (right) for well B06N11.

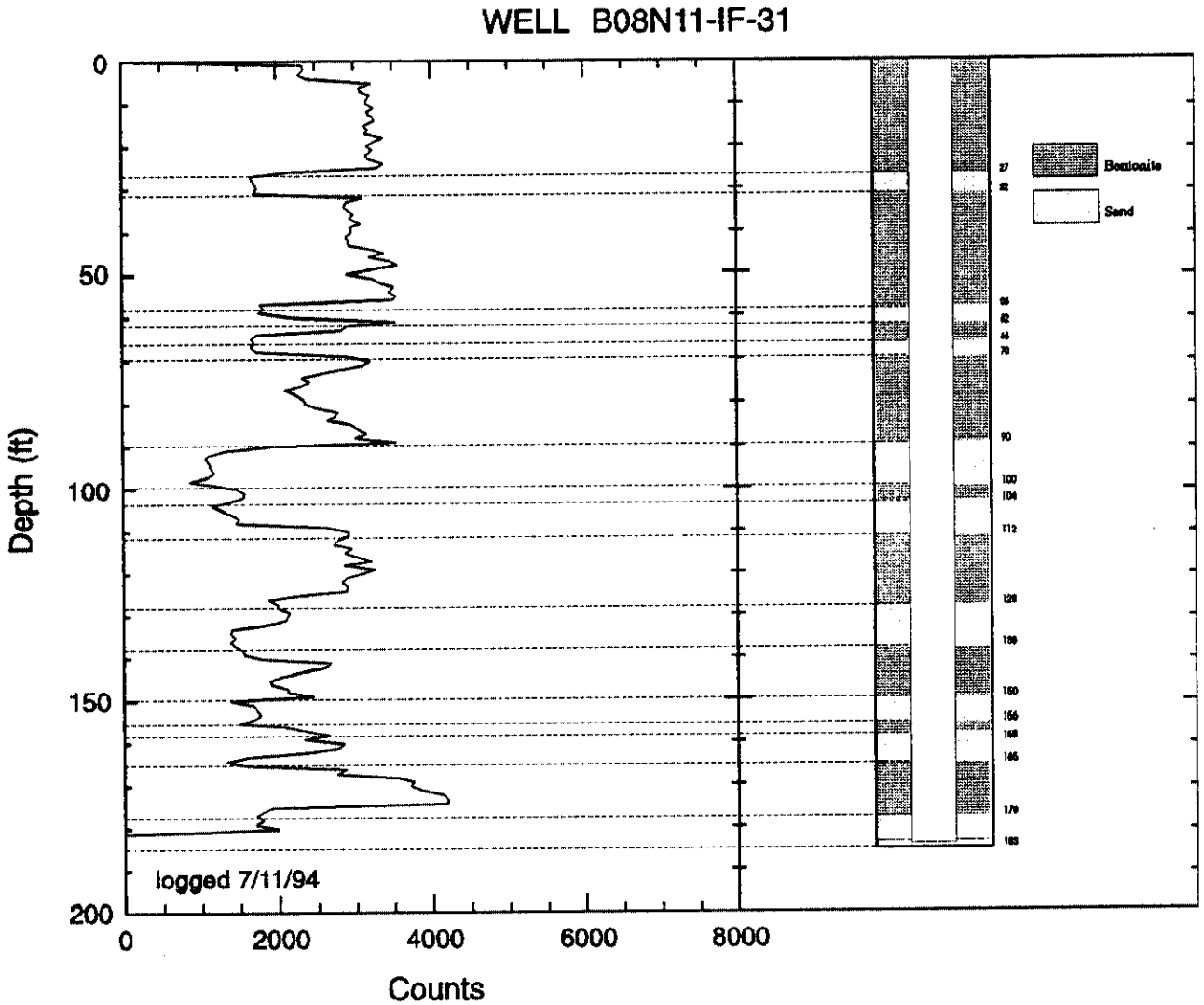


Figure B-17. CPN neutron log (left) and well completion diagram (right) for well B08N11.

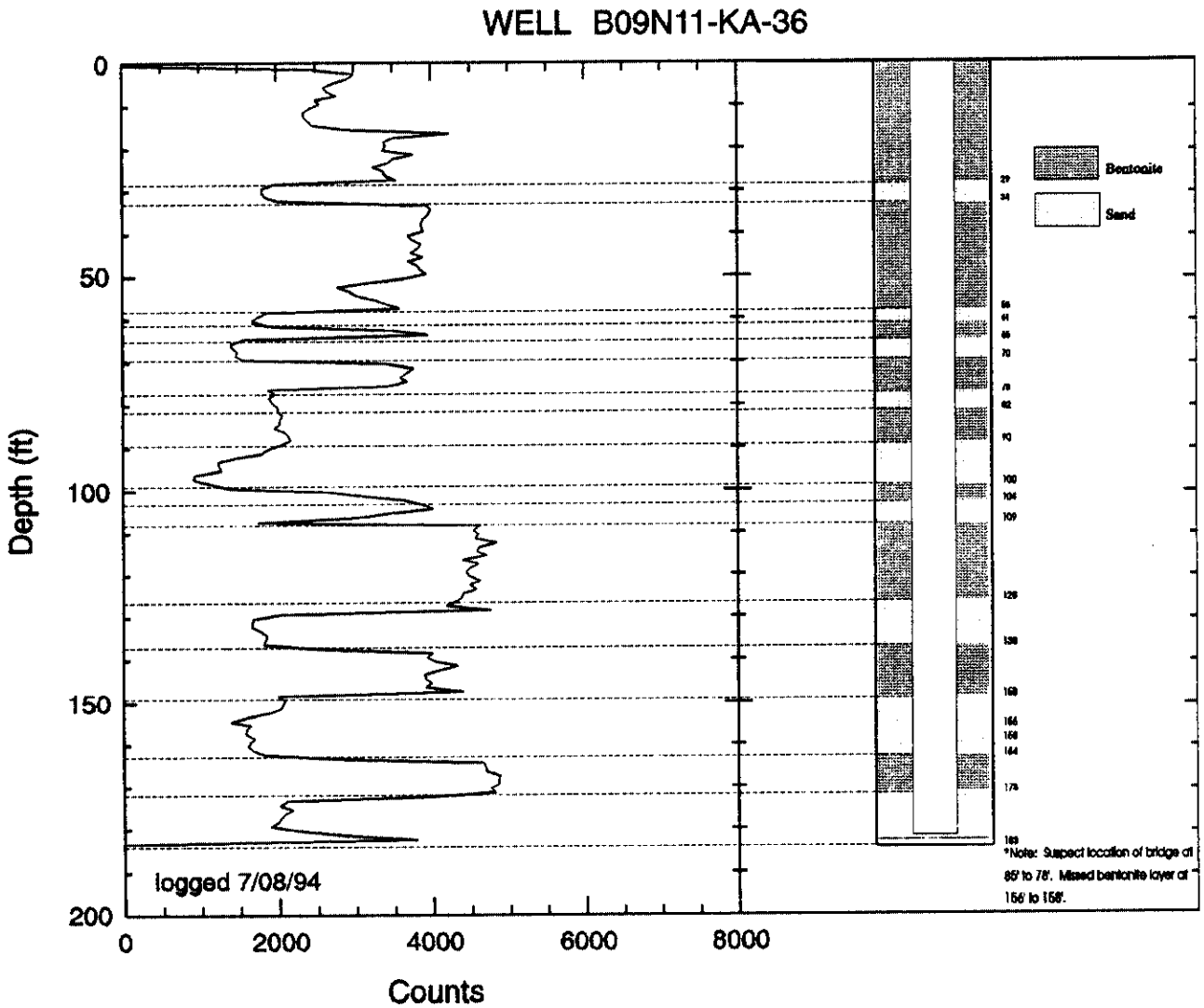


Figure B-18. CPN neutron log (left) and well completion diagram (right) for well B09N11.

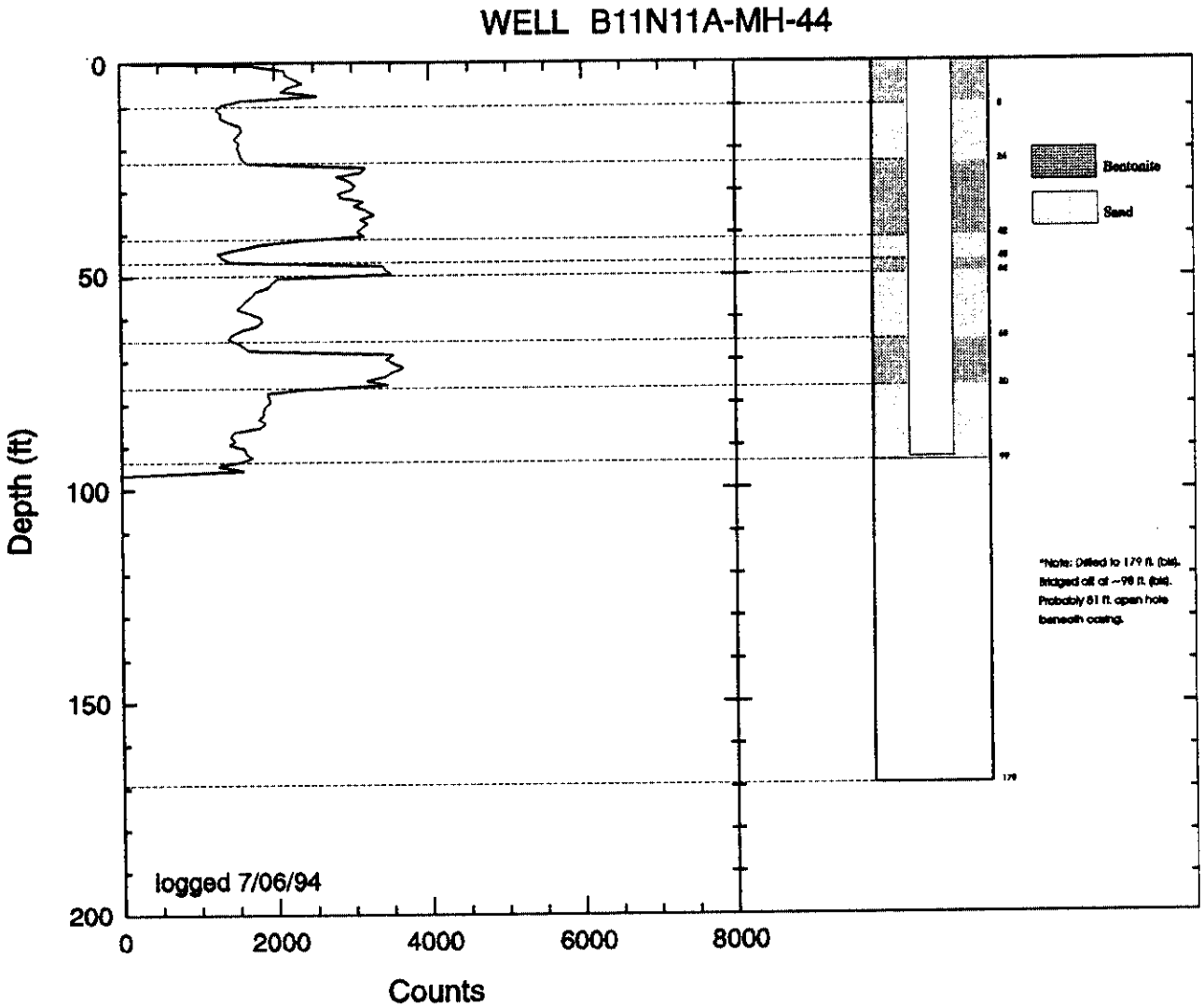


Figure B-19. CPN neutron log (left) and well completion diagram (right) for well B11N11A.

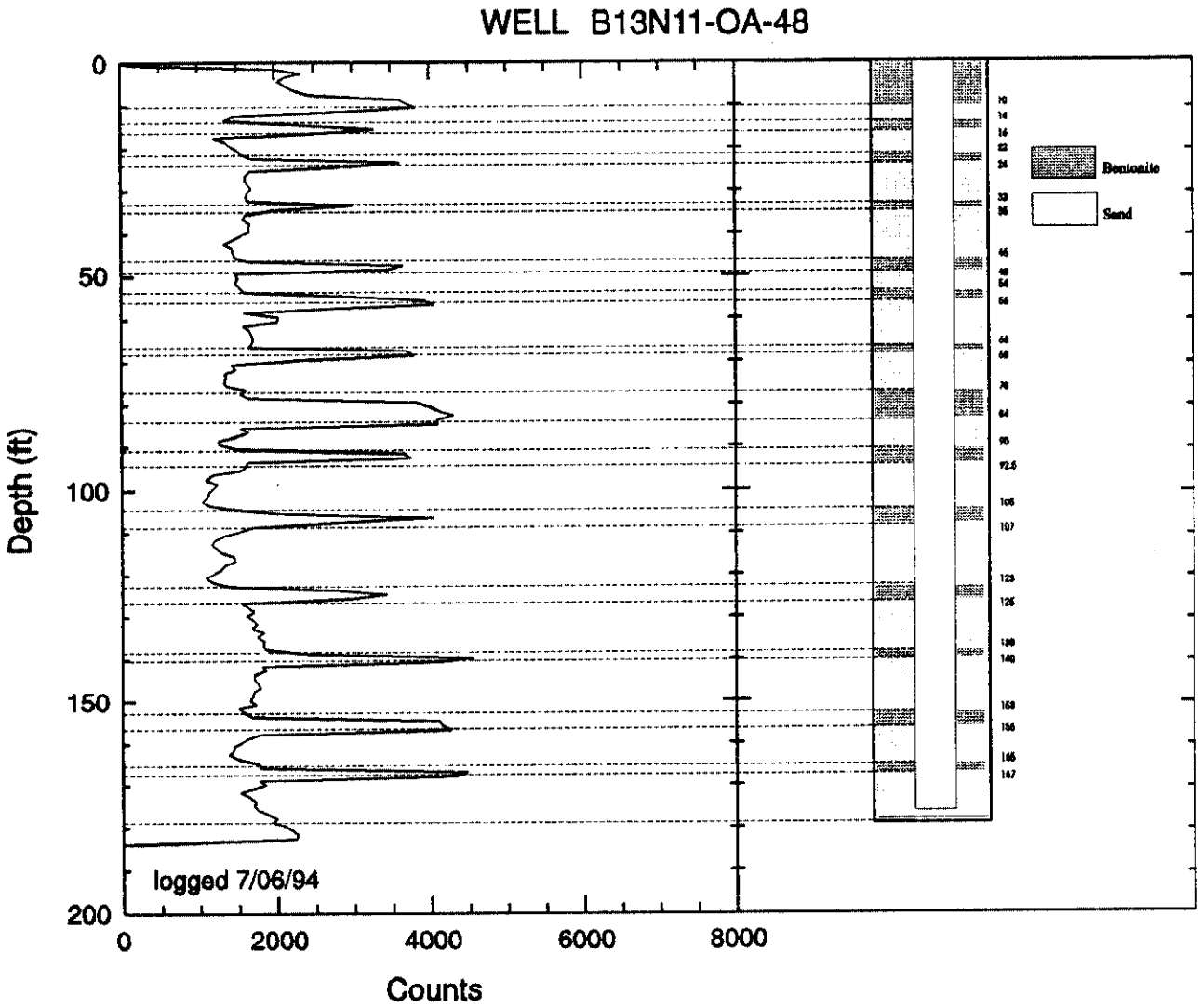


Figure B-20. CPN neutron log (left) and well completion diagram (right) for well B13N11.

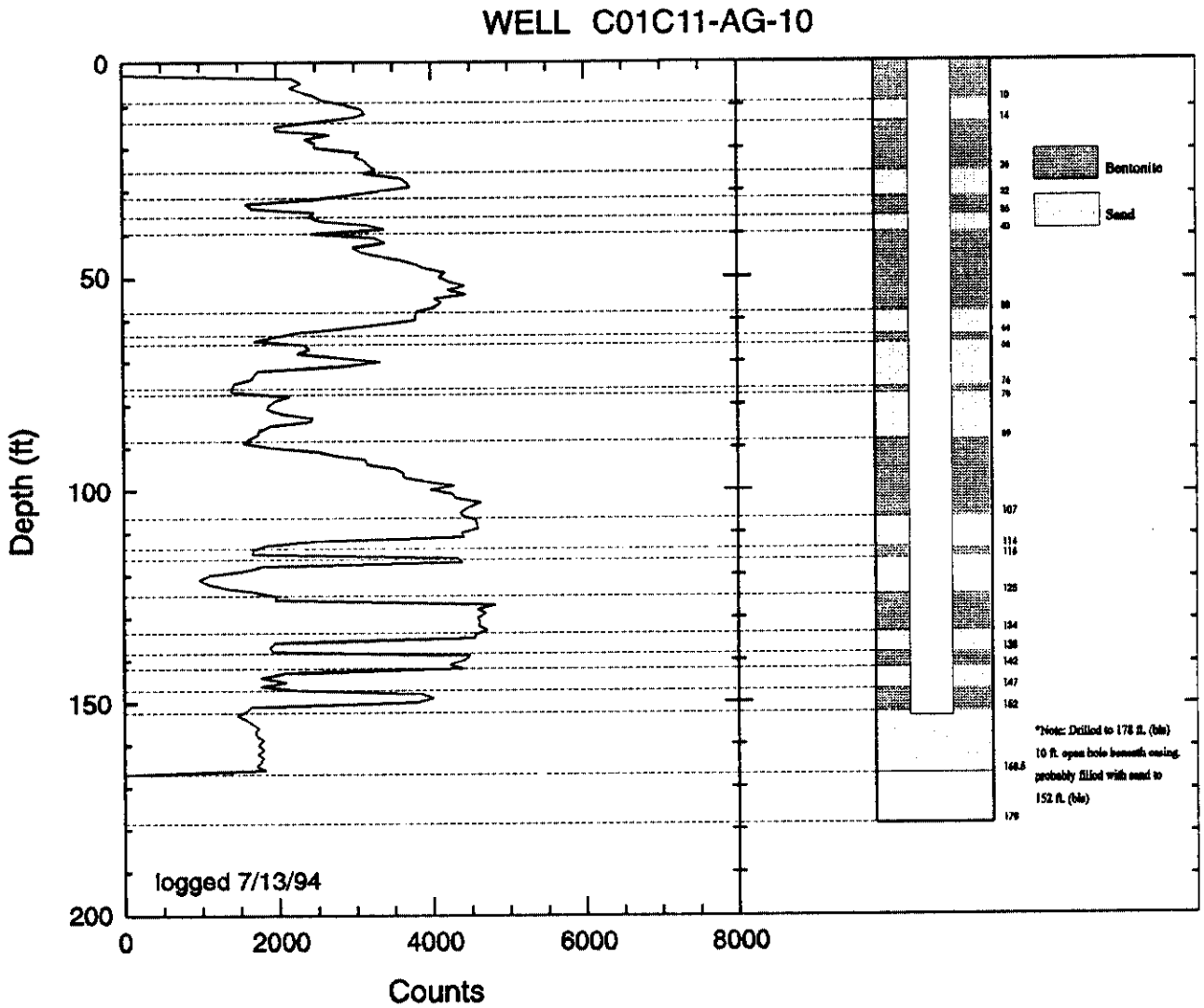


Figure B-21. CPN neutron log (left) and well completion diagram (right) for well C01C11.

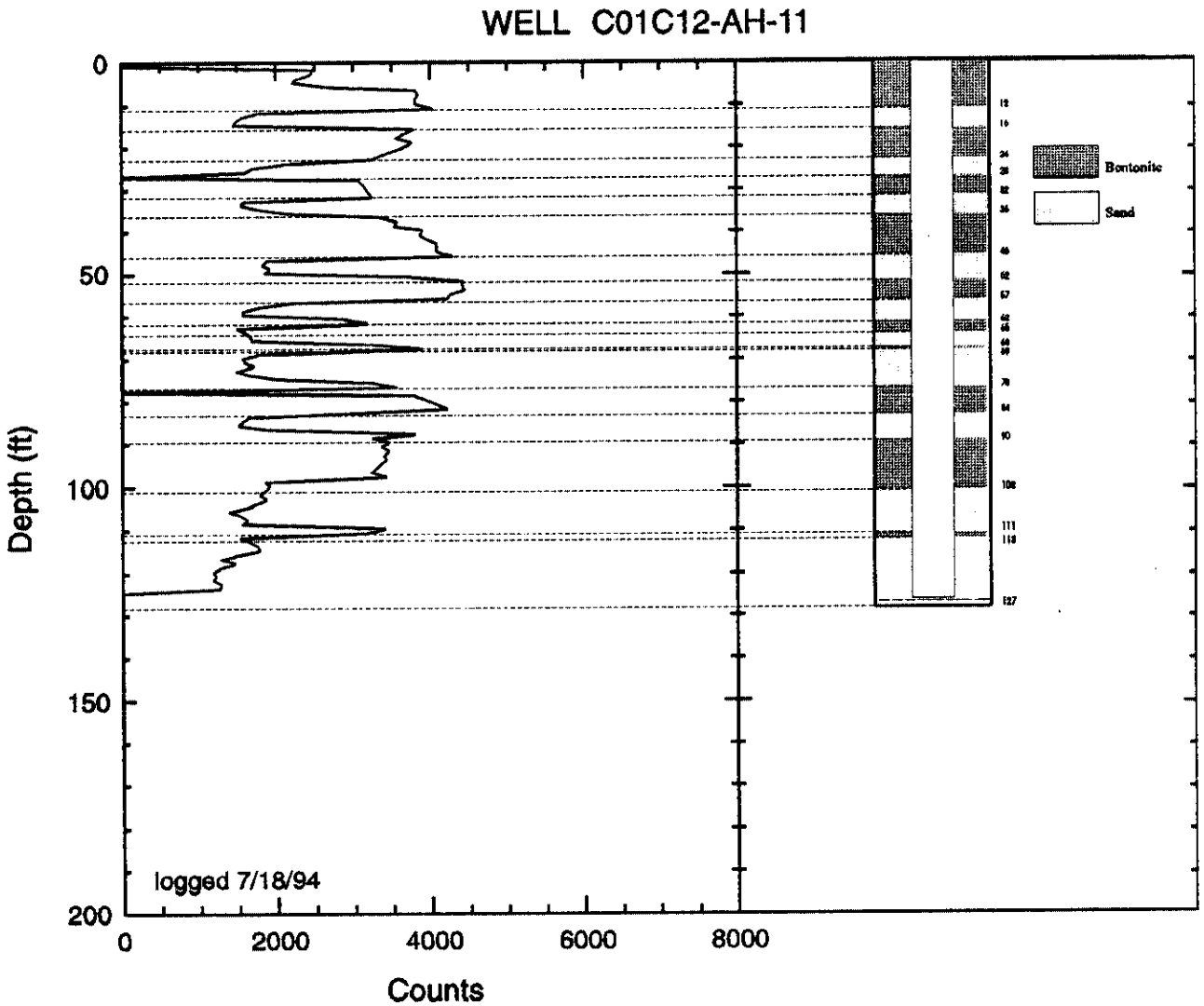


Figure B-22. CPN neutron log (left) and well completion diagram (right) for well C01C12.

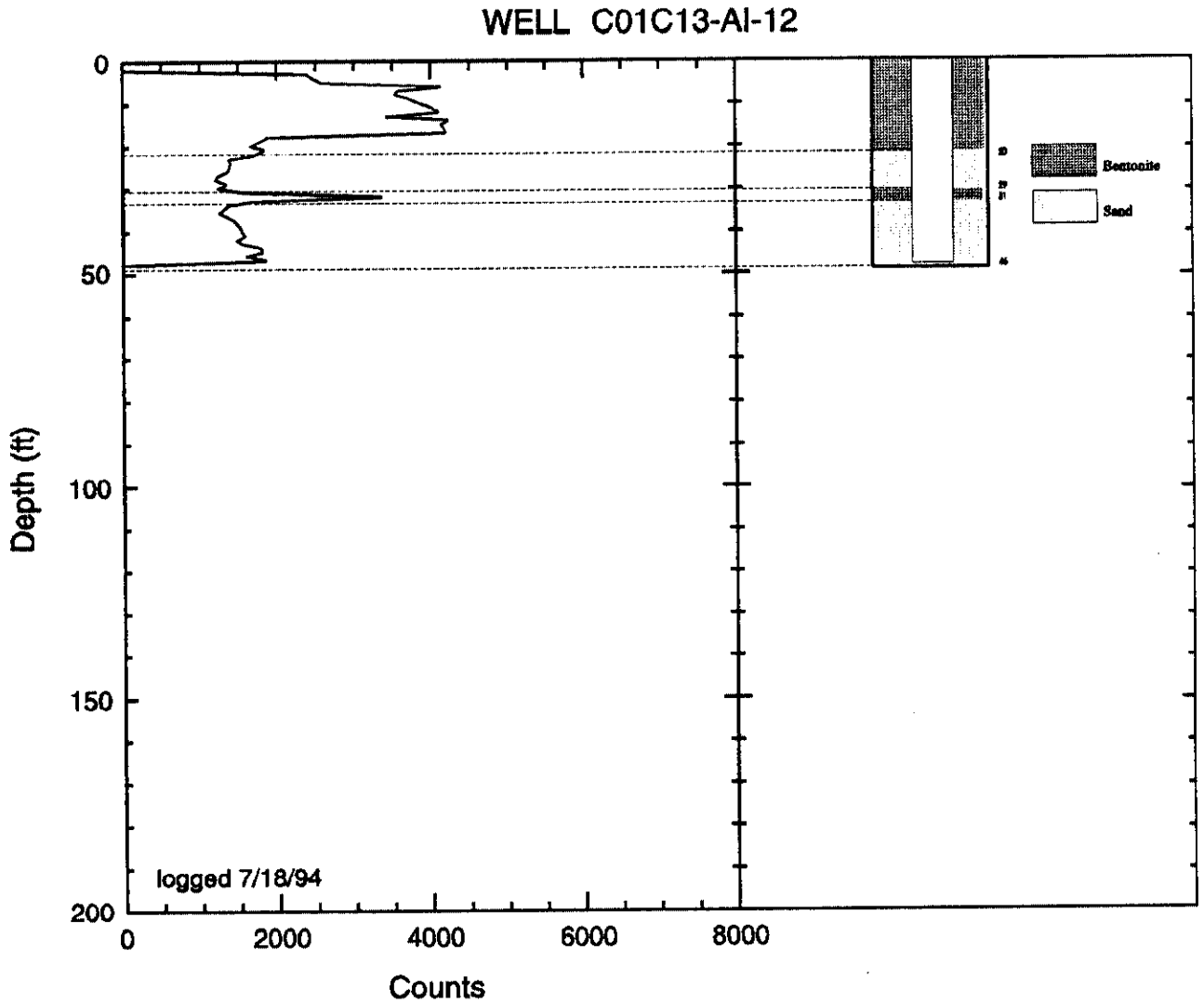


Figure B-23. CPN neutron log (left) and well completion diagram (right) for well C01C13.

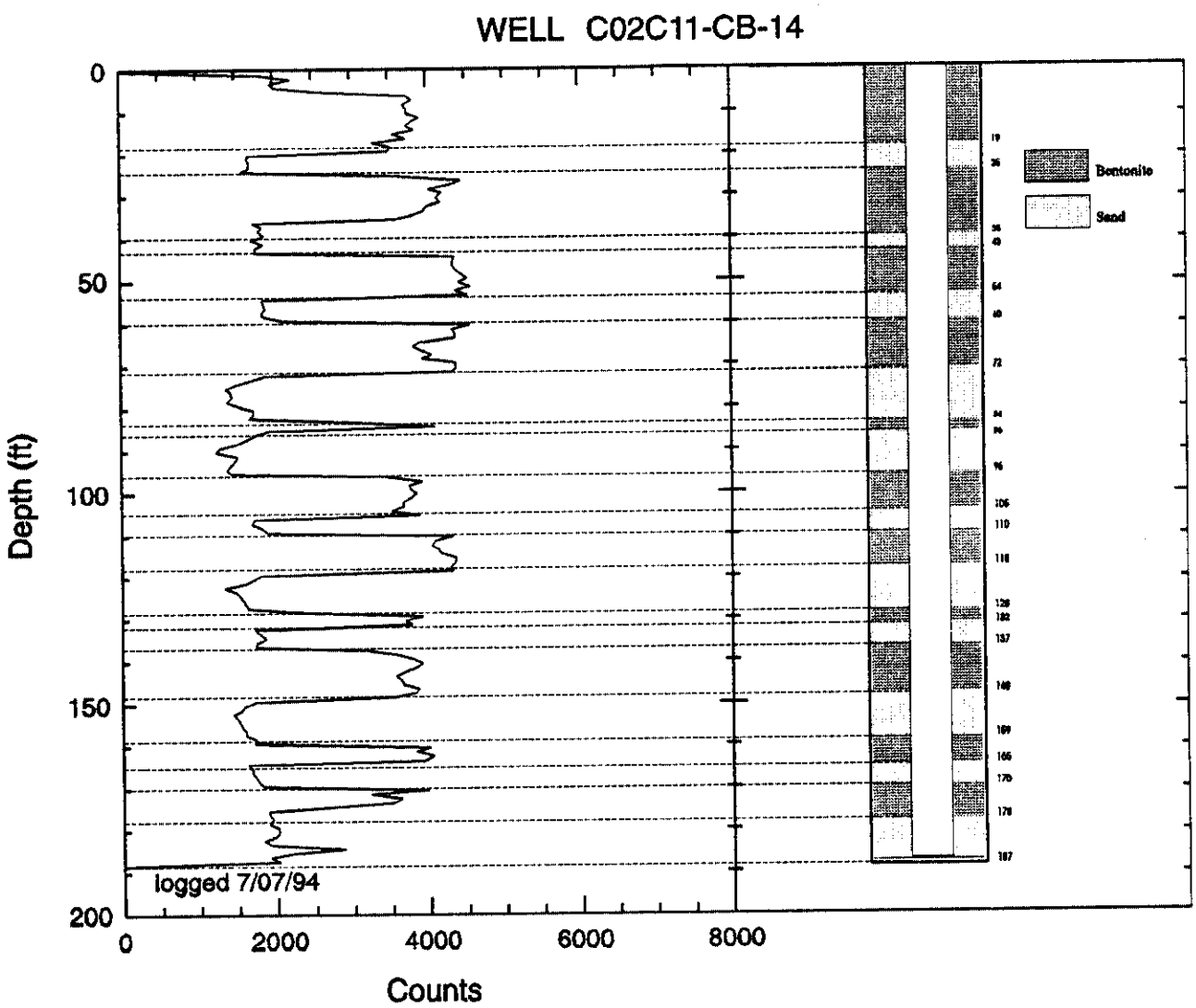


Figure B-24. CPN neutron log (left) and well completion diagram (right) for well C02C11.

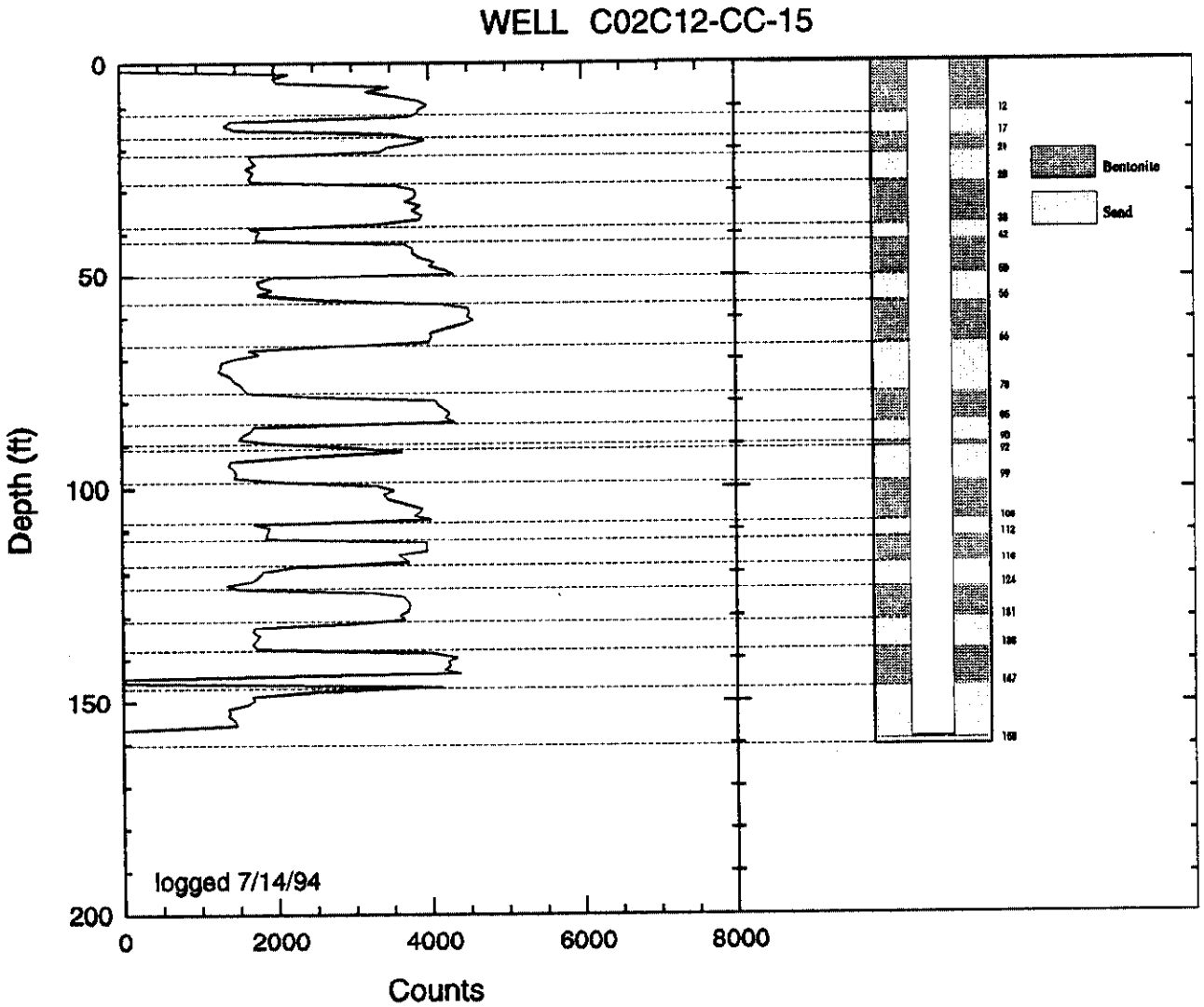


Figure B-25. CPN neutron log (left) and well completion diagram (right) for well C02C12.

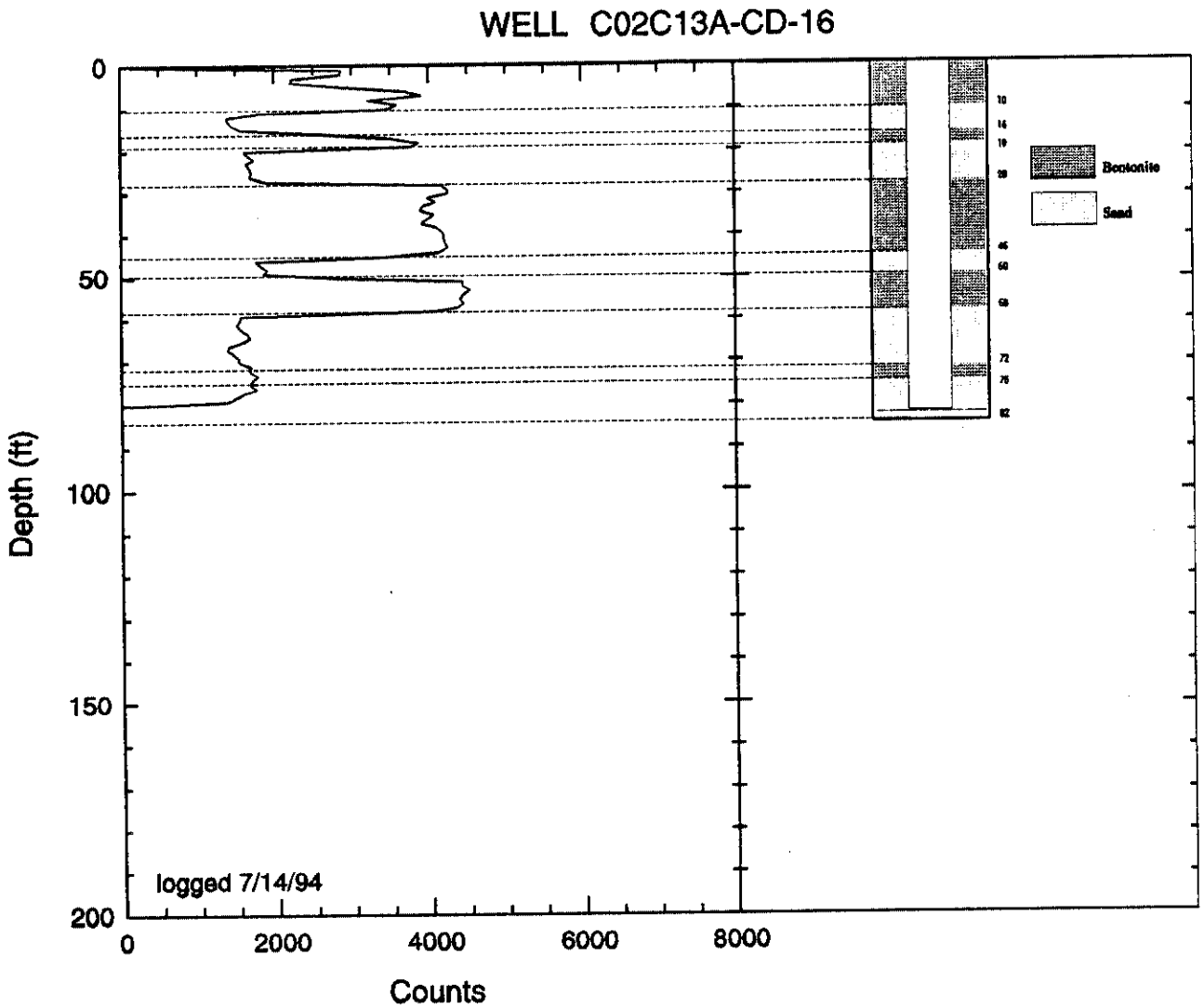


Figure B-26. CPN neutron log (left) and well completion diagram (right) for well C02C13A.

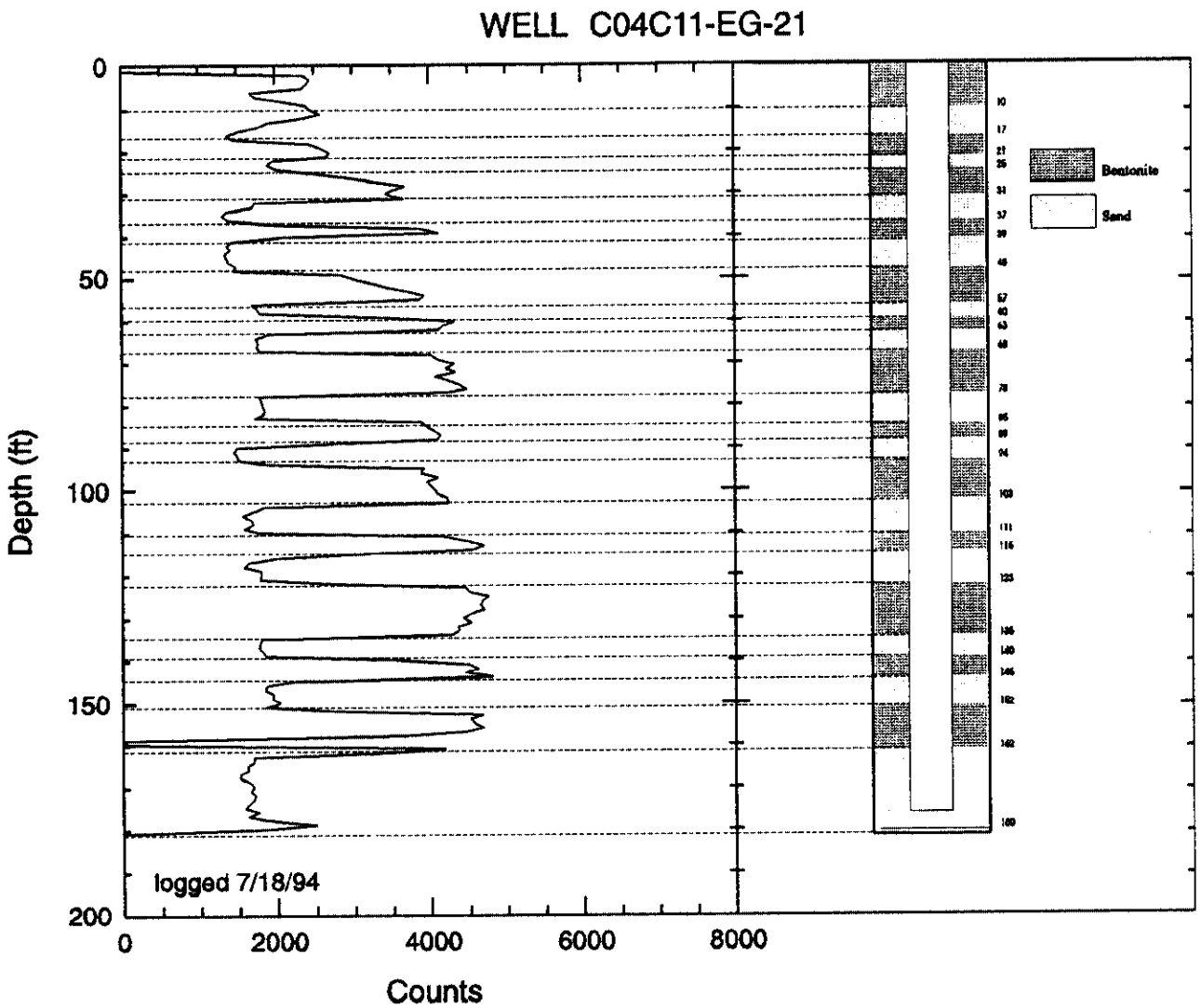


Figure B-27. CPN neutron log (left) and well completion diagram (right) for well C04C11.

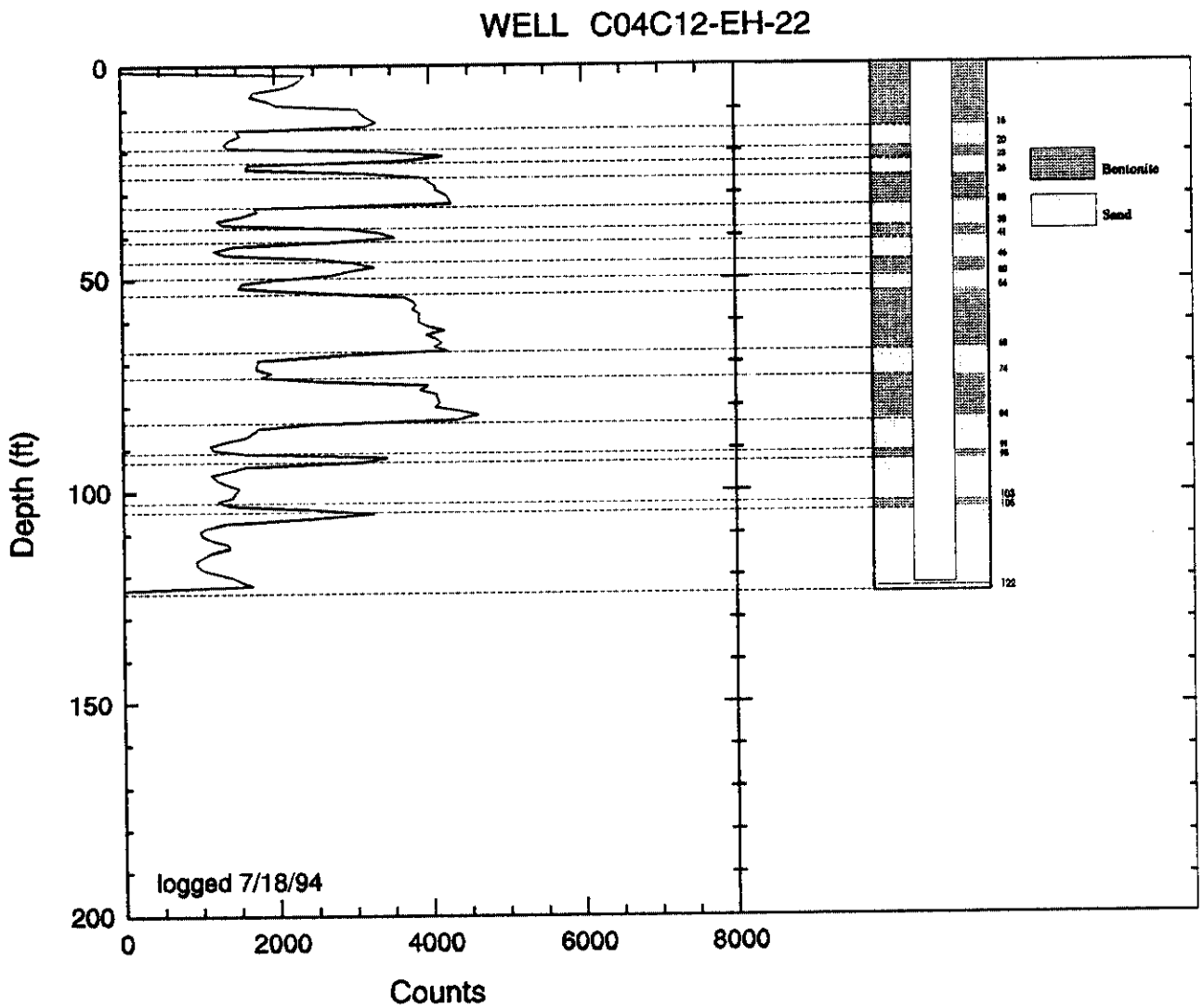


Figure B-28. CPN neutron log (left) and well completion diagram (right) for well C04C12.

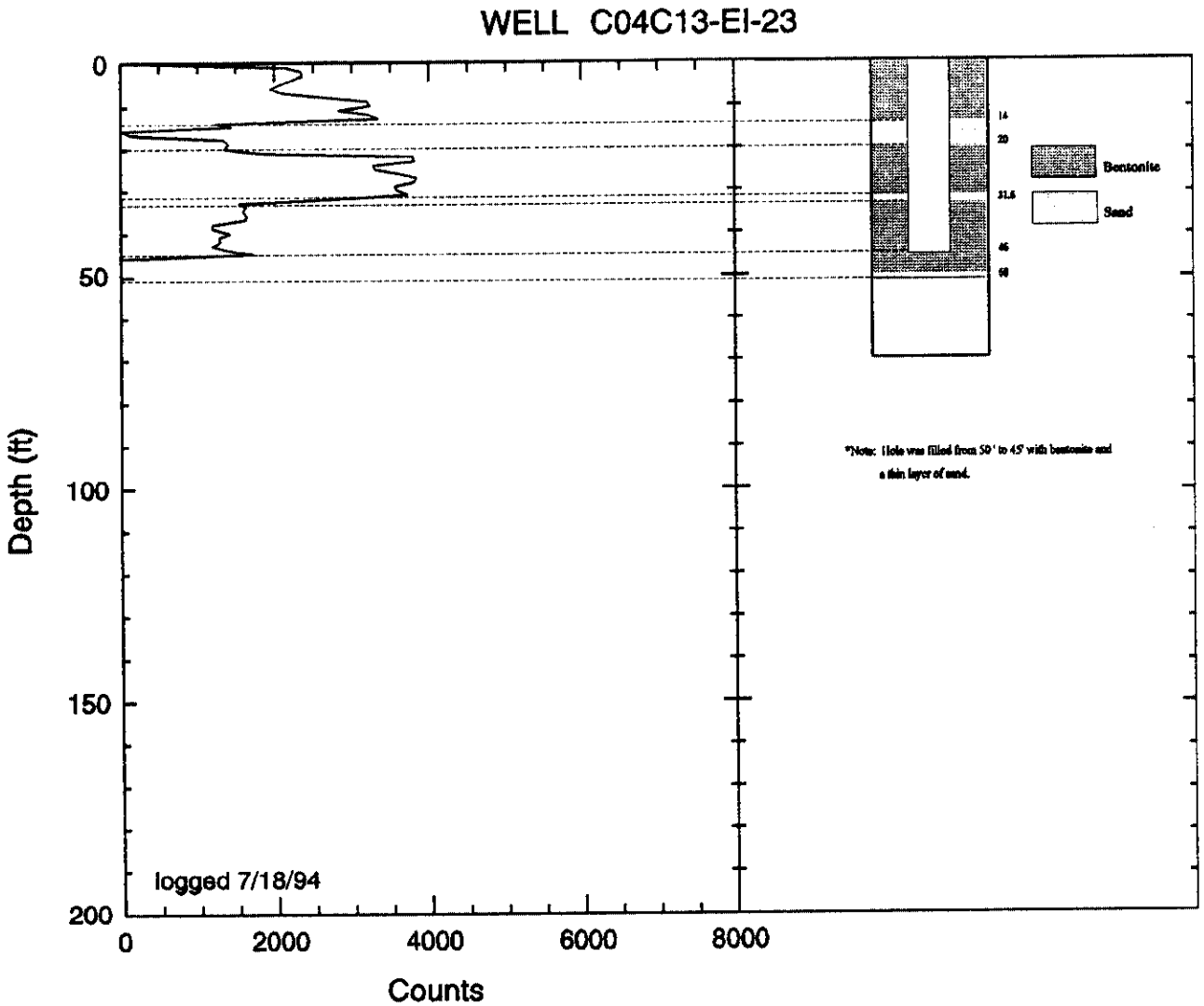


Figure B-29. CPN neutron log (left) and well completion diagram (right) for well C04C13.

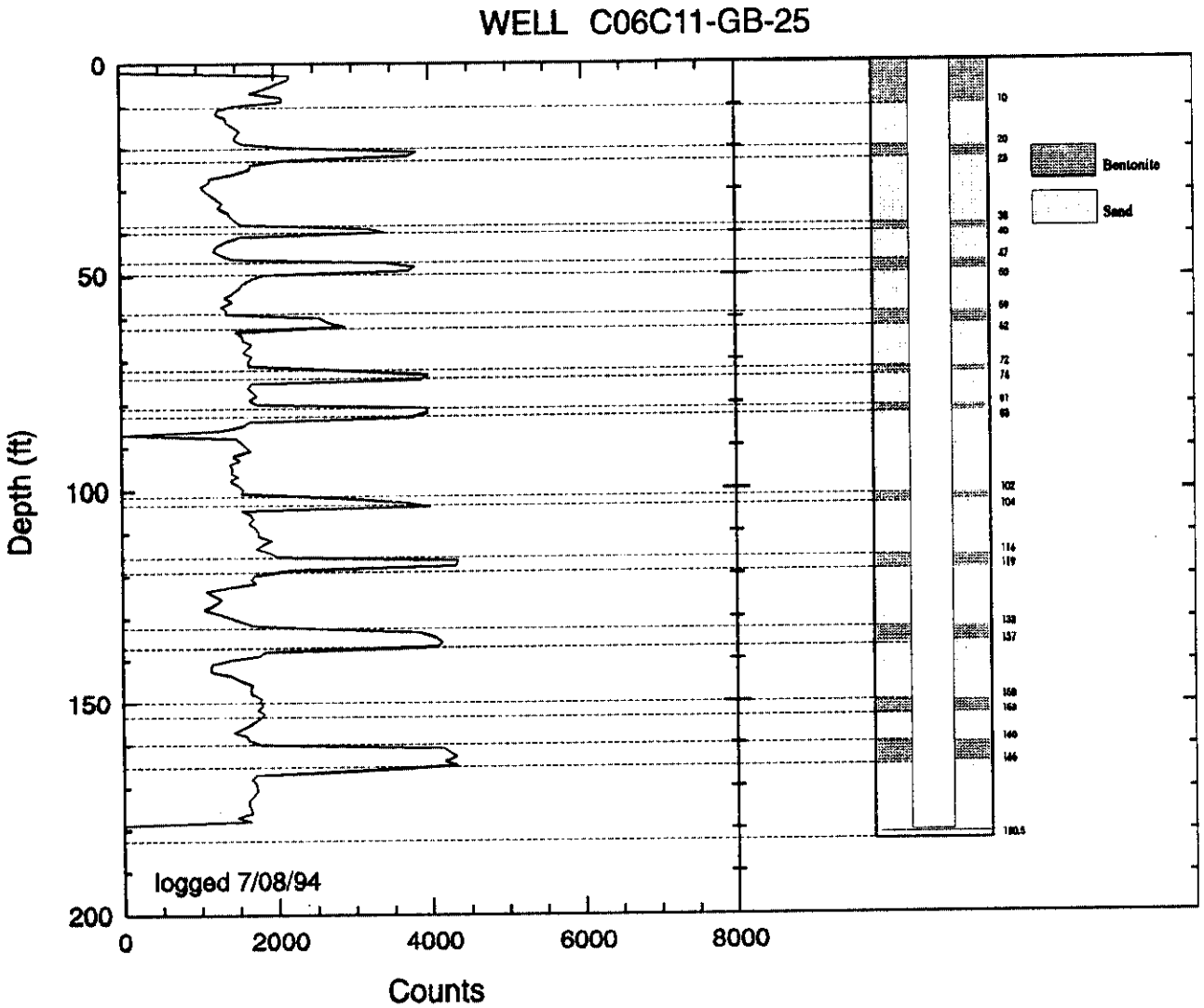


Figure B-30. CPN neutron log (left) and well completion diagram (right) for well C06C11.

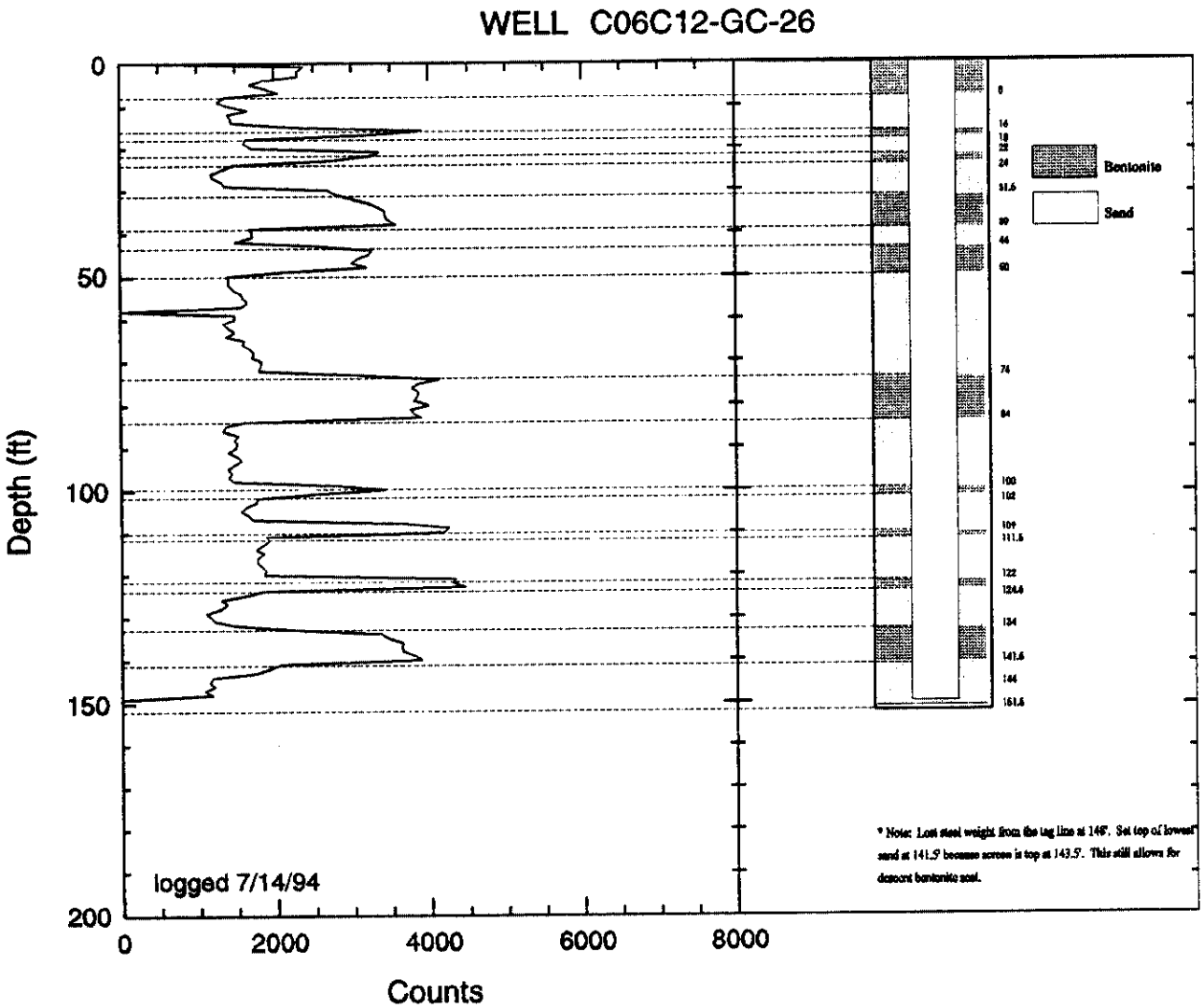


Figure B-31. CPN neutron log (left) and well completion diagram (right) for well C06C12.

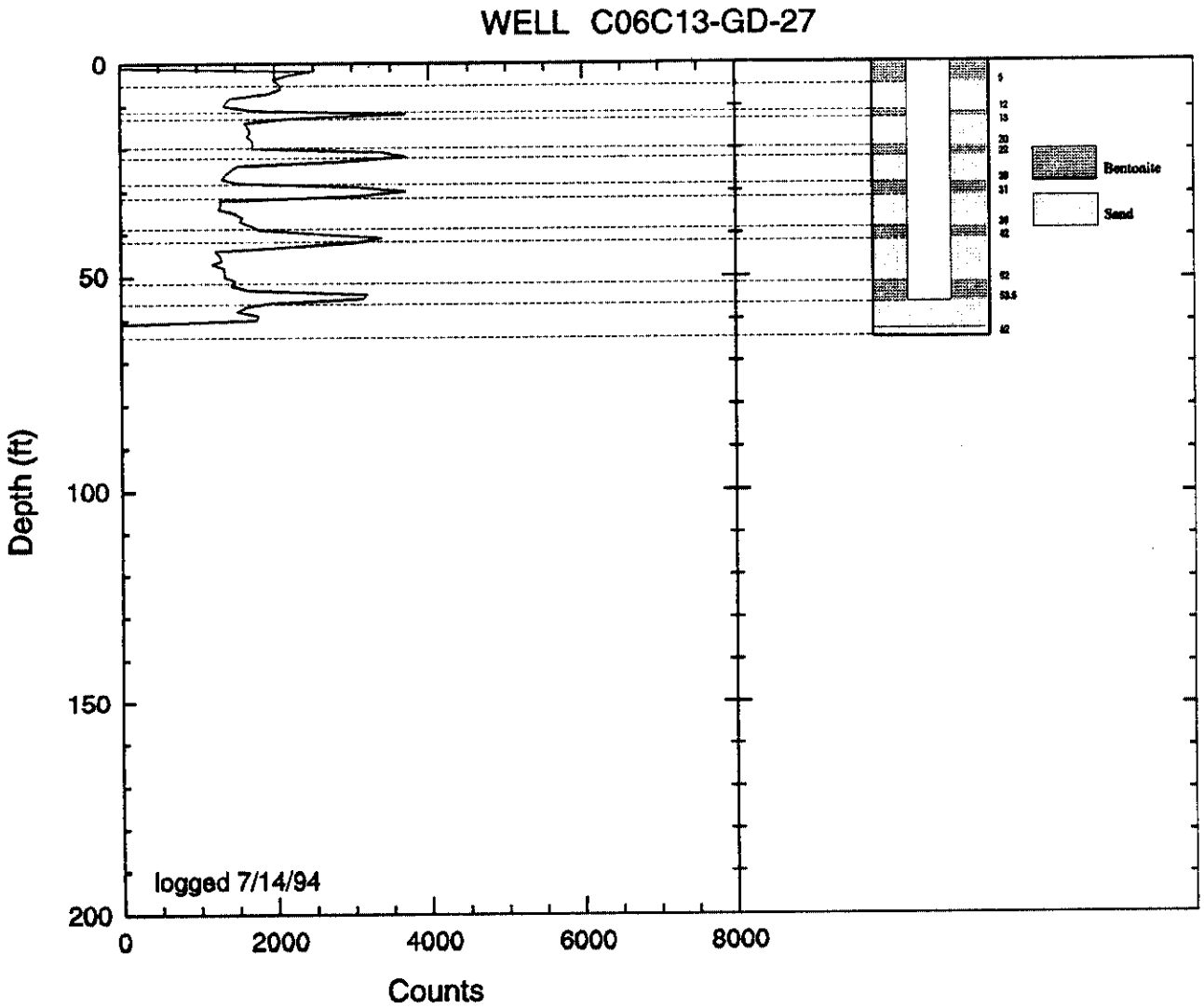


Figure B-32. CPN neutron log (left) and well completion diagram (right) for well C06C13.

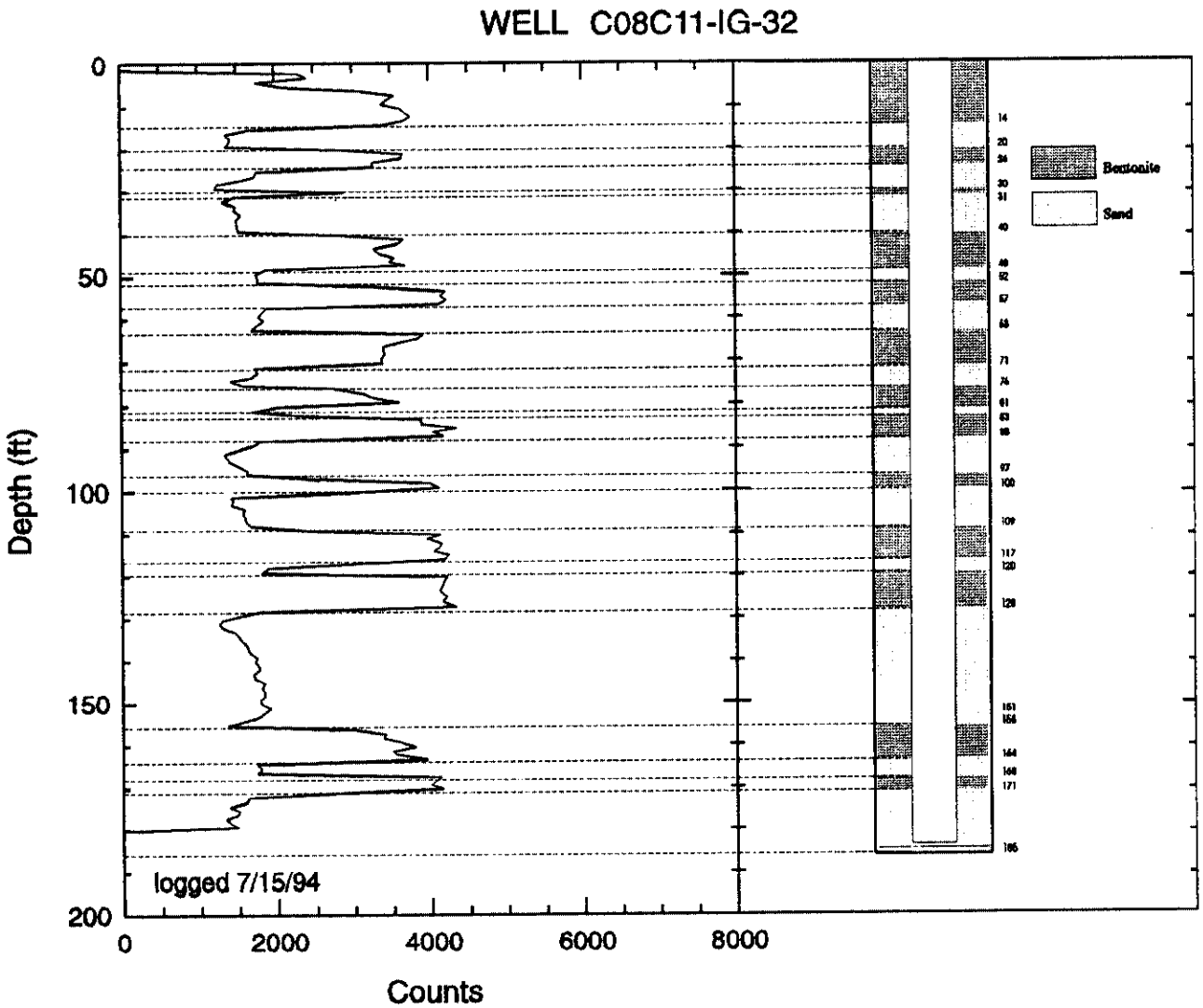


Figure B-33. CPN neutron log (left) and well completion diagram (right) for well C08C11.

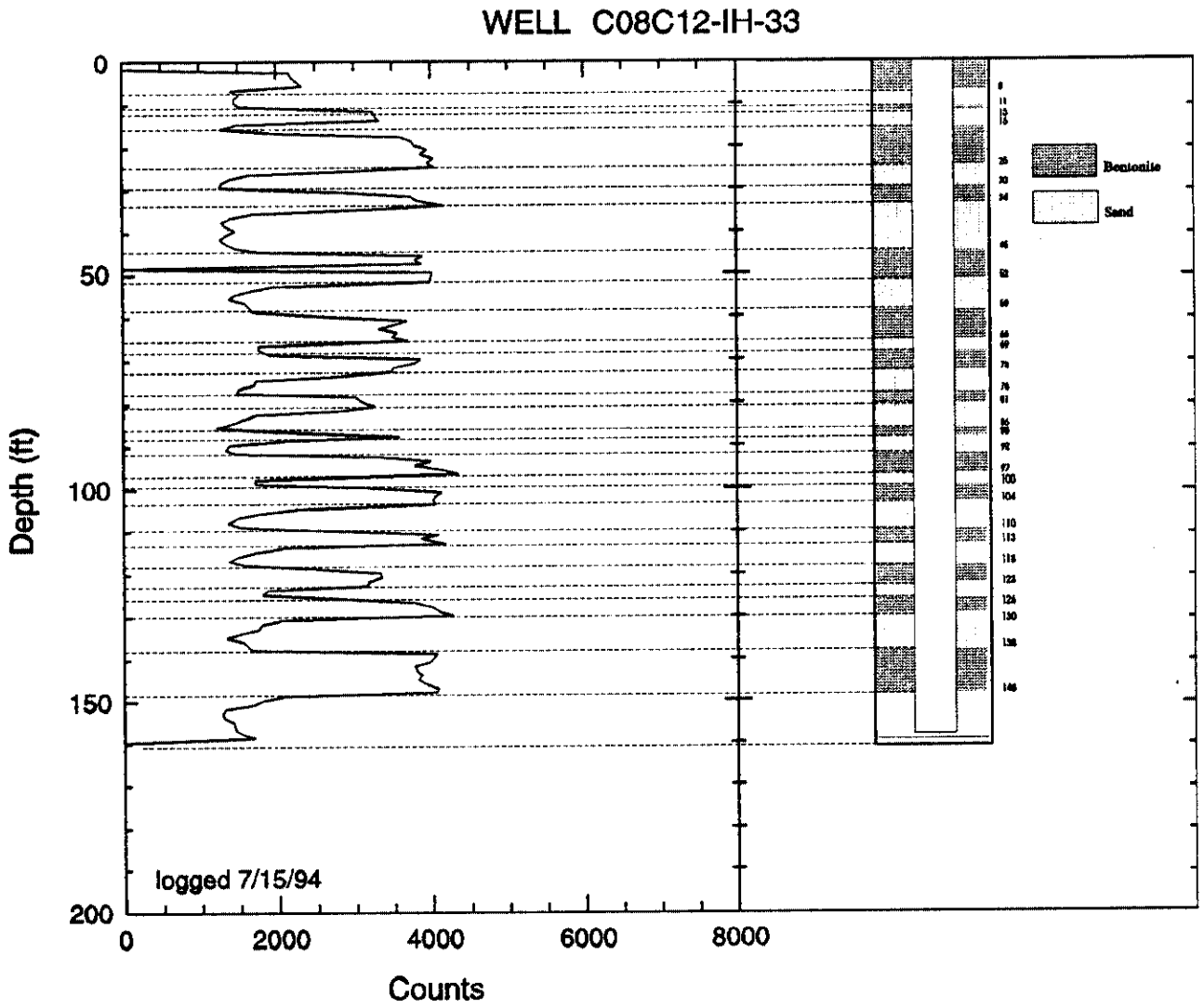


Figure B-34. CPN neutron log (left) and well completion diagram (right) for well C08C12.

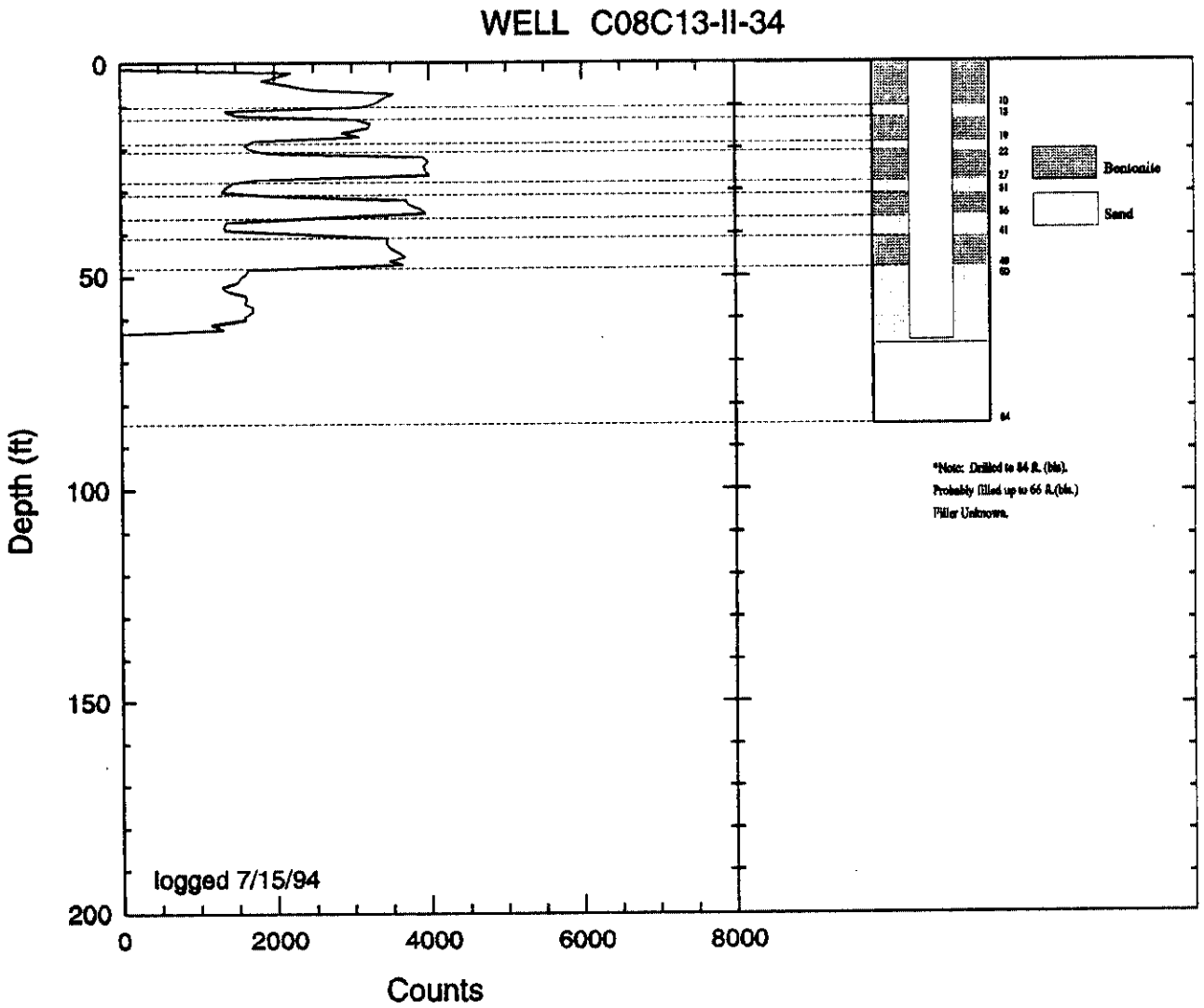


Figure B-35. CPN neutron log (left) and well completion diagram (right) for well C08C13.

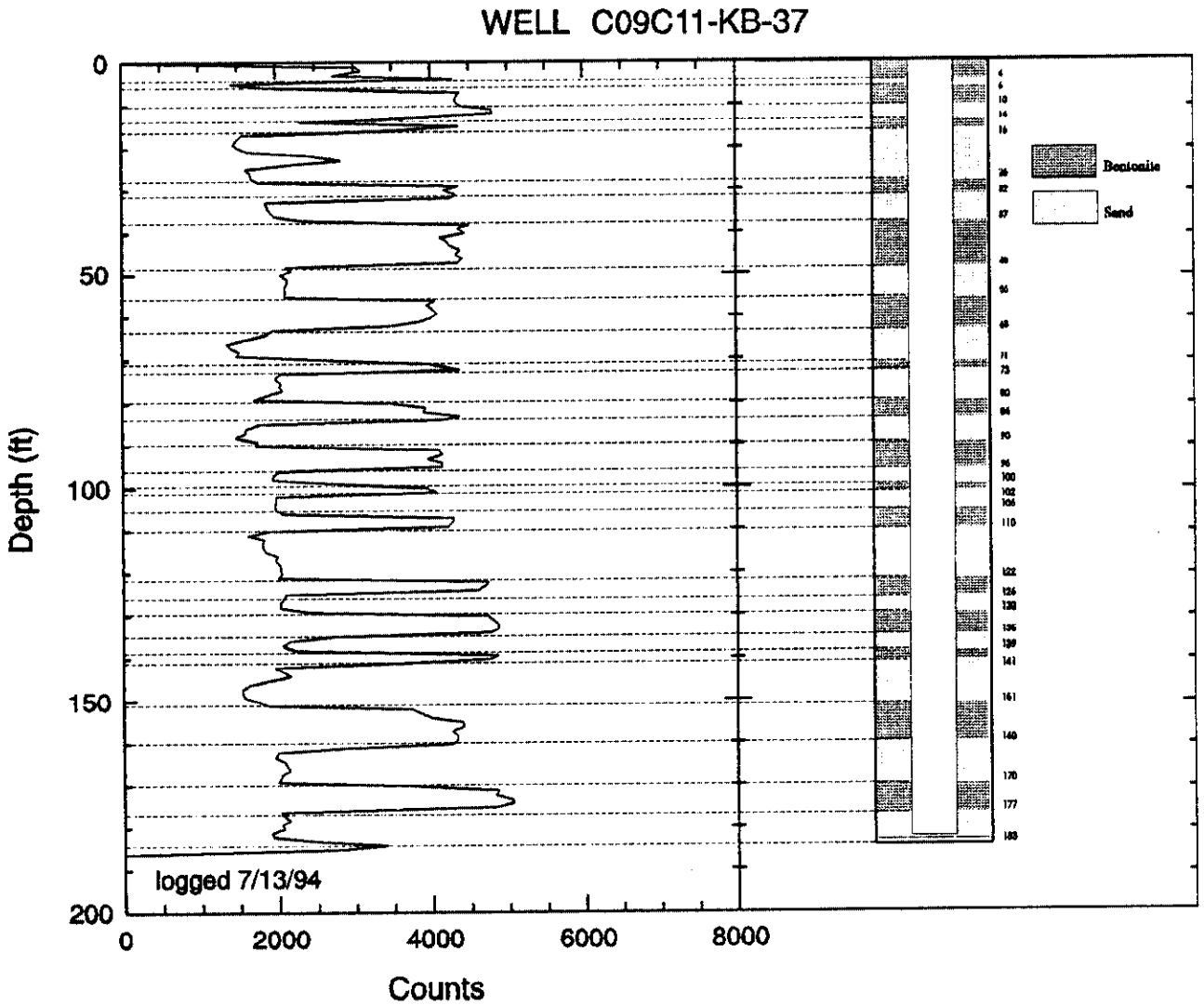


Figure B-36. CPN neutron log (left) and well completion diagram (right) for well C09C11.

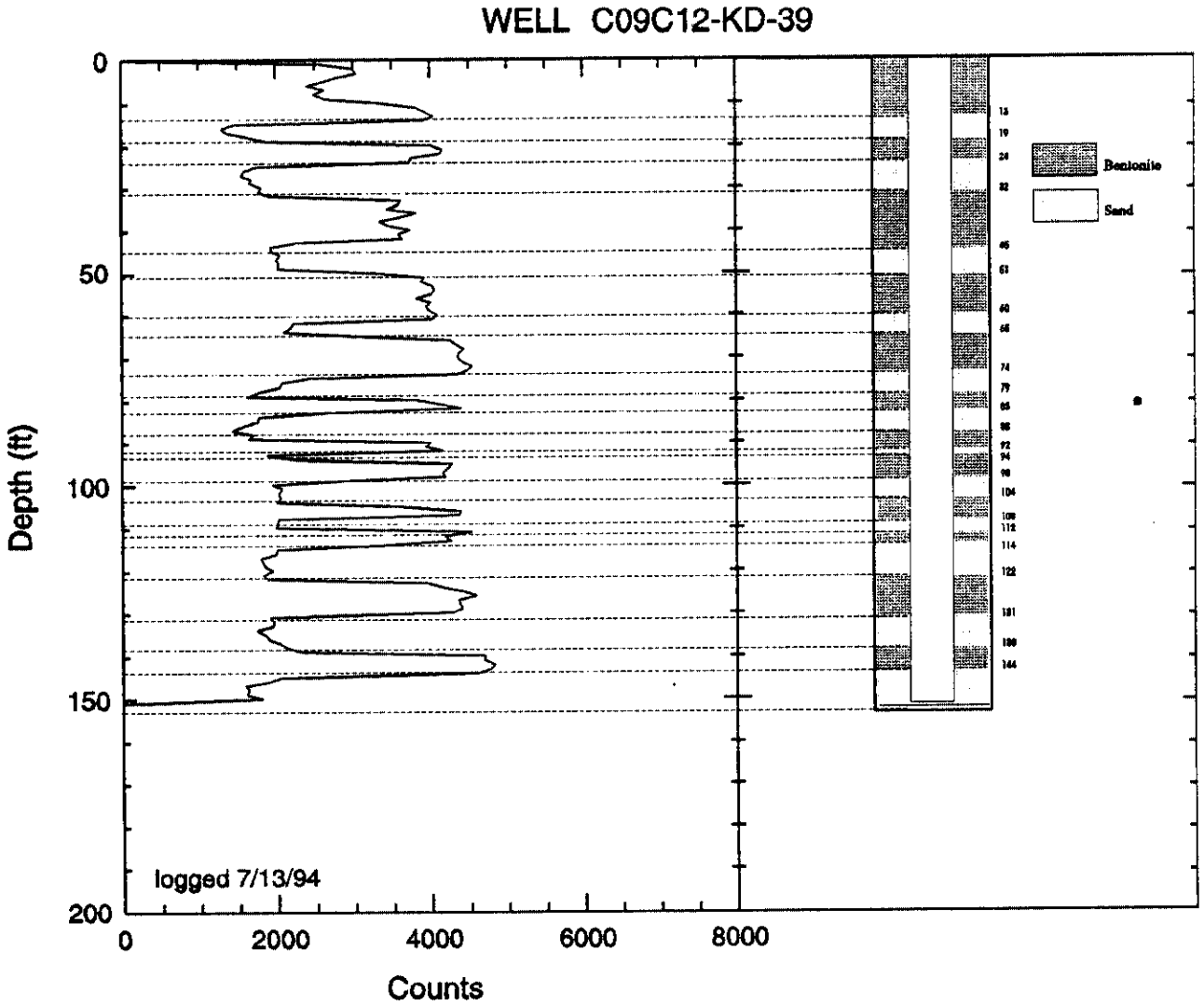


Figure B-37. CPN neutron log (left) and well completion diagram (right) for well C09C12.

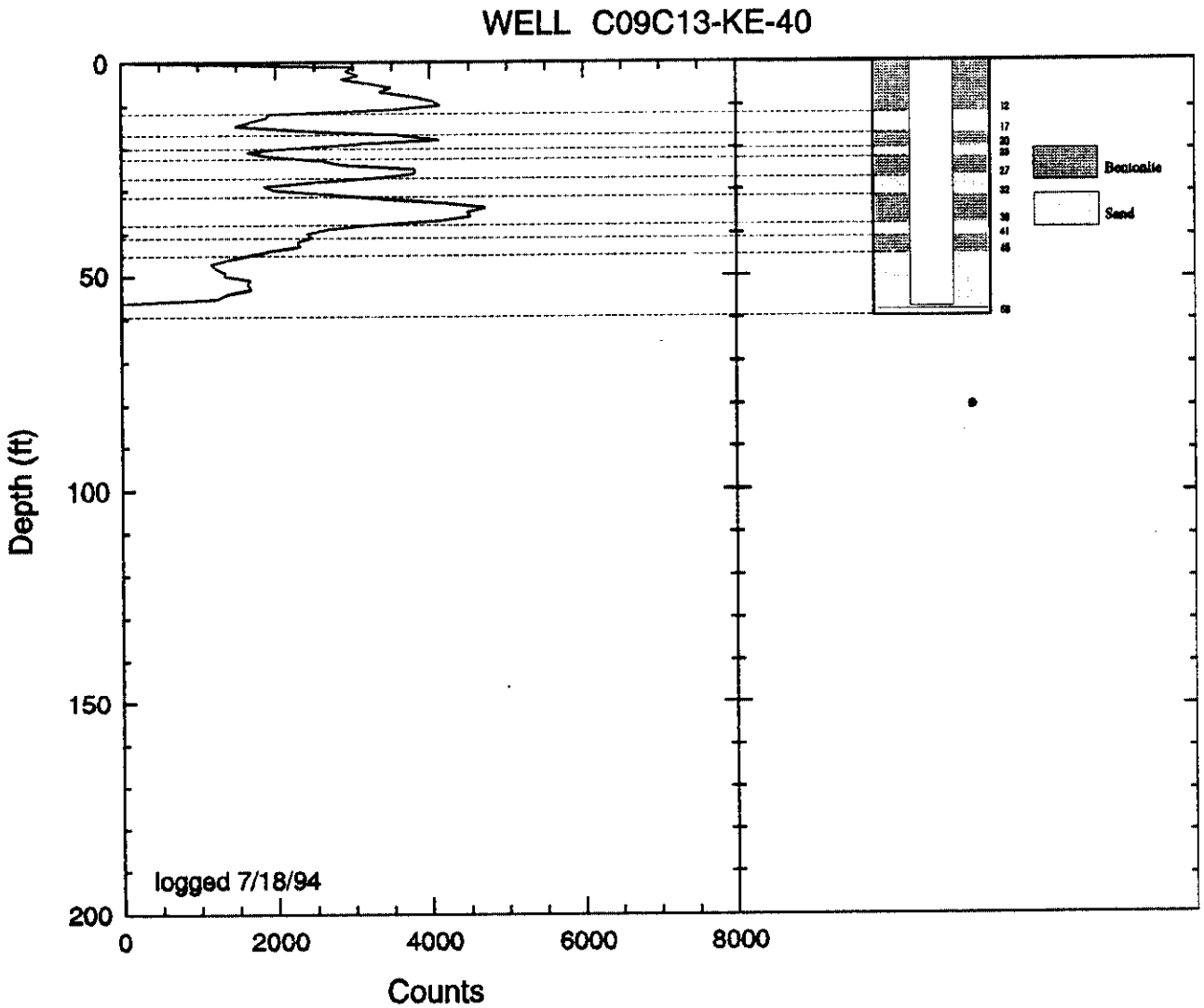


Figure B-38. CPN neutron log (left) and well completion diagram (right) for well C09C13.

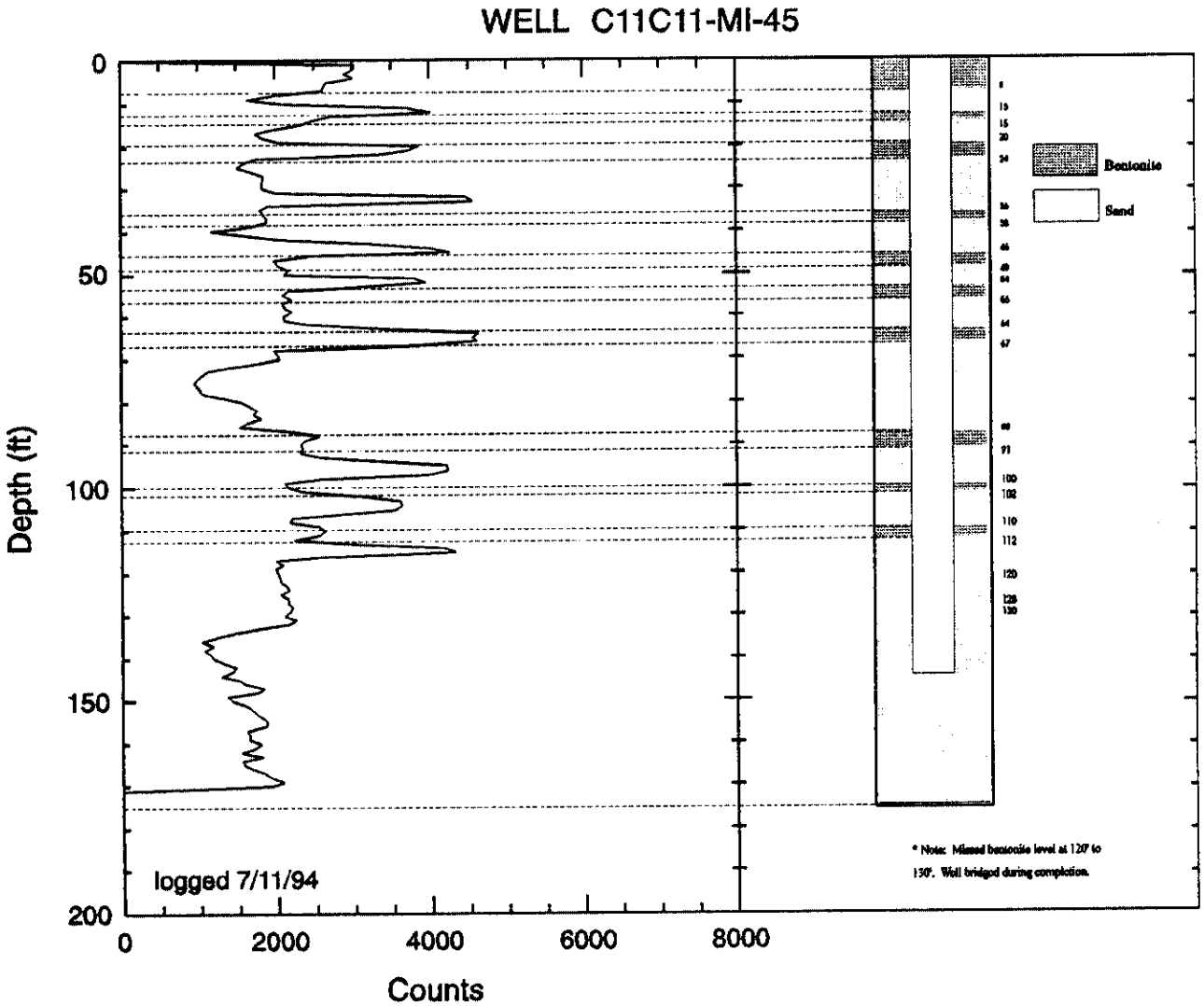


Figure B-39. CPN neutron log (left) and well completion diagram (right) for well C11C11.

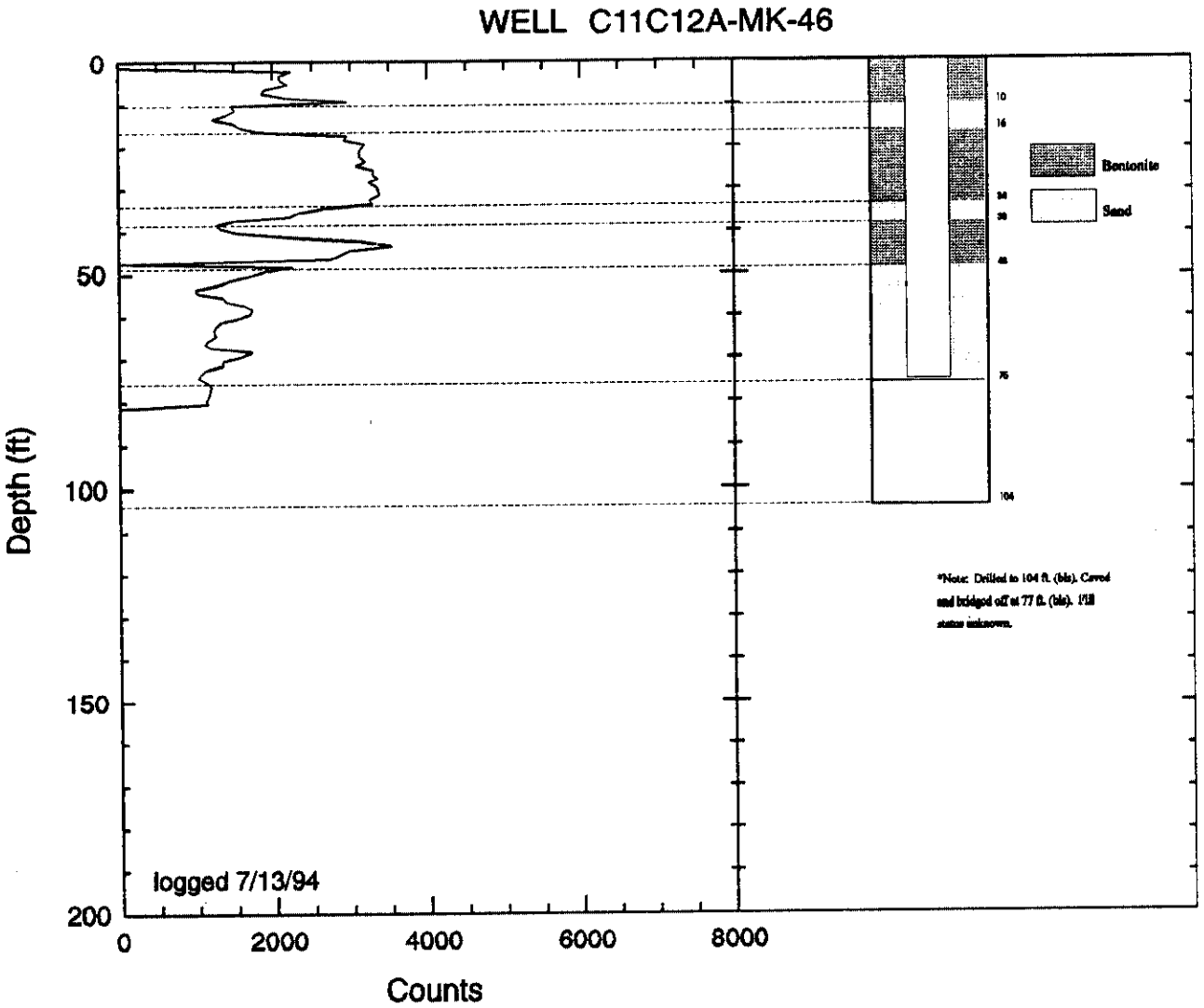


Figure B-40. CPN neutron log (left) and well completion diagram (right) for well C11C12A.

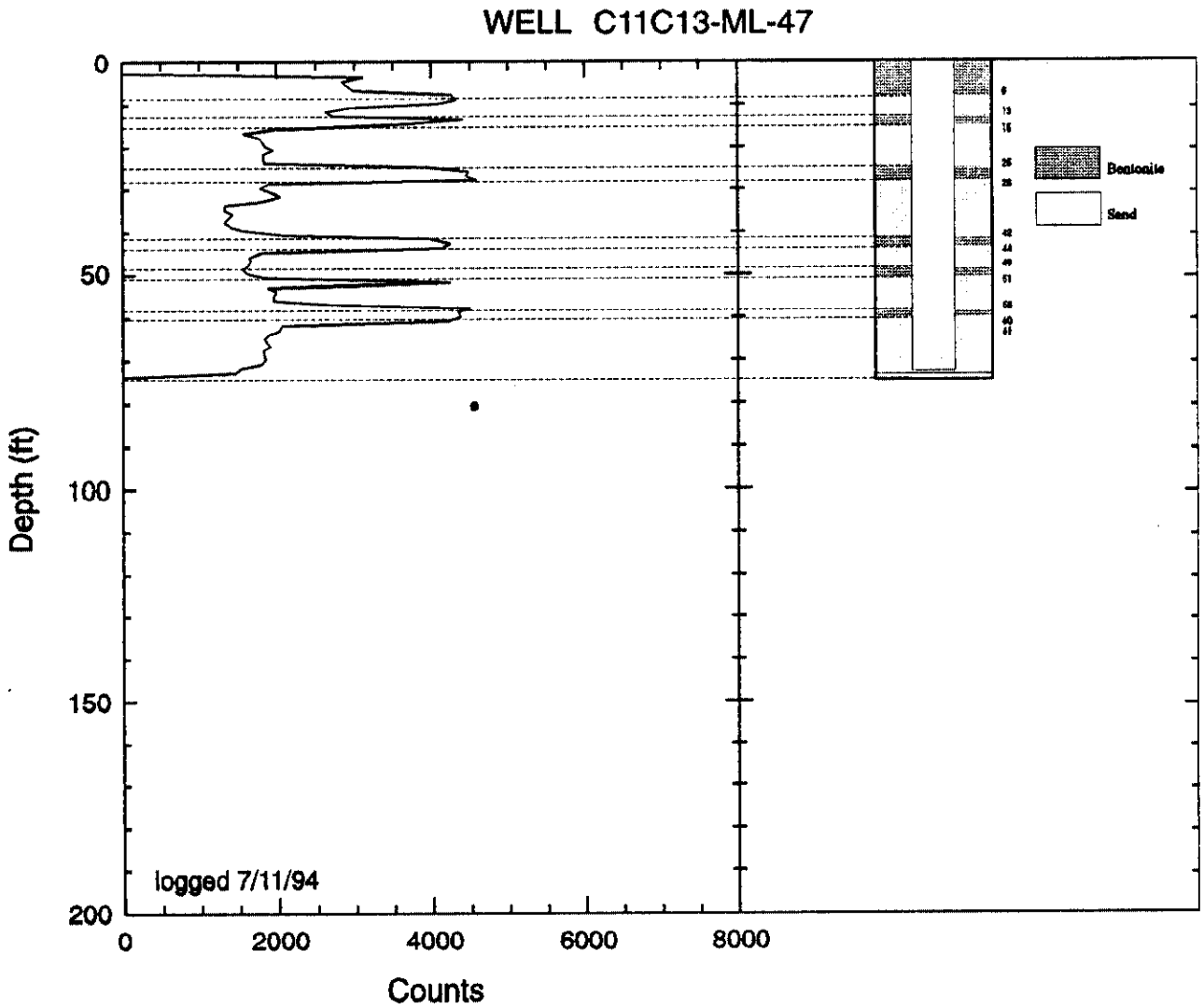


Figure B-41. CPN neutron log (left) and well completion diagram (right) for well C11C13.

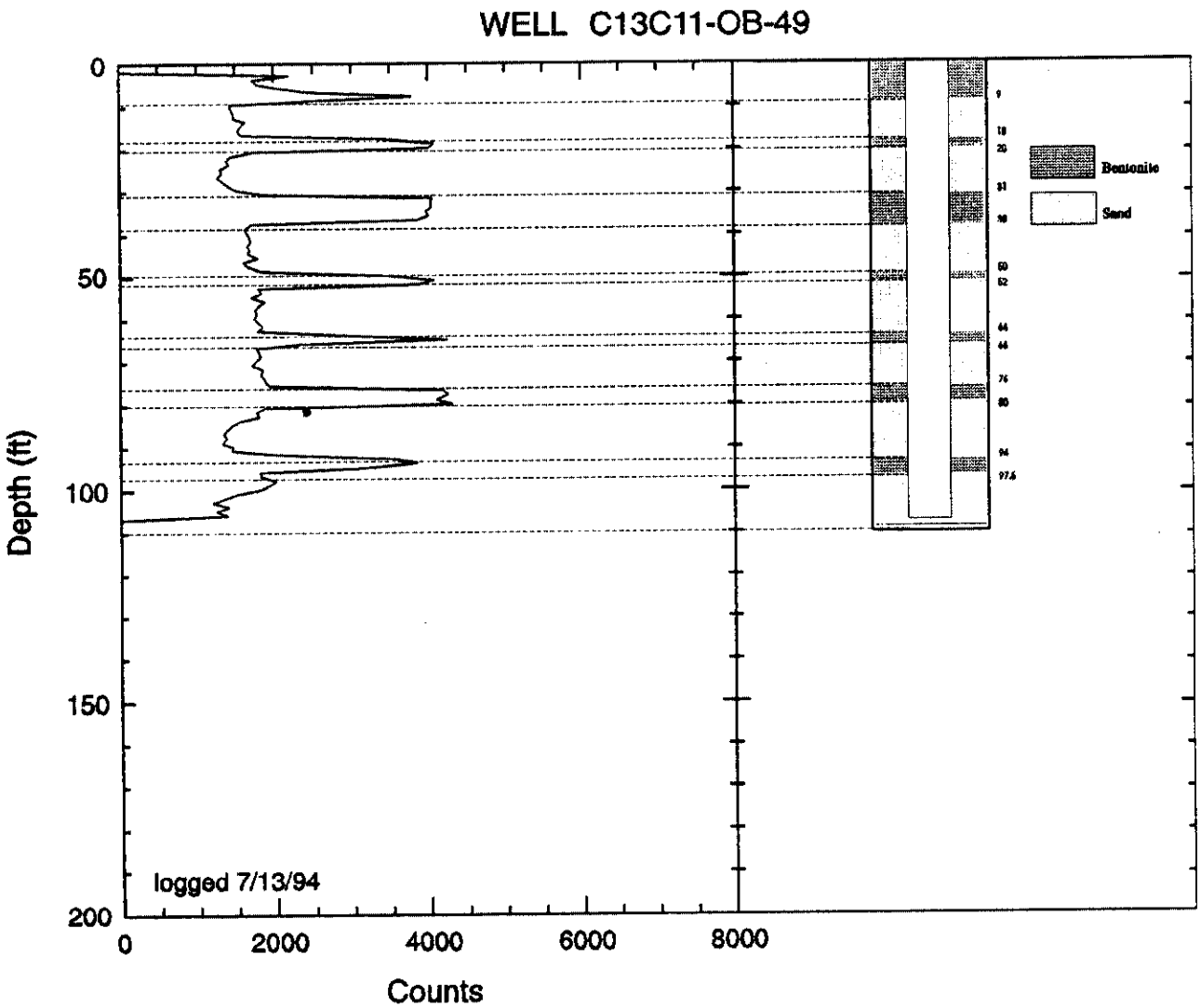


Figure B-42. CPN neutron log (left) and well completion diagram (right) for well C13C11.

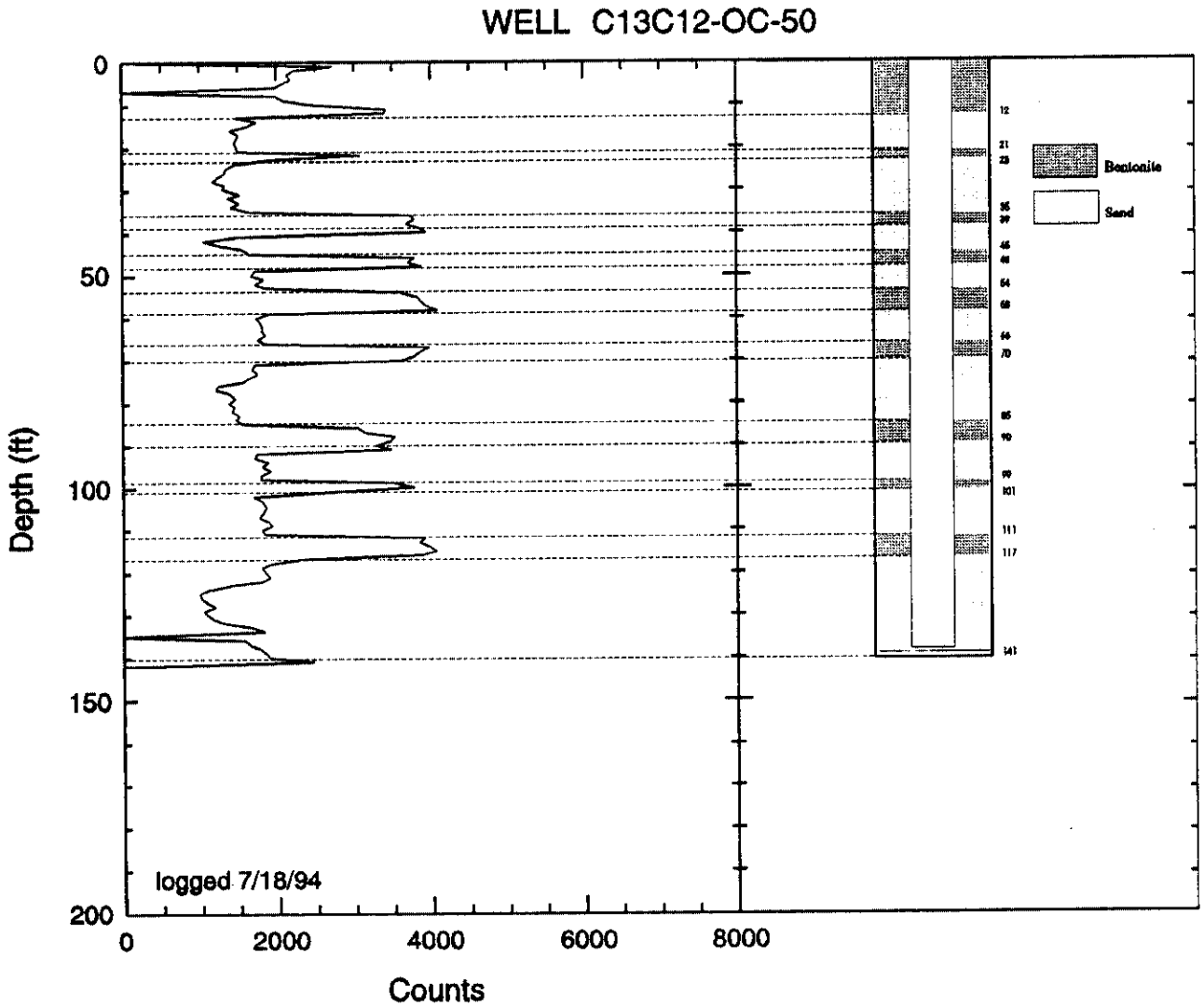


Figure B-43. CPN neutron log (left) and well completion diagram (right) for well C13C12.

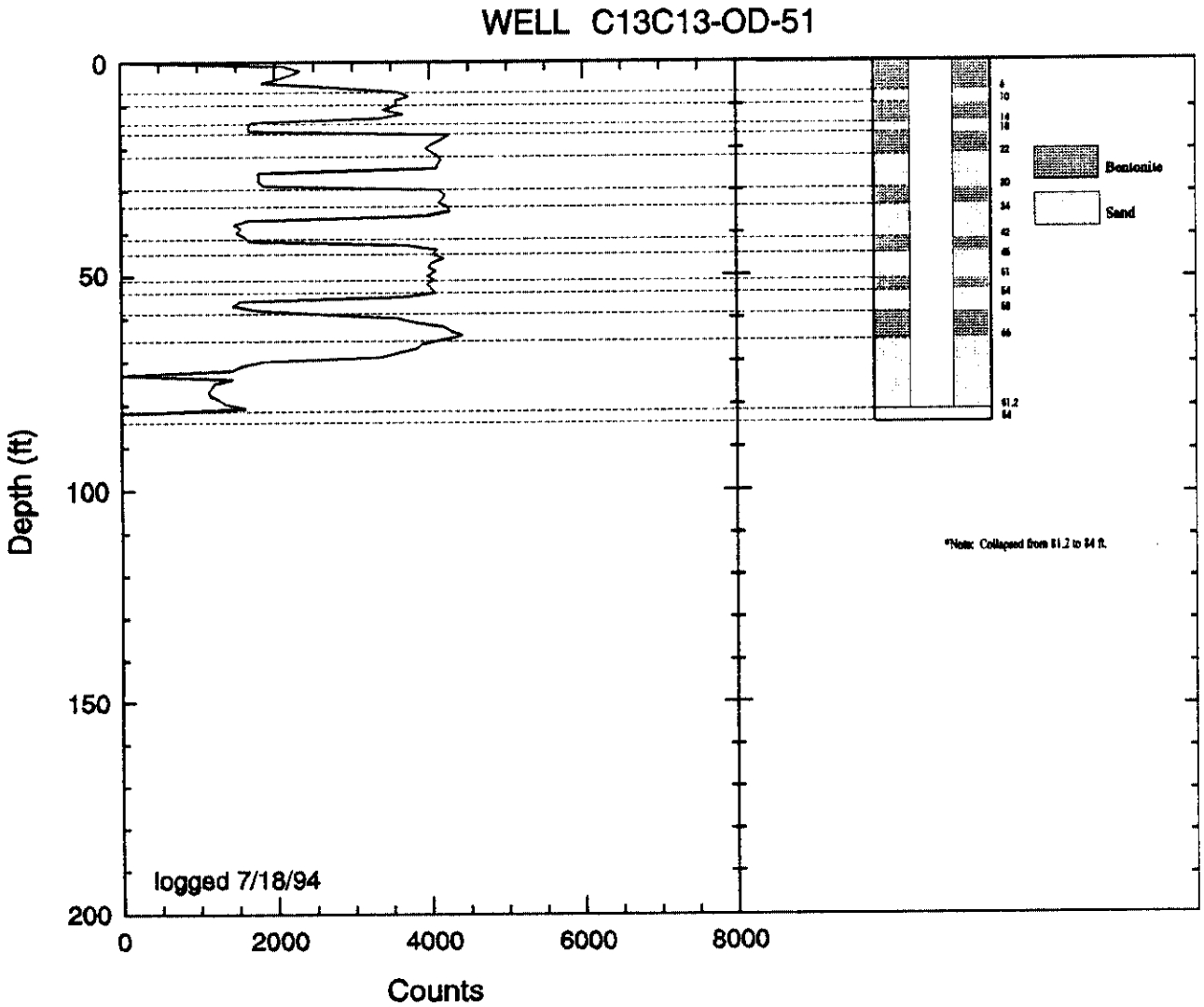


Figure B-44. CPN neutron log (left) and well completion diagram (right) for well C13C13.

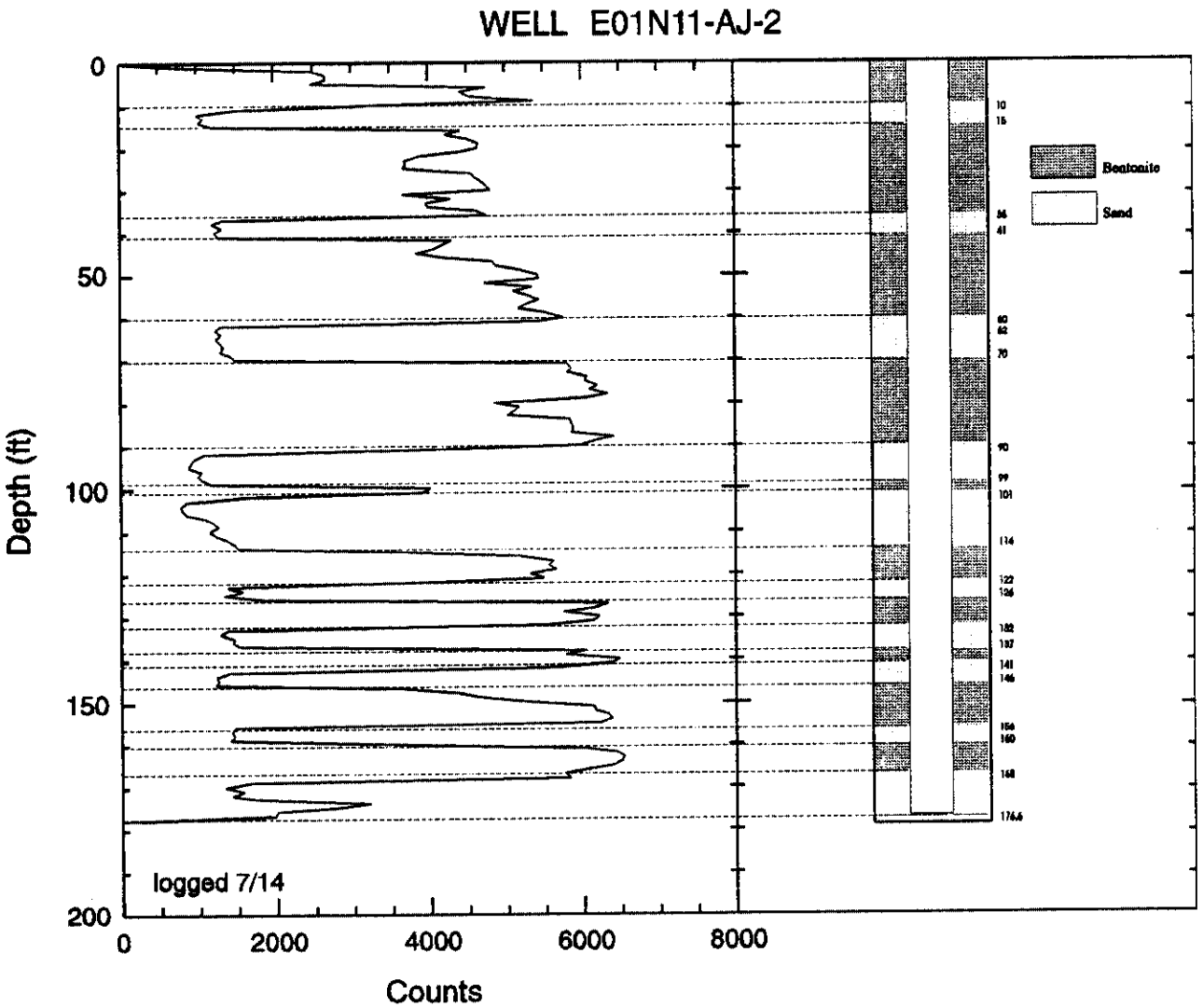


Figure B-45. CPN neutron log (left) and well completion diagram (right) for well E01N11.

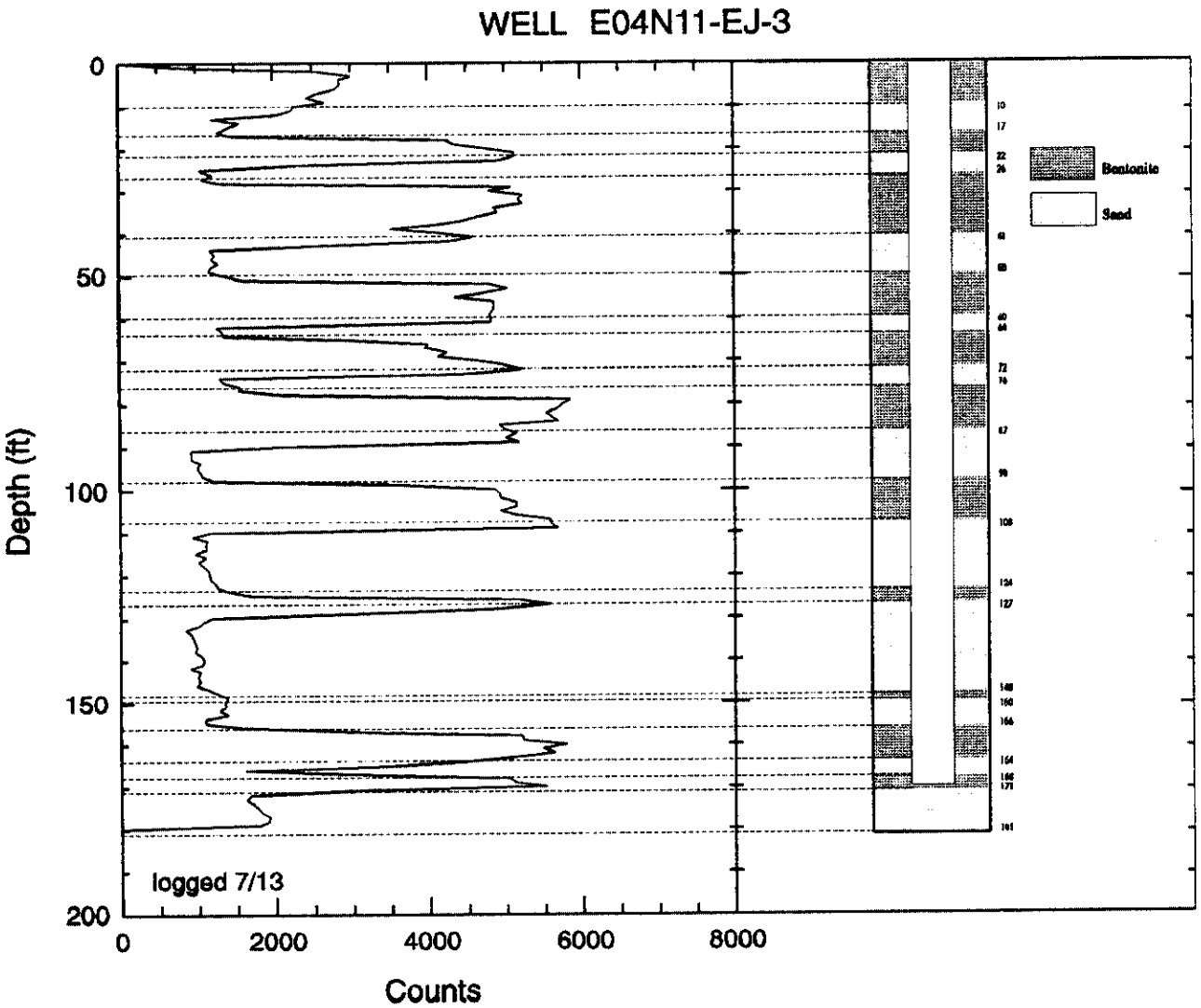


Figure B-46. CPN neutron log (left) and well completion diagram (right) for well E04N11.

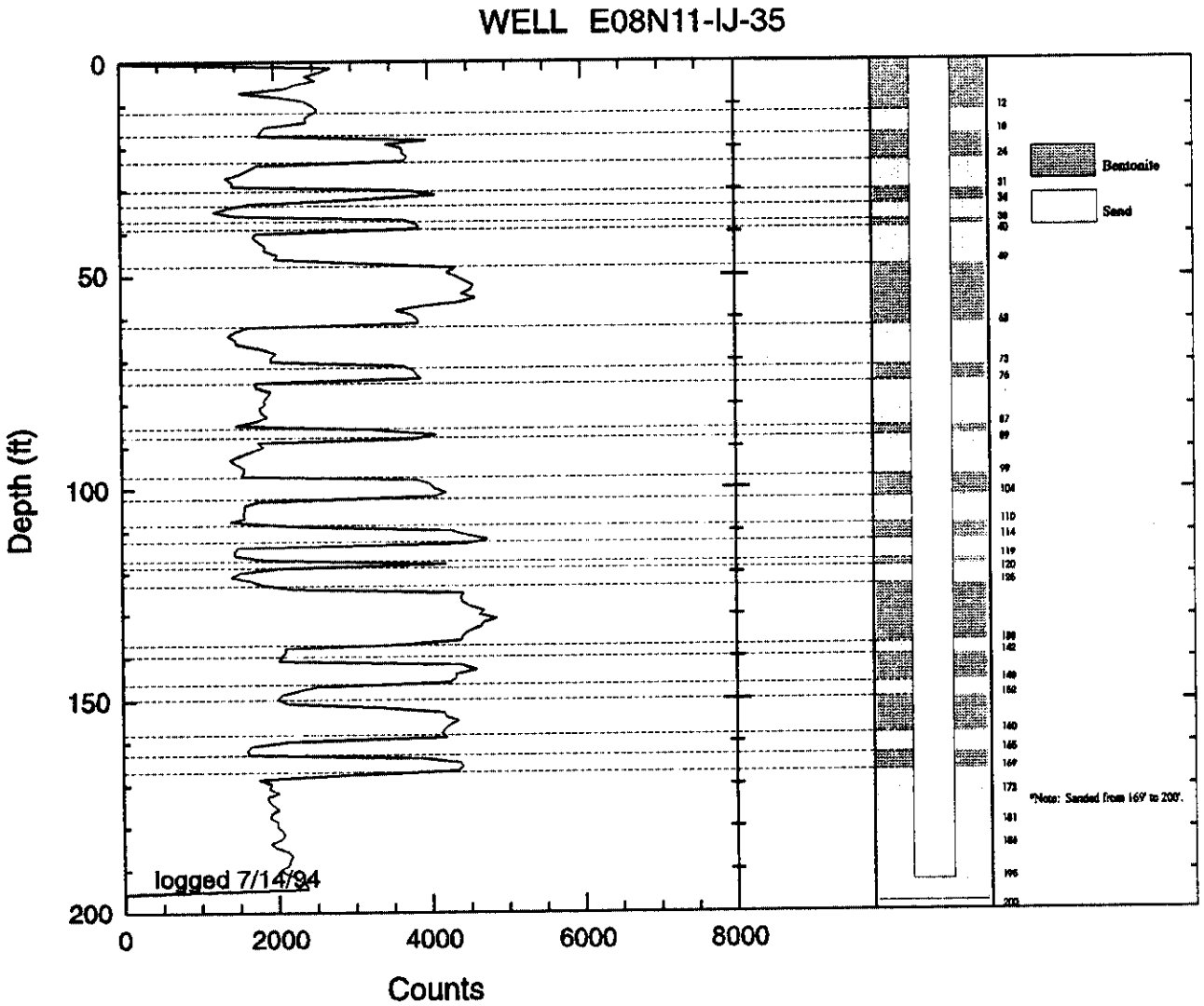


Figure B-47. CPN neutron log (left) and well completion diagram (right) for well E08N11.

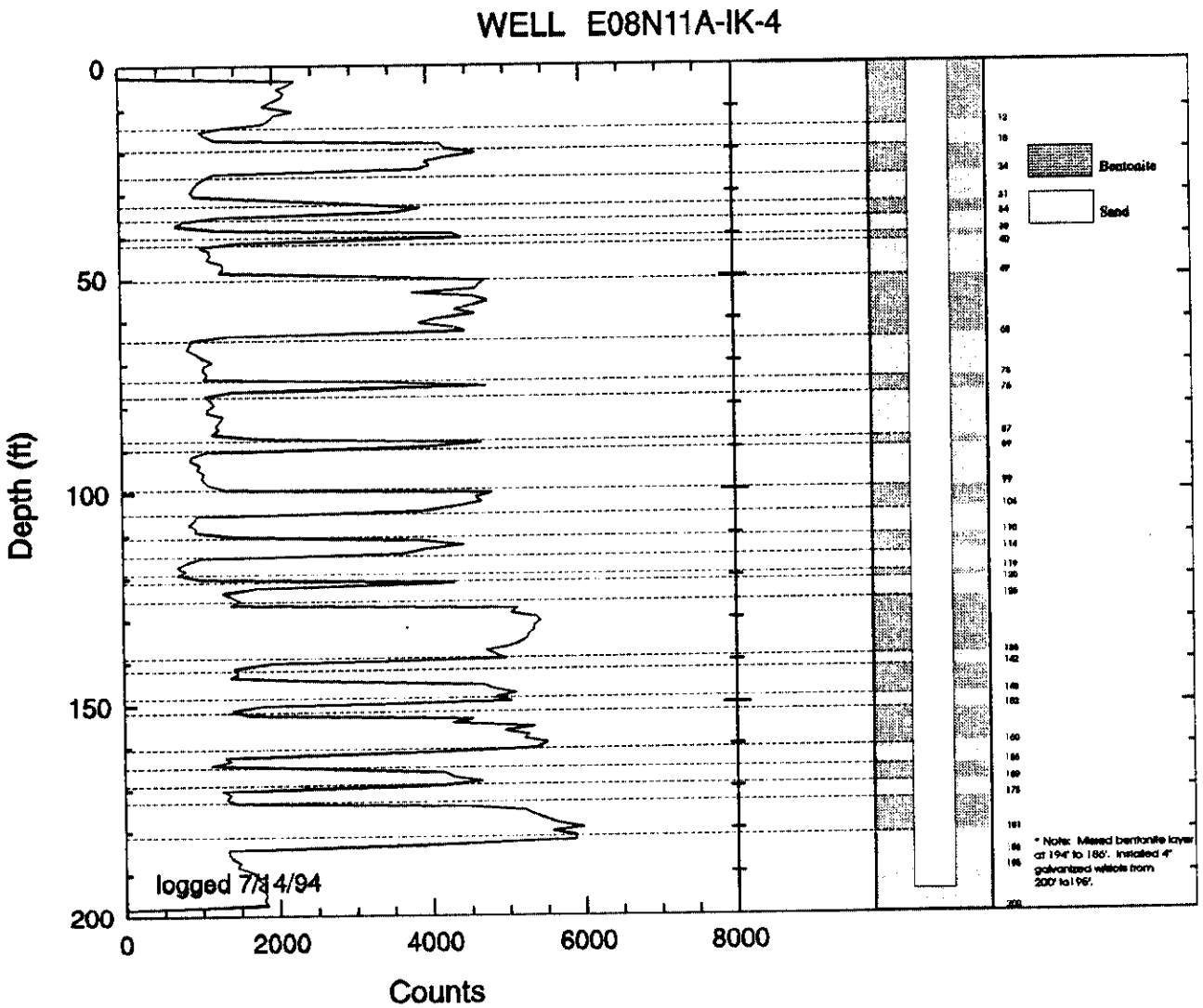


Figure B-48. CPN neutron log (left) and well completion diagram (right) for well E08N11A.

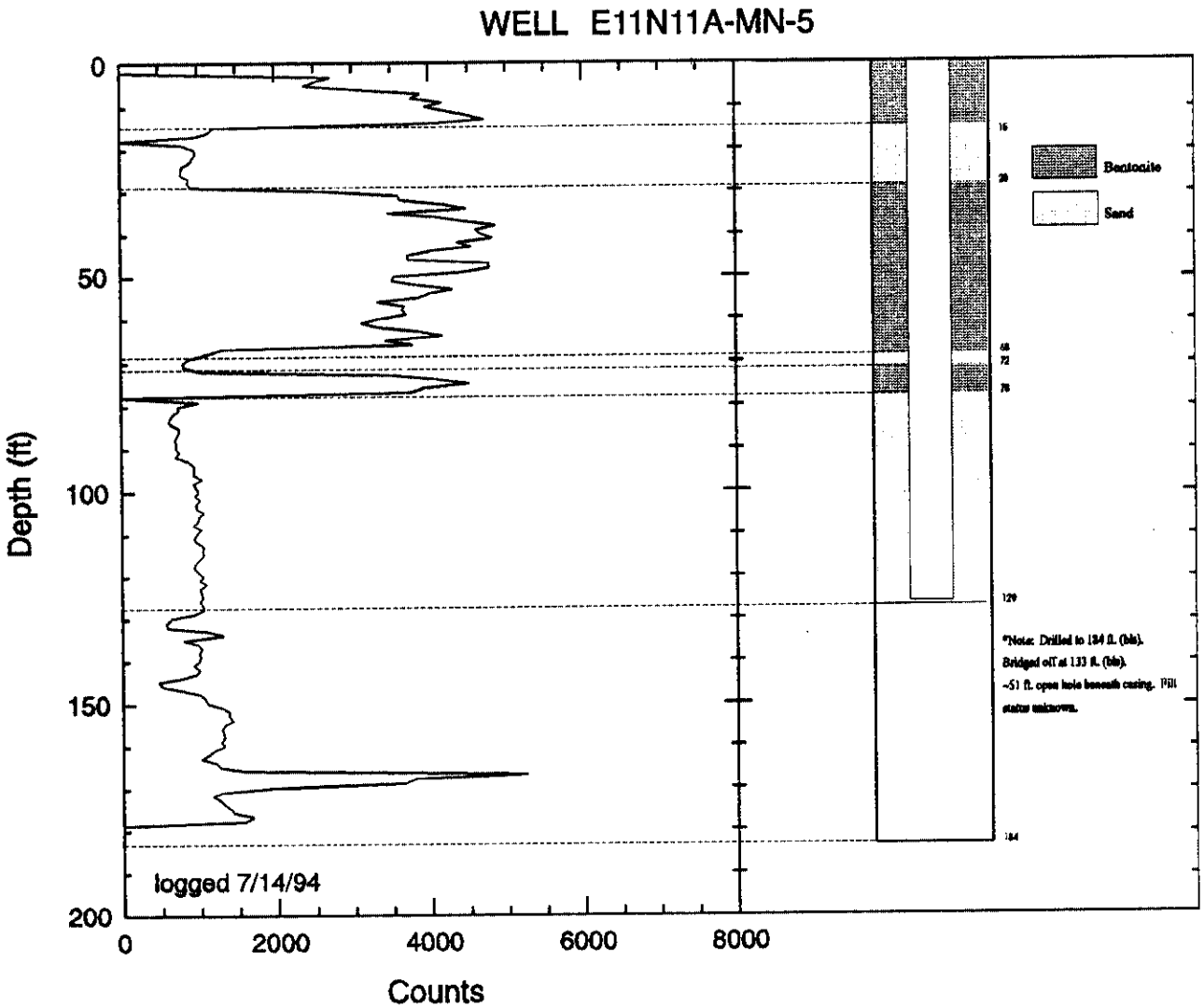


Figure B-49. CPN neutron log (left) and well completion diagram (right) for well E11N11A.

Mixing of the sand and bentonite is thought to be the cause of reduction of counts for a bentonite layer such as that found at 24.4 m (80 ft) in well C08C12 (Figure B-34). If the sand and bentonite were mixed during emplacement of the fairly thin layer, the sand would serve to lower the neutron counts. Mixing of the bentonite and sand can occur when the PVC casing is not parallel to the borehole but at some angle to it. Materials being poured from the surface can be impeded by the casing and fall to the bottom of the hole during the emplacement of another material, thus forming a mixture.

Specific differences observed in comparing the neutron logs to the well completion diagrams are listed in Table B-1.

Table B-1. Observations from comparison of neutron logs and well completion diagrams.

Well	Approximate Depth (ft)	Observation
A01C11	35	bentonite layer not uniform
"	74-80	bentonite layer higher than indicated
"	94-96	bentonite layer thicker than indicated
"	122-136	bentonite layer not as thick as indicated
A01C12	24-37	sand layer thinner than indicated
"	40-48	sand layer thicker than indicated
"	58-65	bentonite layer thicker than indicated
"	70-78	bentonite layer thicker than indicated
"	86-88	bentonite layer missing
"	100-105	bentonite layer thinner than indicated
"	110	bentonite in sand layer?
A01C13	-	-
A04C11	100-110	sand layer not uniform (bridged?)
A04C12	17-21	sand layer missing ?
"	35-40	sand layer lower than indicated
"	55-60	sand layer lower than indicated
A04C13	-	-
A08C11	-	-
A08C12	86-95	bentonite layer not uniform
A08C13	76-80	bentonite layer not uniform
"	86-90	bentonite layer missing? (only partial layer was logged)
A11C11	35-40	bentonite layer not uniform
"	86-96	sand layer higher than indicated
"	116-121	bentonite layer thicker than indicated
A11C12	102-106	bentonite layer lower than indicated

Well	Approximate Depth (ft)	Observation
A11C13	17-21	sand layer missing?
"	30-35	sand layer missing
"	48-51	bentonite layer thicker than indicated
B01N11	-	-
B02N11	68-95	bentonite layer lower than indicated
B04N11	86-96	bentonite layer thinner than indicated
B06N11	68-82	bentonite layer not uniform
"	86-92	bentonite layer thinner than indicated
"	98-101	bentonite layer missing
"	151-165	bentonite layer thinner than indicated
B08N11	below 55	layers are generally not uniform and depths are off
B09N11	53	bentonite layer not uniform
"	82-90	bentonite layer missing
"	100-104	bentonite layer thicker than indicated
"	109-128	bentonite layer thicker than indicated
"	138-150	bentonite layer thinner than indicated
"	180	bentonite in sand layer?
B11N11A	52-68	sand layer thicker than indicated
B13N11	10-14	sand layer lower than indicated
"	22-24	bentonite layer thinner than indicated
"	54-56	bentonite layer lower than indicated
"	66-68	bentonite layer thicker than indicated
"	78-84	bentonite layer lower than indicated
"	90-92.5	bentonite layer thinner than indicated
"	138-140	bentonite layer lower than indicated
"	153-156	bentonite layer lower than indicated
"	165-167	bentonite layer lower than indicated

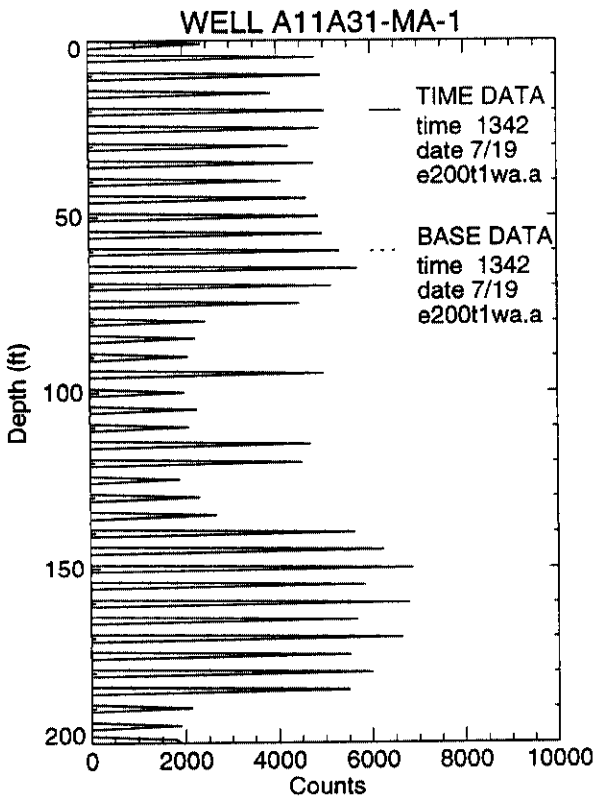
Well	Approximate Depth (ft)	Observation
C01C11	all	depths of most layers not as indicated
C01C12	62-65	bentonite layer higher than indicated
"	90-102	bentonite layer higher than indicated
"	111-113	bentonite layer higher than indicated
C01C13	18-20	bentonite layer thinner than indicated
C02C11	25-35	bentonite layer thinner than indicated
"	170-178	bentonite layer thinner than indicated
"	185	bentonite in sand layer
C02C12	90-92	bentonite layer lower than indicated
C02C13A	72-75	bentonite layer missing
C04C11	17-21	bentonite layer not uniform
"	25-31	bentonite layer not uniform
"	48-57	bentonite layer not uniform
C04C12	103-105	bentonite layer lower than indicated
C04C13	33-45	bentonite layer missing
C06C11	150-153	bentonite layer missing
C06C12	22-24	bentonite layer higher than indicated
"	31.5-39	bentonite layer thicker than indicated
"	100-102	bentonite layer higher than indicated
"	109-111.5	bentonite layer higher than indicated
"	122-124.5	bentonite layer thicker than indicated
C06C13	39-42	bentonite layer lower than indicated
"	52-53.5	bentonite layer thinner than indicated
C08C11	81-83	sand layer thicker than indicated

Well	Approximate Depth (ft)	Observation
C08C12	11-13	bentonite layer thicker and lower than indicated
"	16-25	bentonite layer lower than indicated
"	30-34	bentonite layer lower than indicated
"	52-59	sand layer thicker than indicated
"	69-73	bentonite layer lower than indicated
"	78-81	bentonite layer lower than indicated
	118-123	bentonite layer not uniform
C08C13	22-27	bentonite layer thinner than indicated
C09C11	10-14	sand layer thinner than indicated
"	16-26	bentonite in sand layer?
"	26-32	bentonite layer thicker than indicated
"	122-126	bentonite layer thinner than indicated
"	183	bentonite in sand layer?
C09C12	32-45	bentonite layer thinner than indicated
"	51-60	bentonite layer thicker than indicated
"	83-88	sand layer thicker than indicated
"	108-112	sand layer higher than indicated
C09C13	17-20	bentonite layer not uniform
"	23-27	bentonite layer not uniform
"	41-45	bentonite layer missing
C11C11	all	depths of most layers not as indicated
C11C12A	34-38	sand layer not uniform
"	38-48	bentonite layer not uniform
C11C13	8-13	sand layer thinner than indicated
"	44-49	sand layer thicker than indicated
"	58-60	bentonite layer thicker than indicated

Well	Approximate Depth (ft)	Observation
C13C11	31-38	bentonite layer thinner than indicated
"	64-66	bentonite layer thinner than indicated
"	80-94	sand layer thinner than indicated
C13C12	35-39	bentonite layer thicker than indicated
"	85-90	bentonite layer thicker than indicated
C13C13	all	depths of most layers not as indicated
E01N11	99-101	bentonite layer not uniform
"	146-156	bentonite layer not uniform
"	168-176.6	bentonite in sand layer?
E04N11	all	depths of most layers not as indicated
"	148-150	bentonite layer missing
E08N11	31-34	bentonite layer not uniform
"	138-142	sand layer thicker than indicated
"	148-152	sand layer thicker than indicated
E08N11A	12-76	depths not as indicated
"	119-181	depths not as indicated
E11N11A	68-72	sand layer thicker than indicated

Appendix C

Large-Scale Infiltration Test CPN Neutron Probe Data Graphs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BASE DATA
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150
200
0
2000
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6000
8000
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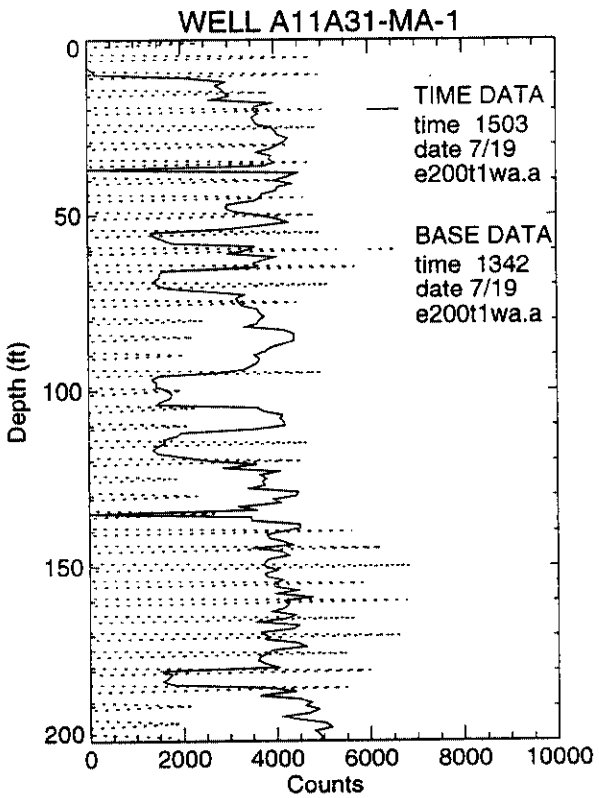
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Counts
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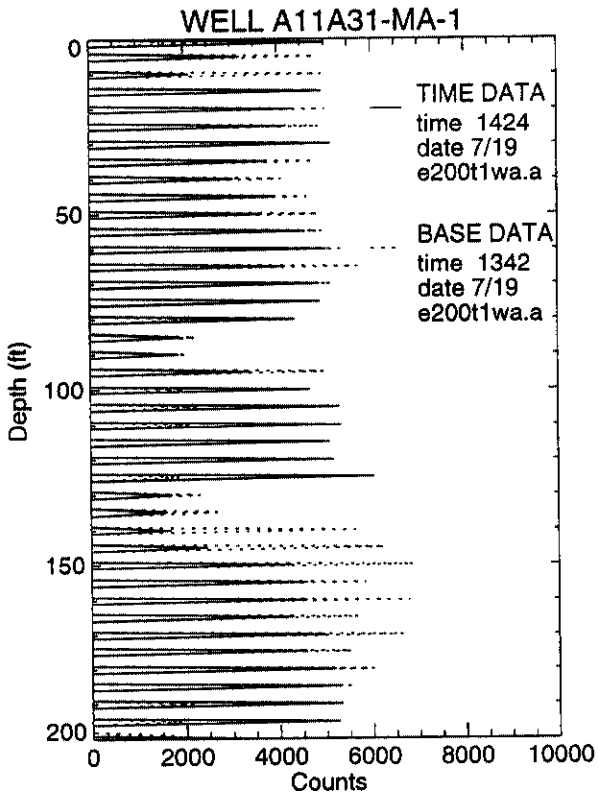
WELL A11A31-MA-1
TIME DATA
time 1424
date 7/19
e200t1wa.a
BASE DATA
time 1342
date 7/19
e200t1wa.a
Depth (ft)
Counts
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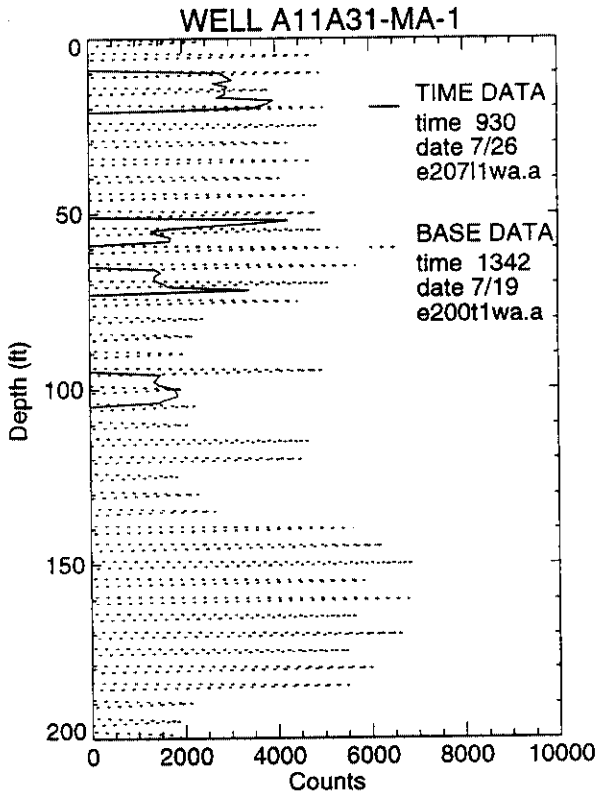
10000


WELL A11A31-MA-1
TIME DATA
time 930
date 7/26
e207l1wa.a
BASE DATA
time 1342
date 7/19
e200t1wa.a
Depth (ft)
Counts
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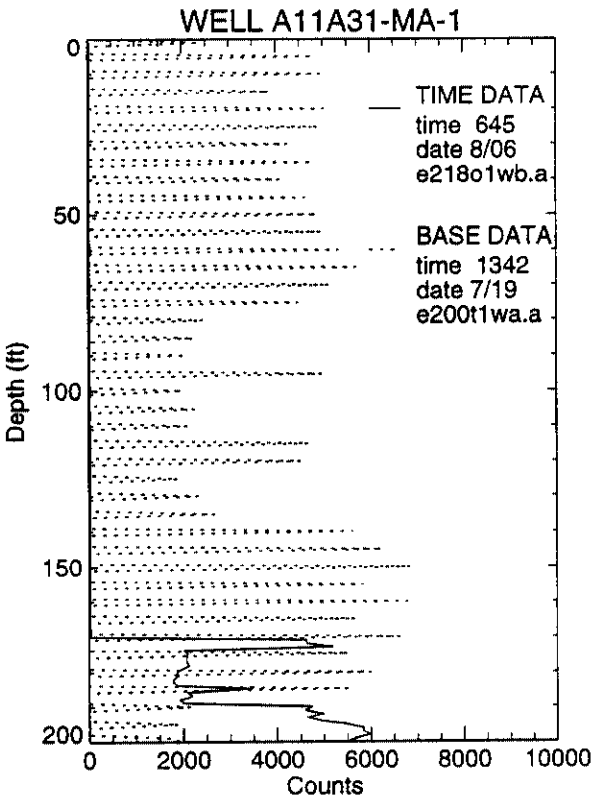
10000


WELL A11A31-MA-1
TIME DATA
time 645
date 8/06
e218o1wb.a
BASE DATA
time 1342
date 7/19
e200t1wa.a
Depth (ft)
Counts
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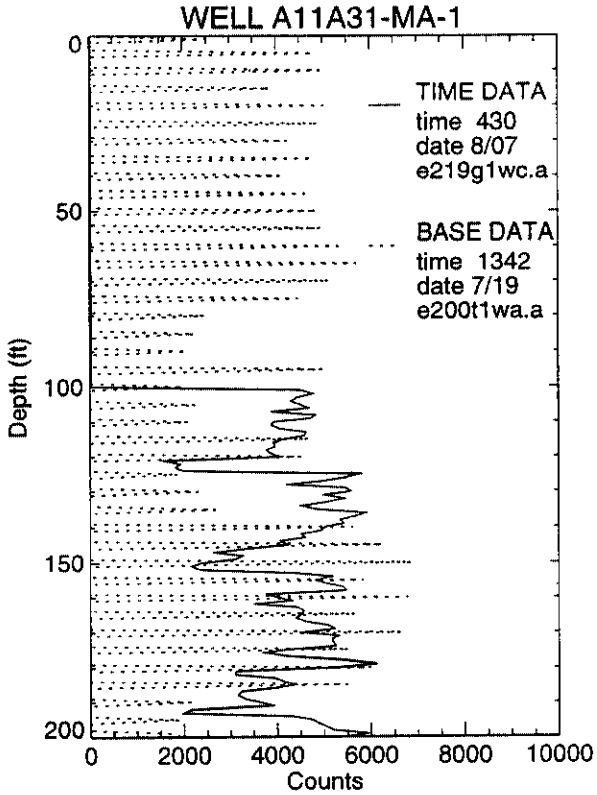
8000
10000


WELL A11A31-MA-1
TIME DATA
time 430
date 8/07
e219g1wc.a
BASE DATA
time 1342
date 7/19
e200t1wa.a
Depth (ft)
Counts
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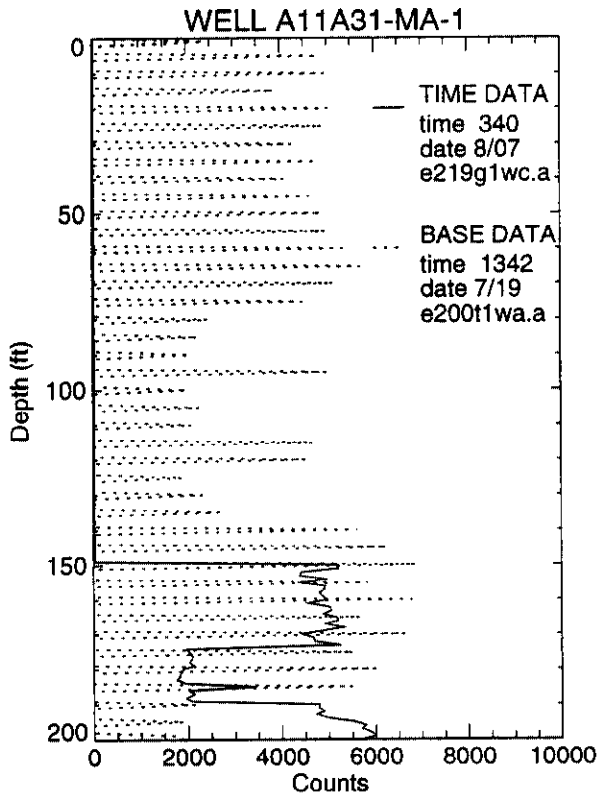
8000
10000


WELL A11A31-MA-1
TIME DATA
time 340
date 8/07
e219g1wc.a
BASE DATA
time 1342
date 7/19
e200t1wa.a
Depth (ft)
Counts
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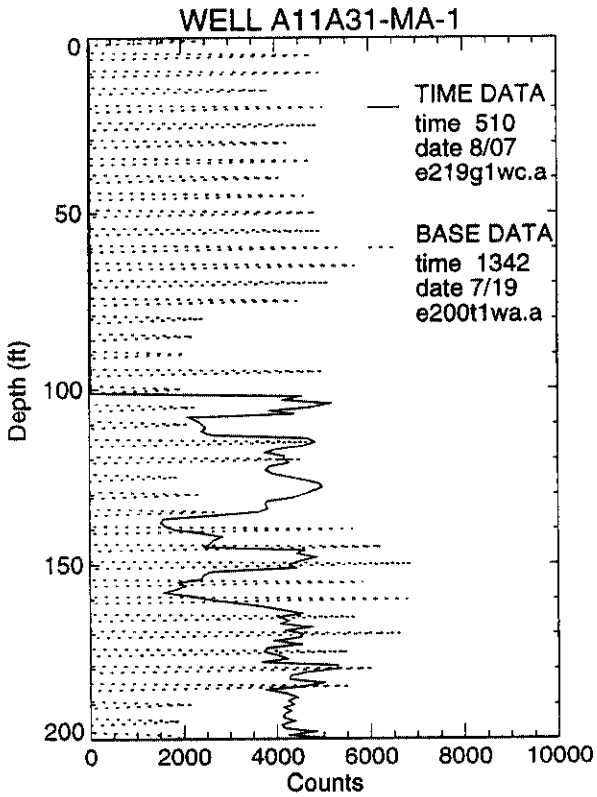
8000
10000


WELL A11A31-MA-1
TIME DATA
time 510
date 8/07
e219g1wc.a
BASE DATA
time 1342
date 7/19
e200t1wa.a
Depth (ft)
Counts
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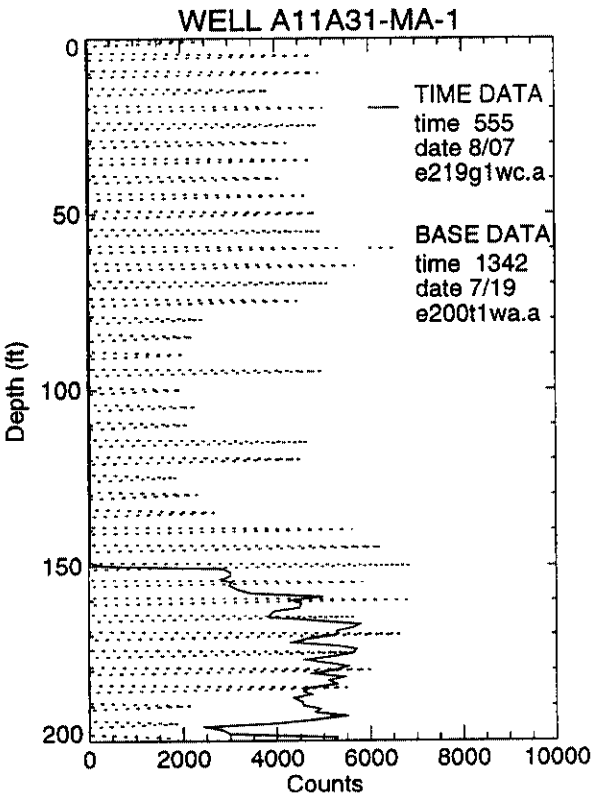
10000


WELL A11A31-MA-1
TIME DATA
time 555
date 8/07
e219g1wc.a
BASE DATA
time 1342
date 7/19
e200t1wa.a
Depth (ft)
Counts
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0
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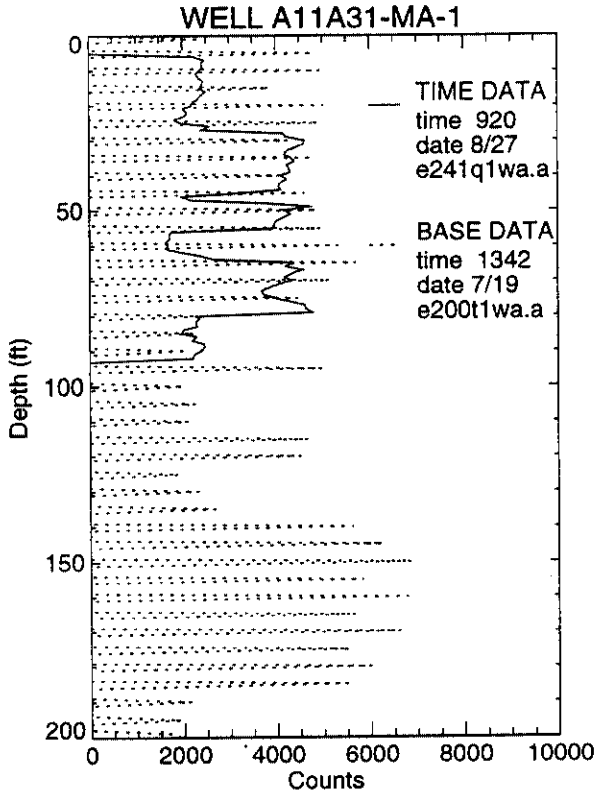
10000


WELL A11A31-MA-1
TIME DATA
time 920
date 8/27
e241q1wa.a
BASE DATA
time 1342
date 7/19
e200t1wa.a
Depth (ft)
Counts
0
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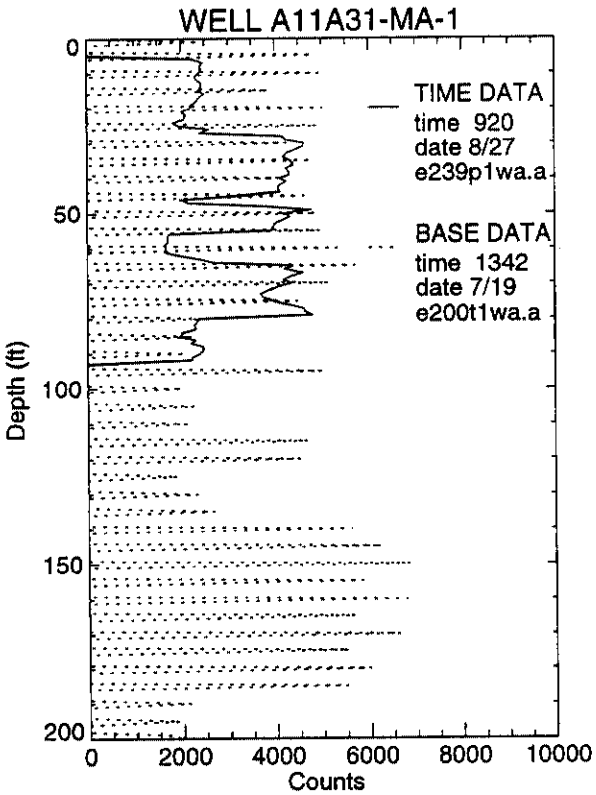
150
200
0
2000
4000
6000
8000
10000


WELL A11A31-MA-1
TIME DATA
time 920
date 8/27
e239p1wa.a
BASE DATA
time 1342
date 7/19
e200t1wa.a
Depth (ft)
Counts
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150
200
0
2000
4000
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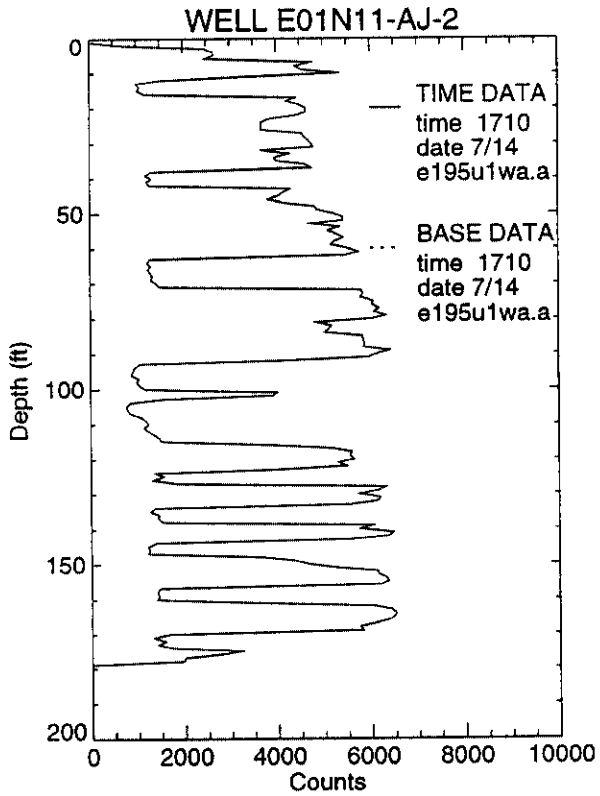
8000
10000


WELL E01N11-AJ-2
TIME DATA
time 1710
date 7/14
e195u1wa.a
BASE DATA
time 1710
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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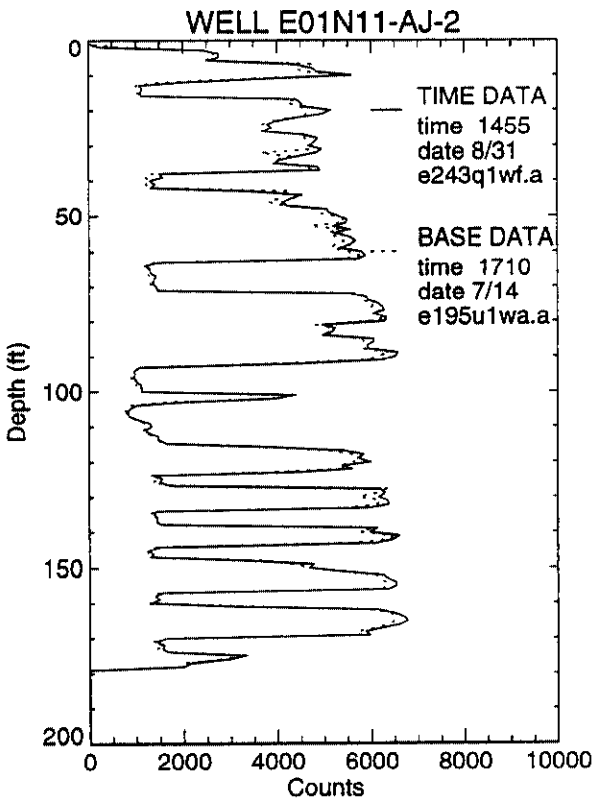
150
200
0
2000
4000
6000
8000
10000


WELL E01N11-AJ-2
TIME DATA
time 1455
date 8/31
e243q1wf.a
BASE DATA
time 1710
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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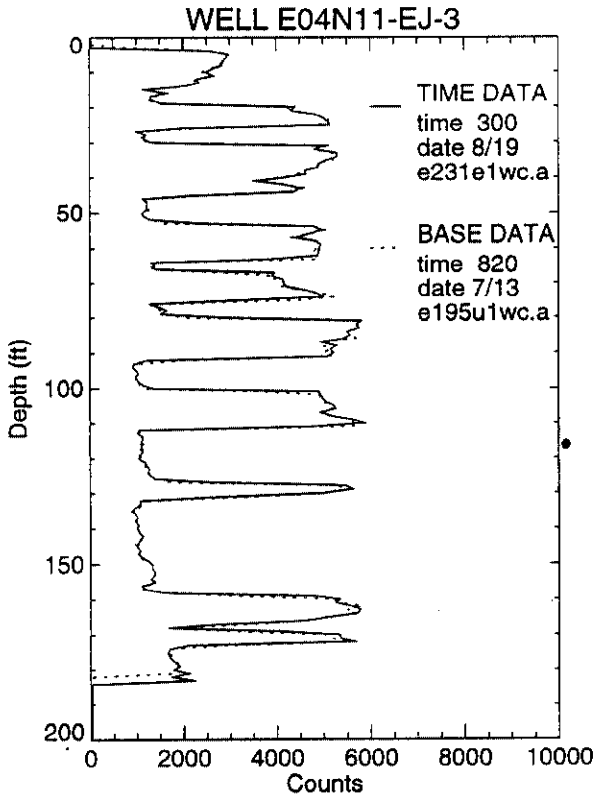
150
200
0
2000
4000
6000
8000
10000


WELL E04N11-EJ-3
TIME DATA
time 300
date 8/19
e231e1wc.a
BASE DATA
time 820
date 7/13
e195u1wc.a
Depth (ft)
Counts
0
50
100
150
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0
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4000
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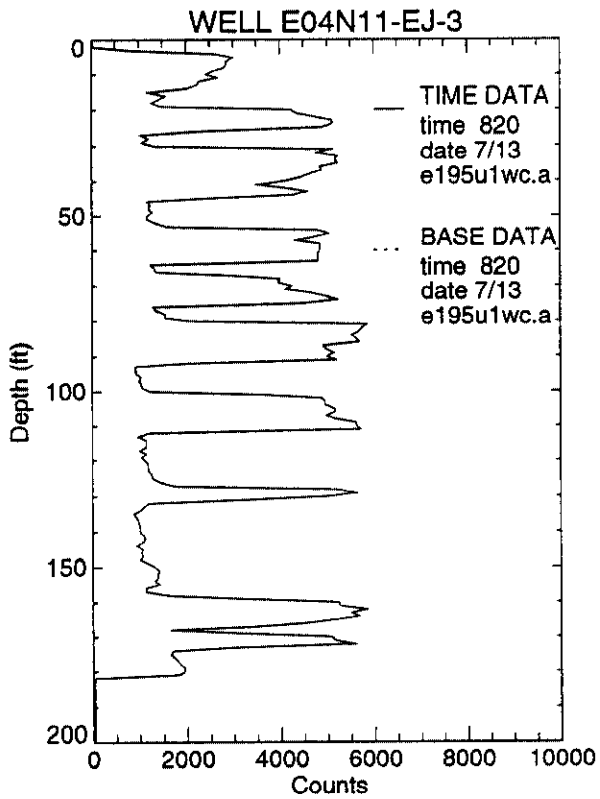
8000
10000


WELL E04N11-EJ-3
TIME DATA
time 820
date 7/13
e195u1wc.a
BASE DATA
time 820
date 7/13
e195u1wc.a
Depth (ft)
Counts
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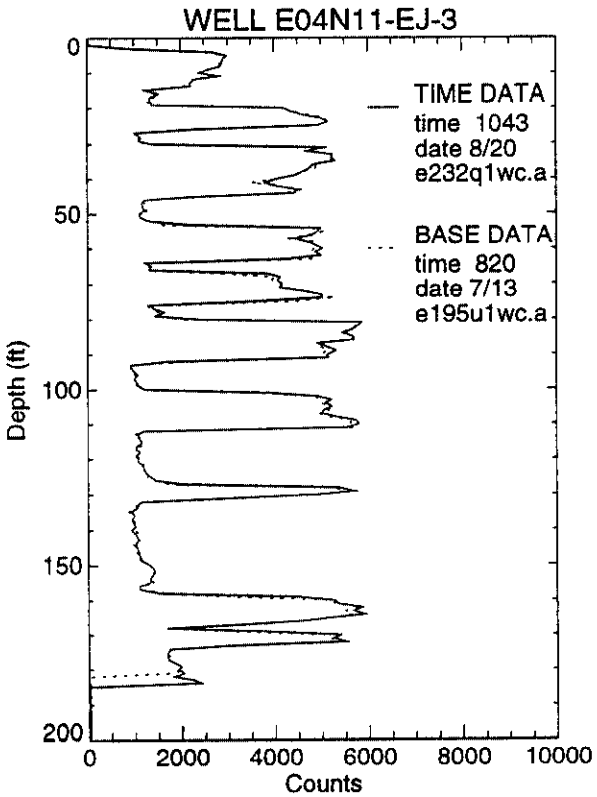
10000


WELL E04N11-EJ-3
TIME DATA
time 1043
date 8/20
e232q1wc.a
BASE DATA
time 820
date 7/13
e195u1wc.a
Depth (ft)
Counts
0
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150
200
0
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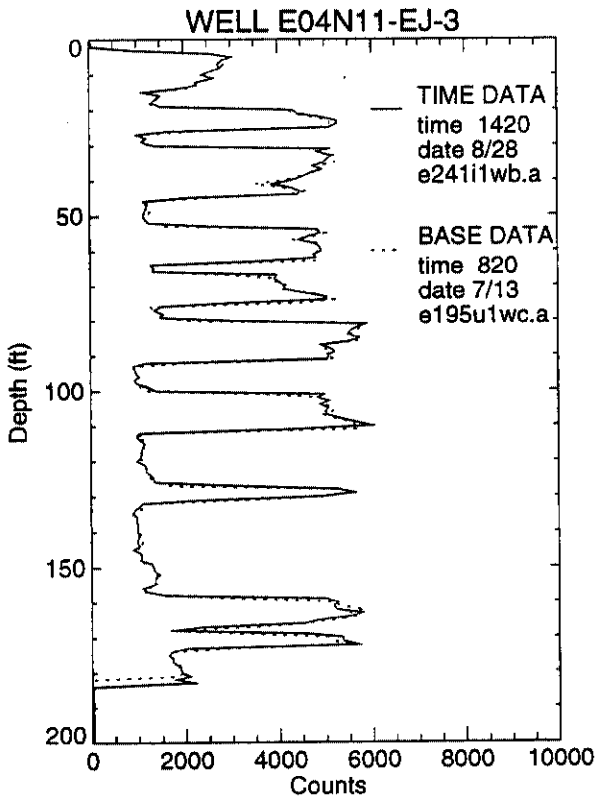
WELL E04N11-EJ-3
TIME DATA
time 1420
date 8/28
e241i1wb.a
BASE DATA
time 820
date 7/13
e195u1wc.a
Depth (ft)
Counts
0
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150
200
0
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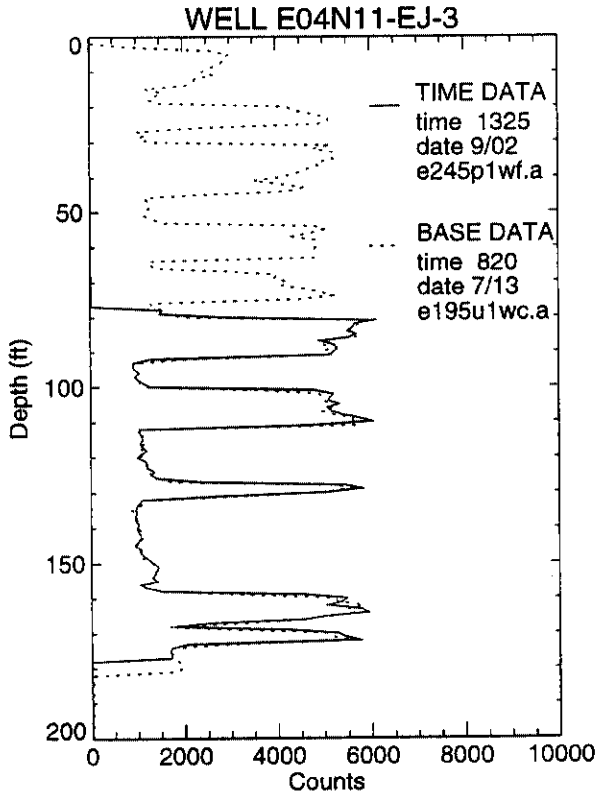
8000
10000


WELL E04N11-EJ-3
TIME DATA
time 1325
date 9/02
e245p1wf.a
BASE DATA
time 820
date 7/13
e195u1wc.a
Depth (ft)
Counts
0
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150
200
0
2000
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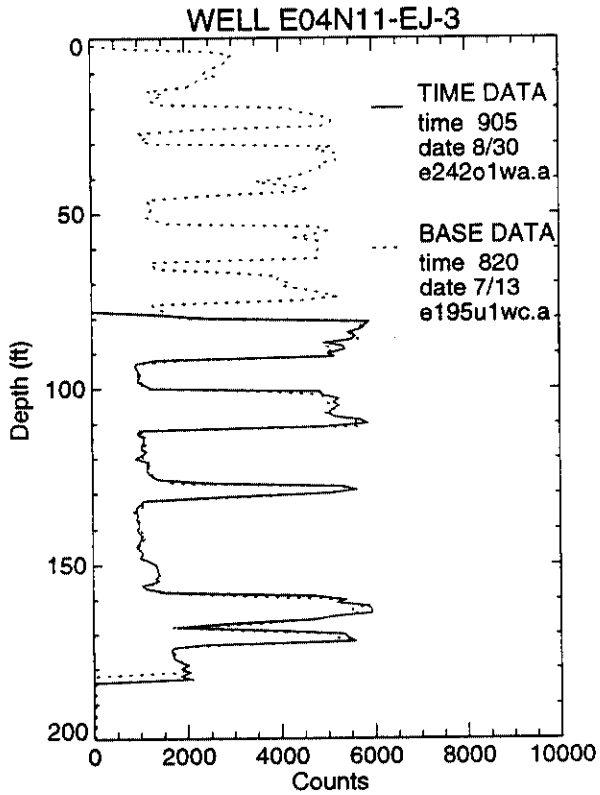
8000
10000


WELL E04N11-EJ-3
TIME DATA
time 905
date 8/30
e242o1wa.a
BASE DATA
time 820
date 7/13
e195u1wc.a
Depth (ft)
Counts
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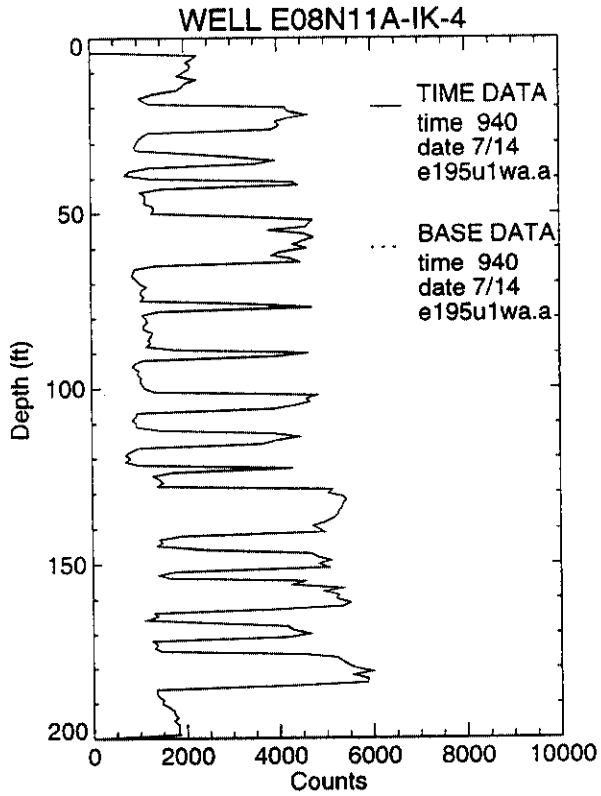
8000
10000


WELL E08N11A-IK-4
TIME DATA
time 940
date 7/14
e195u1wa.a
BASE DATA
time 940
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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150
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0
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4000
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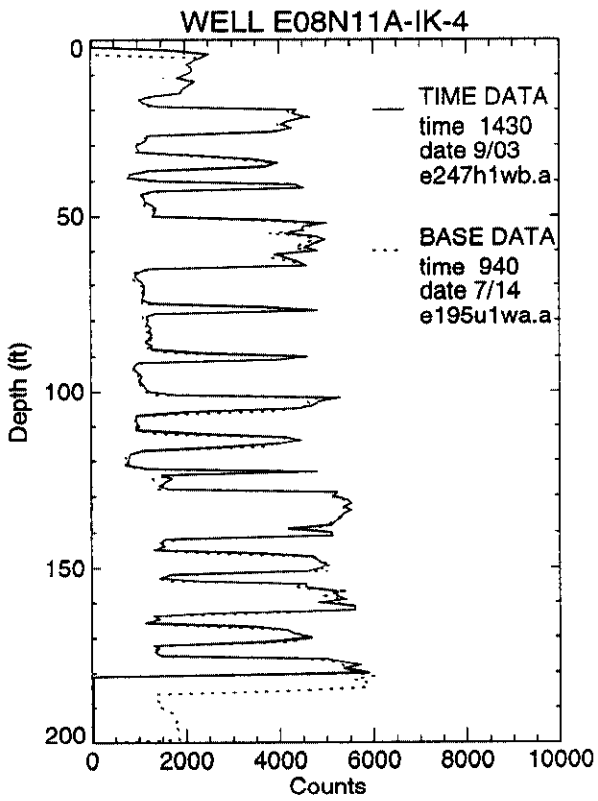
8000
10000


WELL E08N11A-IK-4
TIME DATA
time 1430
date 9/03
e247h1wb.a
BASE DATA
time 940
date 7/14
e195u1wa.a
Depth (ft)
Counts
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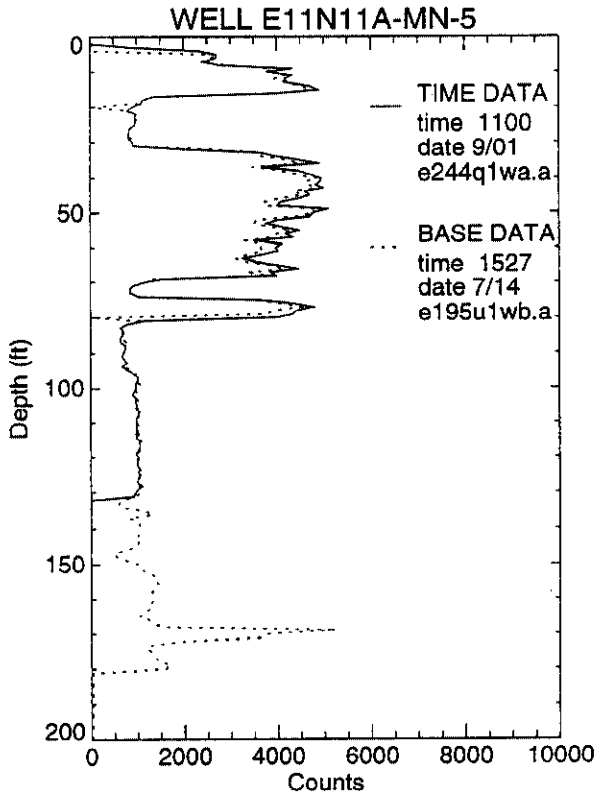
10000


WELL E11N11A-MN-5
TIME DATA
time 1100
date 9/01
e244q1wa.a
BASE DATA
time 1527
date 7/14
e195u1wb.a
Depth (ft)
Counts
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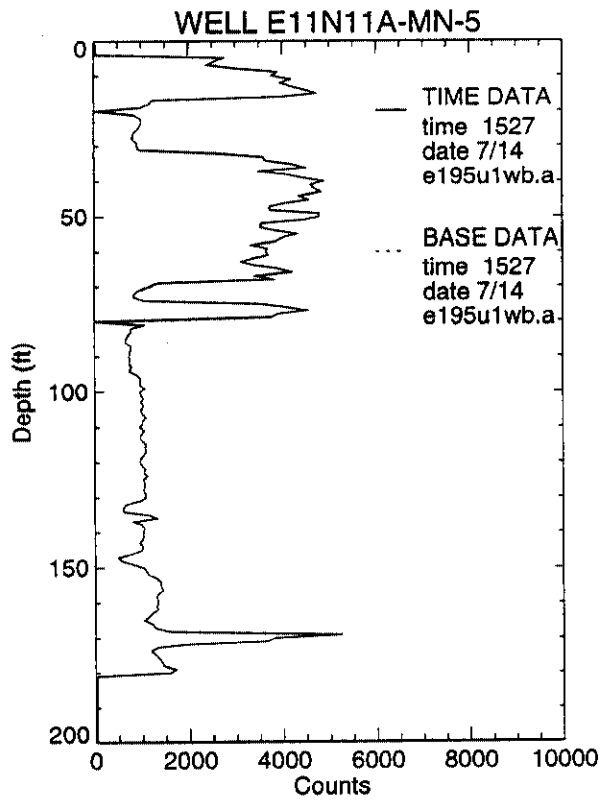
8000
10000


WELL E11N11A-MN-5
TIME DATA
time 1527
date 7/14
e195u1wb.a
BASE DATA
time 1527
date 7/14
e195u1wb.a
Depth (ft)
Counts
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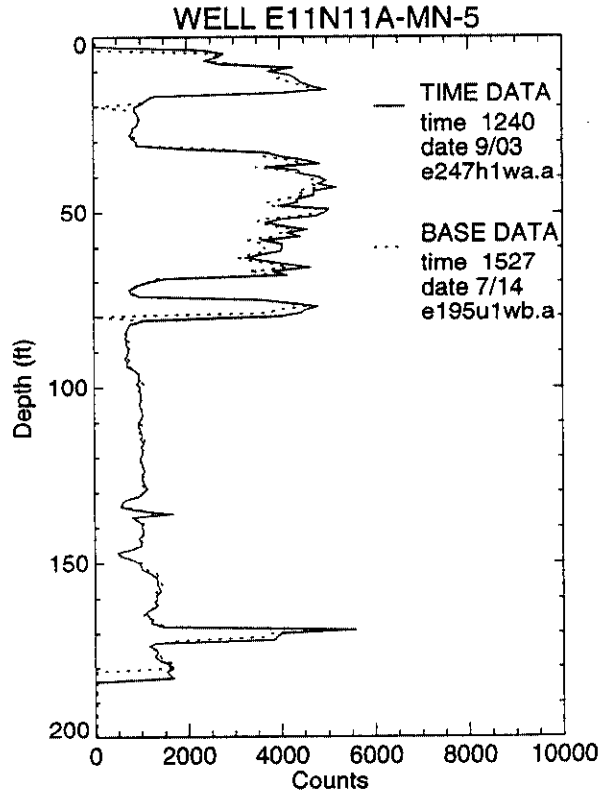
6000
8000
10000


WELL E11N11A-MN-5
TIME DATA
time 1240
date 9/03
e247h1wa.a
BASE DATA
time 1527
date 7/14
e195u1wb.a
Depth (ft)
Counts
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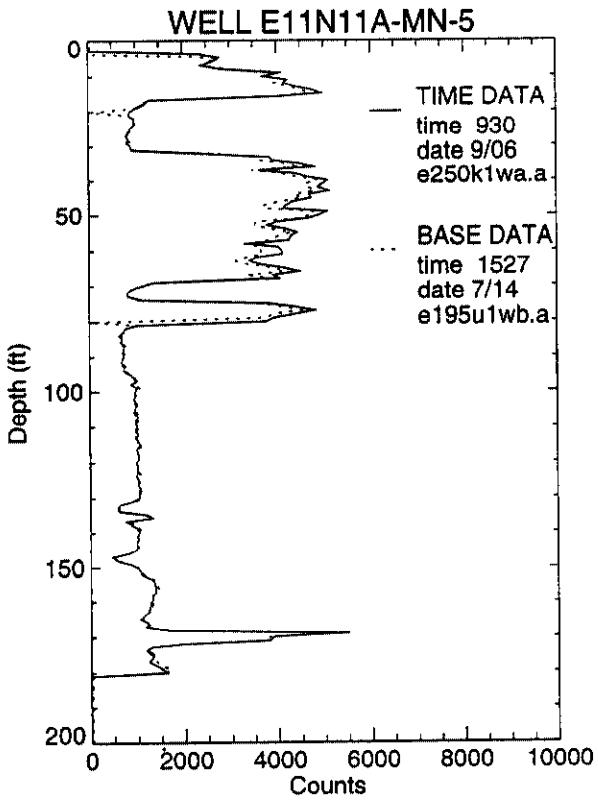
8000
10000


WELL E11N11A-MN-5
TIME DATA
time 930
date 9/06
e250k1wa.a
BASE DATA
time 1527
date 7/14
e195u1wb.a
Depth (ft)
Counts
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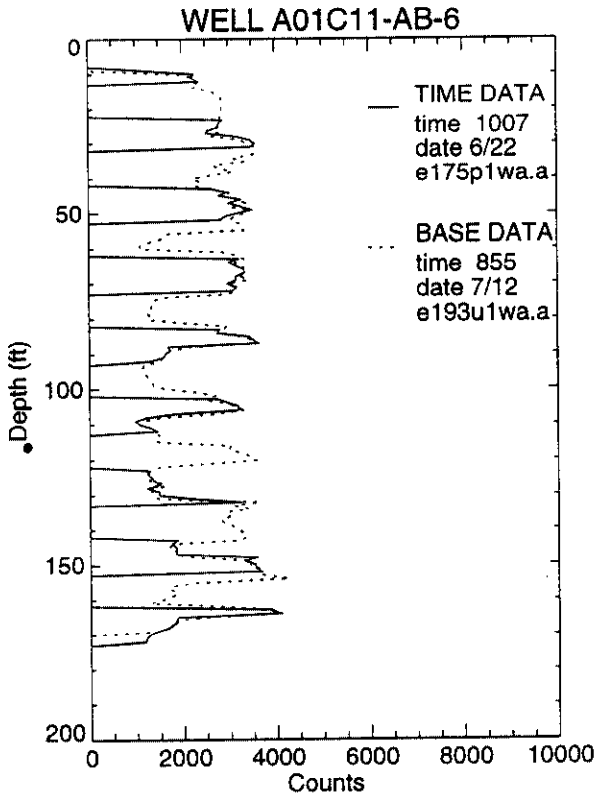
8000
10000


WELL A01C11-AB-6
TIME DATA
time 1007
date 6/22
e175p1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
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150
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0
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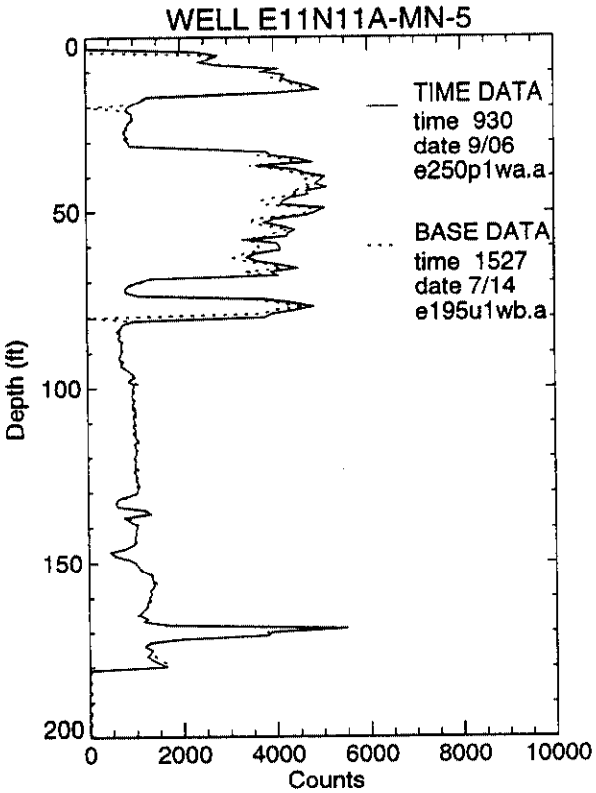
6000
8000
10000


WELL E11N11A-MN-5
TIME DATA
time 930
date 9/06
e250p1wa.a
BASE DATA
time 1527
date 7/14
e195u1wb.a
Depth (ft)
Counts
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0
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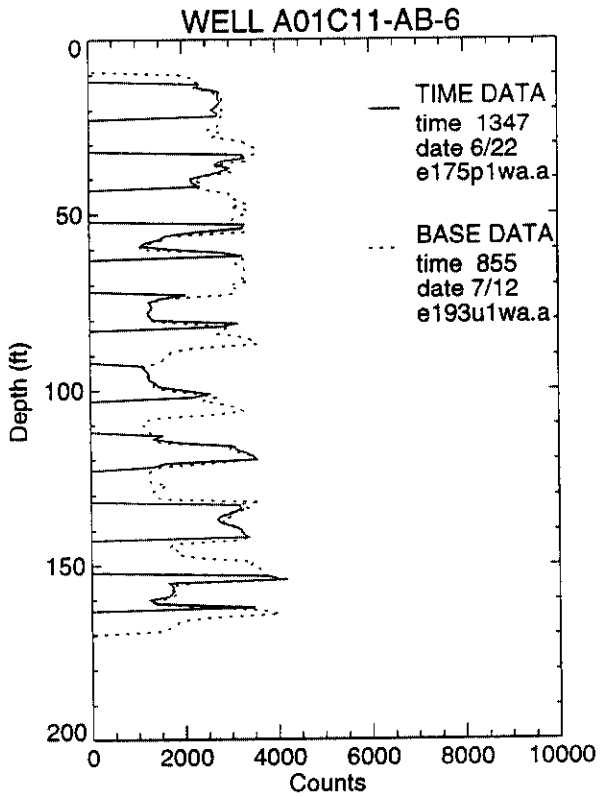
8000
10000


WELL A01C11-AB-6
TIME DATA
time 1347
date 6/22
e175p1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
0
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150
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0
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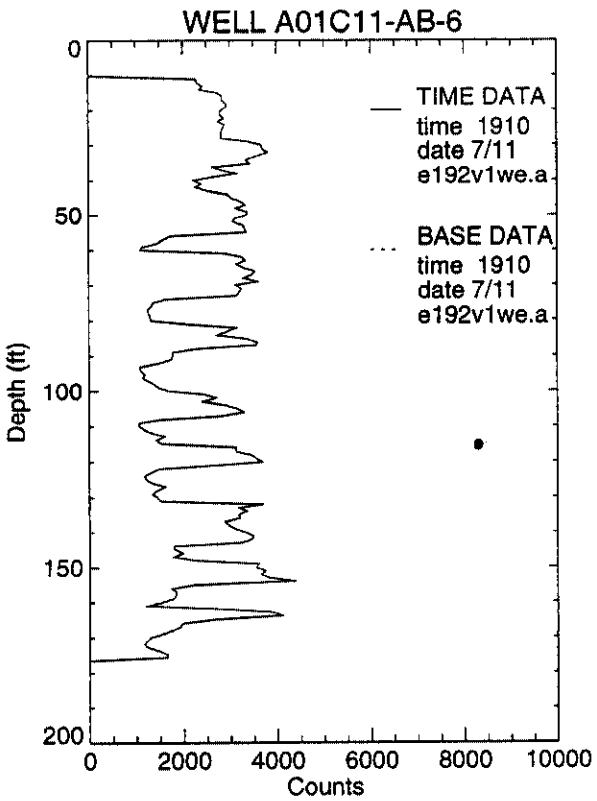
10000


WELL A01C11-AB-6
TIME DATA
time 1910
date 7/11
e192v1we.a
BASE DATA
time 1910
date 7/11
e192v1we.a
Depth (ft)
Counts
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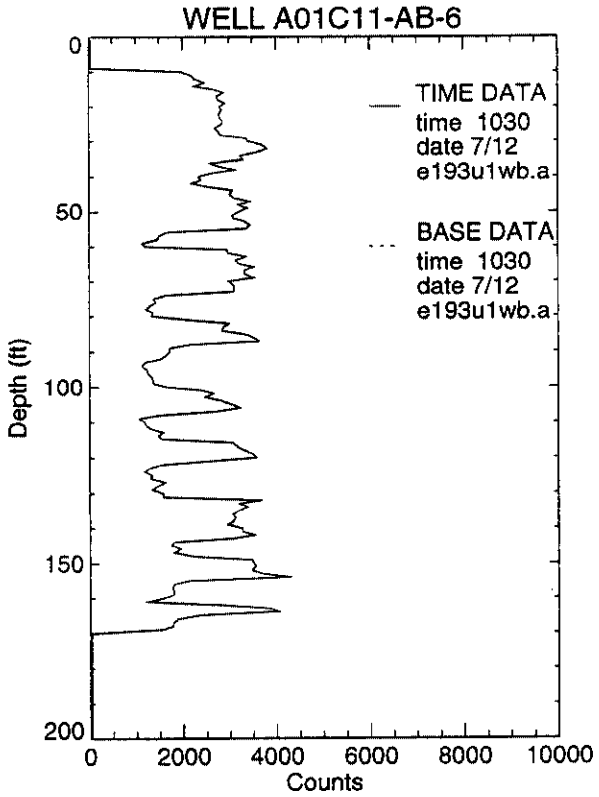
10000


WELL A01C11-AB-6
TIME DATA
time 1030
date 7/12
e193u1wb.a
BASE DATA
time 1030
date 7/12
e193u1wb.a
Depth (ft)
Counts
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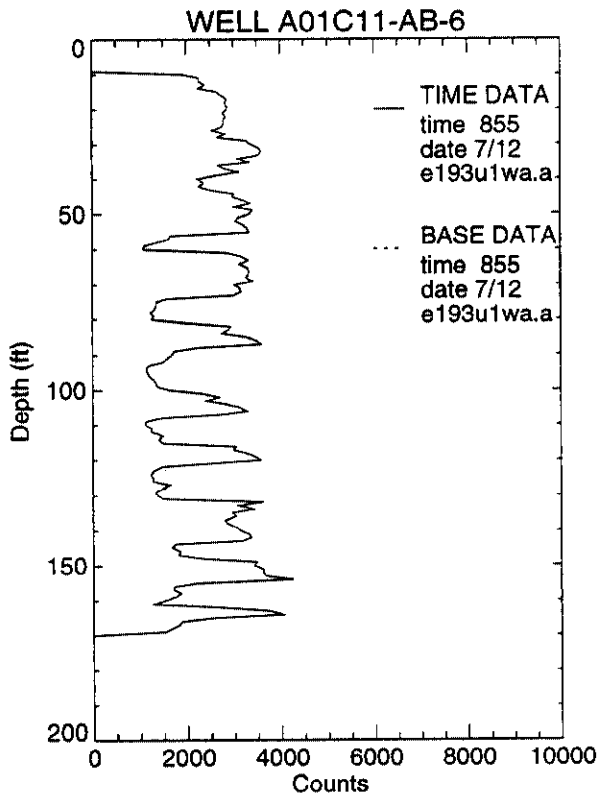
WELL A01C11-AB-6
TIME DATA
time 855
date 7/12
e193u1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
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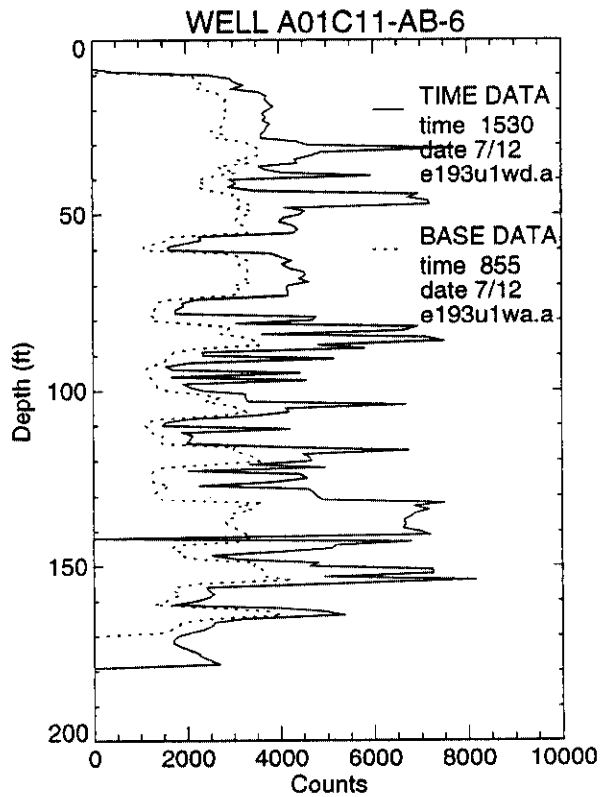
WELL A01C11-AB-6
TIME DATA
time 1530
date 7/12
e193u1wd.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
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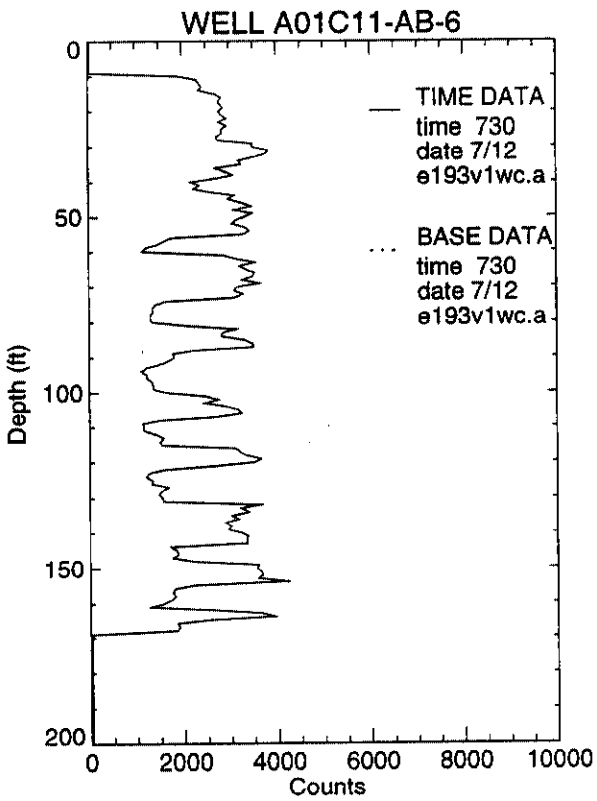
WELL A01C11-AB-6
TIME DATA
time 730
date 7/12
e193v1wc.a
BASE DATA
time 730
date 7/12
e193v1wc.a
Depth (ft)
Counts
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150
200
0
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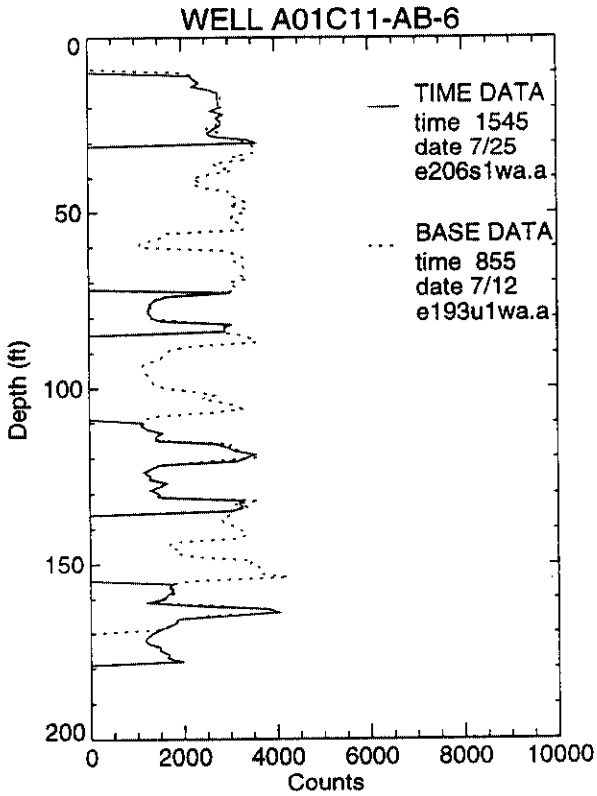
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 1545
date 7/25
e206s1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
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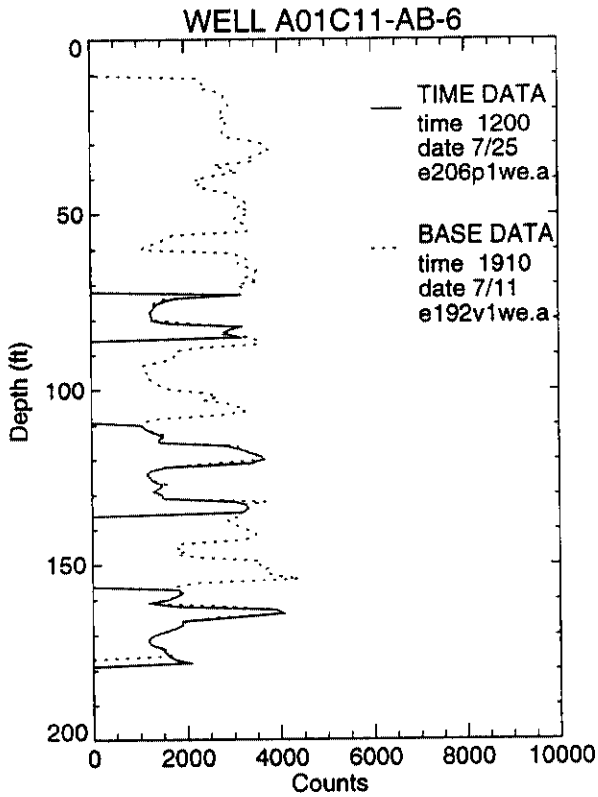
100
150
200
0
2000
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 1200
date 7/25
e206p1we.a
BASE DATA
time 1910
date 7/11
e192v1we.a
Depth (ft)
Counts
0
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150
200
0
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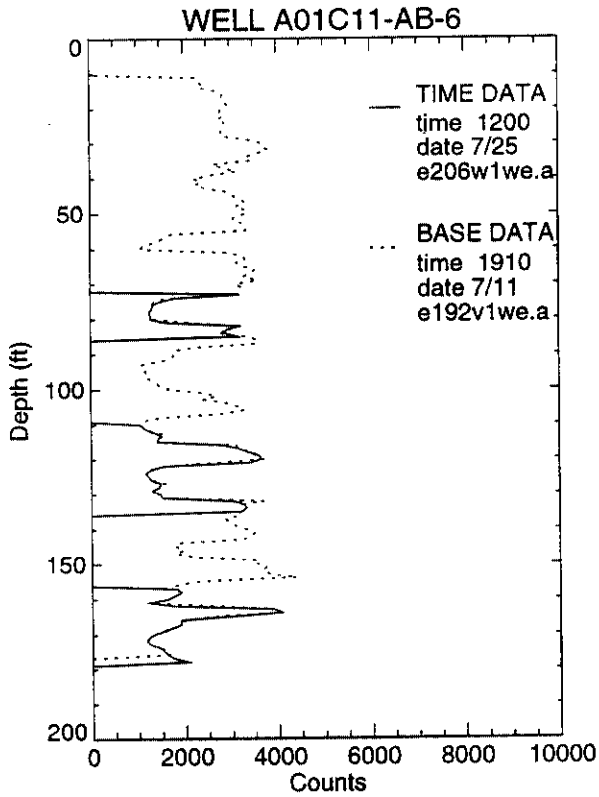
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 1200
date 7/25
e206w1we.a
BASE DATA
time 1910
date 7/11
e192v1we.a
Depth (ft)
Counts
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0
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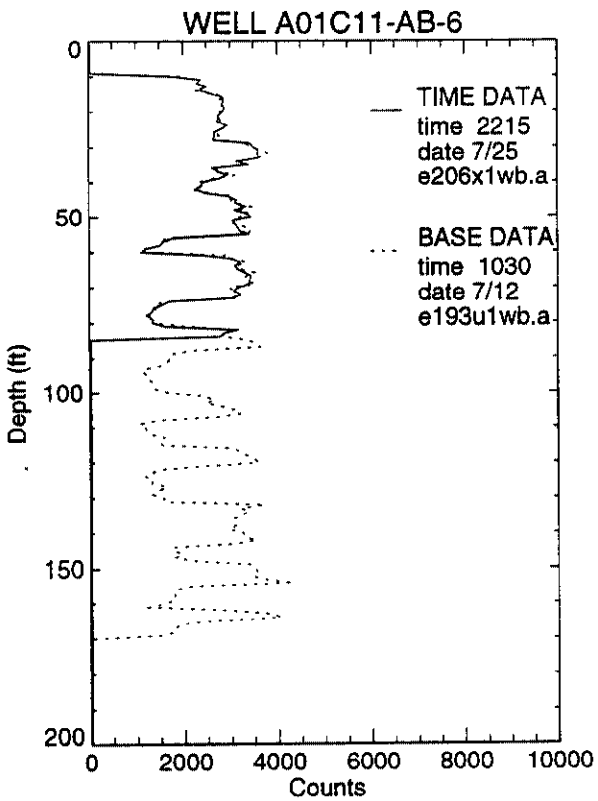
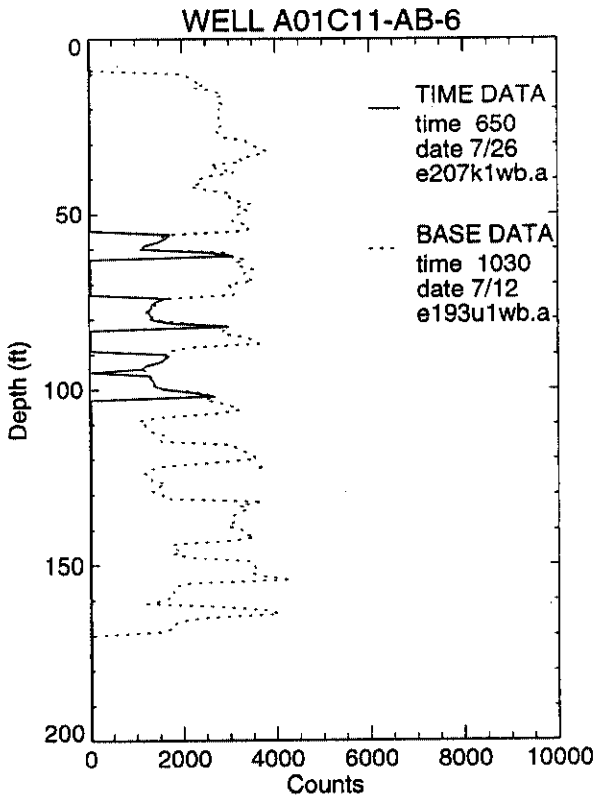
8000
10000


WELL A01C11-AB-6
TIME DATA
time 2215
date 7/25
e206x1wb.a
BASE DATA
time 1030
date 7/12
e193u1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 650
date 7/26
e207k1wb.a
BASE DATA
time 1030
date 7/12
e193u1wb.a
Depth (ft)
Counts
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150
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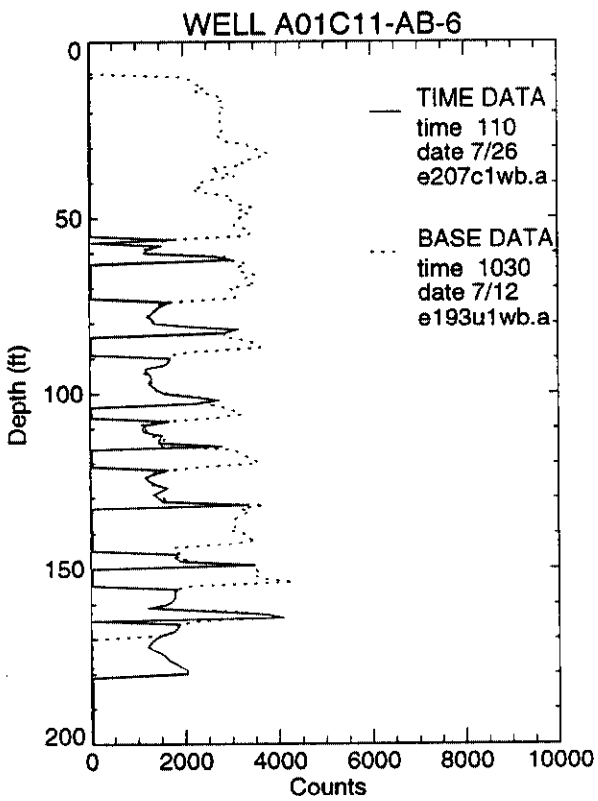
8000
10000


WELL A01C11-AB-6
TIME DATA
time 110
date 7/26
e207c1wb.a
BASE DATA
time 1030
date 7/12
e193u1wb.a
Depth (ft)
Counts
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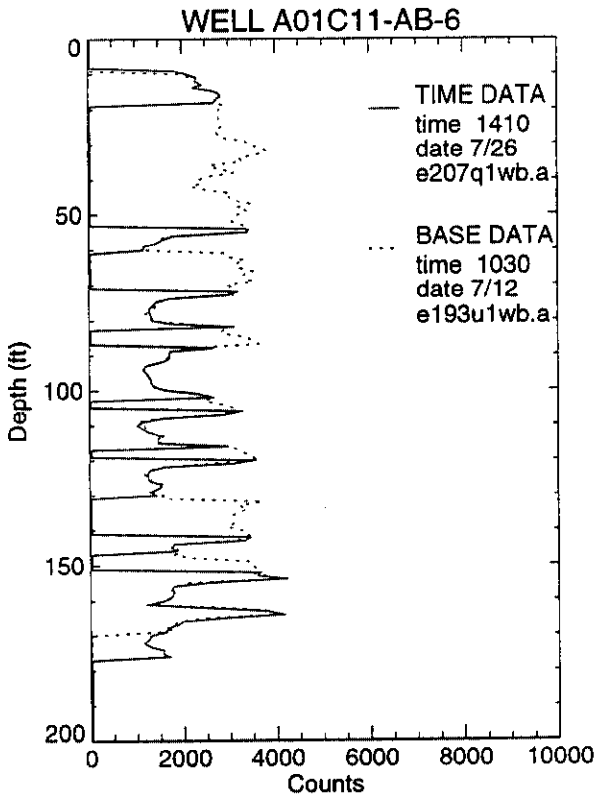
8000
10000


WELL A01C11-AB-6
TIME DATA
time 1410
date 7/26
e207q1wb.a
BASE DATA
time 1030
date 7/12
e193u1wb.a
Depth (ft)
Counts
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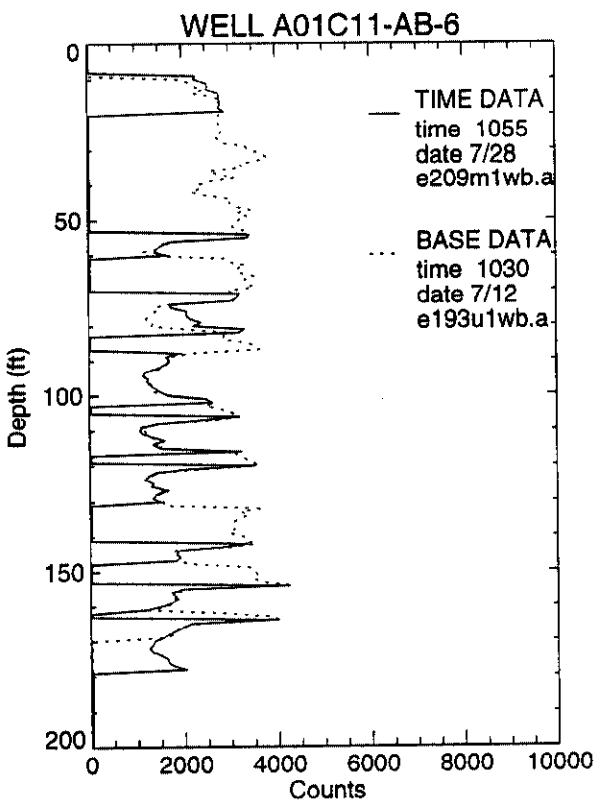
8000
10000


WELL A01C11-AB-6
TIME DATA
time 1055
date 7/28
e209m1wb.a
BASE DATA
time 1030
date 7/12
e193u1wb.a
Depth (ft)
Counts
0
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100
150
200
0
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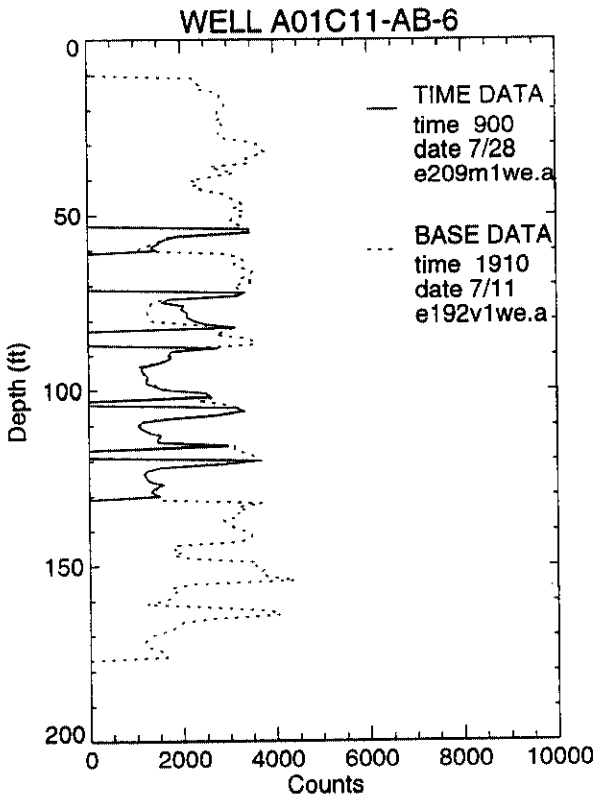
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 900
date 7/28
e209m1we.a
BASE DATA
time 1910
date 7/11
e192v1we.a
Depth (ft)
Counts
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150
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0
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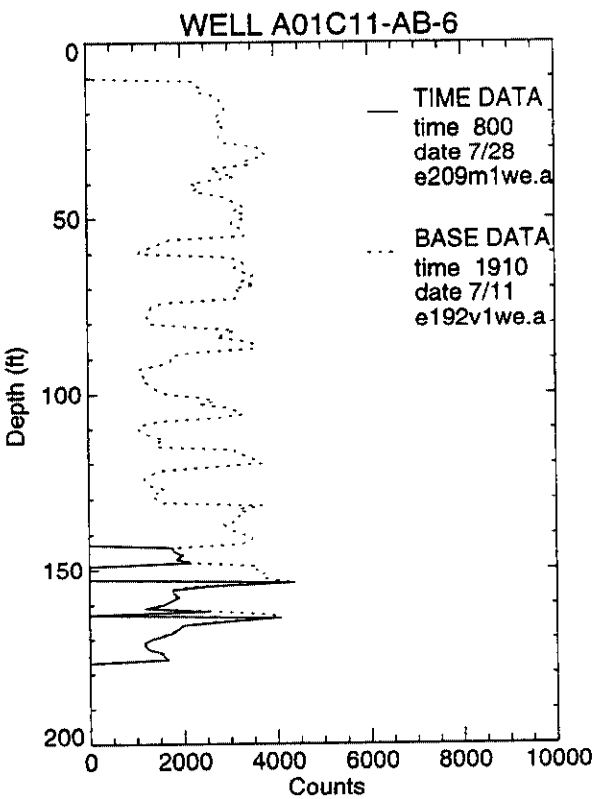
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 800
date 7/28
e209m1we.a
BASE DATA
time 1910
date 7/11
e192v1we.a
Depth (ft)
Counts
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150
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0
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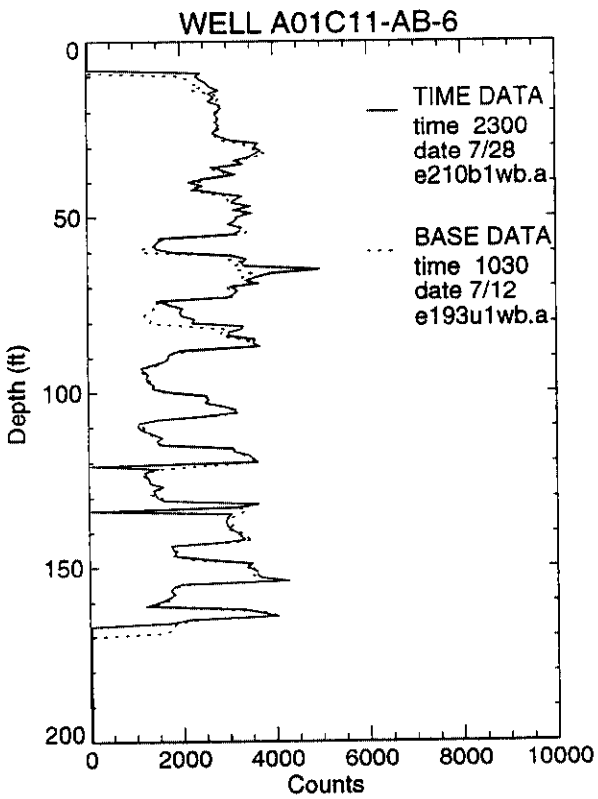
8000
10000


WELL A01C11-AB-6
TIME DATA
time 2300
date 7/28
e210b1wb.a
BASE DATA
time 1030
date 7/12
e193u1wb.a
Depth (ft)
Counts
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150
200
0
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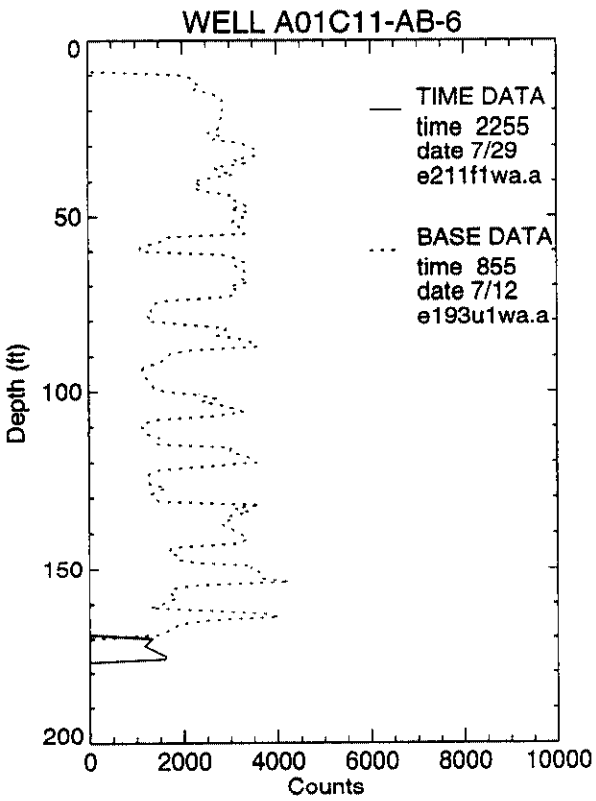
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 2255
date 7/29
e211f1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
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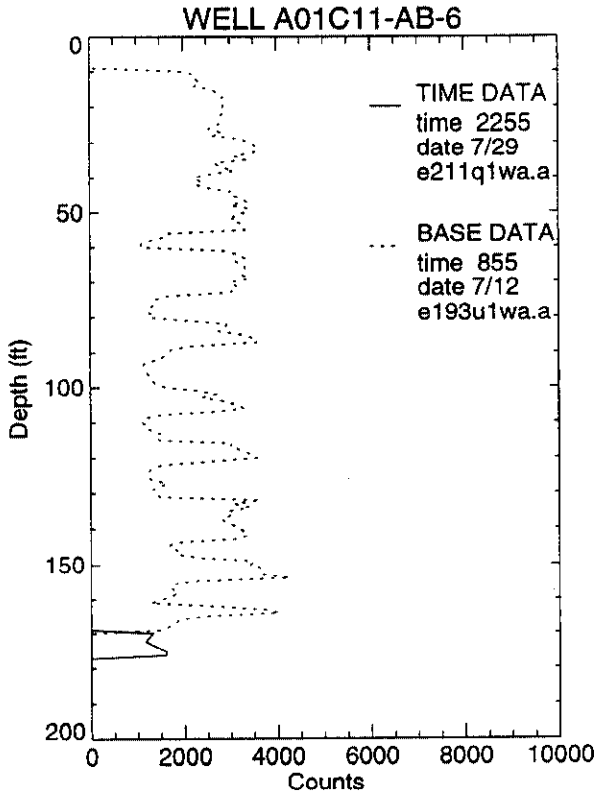
100
150
200
0
2000
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 2255
date 7/29
e211q1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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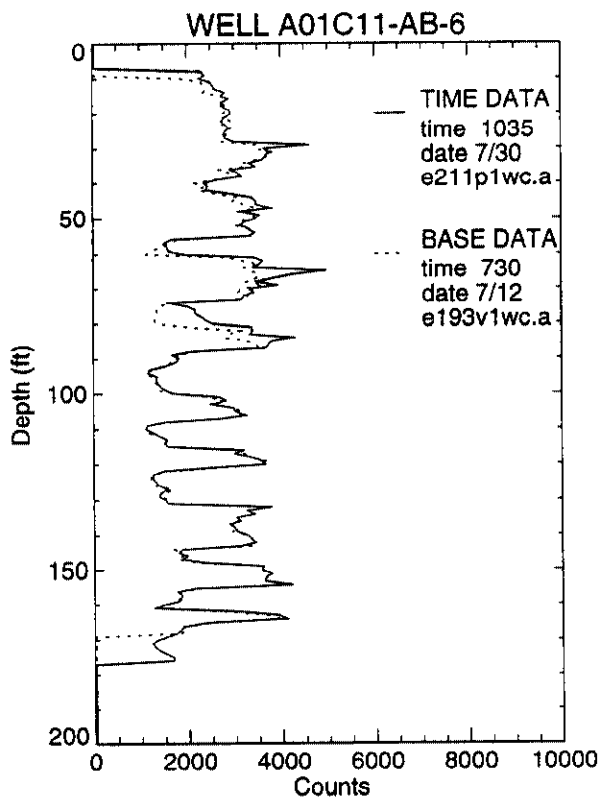
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 1035
date 7/30
e211p1wc.a
BASE DATA
time 730
date 7/12
e193v1wc.a
Depth (ft)
Counts
0
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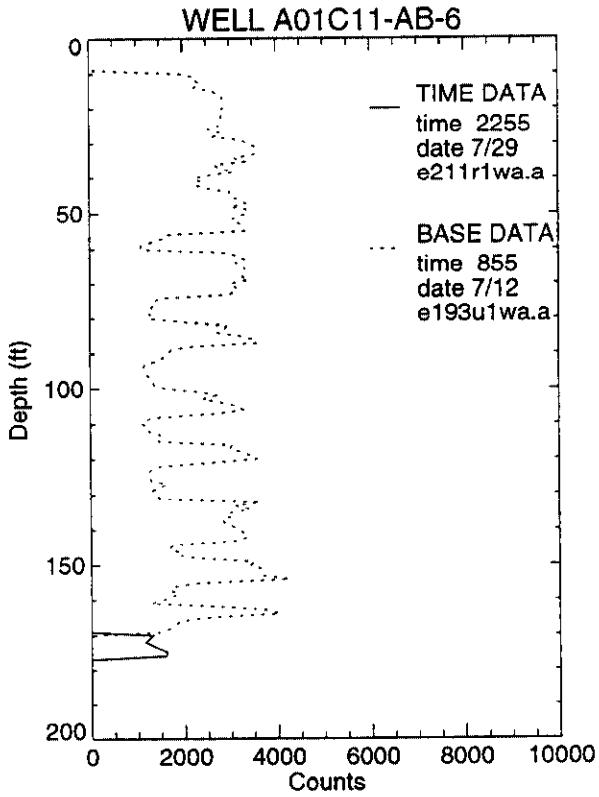
100
150
200
0
2000
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 2255
date 7/29
e211r1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
0
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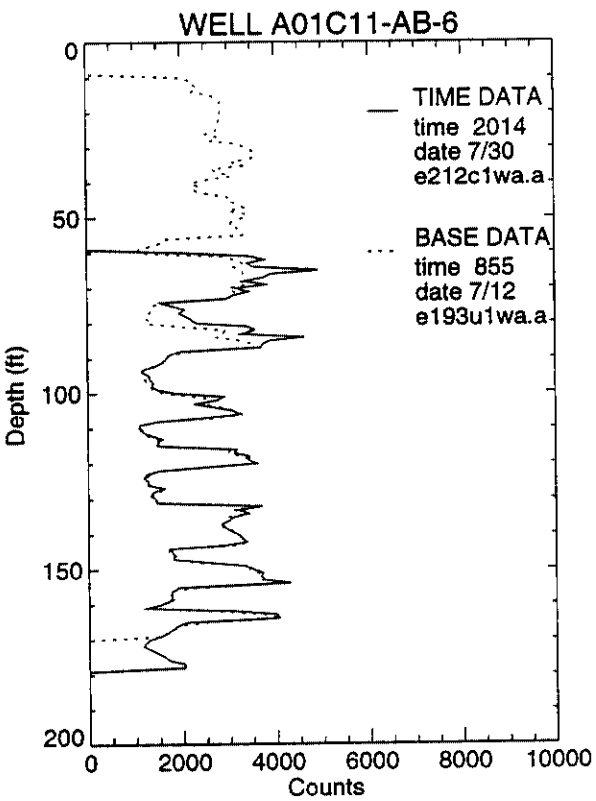
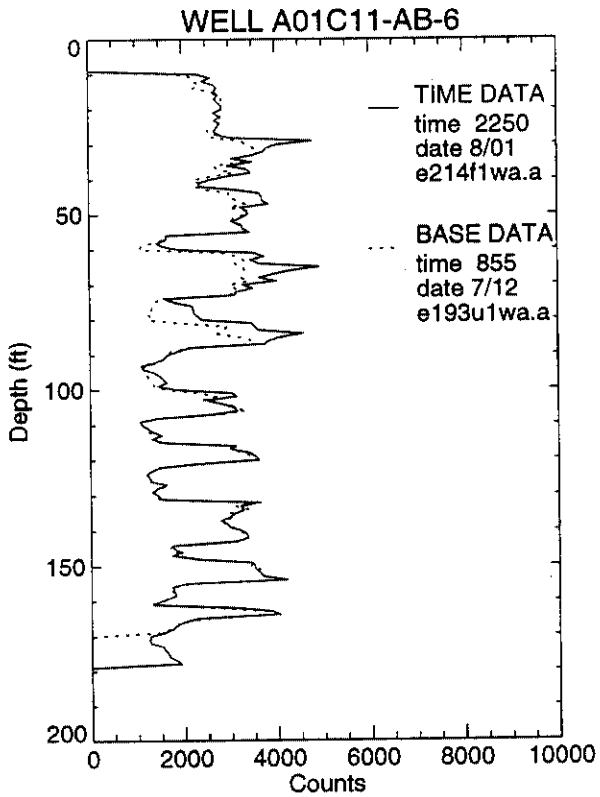
100
150
200
0
2000
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 2014
date 7/30
e212c1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 2250
date 8/01
e214f1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
0
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6000
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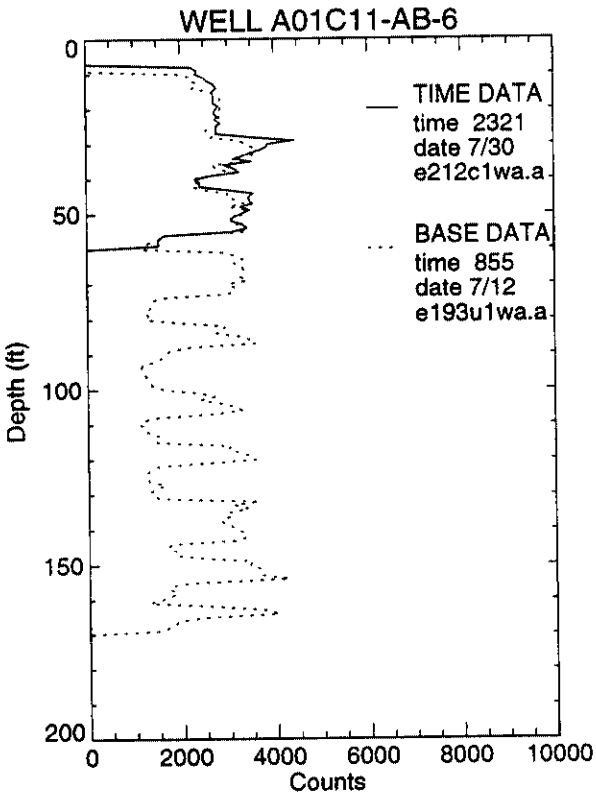
10000


WELL A01C11-AB-6
TIME DATA
time 2321
date 7/30
e212c1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
0
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150
200
0
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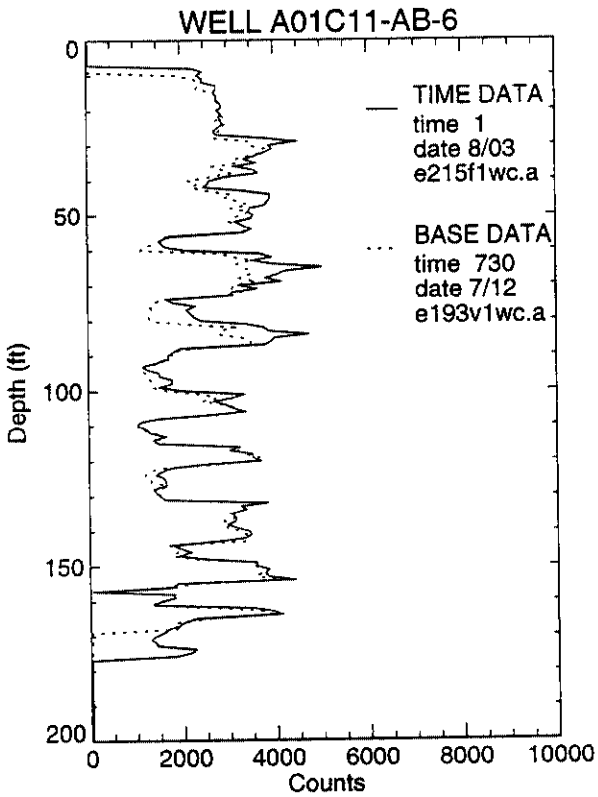
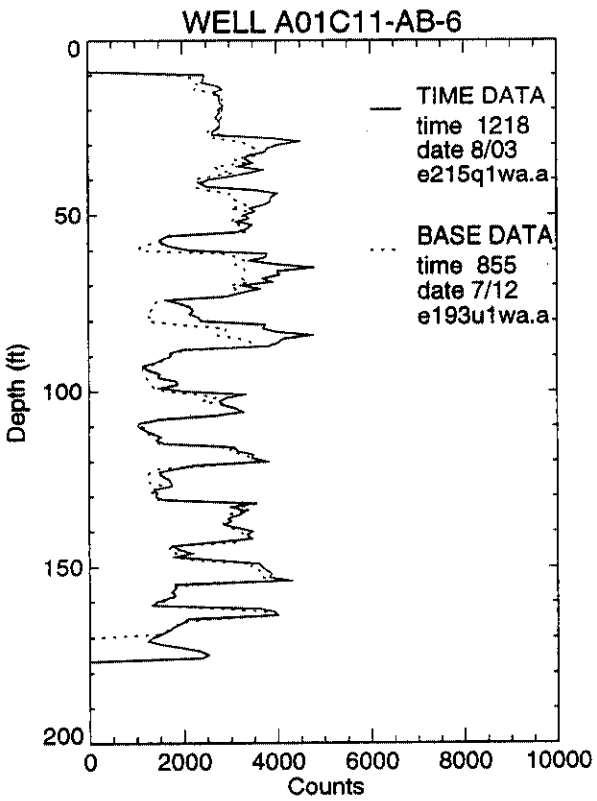
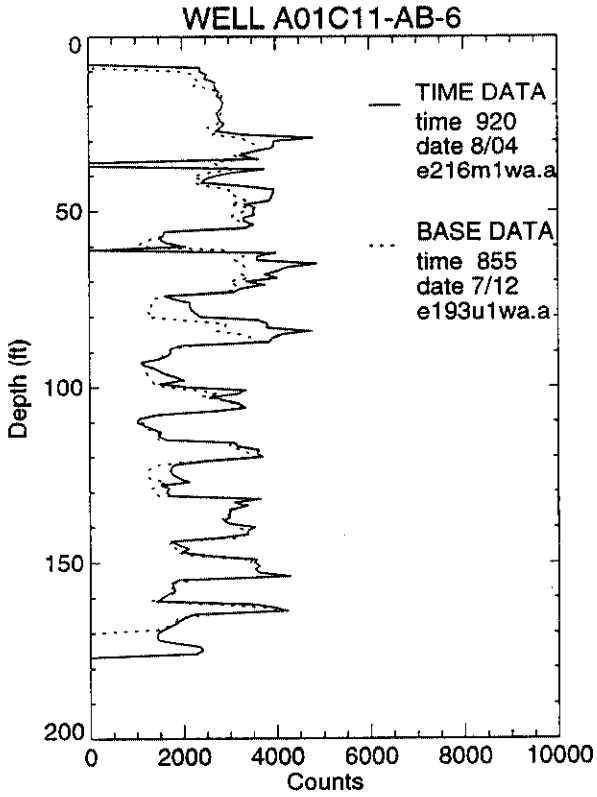
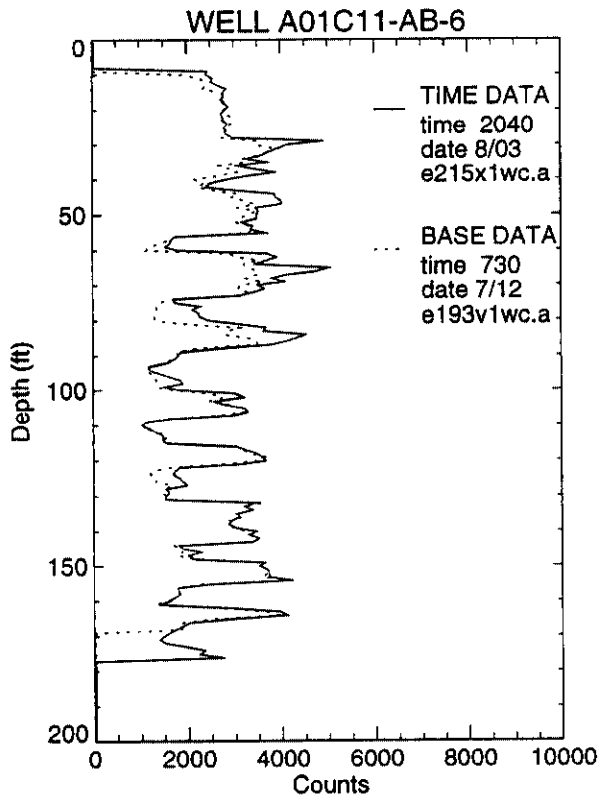
8000
10000


WELL A01C11-AB-6
TIME DATA
time 1
date 8/03
e215f1wc.a
BASE DATA
time 730
date 7/12
e193v1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 1218
date 8/03
e215q1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 920
date 8/04
e216m1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 2040
date 8/03
e215x1wc.a
BASE DATA
time 730
date 7/12
e193v1wc.a
Depth (ft)
Counts
0
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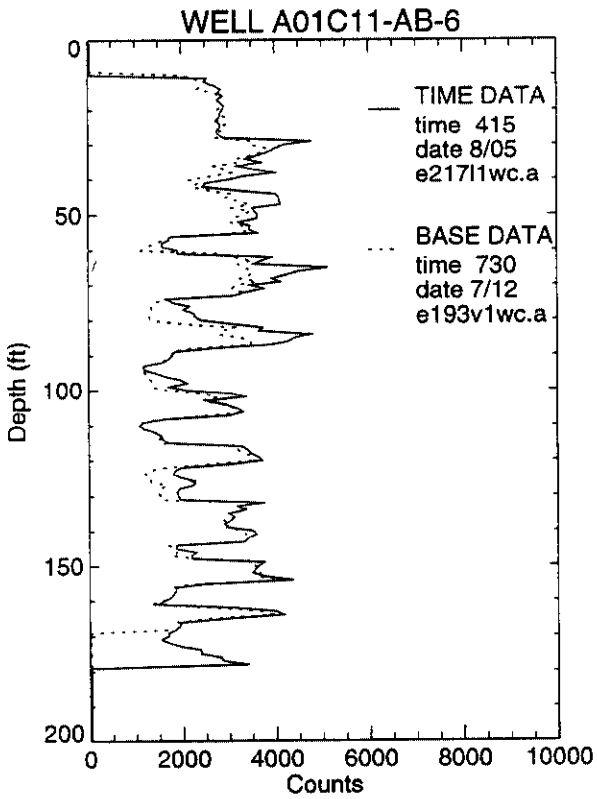
150
200
0
2000
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 415
date 8/05
e217l1wc.a
BASE DATA
time 730
date 7/12
e193v1wc.a
Depth (ft)
Counts
0
50
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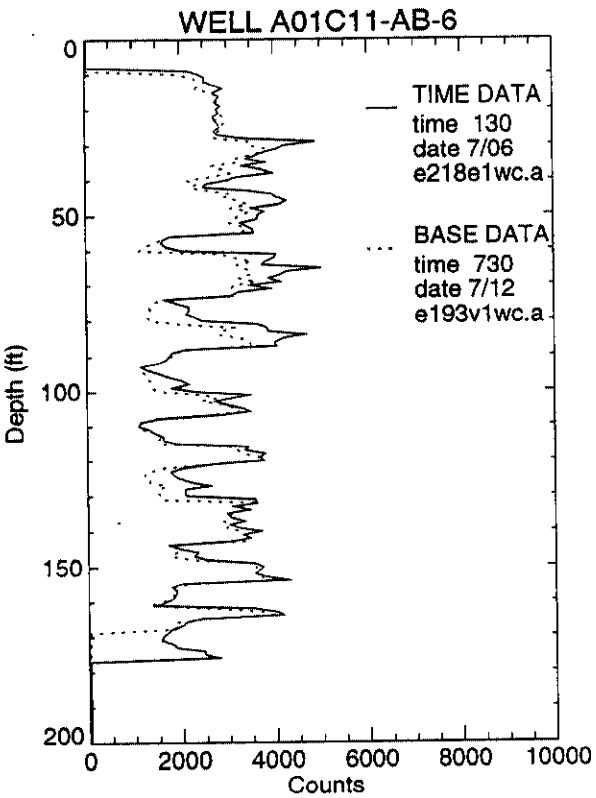
150
200
0
2000
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 130
date 7/06
e218e1wc.a
BASE DATA
time 730
date 7/12
e193v1wc.a
Depth (ft)
Counts
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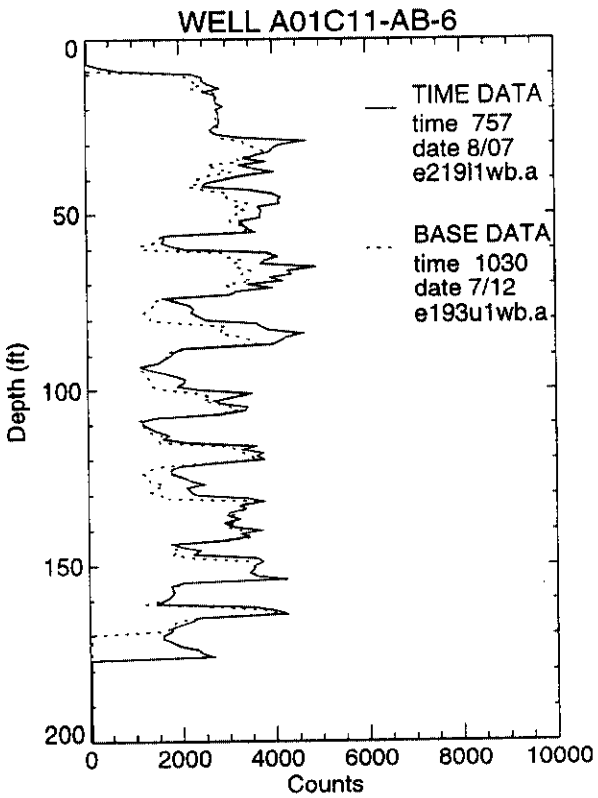
8000
10000


WELL A01C11-AB-6
TIME DATA
time 757
date 8/07
e219l1wb.a
BASE DATA
time 1030
date 7/12
e193u1wb.a
Depth (ft)
Counts
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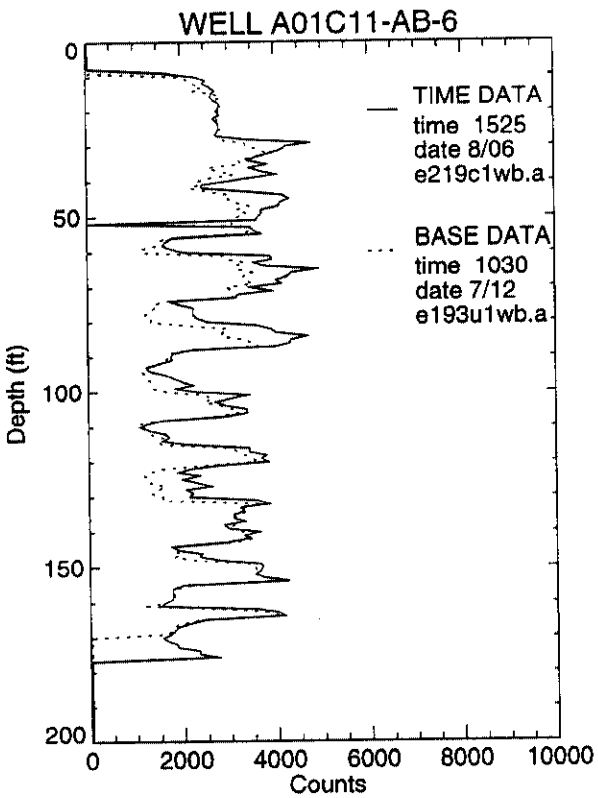
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 1525
date 8/06
e219c1wb.a
BASE DATA
time 1030
date 7/12
e193u1wb.a
Depth (ft)
Counts
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0
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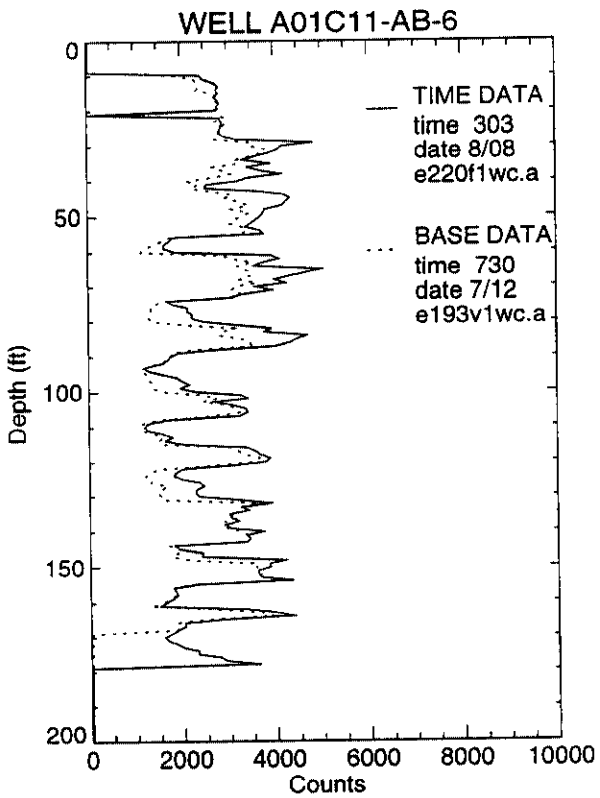
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 303
date 8/08
e220f1wc.a
BASE DATA
time 730
date 7/12
e193v1wc.a
Depth (ft)
Counts
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0
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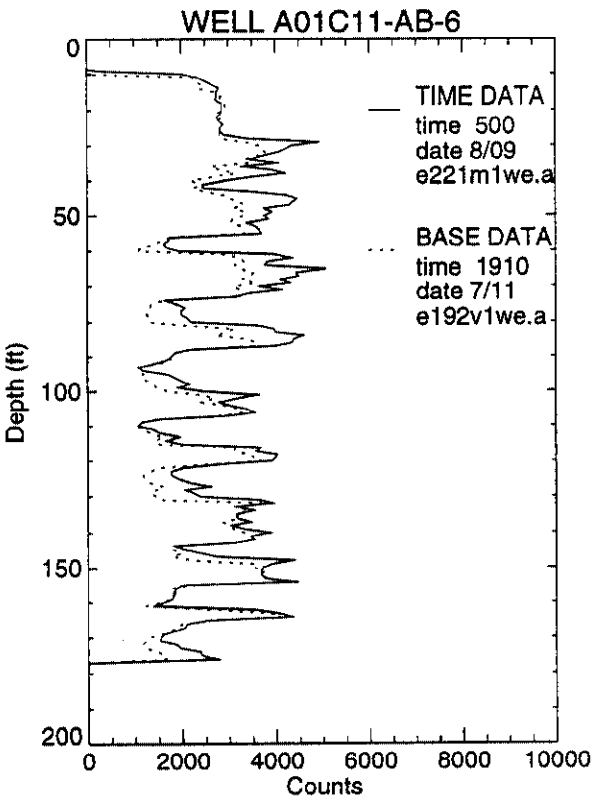
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 500
date 8/09
e221m1we.a
BASE DATA
time 1910
date 7/11
e192v1we.a
Depth (ft)
Counts
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150
200
0
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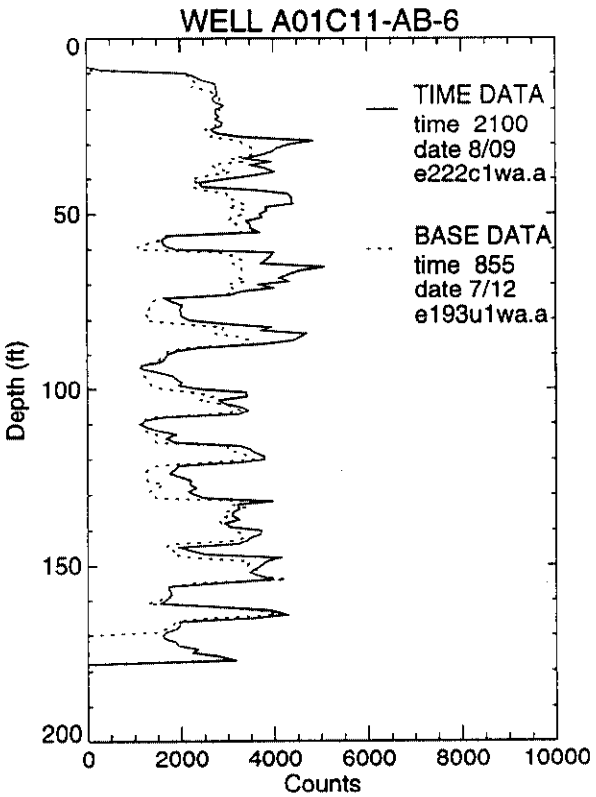
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 2100
date 8/09
e222c1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
0
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0
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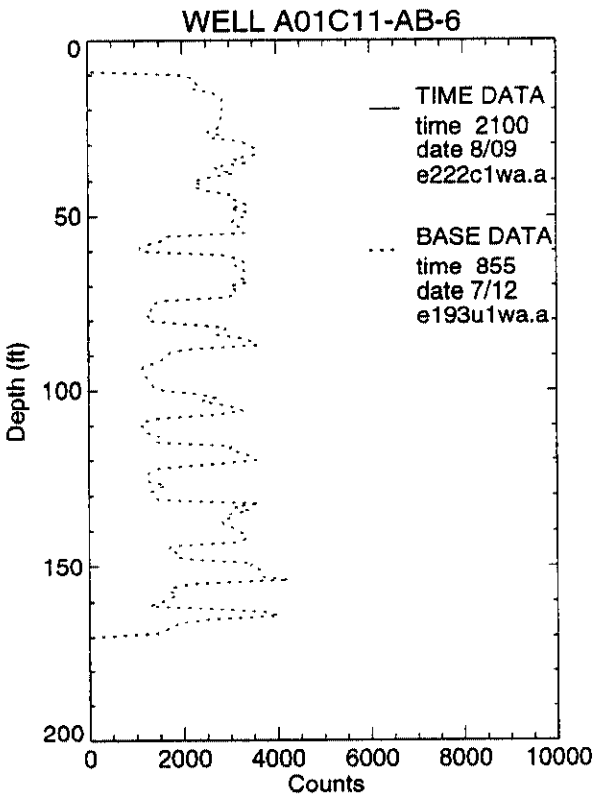
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 2100
date 8/09
e222c1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
0
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150
200
0
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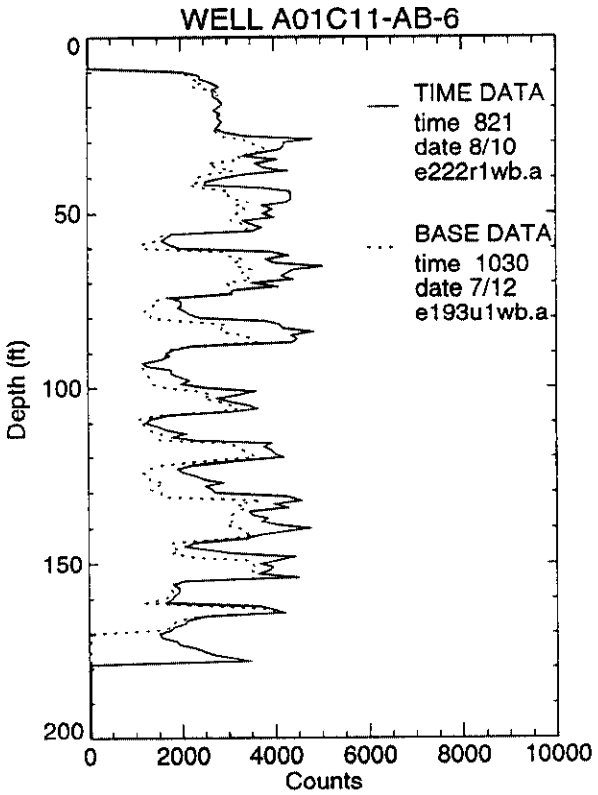
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 821
date 8/10
e222r1wb.a
BASE DATA
time 1030
date 7/12
e193u1wb.a
Depth (ft)
Counts
0
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150
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0
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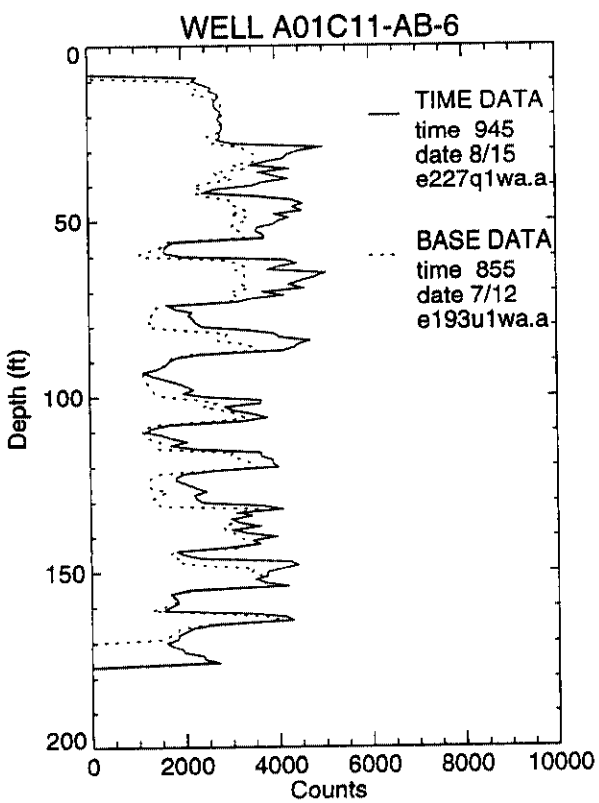
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 945
date 8/15
e227q1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
0
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0
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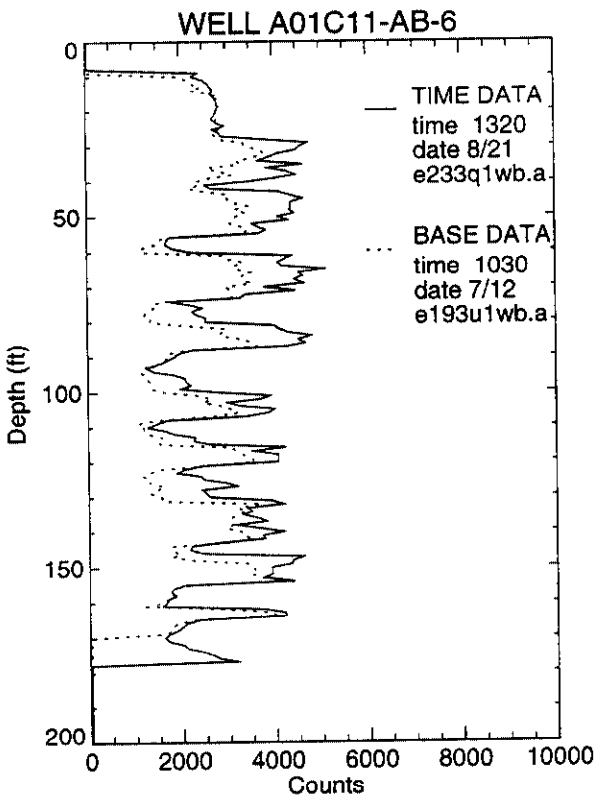
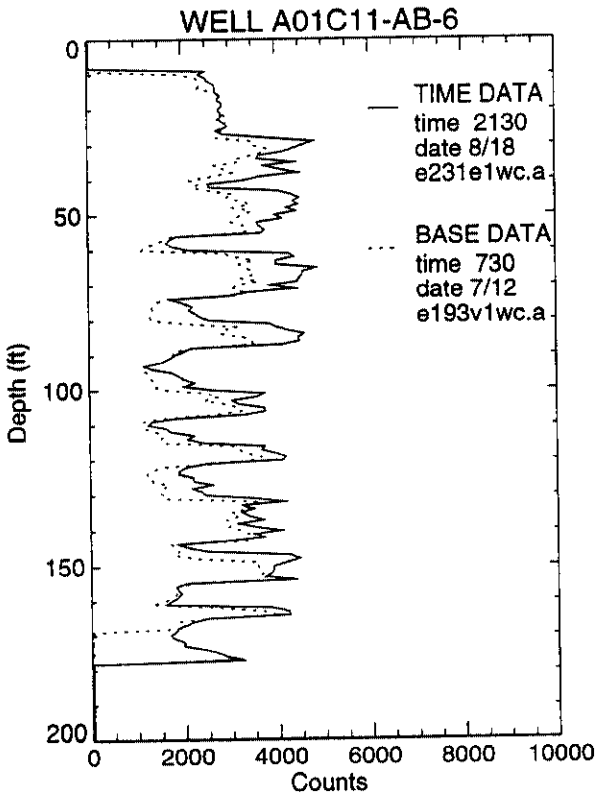
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 1320
date 8/21
e233q1wb.a
BASE DATA
time 1030
date 7/12
e193u1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 2130
date 8/18
e231e1wc.a
BASE DATA
time 730
date 7/12
e193v1wc.a
Depth (ft)
Counts
0
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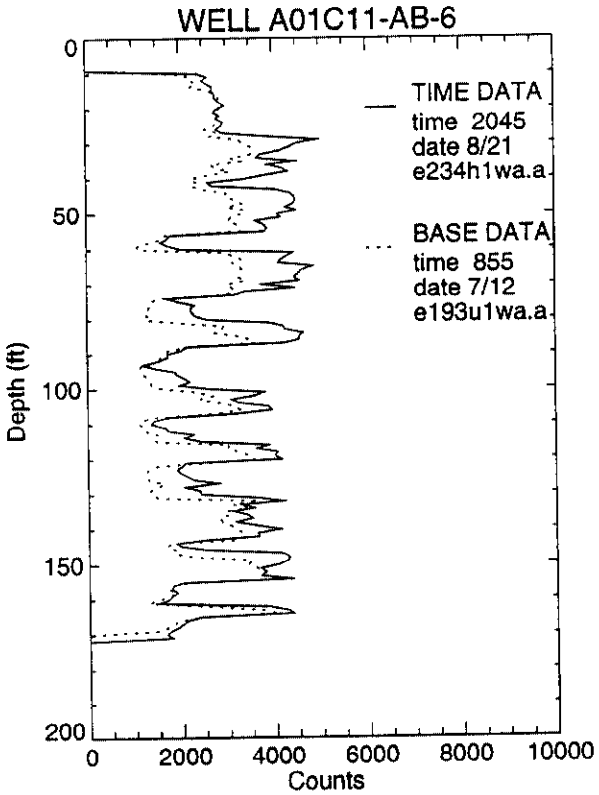
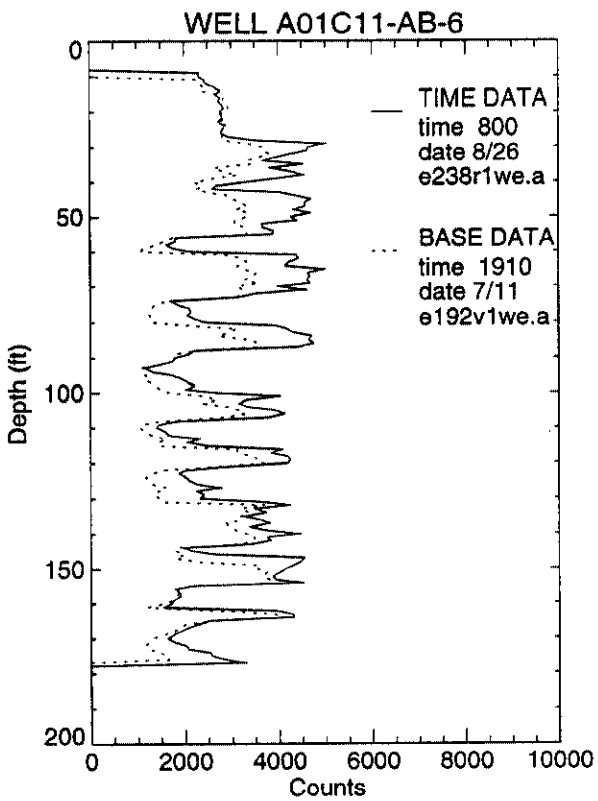
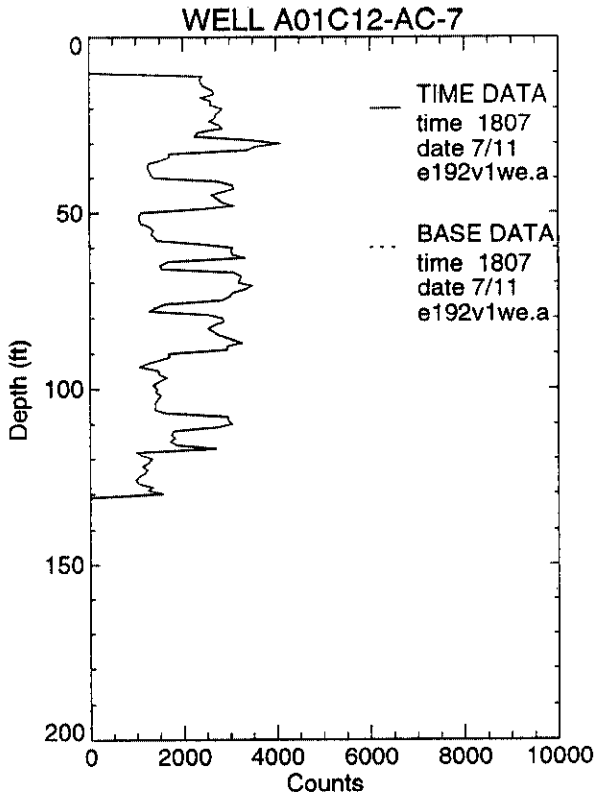
100
150
200
0
2000
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 2045
date 8/21
e234h1wa.a
BASE DATA
time 855
date 7/12
e193u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 800
date 8/26
e238r1we.a
BASE DATA
time 1910
date 7/11
e192v1we.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A01C12-AC-7
TIME DATA
time 1807
date 7/11
e192v1we.a
BASE DATA
time 1807
date 7/11
e192v1we.a
Depth (ft)
Counts
0
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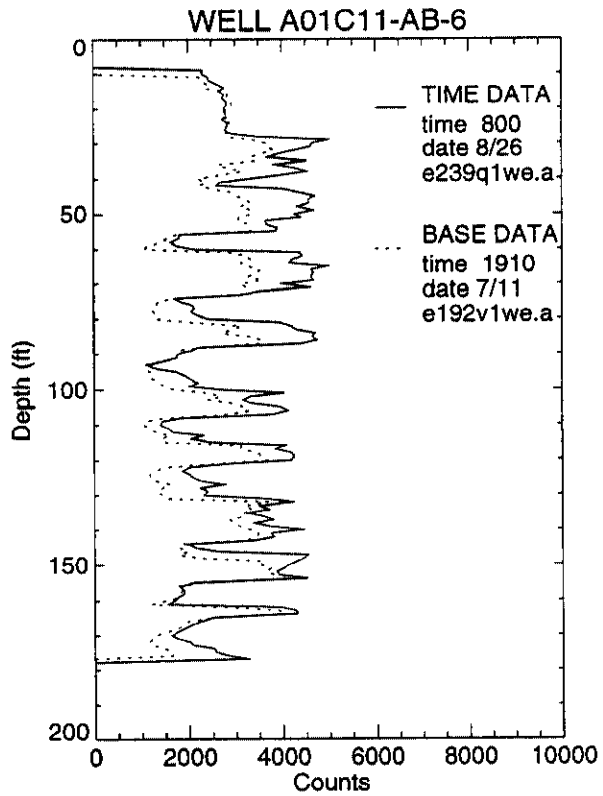
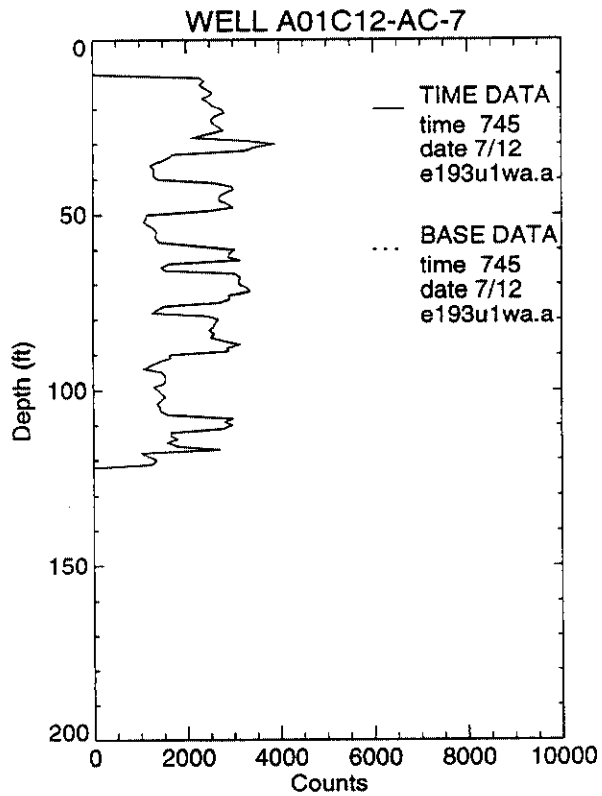
100
150
200
0
2000
4000
6000
8000
10000


WELL A01C11-AB-6
TIME DATA
time 800
date 8/26
e239q1we.a
BASE DATA
time 1910
date 7/11
e192v1we.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A01C12-AC-7
TIME DATA
time 745
date 7/12
e193u1wa.a
BASE DATA
time 745
date 7/12
e193u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
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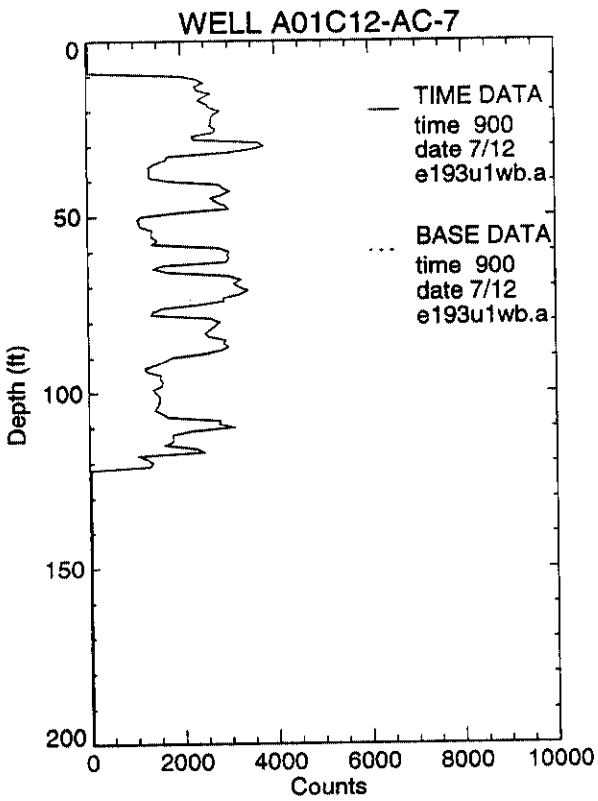
WELL A01C12-AC-7
TIME DATA
time 900
date 7/12
e193u1wb.a
BASE DATA
time 900
date 7/12
e193u1wb.a
Depth (ft)
Counts
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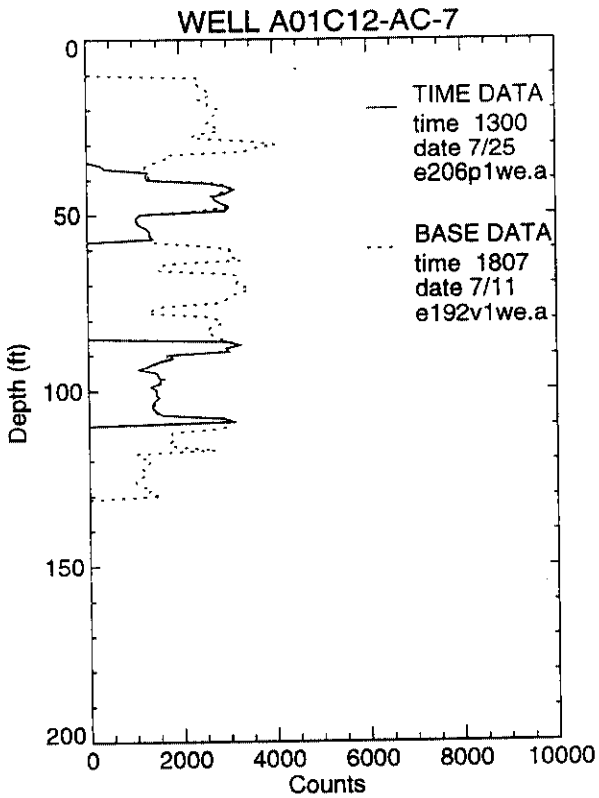
WELL A01C12-AC-7
TIME DATA
time 1300
date 7/25
e206p1we.a
BASE DATA
time 1807
date 7/11
e192v1we.a
Depth (ft)
Counts
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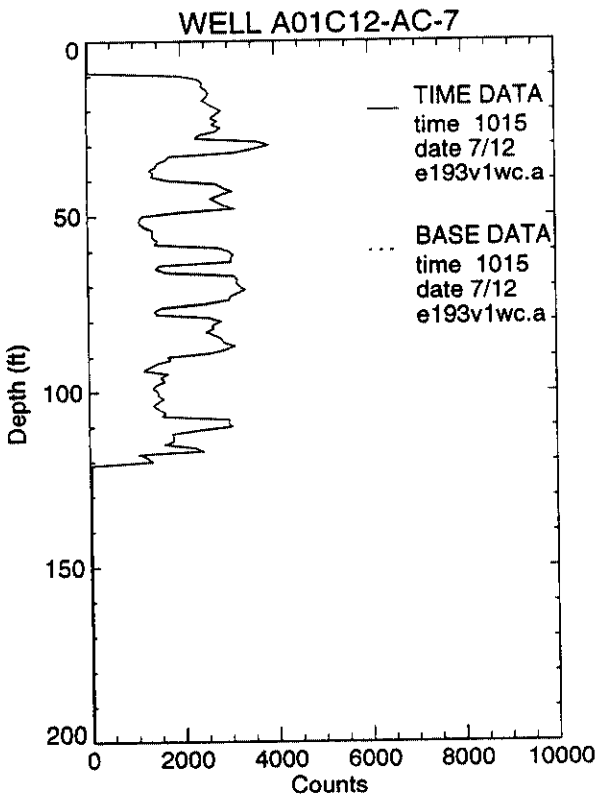
WELL A01C12-AC-7
TIME DATA
time 1015
date 7/12
e193v1wc.a
BASE DATA
time 1015
date 7/12
e193v1wc.a
Depth (ft)
Counts
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150
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8000
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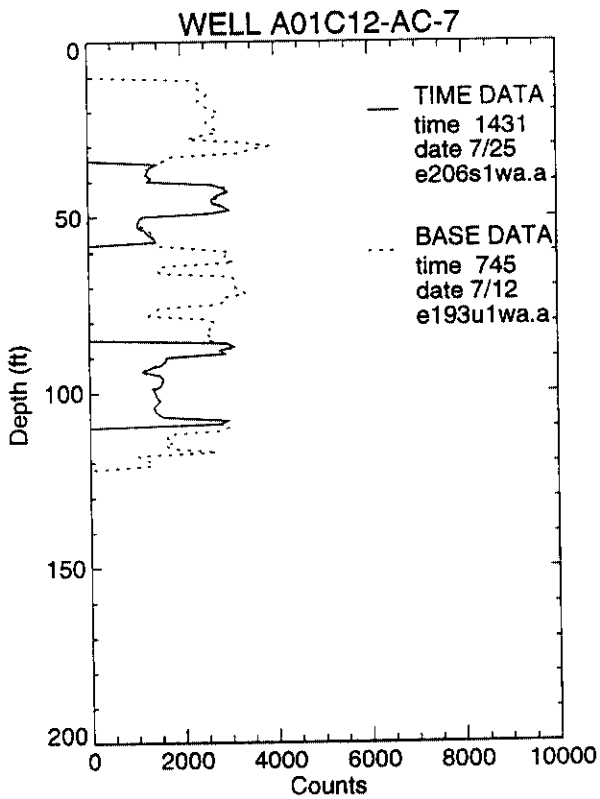
WELL A01C12-AC-7
TIME DATA
time 1431
date 7/25
e206s1wa.a
BASE DATA
time 745
date 7/12
e193u1wa.a
Depth (ft)
Counts
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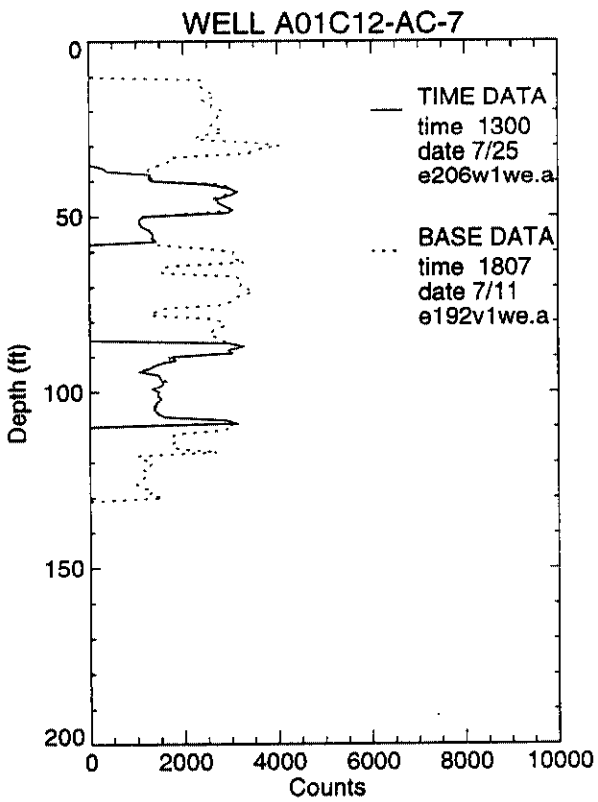
10000


WELL A01C12-AC-7
TIME DATA
time 1300
date 7/25
e206w1we.a
BASE DATA
time 1807
date 7/11
e192v1we.a
Depth (ft)
Counts
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150
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0
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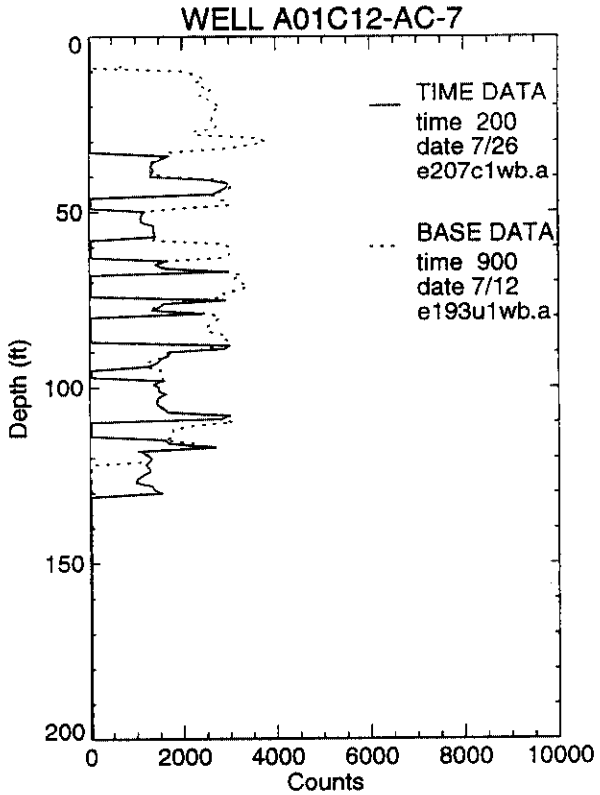
8000
10000


WELL A01C12-AC-7
TIME DATA
time 200
date 7/26
e207c1wb.a
BASE DATA
time 900
date 7/12
e193u1wb.a
Depth (ft)
Counts
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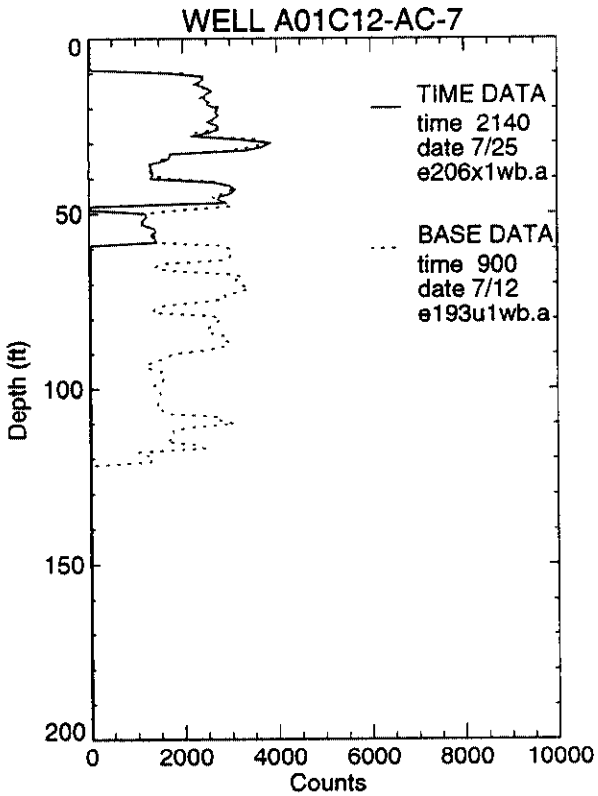
WELL A01C12-AC-7
TIME DATA
time 2140
date 7/25
e206x1wb.a
BASE DATA
time 900
date 7/12
e193u1wb.a
Depth (ft)
Counts
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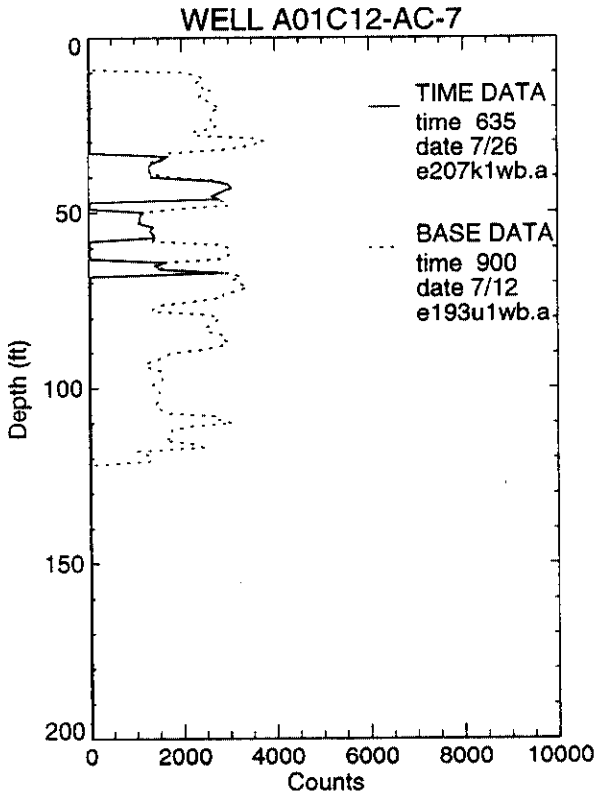
6000
8000
10000


WELL A01C12-AC-7
TIME DATA
time 635
date 7/26
e207k1wb.a
BASE DATA
time 900
date 7/12
e193u1wb.a
Depth (ft)
Counts
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150
200
0
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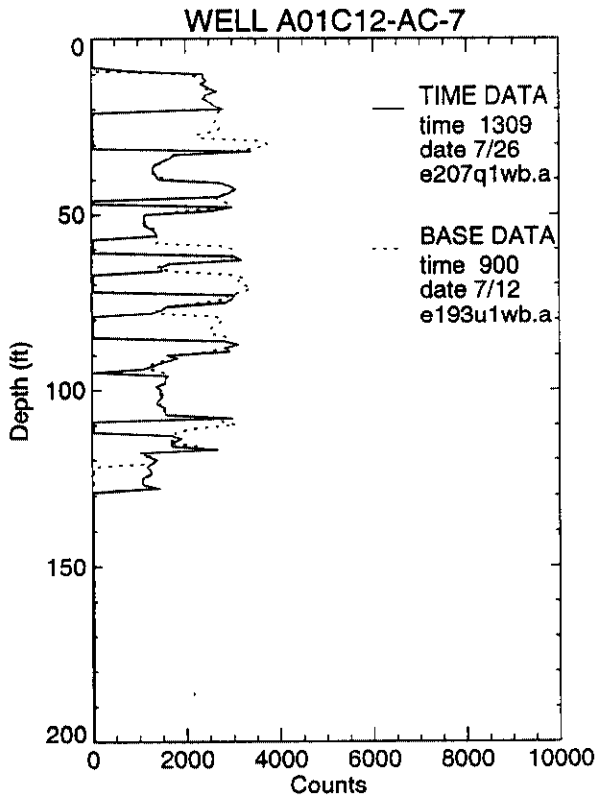
4000
6000
8000
10000


WELL A01C12-AC-7
TIME DATA
time 1309
date 7/26
e207q1wb.a
BASE DATA
time 900
date 7/12
e193u1wb.a
Depth (ft)
Counts
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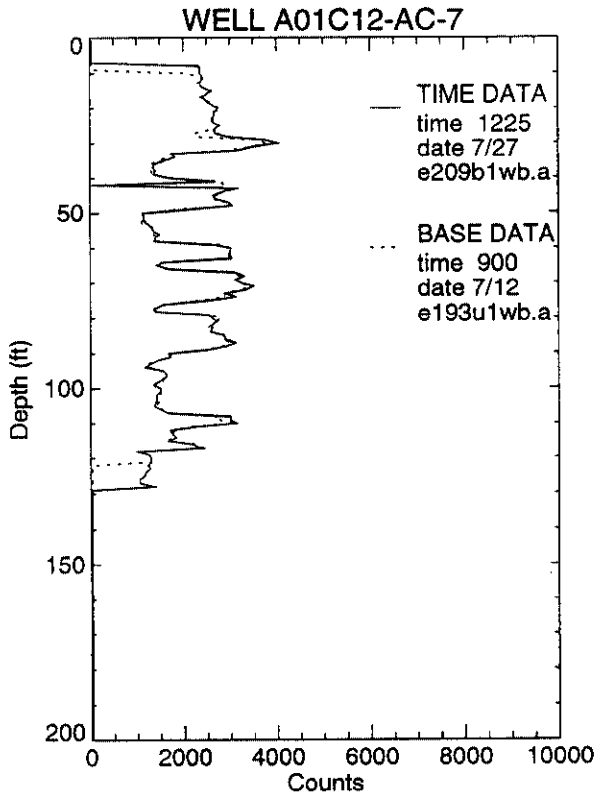
8000
10000


WELL A01C12-AC-7
TIME DATA
time 1225
date 7/27
e209b1wb.a
BASE DATA
time 900
date 7/12
e193u1wb.a
Depth (ft)
Counts
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150
200
0
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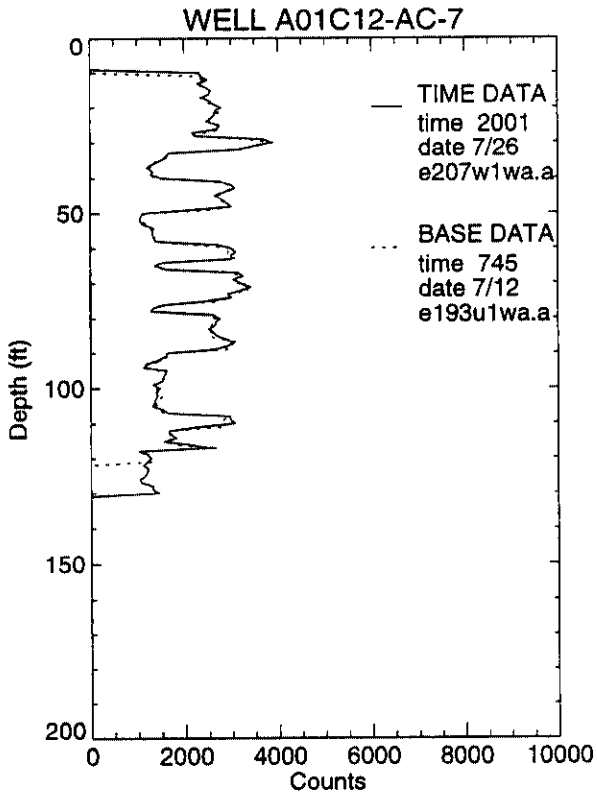
6000
8000
10000


WELL A01C12-AC-7
TIME DATA
time 2001
date 7/26
e207w1wa.a
BASE DATA
time 745
date 7/12
e193u1wa.a
Depth (ft)
Counts
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0
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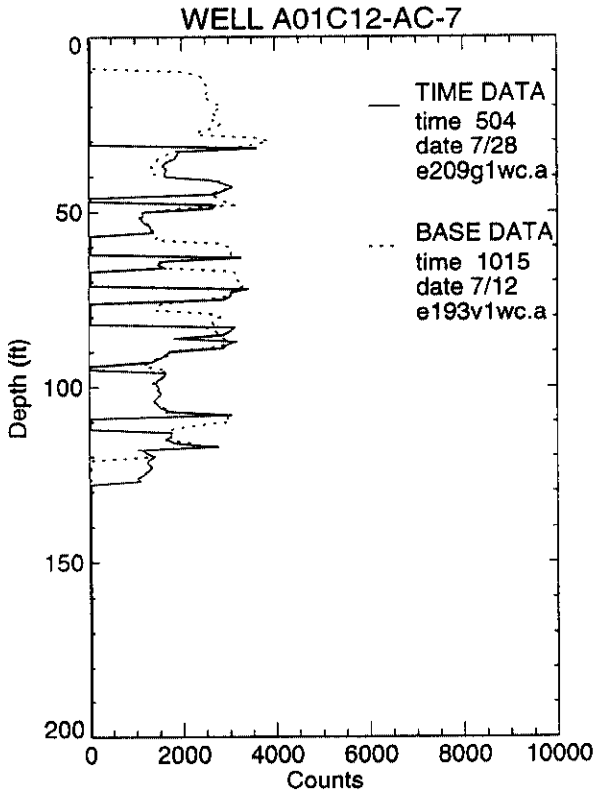
4000
6000
8000
10000


WELL A01C12-AC-7
TIME DATA
time 504
date 7/28
e209g1wc.a
BASE DATA
time 1015
date 7/12
e193v1wc.a
Depth (ft)
Counts
0
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100
150
200
0
2000
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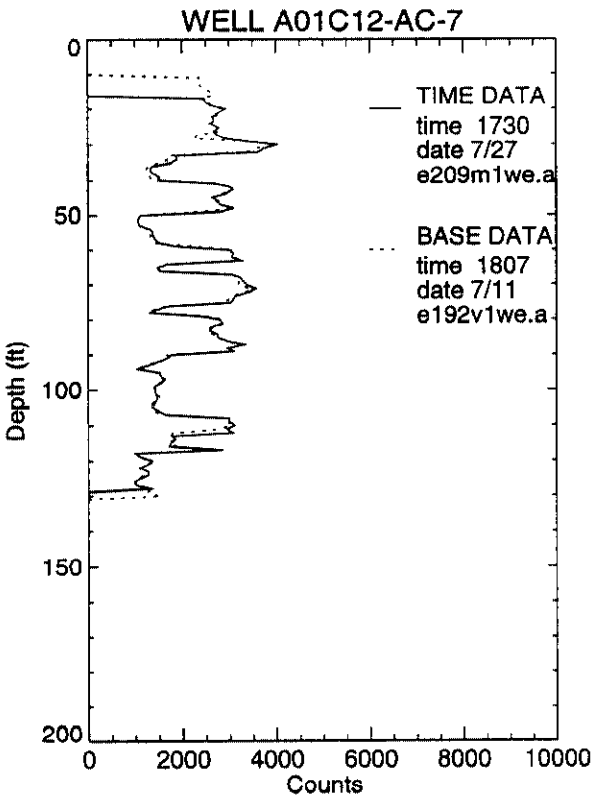
6000
8000
10000


WELL A01C12-AC-7
TIME DATA
time 1730
date 7/27
e209m1we.a
BASE DATA
time 1807
date 7/11
e192v1we.a
Depth (ft)
Counts
0
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0
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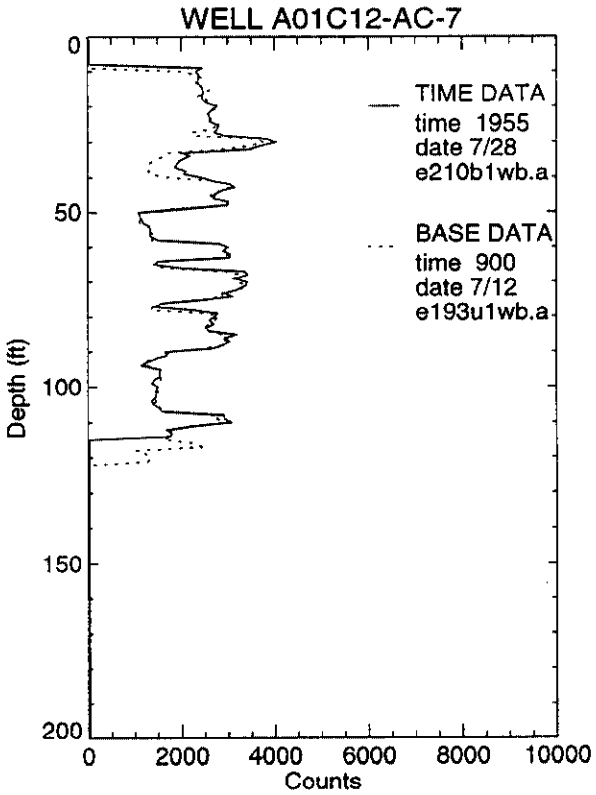
WELL A01C12-AC-7
TIME DATA
time 1955
date 7/28
e210b1wb.a
BASE DATA
time 900
date 7/12
e193u1wb.a
Depth (ft)
Counts
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8000
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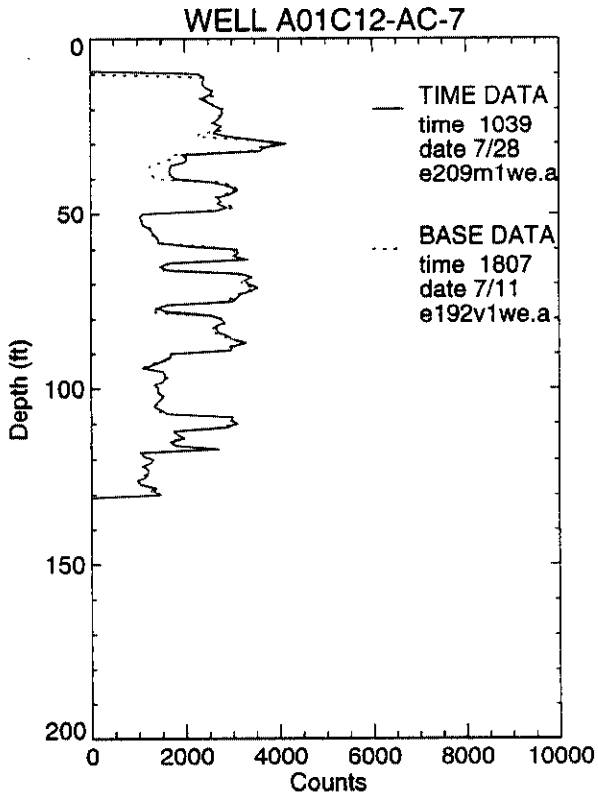
WELL A01C12-AC-7
TIME DATA
time 1039
date 7/28
e209m1we.a
BASE DATA
time 1807
date 7/11
e192v1we.a
Depth (ft)
Counts
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0
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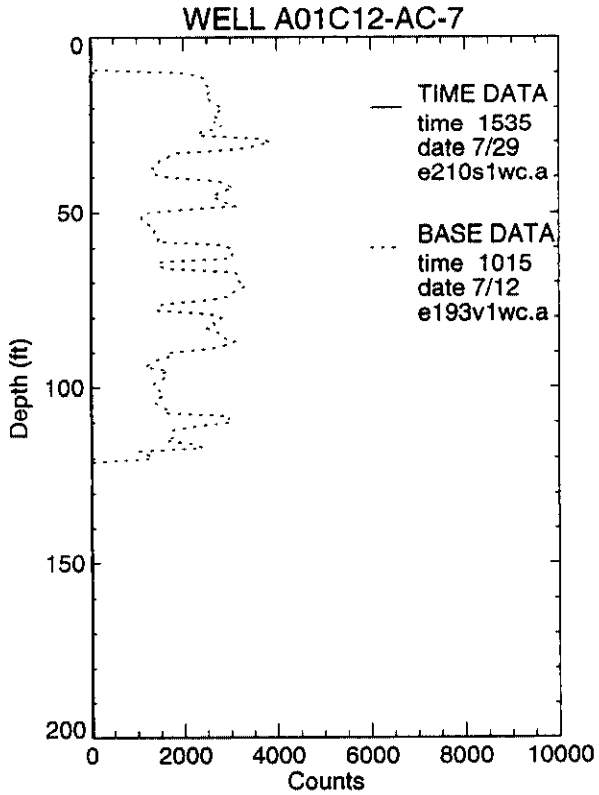
8000
10000


WELL A01C12-AC-7
TIME DATA
time 1535
date 7/29
e210s1wc.a
BASE DATA
time 1015
date 7/12
e193v1wc.a
Depth (ft)
Counts
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150
200
0
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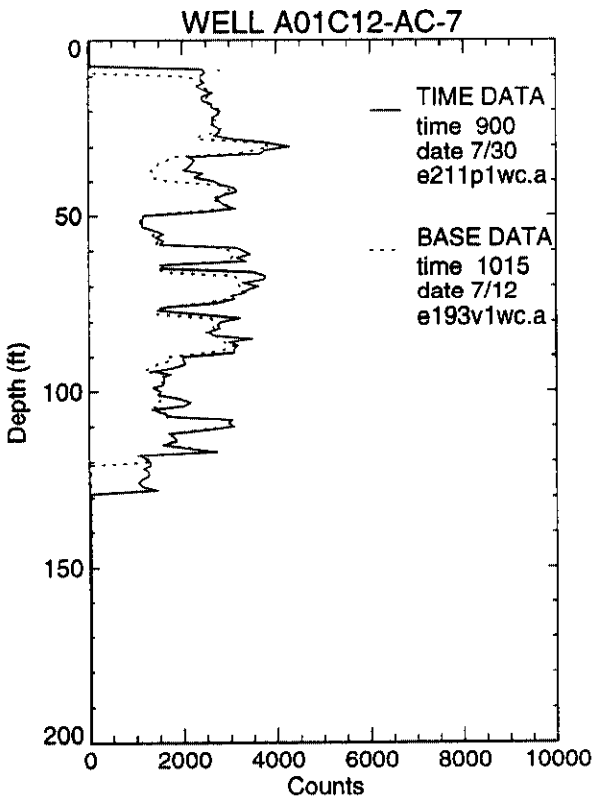
6000
8000
10000


WELL A01C12-AC-7
TIME DATA
time 900
date 7/30
e211p1wc.a
BASE DATA
time 1015
date 7/12
e193v1wc.a
Depth (ft)
Counts
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50
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150
200
0
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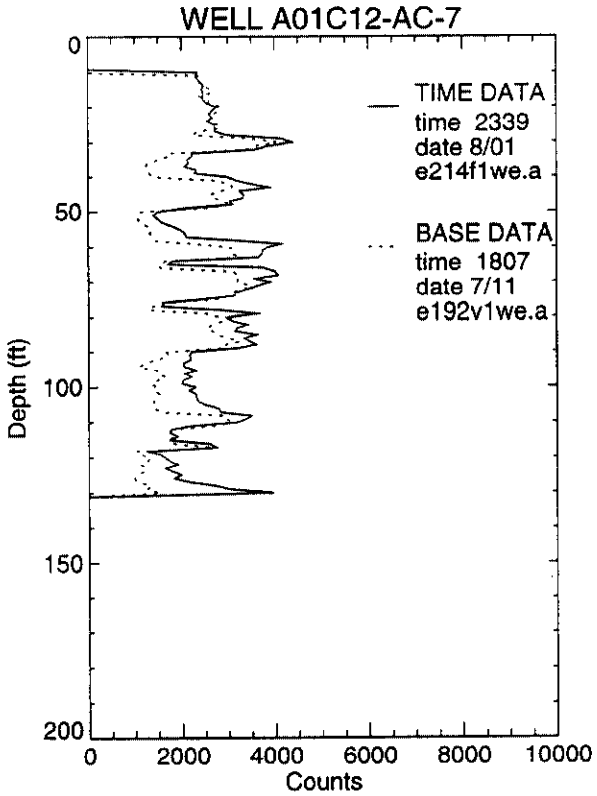
8000
10000


WELL A01C12-AC-7
TIME DATA
time 2339
date 8/01
e214f1we.a
BASE DATA
time 1807
date 7/11
e192v1we.a
Depth (ft)
Counts
0
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200
0
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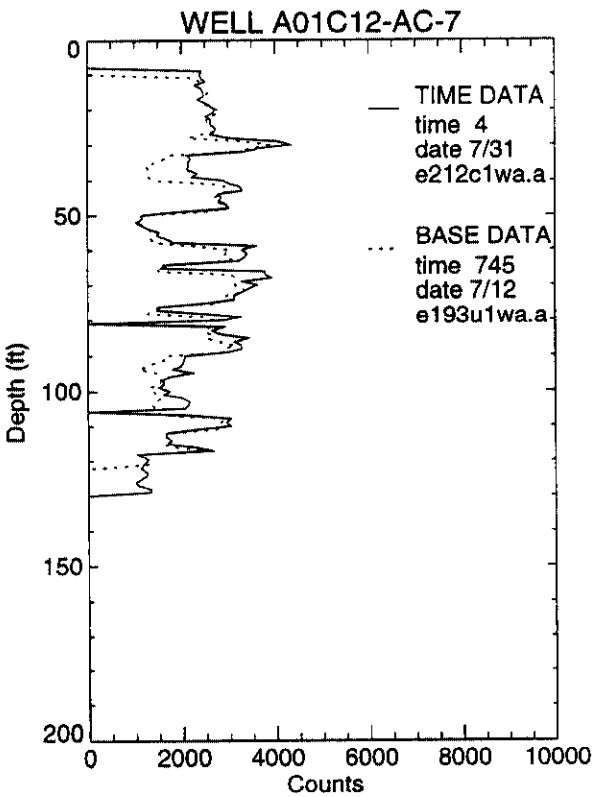
4000
6000
8000
10000


WELL A01C12-AC-7
TIME DATA
time 4
date 7/31
e212c1wa.a
BASE DATA
time 745
date 7/12
e193u1wa.a
Depth (ft)
Counts
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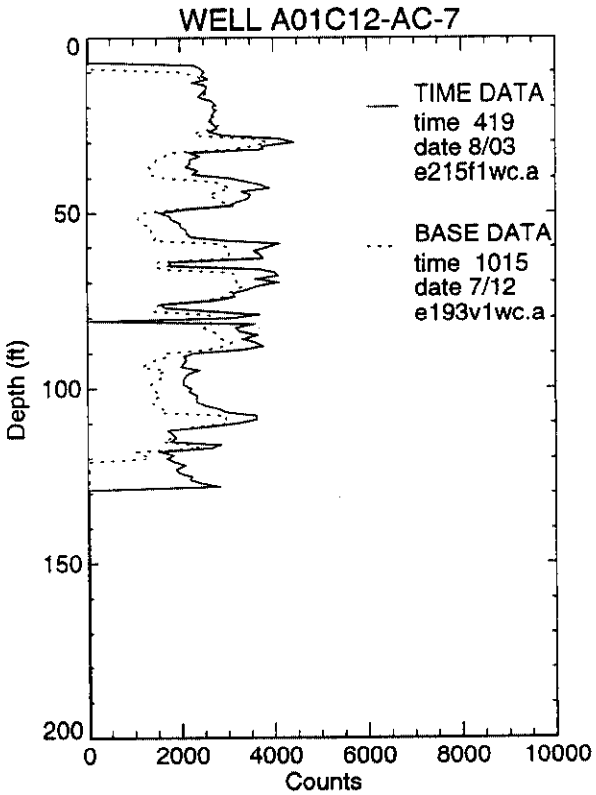
8000
10000


WELL A01C12-AC-7
TIME DATA
time 419
date 8/03
e215f1wc.a
BASE DATA
time 1015
date 7/12
e193v1wc.a
Depth (ft)
Counts
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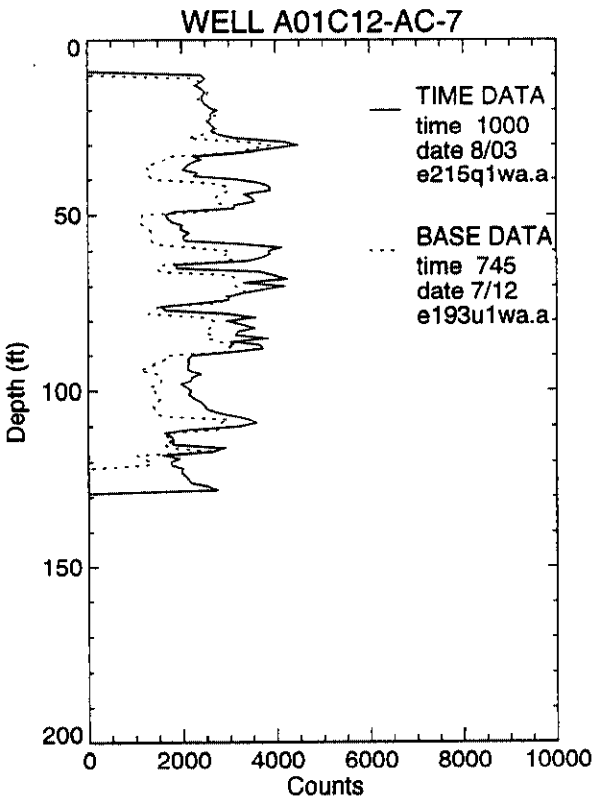
8000
10000


WELL A01C12-AC-7
TIME DATA
time 1000
date 8/03
e215q1wa.a
BASE DATA
time 745
date 7/12
e193u1wa.a
Depth (ft)
Counts
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0
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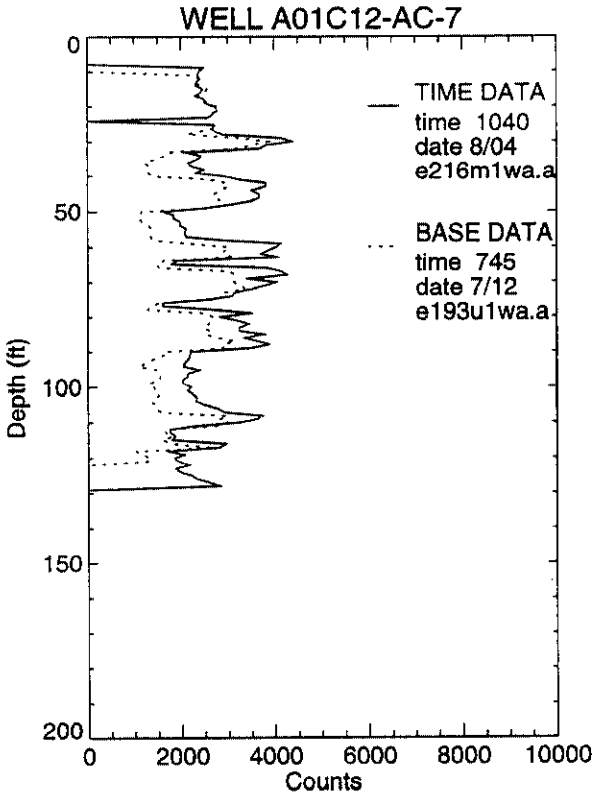
8000
10000


WELL A01C12-AC-7
TIME DATA
time 1040
date 8/04
e216m1wa.a
BASE DATA
time 745
date 7/12
e193u1wa.a
Depth (ft)
Counts
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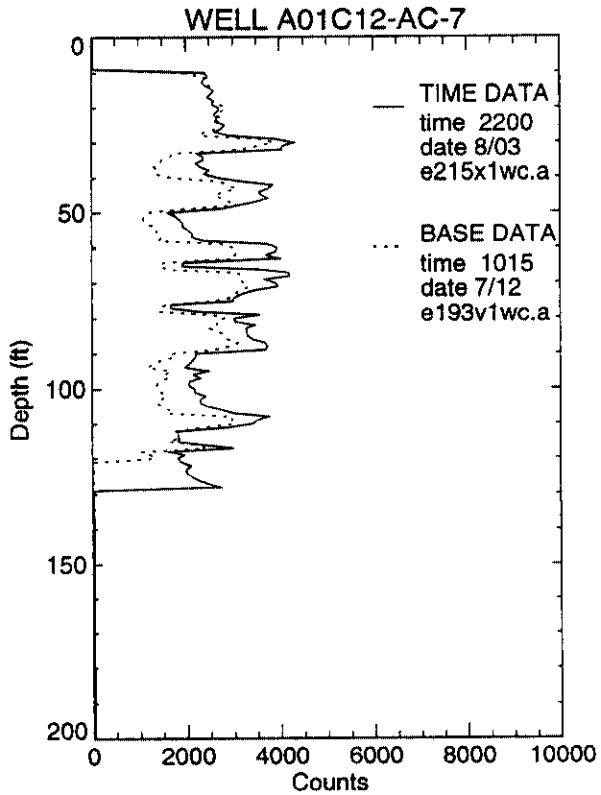
8000
10000


WELL A01C12-AC-7
TIME DATA
time 2200
date 8/03
e215x1wc.a
BASE DATA
time 1015
date 7/12
e193v1wc.a
Depth (ft)
Counts
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200
0
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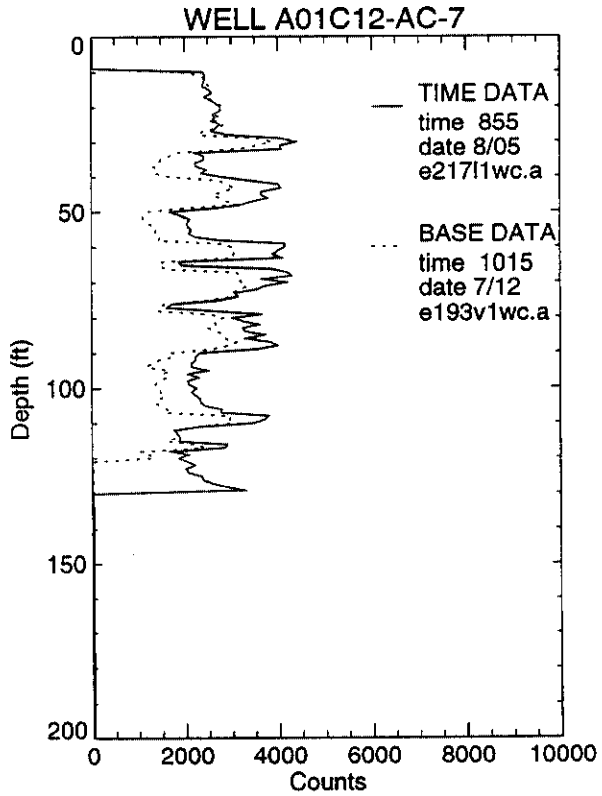
8000
10000


WELL A01C12-AC-7
TIME DATA
time 855
date 8/05
e217l1wc.a
BASE DATA
time 1015
date 7/12
e193v1wc.a
Depth (ft)
Counts
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200
0
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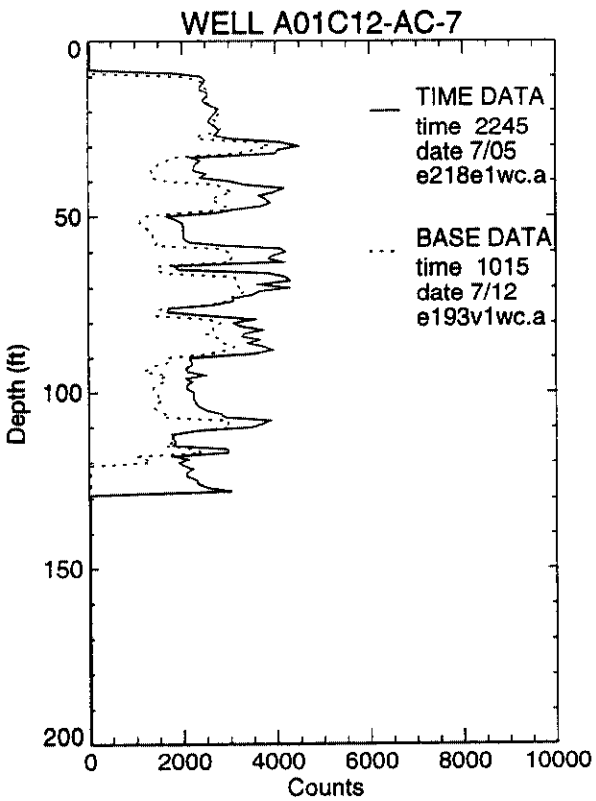
10000


WELL A01C12-AC-7
TIME DATA
time 2245
date 7/05
e218e1wc.a
BASE DATA
time 1015
date 7/12
e193v1wc.a
Depth (ft)
Counts
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200
0
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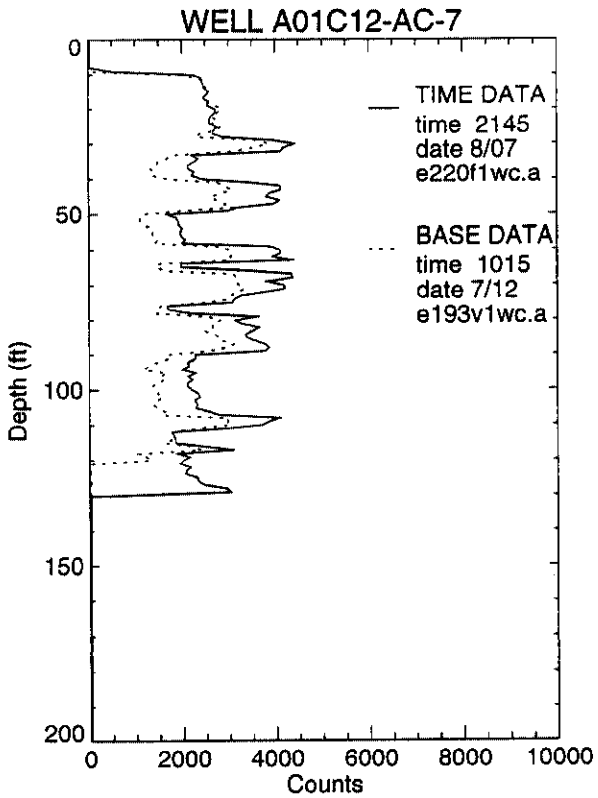
6000
8000
10000


WELL A01C12-AC-7
TIME DATA
time 2145
date 8/07
e220f1wc.a
BASE DATA
time 1015
date 7/12
e193v1wc.a
Depth (ft)
Counts
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0
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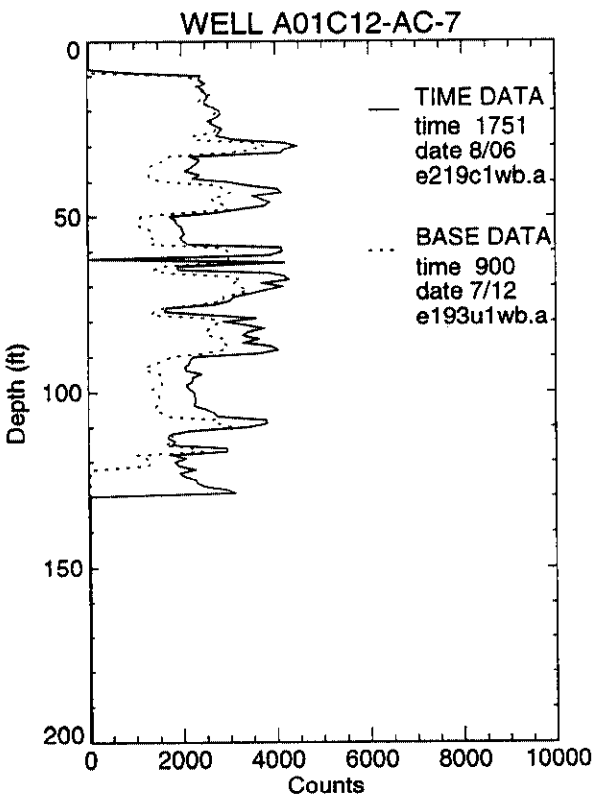
8000
10000


WELL A01C12-AC-7
TIME DATA
time 1751
date 8/06
e219c1wb.a
BASE DATA
time 900
date 7/12
e193u1wb.a
Depth (ft)
Counts
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150
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0
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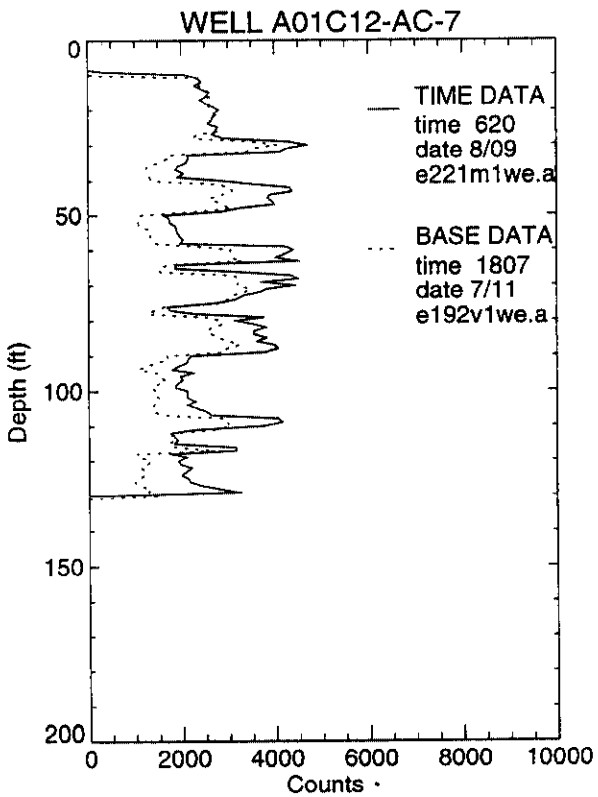
6000
8000
10000


WELL A01C12-AC-7
TIME DATA
time 620
date 8/09
e221m1we.a
BASE DATA
time 1807
date 7/11
e192v1we.a
Depth (ft)
Counts
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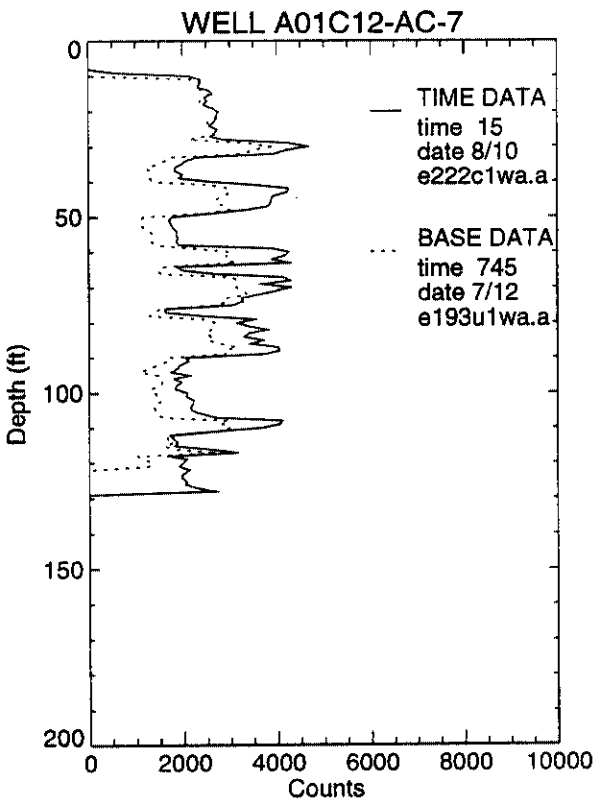
8000
10000


WELL A01C12-AC-7
TIME DATA
time 15
date 8/10
e222c1wa.a
BASE DATA
time 745
date 7/12
e193u1wa.a
Depth (ft)
Counts
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200
0
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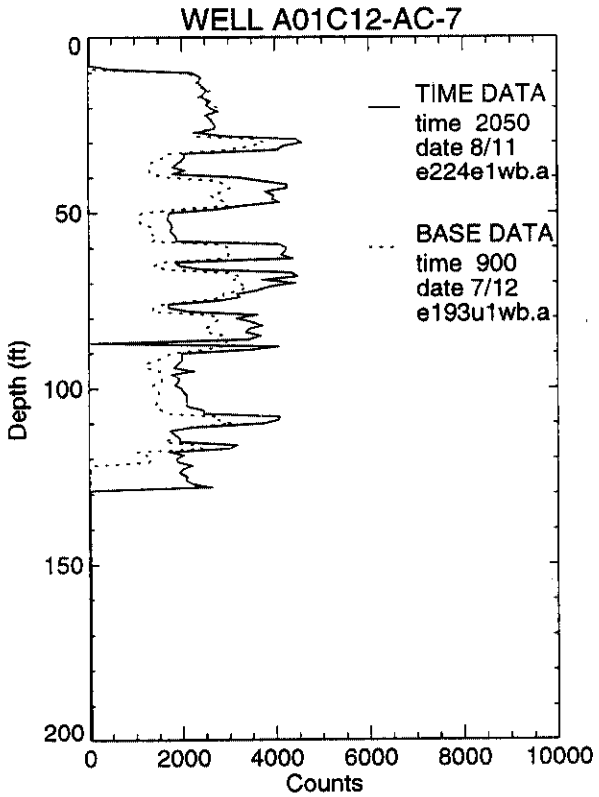
WELL A01C12-AC-7
TIME DATA
time 2050
date 8/11
e224e1wb.a
BASE DATA
time 900
date 7/12
e193u1wb.a
Depth (ft)
Counts
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0
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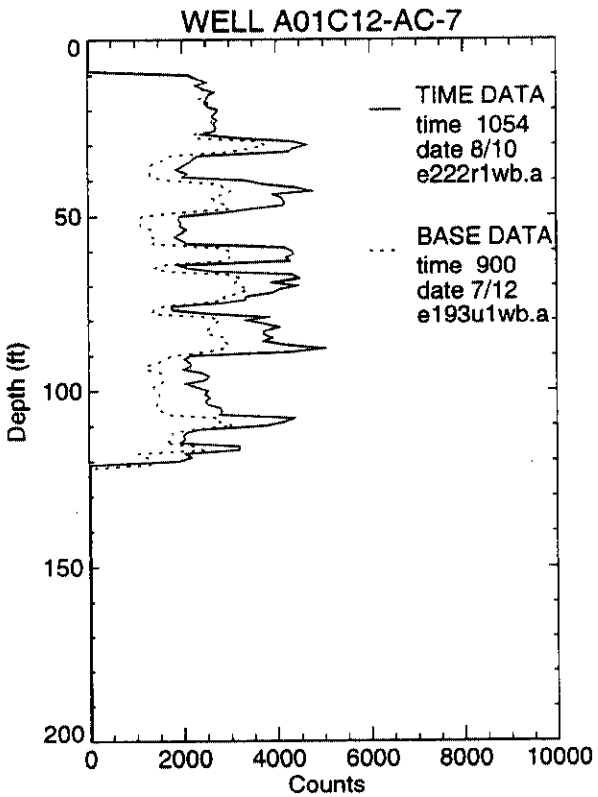
8000
10000


WELL A01C12-AC-7
TIME DATA
time 1054
date 8/10
e222r1wb.a
BASE DATA
time 900
date 7/12
e193u1wb.a
Depth (ft)
Counts
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0
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4000
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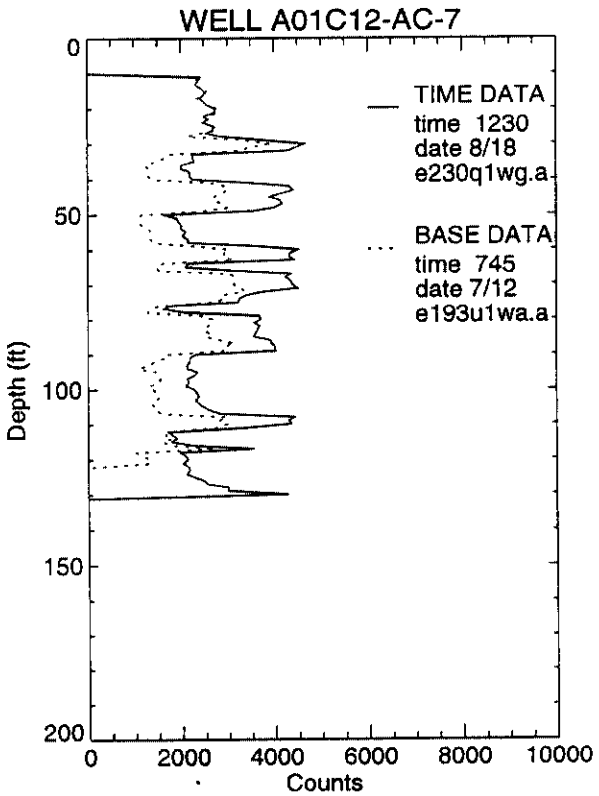
8000
10000


WELL A01C12-AC-7
TIME DATA
time 1230
date 8/18
e230q1wg.a
BASE DATA
time 745
date 7/12
e193u1wa.a
Depth (ft)
Counts
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150
200
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2000
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6000
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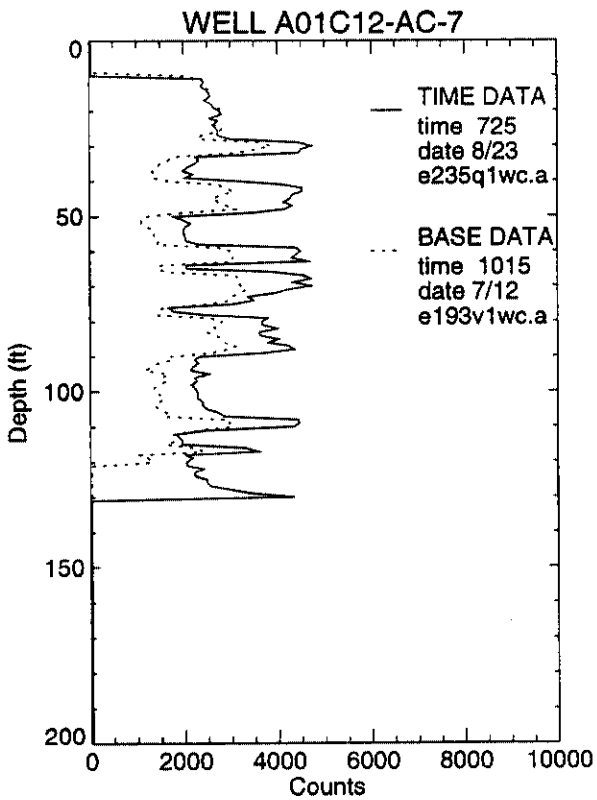
10000


WELL A01C12-AC-7
TIME DATA
time 725
date 8/23
e235q1wc.a
BASE DATA
time 1015
date 7/12
e193v1wc.a
Depth (ft)
Counts
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0
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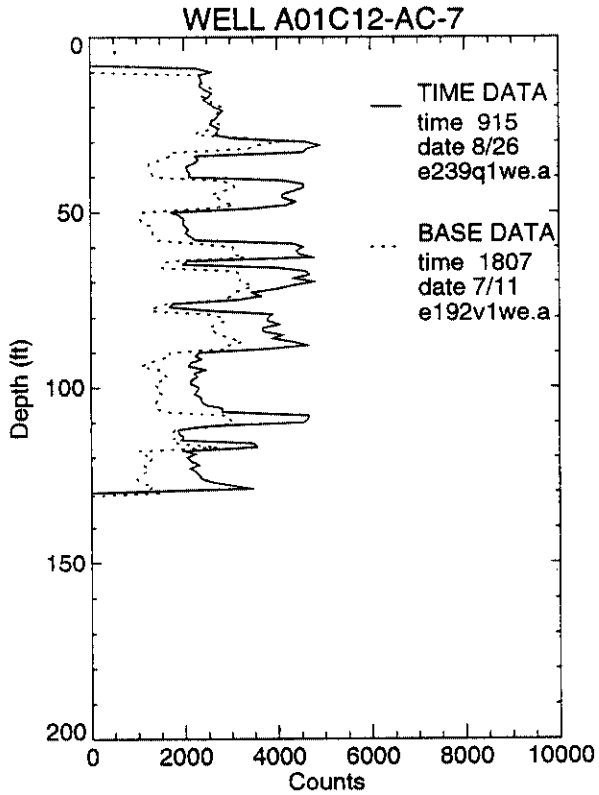
10000


WELL A01C12-AC-7
TIME DATA
time 915
date 8/26
e239q1we.a
BASE DATA
time 1807
date 7/11
e192v1we.a
Depth (ft)
Counts
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150
200
0
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4000
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8000
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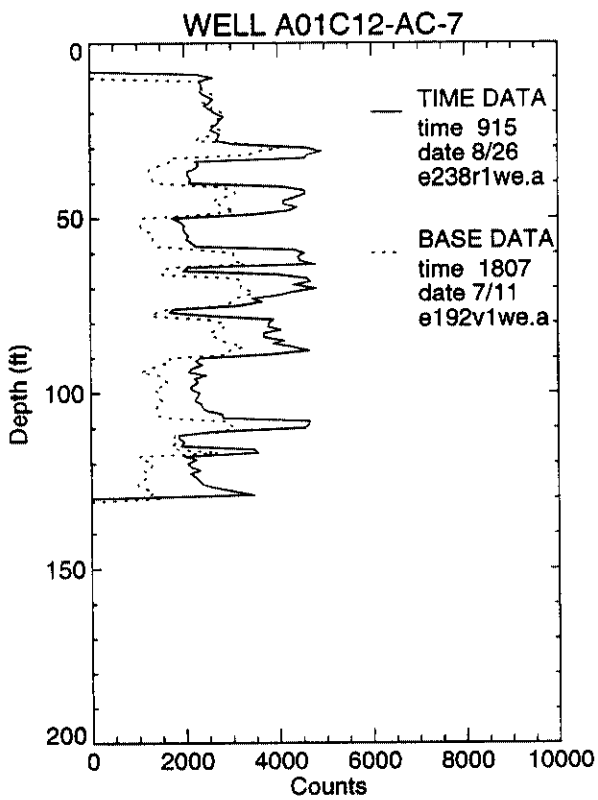
WELL A01C12-AC-7
TIME DATA
time 915
date 8/26
e238r1we.a
BASE DATA
time 1807
date 7/11
e192v1we.a
Depth (ft)
Counts
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50
100
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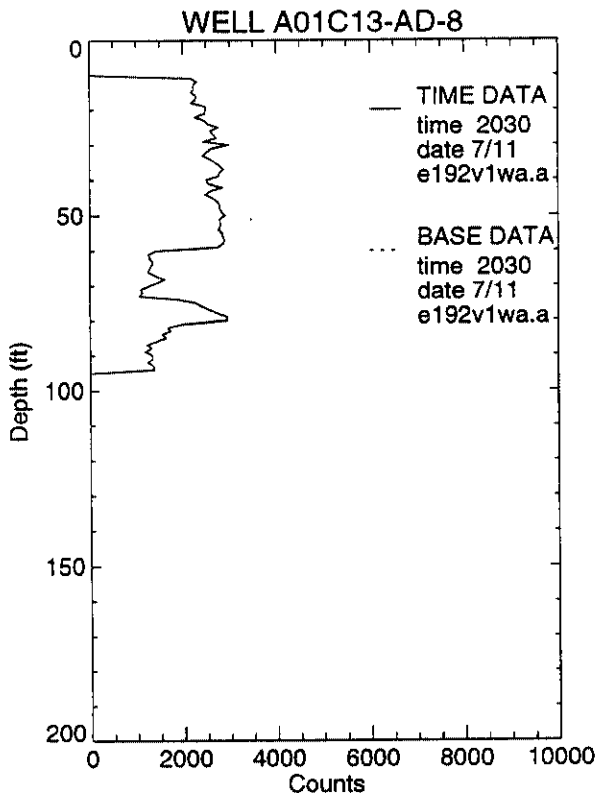
WELL A01C13-AD-8
TIME DATA
time 2030
date 7/11
e192v1wa.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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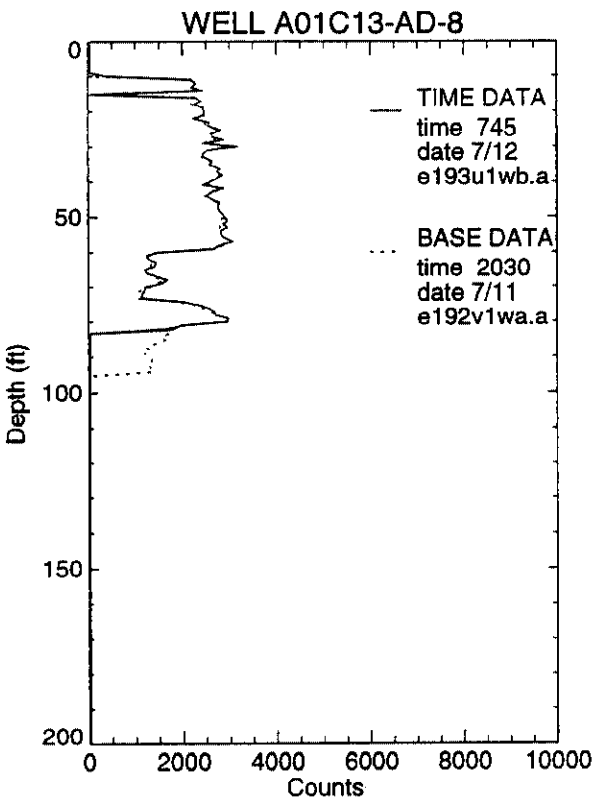
WELL A01C13-AD-8
TIME DATA
time 745
date 7/12
e193u1wb.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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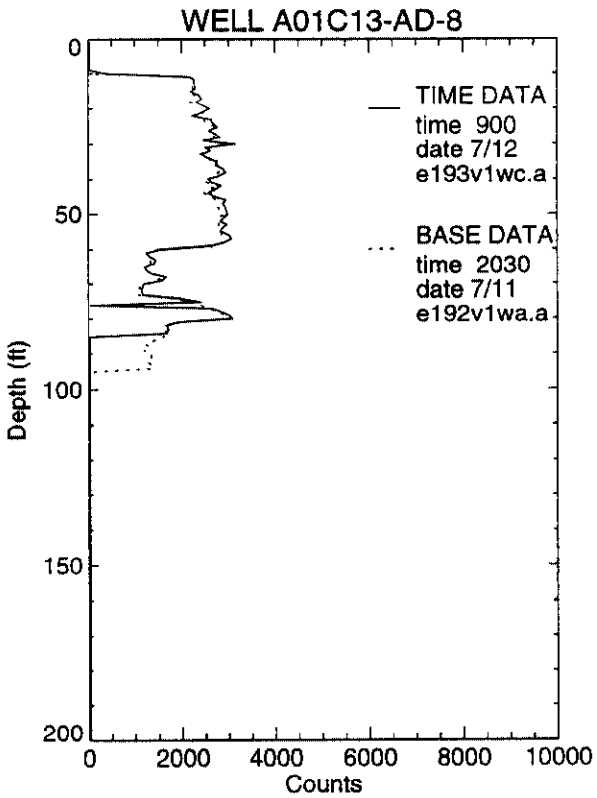
WELL A01C13-AD-8
TIME DATA
time 900
date 7/12
e193v1wc.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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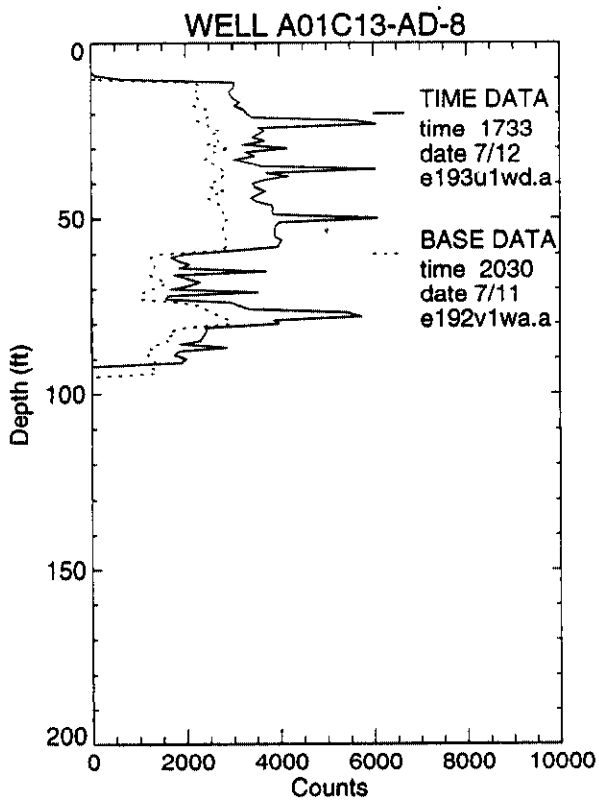
WELL A01C13-AD-8
TIME DATA
time 1733
date 7/12
e193u1wd.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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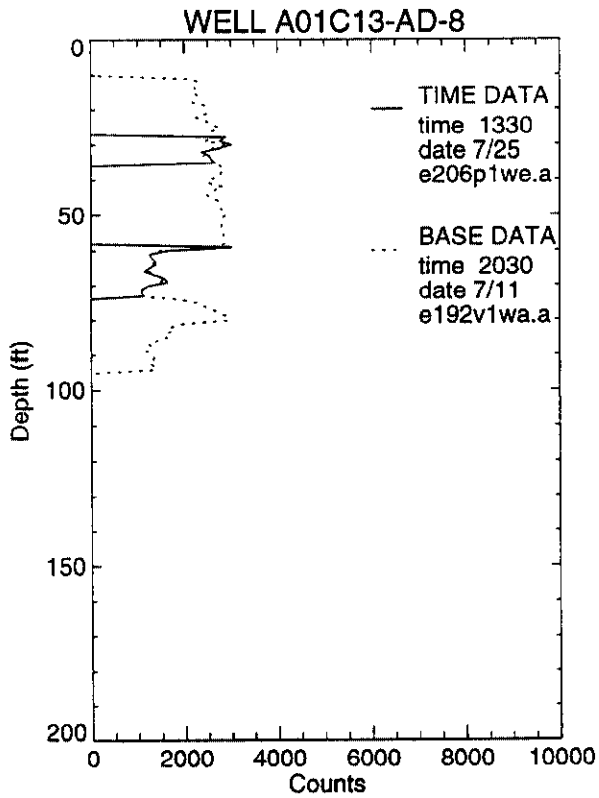
WELL A01C13-AD-8
TIME DATA
time 1330
date 7/25
e206p1we.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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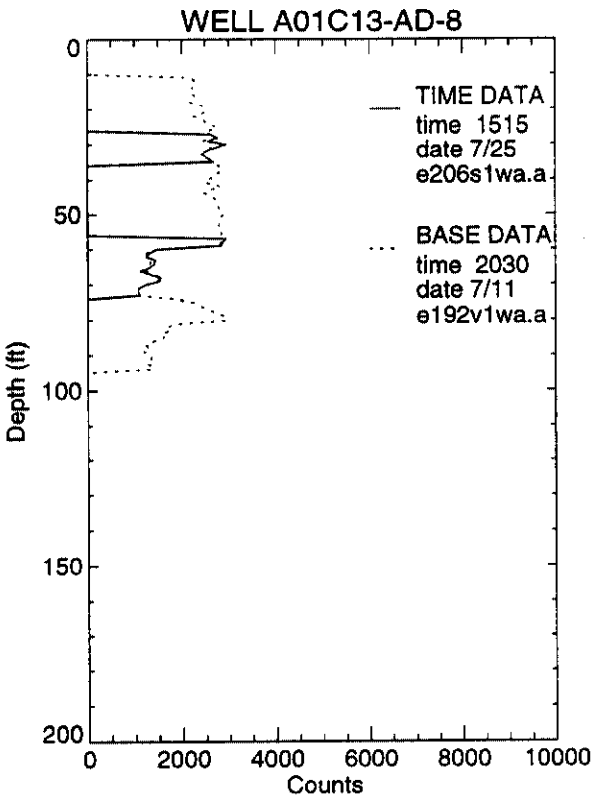
WELL A01C13-AD-8
TIME DATA
time 1515
date 7/25
e206s1wa.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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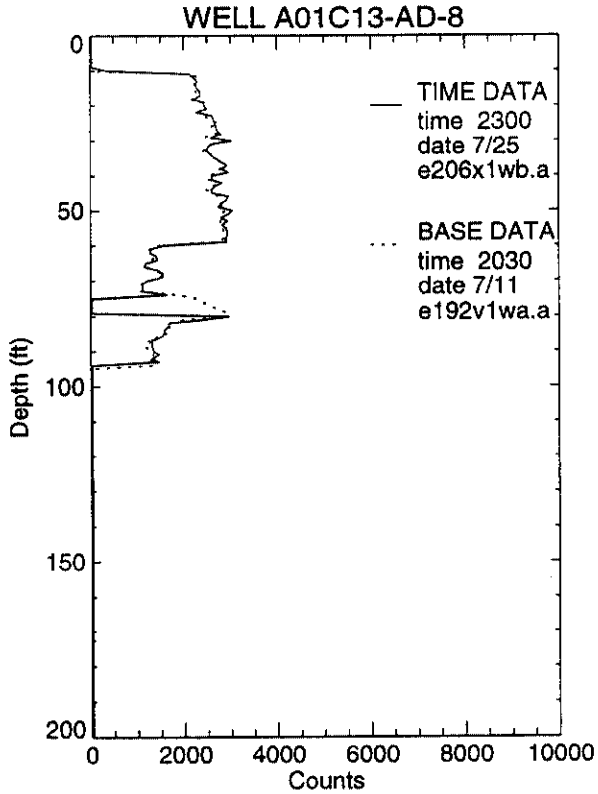
WELL A01C13-AD-8
TIME DATA
time 2300
date 7/25
e206x1wb.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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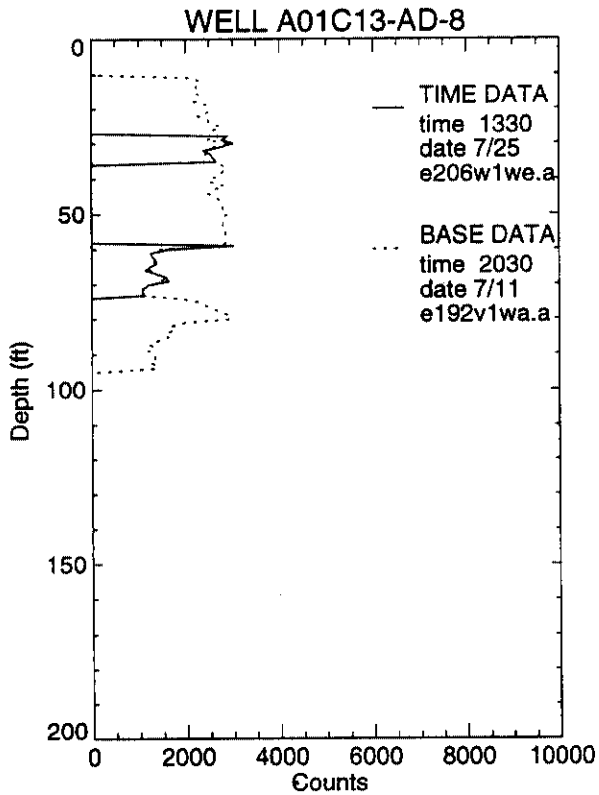
WELL A01C13-AD-8
TIME DATA
time 1330
date 7/25
e206w1we.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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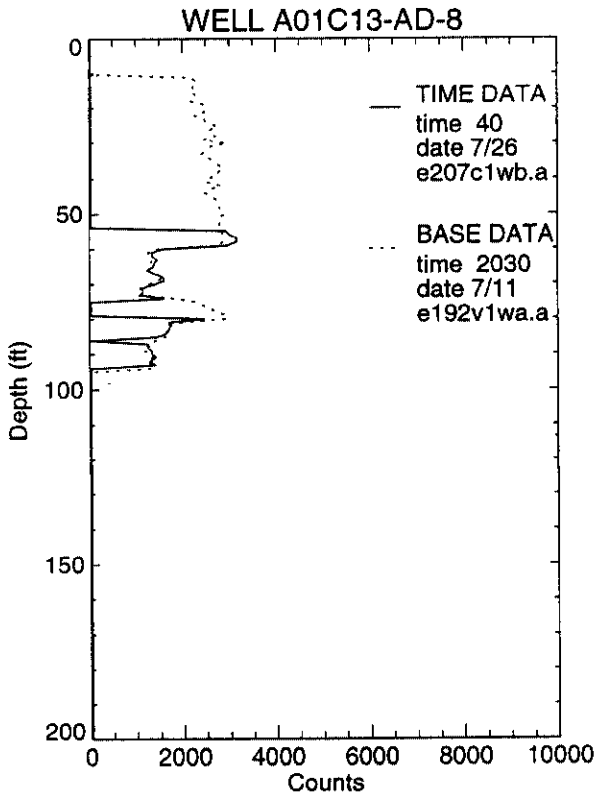
WELL A01C13-AD-8
TIME DATA
time 40
date 7/26
e207c1wb.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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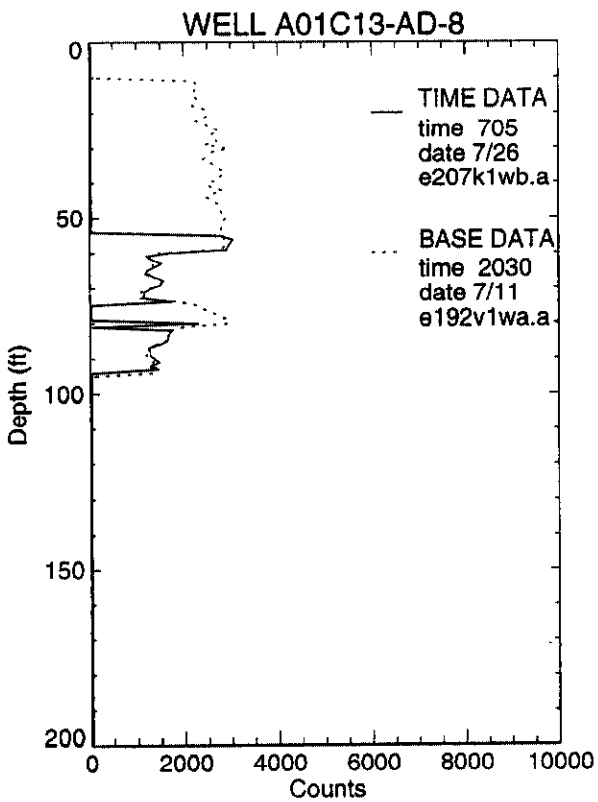
WELL A01C13-AD-8
TIME DATA
time 705
date 7/26
e207k1wb.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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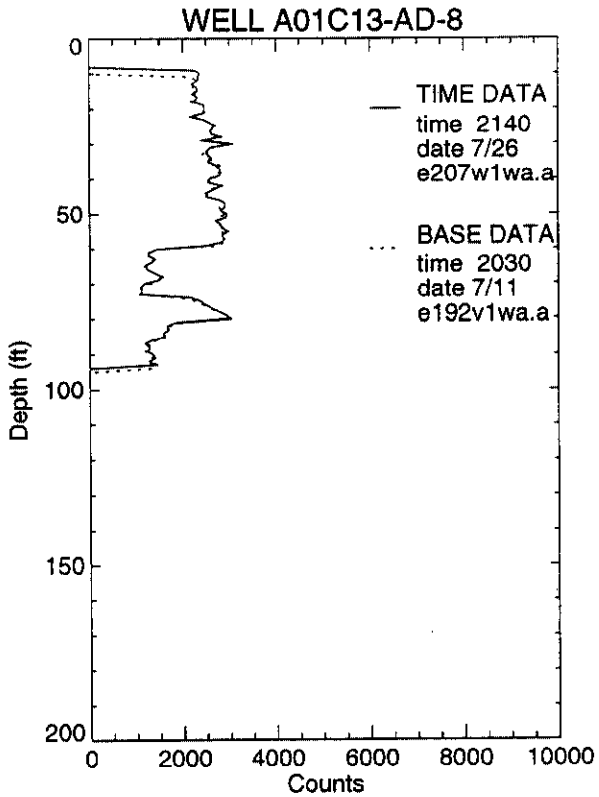
WELL A01C13-AD-8
TIME DATA
time 2140
date 7/26
e207w1wa.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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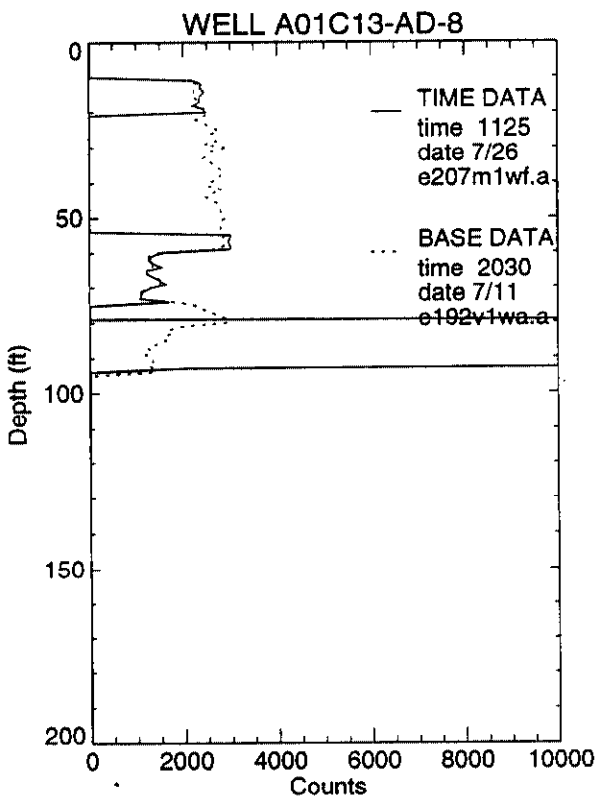
WELL A01C13-AD-8
TIME DATA
time 1125
date 7/26
e207m1wf.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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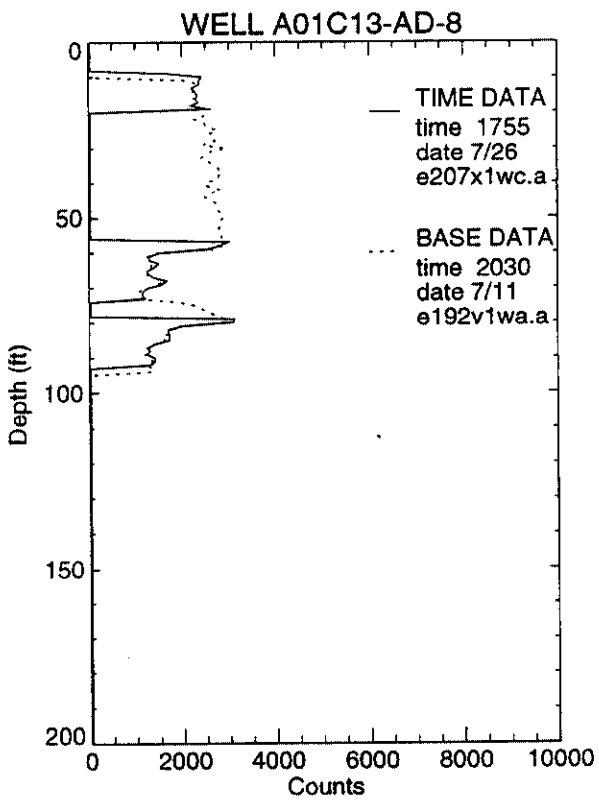
WELL A01C13-AD-8
TIME DATA
time 1755
date 7/26
e207x1wc.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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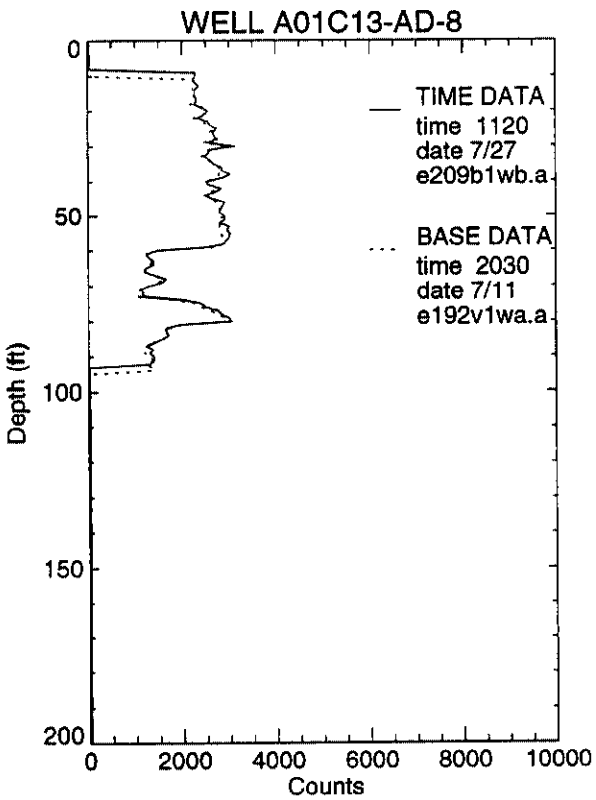
WELL A01C13-AD-8
TIME DATA
time 1120
date 7/27
e209b1wb.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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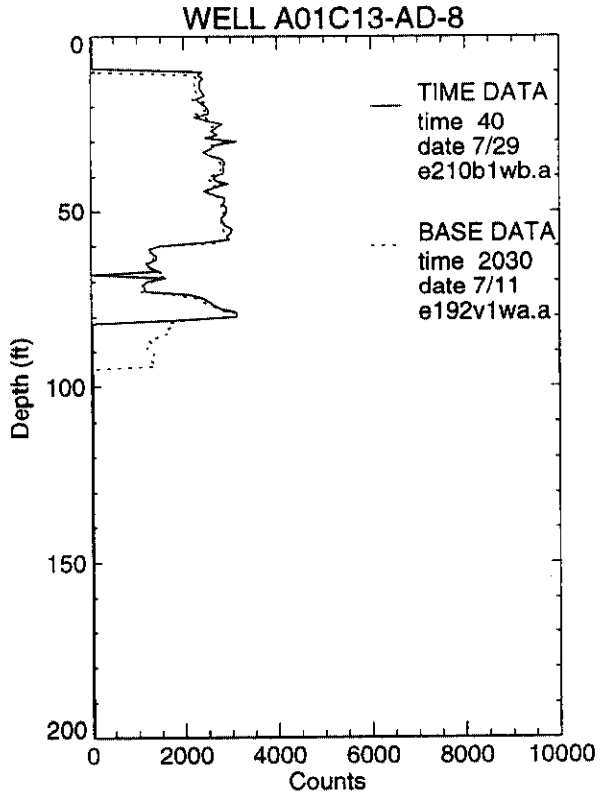
WELL A01C13-AD-8
TIME DATA
time 40
date 7/29
e210b1wb.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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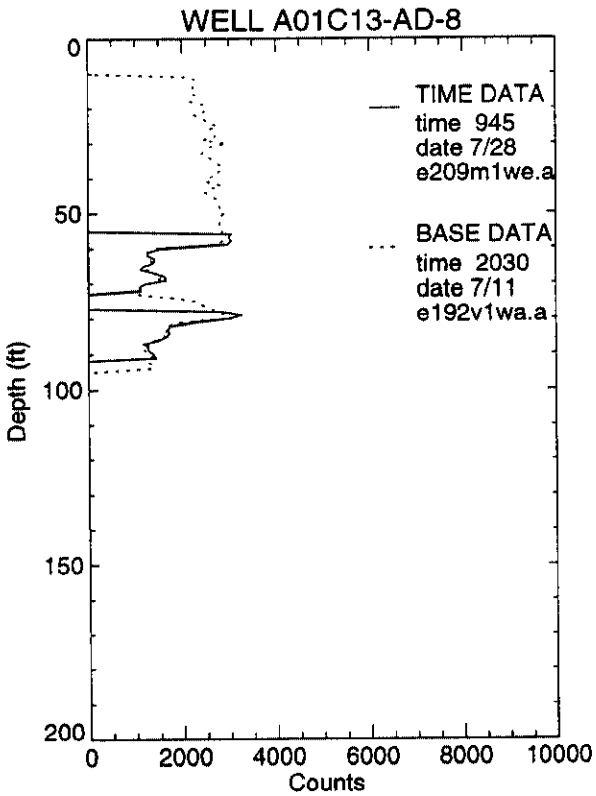
WELL A01C13-AD-8
TIME DATA
time 945
date 7/28
e209m1we.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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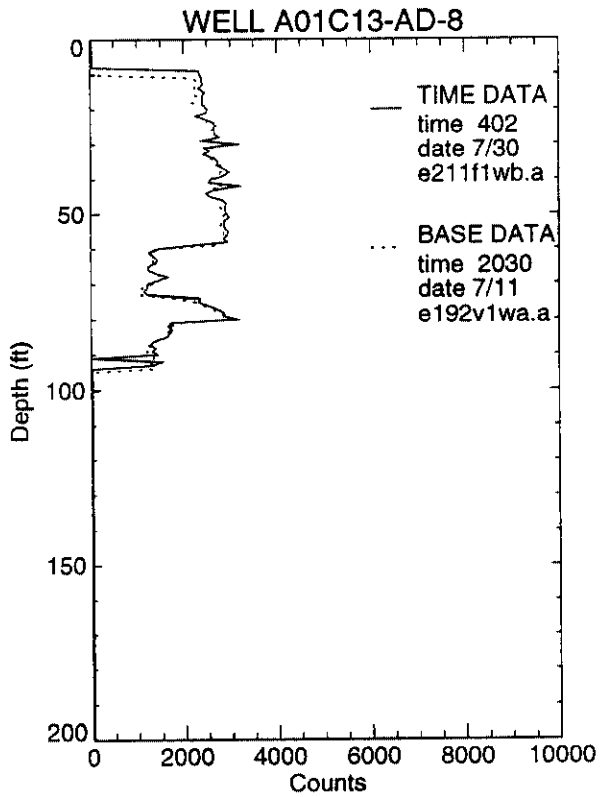
WELL A01C13-AD-8
TIME DATA
time 402
date 7/30
e211f1wb.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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0
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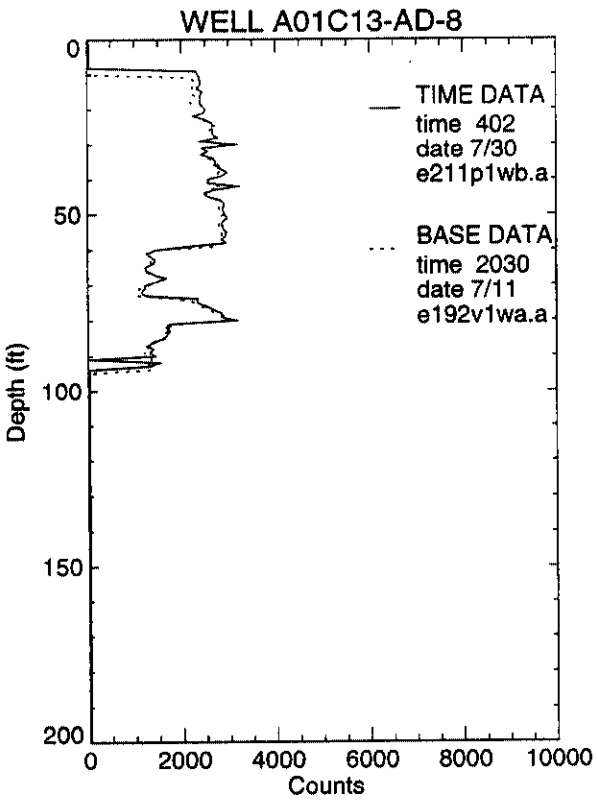
WELL A01C13-AD-8
TIME DATA
time 402
date 7/30
e211p1wb.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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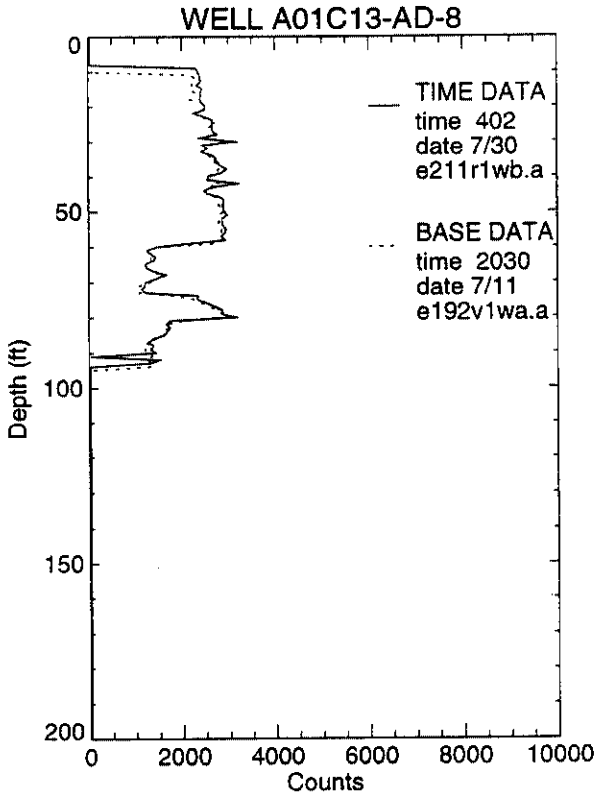
WELL A01C13-AD-8
TIME DATA
time 402
date 7/30
e211r1wb.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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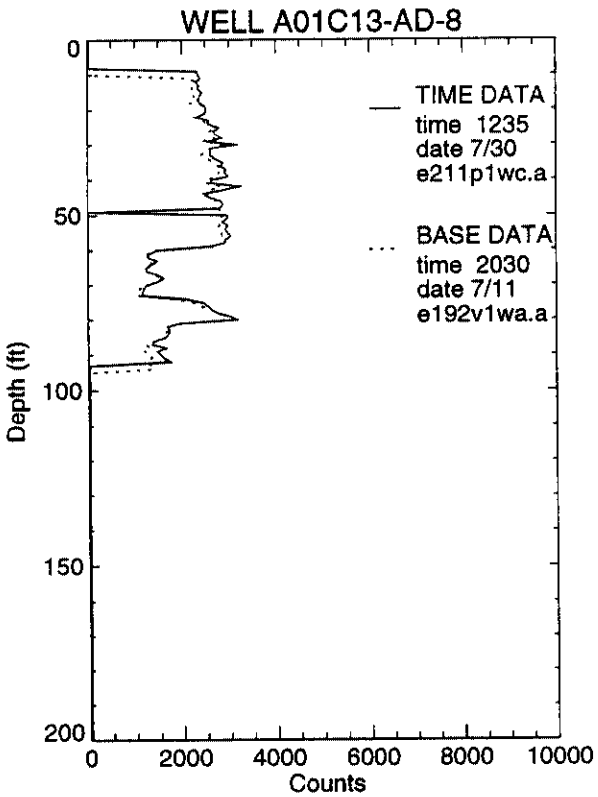
WELL A01C13-AD-8
TIME DATA
time 1235
date 7/30
e211p1wc.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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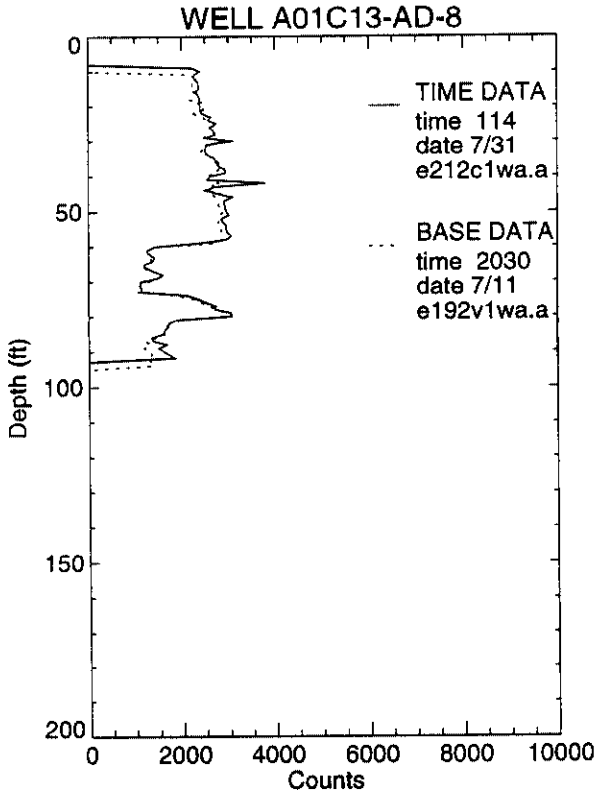
WELL A01C13-AD-8
TIME DATA
time 114
date 7/31
e212c1wa.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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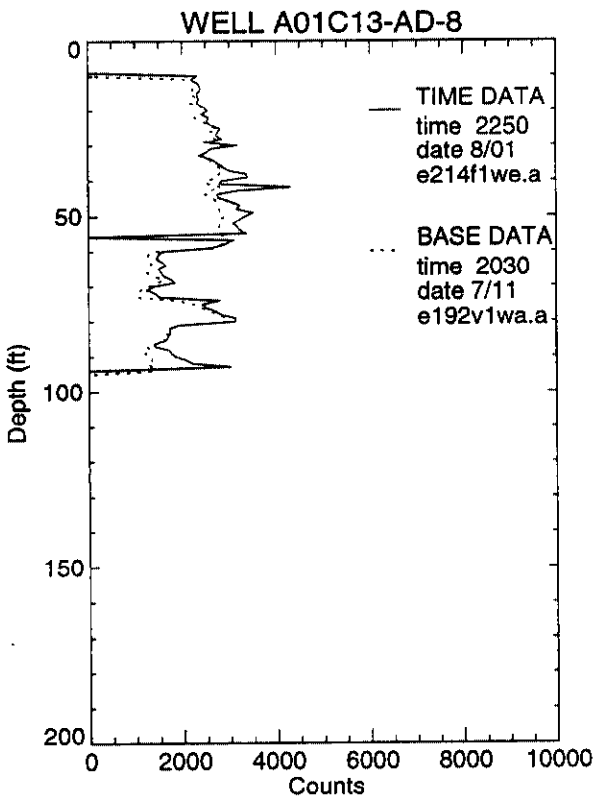
WELL A01C13-AD-8
TIME DATA
time 2250
date 8/01
e214f1we.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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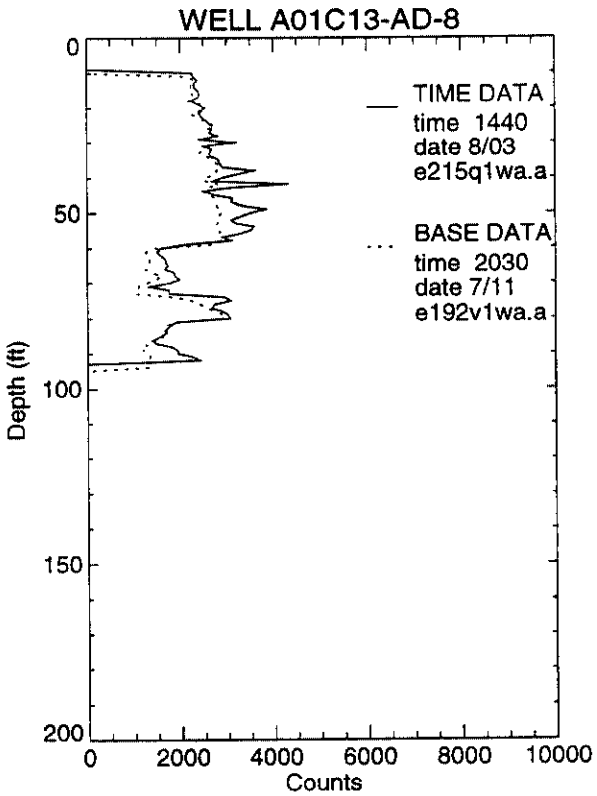
WELL A01C13-AD-8
TIME DATA
time 1440
date 8/03
e215q1wa.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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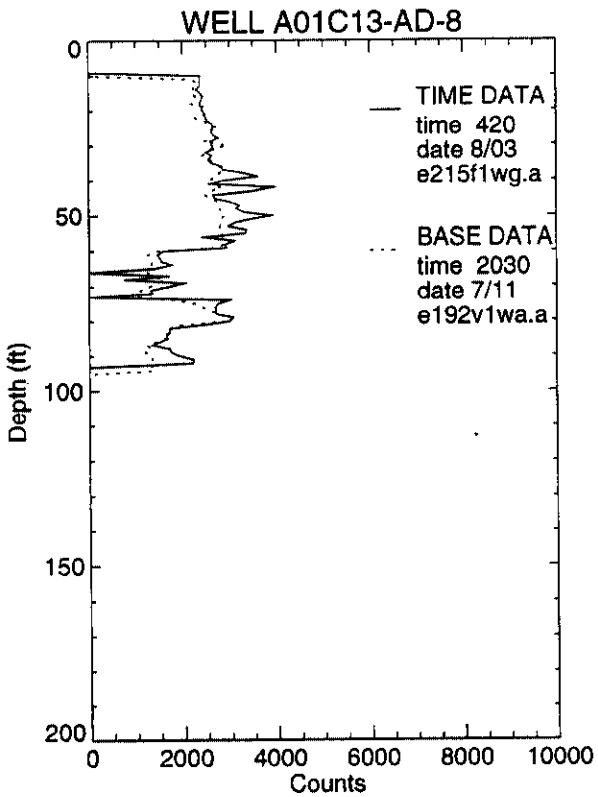
WELL A01C13-AD-8
TIME DATA
time 420
date 8/03
e215f1wg.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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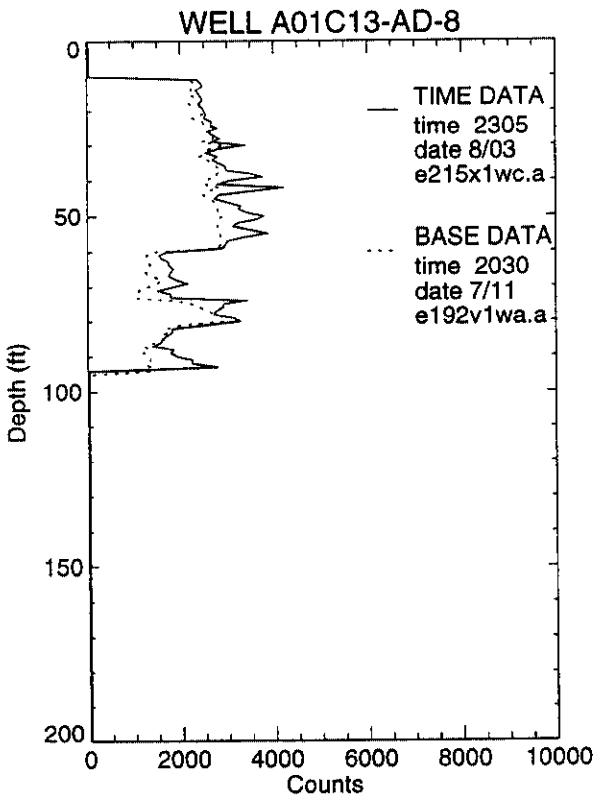
10000


WELL A01C13-AD-8
TIME DATA
time 2305
date 8/03
e215x1wc.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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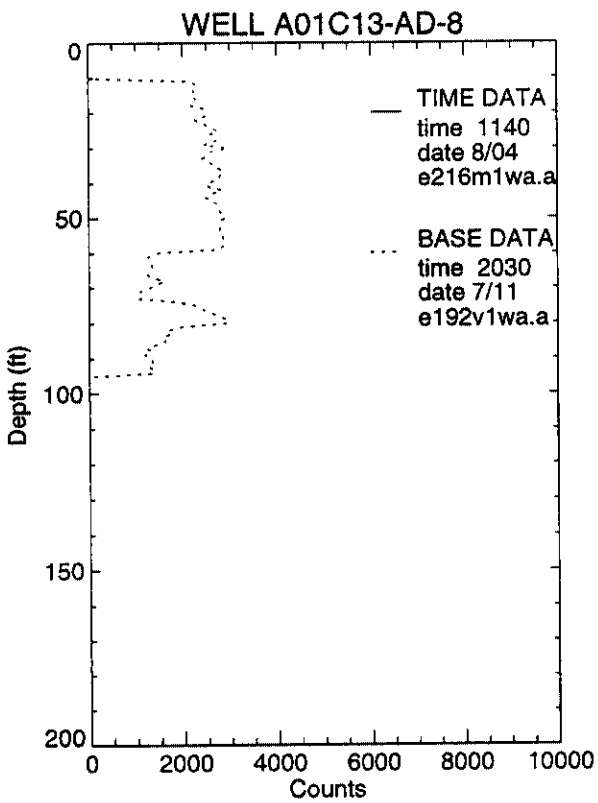
WELL A01C13-AD-8
TIME DATA
time 1140
date 8/04
e216m1wa.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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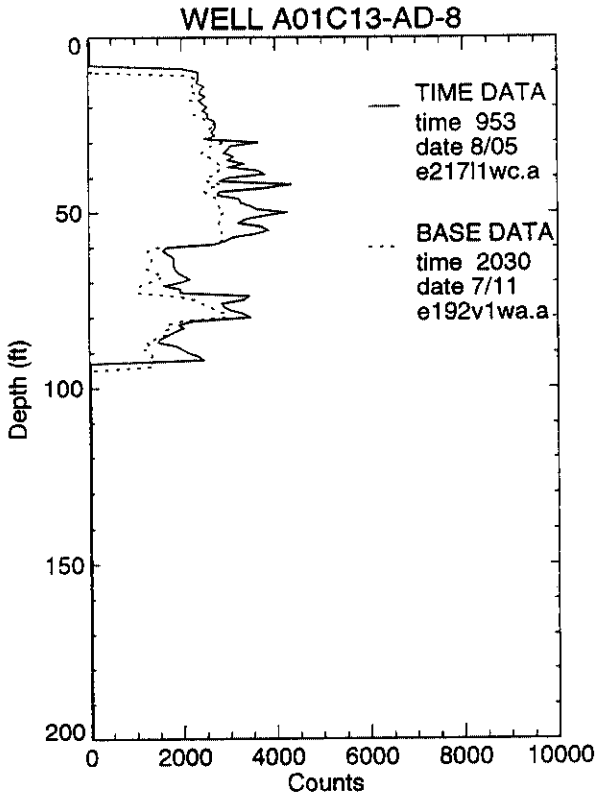
WELL A01C13-AD-8
TIME DATA
time 953
date 8/05
e217l1wc.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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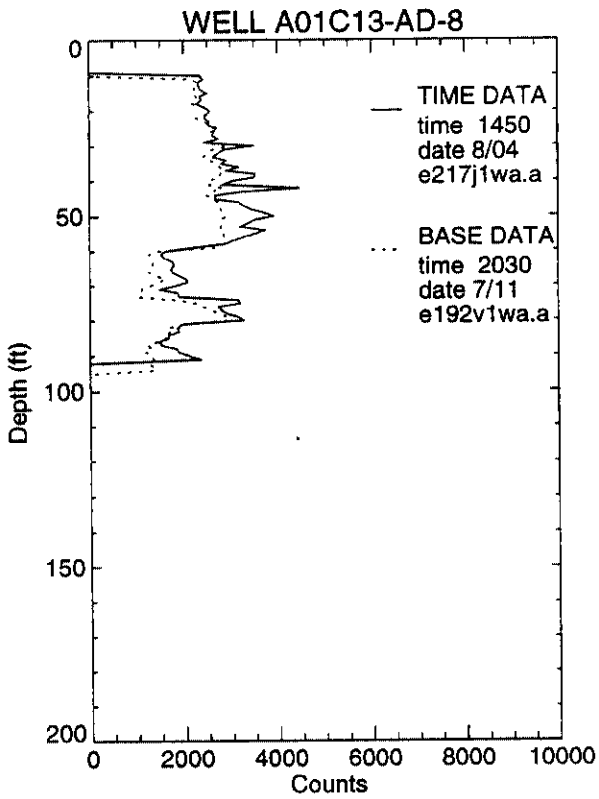
WELL A01C13-AD-8
TIME DATA
time 1450
date 8/04
e217j1wa.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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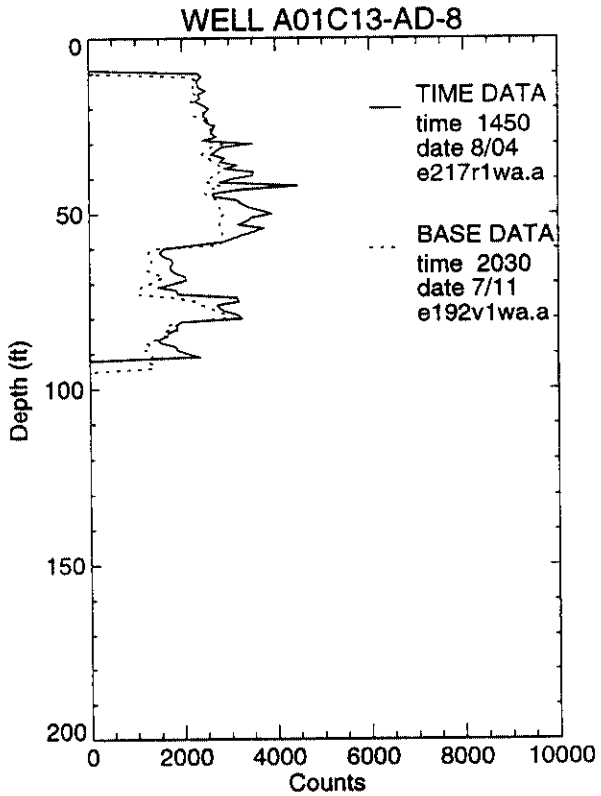
WELL A01C13-AD-8
TIME DATA
time 1450
date 8/04
e217r1wa.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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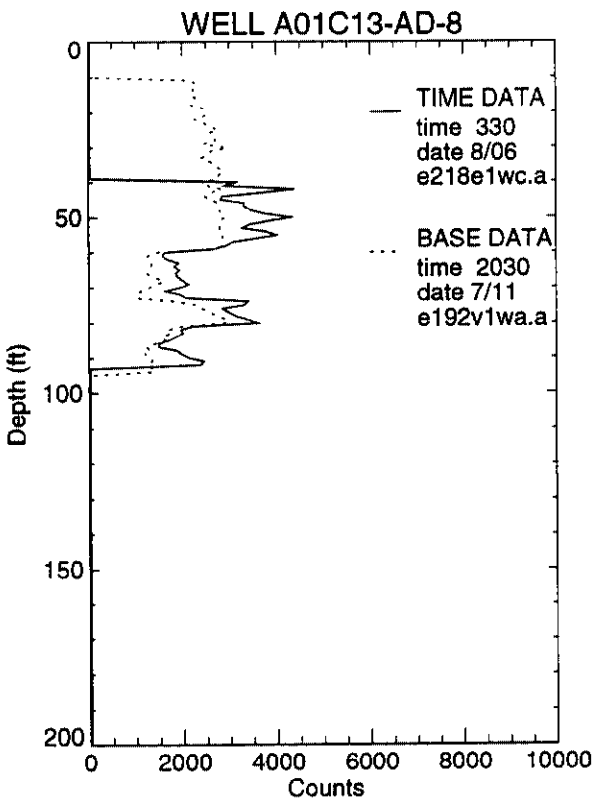
WELL A01C13-AD-8
TIME DATA
time 330
date 8/06
e218e1wc.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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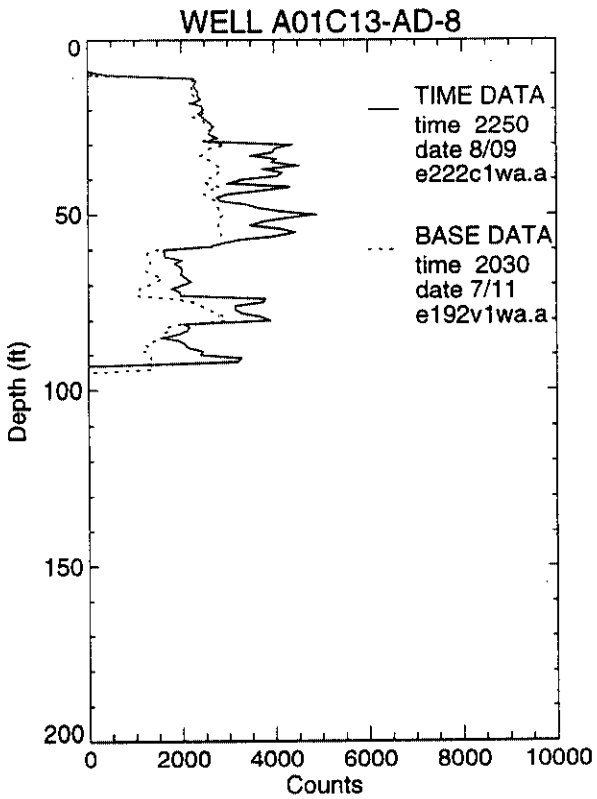
WELL A01C13-AD-8
TIME DATA
time 2250
date 8/09
e222c1wa.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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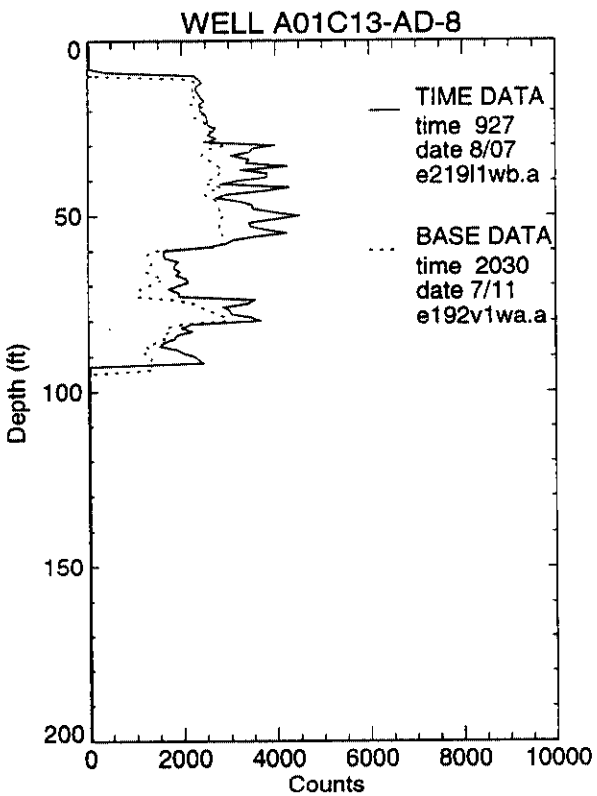
WELL A01C13-AD-8
TIME DATA
time 927
date 8/07
e219l1wb.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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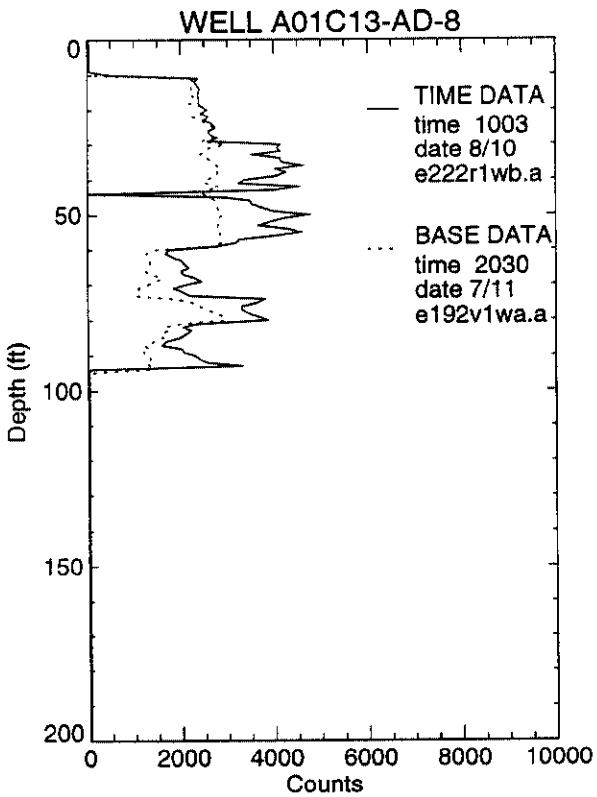
WELL A01C13-AD-8
TIME DATA
time 1003
date 8/10
e222r1wb.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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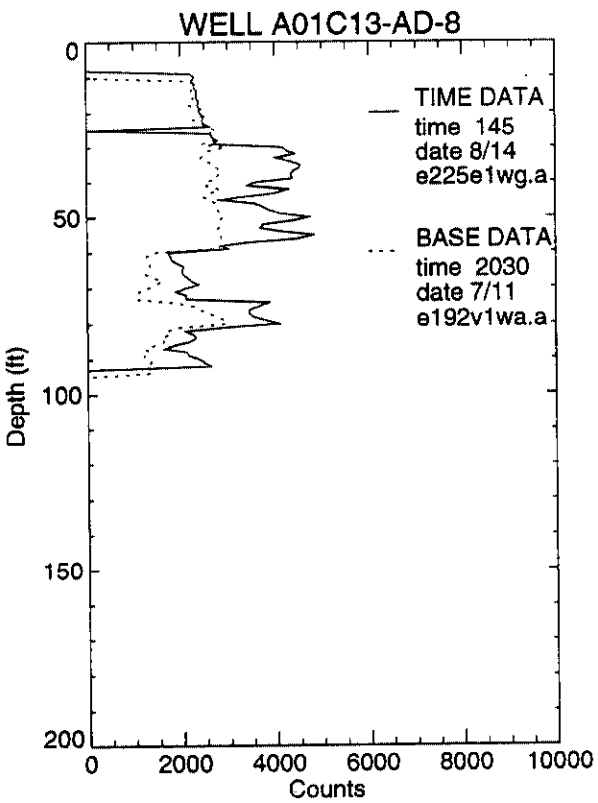
WELL A01C13-AD-8
TIME DATA
time 145
date 8/14
e225e1wg.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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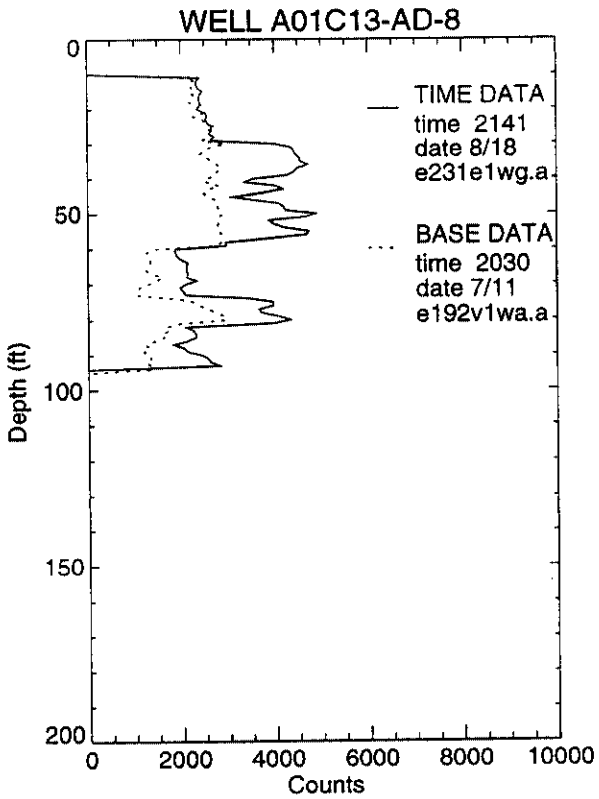
10000


WELL A01C13-AD-8
TIME DATA
time 2141
date 8/18
e231e1wg.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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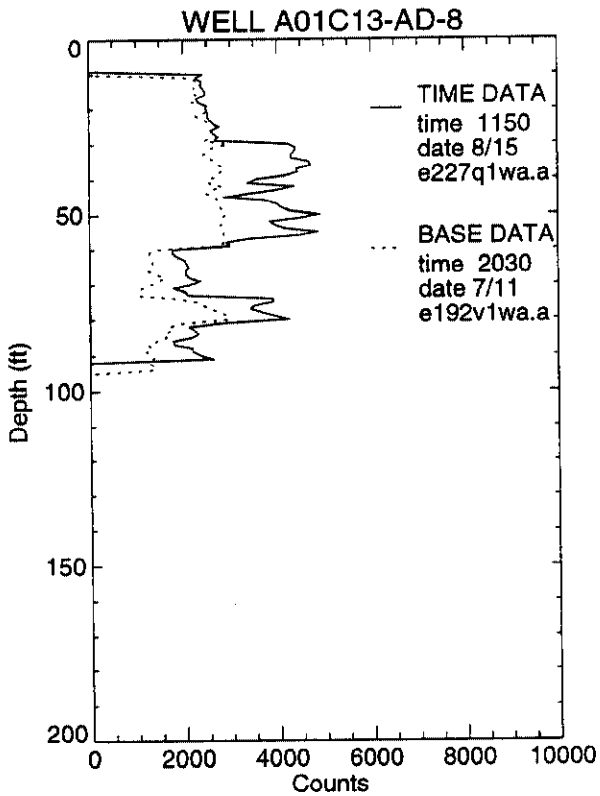
WELL A01C13-AD-8
TIME DATA
time 1150
date 8/15
e227q1wa.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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150
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0
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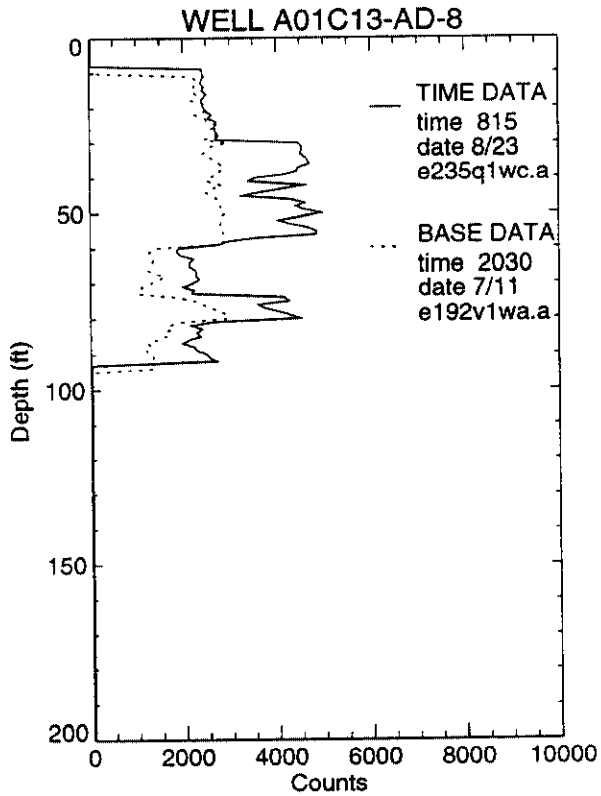
8000
10000


WELL A01C13-AD-8
TIME DATA
time 815
date 8/23
e235q1wc.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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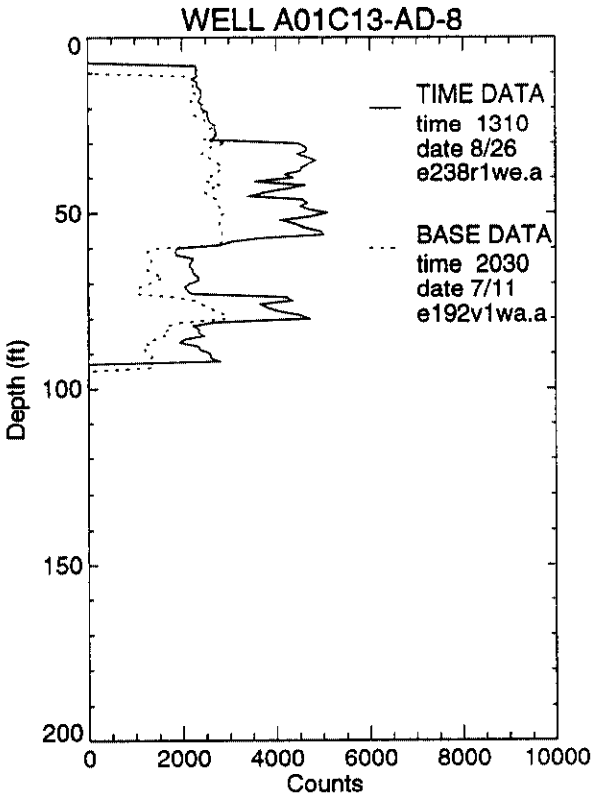
10000


WELL A01C13-AD-8
TIME DATA
time 1310
date 8/26
e238r1we.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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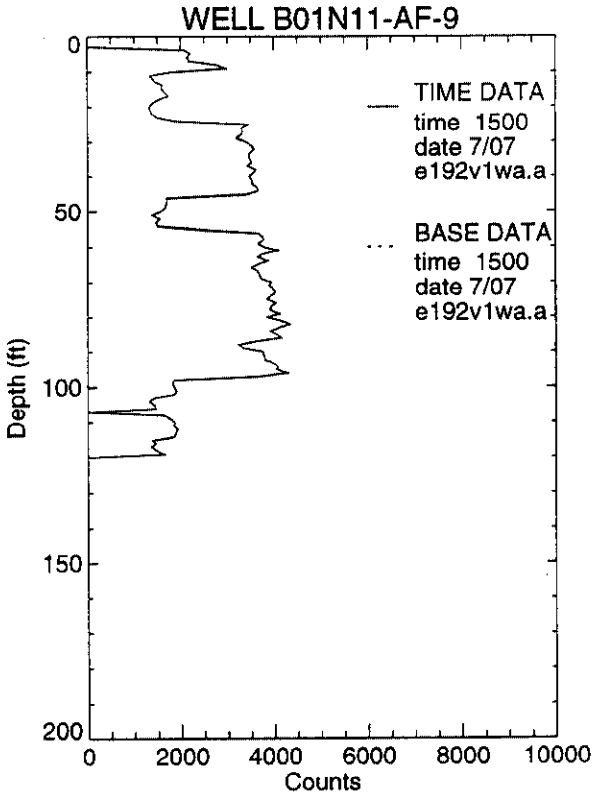
WELL B01N11-AF-9
TIME DATA
time 1500
date 7/07
e192v1wa.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
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150
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0
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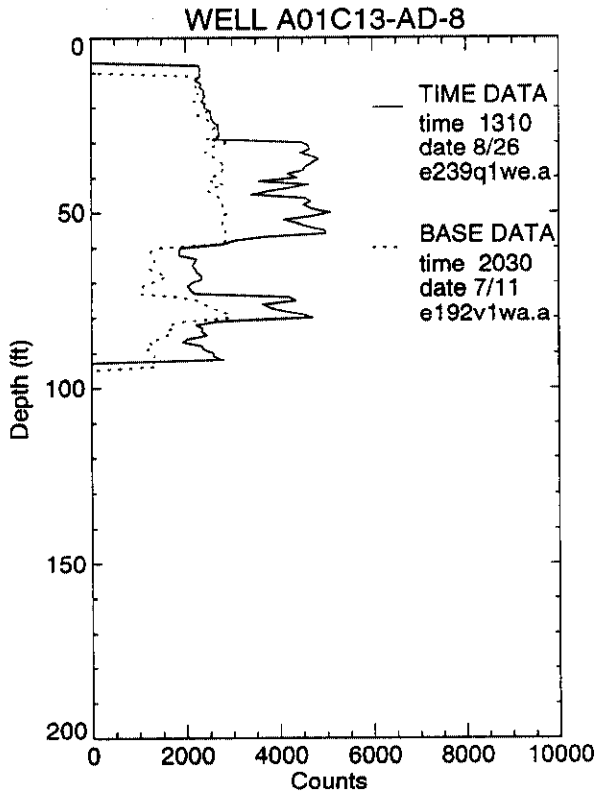
8000
10000


WELL A01C13-AD-8
TIME DATA
time 1310
date 8/26
e239q1we.a
BASE DATA
time 2030
date 7/11
e192v1wa.a
Depth (ft)
Counts
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150
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8000
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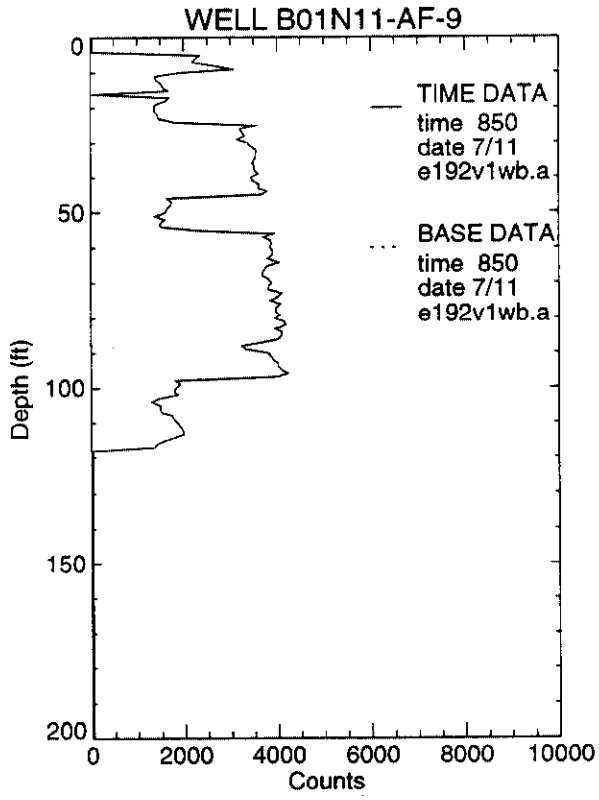
WELL B01N11-AF-9
TIME DATA
time 850
date 7/11
e192v1wb.a
BASE DATA
time 850
date 7/11
e192v1wb.a
Depth (ft)
Counts
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150
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8000
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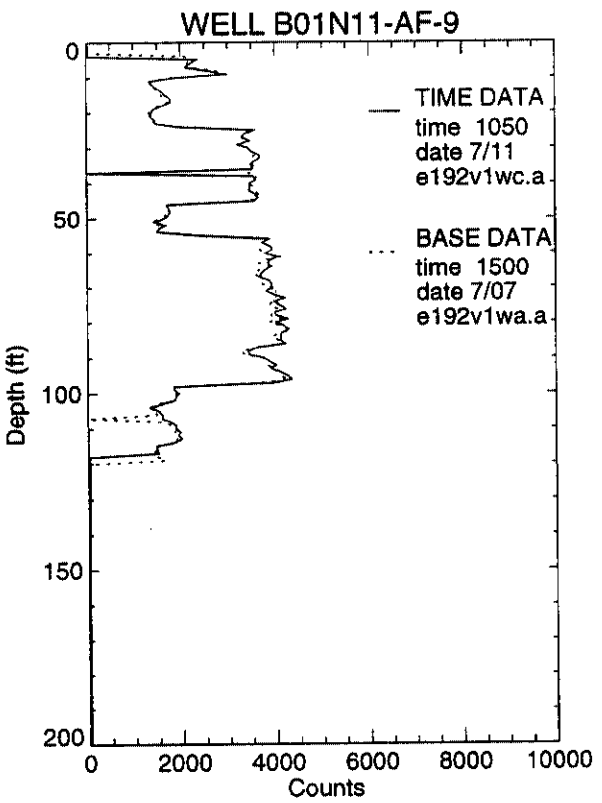
WELL B01N11-AF-9
TIME DATA
time 1050
date 7/11
e192v1wc.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
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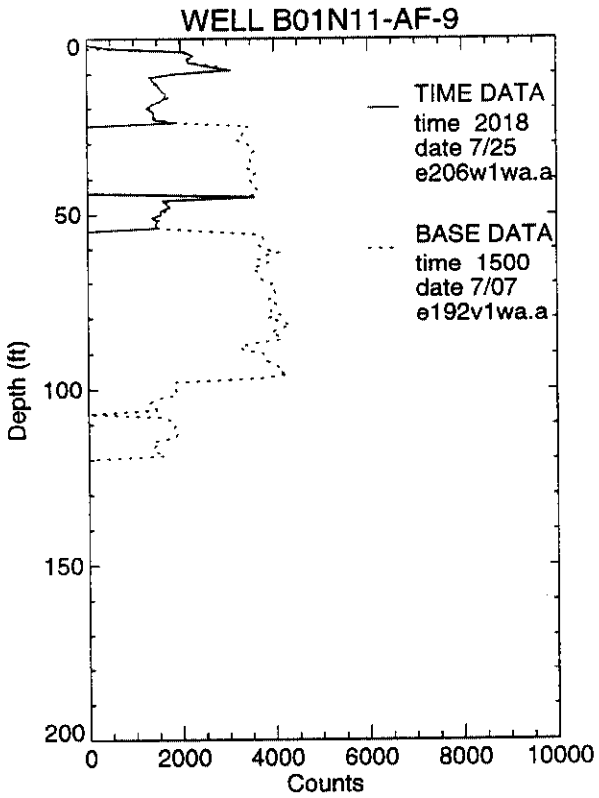
WELL B01N11-AF-9
TIME DATA
time 2018
date 7/25
e206w1wa.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
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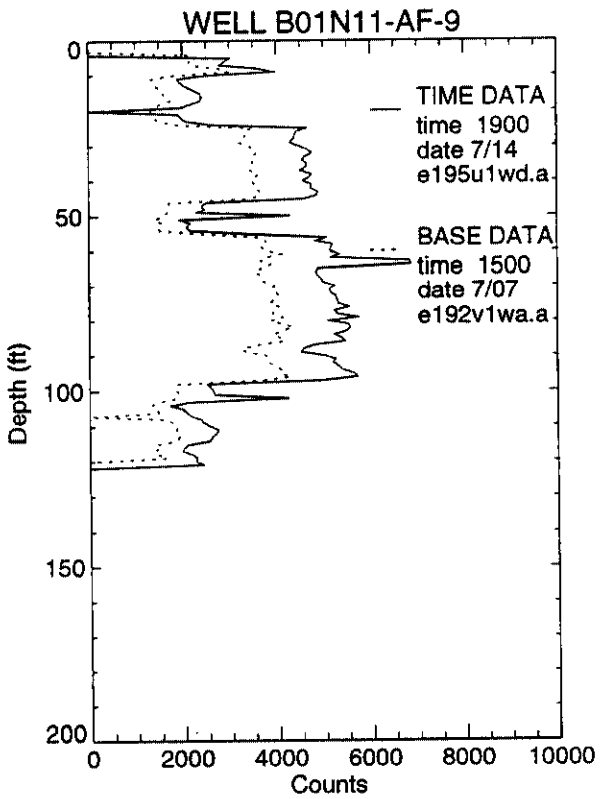
8000
10000


WELL B01N11-AF-9
TIME DATA
time 1900
date 7/14
e195u1wd.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
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150
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0
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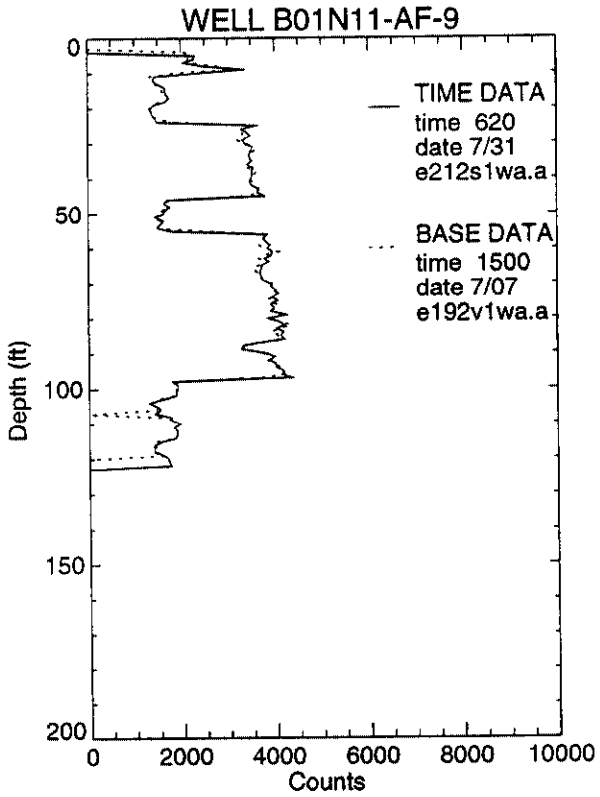
8000
10000


WELL B01N11-AF-9
TIME DATA
time 620
date 7/31
e212s1wa.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
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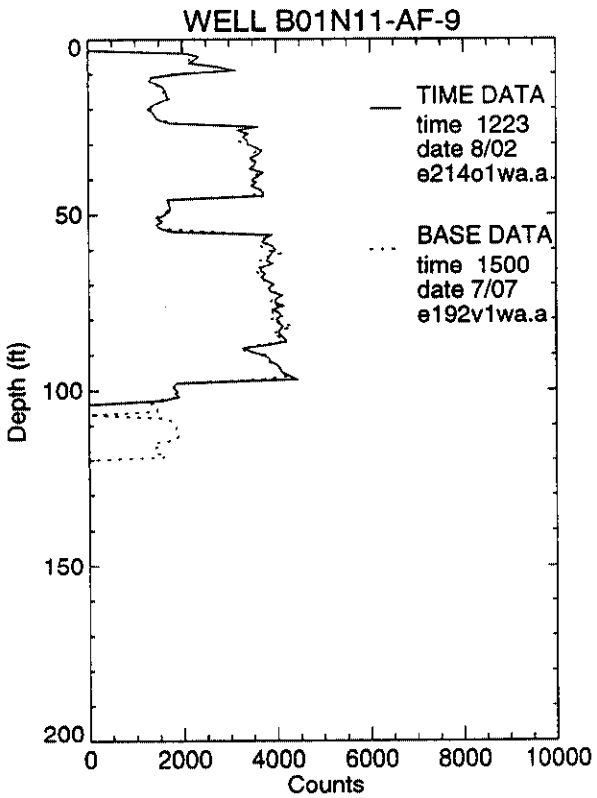
8000
10000


WELL B01N11-AF-9
TIME DATA
time 1223
date 8/02
e214o1wa.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
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150
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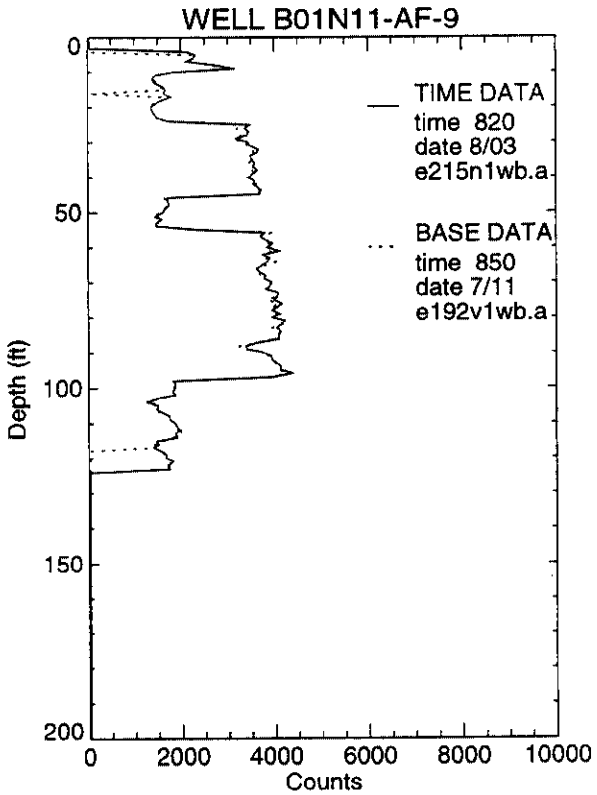
8000
10000


WELL B01N11-AF-9
TIME DATA
time 820
date 8/03
e215n1wb.a
BASE DATA
time 850
date 7/11
e192v1wb.a
Depth (ft)
Counts
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100
150
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8000
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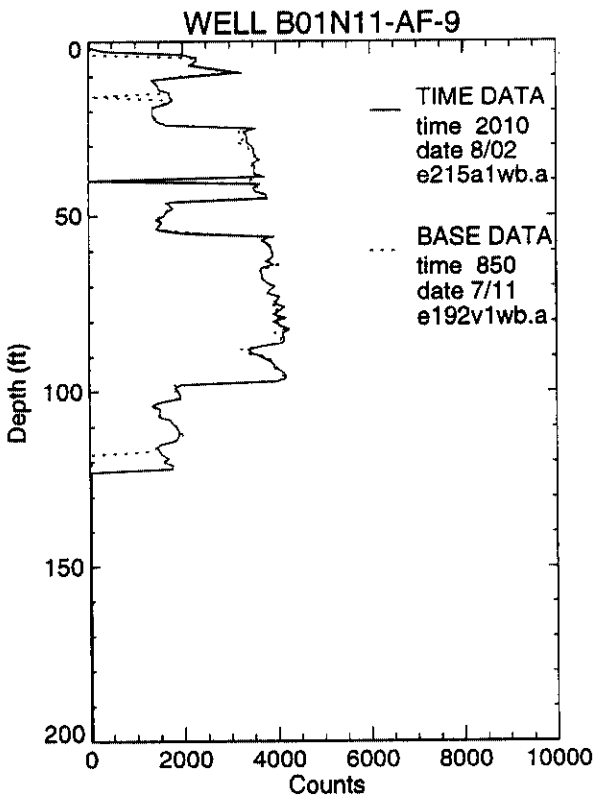
WELL B01N11-AF-9
TIME DATA
time 2010
date 8/02
e215a1wb.a
BASE DATA
time 850
date 7/11
e192v1wb.a
Depth (ft)
Counts
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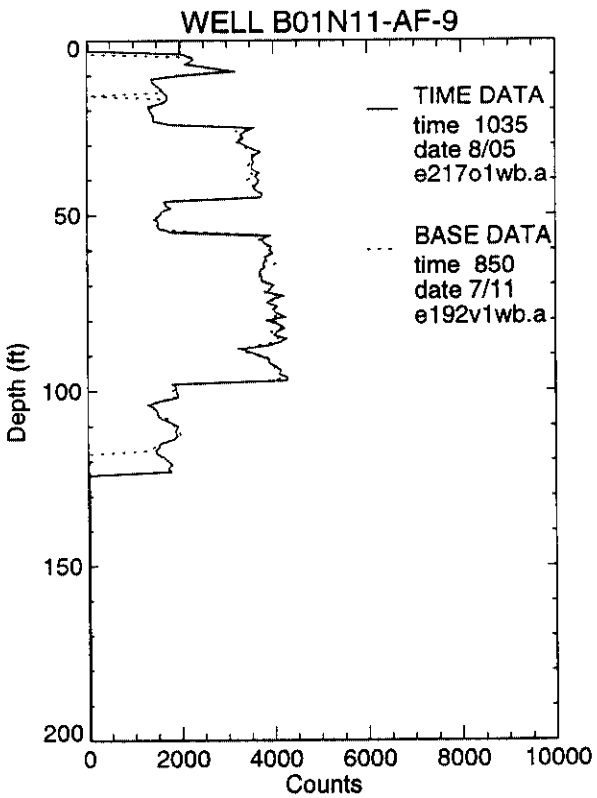
WELL B01N11-AF-9
TIME DATA
time 1035
date 8/05
e217o1wb.a
BASE DATA
time 850
date 7/11
e192v1wb.a
Depth (ft)
Counts
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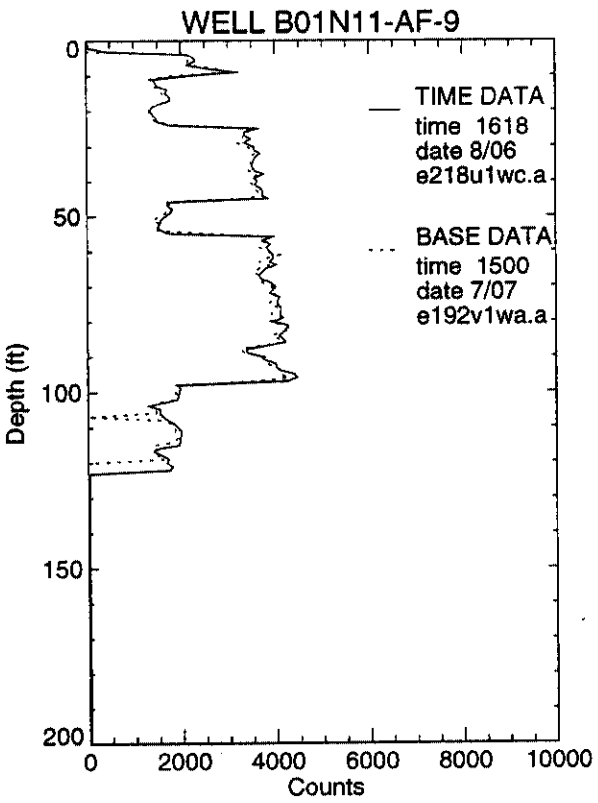
8000
10000


WELL B01N11-AF-9
TIME DATA
time 1618
date 8/06
e218u1wc.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
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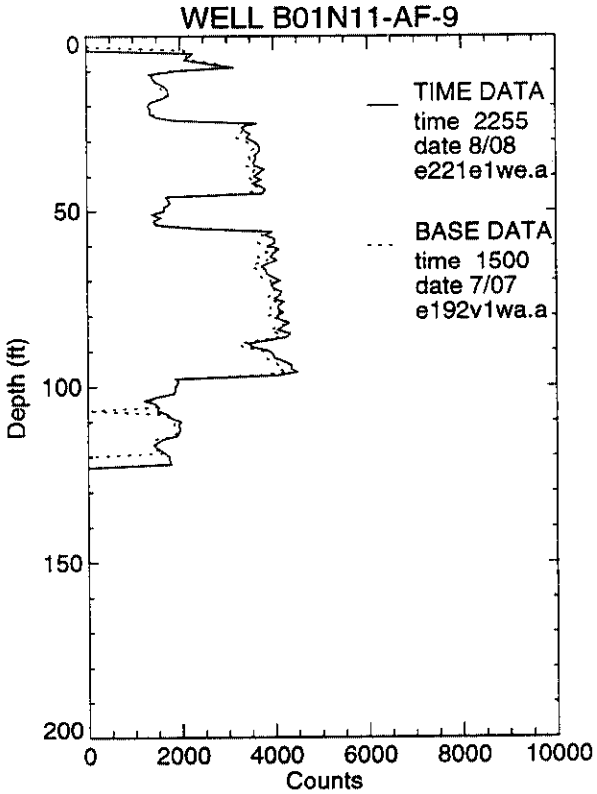
8000
10000


WELL B01N11-AF-9
TIME DATA
time 2255
date 8/08
e221e1we.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
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200
0
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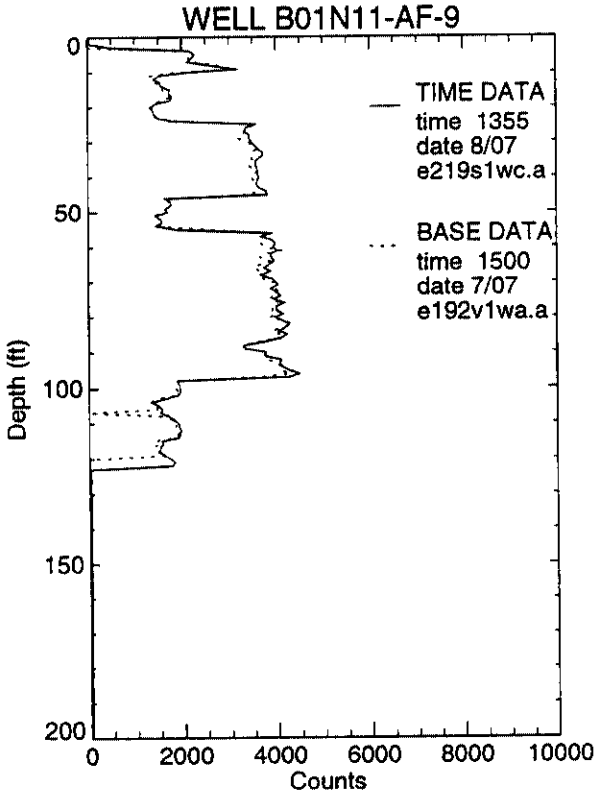
8000
10000


WELL B01N11-AF-9
TIME DATA
time 1355
date 8/07
e219s1wc.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
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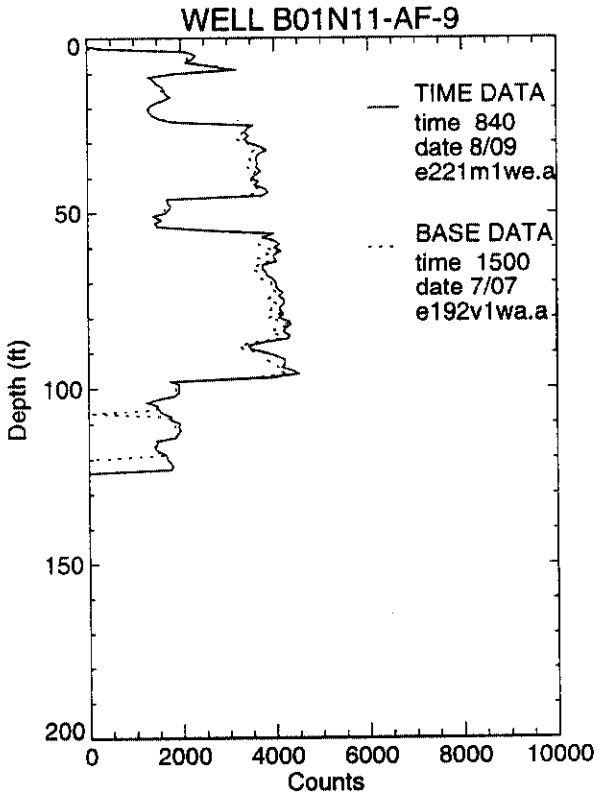
150
200
0
2000
4000
6000
8000
10000


WELL B01N11-AF-9
TIME DATA
time 840
date 8/09
e221m1we.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
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0
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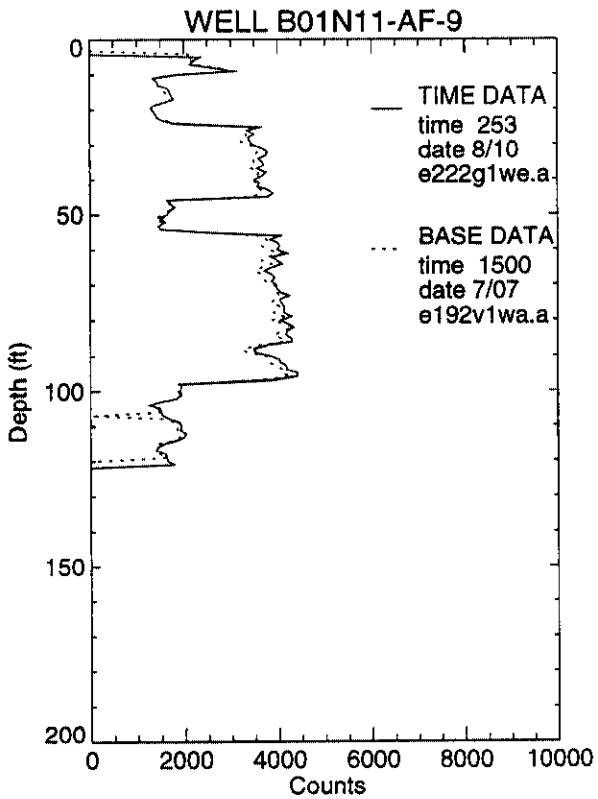
8000
10000


WELL B01N11-AF-9
TIME DATA
time 253
date 8/10
e222g1we.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
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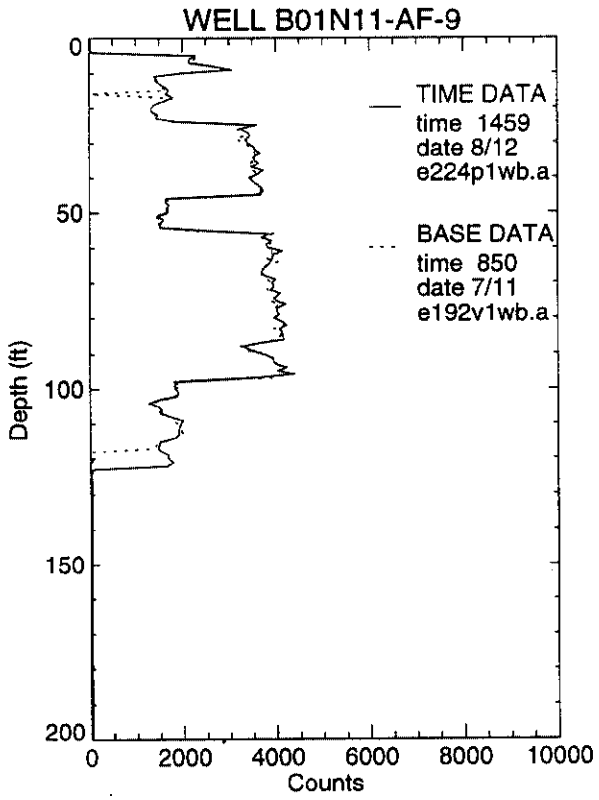
10000


WELL B01N11-AF-9
TIME DATA
time 1459
date 8/12
e224p1wb.a
BASE DATA
time 850
date 7/11
e192v1wb.a
Depth (ft)
Counts
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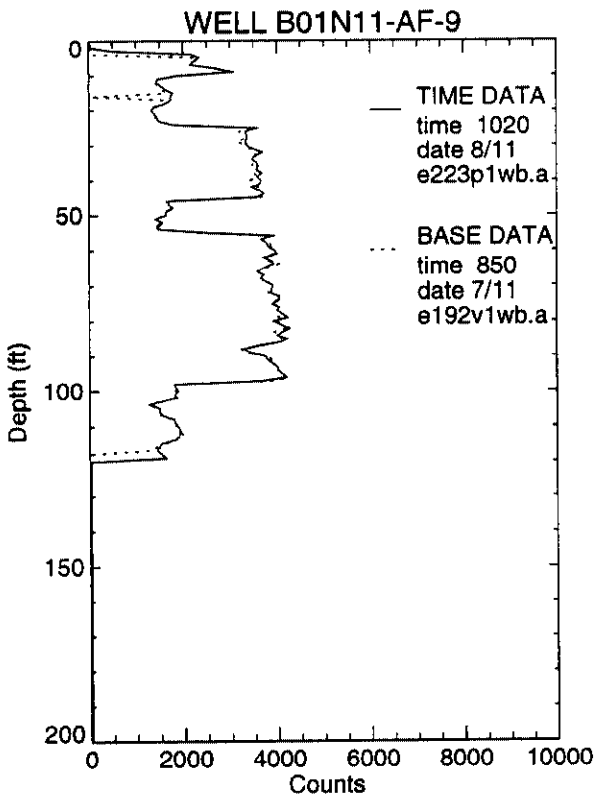
10000


WELL B01N11-AF-9
TIME DATA
time 1020
date 8/11
e223p1wb.a
BASE DATA
time 850
date 7/11
e192v1wb.a
Depth (ft)
Counts
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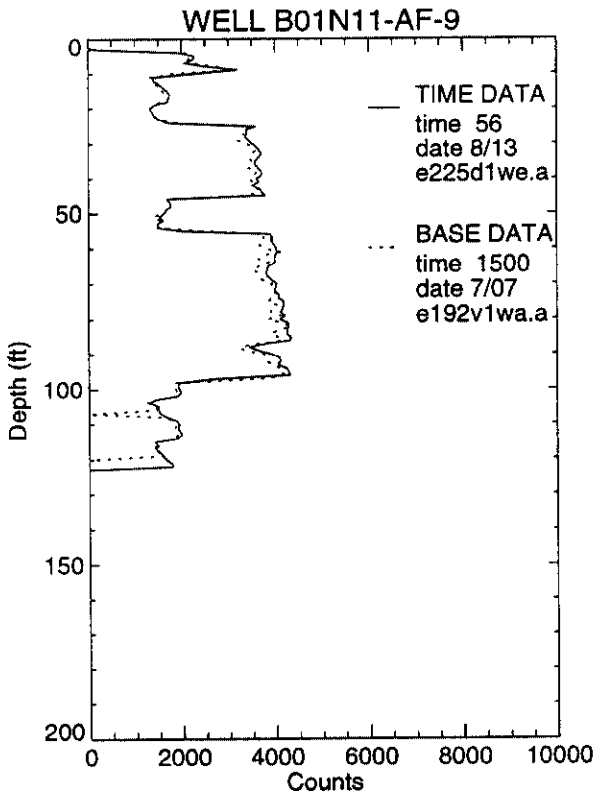
10000


WELL B01N11-AF-9
TIME DATA
time 56
date 8/13
e225d1we.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
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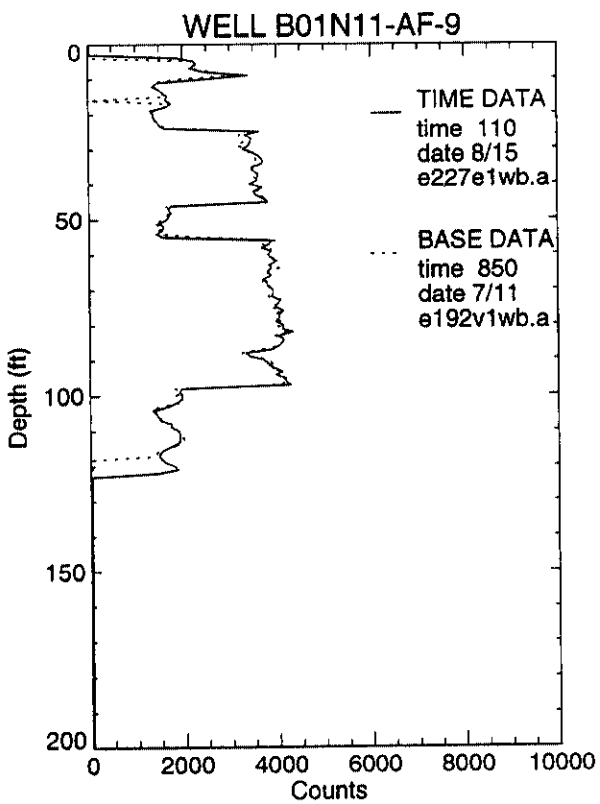
WELL B01N11-AF-9
TIME DATA
time 110
date 8/15
e227e1wb.a
BASE DATA
time 850
date 7/11
e192v1wb.a
Depth (ft)
Counts
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0
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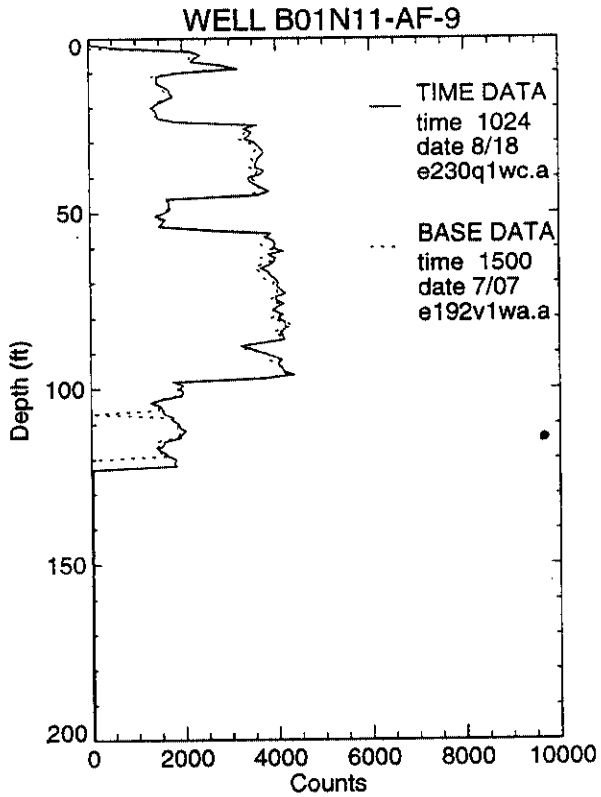
8000
10000


WELL B01N11-AF-9
TIME DATA
time 1024
date 8/18
e230q1wc.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
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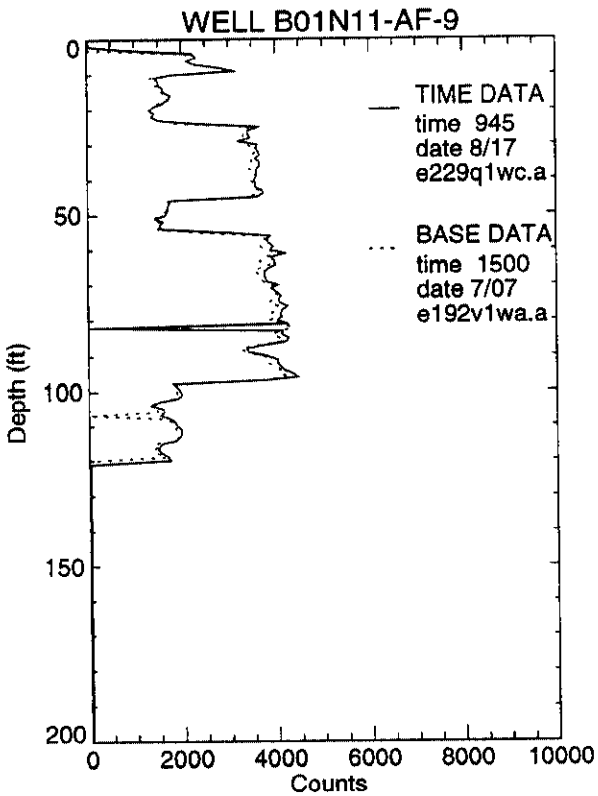
8000
10000


WELL B01N11-AF-9
TIME DATA
time 945
date 8/17
e229q1wc.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
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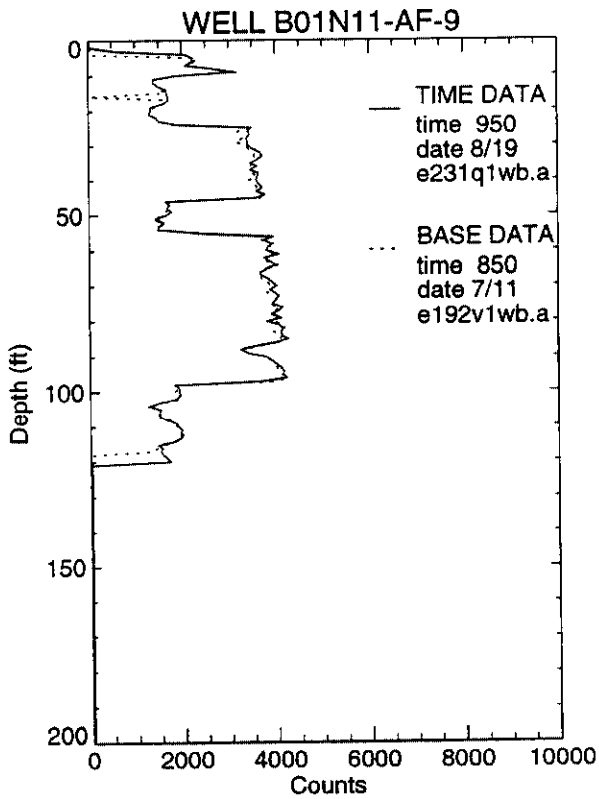
6000
8000
10000


WELL B01N11-AF-9
TIME DATA
time 950
date 8/19
e231q1wb.a
BASE DATA
time 850
date 7/11
e192v1wb.a
Depth (ft)
Counts
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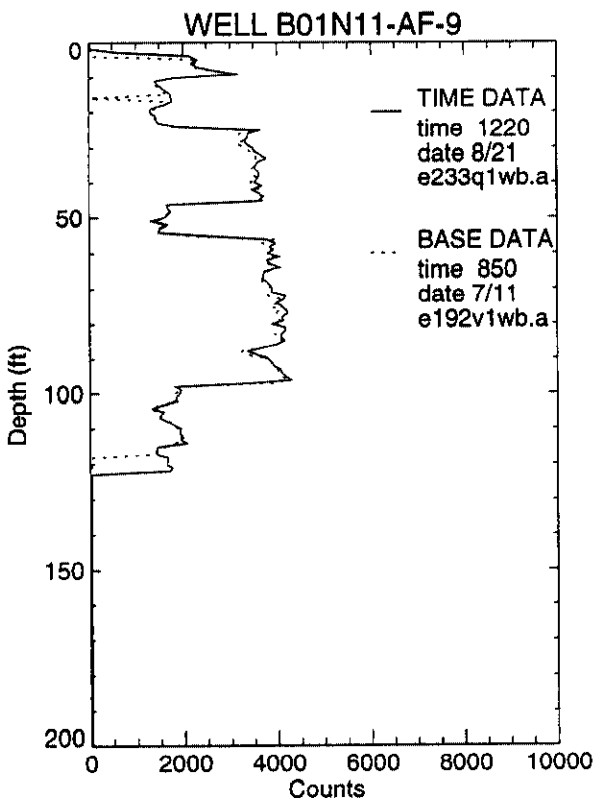
4000
6000
8000
10000


WELL B01N11-AF-9
TIME DATA
time 1220
date 8/21
e233q1wb.a
BASE DATA
time 850
date 7/11
e192v1wb.a
Depth (ft)
Counts
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150
200
0
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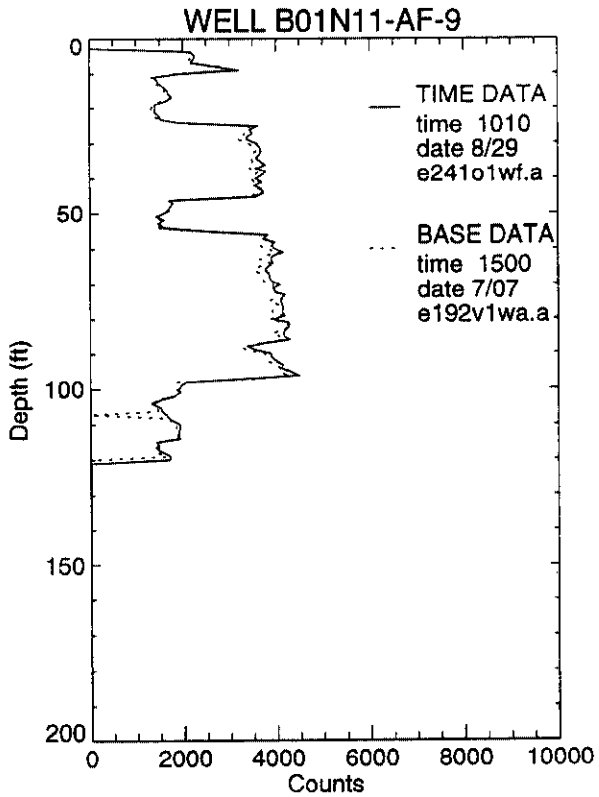
6000
8000
10000


WELL B01N11-AF-9
TIME DATA
time 1010
date 8/29
e241o1wf.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
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0
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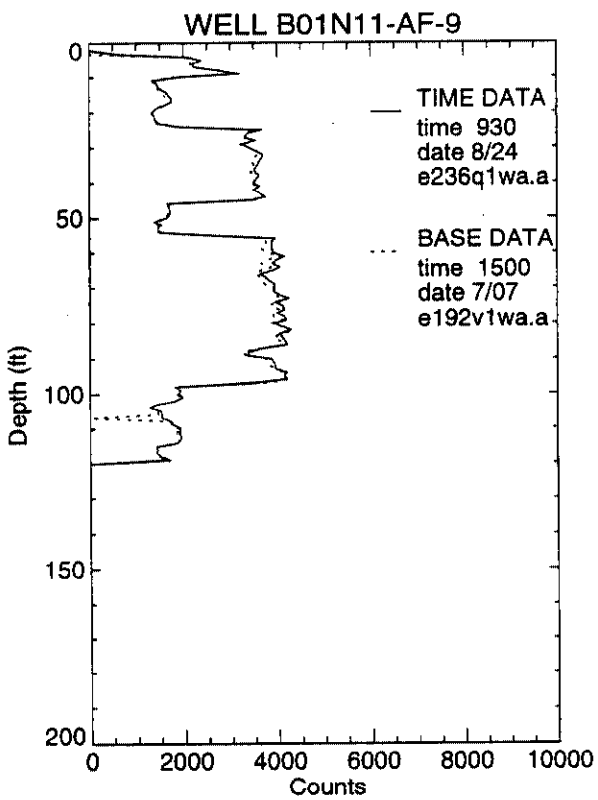
8000
10000


WELL B01N11-AF-9
TIME DATA
time 930
date 8/24
e236q1wa.a
BASE DATA
time 1500
date 7/07
e192v1wa.a
Depth (ft)
Counts
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150
200
0
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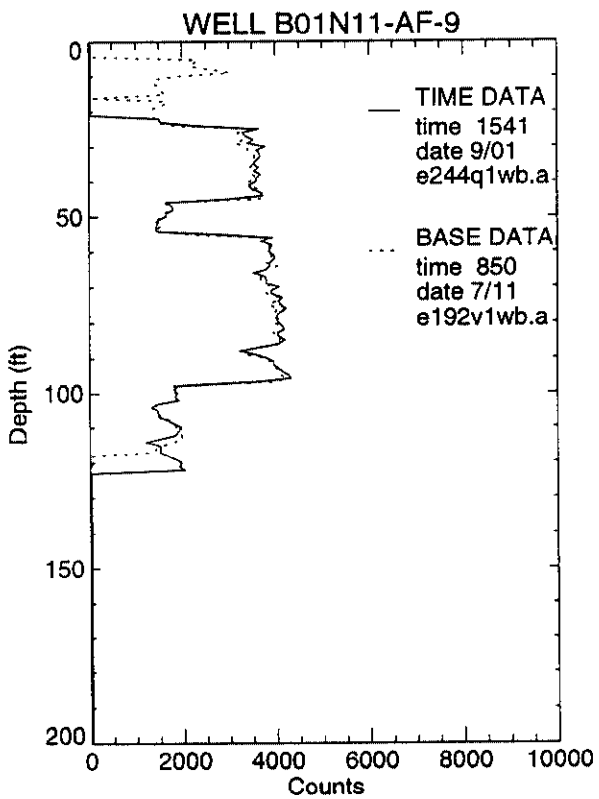
4000
6000
8000
10000


WELL B01N11-AF-9
TIME DATA
time 1541
date 9/01
e244q1wb.a
BASE DATA
time 850
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
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100
150
200
0
2000
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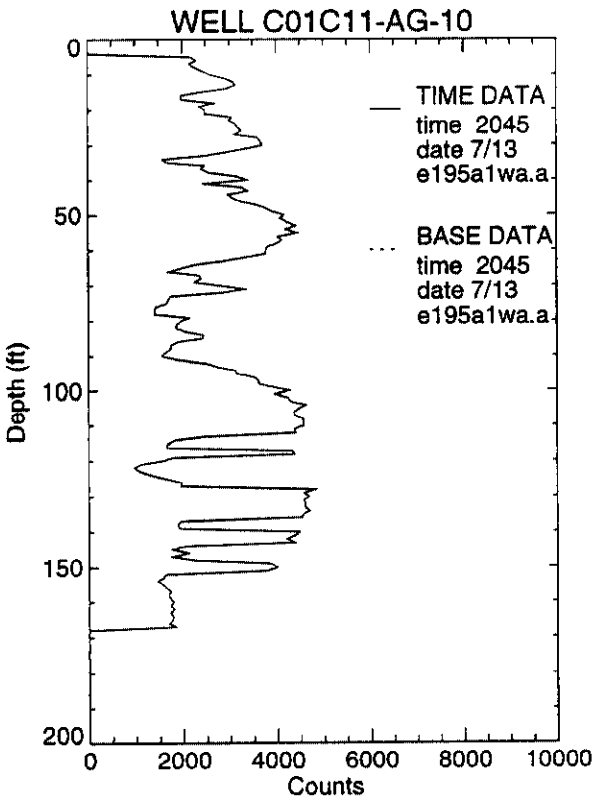
6000
8000
10000


WELL C01C11-AG-10
TIME DATA
time 2045
date 7/13
e195a1wa.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
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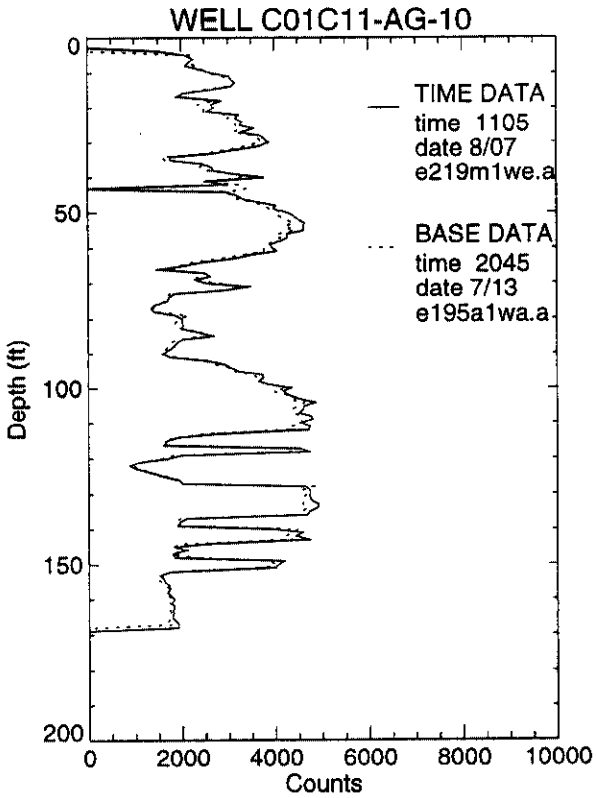
100
150
200
0
2000
4000
6000
8000
10000


WELL C01C11-AG-10
TIME DATA
time 1105
date 8/07
e219m1we.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
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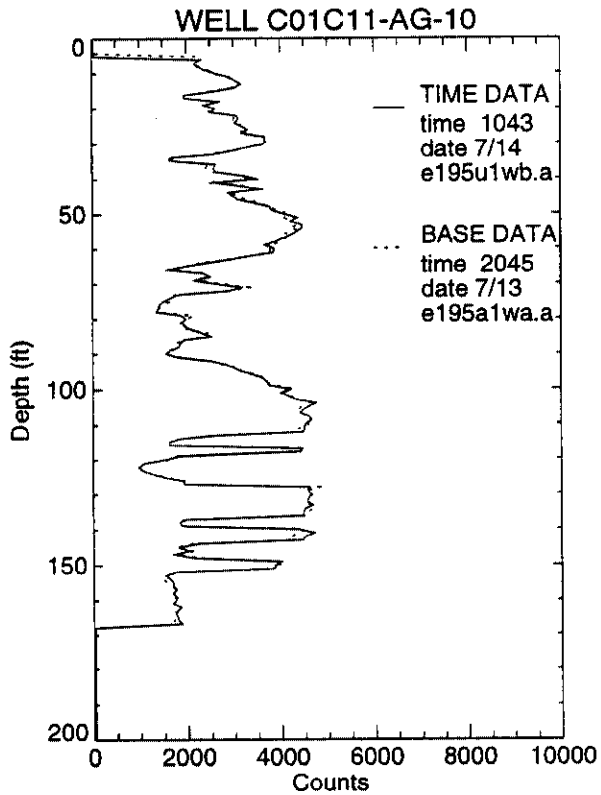
100
150
200
0
2000
4000
6000
8000
10000


WELL C01C11-AG-10
TIME DATA
time 1043
date 7/14
e195u1wb.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
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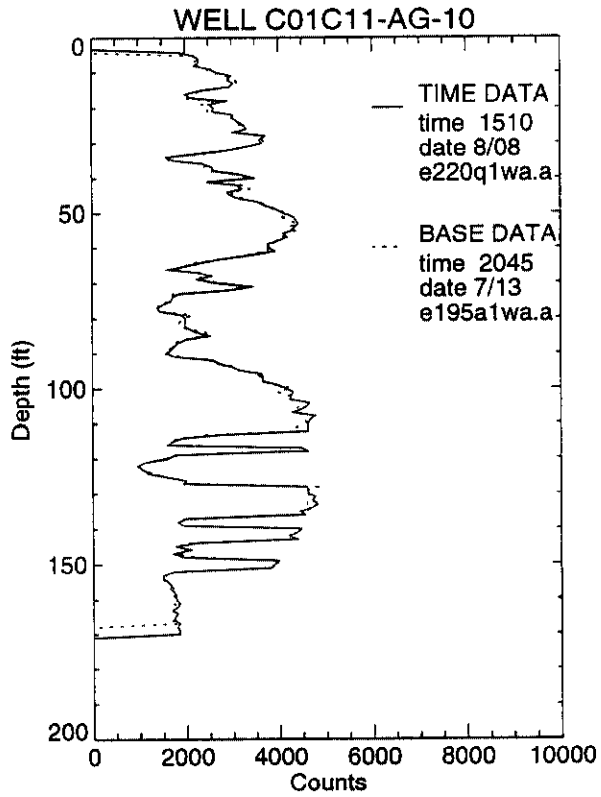
100
150
200
0
2000
4000
6000
8000
10000


WELL C01C11-AG-10
TIME DATA
time 1510
date 8/08
e220q1wa.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
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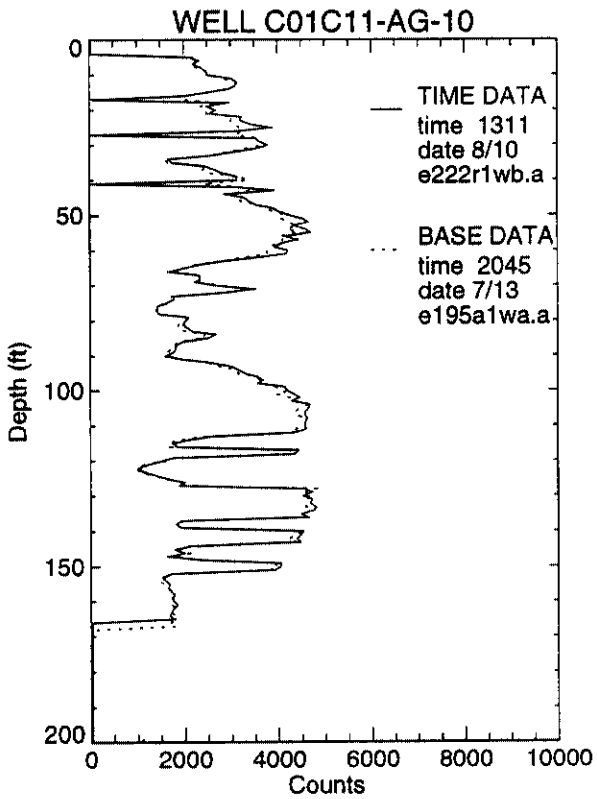
200
0
2000
4000
6000
8000
10000


WELL C01C11-AG-10
TIME DATA
time 1311
date 8/10
e222r1wb.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
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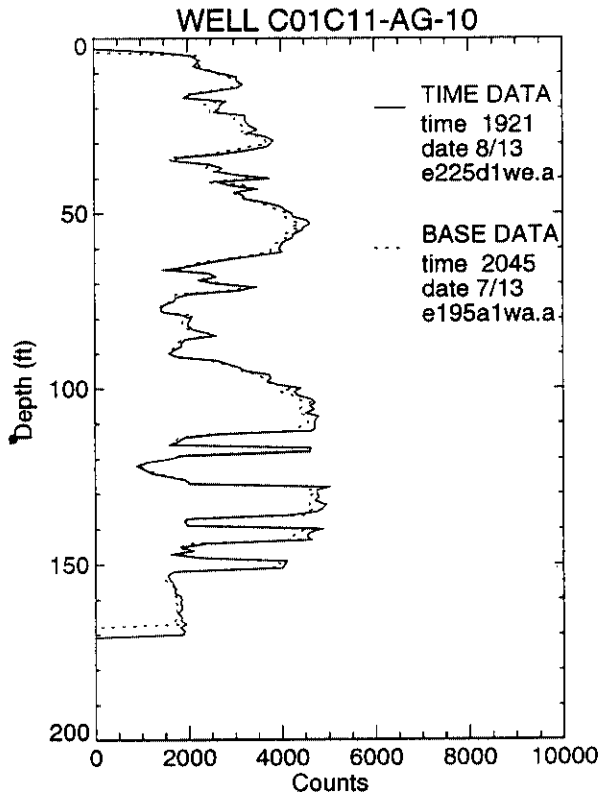
WELL C01C11-AG-10
TIME DATA
time 1921
date 8/13
e225d1we.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
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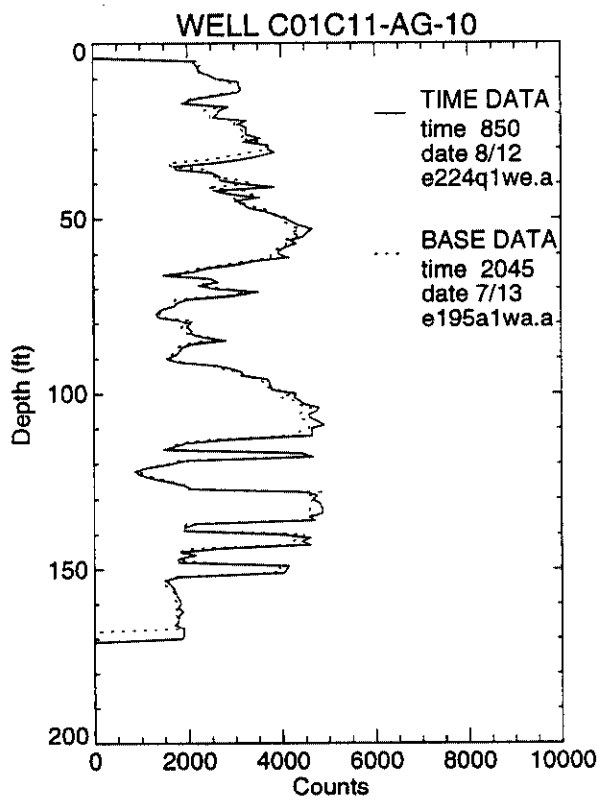
WELL C01C11-AG-10
TIME DATA
time 850
date 8/12
e224q1we.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
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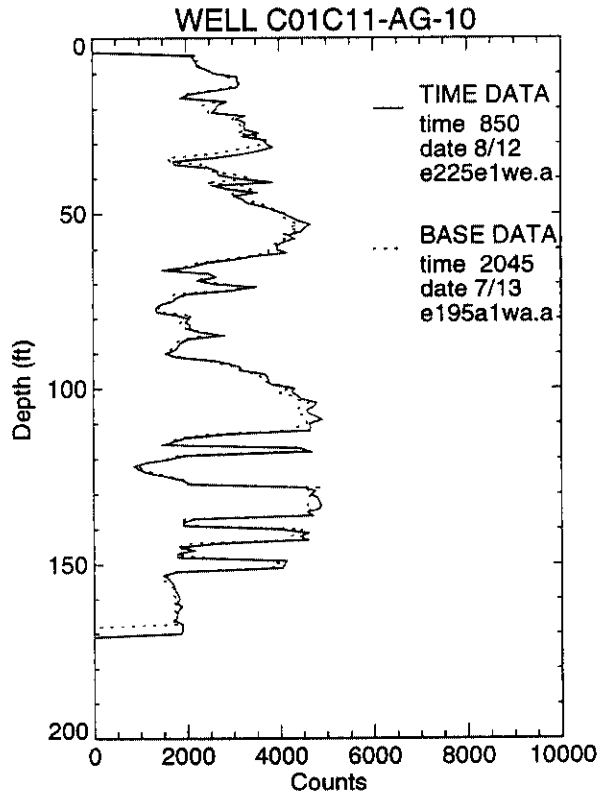
WELL C01C11-AG-10
TIME DATA
time 850
date 8/12
e225e1we.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
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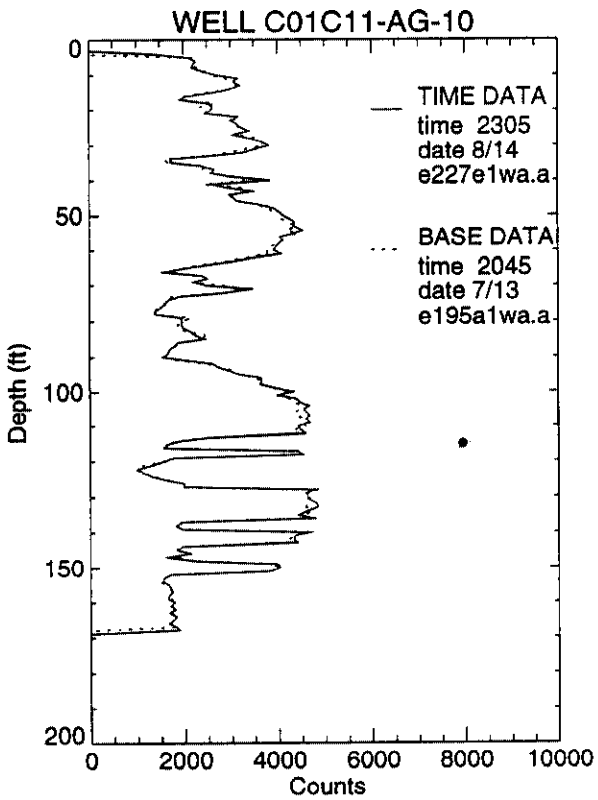
WELL C01C11-AG-10
TIME DATA
time 2305
date 8/14
e227e1wa.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
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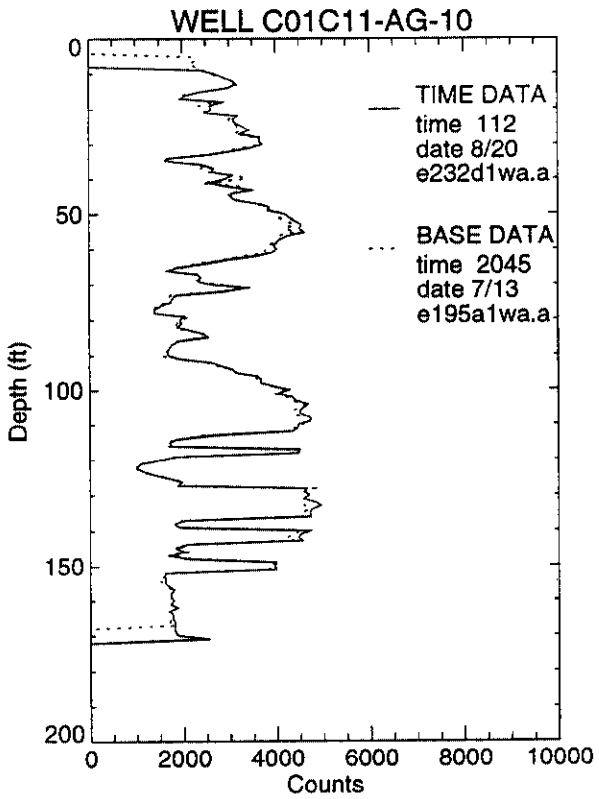
WELL C01C11-AG-10
TIME DATA
time 112
date 8/20
e232d1wa.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
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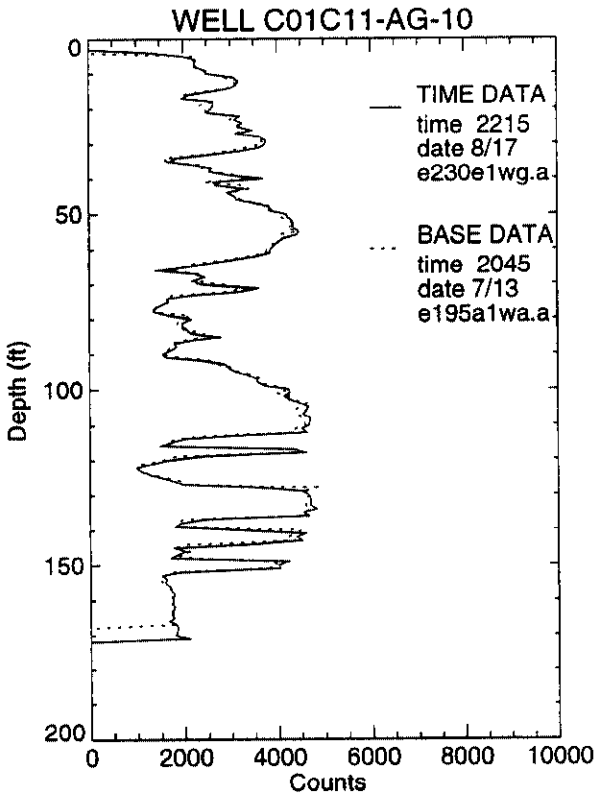
WELL C01C11-AG-10
TIME DATA
time 2215
date 8/17
e230e1wg.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
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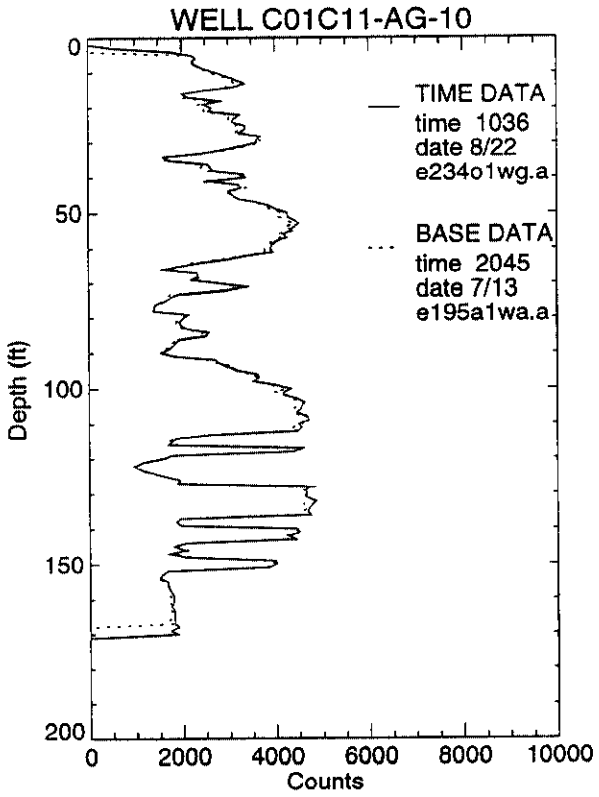
WELL C01C11-AG-10
TIME DATA
time 1036
date 8/22
e234o1wg.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
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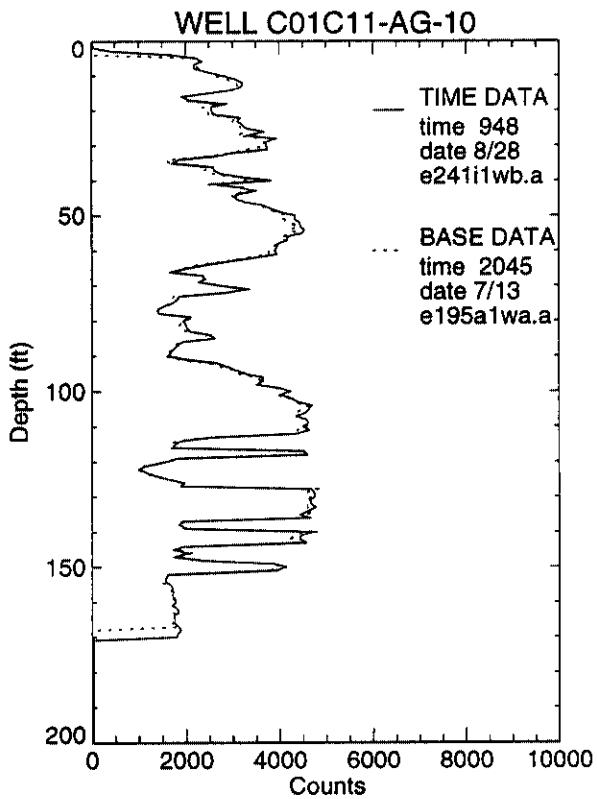
WELL C01C11-AG-10
TIME DATA
time 948
date 8/28
e241i1wb.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
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150
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0
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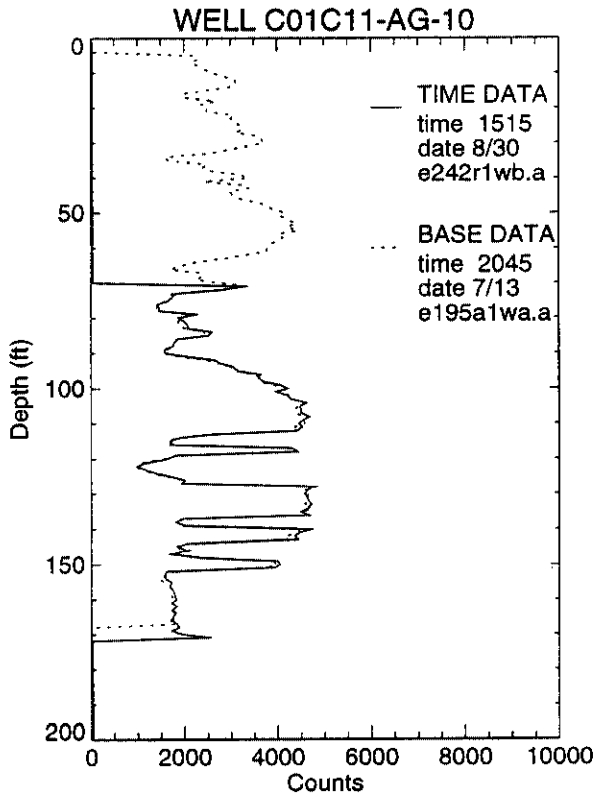
WELL C01C11-AG-10
TIME DATA
time 1515
date 8/30
e242r1wb.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
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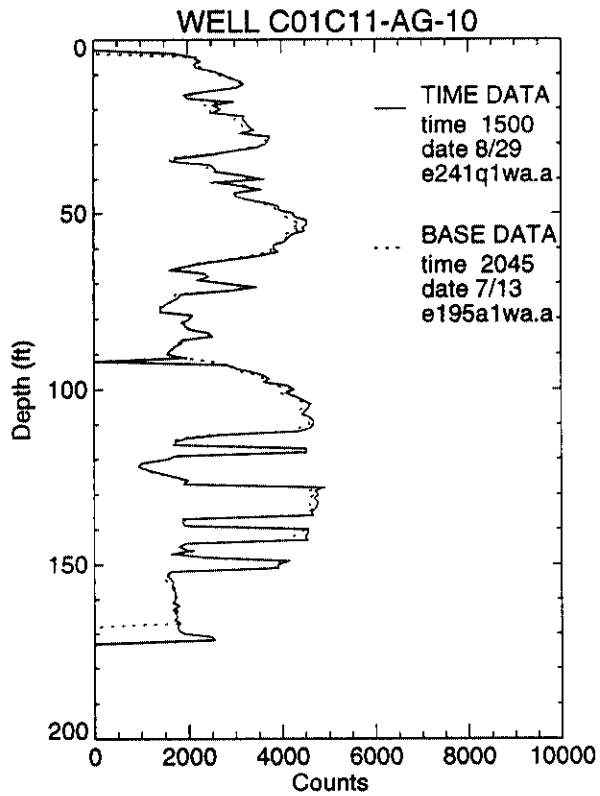
WELL C01C11-AG-10
TIME DATA
time 1500
date 8/29
e241q1wa.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
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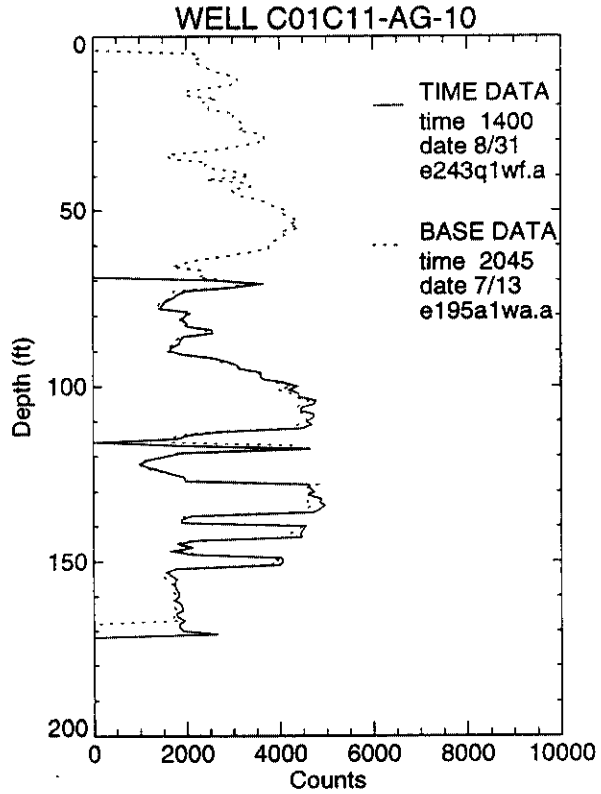
8000
10000


WELL C01C11-AG-10
TIME DATA
time 1400
date 8/31
e243q1wf.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
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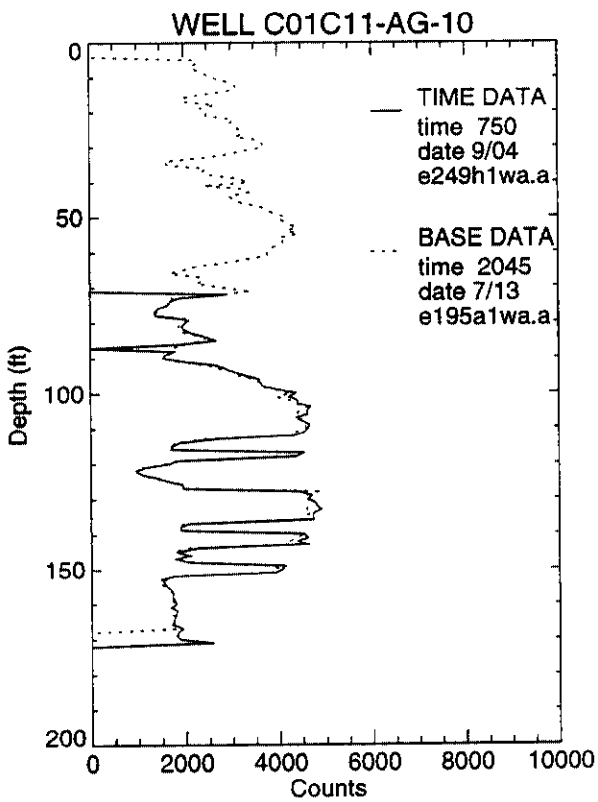
8000
10000


WELL C01C11-AG-10
TIME DATA
time 750
date 9/04
e249h1wa.a
BASE DATA
time 2045
date 7/13
e195a1wa.a
Depth (ft)
Counts
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0
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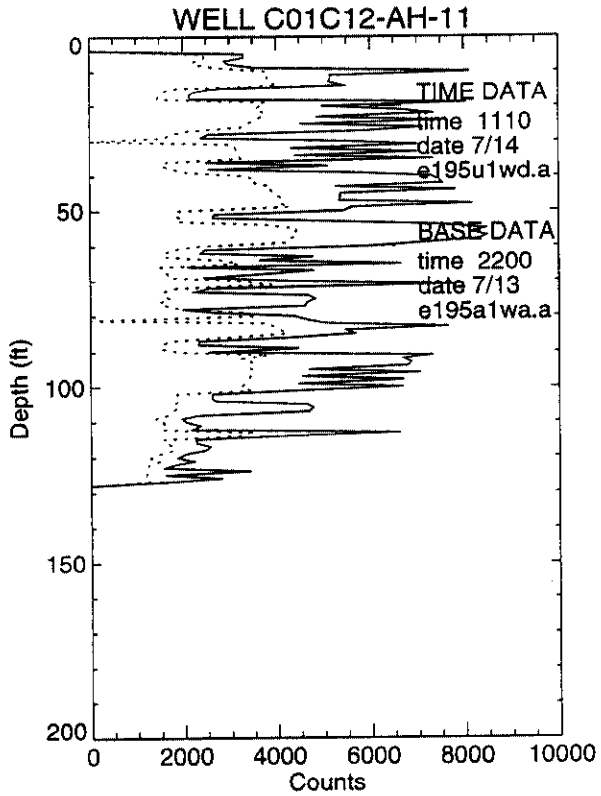
8000
10000


WELL C01C12-AH-11
TIME DATA
time 1110
date 7/14
e195u1wd.a
BASE DATA
time 2200
date 7/13
e195a1wa.a
Depth (ft)
Counts
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150
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0
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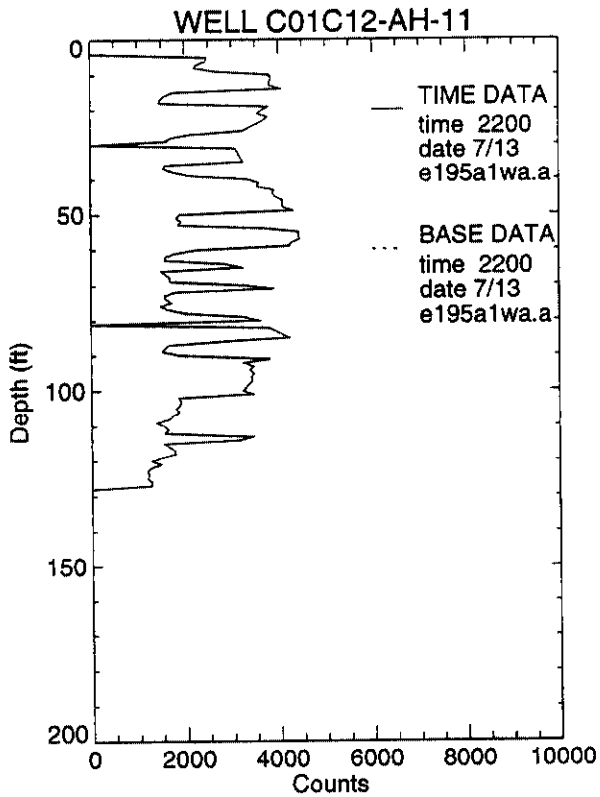
10000


WELL C01C12-AH-11
TIME DATA
time 2200
date 7/13
e195a1wa.a
BASE DATA
time 2200
date 7/13
e195a1wa.a
Depth (ft)
Counts
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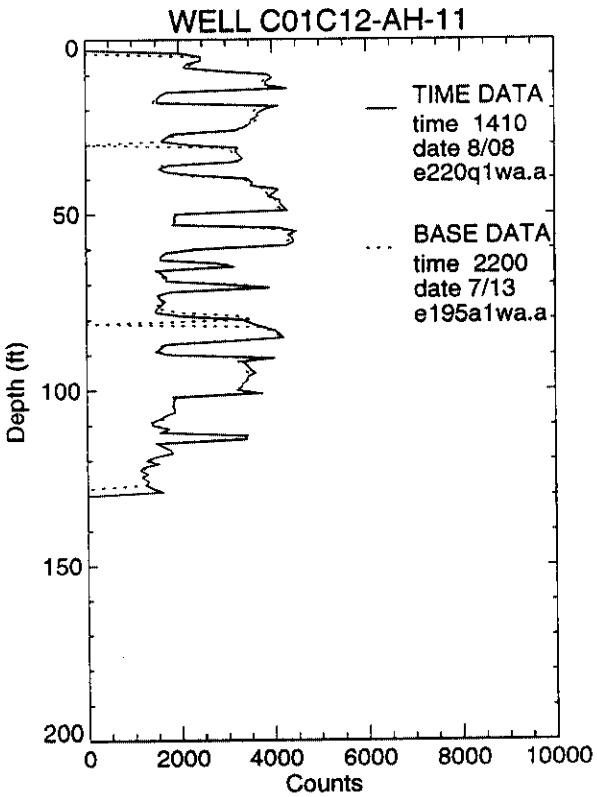
WELL C01C12-AH-11
TIME DATA
time 1410
date 8/08
e220q1wa.a
BASE DATA
time 2200
date 7/13
e195a1wa.a
Depth (ft)
Counts
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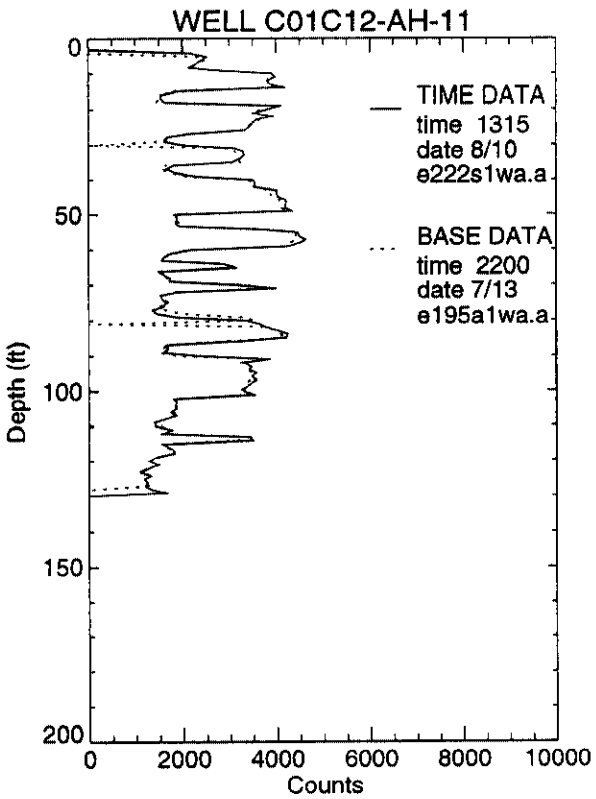
10000


WELL C01C12-AH-11
TIME DATA
time 1315
date 8/10
e222s1wa.a
BASE DATA
time 2200
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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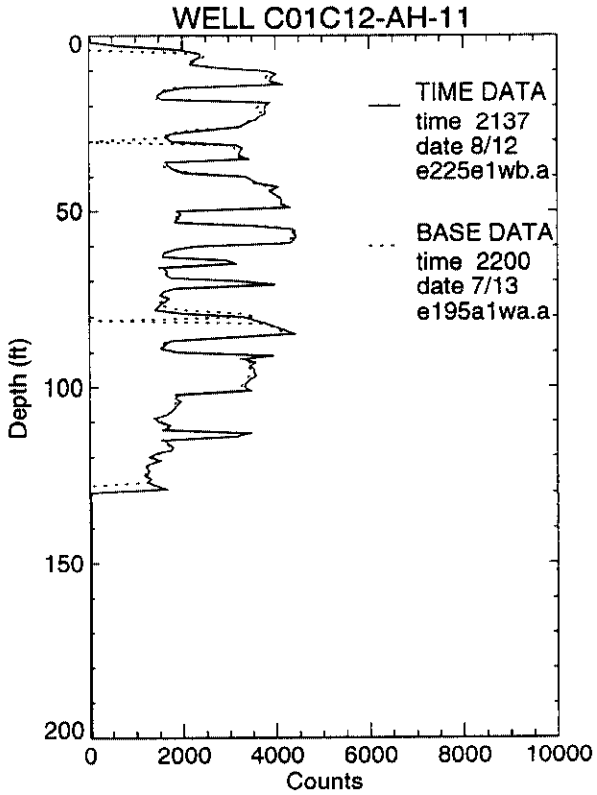
6000
8000
10000


WELL C01C12-AH-11
TIME DATA
time 2137
date 8/12
e225e1wb.a
BASE DATA
time 2200
date 7/13
e195a1wa.a
Depth (ft)
Counts
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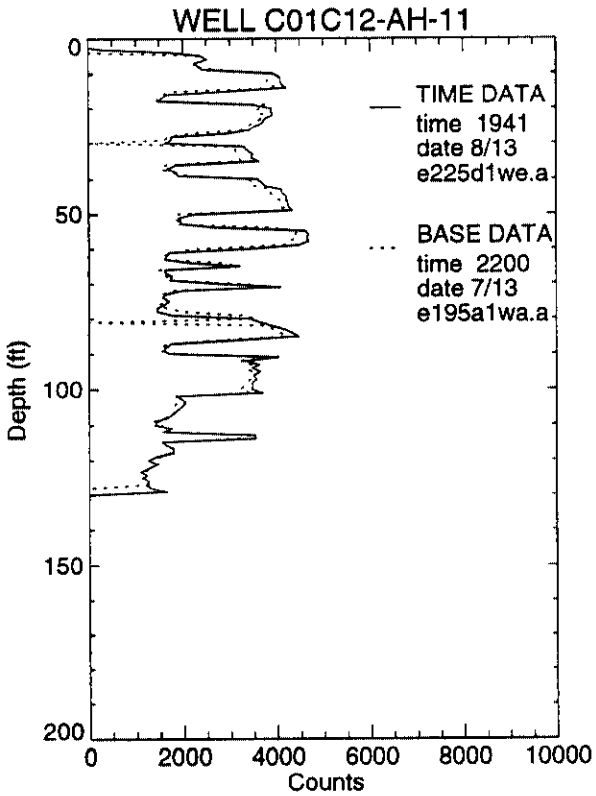
10000


WELL C01C12-AH-11
TIME DATA
time 1941
date 8/13
e225d1we.a
BASE DATA
time 2200
date 7/13
e195a1wa.a
Depth (ft)
Counts
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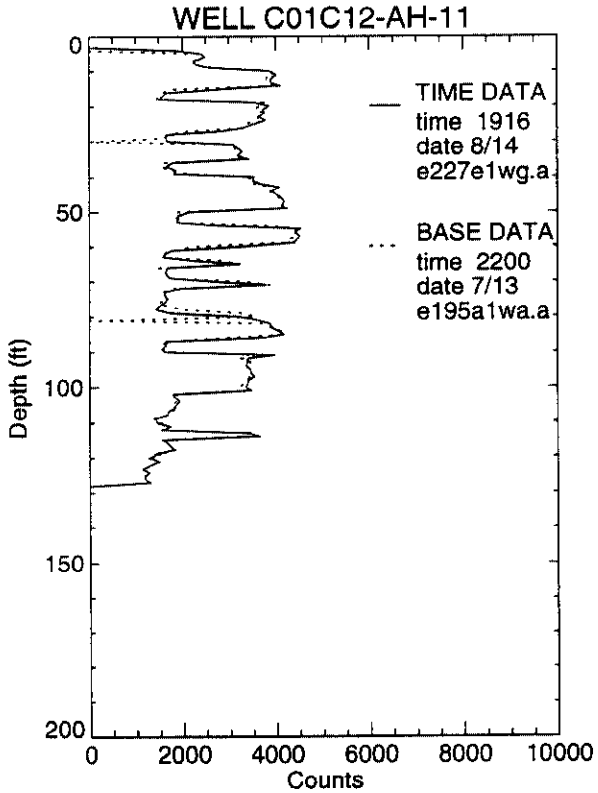
8000
10000


WELL C01C12-AH-11
TIME DATA
time 1916
date 8/14
e227e1wg.a
BASE DATA
time 2200
date 7/13
e195a1wa.a
Depth (ft)
Counts
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8000
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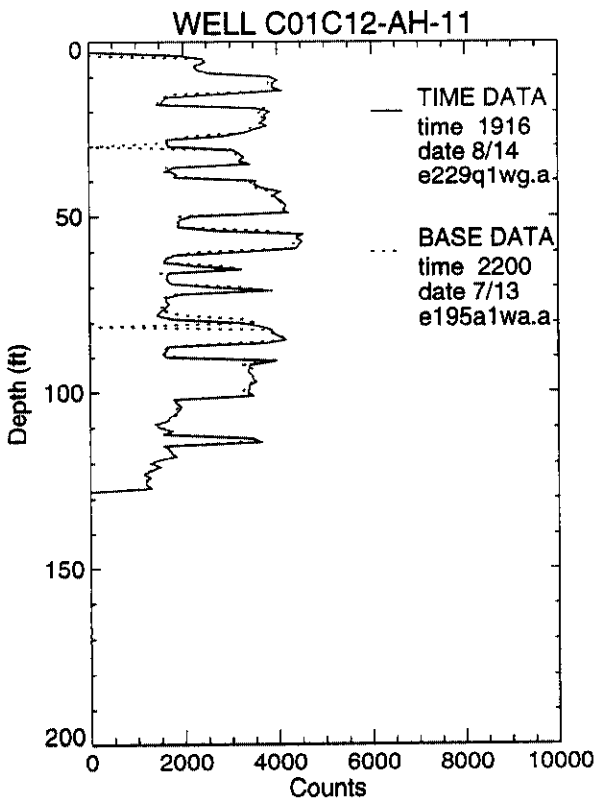
WELL C01C12-AH-11
TIME DATA
time 1916
date 8/14
e229q1wg.a
BASE DATA
time 2200
date 7/13
e195a1wa.a
Depth (ft)
Counts
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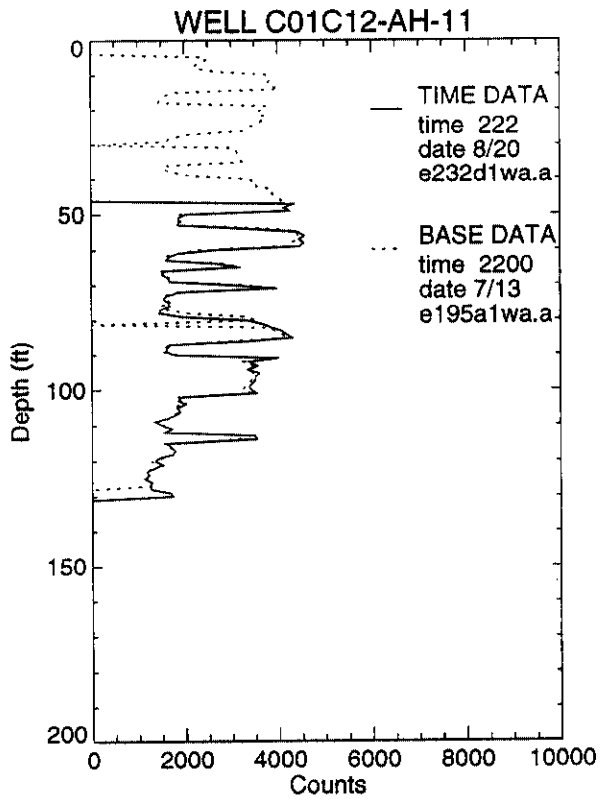
10000


WELL C01C12-AH-11
TIME DATA
time 222
date 8/20
e232d1wa.a
BASE DATA
time 2200
date 7/13
e195a1wa.a
Depth (ft)
Counts
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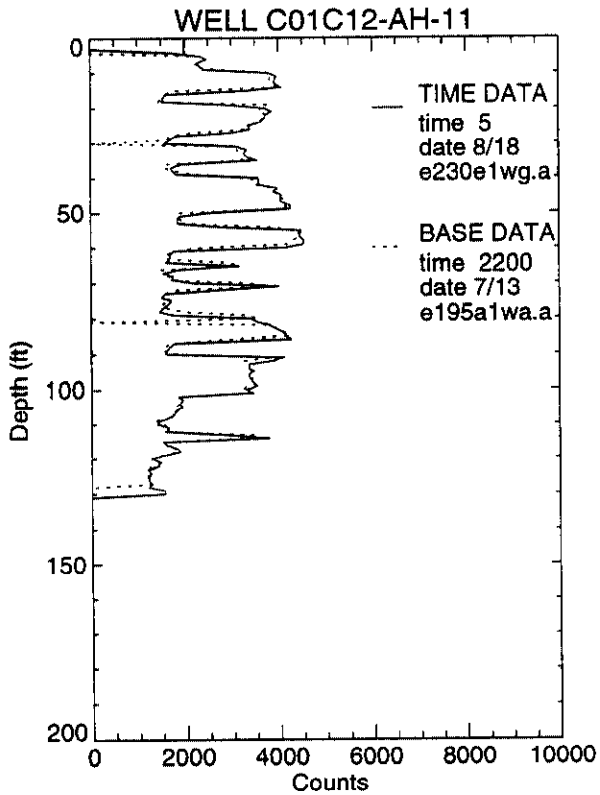
10000


WELL C01C12-AH-11
TIME DATA
time 5
date 8/18
e230e1wg.a
BASE DATA
time 2200
date 7/13
e195a1wa.a
Depth (ft)
Counts
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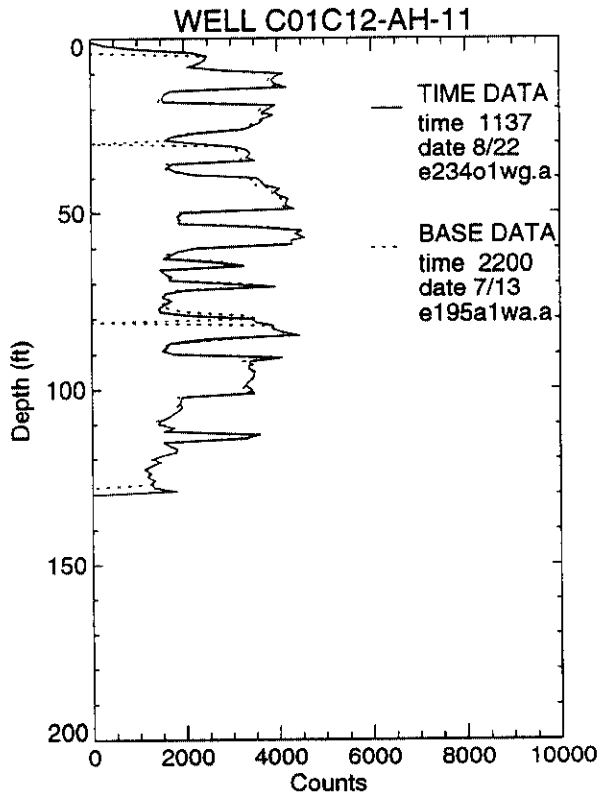
10000


WELL C01C12-AH-11
TIME DATA
time 1137
date 8/22
e234o1wg.a
BASE DATA
time 2200
date 7/13
e195a1wa.a
Depth (ft)
Counts
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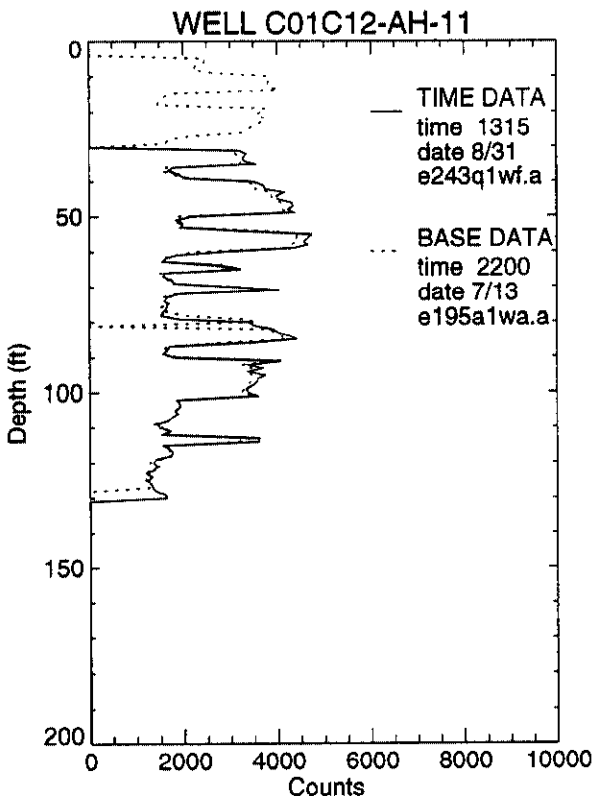
10000


WELL C01C12-AH-11
TIME DATA
time 1315
date 8/31
e243q1wf.a
BASE DATA
time 2200
date 7/13
e195a1wa.a
Depth (ft)
Counts
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0
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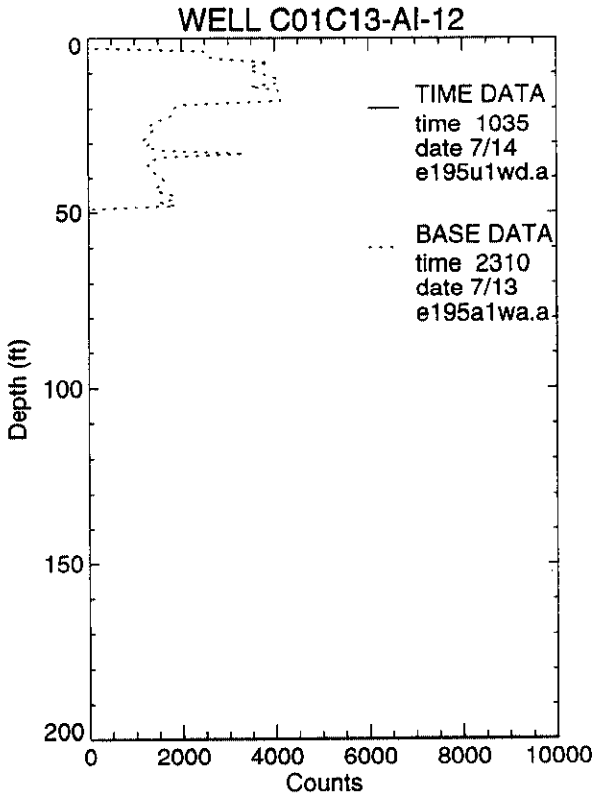
10000


WELL C01C13-AI-12
TIME DATA
time 1035
date 7/14
e195u1wd.a
BASE DATA
time 2310
date 7/13
e195a1wa.a
Depth (ft)
Counts
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0
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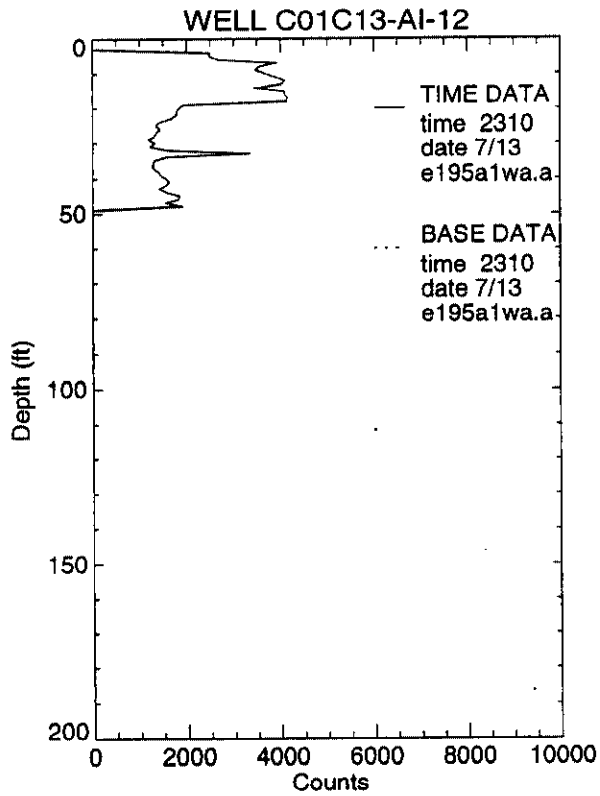
8000
10000


WELL C01C13-AI-12
TIME DATA
time 2310
date 7/13
e195a1wa.a
BASE DATA
time 2310
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
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150
200
0
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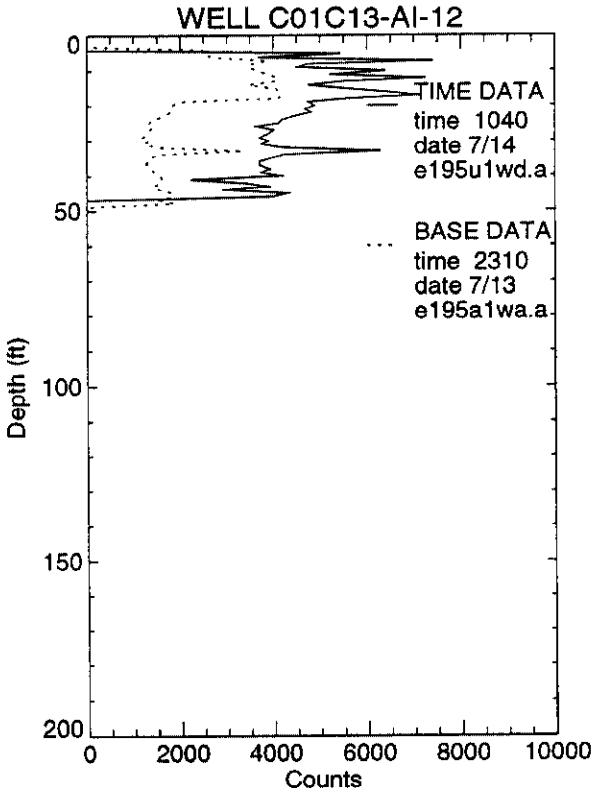
4000
6000
8000
10000


WELL C01C13-AI-12
TIME DATA
time 1040
date 7/14
e195u1wd.a
BASE DATA
time 2310
date 7/13
e195a1wa.a
Depth (ft)
Counts
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0
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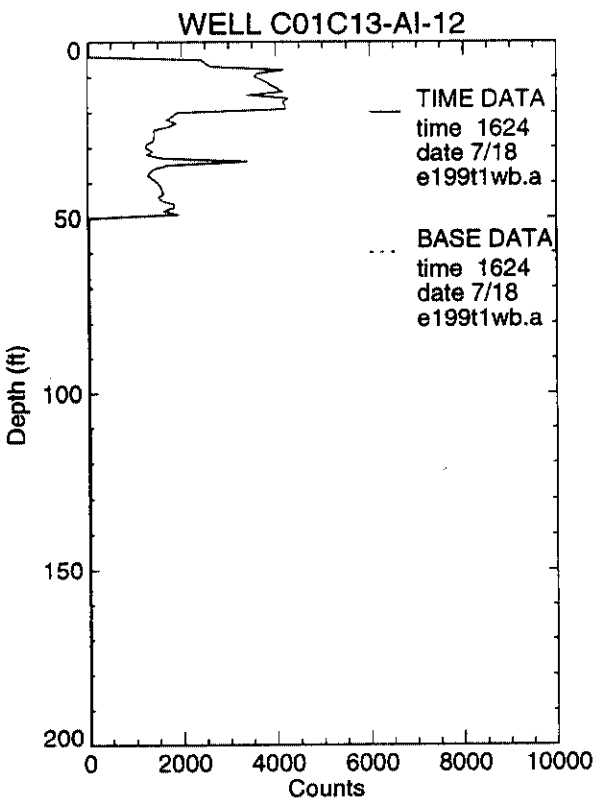
4000
6000
8000
10000


WELL C01C13-AI-12
TIME DATA
time 1624
date 7/18
e199t1wb.a
BASE DATA
time 1624
date 7/18
e199t1wb.a
Depth (ft)
Counts
0
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150
200
0
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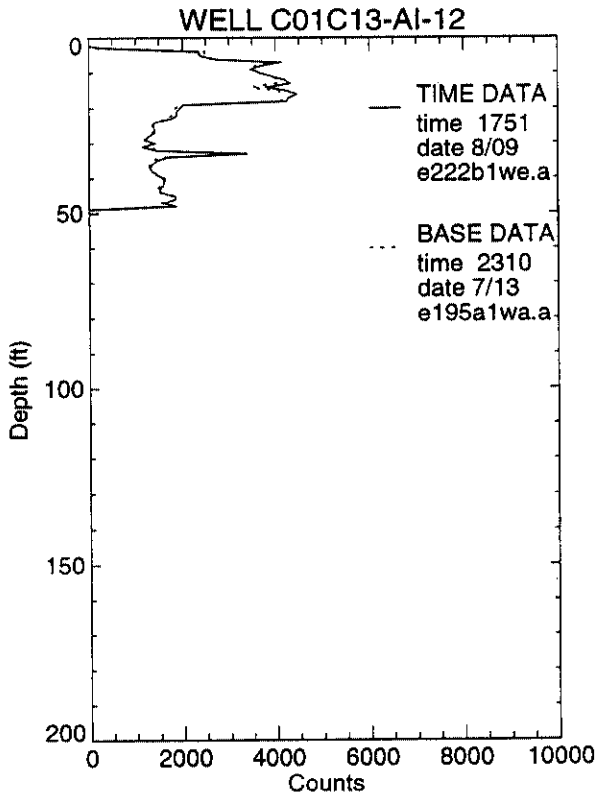
4000
6000
8000
10000


WELL C01C13-AI-12
TIME DATA
time 1751
date 8/09
e222b1we.a
BASE DATA
time 2310
date 7/13
e195a1wa.a
Depth (ft)
Counts
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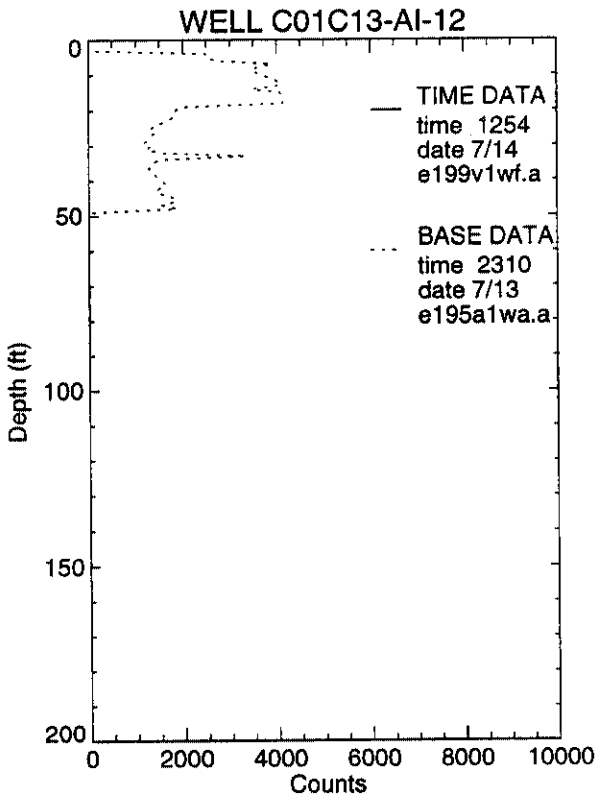
8000
10000


WELL C01C13-AI-12
TIME DATA
time 1254
date 7/14
e199v1wf.a
BASE DATA
time 2310
date 7/13
e195a1wa.a
Depth (ft)
Counts
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8000
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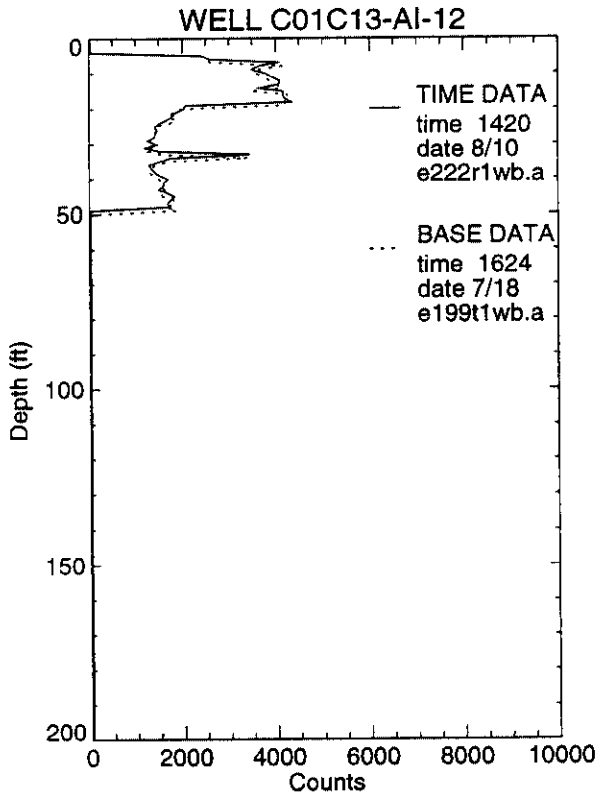
WELL C01C13-AI-12
TIME DATA
time 1420
date 8/10
e222r1wb.a
BASE DATA
time 1624
date 7/18
e199t1wb.a
Depth (ft)
Counts
0
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0
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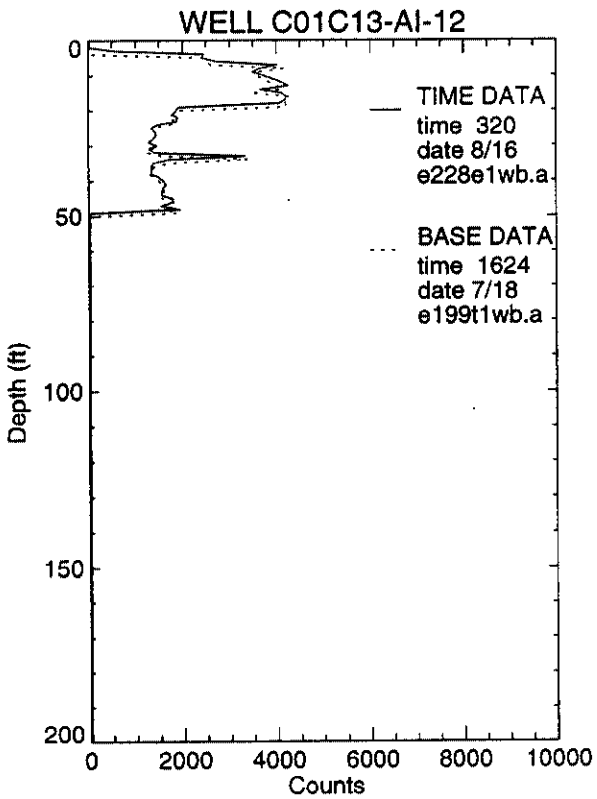
WELL C01C13-AI-12
TIME DATA
time 320
date 8/16
e228e1wb.a
BASE DATA
time 1624
date 7/18
e199t1wb.a
Depth (ft)
Counts
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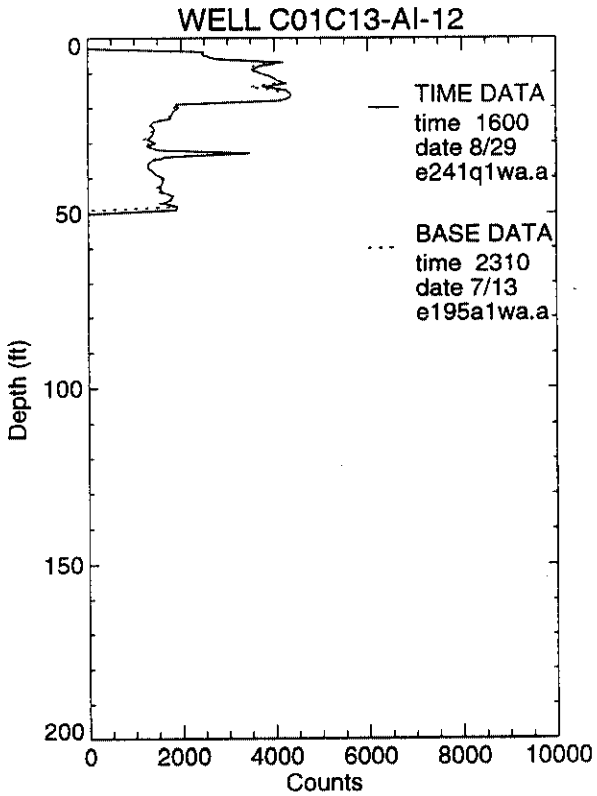
WELL C01C13-AI-12
TIME DATA
time 1600
date 8/29
e241q1wa.a
BASE DATA
time 2310
date 7/13
e195a1wa.a
Depth (ft)
Counts
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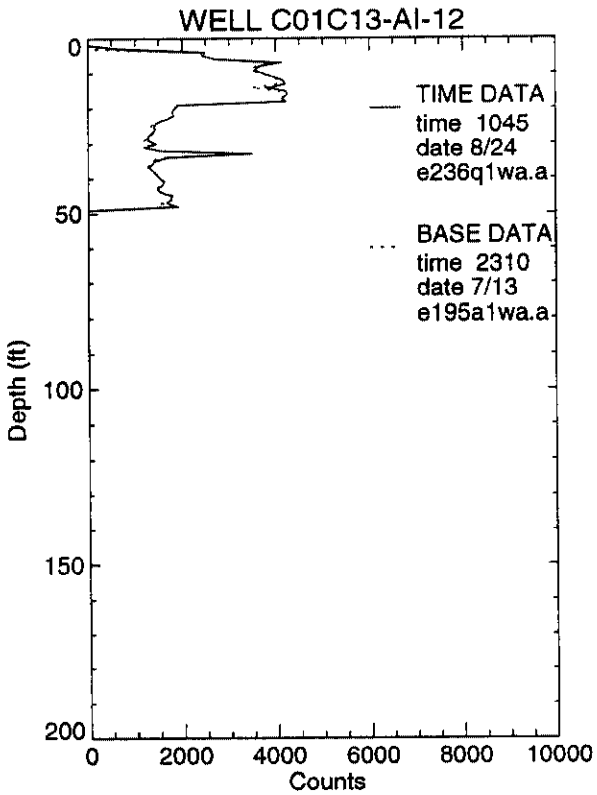
WELL C01C13-AI-12
TIME DATA
time 1045
date 8/24
e236q1wa.a
BASE DATA
time 2310
date 7/13
e195a1wa.a
Depth (ft)
Counts
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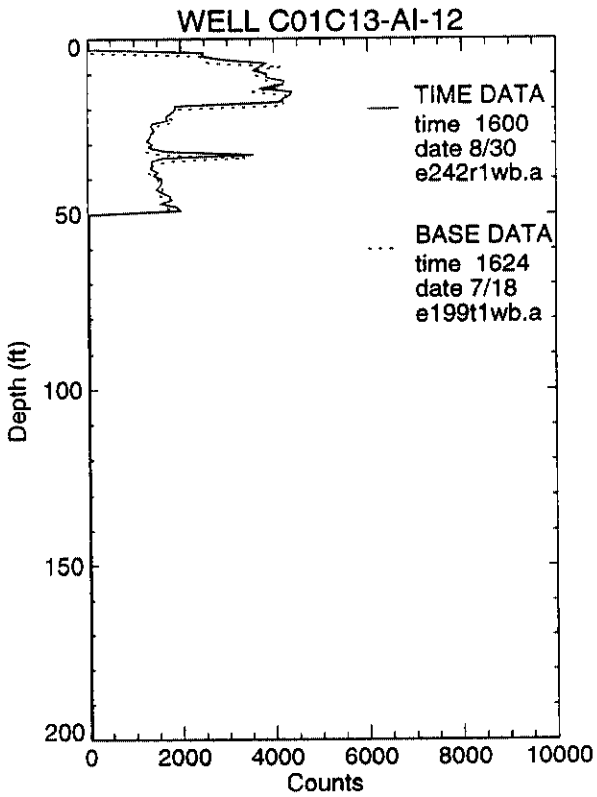
WELL C01C13-AI-12
TIME DATA
time 1600
date 8/30
e242r1wb.a
BASE DATA
time 1624
date 7/18
e199t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
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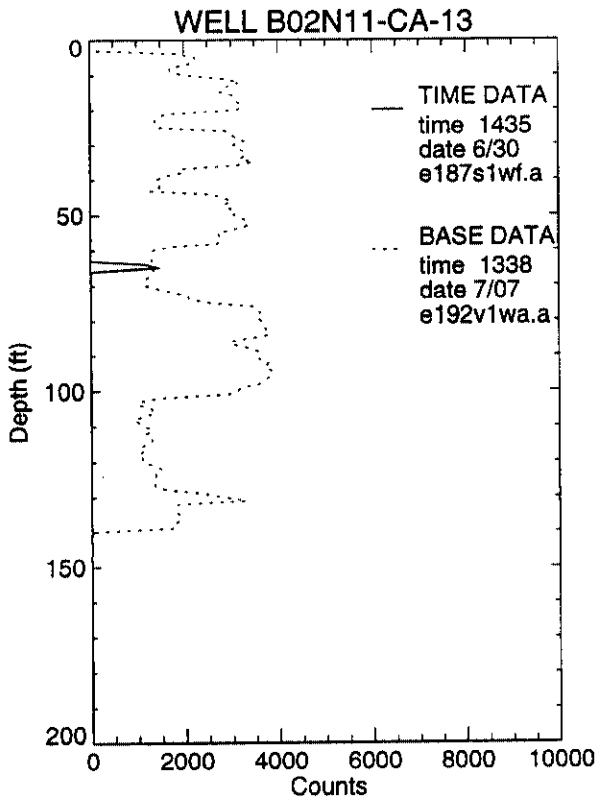
WELL B02N11-CA-13
TIME DATA
time 1435
date 6/30
e187s1wf.a
BASE DATA
time 1338
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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0
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6000
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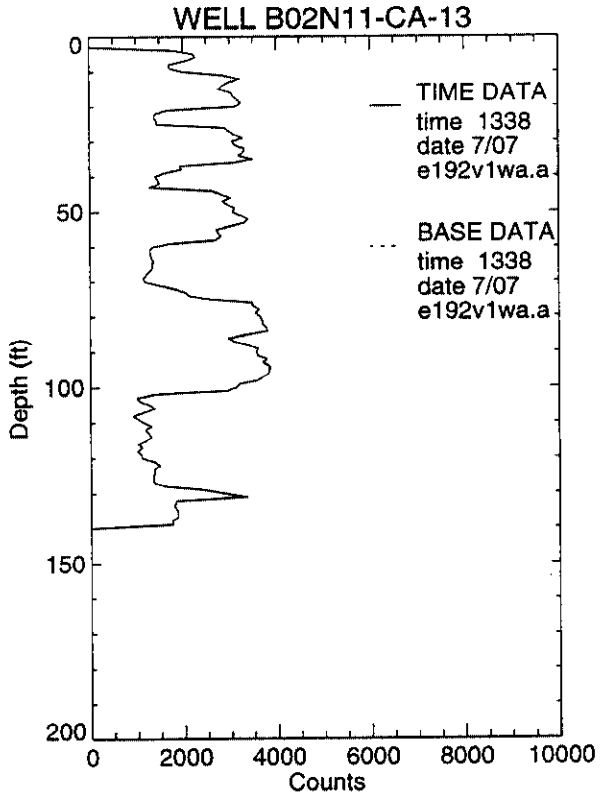
WELL B02N11-CA-13
TIME DATA
time 1338
date 7/07
e192v1wa.a
BASE DATA
time 1338
date 7/07
e192v1wa.a
Depth (ft)
Counts
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150
200
0
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4000
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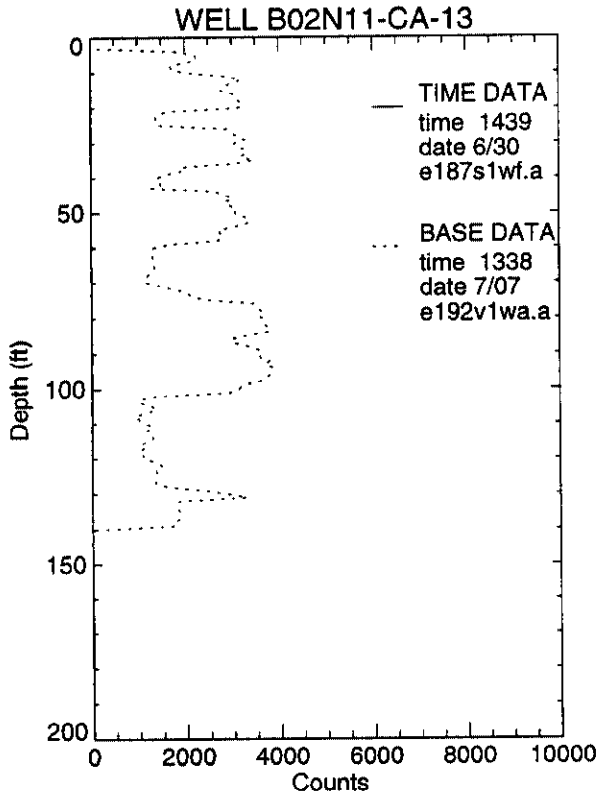
WELL B02N11-CA-13
TIME DATA
time 1439
date 6/30
e187s1wf.a
BASE DATA
time 1338
date 7/07
e192v1wa.a
Depth (ft)
Counts
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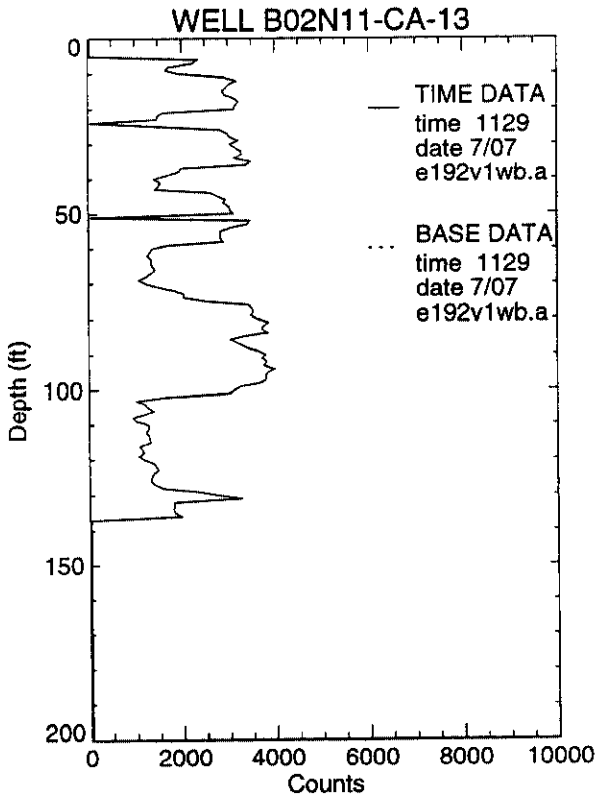
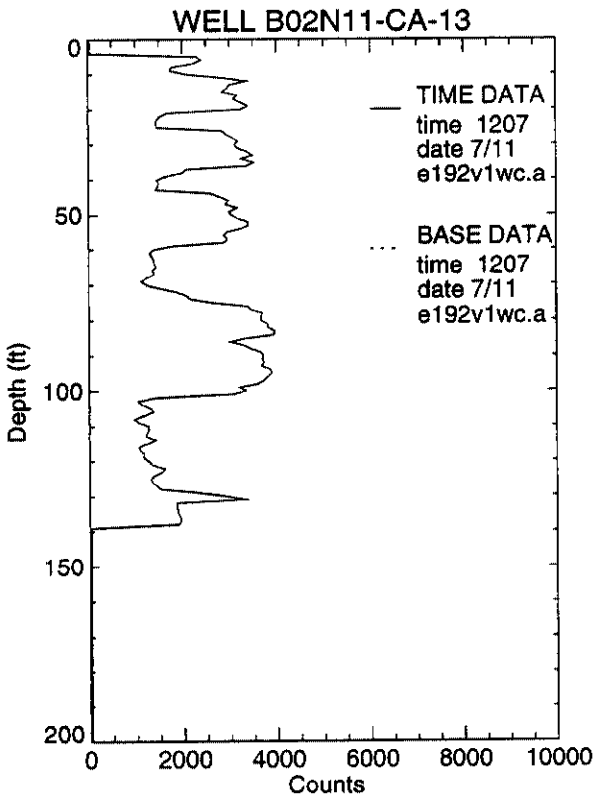

WELL B02N11-CA-13
TIME DATA
time 1129
date 7/07
e192v1wb.a
BASE DATA
time 1129
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1207
date 7/11
e192v1wc.a
BASE DATA
time 1207
date 7/11
e192v1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
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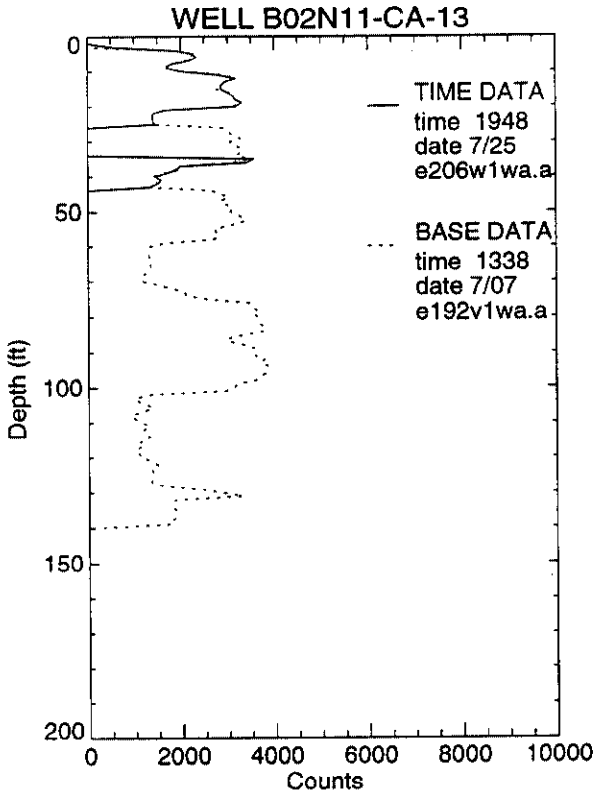
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1948
date 7/25
e206w1wa.a
BASE DATA
time 1338
date 7/07
e192v1wa.a
Depth (ft)
Counts
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200
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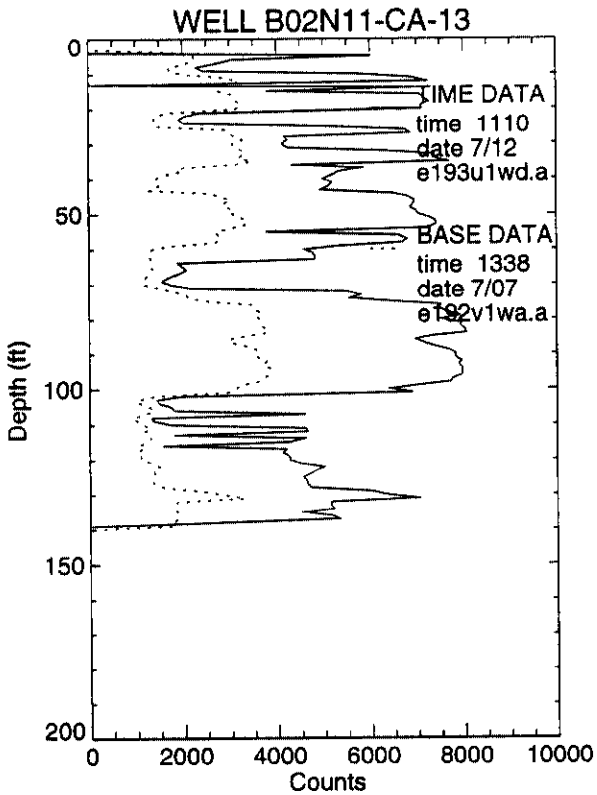
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1110
date 7/12
e193u1wd.a
BASE DATA
time 1338
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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150
200
0
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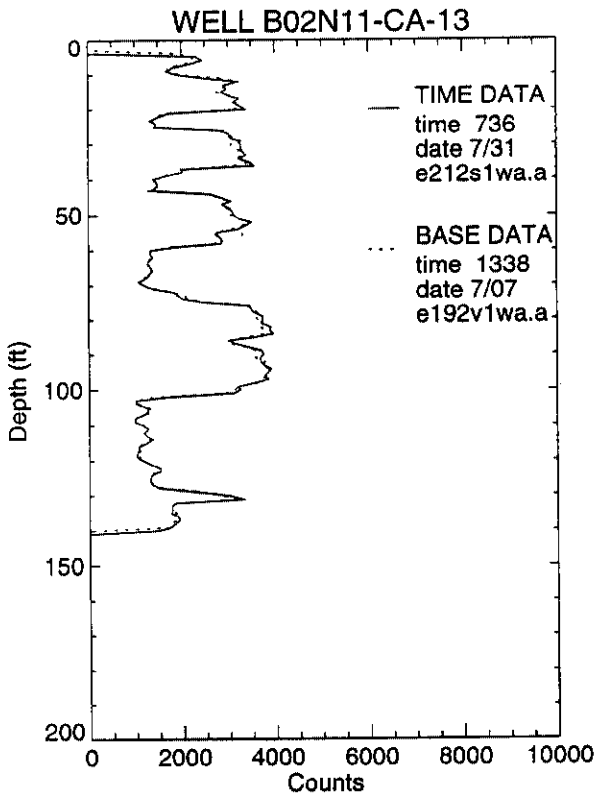
8000
10000


WELL B02N11-CA-13
TIME DATA
time 736
date 7/31
e212s1wa.a
BASE DATA
time 1338
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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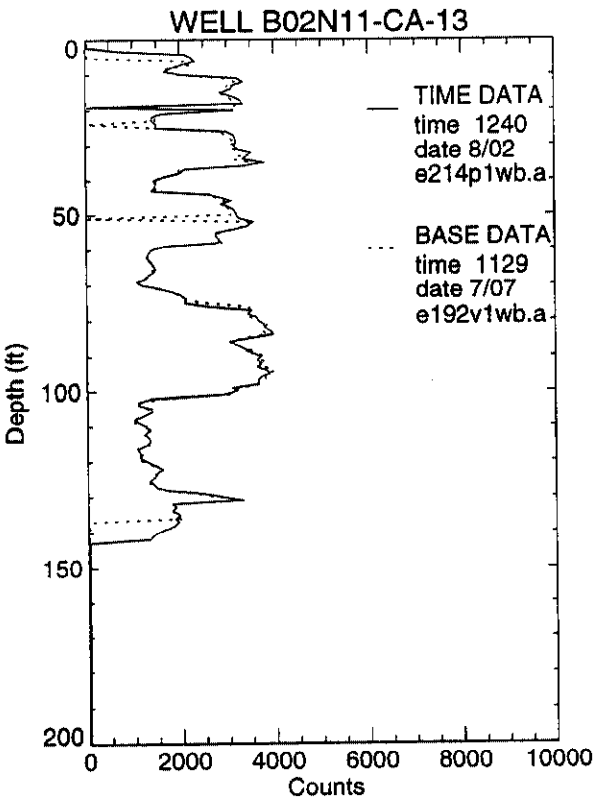
100
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1240
date 8/02
e214p1wb.a
BASE DATA
time 1129
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
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150
200
0
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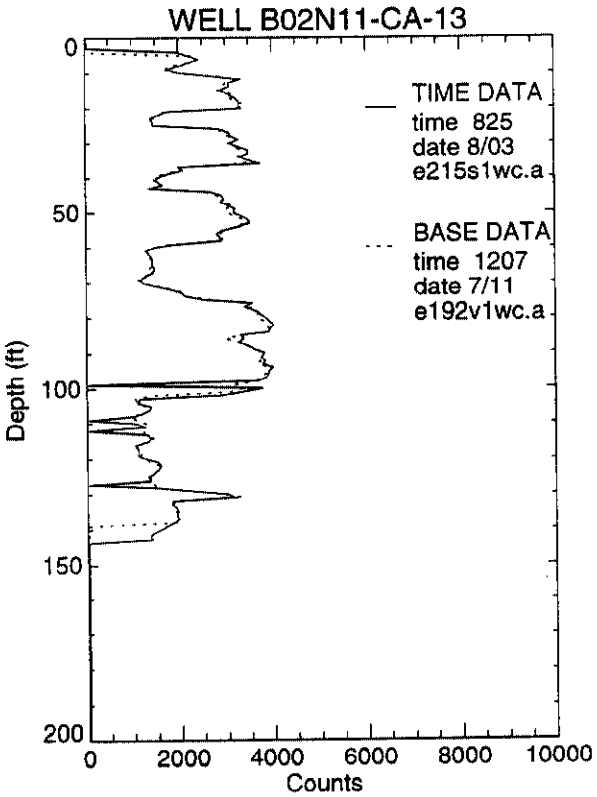
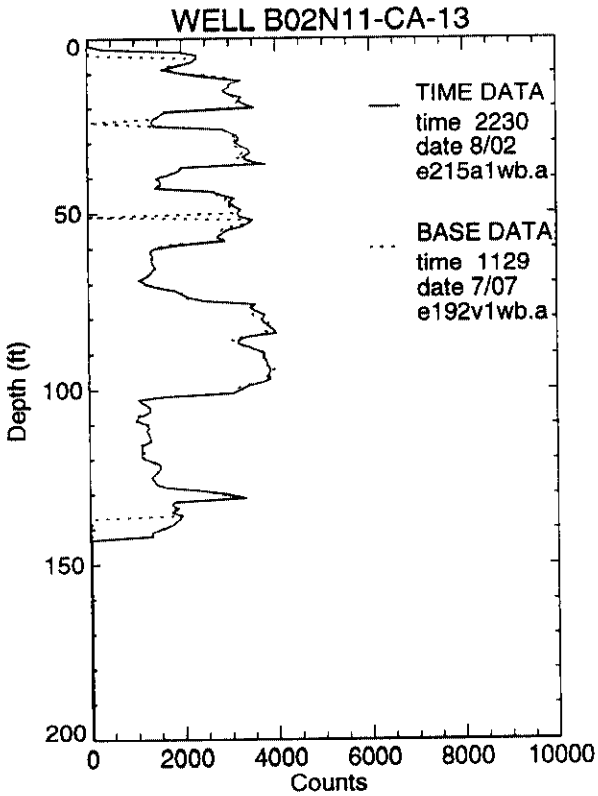
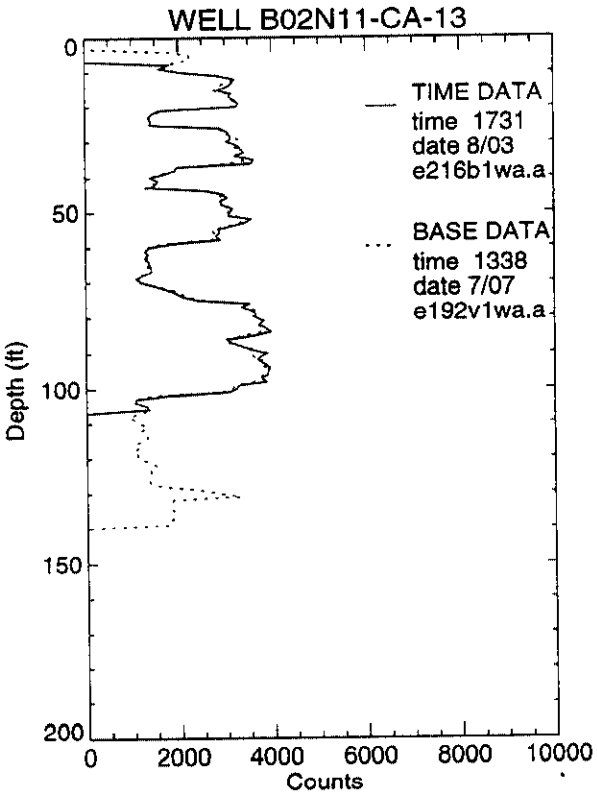
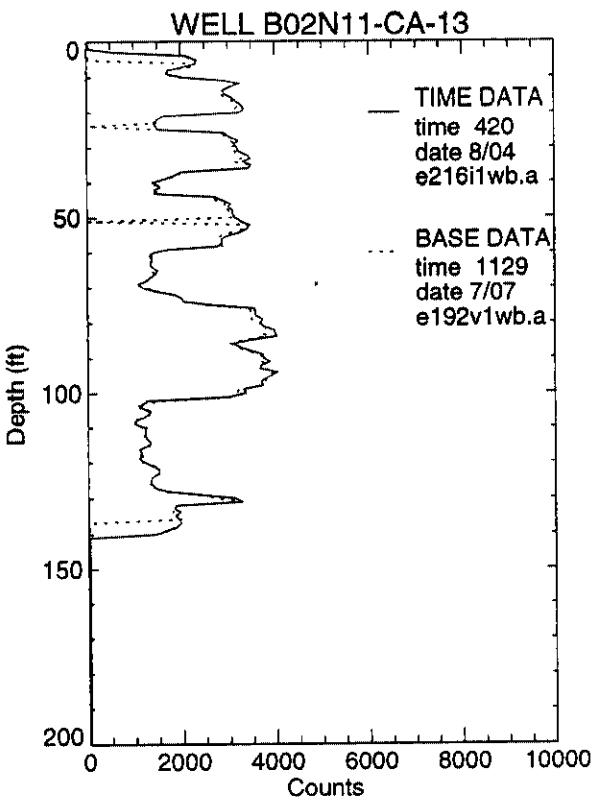
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 825
date 8/03
e215s1wc.a
BASE DATA
time 1207
date 7/11
e192v1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 2230
date 8/02
e215a1wb.a
BASE DATA
time 1129
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1731
date 8/03
e216b1wa.a
BASE DATA
time 1338
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 420
date 8/04
e216i1wb.a
BASE DATA
time 1129
date 7/07
e192v1wb.a
Depth (ft)
Counts
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0
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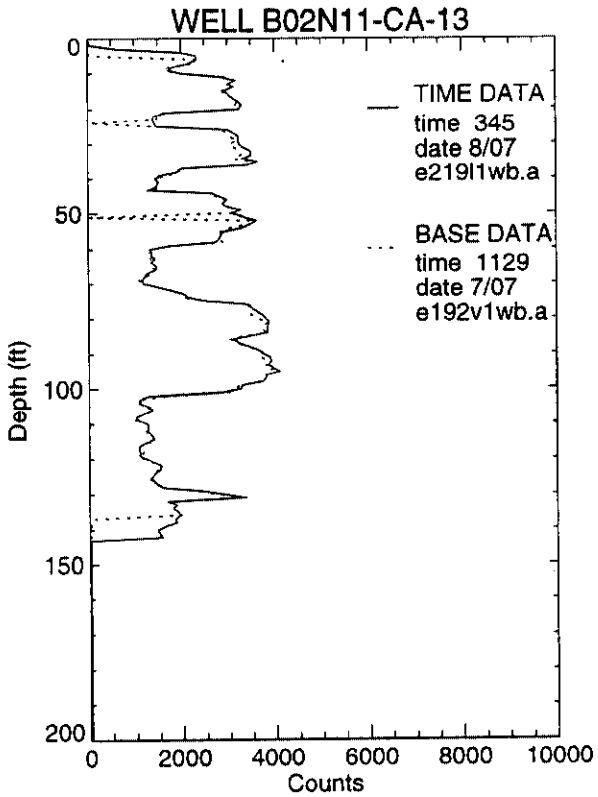
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 345
date 8/07
e219l1wb.a
BASE DATA
time 1129
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
50
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150
200
0
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4000
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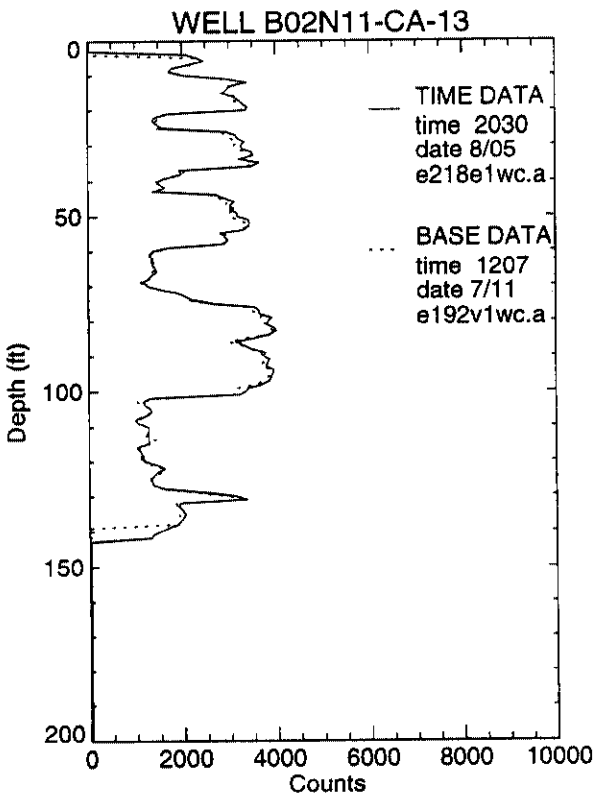
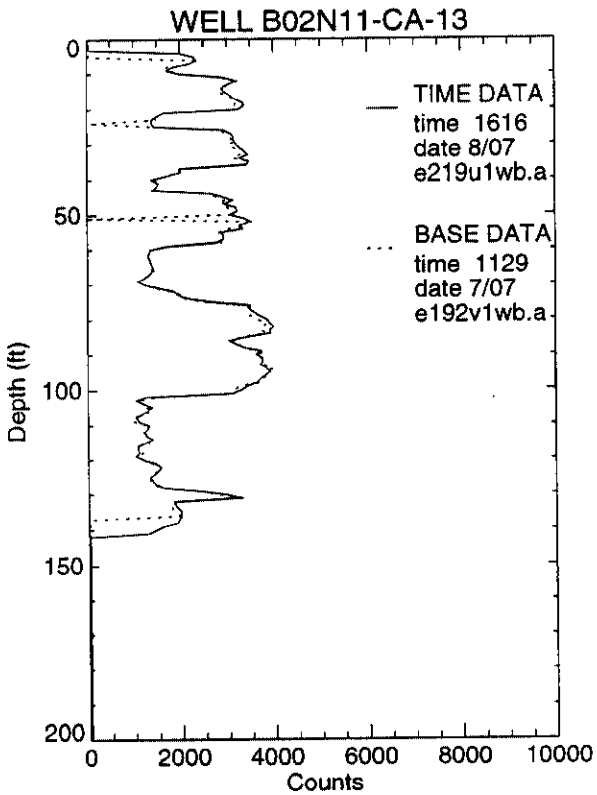
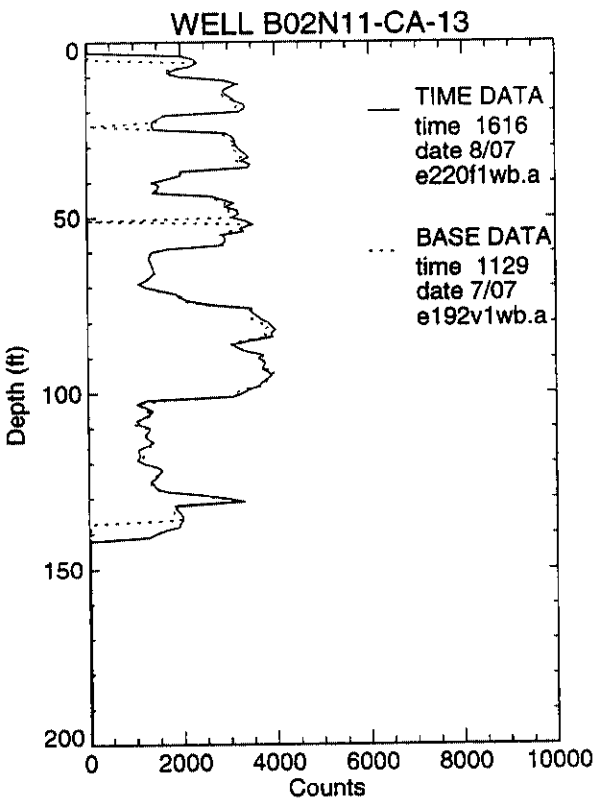
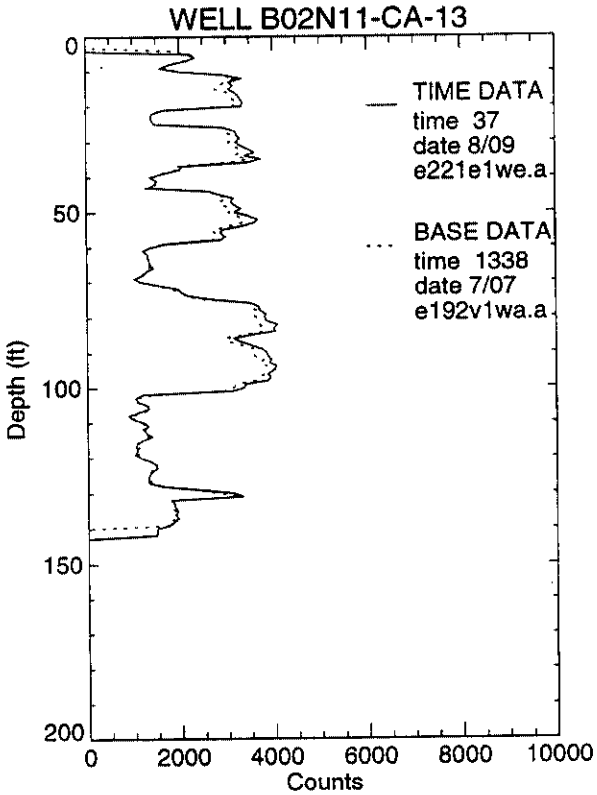
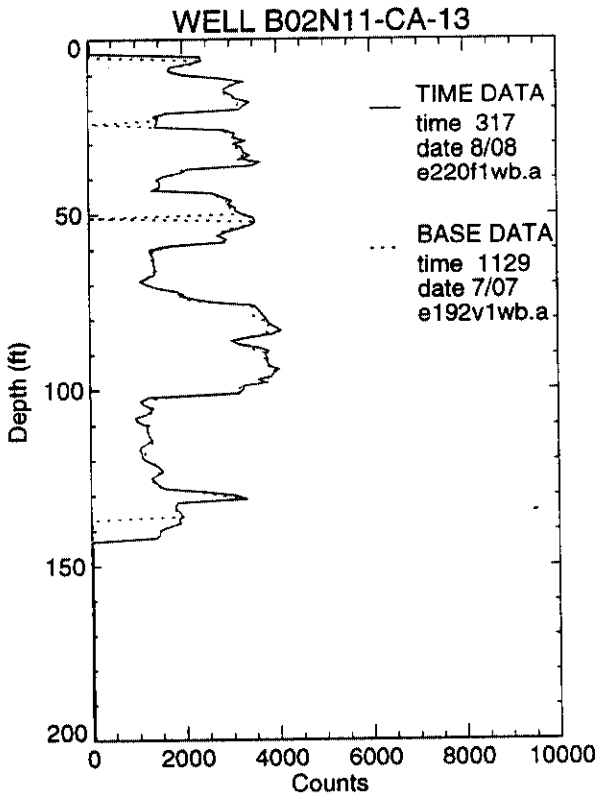
8000
10000


WELL B02N11-CA-13
TIME DATA
time 2030
date 8/05
e218e1wc.a
BASE DATA
time 1207
date 7/11
e192v1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1616
date 8/07
e219u1wb.a
BASE DATA
time 1129
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1616
date 8/07
e220f1wb.a
BASE DATA
time 1129
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 37
date 8/09
e221e1we.a
BASE DATA
time 1338
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 317
date 8/08
e220f1wb.a
BASE DATA
time 1129
date 7/07
e192v1wb.a
Depth (ft)
Counts
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150
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0
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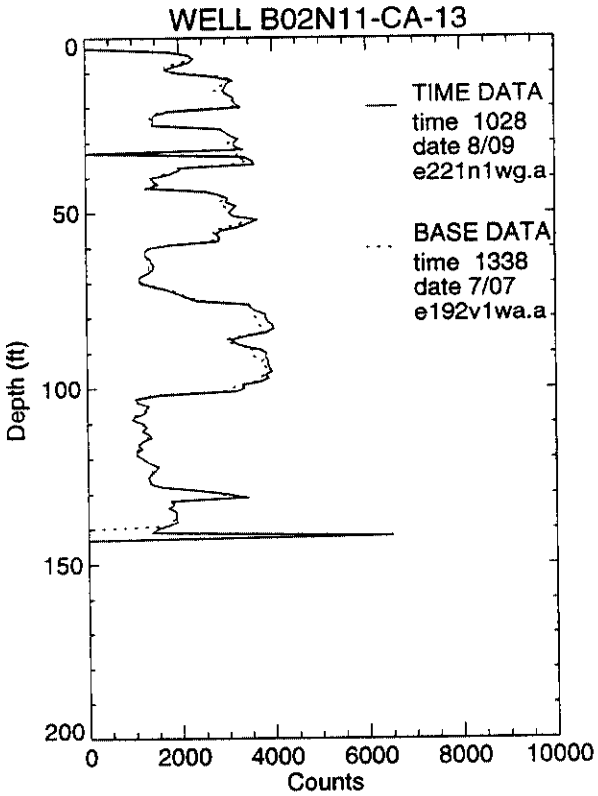
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1028
date 8/09
e221n1wg.a
BASE DATA
time 1338
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
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150
200
0
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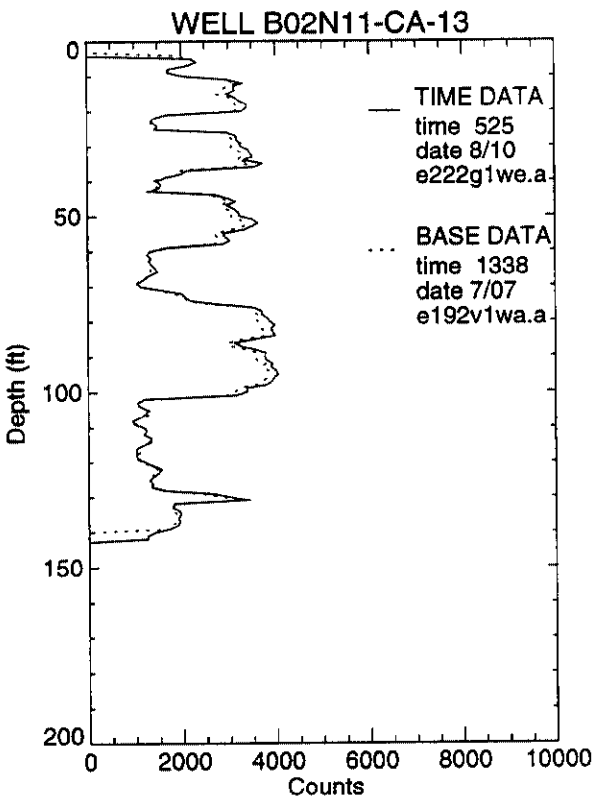
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 525
date 8/10
e222g1we.a
BASE DATA
time 1338
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
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150
200
0
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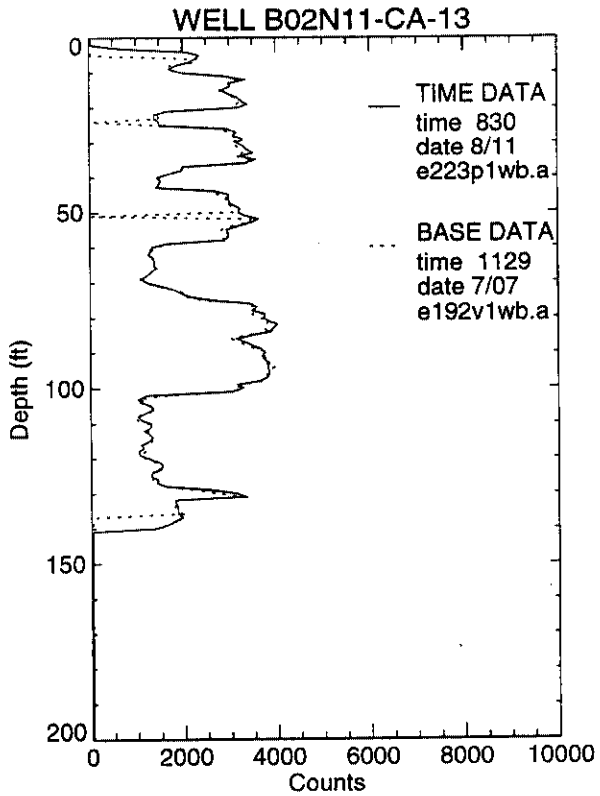
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 830
date 8/11
e223p1wb.a
BASE DATA
time 1129
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
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150
200
0
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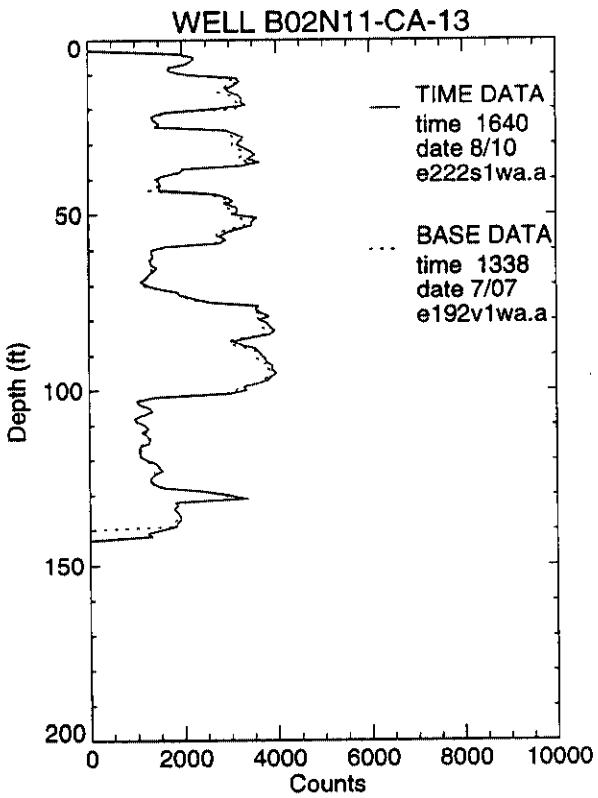
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1640
date 8/10
e222s1wa.a
BASE DATA
time 1338
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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150
200
0
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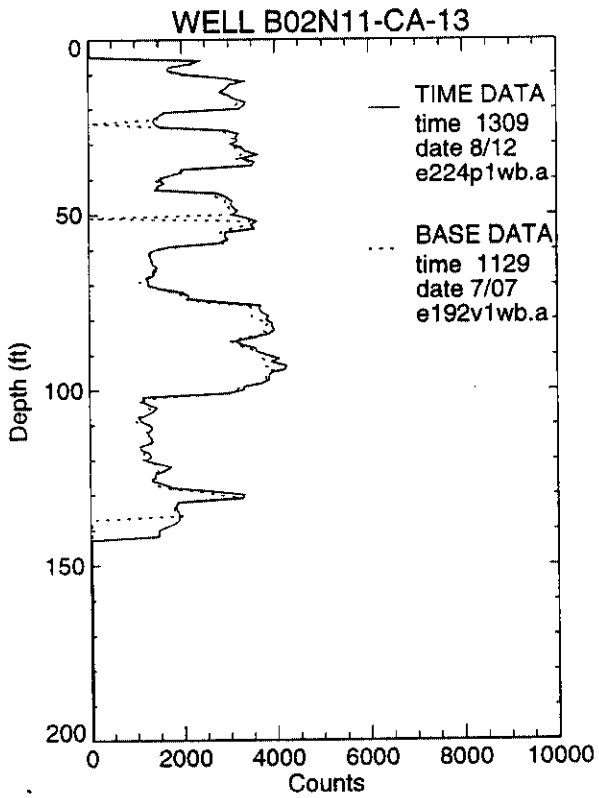
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1309
date 8/12
e224p1wb.a
BASE DATA
time 1129
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
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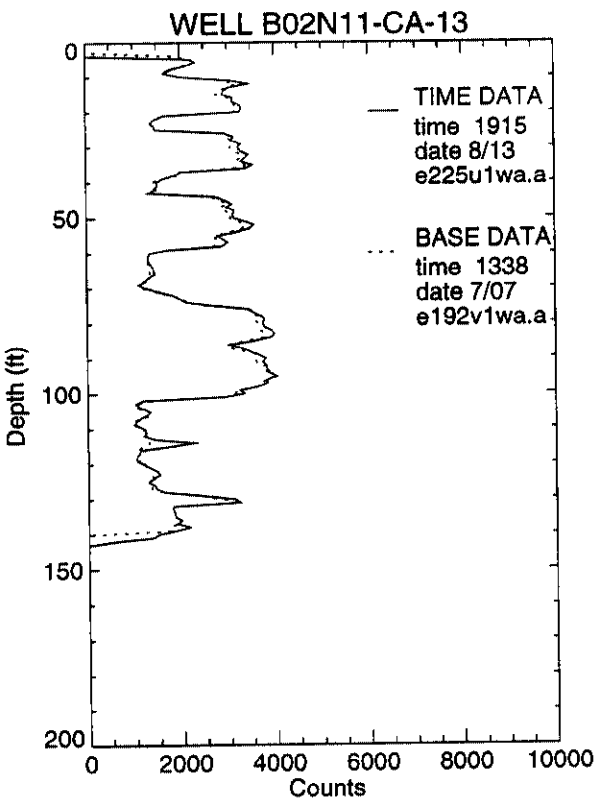
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1915
date 8/13
e225u1wa.a
BASE DATA
time 1338
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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150
200
0
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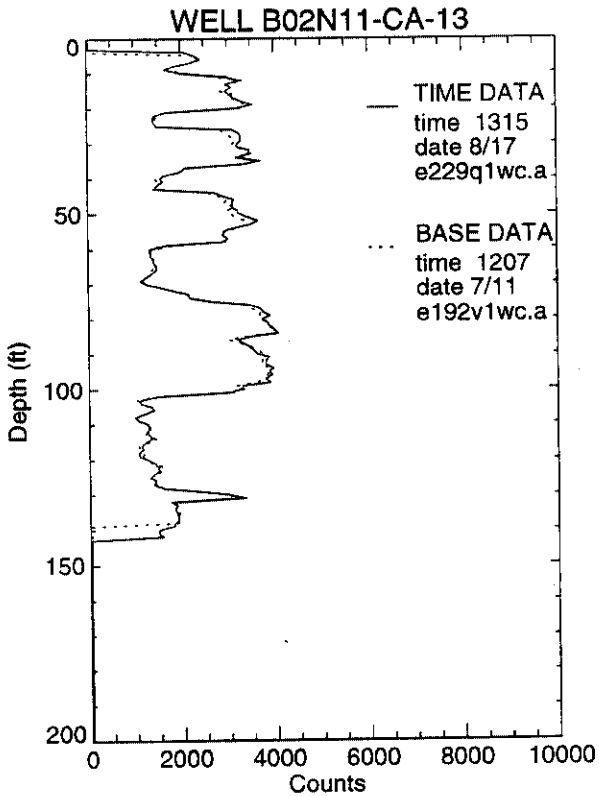
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1315
date 8/17
e229q1wc.a
BASE DATA
time 1207
date 7/11
e192v1wc.a
Depth (ft)
Counts
0
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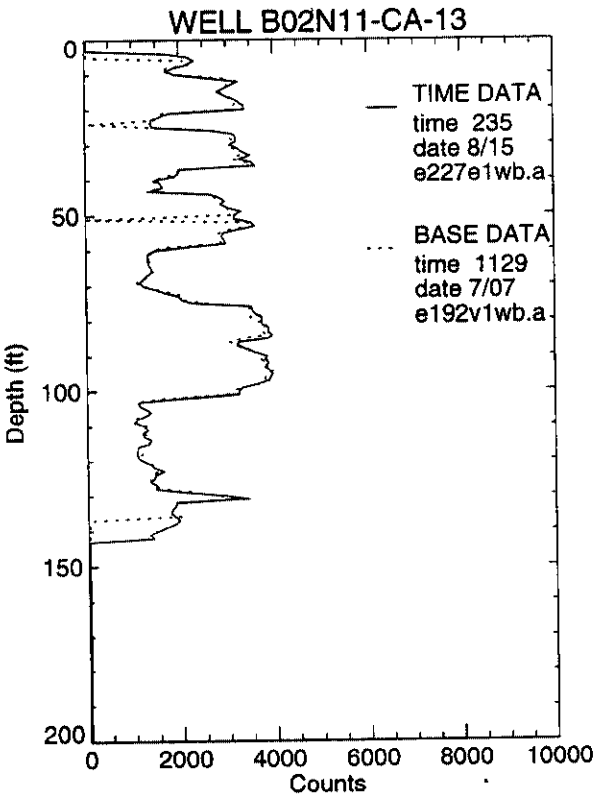
100
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 235
date 8/15
e227e1wb.a
BASE DATA
time 1129
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
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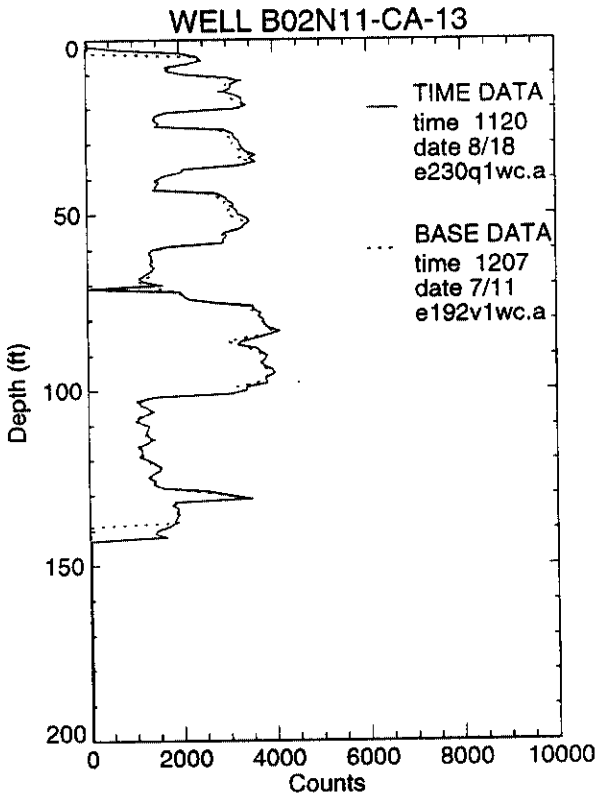
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1120
date 8/18
e230q1wc.a
BASE DATA
time 1207
date 7/11
e192v1wc.a
Depth (ft)
Counts
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150
200
0
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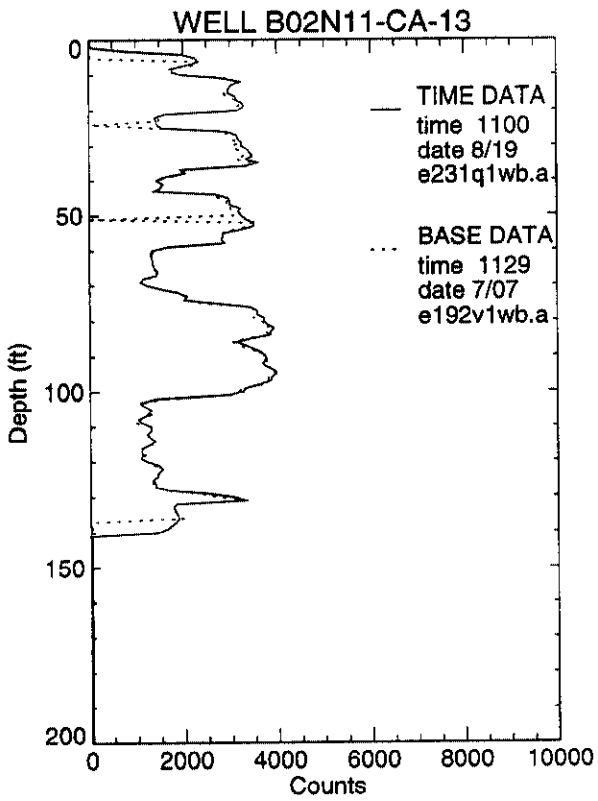
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1100
date 8/19
e231q1wb.a
BASE DATA
time 1129
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
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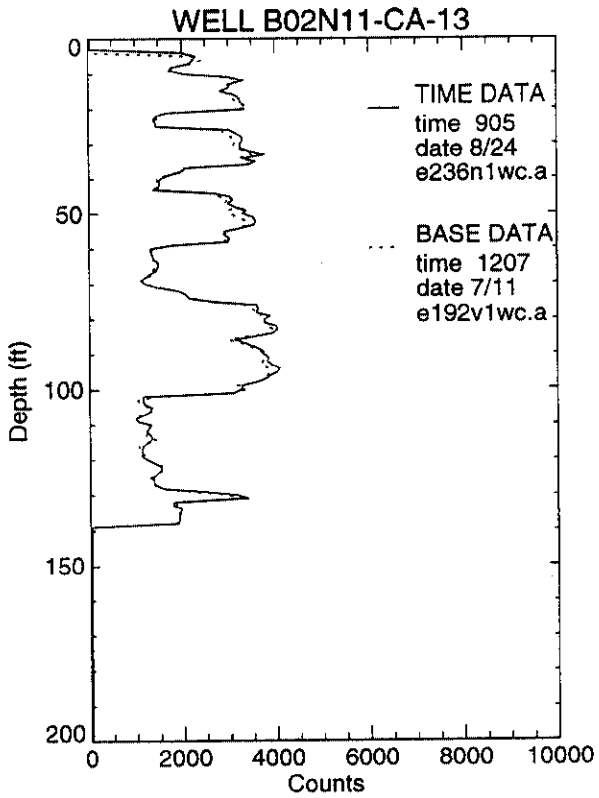
100
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 905
date 8/24
e236n1wc.a
BASE DATA
time 1207
date 7/11
e192v1wc.a
Depth (ft)
Counts
0
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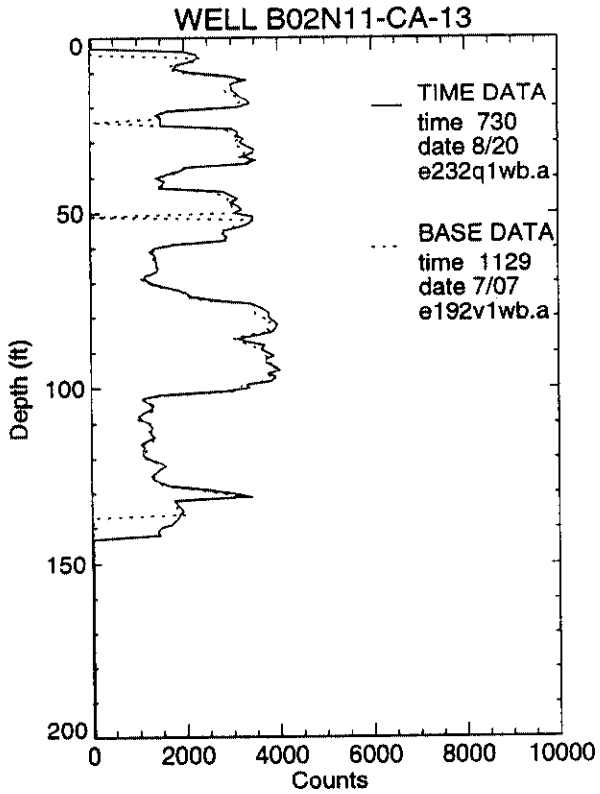
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 730
date 8/20
e232q1wb.a
BASE DATA
time 1129
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
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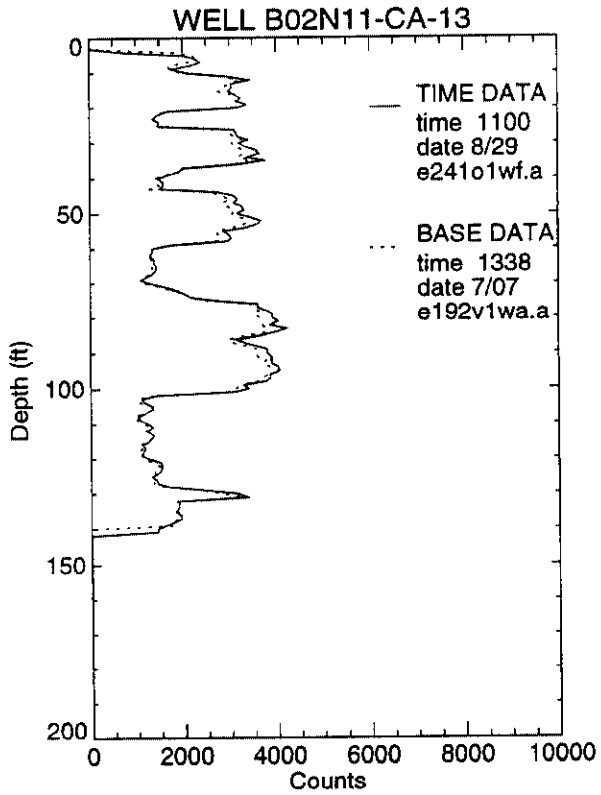
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1100
date 8/29
e241o1wf.a
BASE DATA
time 1338
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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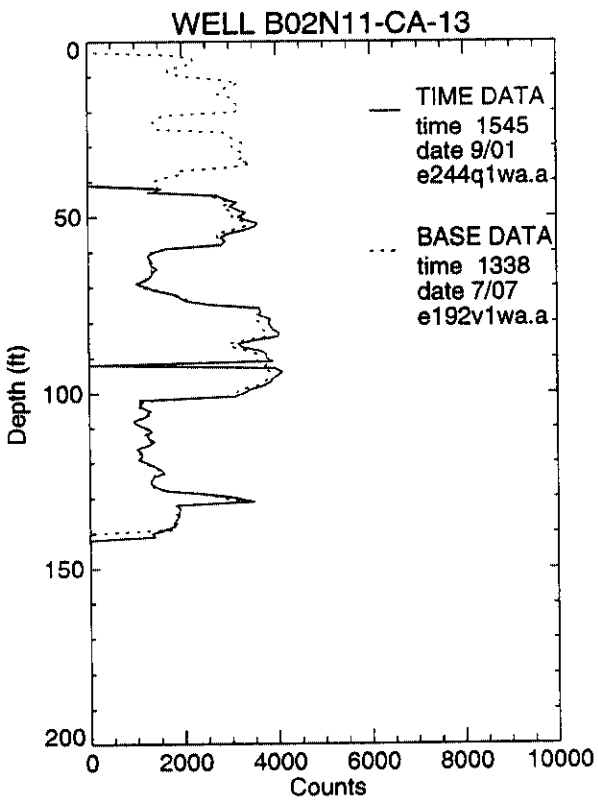
150
200
0
2000
4000
6000
8000
10000


WELL B02N11-CA-13
TIME DATA
time 1545
date 9/01
e244q1wa.a
BASE DATA
time 1338
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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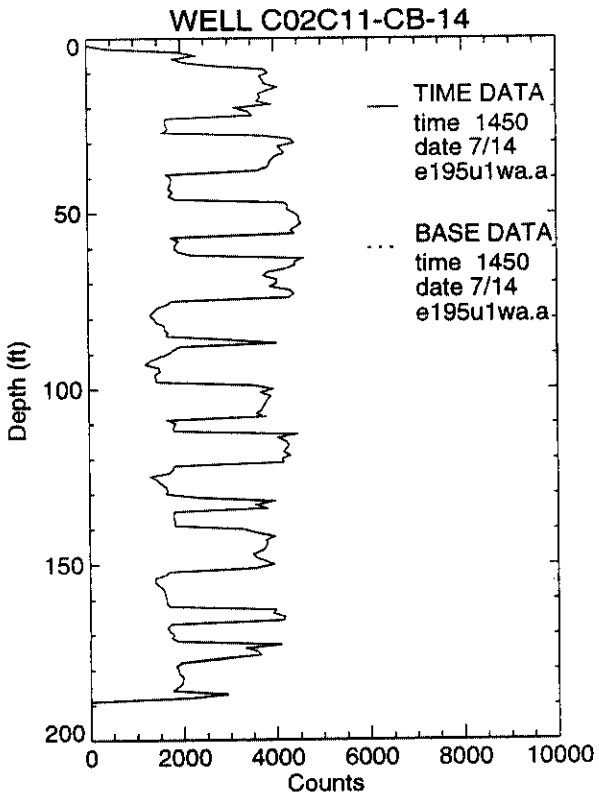
100
150
200
0
2000
4000
6000
8000
10000


WELL C02C11-CB-14
TIME DATA
time 1450
date 7/14
e195u1wa.a
BASE DATA
time 1450
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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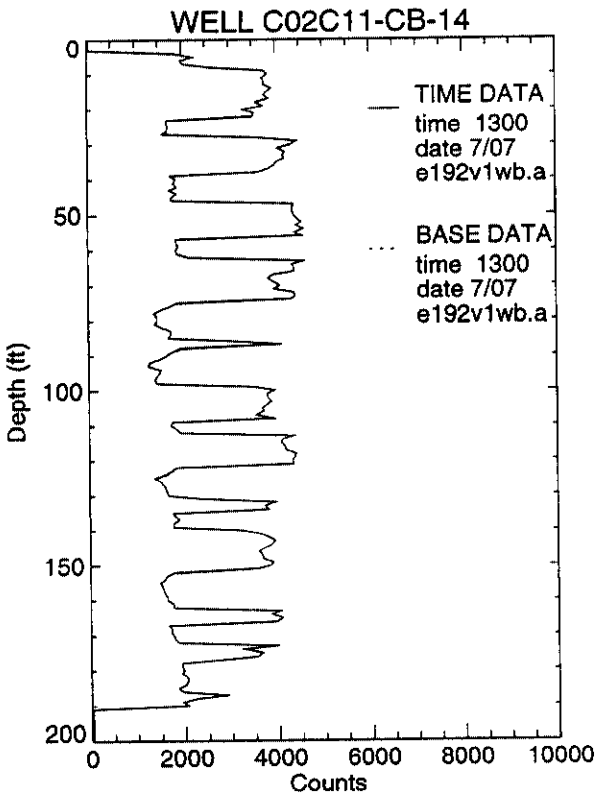
150
200
0
2000
4000
6000
8000
10000


WELL C02C11-CB-14
TIME DATA
time 1300
date 7/07
e192v1wb.a
BASE DATA
time 1300
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
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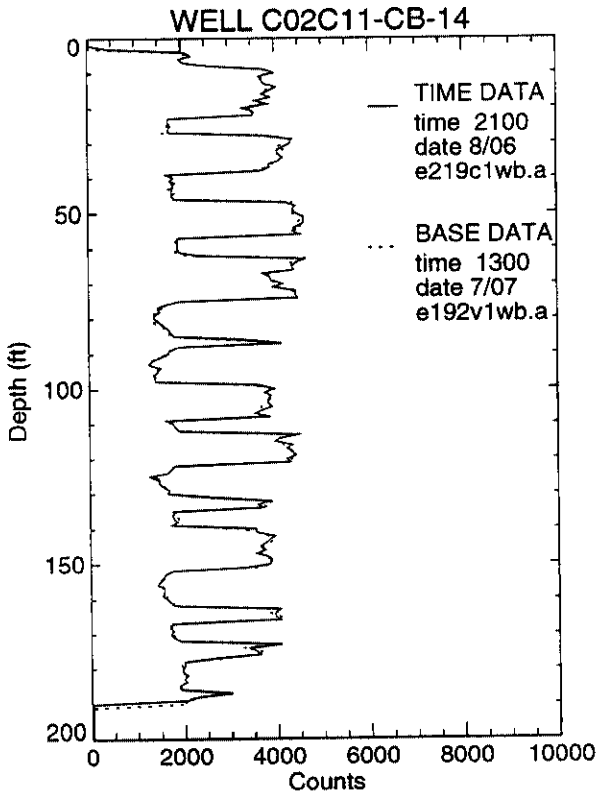
WELL C02C11-CB-14
TIME DATA
time 2100
date 8/06
e219c1wb.a
BASE DATA
time 1300
date 7/07
e192v1wb.a
Depth (ft)
Counts
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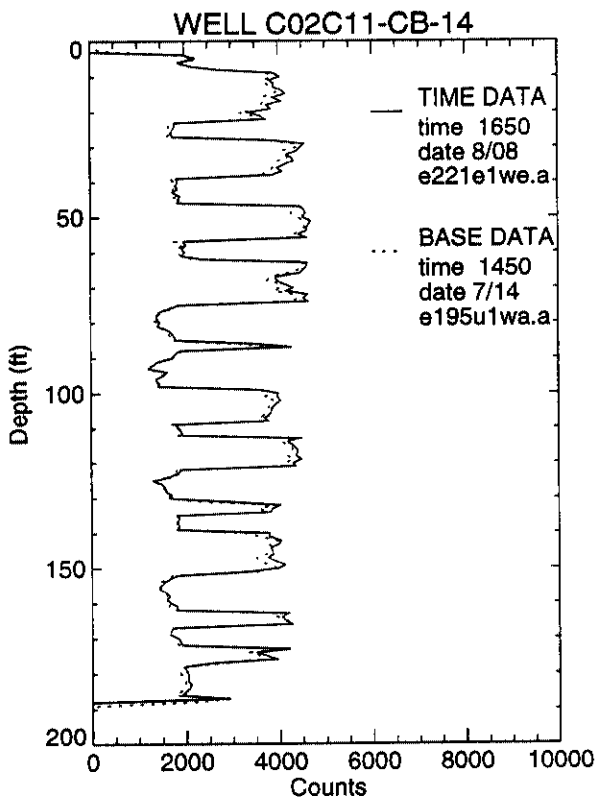
10000


WELL C02C11-CB-14
TIME DATA
time 1650
date 8/08
e221e1we.a
BASE DATA
time 1450
date 7/14
e195u1wa.a
Depth (ft)
Counts
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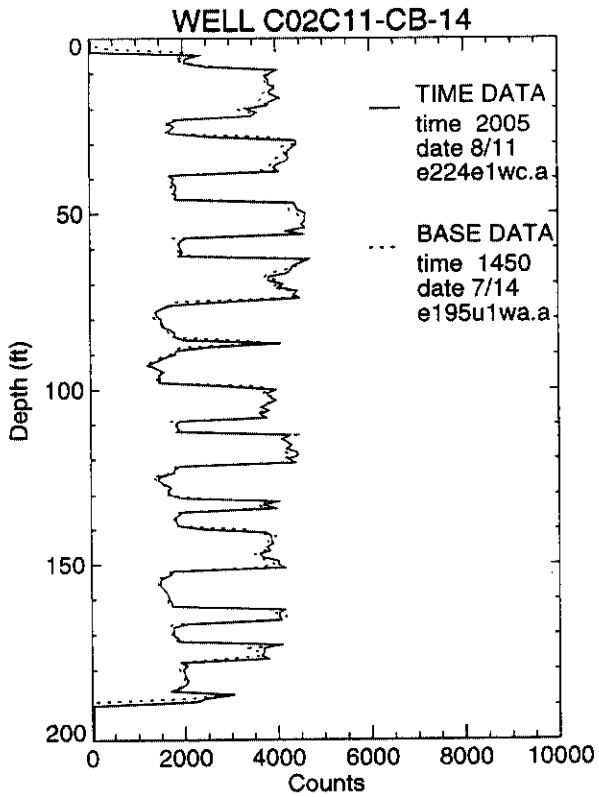
WELL C02C11-CB-14
TIME DATA
time 2005
date 8/11
e224e1wc.a
BASE DATA
time 1450
date 7/14
e195u1wa.a
Depth (ft)
Counts
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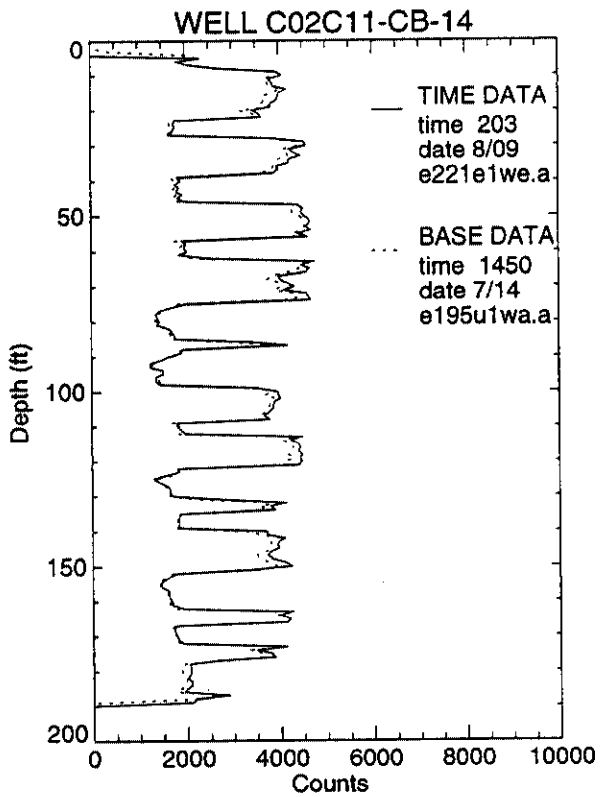
WELL C02C11-CB-14
TIME DATA
time 203
date 8/09
e221e1we.a
BASE DATA
time 1450
date 7/14
e195u1wa.a
Depth (ft)
Counts
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8000
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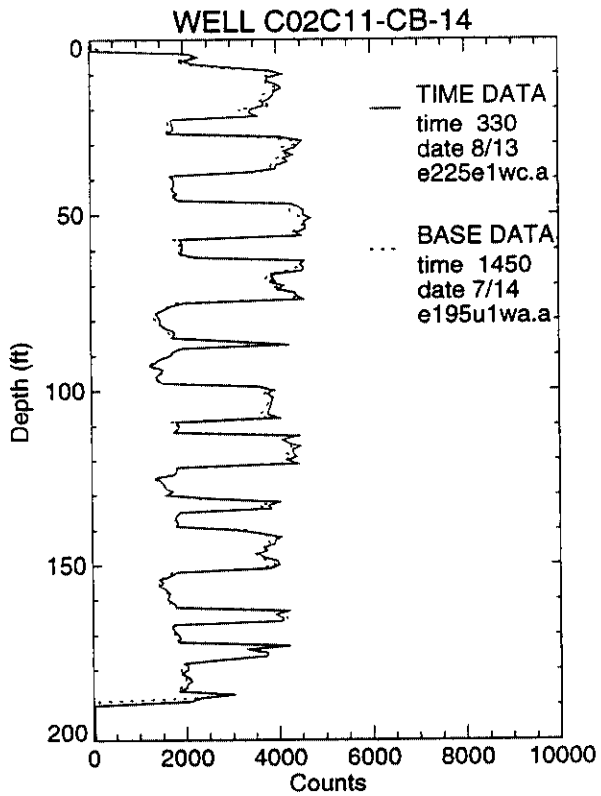
WELL C02C11-CB-14
TIME DATA
time 330
date 8/13
e225e1wc.a
BASE DATA
time 1450
date 7/14
e195u1wa.a
Depth (ft)
Counts
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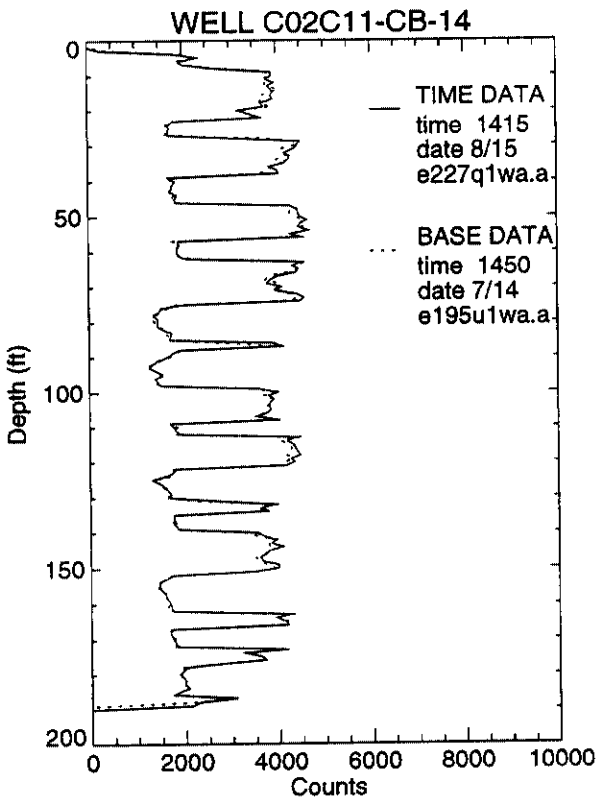
8000
10000


WELL C02C11-CB-14
TIME DATA
time 1415
date 8/15
e227q1wa.a
BASE DATA
time 1450
date 7/14
e195u1wa.a
Depth (ft)
Counts
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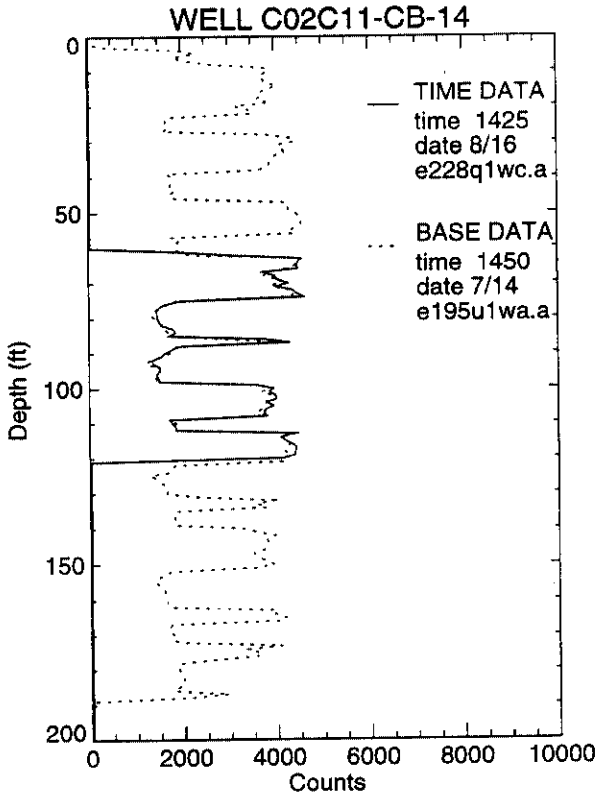
WELL C02C11-CB-14
TIME DATA
time 1425
date 8/16
e228q1wc.a
BASE DATA
time 1450
date 7/14
e195u1wa.a
Depth (ft)
Counts
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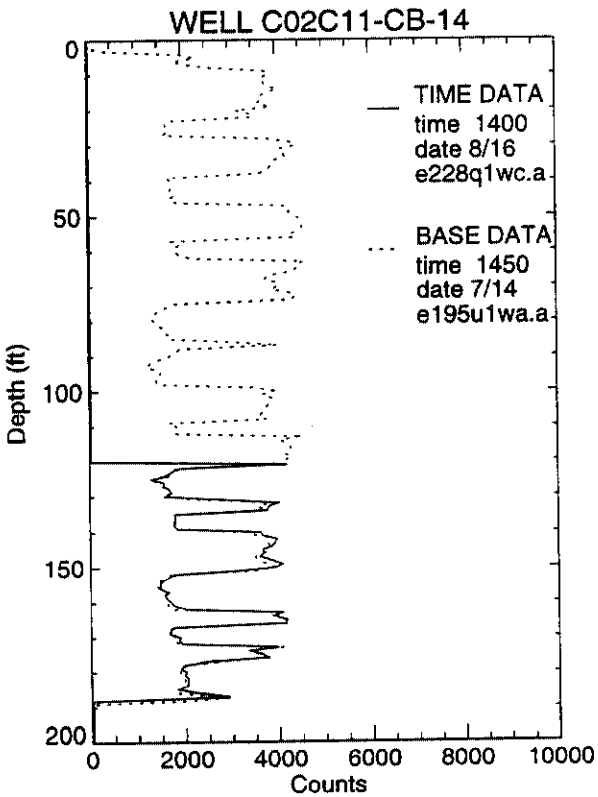
150
200
0
2000
4000
6000
8000
10000


WELL C02C11-CB-14
TIME DATA
time 1400
date 8/16
e228q1wc.a
BASE DATA
time 1450
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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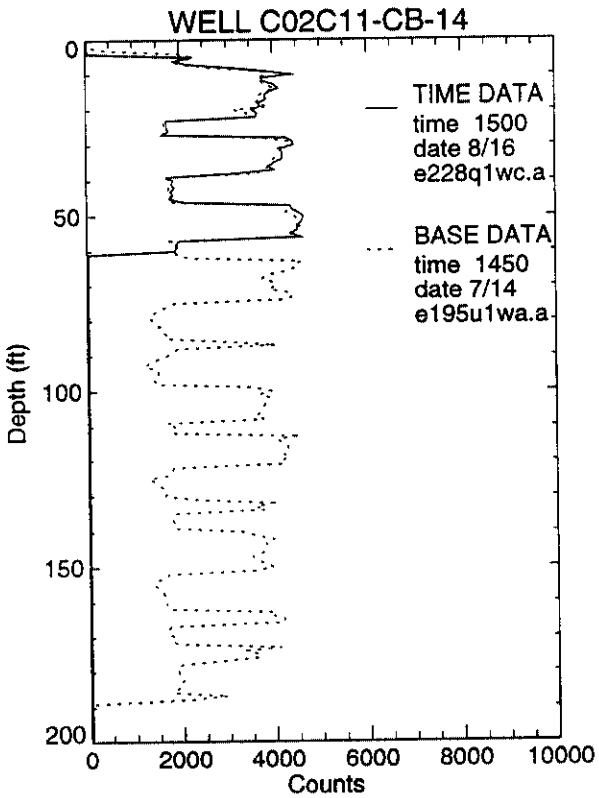
150
200
0
2000
4000
6000
8000
10000


WELL C02C11-CB-14
TIME DATA
time 1500
date 8/16
e228q1wc.a
BASE DATA
time 1450
date 7/14
e195u1wa.a
Depth (ft)
Counts
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0
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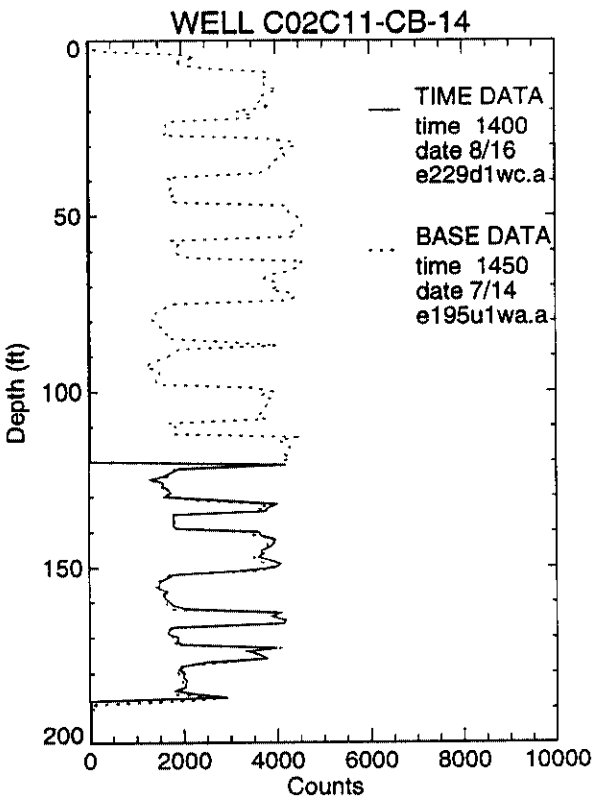
8000
10000


WELL C02C11-CB-14
TIME DATA
time 1400
date 8/16
e229d1wc.a
BASE DATA
time 1450
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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150
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0
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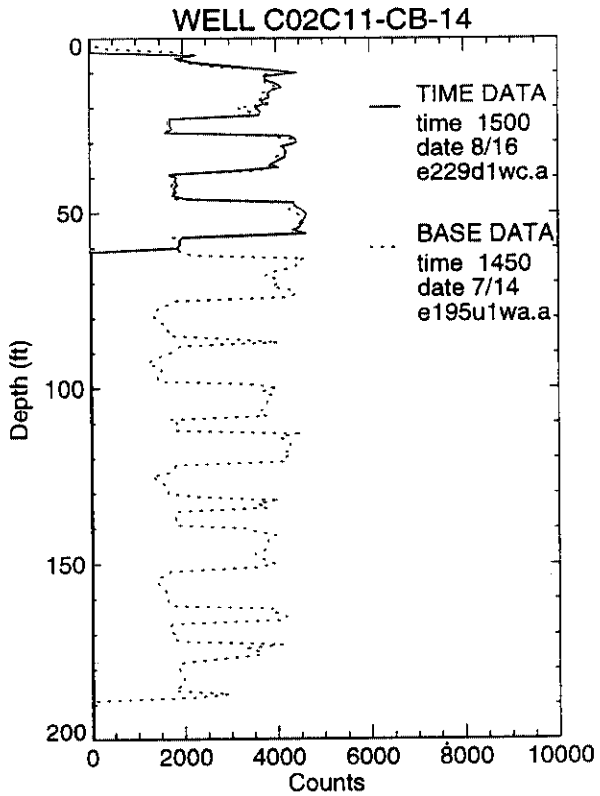
8000
10000


WELL C02C11-CB-14
TIME DATA
time 1500
date 8/16
e229d1wc.a
BASE DATA
time 1450
date 7/14
e195u1wa.a
Depth (ft)
Counts
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150
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0
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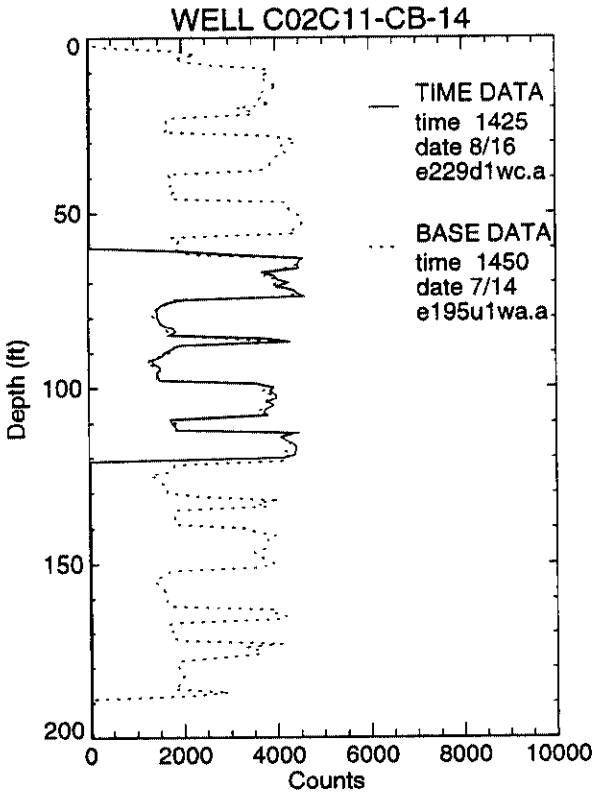
10000


WELL C02C11-CB-14
TIME DATA
time 1425
date 8/16
e229d1wc.a
BASE DATA
time 1450
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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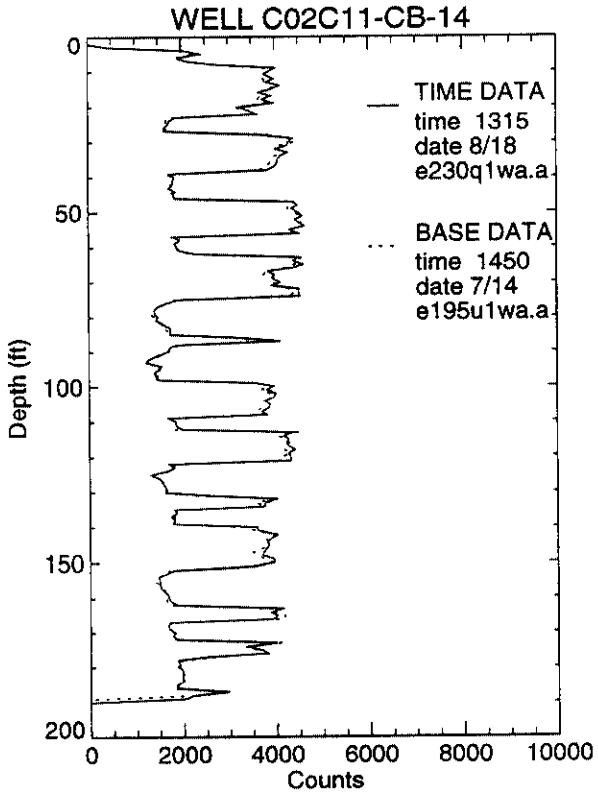
100
150
200
0
2000
4000
6000
8000
10000


WELL C02C11-CB-14
TIME DATA
time 1315
date 8/18
e230q1wa.a
BASE DATA
time 1450
date 7/14
e195u1wa.a
Depth (ft)
Counts
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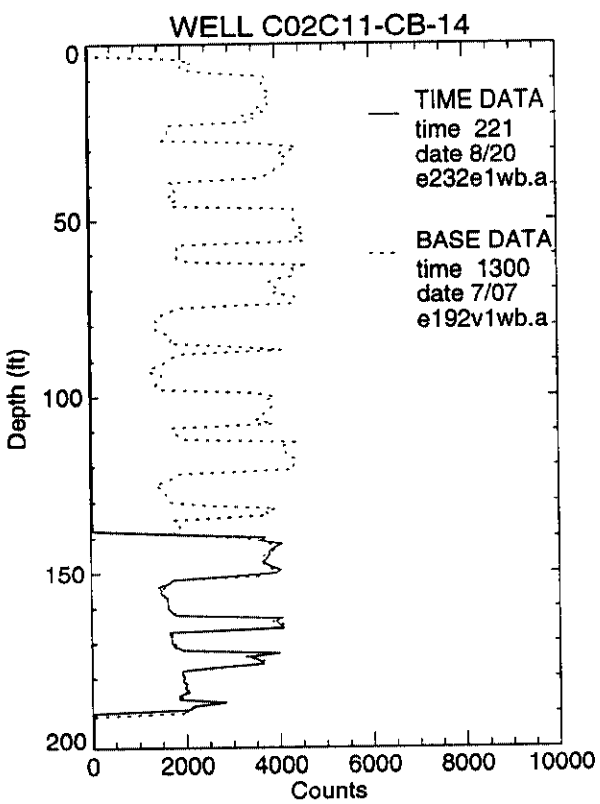
WELL C02C11-CB-14
TIME DATA
time 221
date 8/20
e232e1wb.a
BASE DATA
time 1300
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
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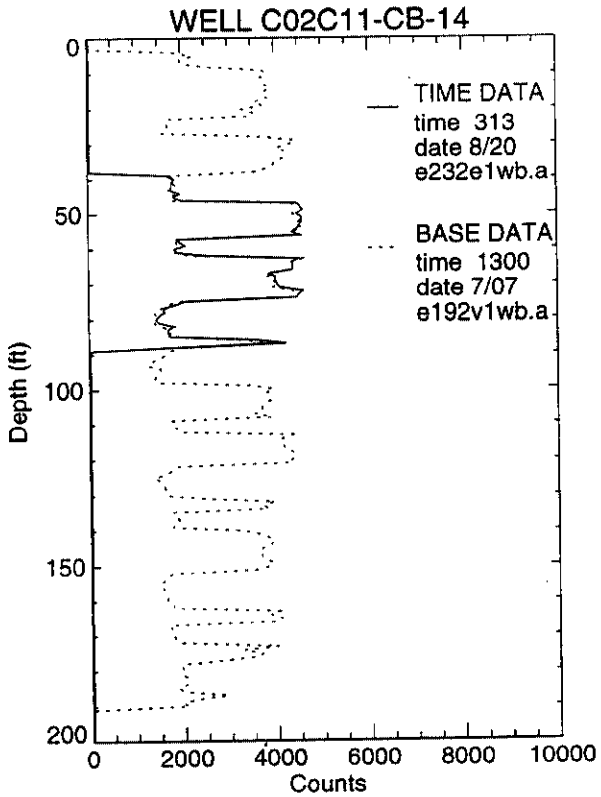
8000
10000


WELL C02C11-CB-14
TIME DATA
time 313
date 8/20
e232e1wb.a
BASE DATA
time 1300
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
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150
200
0
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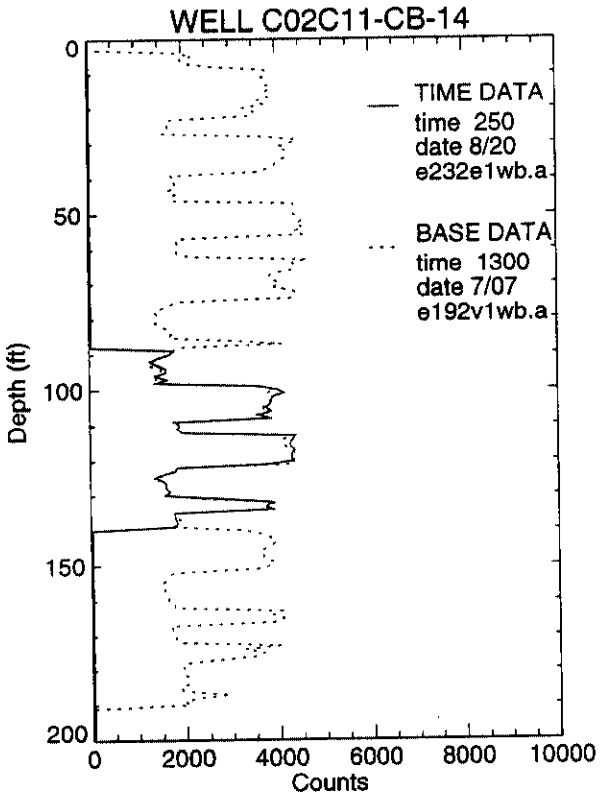
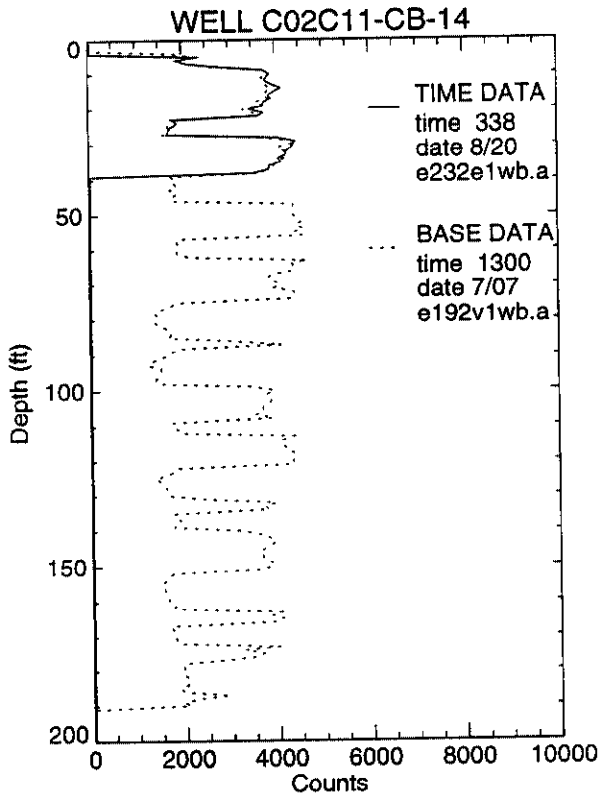
6000
8000
10000


WELL C02C11-CB-14
TIME DATA
time 250
date 8/20
e232e1wb.a
BASE DATA
time 1300
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL C02C11-CB-14
TIME DATA
time 338
date 8/20
e232e1wb.a
BASE DATA
time 1300
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
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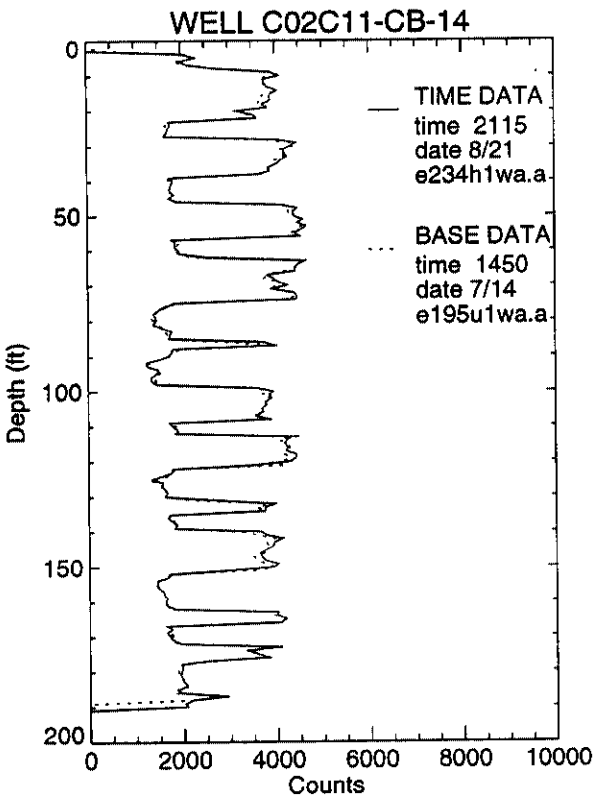
4000
6000
8000
10000


WELL C02C11-CB-14
TIME DATA
time 2115
date 8/21
e234h1wa.a
BASE DATA
time 1450
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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4000
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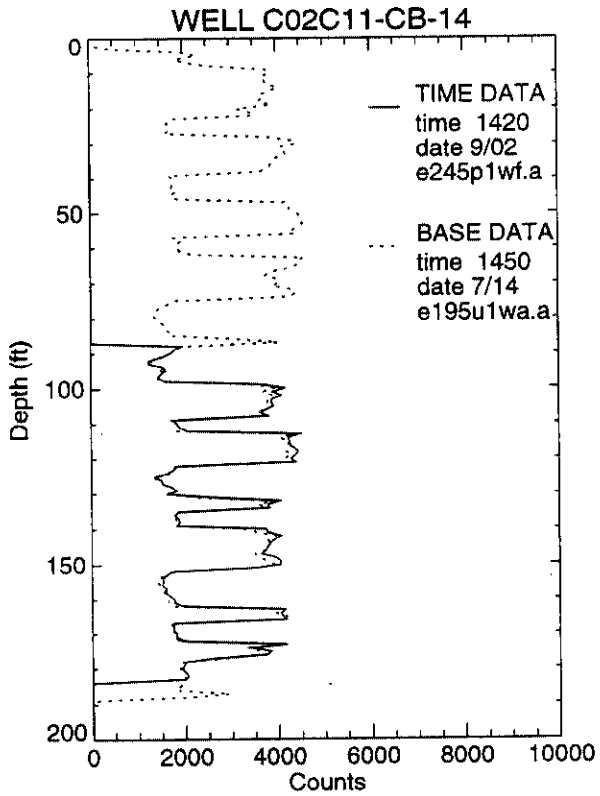
8000
10000


WELL C02C11-CB-14
TIME DATA
time 1420
date 9/02
e245p1wf.a
BASE DATA
time 1450
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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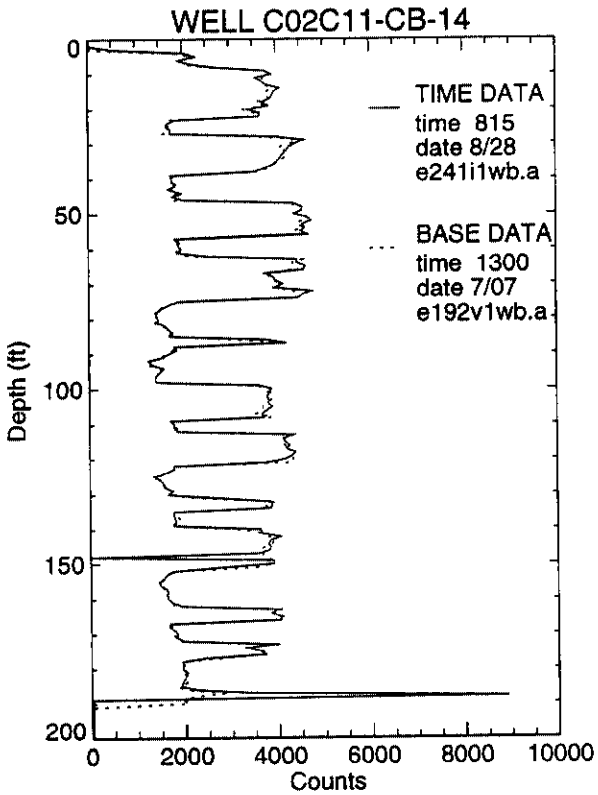
100
150
200
0
2000
4000
6000
8000
10000


WELL C02C11-CB-14
TIME DATA
time 815
date 8/28
e241i1wb.a
BASE DATA
time 1300
date 7/07
e192v1wb.a
Depth (ft)
Counts
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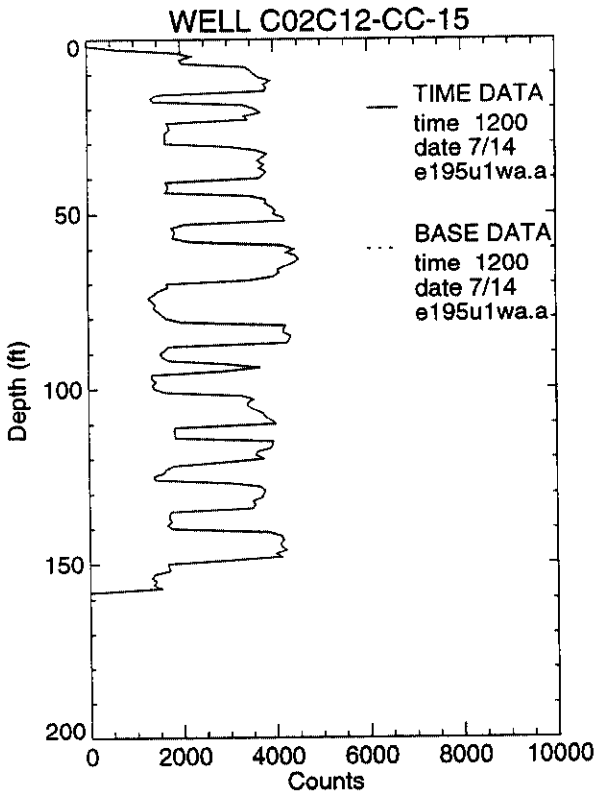
WELL C02C12-CC-15
TIME DATA
time 1200
date 7/14
e195u1wa.a
BASE DATA
time 1200
date 7/14
e195u1wa.a
Depth (ft)
Counts
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0
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4000
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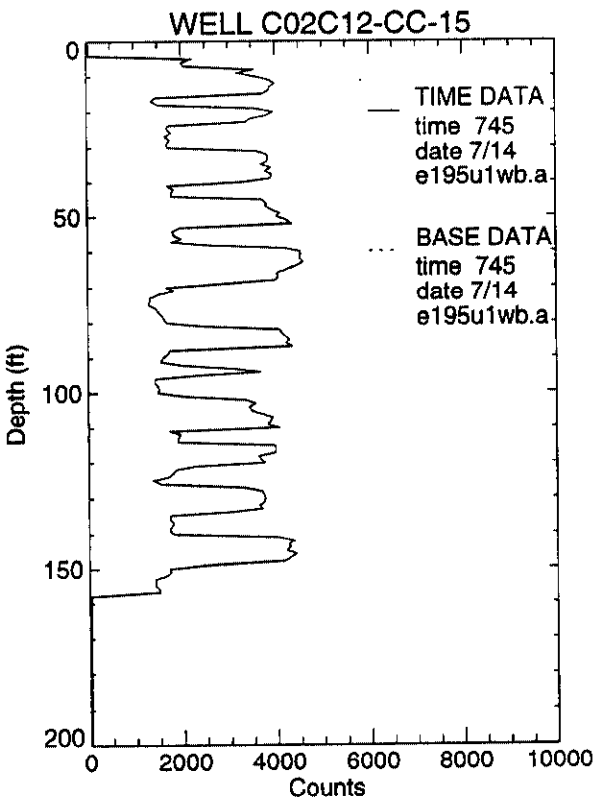
8000
10000


WELL C02C12-CC-15
TIME DATA
time 745
date 7/14
e195u1wb.a
BASE DATA
time 745
date 7/14
e195u1wb.a
Depth (ft)
Counts
0
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150
200
0
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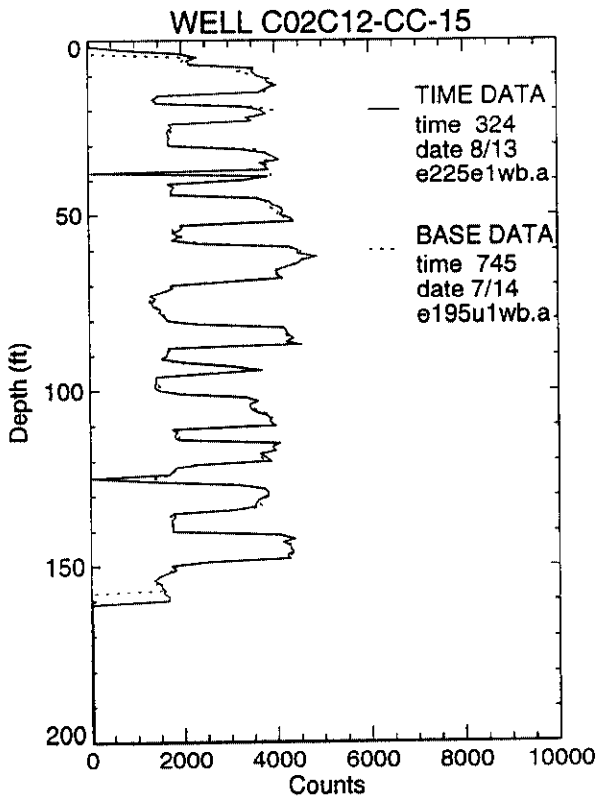
10000


WELL C02C12-CC-15
TIME DATA
time 324
date 8/13
e225e1wb.a
BASE DATA
time 745
date 7/14
e195u1wb.a
Depth (ft)
Counts
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0
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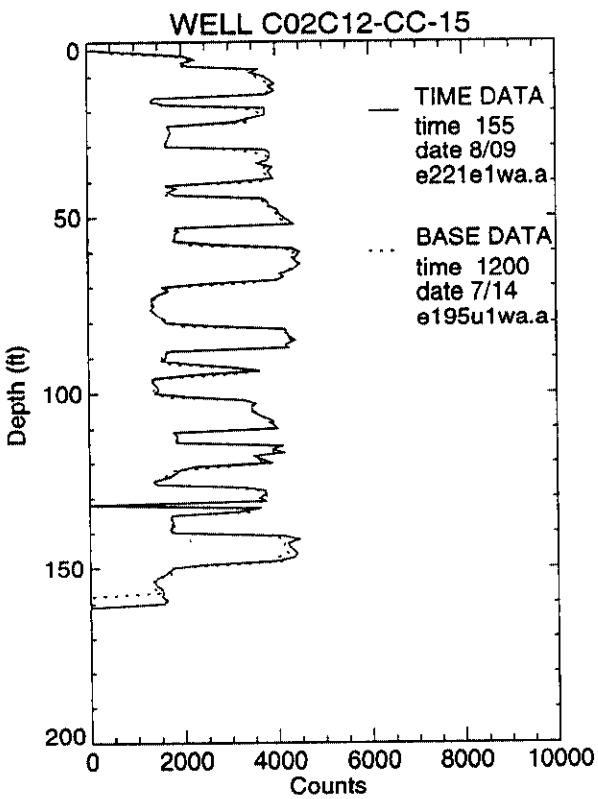
8000
10000


WELL C02C12-CC-15
TIME DATA
time 155
date 8/09
e221e1wa.a
BASE DATA
time 1200
date 7/14
e195u1wa.a
Depth (ft)
Counts
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0
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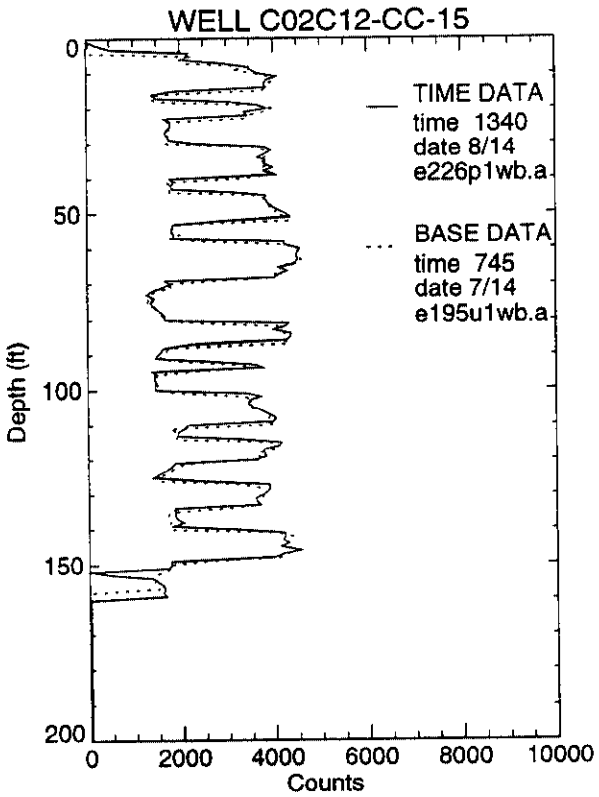
8000
10000


WELL C02C12-CC-15
TIME DATA
time 1340
date 8/14
e226p1wb.a
BASE DATA
time 745
date 7/14
e195u1wb.a
Depth (ft)
Counts
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200
0
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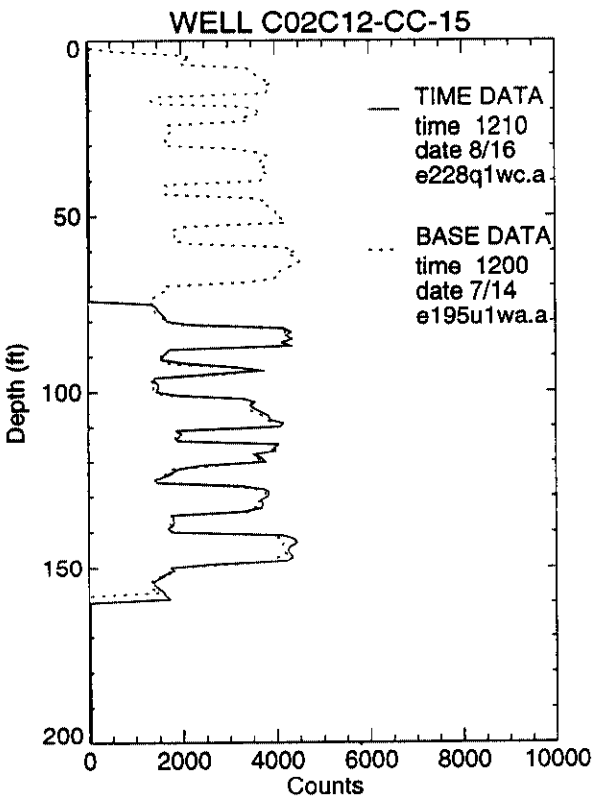
6000
8000
10000


WELL C02C12-CC-15
TIME DATA
time 1210
date 8/16
e228q1wc.a
BASE DATA
time 1200
date 7/14
e195u1wa.a
Depth (ft)
Counts
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150
200
0
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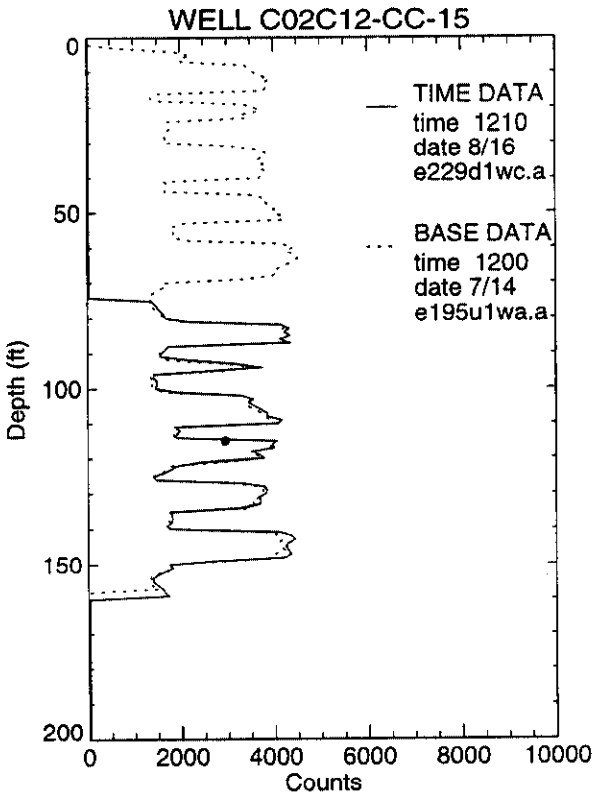
8000
10000


WELL C02C12-CC-15
TIME DATA
time 1210
date 8/16
e229d1wc.a
BASE DATA
time 1200
date 7/14
e195u1wa.a
Depth (ft)
Counts
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0
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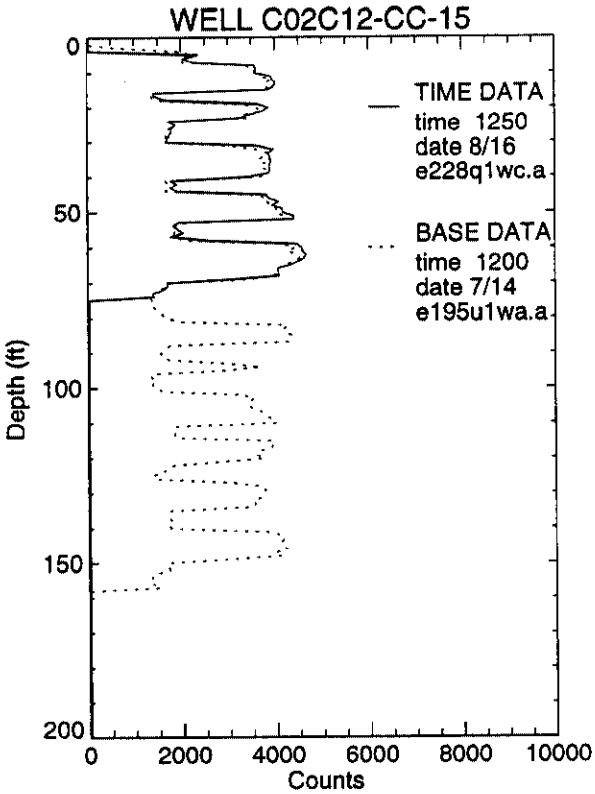
8000
10000


WELL C02C12-CC-15
TIME DATA
time 1250
date 8/16
e228q1wc.a
BASE DATA
time 1200
date 7/14
e195u1wa.a
Depth (ft)
Counts
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0
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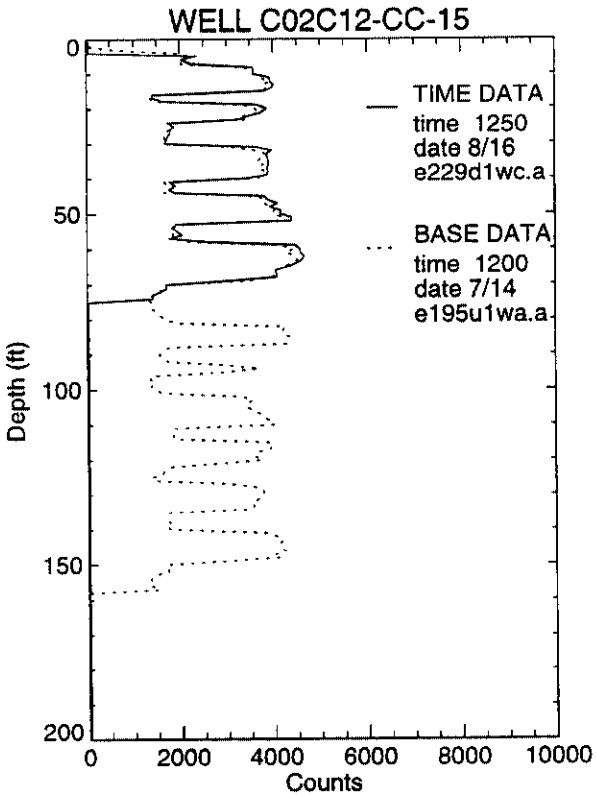
WELL C02C12-CC-15
TIME DATA
time 1250
date 8/16
e229d1wc.a
BASE DATA
time 1200
date 7/14
e195u1wa.a
Depth (ft)
Counts
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0
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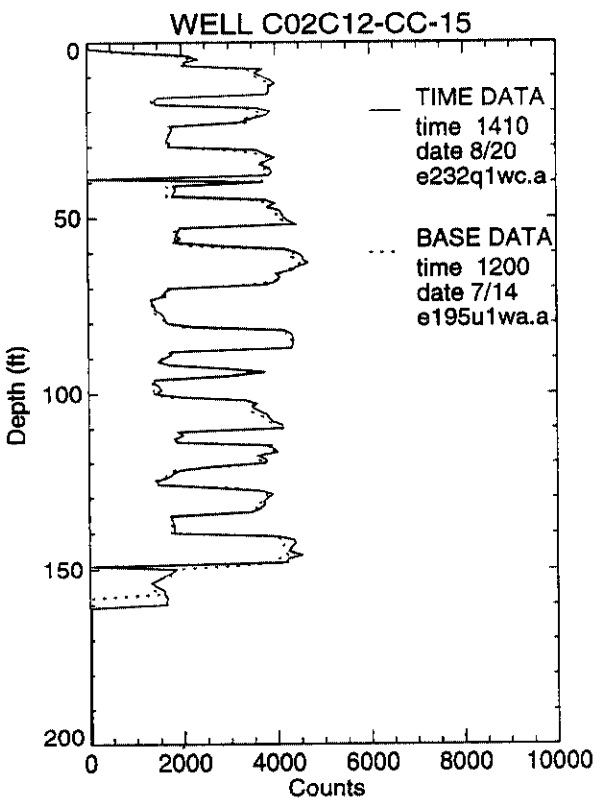
8000
10000


WELL C02C12-CC-15
TIME DATA
time 1410
date 8/20
e232q1wc.a
BASE DATA
time 1200
date 7/14
e195u1wa.a
Depth (ft)
Counts
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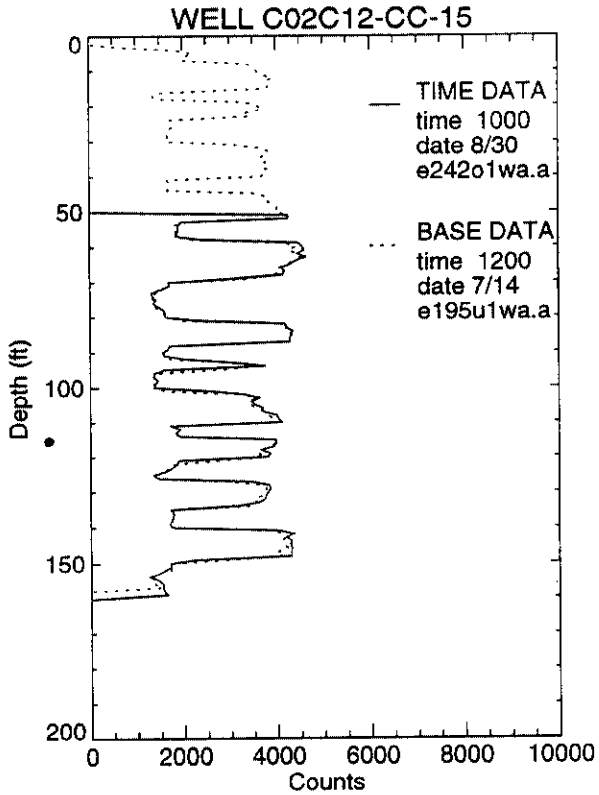
150
200
0
2000
4000
6000
8000
10000


WELL C02C12-CC-15
TIME DATA
time 1000
date 8/30
e242o1wa.a
BASE DATA
time 1200
date 7/14
e195u1wa.a
Depth (ft)
Counts
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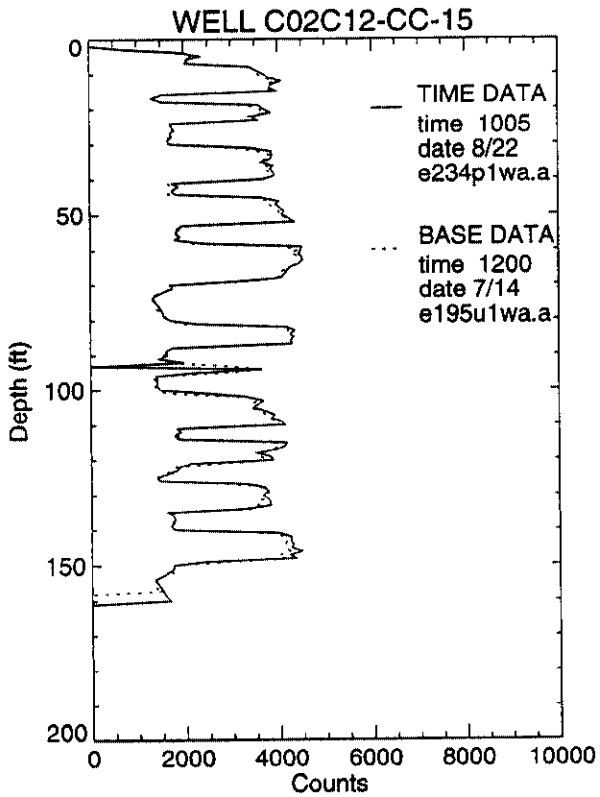
8000
10000


WELL C02C12-CC-15
TIME DATA
time 1005
date 8/22
e234p1wa.a
BASE DATA
time 1200
date 7/14
e195u1wa.a
Depth (ft)
Counts
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150
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0
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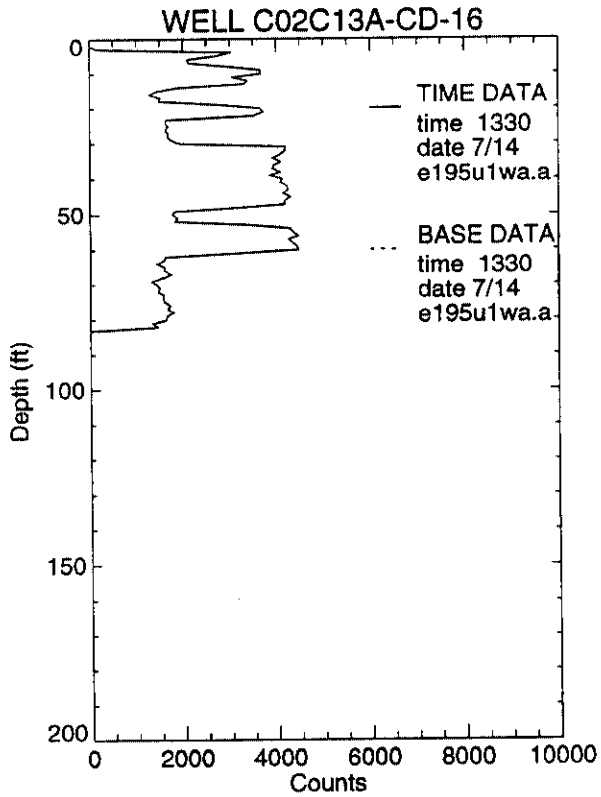
8000
10000


WELL C02C13A-CD-16
TIME DATA
time 1330
date 7/14
e195u1wa.a
BASE DATA
time 1330
date 7/14
e195u1wa.a
Depth (ft)
Counts
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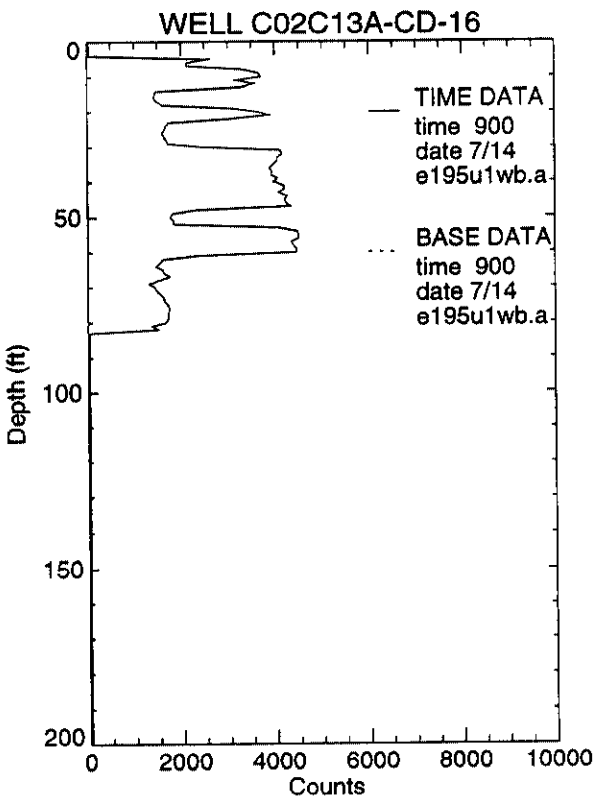
200
0
2000
4000
6000
8000
10000


WELL C02C13A-CD-16
TIME DATA
time 900
date 7/14
e195u1wb.a
BASE DATA
time 900
date 7/14
e195u1wb.a
Depth (ft)
Counts
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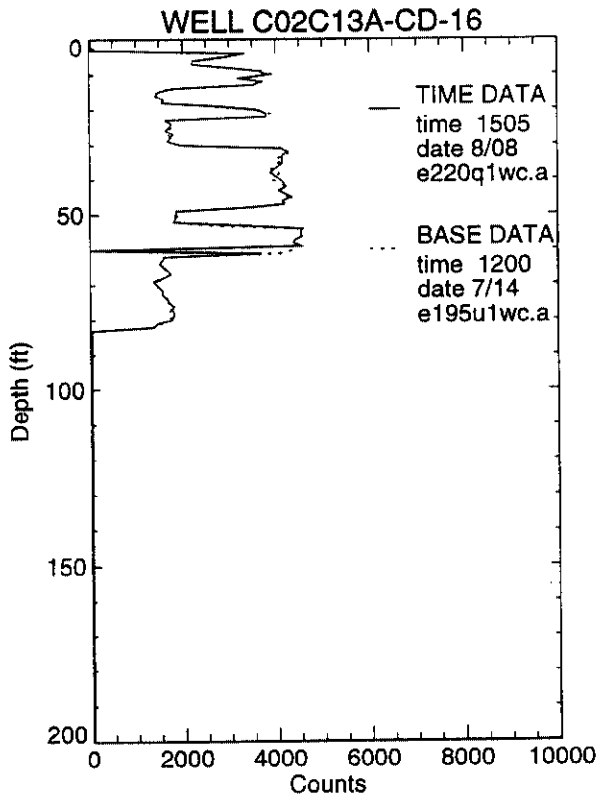
150
200
0
2000
4000
6000
8000
10000


WELL C02C13A-CD-16
TIME DATA
time 1505
date 8/08
e220q1wc.a
BASE DATA
time 1200
date 7/14
e195u1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
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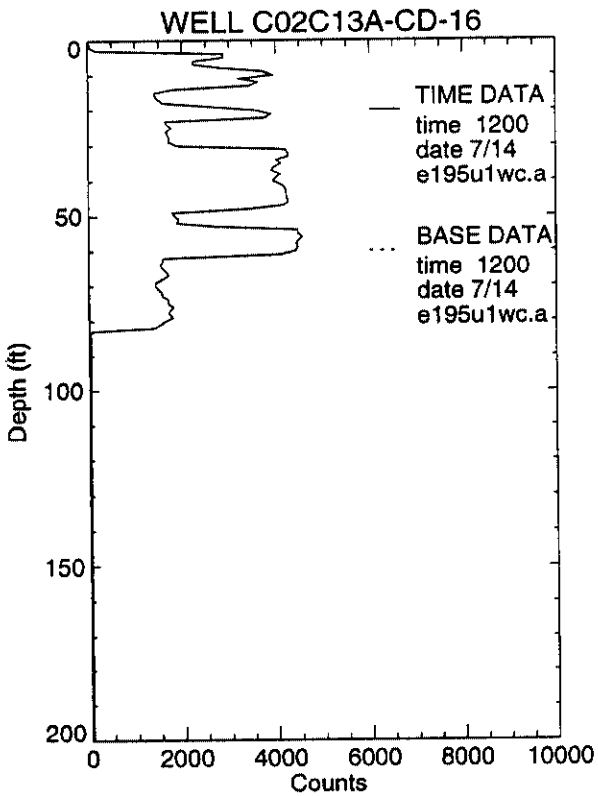
WELL C02C13A-CD-16
TIME DATA
time 1200
date 7/14
e195u1wc.a
BASE DATA
time 1200
date 7/14
e195u1wc.a
Depth (ft)
Counts
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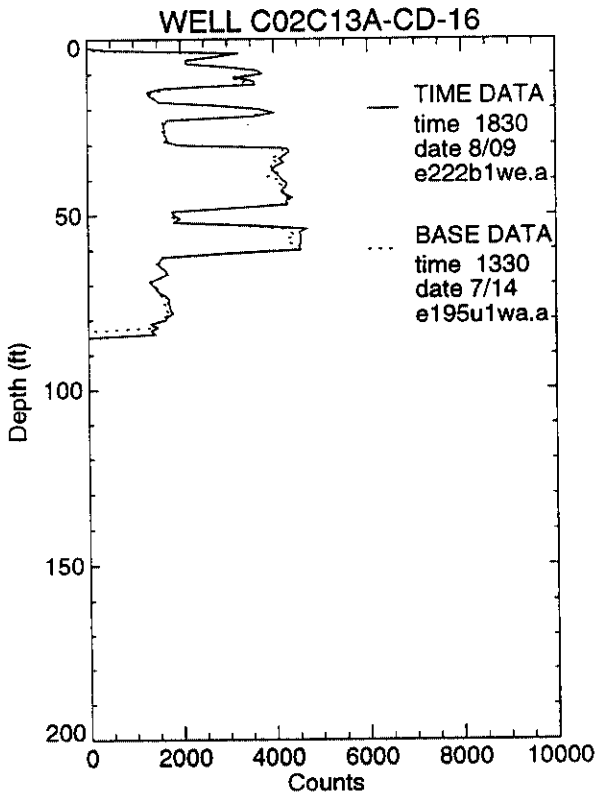
WELL C02C13A-CD-16
TIME DATA
time 1830
date 8/09
e222b1we.a
BASE DATA
time 1330
date 7/14
e195u1wa.a
Depth (ft)
Counts
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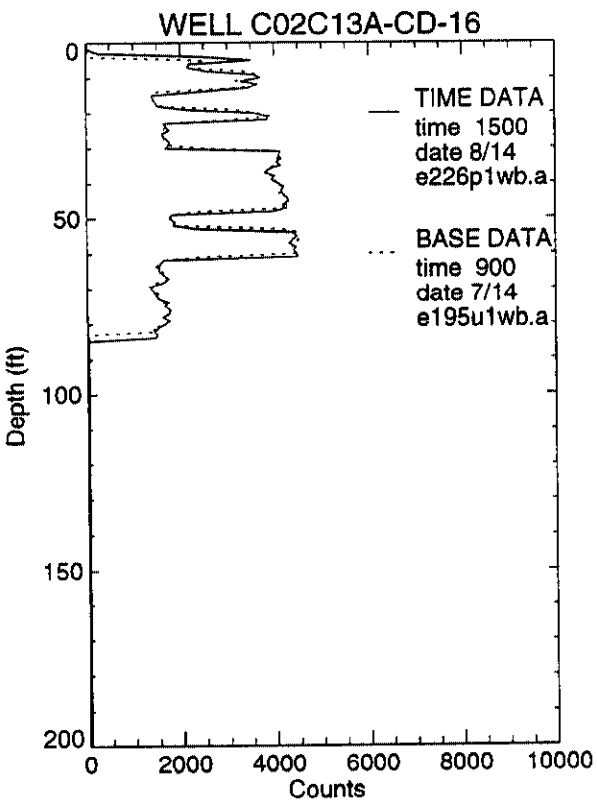
8000
10000


WELL C02C13A-CD-16
TIME DATA
time 1500
date 8/14
e226p1wb.a
BASE DATA
time 900
date 7/14
e195u1wb.a
Depth (ft)
Counts
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8000
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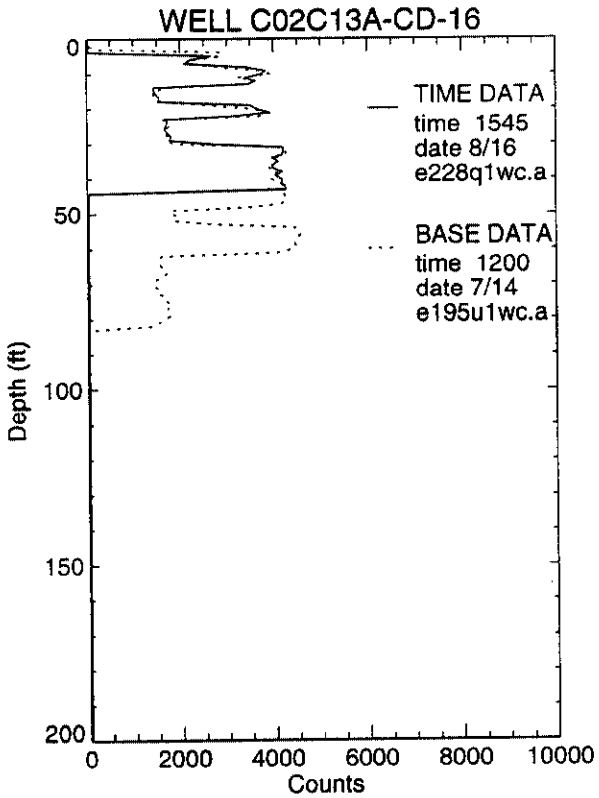
WELL C02C13A-CD-16
TIME DATA
time 1545
date 8/16
e228q1wc.a
BASE DATA
time 1200
date 7/14
e195u1wc.a
Depth (ft)
Counts
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0
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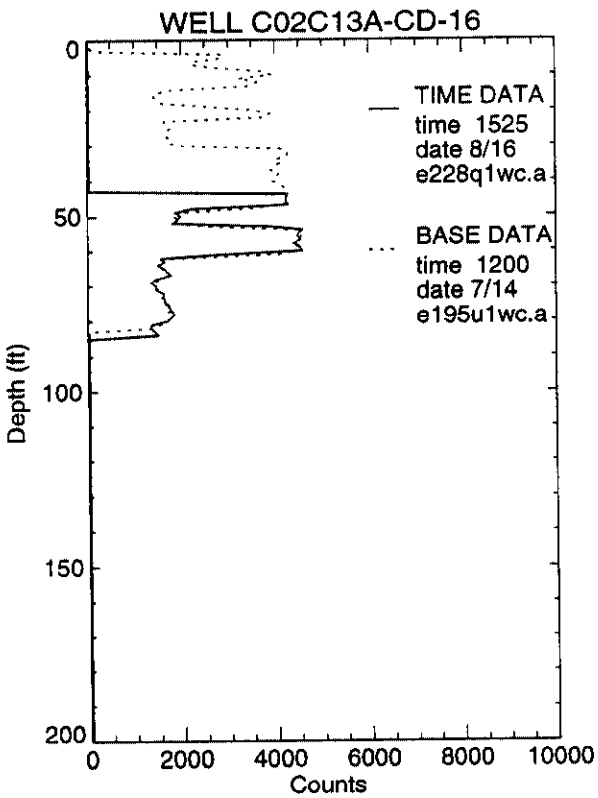
8000
10000


WELL C02C13A-CD-16
TIME DATA
time 1525
date 8/16
e228q1wc.a
BASE DATA
time 1200
date 7/14
e195u1wc.a
Depth (ft)
Counts
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150
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0
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8000
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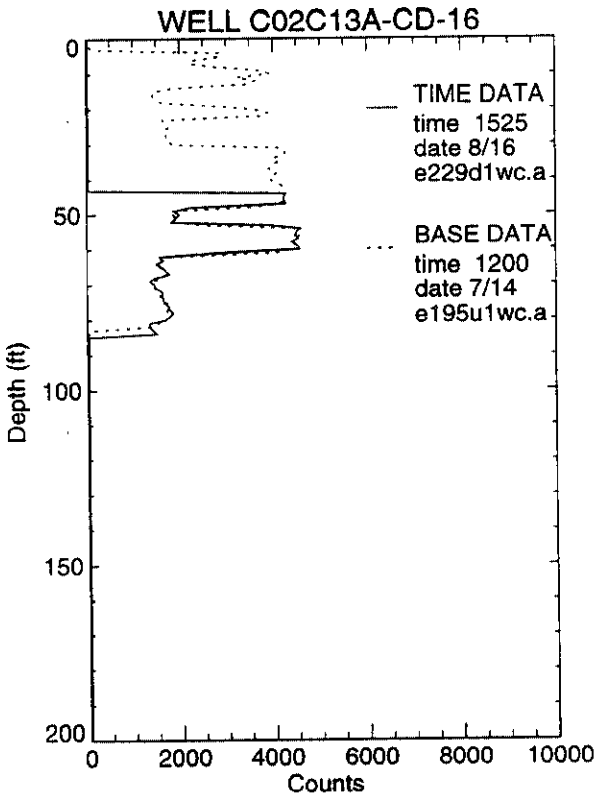
WELL C02C13A-CD-16
TIME DATA
time 1525
date 8/16
e229d1wc.a
BASE DATA
time 1200
date 7/14
e195u1wc.a
Depth (ft)
Counts
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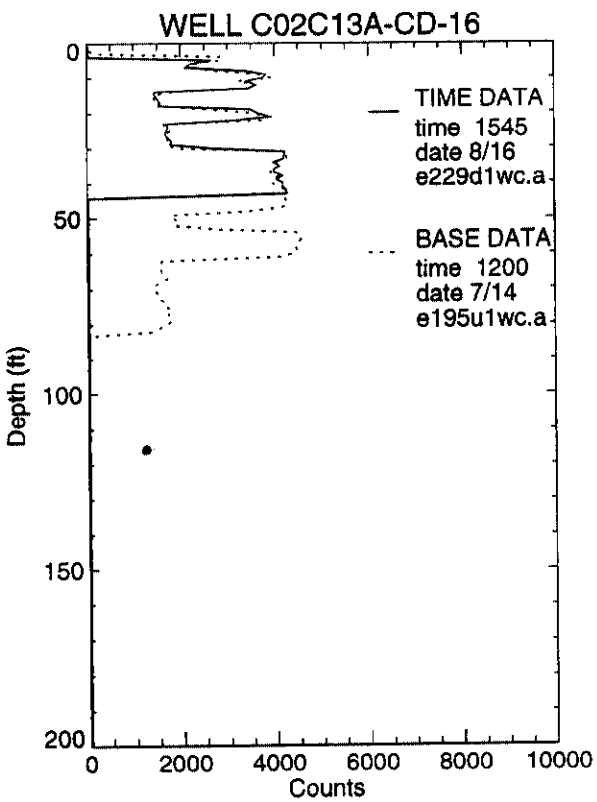
WELL C02C13A-CD-16
TIME DATA
time 1545
date 8/16
e229d1wc.a
BASE DATA
time 1200
date 7/14
e195u1wc.a
Depth (ft)
Counts
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100
150
200
0
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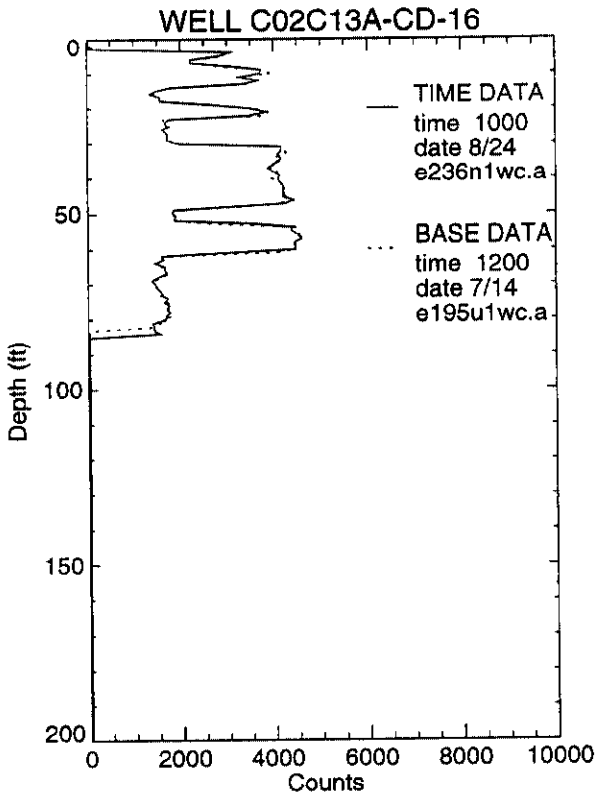
8000
10000


WELL C02C13A-CD-16
TIME DATA
time 1000
date 8/24
e236n1wc.a
BASE DATA
time 1200
date 7/14
e195u1wc.a
Depth (ft)
Counts
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150
200
0
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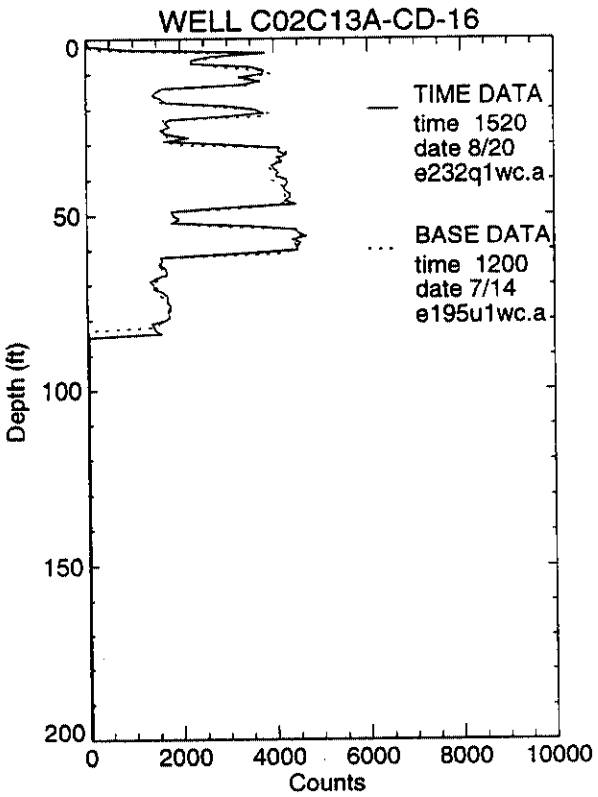
4000
6000
8000
10000


WELL C02C13A-CD-16
TIME DATA
time 1520
date 8/20
e232q1wc.a
BASE DATA
time 1200
date 7/14
e195u1wc.a
Depth (ft)
Counts
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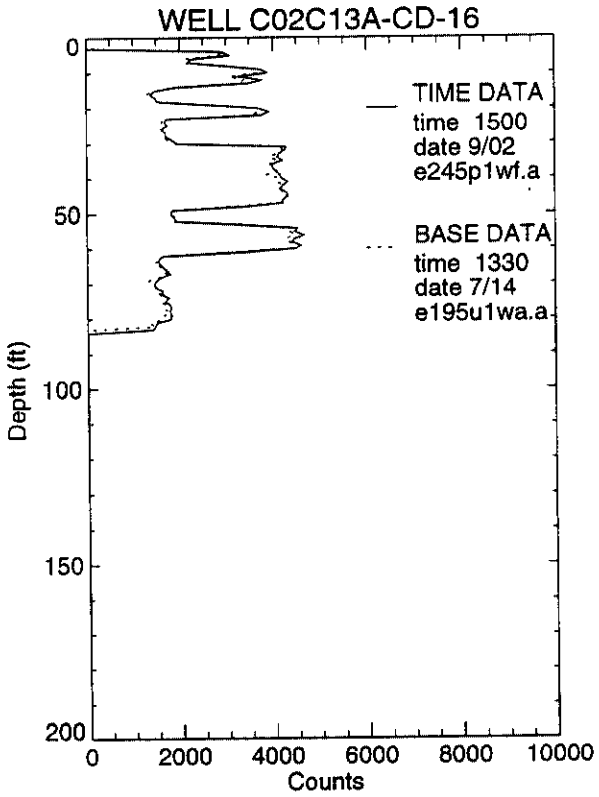
6000
8000
10000


WELL C02C13A-CD-16
TIME DATA
time 1500
date 9/02
e245p1wf.a
BASE DATA
time 1330
date 7/14
e195u1wa.a
Depth (ft)
Counts
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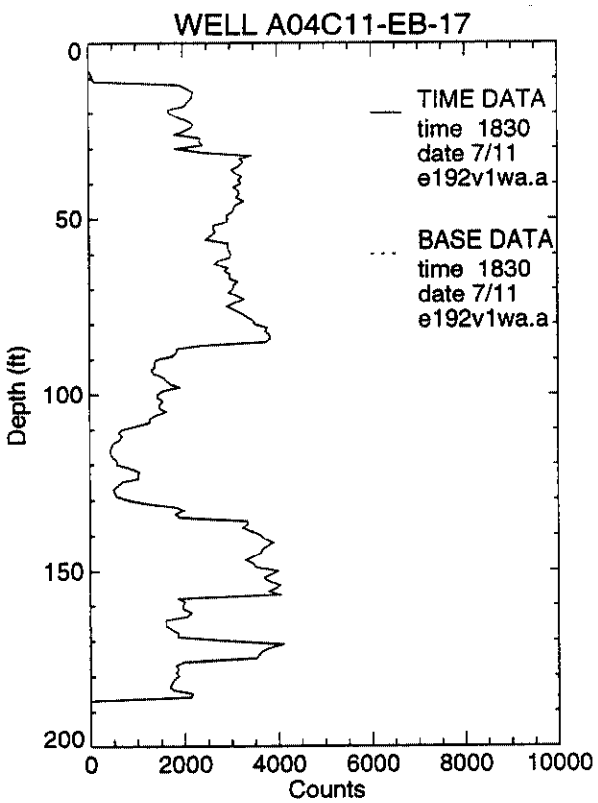
4000
6000
8000
10000


WELL A04C11-EB-17
TIME DATA
time 1830
date 7/11
e192v1wa.a
BASE DATA
time 1830
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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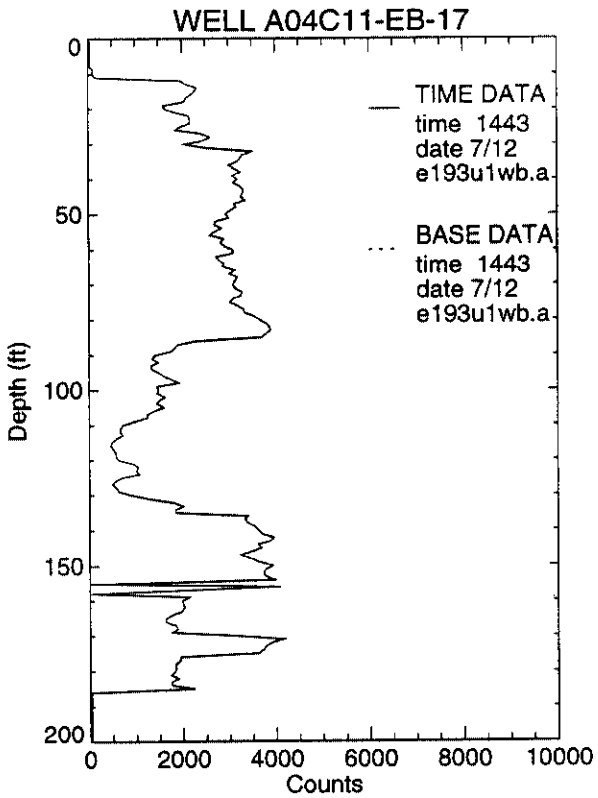
4000
6000
8000
10000


WELL A04C11-EB-17
TIME DATA
time 1443
date 7/12
e193u1wb.a
BASE DATA
time 1443
date 7/12
e193u1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
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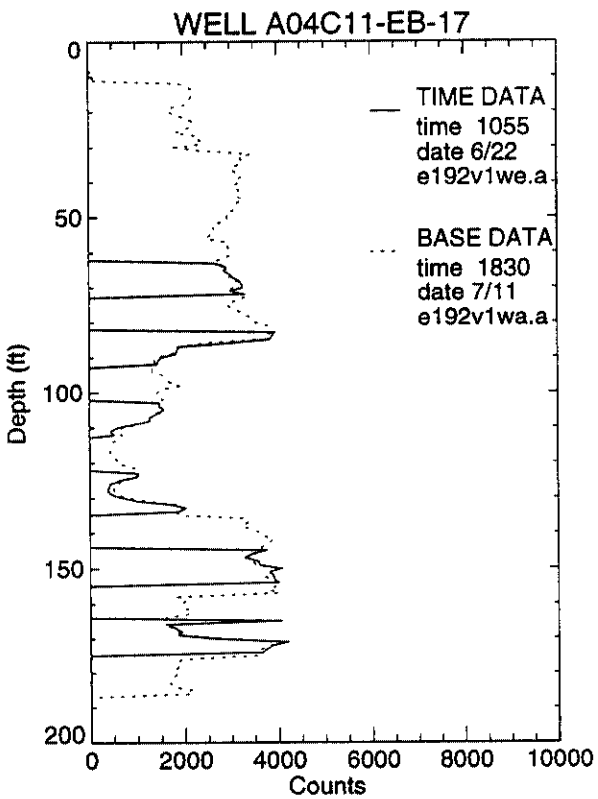
6000
8000
10000


WELL A04C11-EB-17
TIME DATA
time 1055
date 6/22
e192v1we.a
BASE DATA
time 1830
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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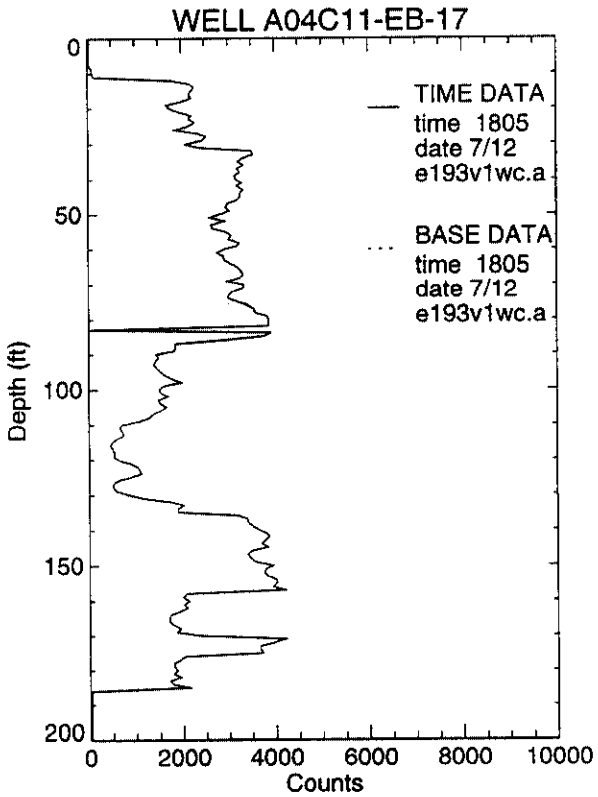
6000
8000
10000


WELL A04C11-EB-17
TIME DATA
time 1805
date 7/12
e193v1wc.a
BASE DATA
time 1805
date 7/12
e193v1wc.a
Depth (ft)
Counts
0
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0
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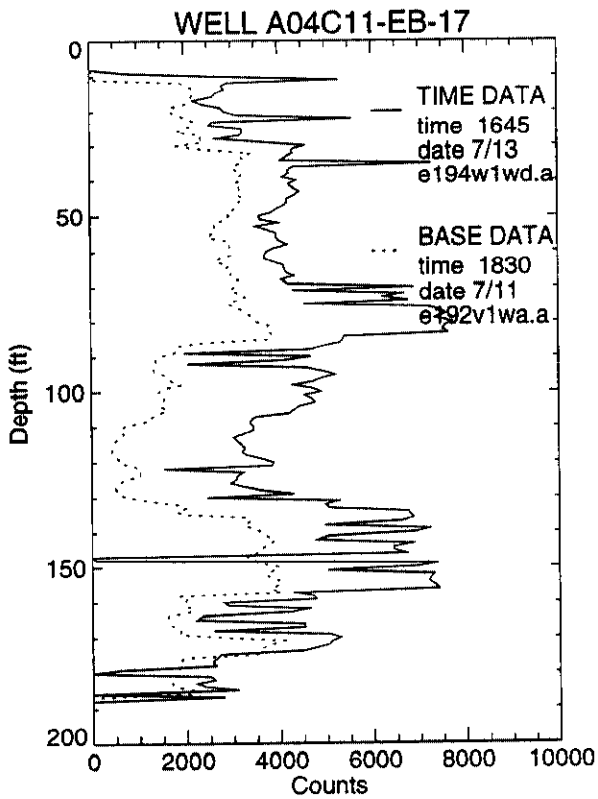
8000
10000


WELL A04C11-EB-17
TIME DATA
time 1645
date 7/13
e194w1wd.a
BASE DATA
time 1830
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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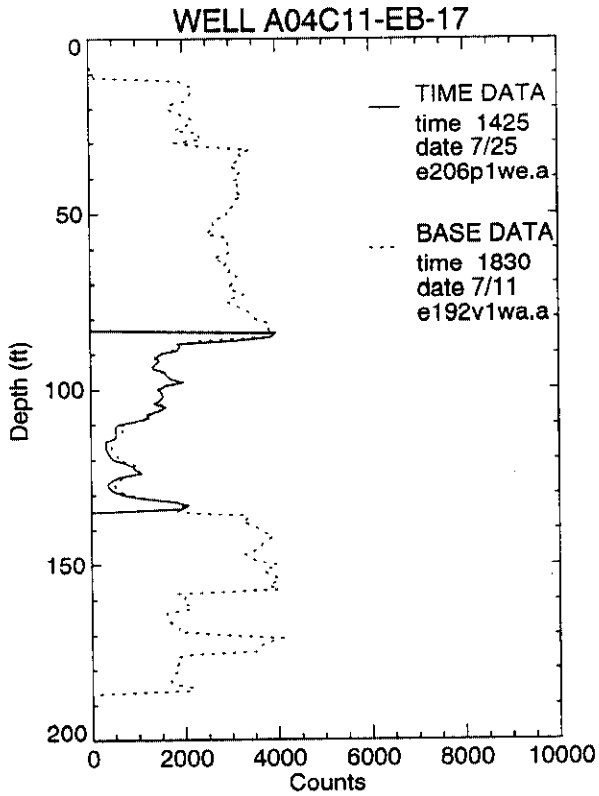
WELL A04C11-EB-17
TIME DATA
time 1425
date 7/25
e206p1we.a
BASE DATA
time 1830
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
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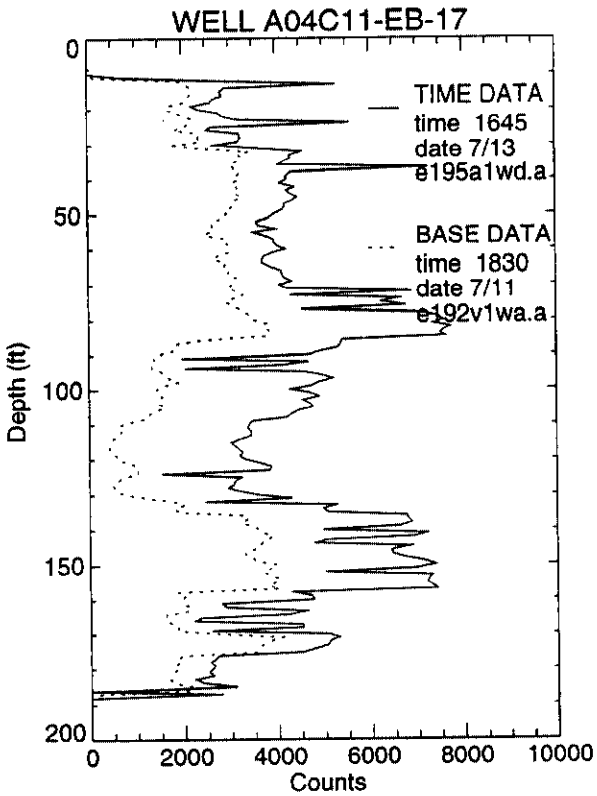
4000
6000
8000
10000


WELL A04C11-EB-17
TIME DATA
time 1645
date 7/13
e195a1wd.a
BASE DATA
time 1830
date 7/11
e192v1wa.a
Depth (ft)
Counts
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150
200
0
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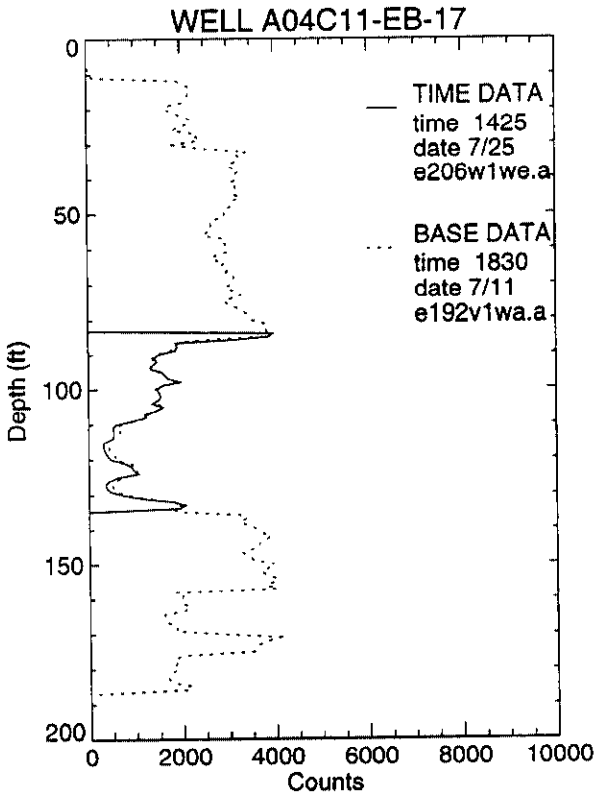
4000
6000
8000
10000


WELL A04C11-EB-17
TIME DATA
time 1425
date 7/25
e206w1we.a
BASE DATA
time 1830
date 7/11
e192v1wa.a
Depth (ft)
Counts
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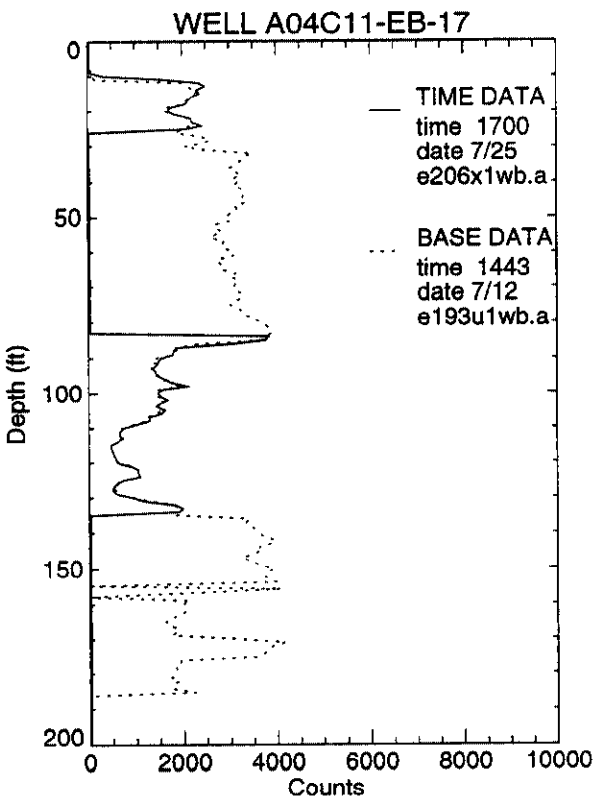
8000
10000


WELL A04C11-EB-17
TIME DATA
time 1700
date 7/25
e206x1wb.a
BASE DATA
time 1443
date 7/12
e193u1wb.a
Depth (ft)
Counts
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150
200
0
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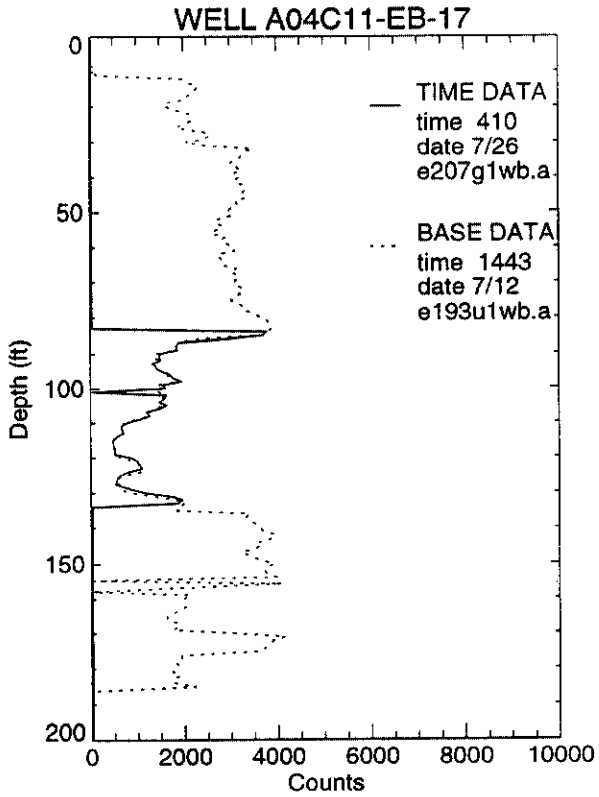
4000
6000
8000
10000


WELL A04C11-EB-17
TIME DATA
time 410
date 7/26
e207g1wb.a
BASE DATA
time 1443
date 7/12
e193u1wb.a
Depth (ft)
Counts
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150
200
0
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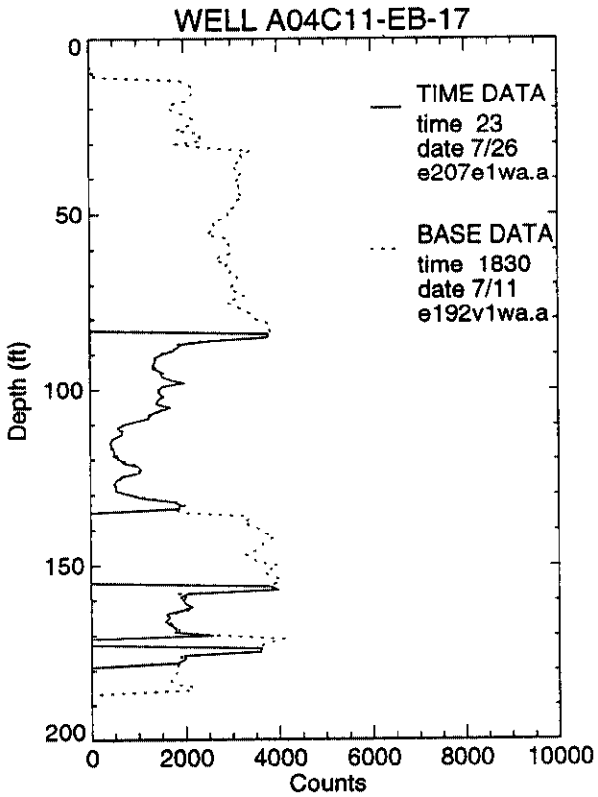
6000
8000
10000


WELL A04C11-EB-17
TIME DATA
time 23
date 7/26
e207e1wa.a
BASE DATA
time 1830
date 7/11
e192v1wa.a
Depth (ft)
Counts
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150
200
0
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4000
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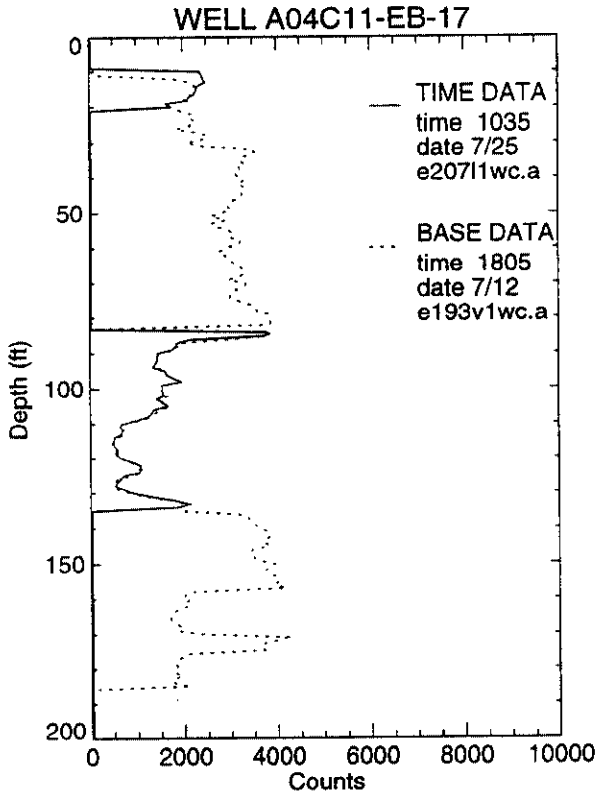
8000
10000


WELL A04C11-EB-17
TIME DATA
time 1035
date 7/25
e207l1wc.a
BASE DATA
time 1805
date 7/12
e193v1wc.a
Depth (ft)
Counts
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150
200
0
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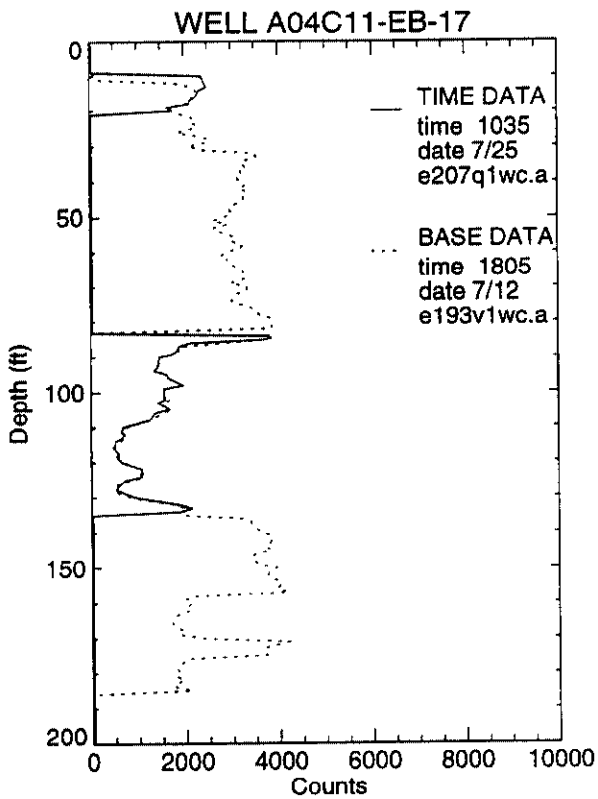
4000
6000
8000
10000


WELL A04C11-EB-17
TIME DATA
time 1035
date 7/25
e207q1wc.a
BASE DATA
time 1805
date 7/12
e193v1wc.a
Depth (ft)
Counts
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150
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0
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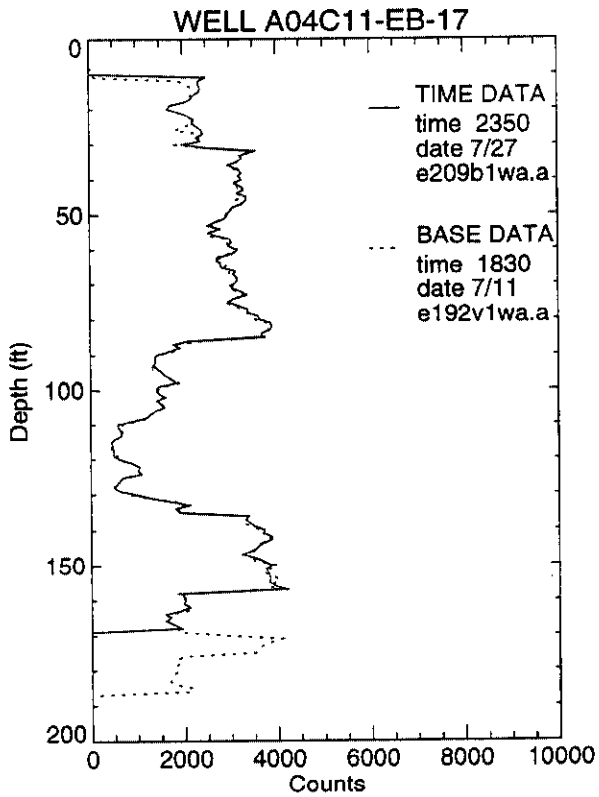
6000
8000
10000


WELL A04C11-EB-17
TIME DATA
time 2350
date 7/27
e209b1wa.a
BASE DATA
time 1830
date 7/11
e192v1wa.a
Depth (ft)
Counts
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0
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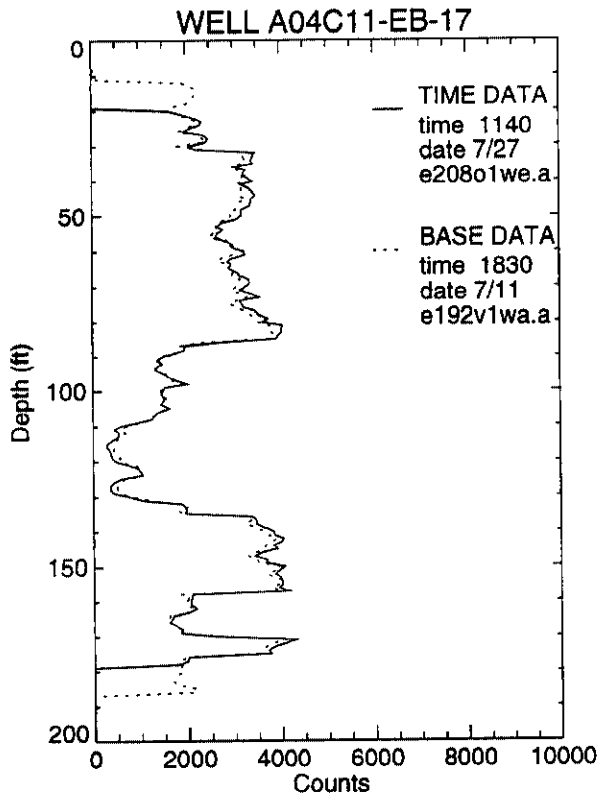
8000
10000


WELL A04C11-EB-17
TIME DATA
time 1140
date 7/27
e208o1we.a
BASE DATA
time 1830
date 7/11
e192v1wa.a
Depth (ft)
Counts
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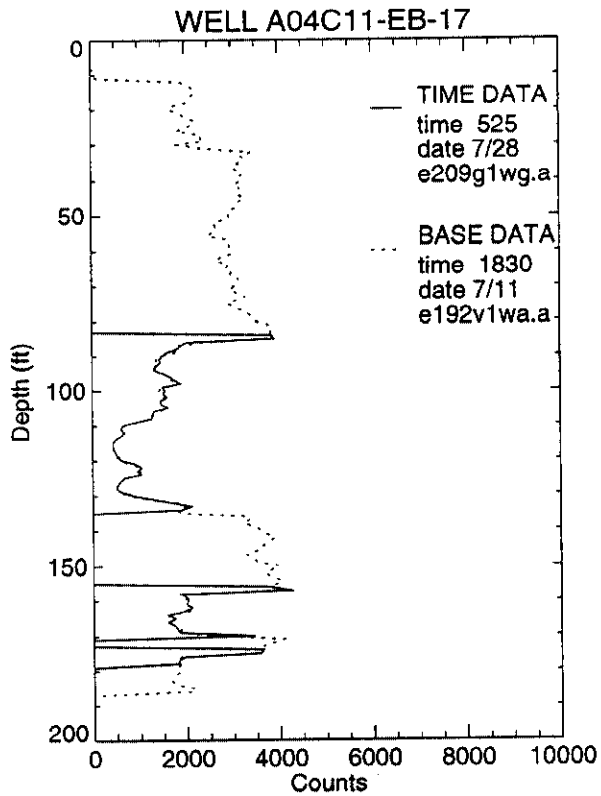
8000
10000


WELL A04C11-EB-17
TIME DATA
time 525
date 7/28
e209g1wg.a
BASE DATA
time 1830
date 7/11
e192v1wa.a
Depth (ft)
Counts
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150
200
0
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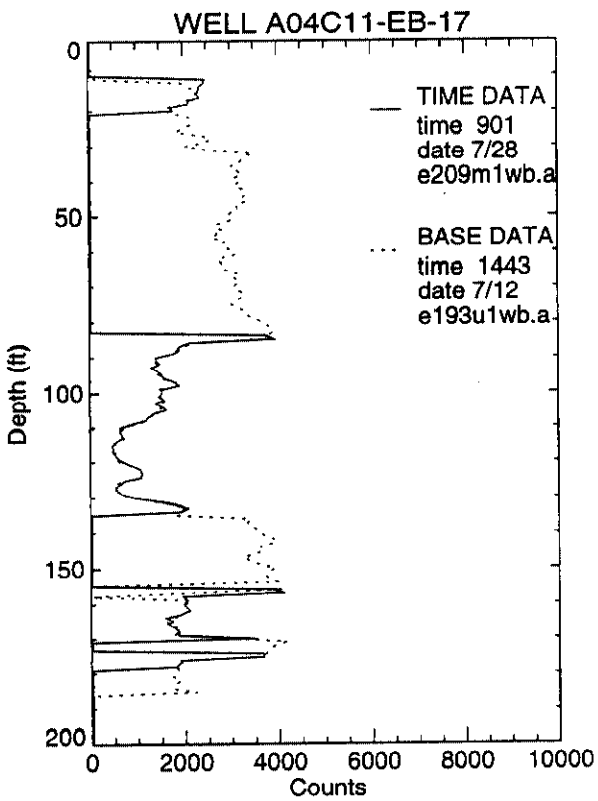
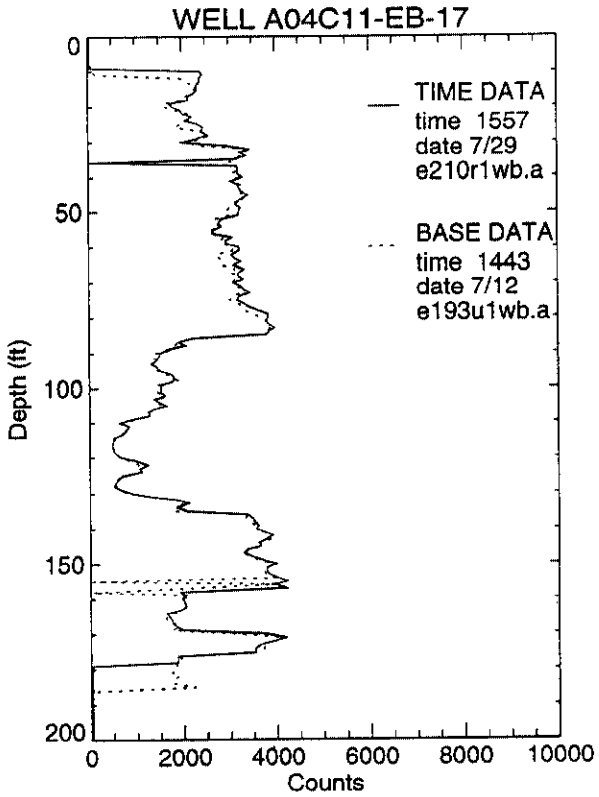
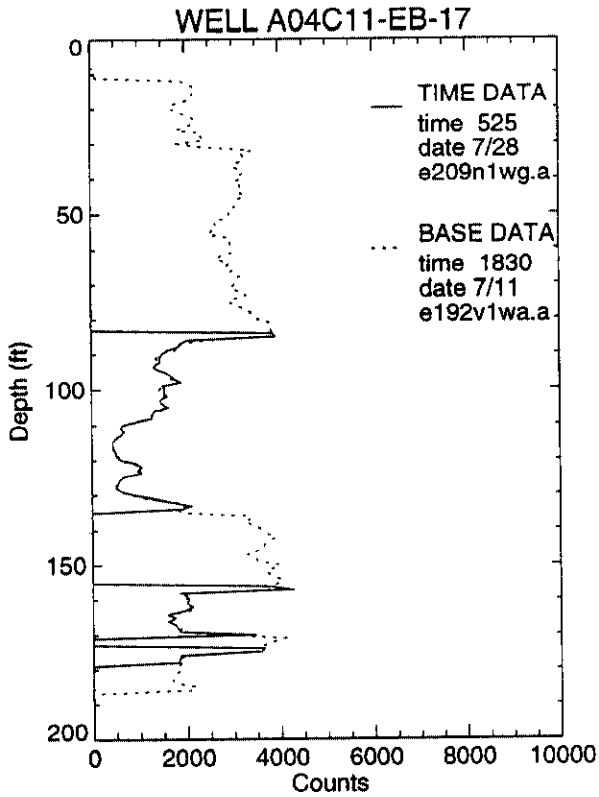
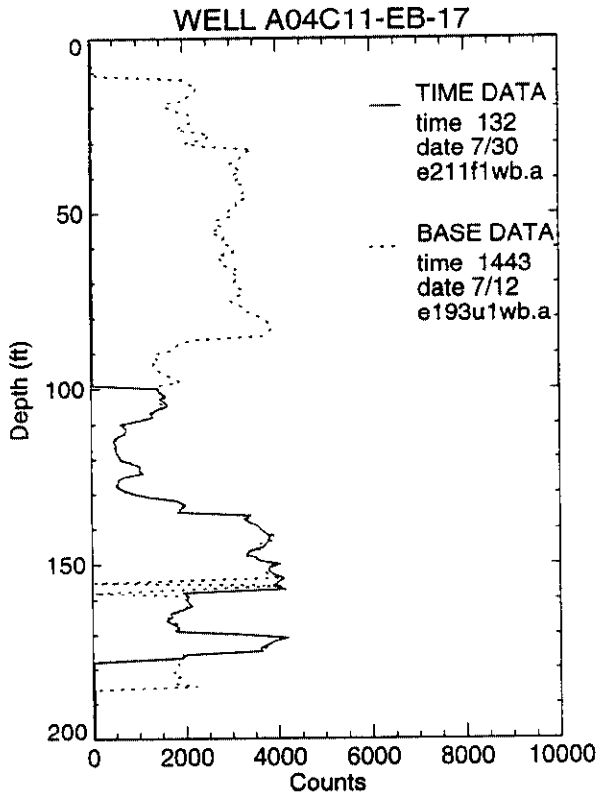
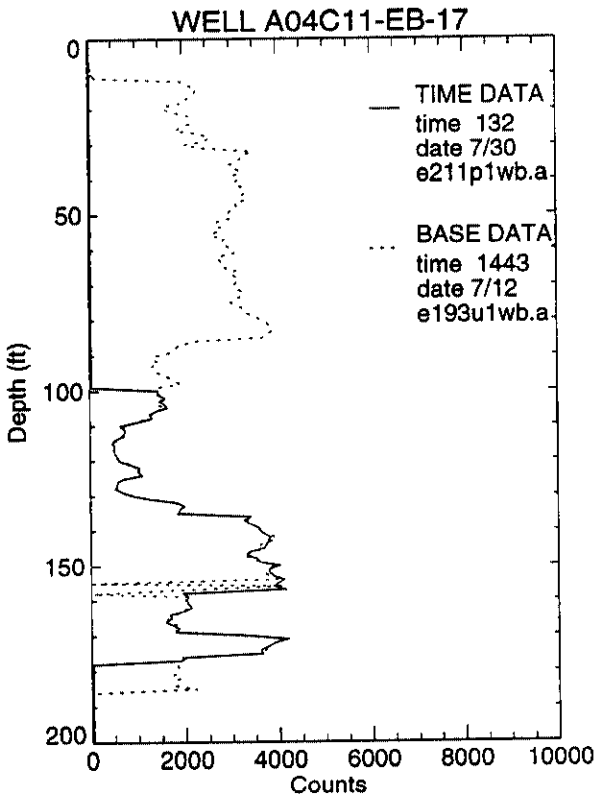
4000
6000
8000
10000


WELL A04C11-EB-17
TIME DATA
time 901
date 7/28
e209m1wb.a
BASE DATA
time 1443
date 7/12
e193u1wb.a
Depth (ft)
Counts


WELL A04C11-EB-17
TIME DATA
time 1557
date 7/29
e210r1wb.a
BASE DATA
time 1443
date 7/12
e193u1wb.a
Depth (ft)
Counts


WELL A04C11-EB-17
TIME DATA
time 525
date 7/28
e209n1wg.a
BASE DATA
time 1830
date 7/11
e192v1wa.a
Depth (ft)
Counts


WELL A04C11-EB-17
TIME DATA
time 132
date 7/30
e211f1wb.a
BASE DATA
time 1443
date 7/12
e193u1wb.a
Depth (ft)
Counts


WELL A04C11-EB-17
TIME DATA
time 132
date 7/30
e211p1wb.a
BASE DATA
time 1443
date 7/12
e193u1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
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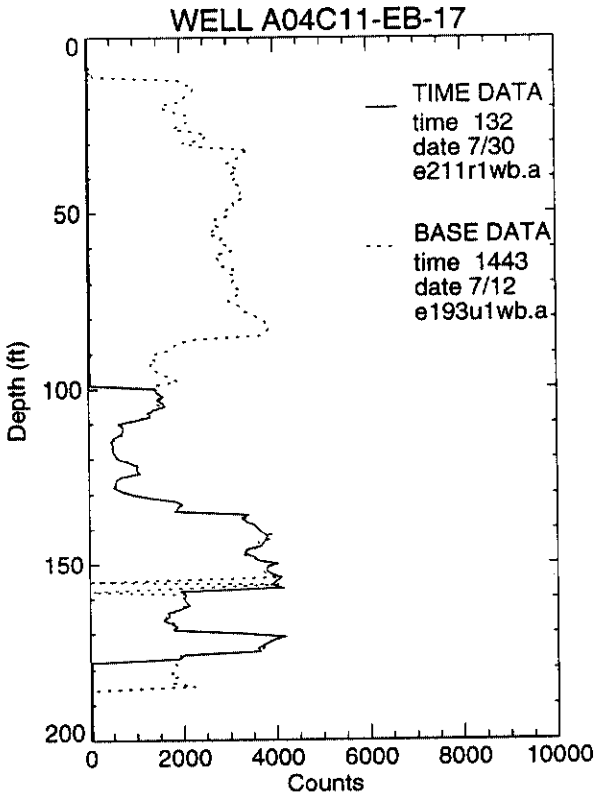
4000
6000
8000
10000


WELL A04C11-EB-17
TIME DATA
time 132
date 7/30
e211r1wb.a
BASE DATA
time 1443
date 7/12
e193u1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
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4000
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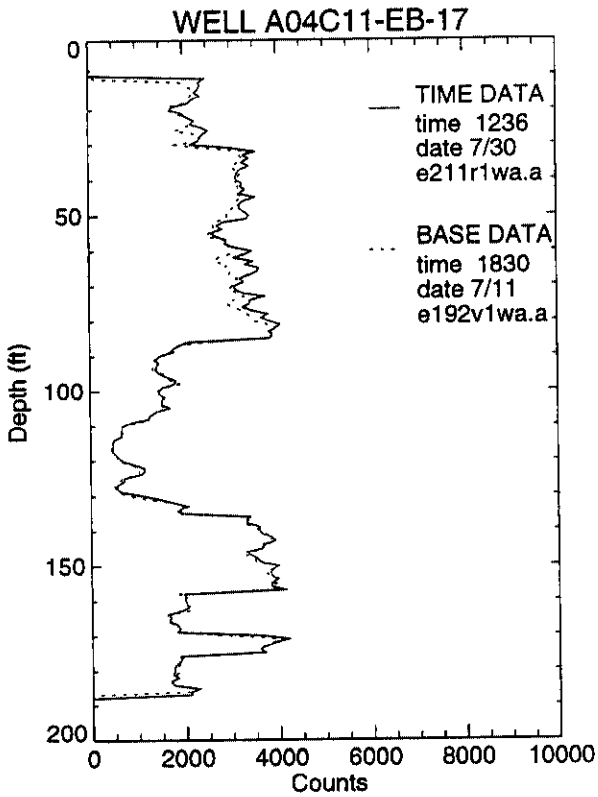
8000
10000


WELL A04C11-EB-17
TIME DATA
time 1236
date 7/30
e211r1wa.a
BASE DATA
time 1830
date 7/11
e192v1wa.a
Depth (ft)
Counts
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0
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4000
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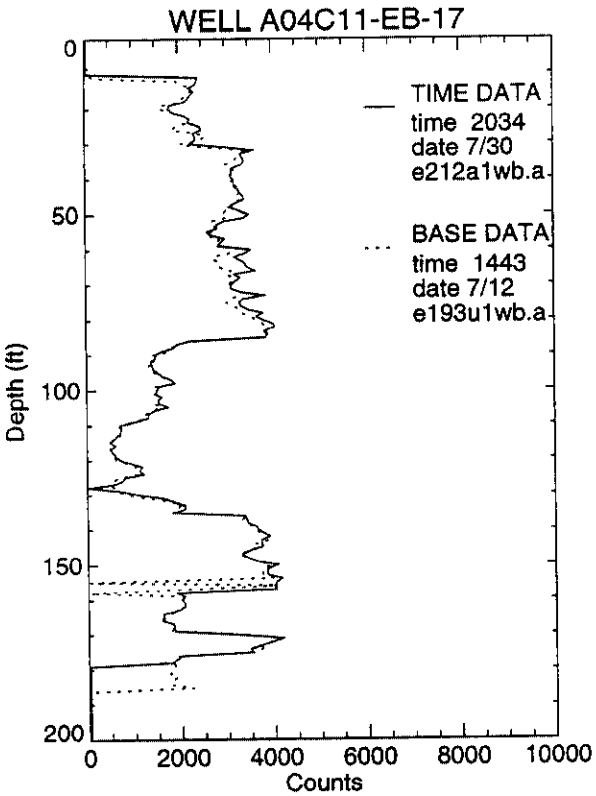
8000
10000


WELL A04C11-EB-17
TIME DATA
time 2034
date 7/30
e212a1wb.a
BASE DATA
time 1443
date 7/12
e193u1wb.a
Depth (ft)
Counts
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0
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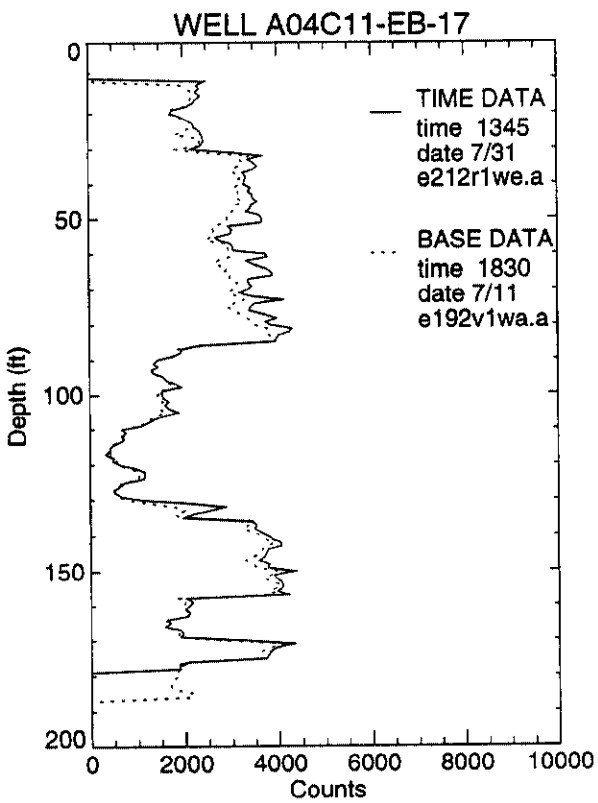
8000
10000


WELL A04C11-EB-17
TIME DATA
time 1345
date 7/31
e212r1we.a
BASE DATA
time 1830
date 7/11
e192v1wa.a
Depth (ft)
Counts
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150
200
0
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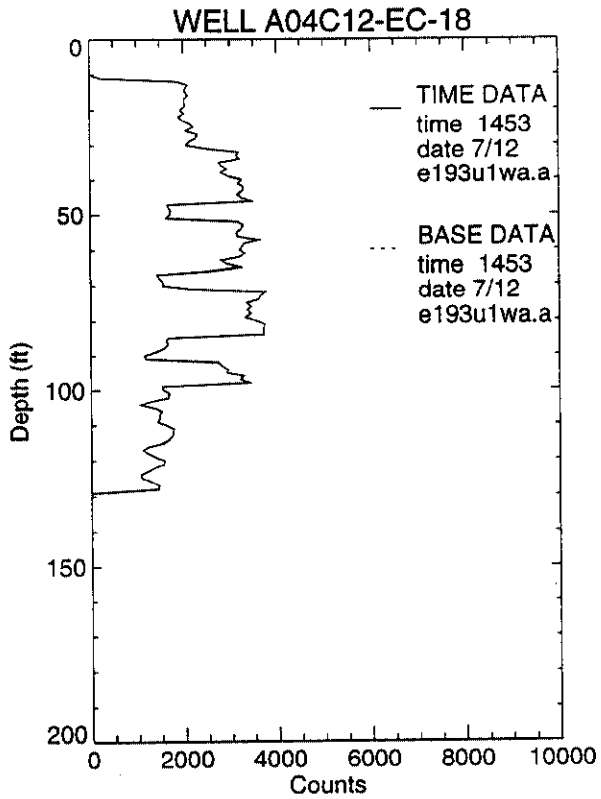
4000
6000
8000
10000


WELL A04C12-EC-18
TIME DATA
time 1453
date 7/12
e193u1wa.a
BASE DATA
time 1453
date 7/12
e193u1wa.a
Depth (ft)
Counts
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100
150
200
0
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4000
6000
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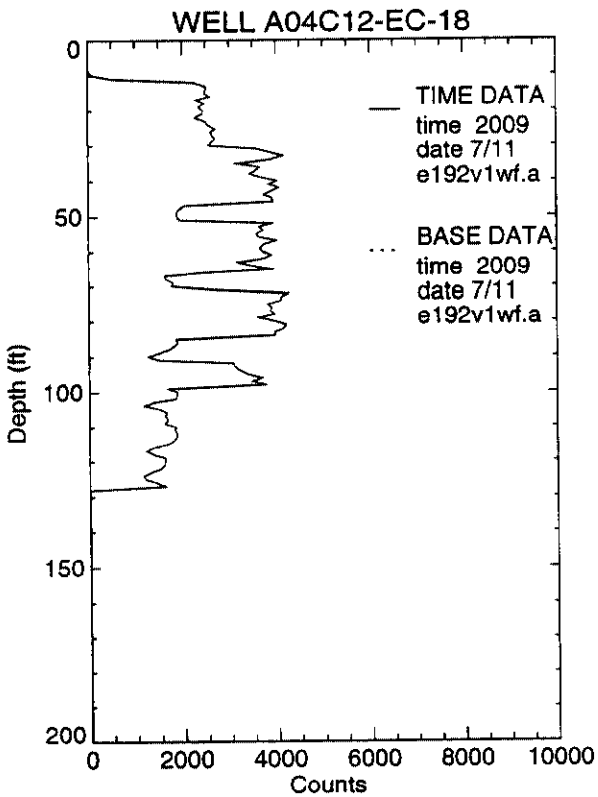
WELL A04C12-EC-18
TIME DATA
time 2009
date 7/11
e192v1wf.a
BASE DATA
time 2009
date 7/11
e192v1wf.a
Depth (ft)
Counts
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6000
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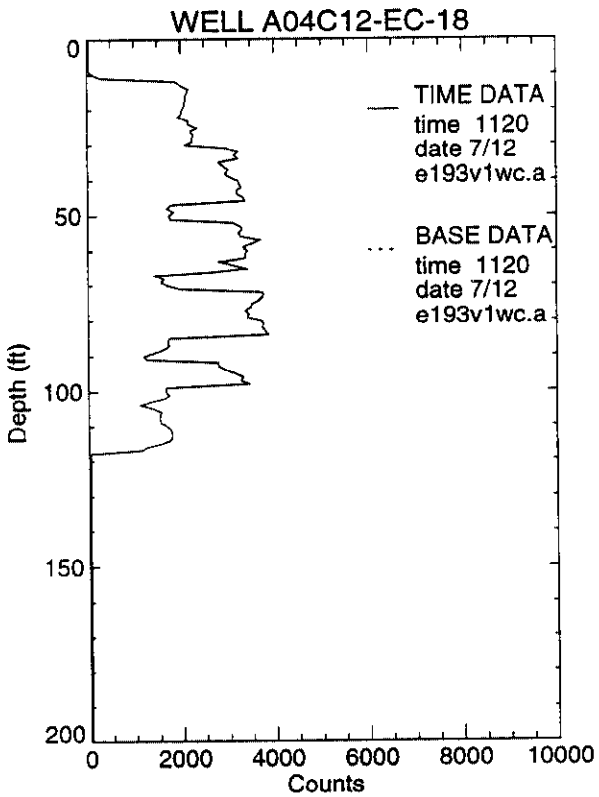
10000


WELL A04C12-EC-18
TIME DATA
time 1120
date 7/12
e193v1wc.a
BASE DATA
time 1120
date 7/12
e193v1wc.a
Depth (ft)
Counts
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150
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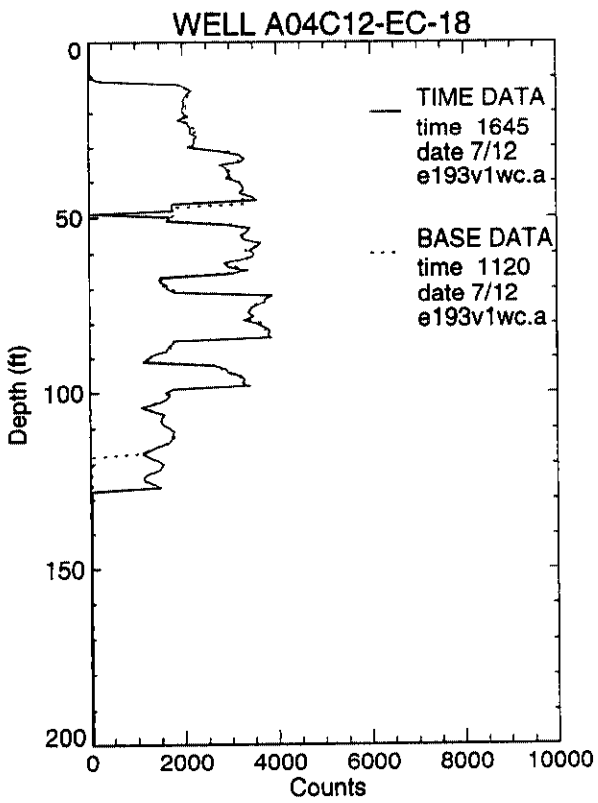
WELL A04C12-EC-18
TIME DATA
time 1645
date 7/12
e193v1wc.a
BASE DATA
time 1120
date 7/12
e193v1wc.a
Depth (ft)
Counts
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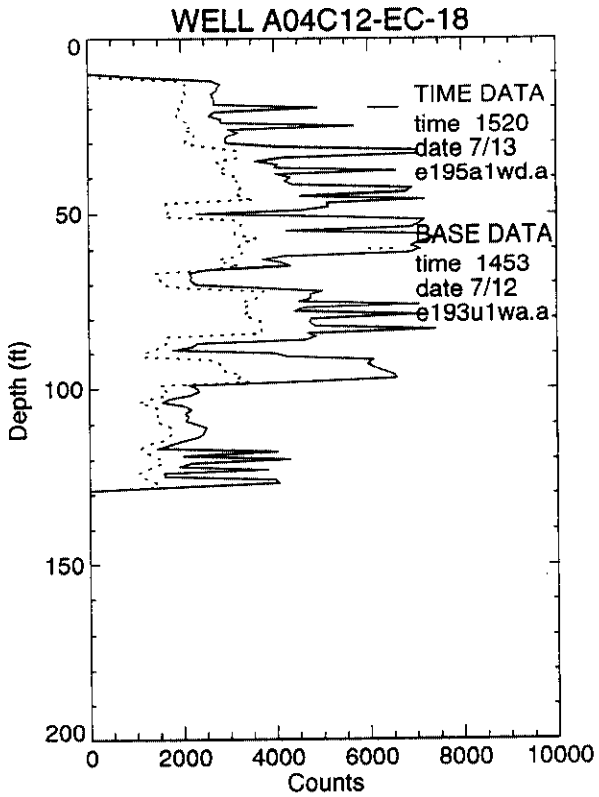
WELL A04C12-EC-18
TIME DATA
time 1520
date 7/13
e195a1wd.a
BASE DATA
time 1453
date 7/12
e193u1wa.a
Depth (ft)
Counts
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0
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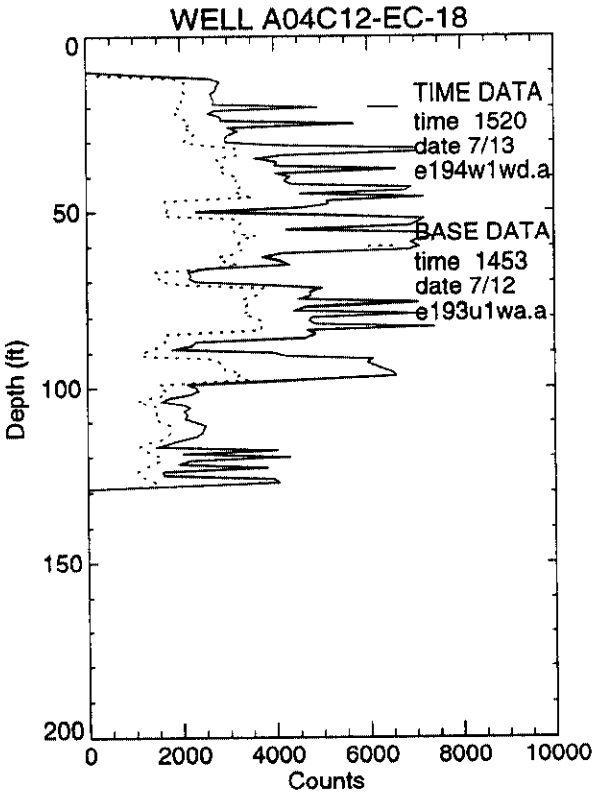
10000


WELL A04C12-EC-18
TIME DATA
time 1520
date 7/13
e194w1wd.a
BASE DATA
time 1453
date 7/12
e193u1wa.a
Depth (ft)
Counts
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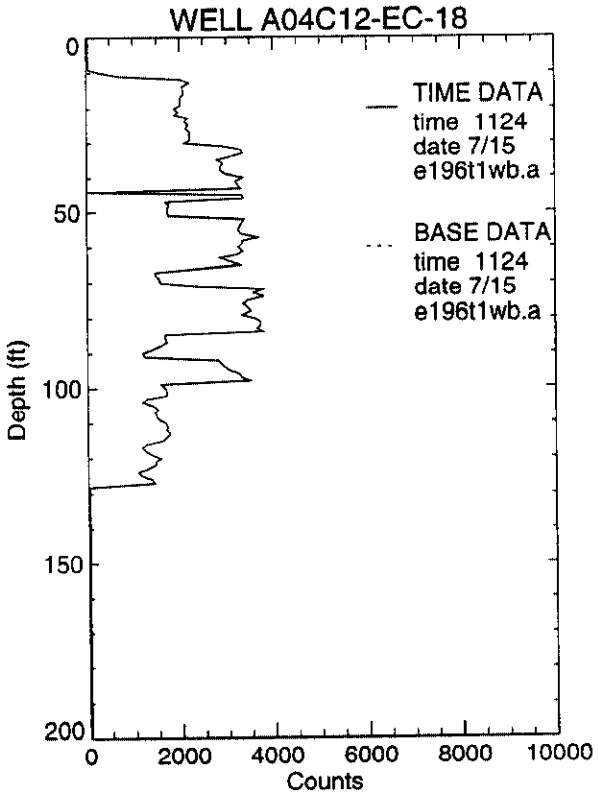
WELL A04C12-EC-18
TIME DATA
time 1124
date 7/15
e196t1wb.a
BASE DATA
time 1124
date 7/15
e196t1wb.a
Depth (ft)
Counts
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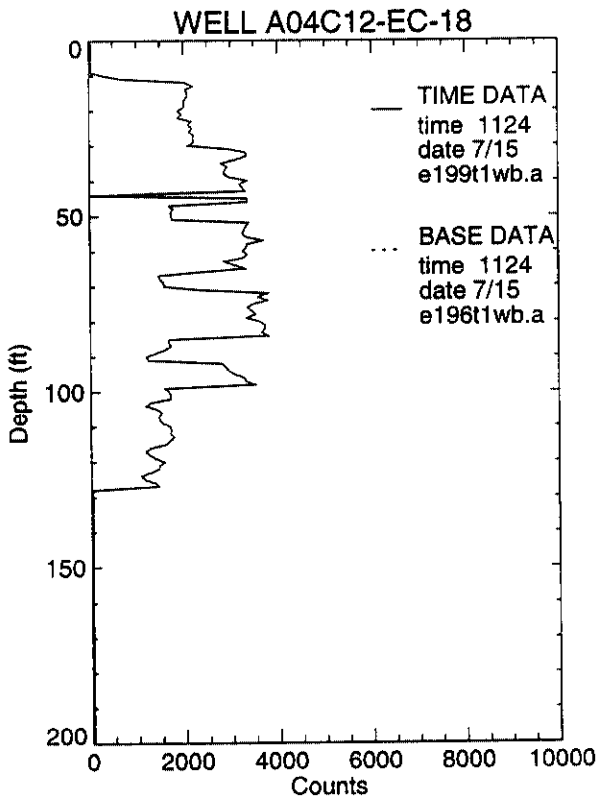
WELL A04C12-EC-18
TIME DATA
time 1124
date 7/15
e199t1wb.a
BASE DATA
time 1124
date 7/15
e196t1wb.a
Depth (ft)
Counts
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150
200
0
2000
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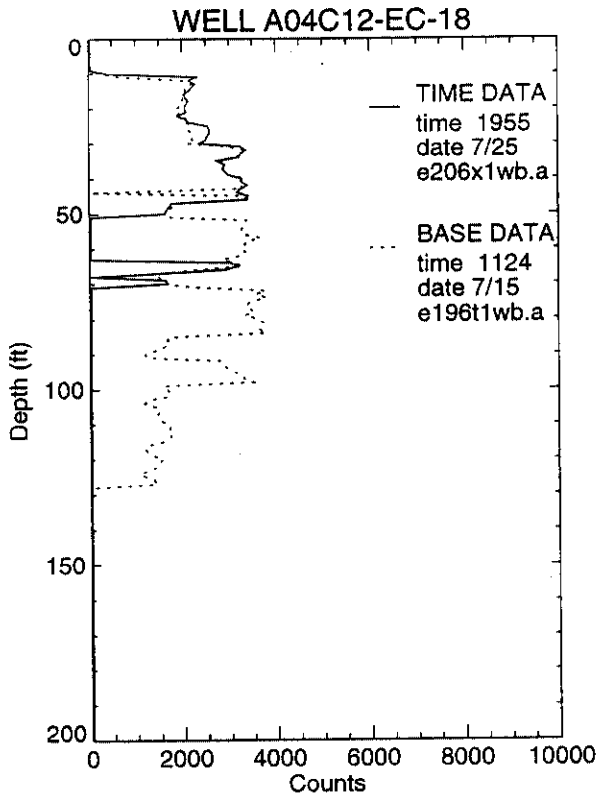
6000
8000
10000


WELL A04C12-EC-18
TIME DATA
time 1955
date 7/25
e206x1wb.a
BASE DATA
time 1124
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
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150
200
0
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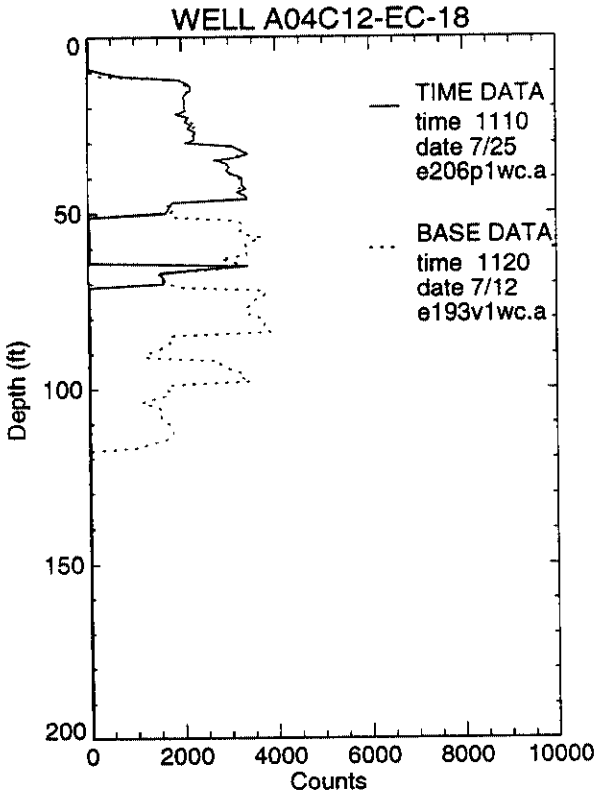
4000
6000
8000
10000


WELL A04C12-EC-18
TIME DATA
time 1110
date 7/25
e206p1wc.a
BASE DATA
time 1120
date 7/12
e193v1wc.a
Depth (ft)
Counts
0
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100
150
200
0
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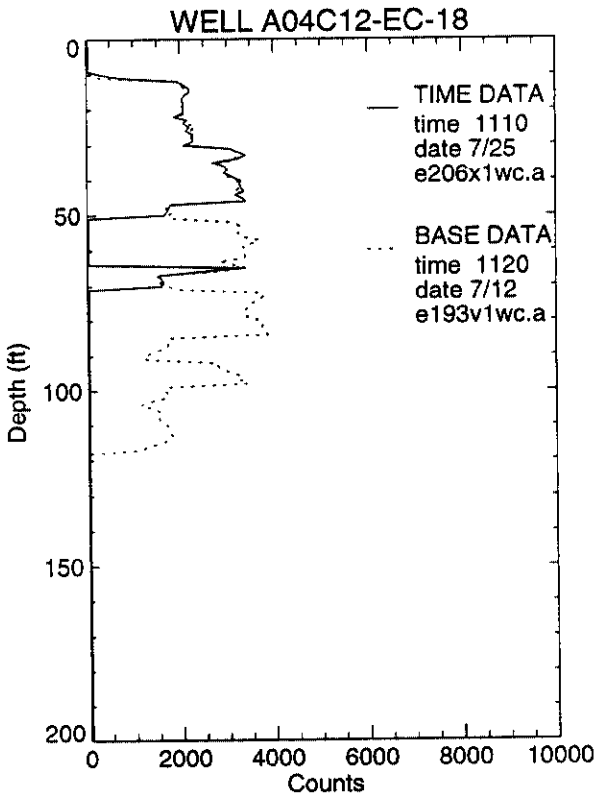
6000
8000
10000


WELL A04C12-EC-18
TIME DATA
time 1110
date 7/25
e206x1wc.a
BASE DATA
time 1120
date 7/12
e193v1wc.a
Depth (ft)
Counts
0
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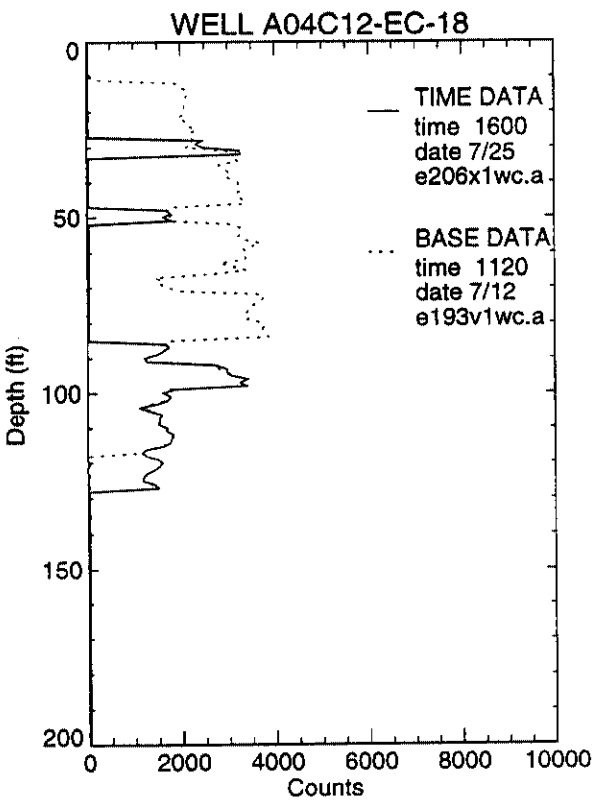
100
150
200
0
2000
4000
6000
8000
10000


WELL A04C12-EC-18
TIME DATA
time 1600
date 7/25
e206x1wc.a
BASE DATA
time 1120
date 7/12
e193v1wc.a
Depth (ft)
Counts
0
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150
200
0
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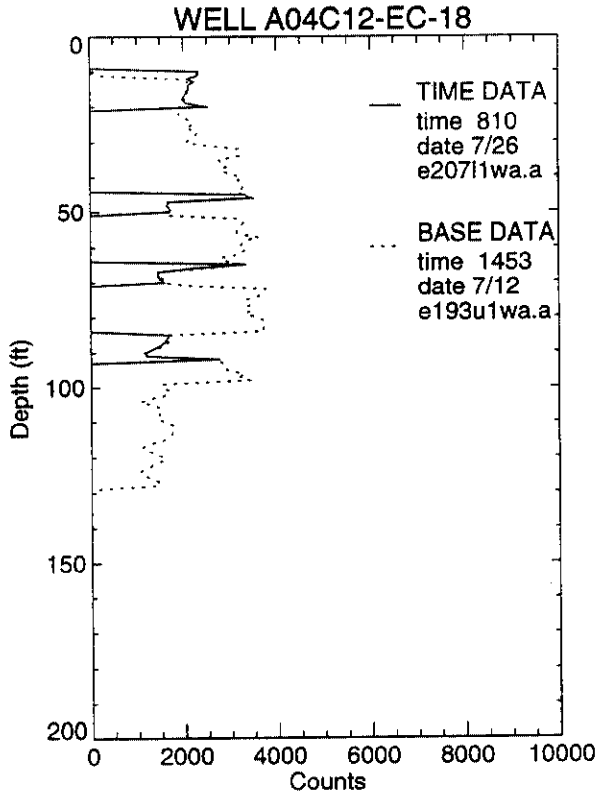
6000
8000
10000


WELL A04C12-EC-18
TIME DATA
time 810
date 7/26
e207l1wa.a
BASE DATA
time 1453
date 7/12
e193u1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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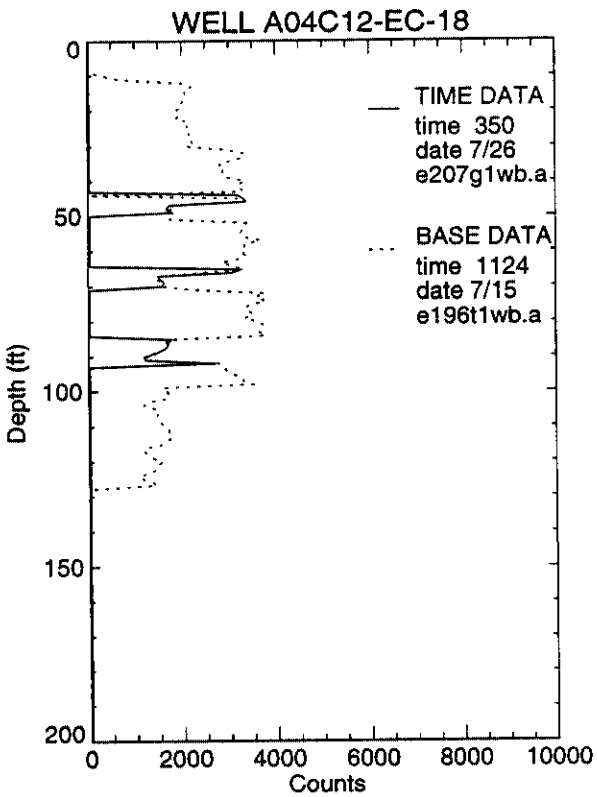
6000
8000
10000


WELL A04C12-EC-18
TIME DATA
time 350
date 7/26
e207g1wb.a
BASE DATA
time 1124
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
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100
150
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0
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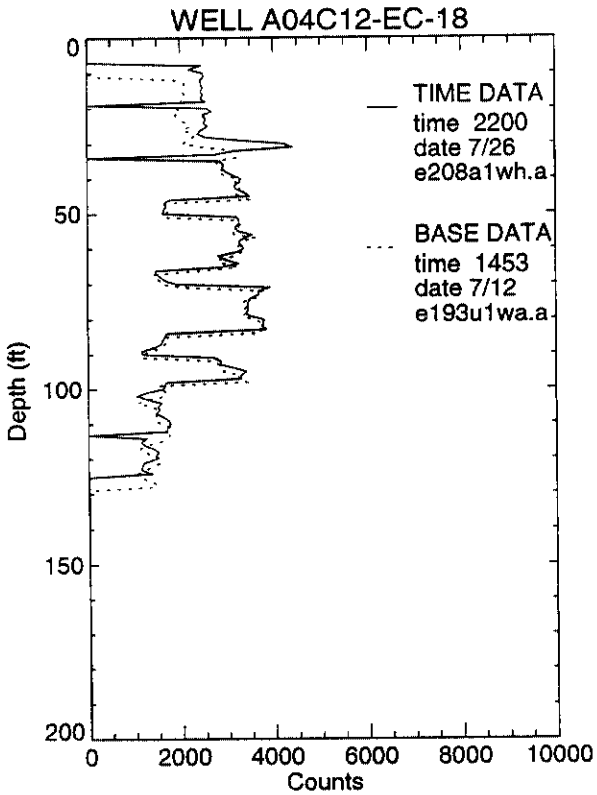
8000
10000


WELL A04C12-EC-18
TIME DATA
time 2200
date 7/26
e208a1wh.a
BASE DATA
time 1453
date 7/12
e193u1wa.a
Depth (ft)
Counts
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200
0
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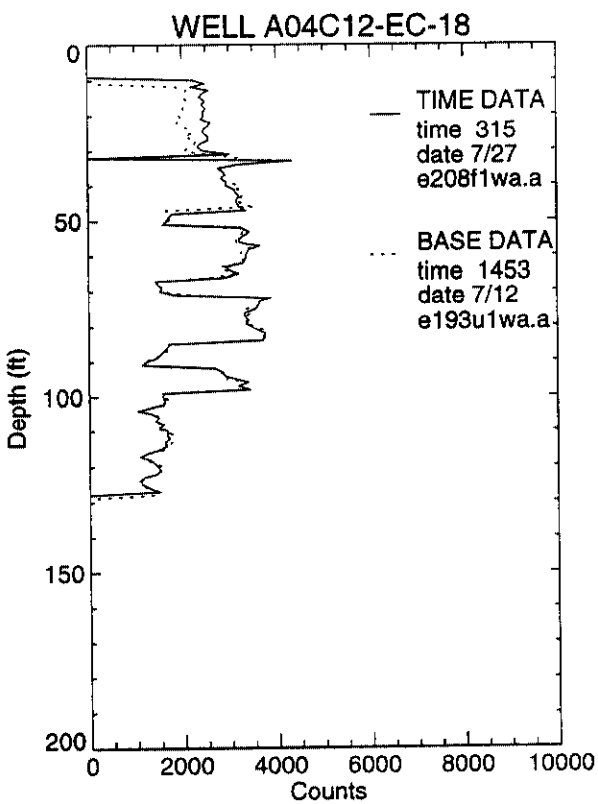
8000
10000


WELL A04C12-EC-18
TIME DATA
time 315
date 7/27
e208f1wa.a
BASE DATA
time 1453
date 7/12
e193u1wa.a
Depth (ft)
Counts
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0
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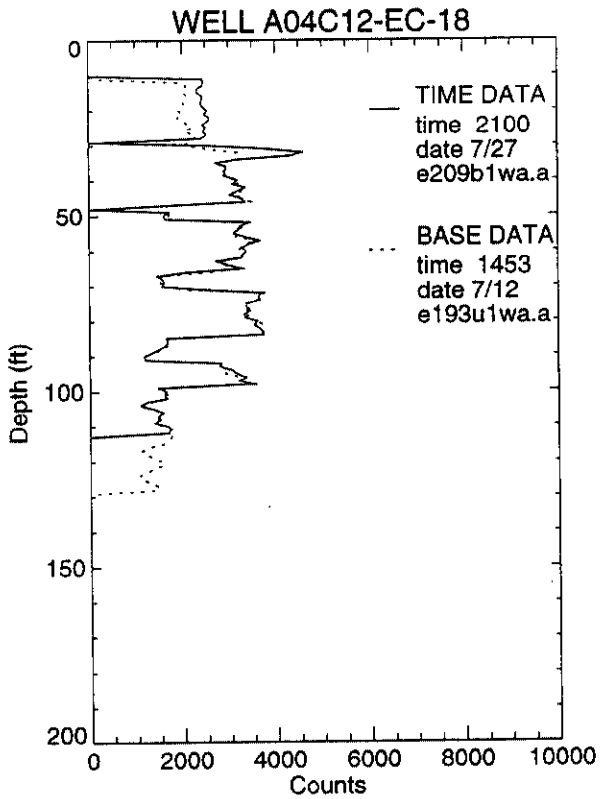
10000


WELL A04C12-EC-18
TIME DATA
time 2100
date 7/27
e209b1wa.a
BASE DATA
time 1453
date 7/12
e193u1wa.a
Depth (ft)
Counts
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100
150
200
0
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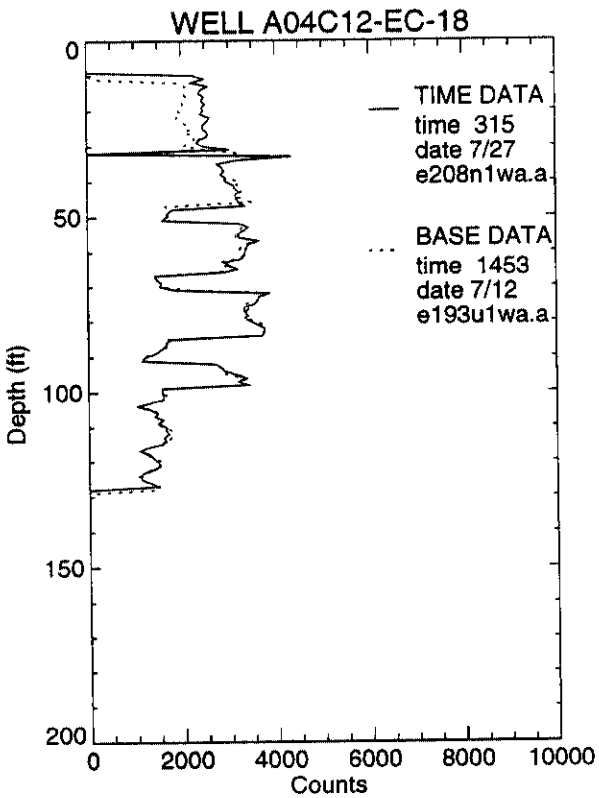
6000
8000
10000


WELL A04C12-EC-18
TIME DATA
time 315
date 7/27
e208n1wa.a
BASE DATA
time 1453
date 7/12
e193u1wa.a
Depth (ft)
Counts
0
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150
200
0
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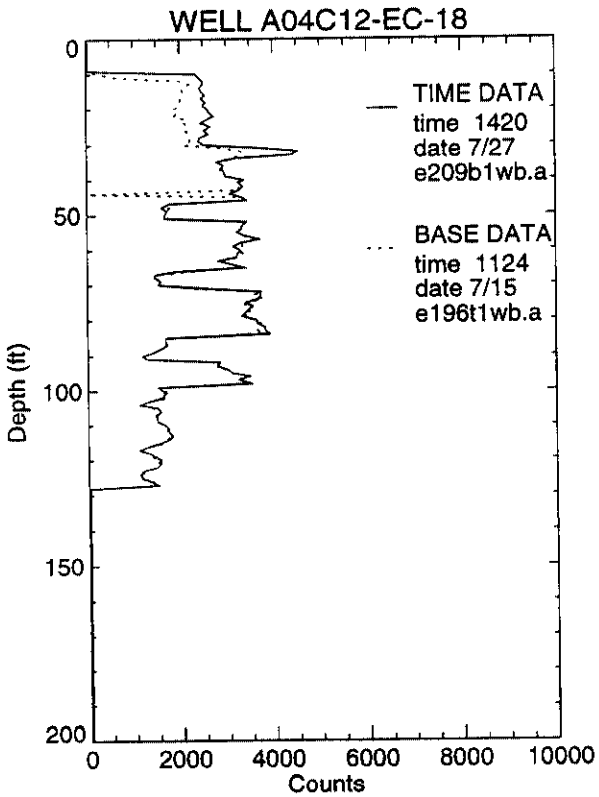
10000


WELL A04C12-EC-18
TIME DATA
time 1420
date 7/27
e209b1wb.a
BASE DATA
time 1124
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
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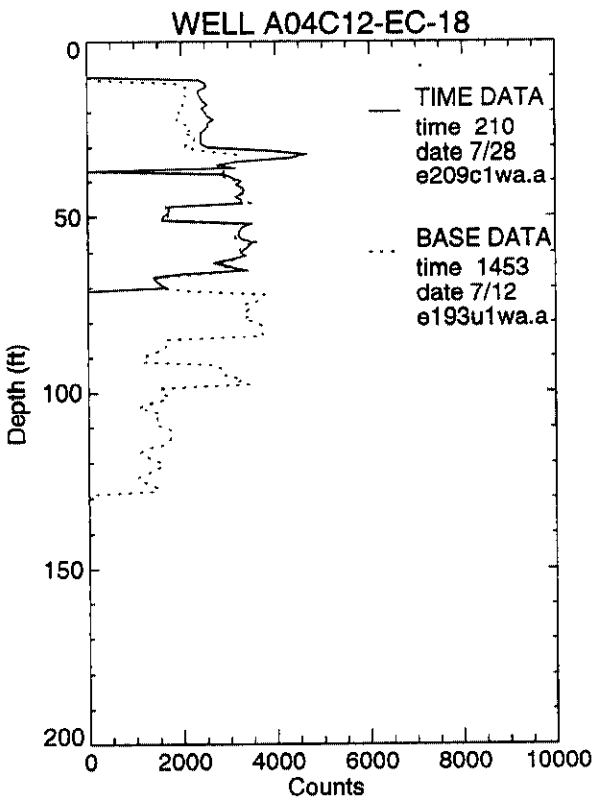
8000
10000


WELL A04C12-EC-18
TIME DATA
time 210
date 7/28
e209c1wa.a
BASE DATA
time 1453
date 7/12
e193u1wa.a
Depth (ft)
Counts
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0
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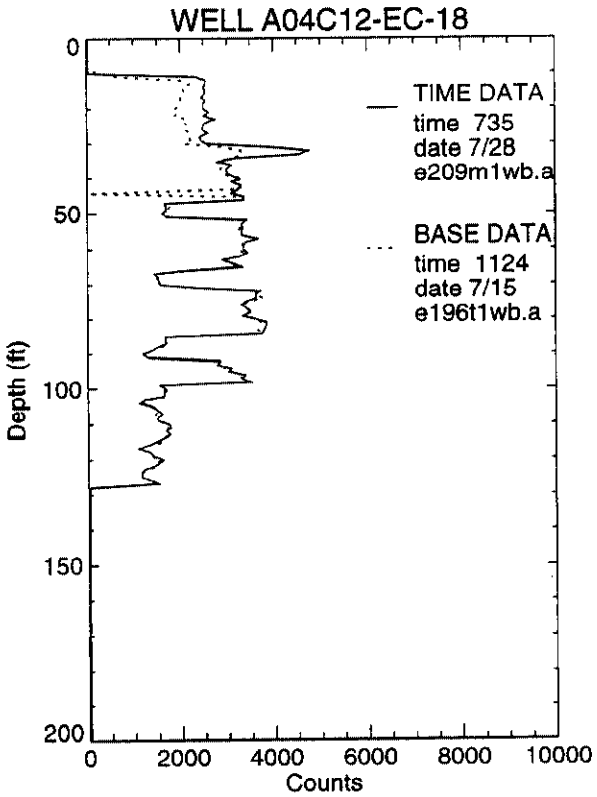
8000
10000


WELL A04C12-EC-18
TIME DATA
time 735
date 7/28
e209m1wb.a
BASE DATA
time 1124
date 7/15
e196t1wb.a
Depth (ft)
Counts
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0
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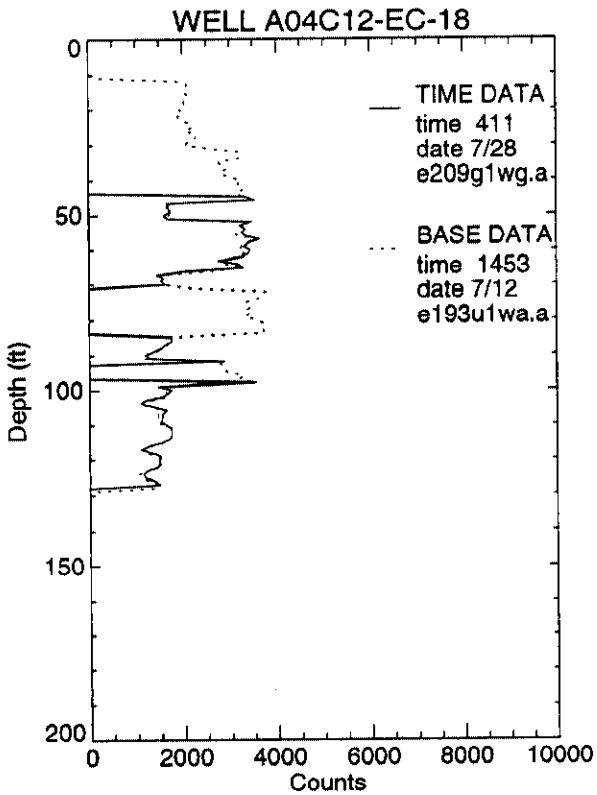
8000
10000


WELL A04C12-EC-18
TIME DATA
time 411
date 7/28
e209g1wg.a
BASE DATA
time 1453
date 7/12
e193u1wa.a
Depth (ft)
Counts
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0
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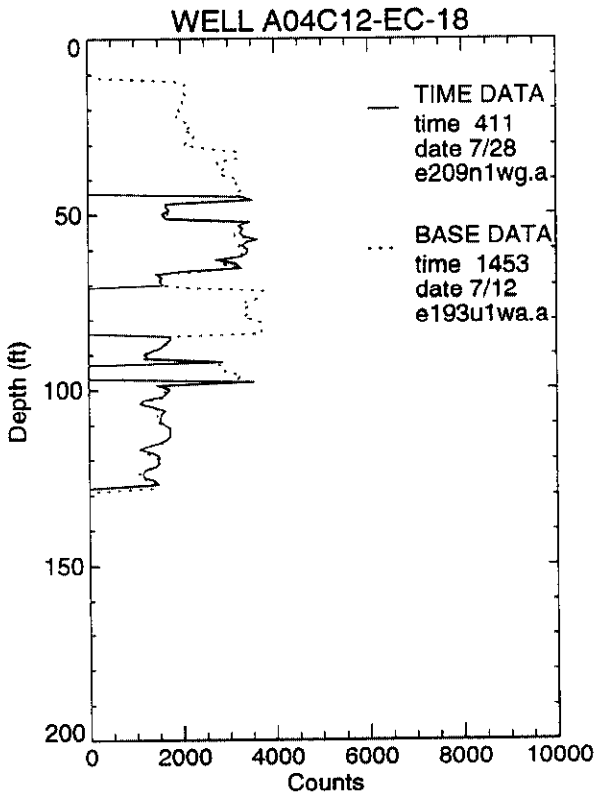
8000
10000


WELL A04C12-EC-18
TIME DATA
time 411
date 7/28
e209n1wg.a
BASE DATA
time 1453
date 7/12
e193u1wa.a
Depth (ft)
Counts
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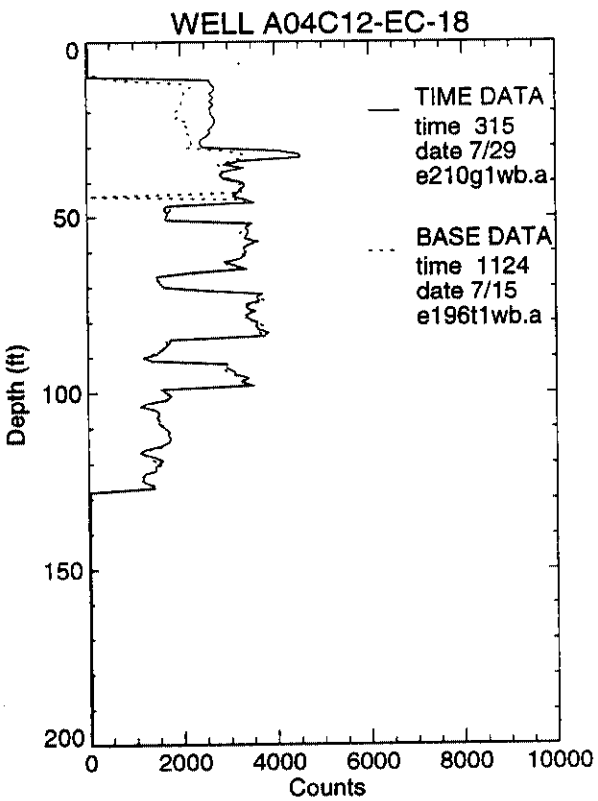
WELL A04C12-EC-18
TIME DATA
time 315
date 7/29
e210g1wb.a
BASE DATA
time 1124
date 7/15
e196t1wb.a
Depth (ft)
Counts
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150
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0
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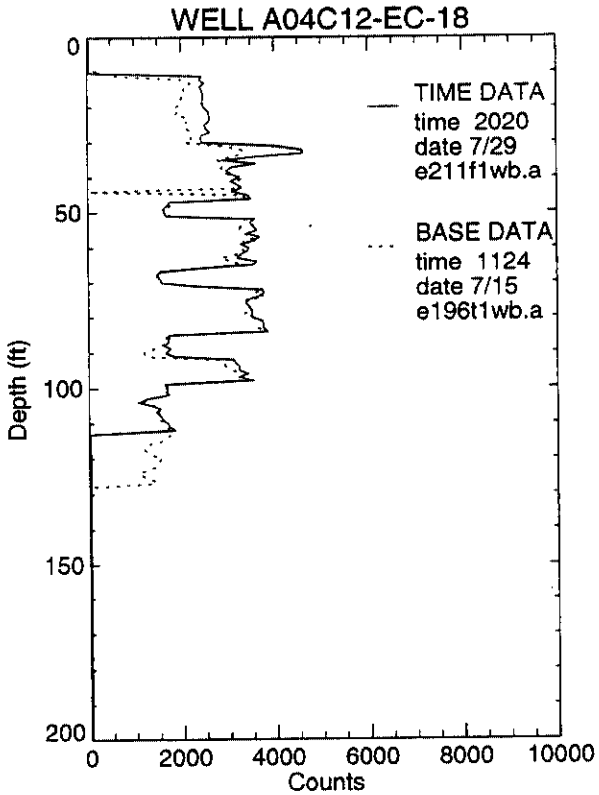
8000
10000


WELL A04C12-EC-18
TIME DATA
time 2020
date 7/29
e211f1wb.a
BASE DATA
time 1124
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
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150
200
0
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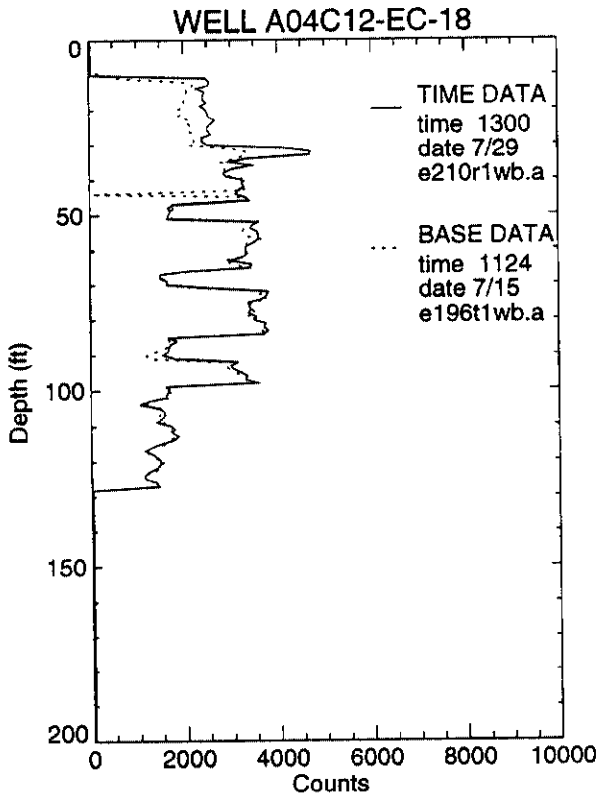
4000
6000
8000
10000


WELL A04C12-EC-18
TIME DATA
time 1300
date 7/29
e210r1wb.a
BASE DATA
time 1124
date 7/15
e196t1wb.a
Depth (ft)
Counts
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150
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0
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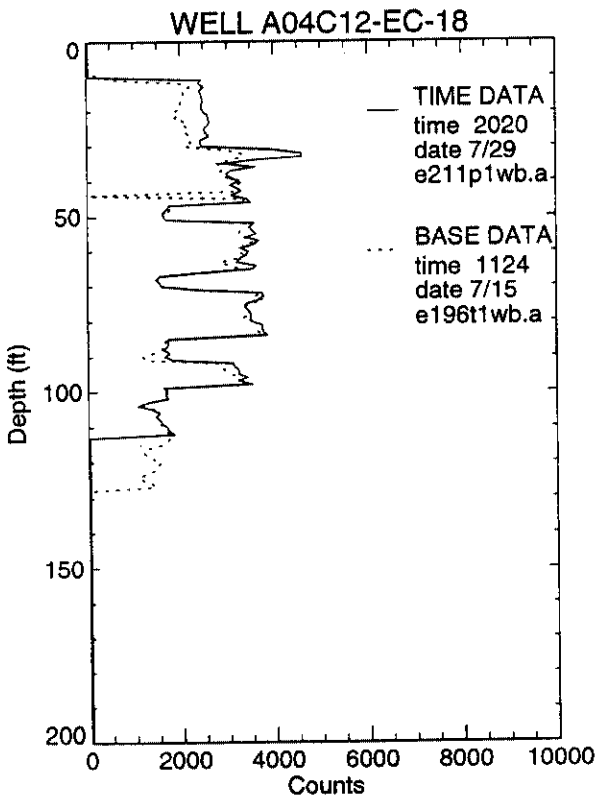
4000
6000
8000
10000


WELL A04C12-EC-18
TIME DATA
time 2020
date 7/29
e211p1wb.a
BASE DATA
time 1124
date 7/15
e196t1wb.a
Depth (ft)
Counts
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150
200
0
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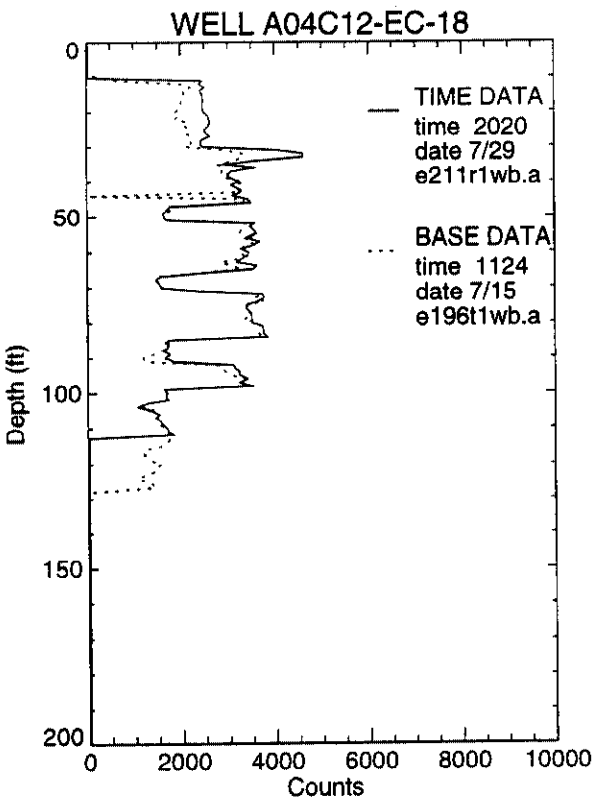
4000
6000
8000
10000


WELL A04C12-EC-18
TIME DATA
time 2020
date 7/29
e211r1wb.a
BASE DATA
time 1124
date 7/15
e196t1wb.a
Depth (ft)
Counts
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150
200
0
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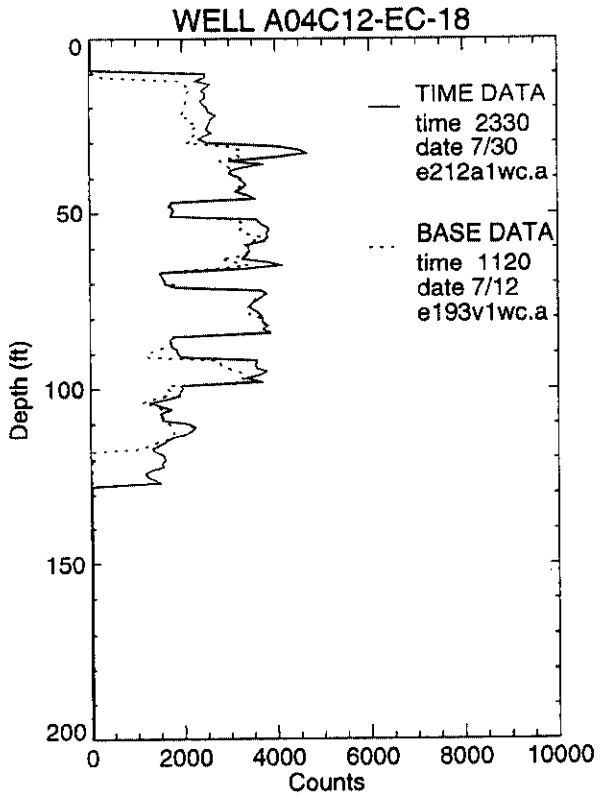
6000
8000
10000


WELL A04C12-EC-18
TIME DATA
time 2330
date 7/30
e212a1wc.a
BASE DATA
time 1120
date 7/12
e193v1wc.a
Depth (ft)
Counts
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0
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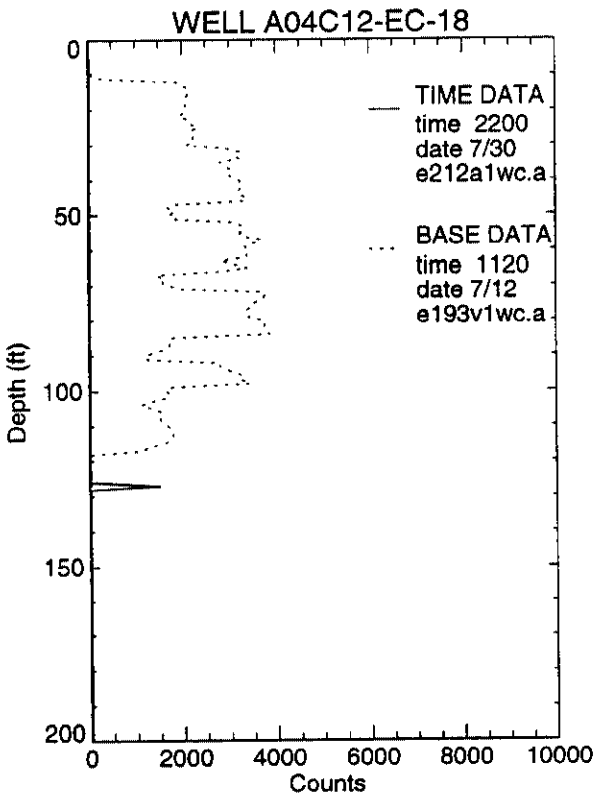
8000
10000


WELL A04C12-EC-18
TIME DATA
time 2200
date 7/30
e212a1wc.a
BASE DATA
time 1120
date 7/12
e193v1wc.a
Depth (ft)
Counts
0
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150
200
0
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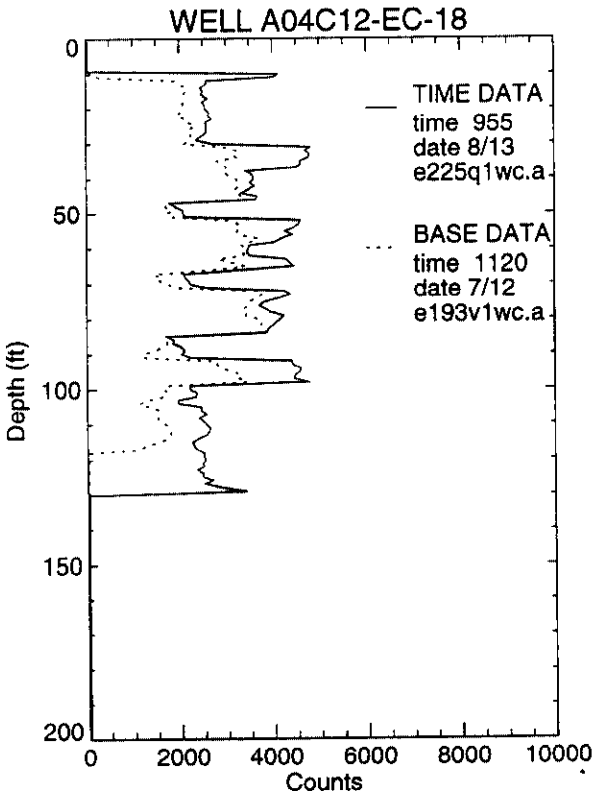
10000


WELL A04C12-EC-18
TIME DATA
time 955
date 8/13
e225q1wc.a
BASE DATA
time 1120
date 7/12
e193v1wc.a
Depth (ft)
Counts
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200
0
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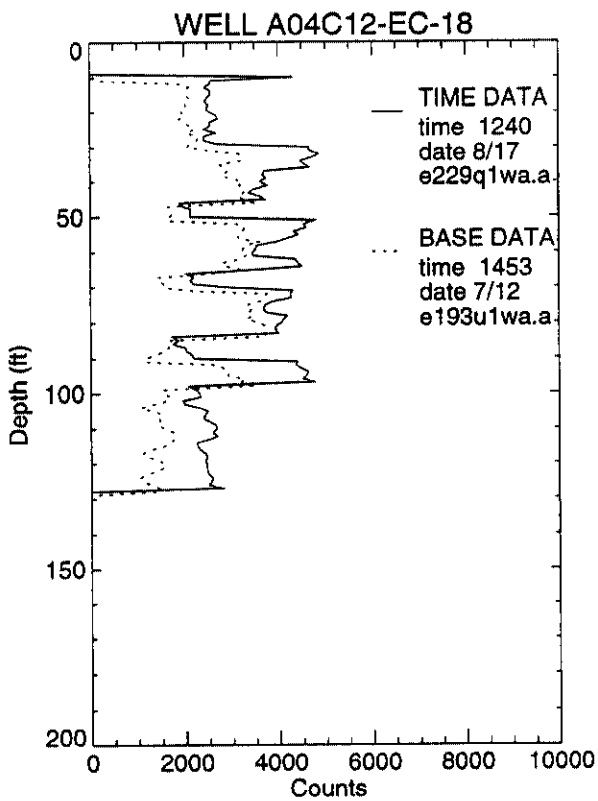
8000
10000


WELL A04C12-EC-18
TIME DATA
time 1240
date 8/17
e229q1wa.a
BASE DATA
time 1453
date 7/12
e193u1wa.a
Depth (ft)
Counts
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150
200
0
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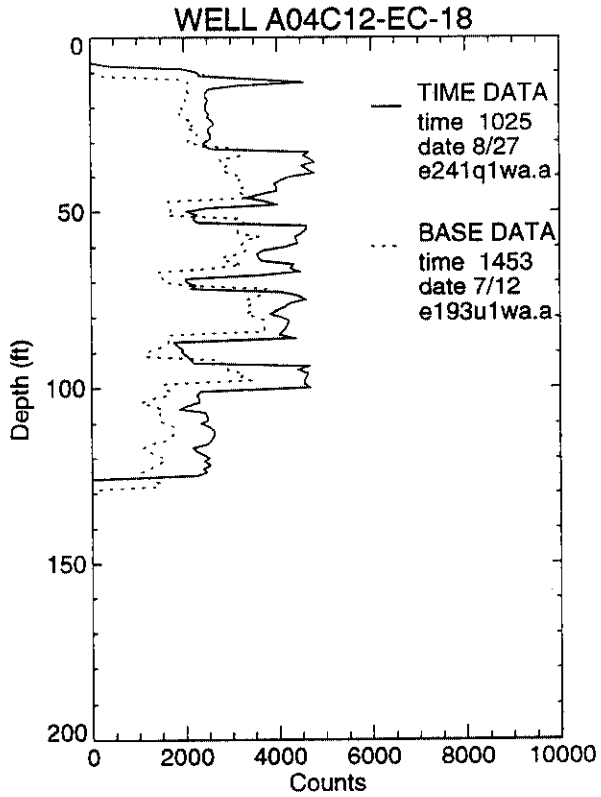
8000
10000


WELL A04C12-EC-18
TIME DATA
time 1025
date 8/27
e241q1wa.a
BASE DATA
time 1453
date 7/12
e193u1wa.a
Depth (ft)
Counts
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150
200
0
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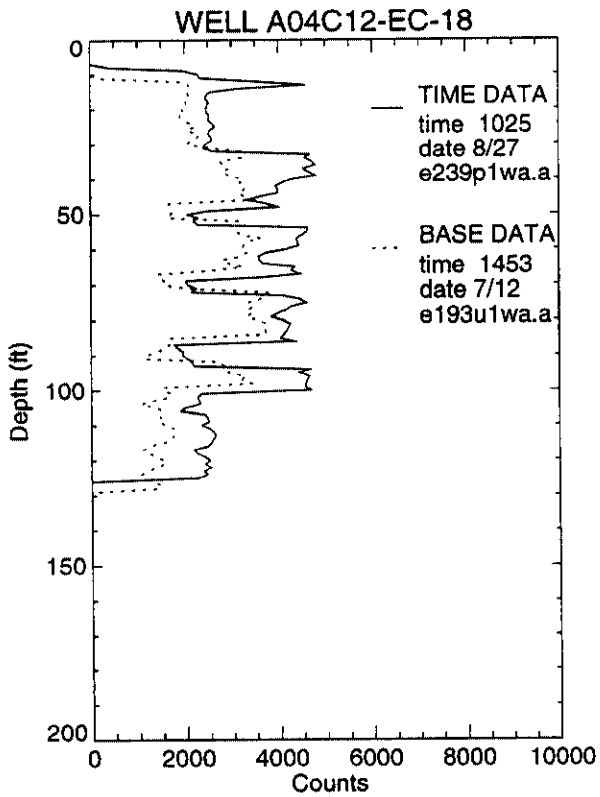
8000
10000


WELL A04C12-EC-18
TIME DATA
time 1025
date 8/27
e239p1wa.a
BASE DATA
time 1453
date 7/12
e193u1wa.a
Depth (ft)
Counts
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150
200
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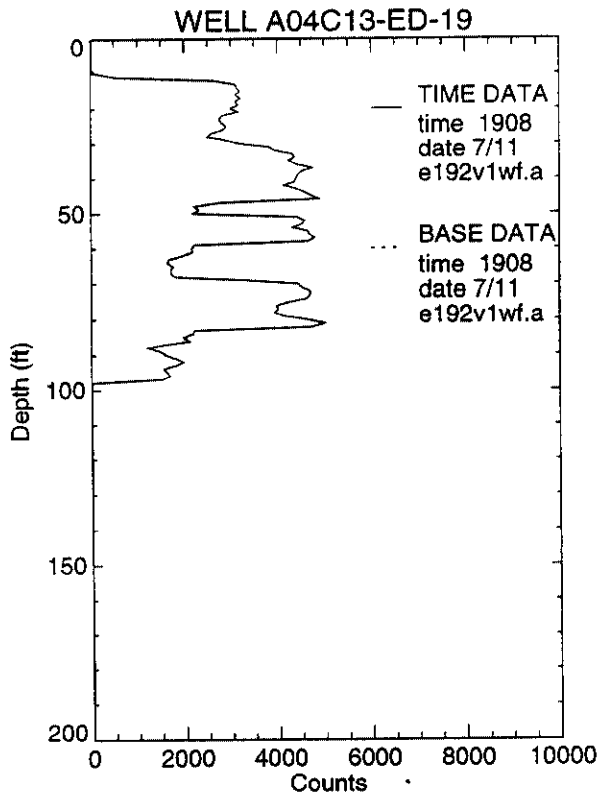
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 1908
date 7/11
e192v1wf.a
BASE DATA
time 1908
date 7/11
e192v1wf.a
Depth (ft)
Counts
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150
200
0
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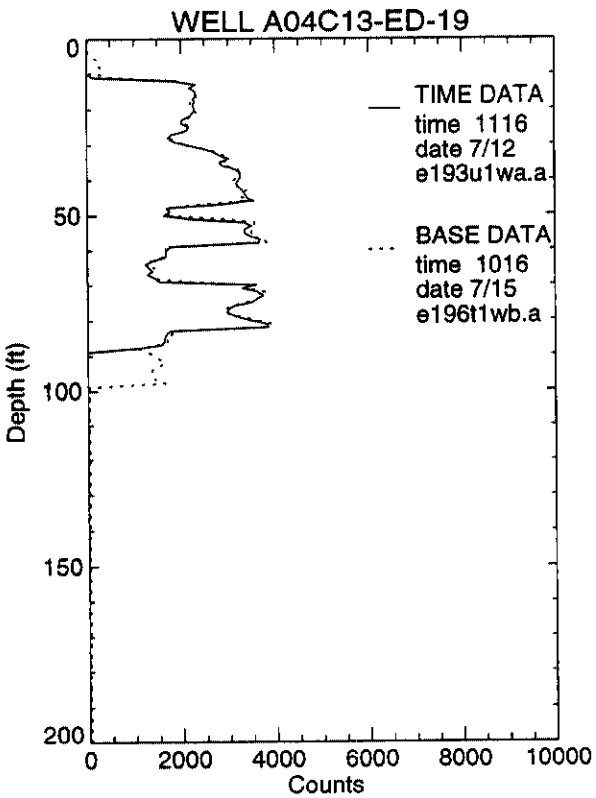
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 1116
date 7/12
e193u1wa.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
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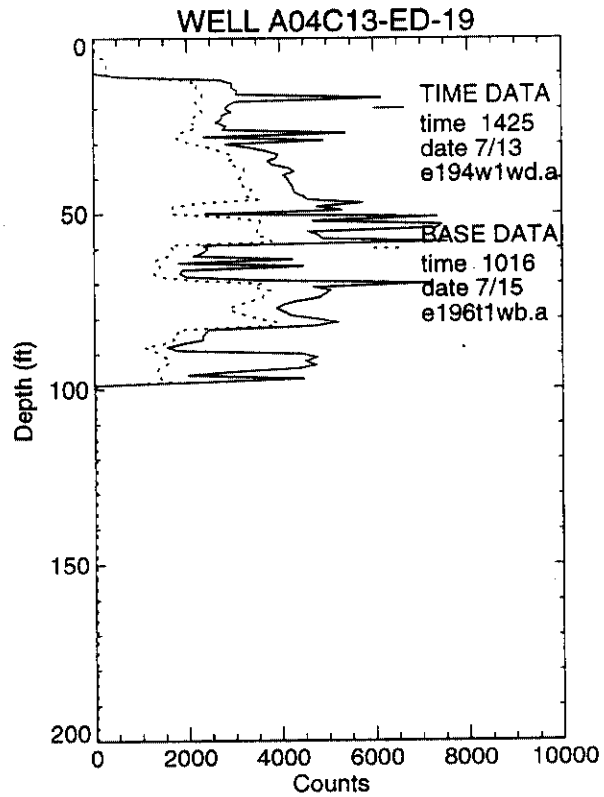
WELL A04C13-ED-19
TIME DATA
time 1425
date 7/13
e194w1wd.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
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150
200
0
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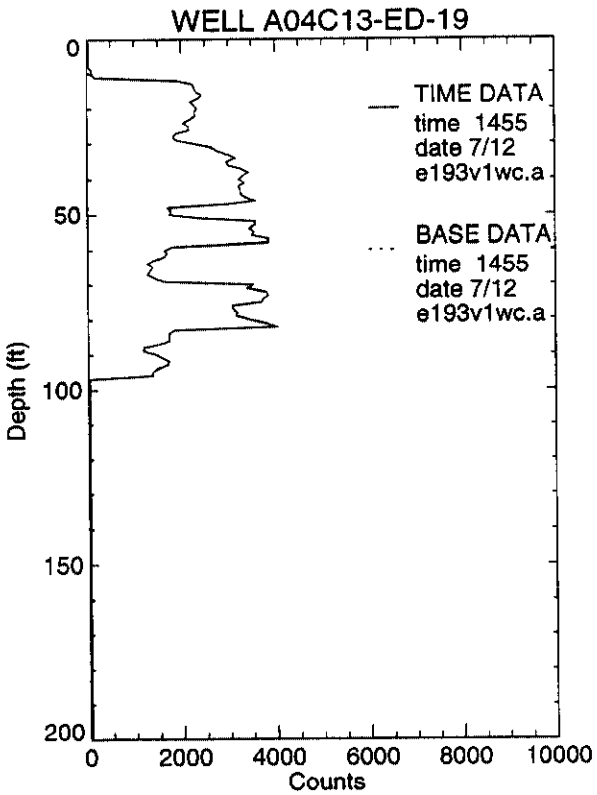
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 1455
date 7/12
e193v1wc.a
BASE DATA
time 1455
date 7/12
e193v1wc.a
Depth (ft)
Counts
0
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150
200
0
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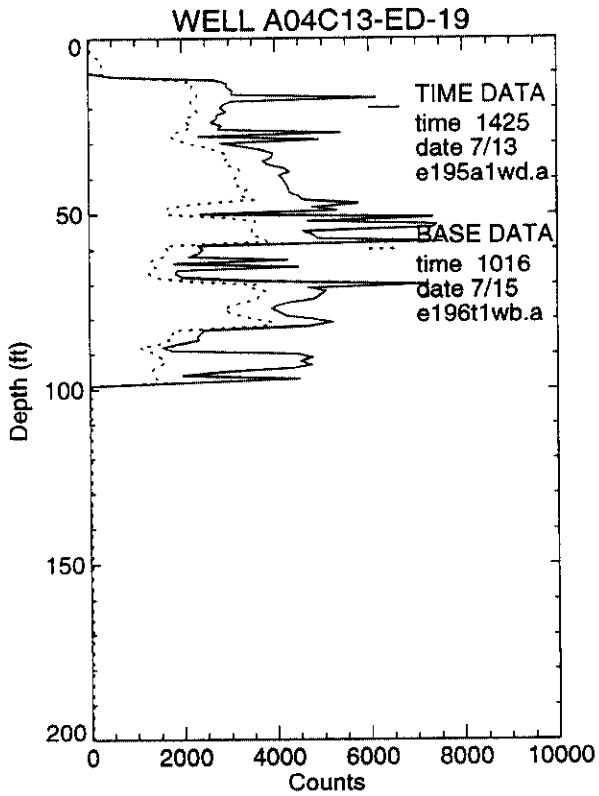
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 1425
date 7/13
e195a1wd.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
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150
200
0
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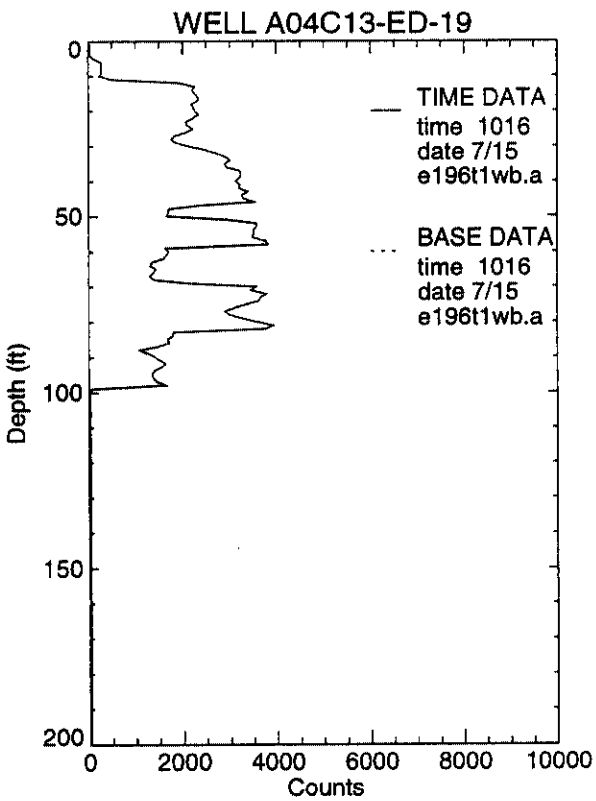
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 1016
date 7/15
e196t1wb.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
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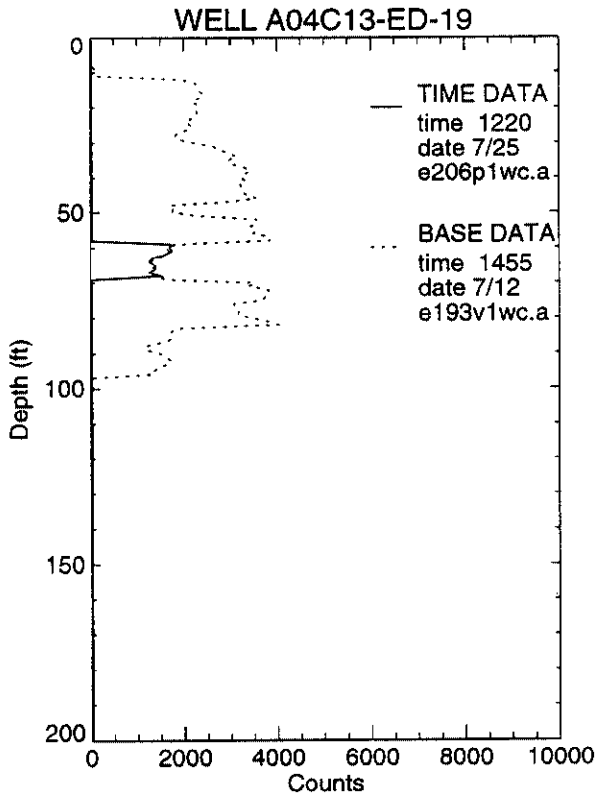
100
150
200
0
2000
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 1220
date 7/25
e206p1wc.a
BASE DATA
time 1455
date 7/12
e193v1wc.a
Depth (ft)
Counts
0
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100
150
200
0
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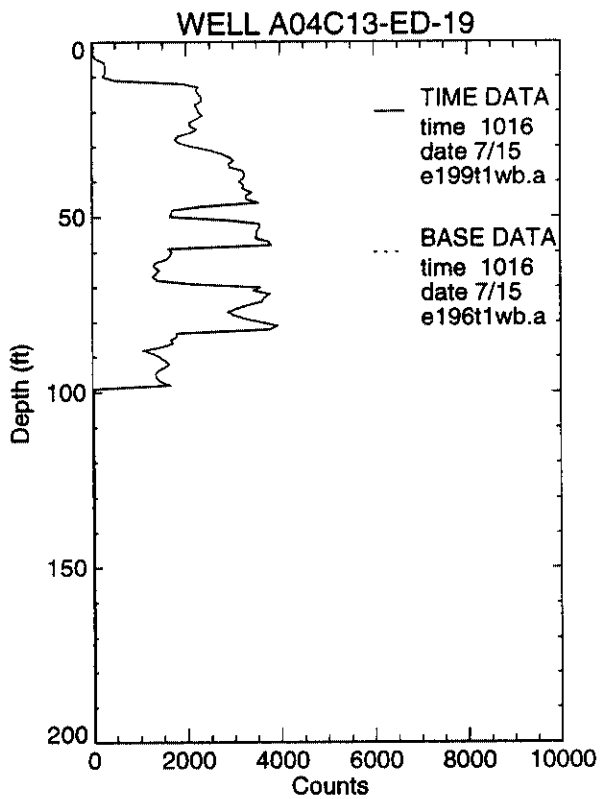
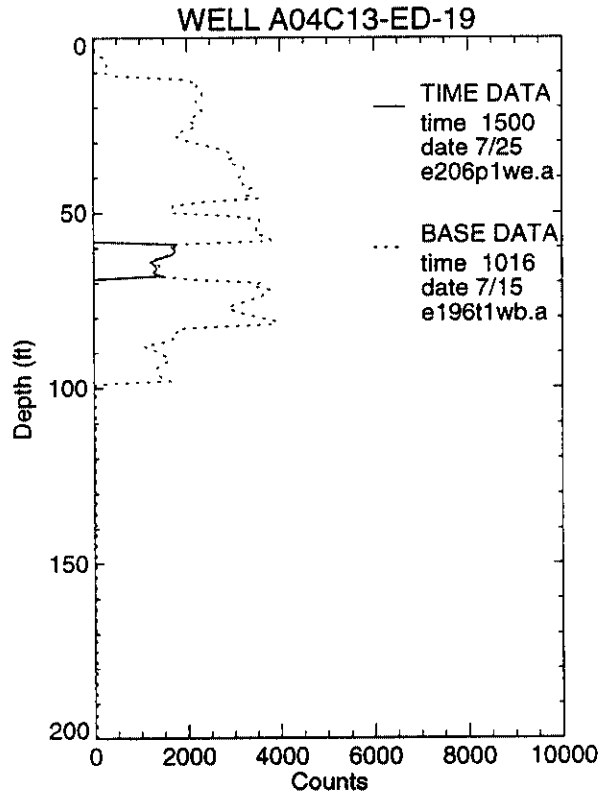
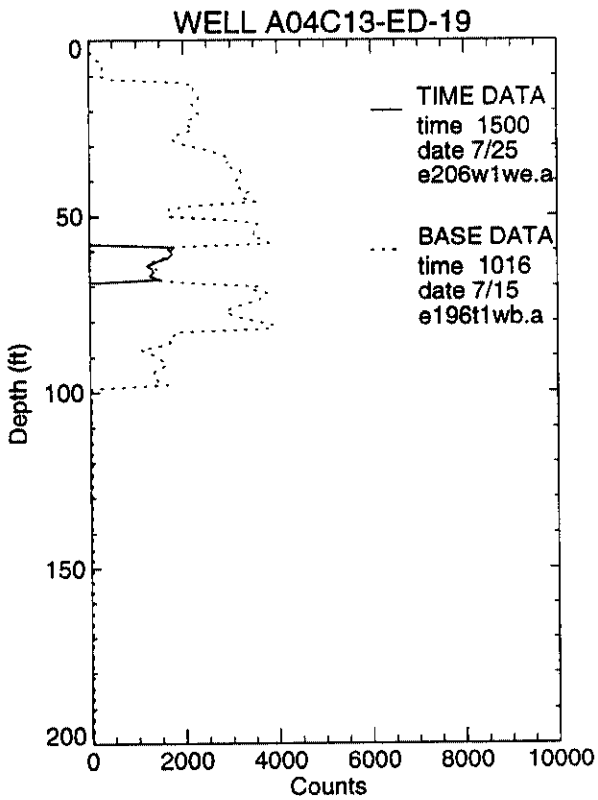
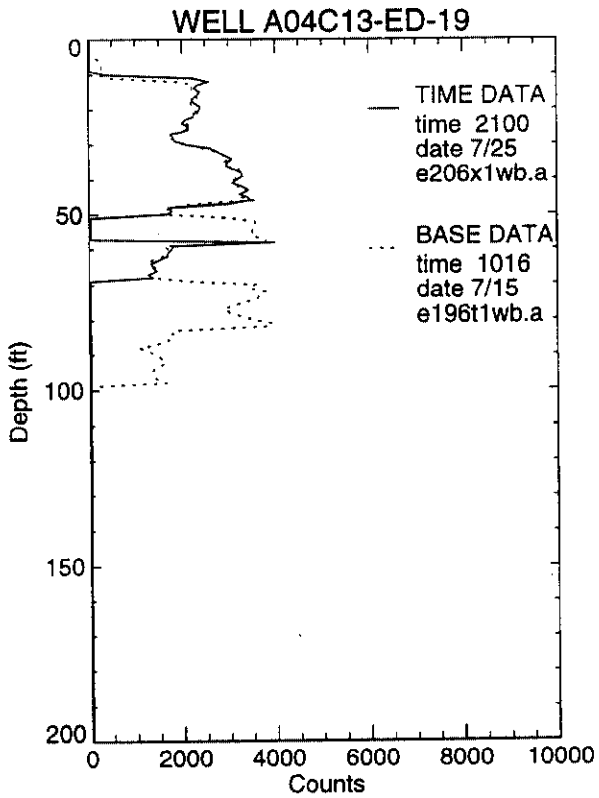
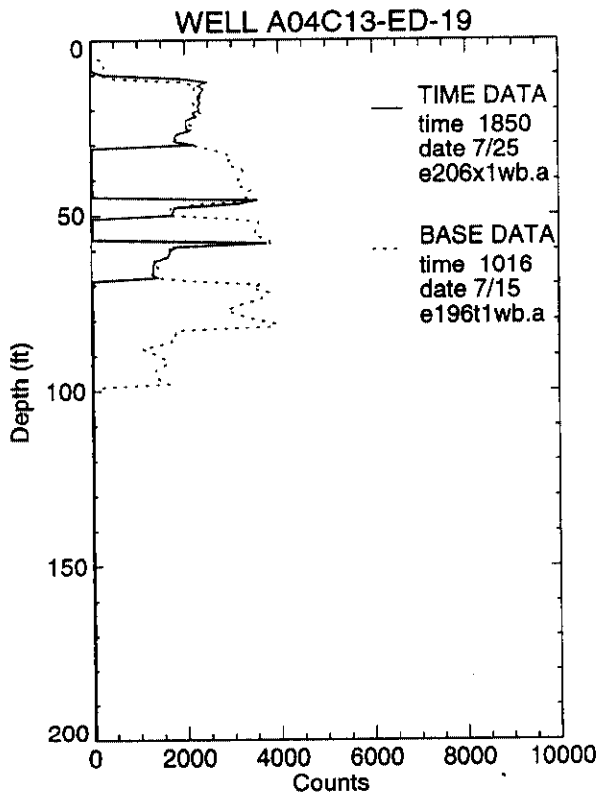
4000
6000
8000
10000

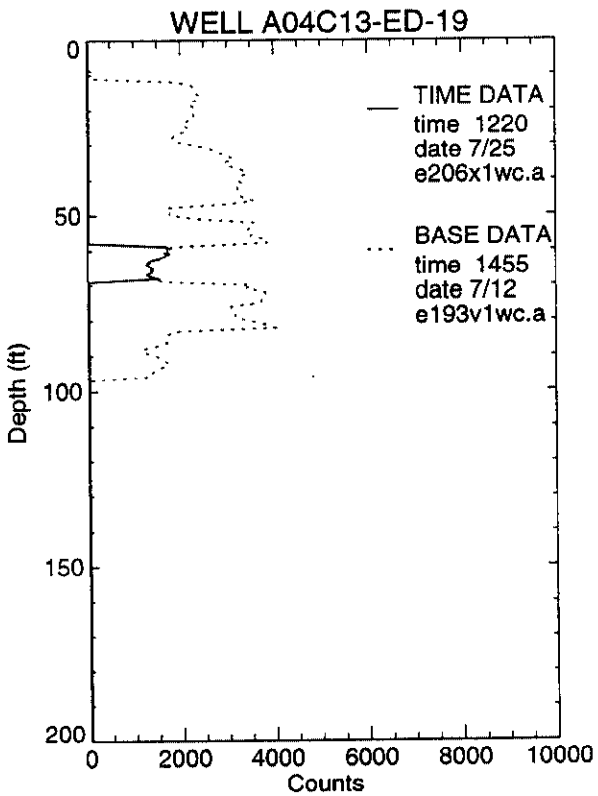

WELL A04C13-ED-19
TIME DATA
time 1016
date 7/15
e199t1wb.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

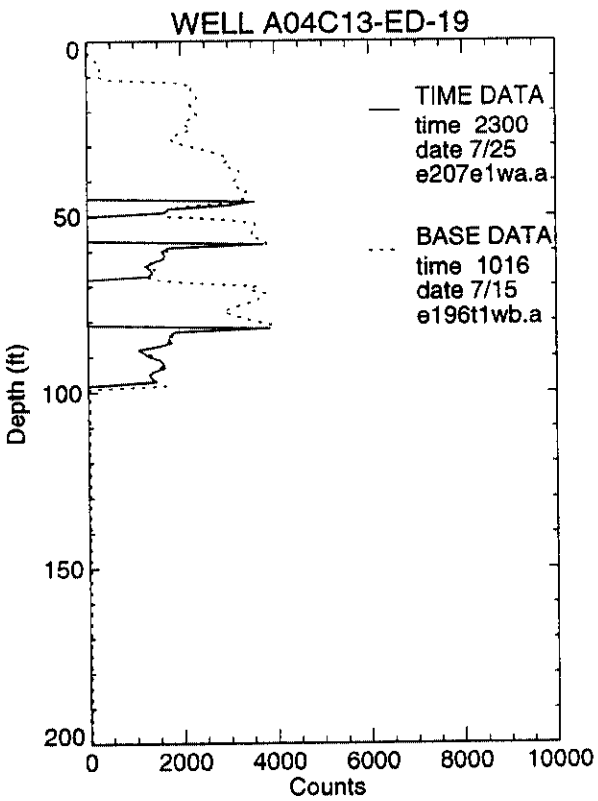

WELL A04C13-ED-19
TIME DATA
time 1500
date 7/25
e206p1we.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

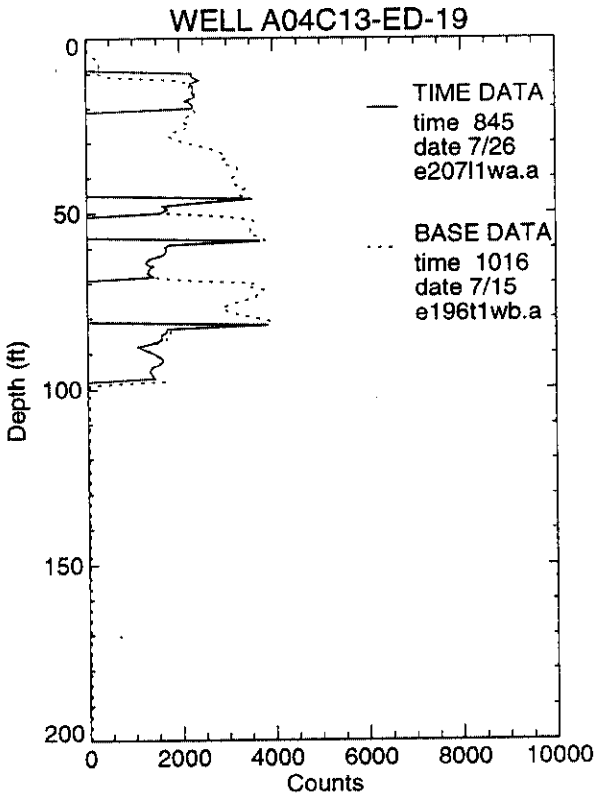

WELL A04C13-ED-19
TIME DATA
time 1500
date 7/25
e206w1we.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

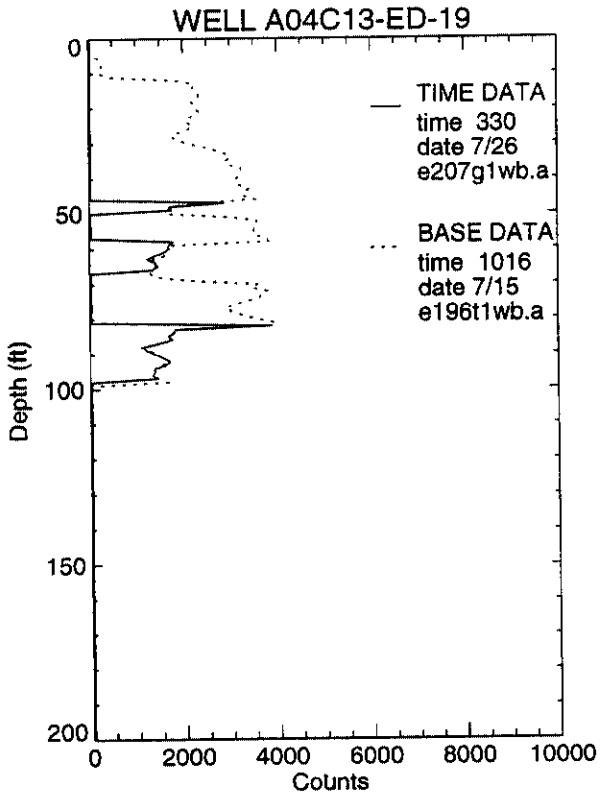

WELL A04C13-ED-19
TIME DATA
time 2100
date 7/25
e206x1wb.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

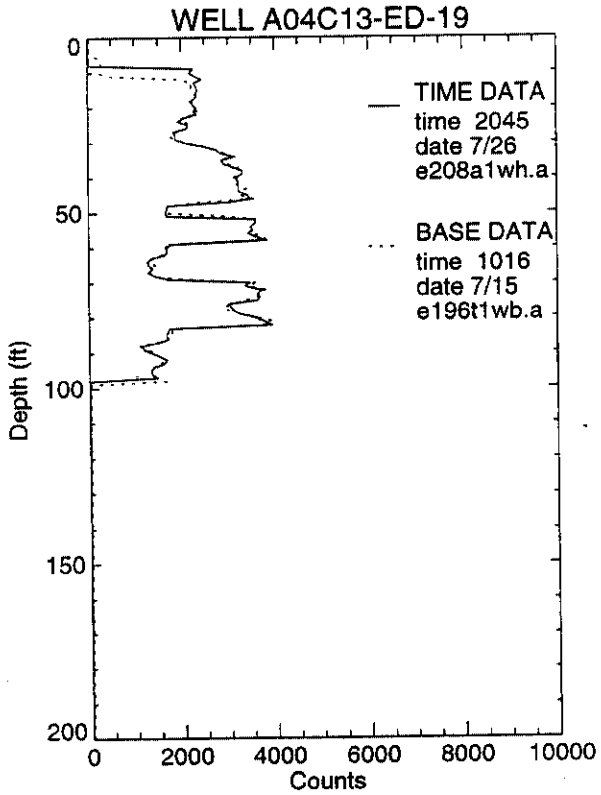

WELL A04C13-ED-19
TIME DATA
time 1850
date 7/25
e206x1wb.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

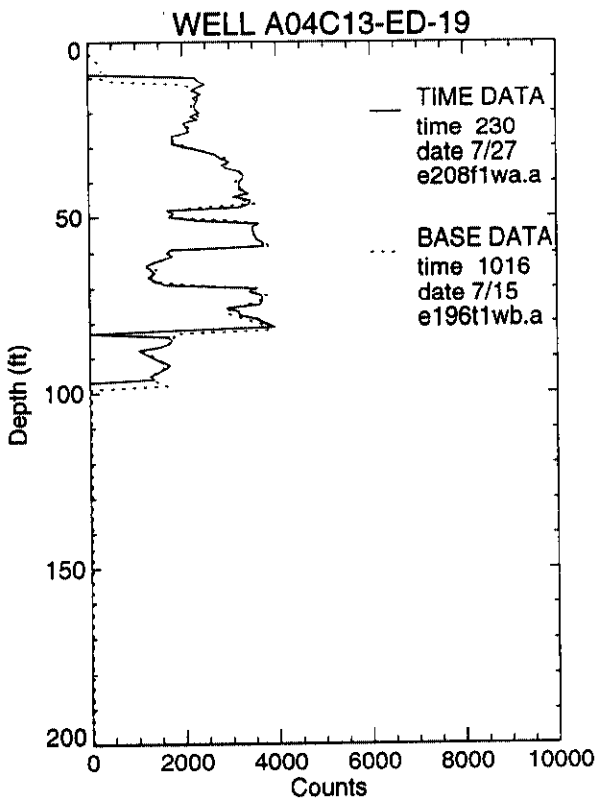

WELL A04C13-ED-19
TIME DATA
time 1220
date 7/25
e206x1wc.a
BASE DATA
time 1455
date 7/12
e193v1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

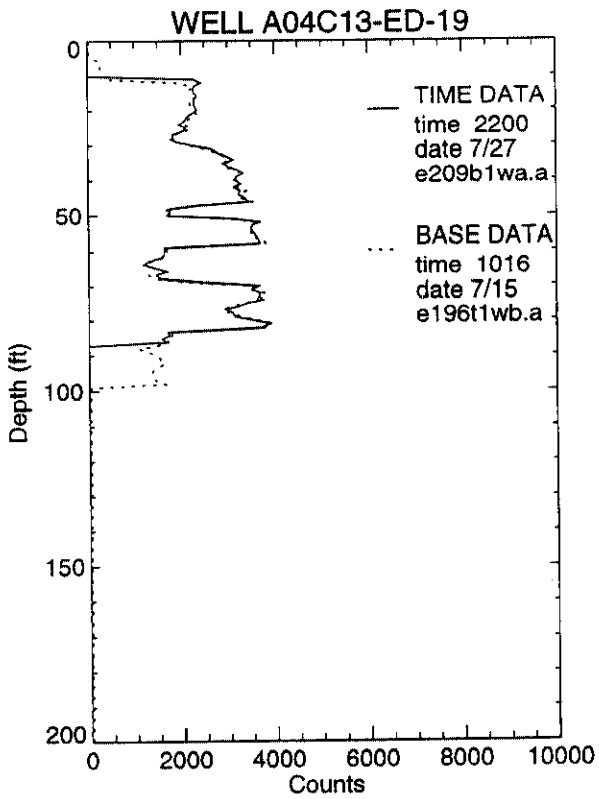

WELL A04C13-ED-19
TIME DATA
time 2300
date 7/25
e207e1wa.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

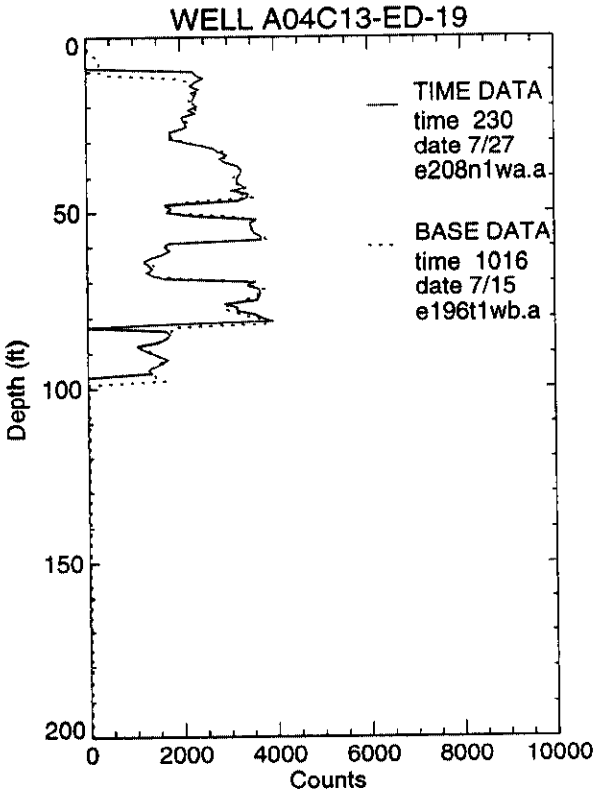

WELL A04C13-ED-19
TIME DATA
time 845
date 7/26
e207l1wa.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 330
date 7/26
e207g1wb.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 2045
date 7/26
e208a1wh.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 230
date 7/27
e208f1wa.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 2200
date 7/27
e209b1wa.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 230
date 7/27
e208n1wa.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
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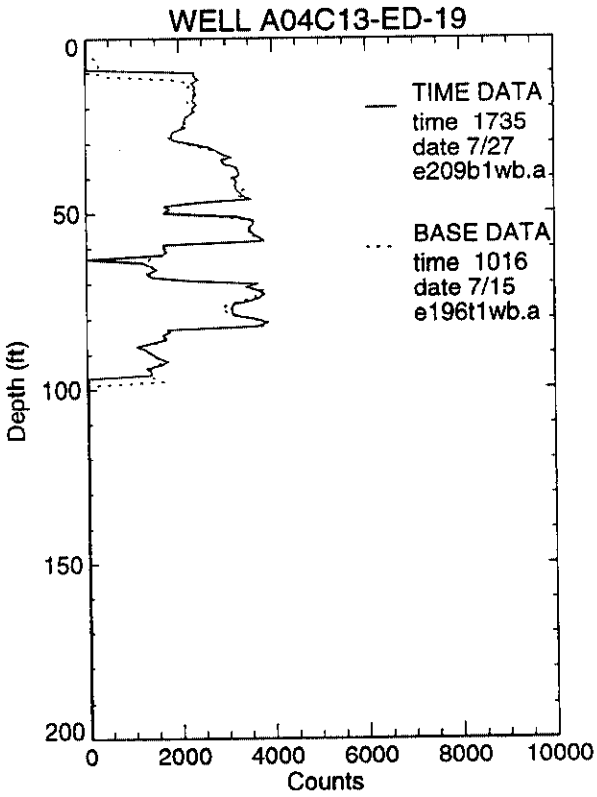
100
150
200
0
2000
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 1735
date 7/27
e209b1wb.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
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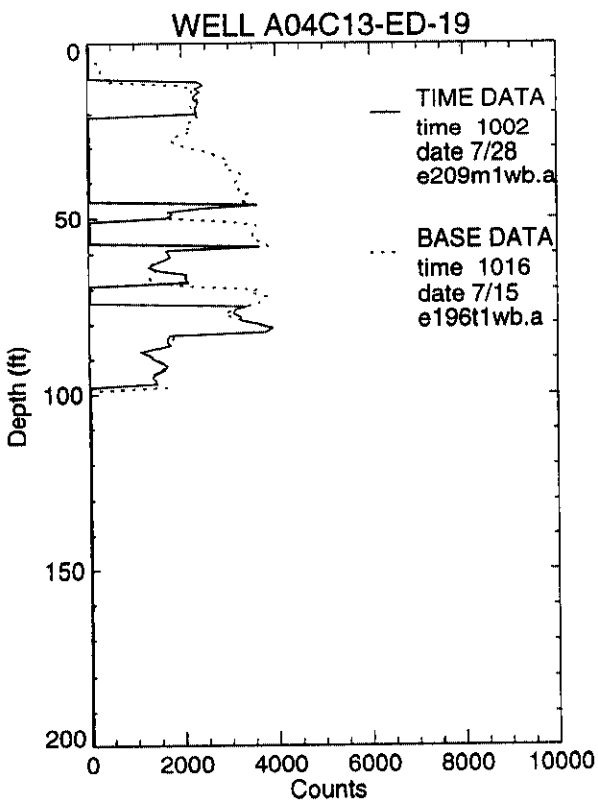
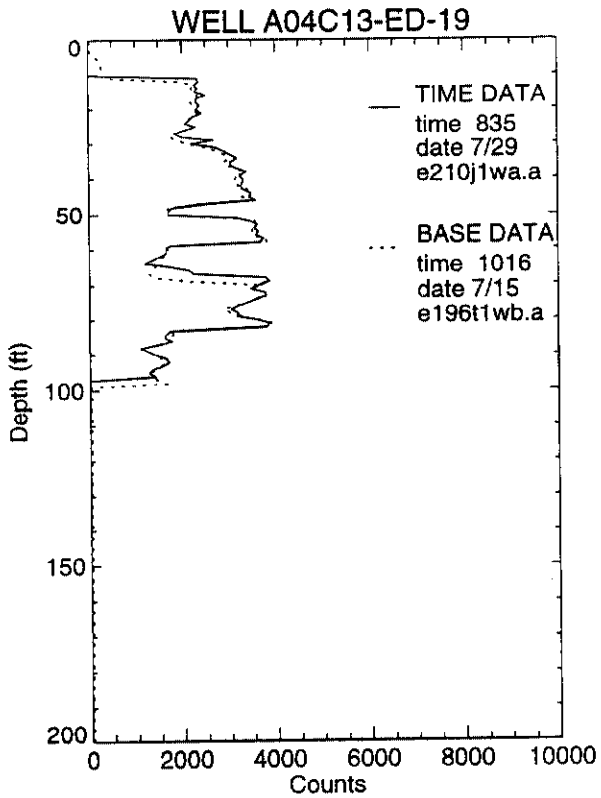
100
150
200
0
2000
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 1002
date 7/28
e209m1wb.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 835
date 7/29
e210j1wa.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
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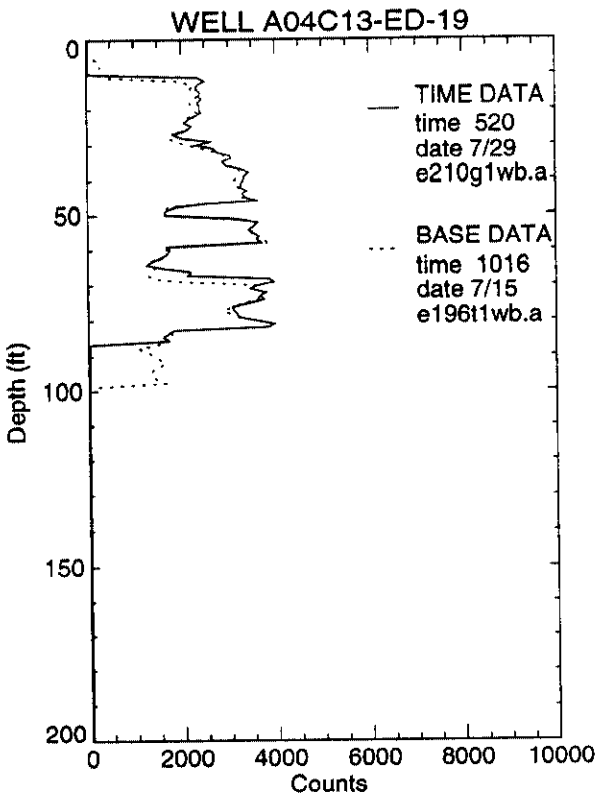
100
150
200
0
2000
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 520
date 7/29
e210g1wb.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
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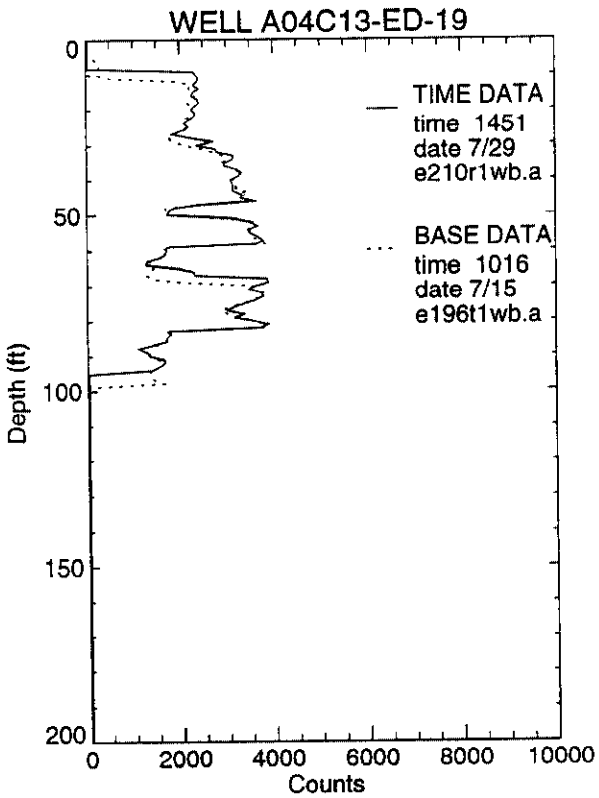
150
200
0
2000
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 1451
date 7/29
e210r1wb.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
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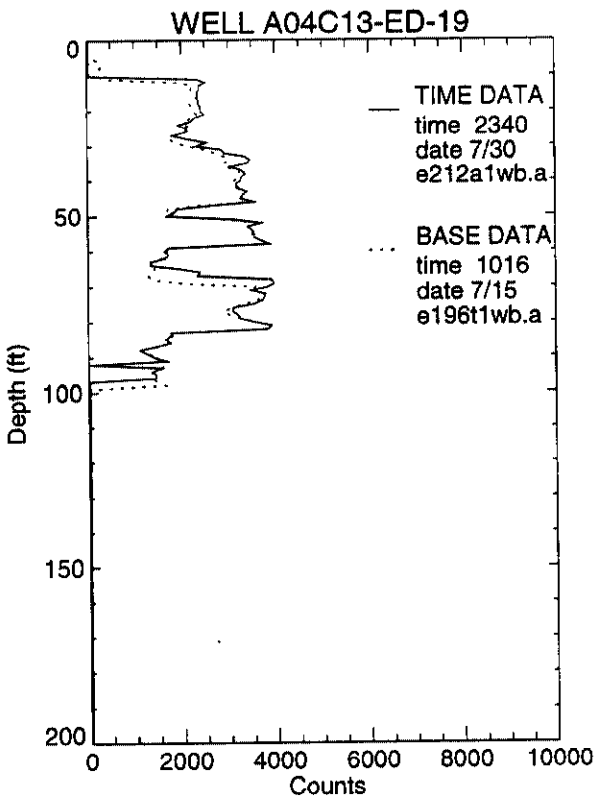
100
150
200
0
2000
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 2340
date 7/30
e212a1wb.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
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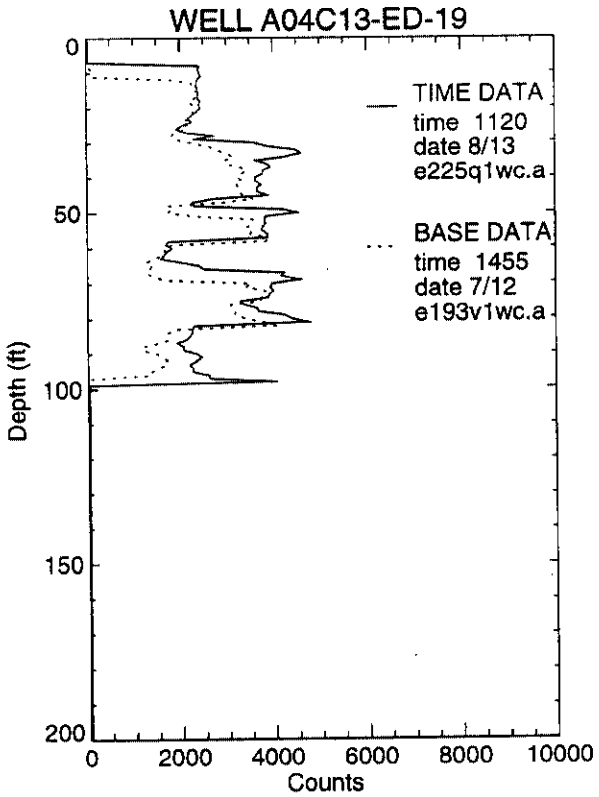
100
150
200
0
2000
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 1120
date 8/13
e225q1wc.a
BASE DATA
time 1455
date 7/12
e193v1wc.a
Depth (ft)
Counts
0
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150
200
0
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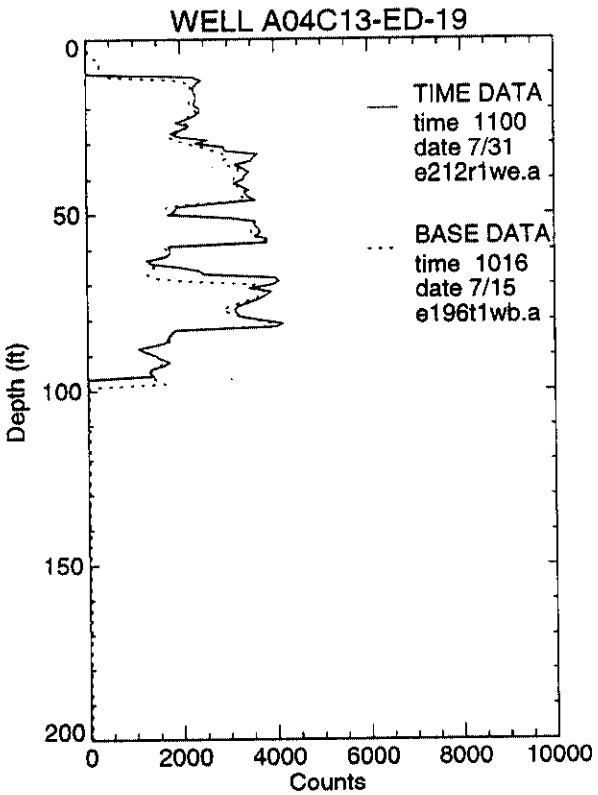
4000
6000
8000
10000


WELL A04C13-ED-19
TIME DATA
time 1100
date 7/31
e212r1we.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
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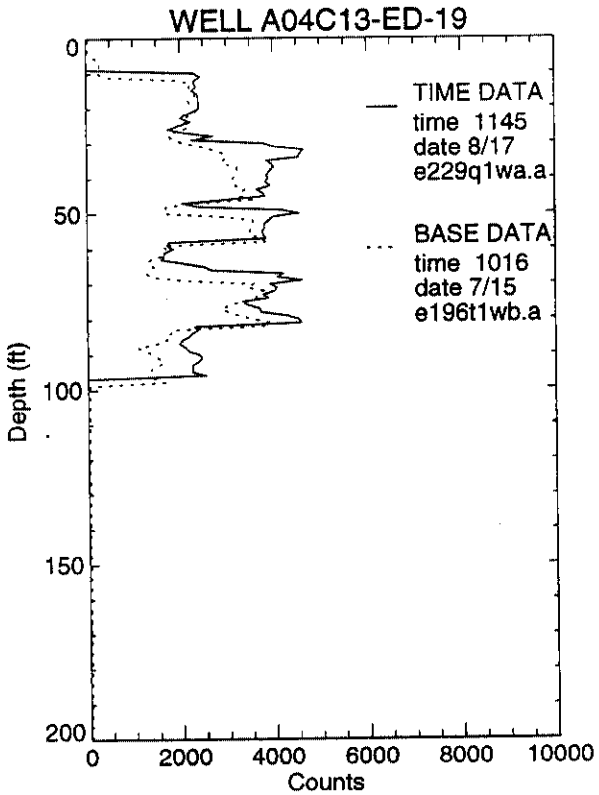
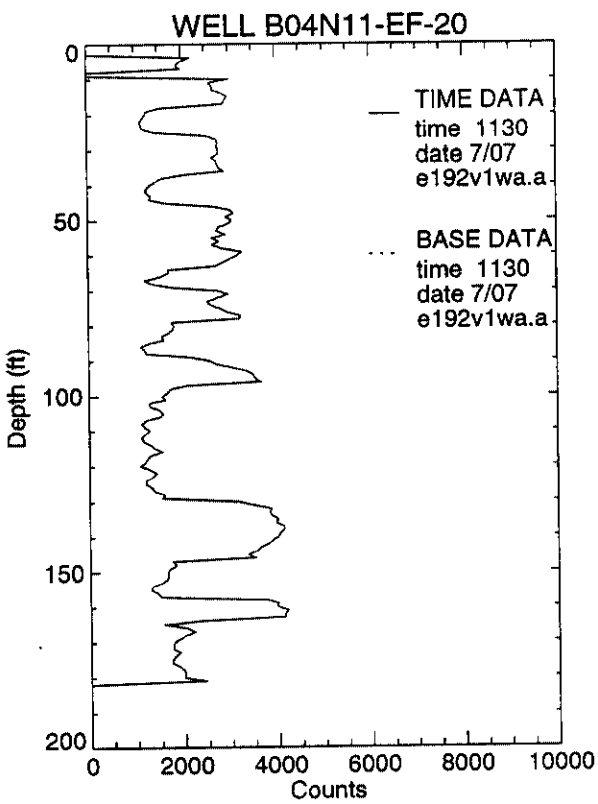
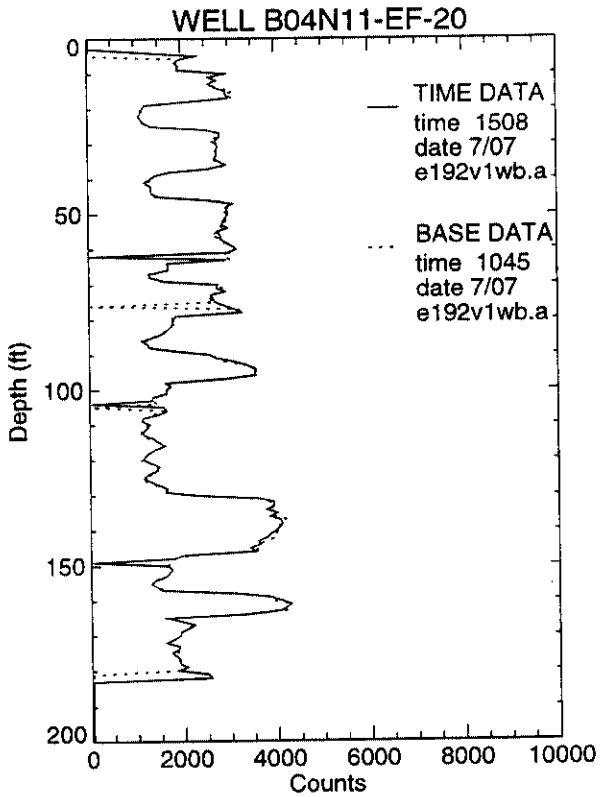
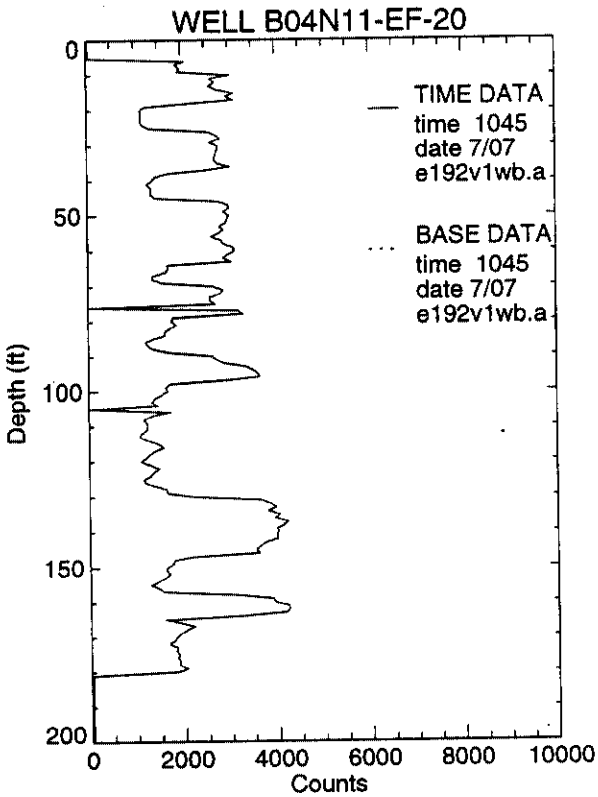
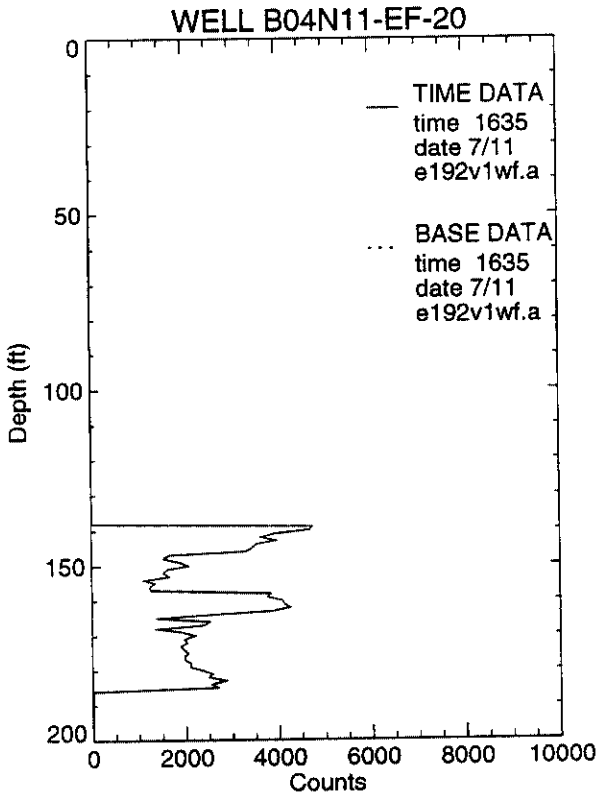
100
150
200
0
2000
4000
6000
8000
10000

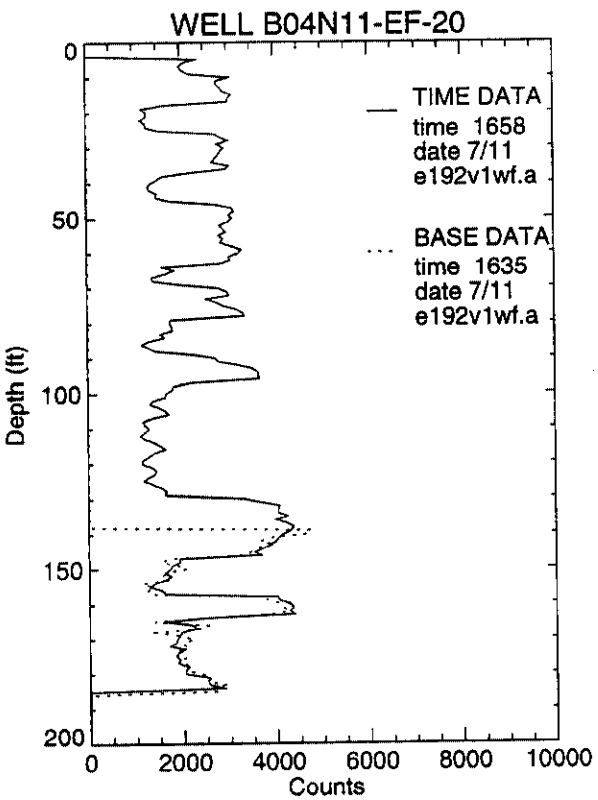

WELL A04C13-ED-19
TIME DATA
time 1145
date 8/17
e229q1wa.a
BASE DATA
time 1016
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

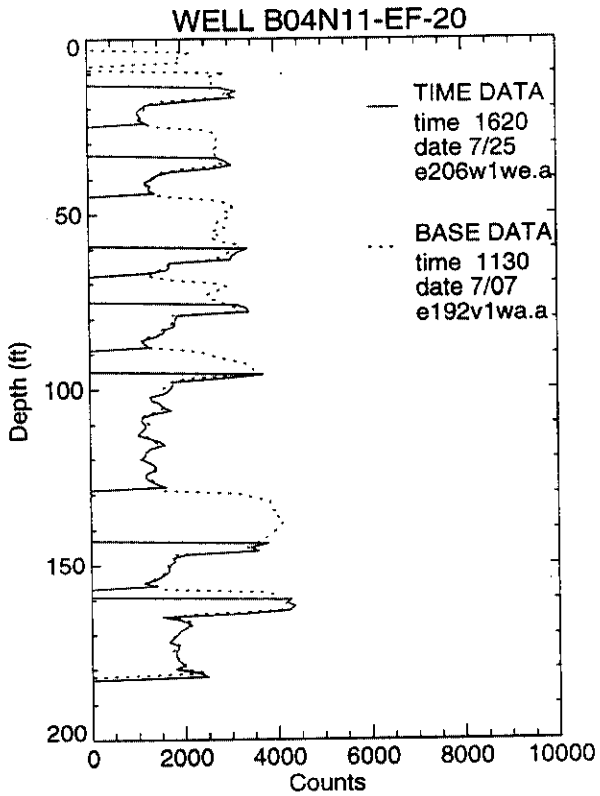

WELL B04N11-EF-20
TIME DATA
time 1130
date 7/07
e192v1wa.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts

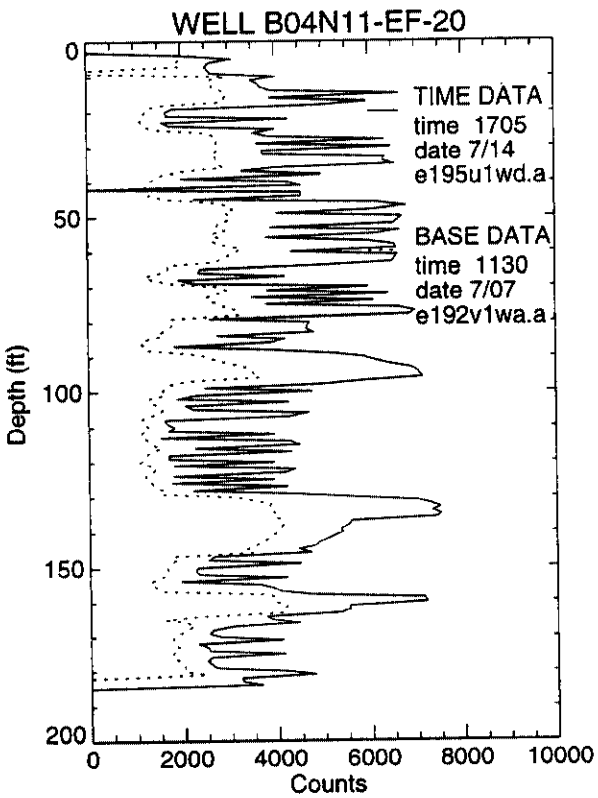

WELL B04N11-EF-20
TIME DATA
time 1508
date 7/07
e192v1wb.a
BASE DATA
time 1045
date 7/07
e192v1wb.a
Depth (ft)
Counts

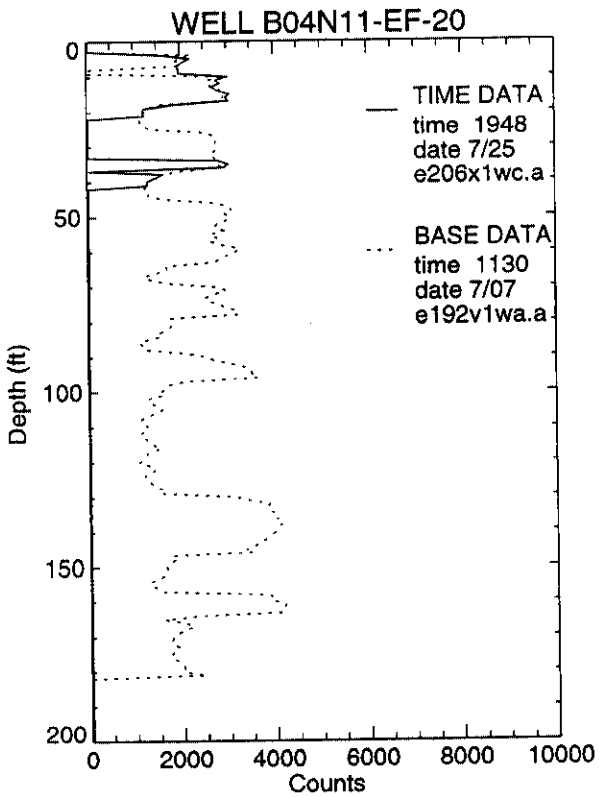

WELL B04N11-EF-20
TIME DATA
time 1045
date 7/07
e192v1wb.a
BASE DATA
time 1045
date 7/07
e192v1wb.a
Depth (ft)
Counts

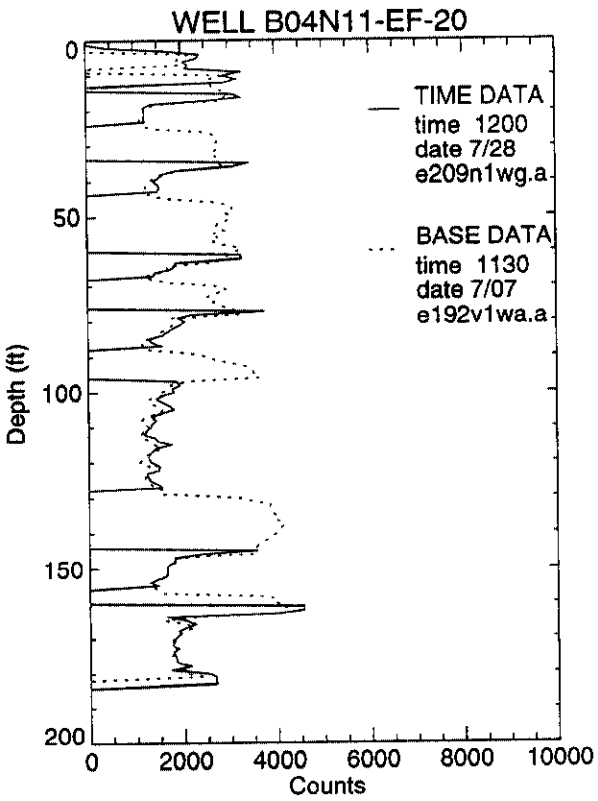

WELL B04N11-EF-20
TIME DATA
time 1635
date 7/11
e192v1wf.a
BASE DATA
time 1635
date 7/11
e192v1wf.a
Depth (ft)
Counts

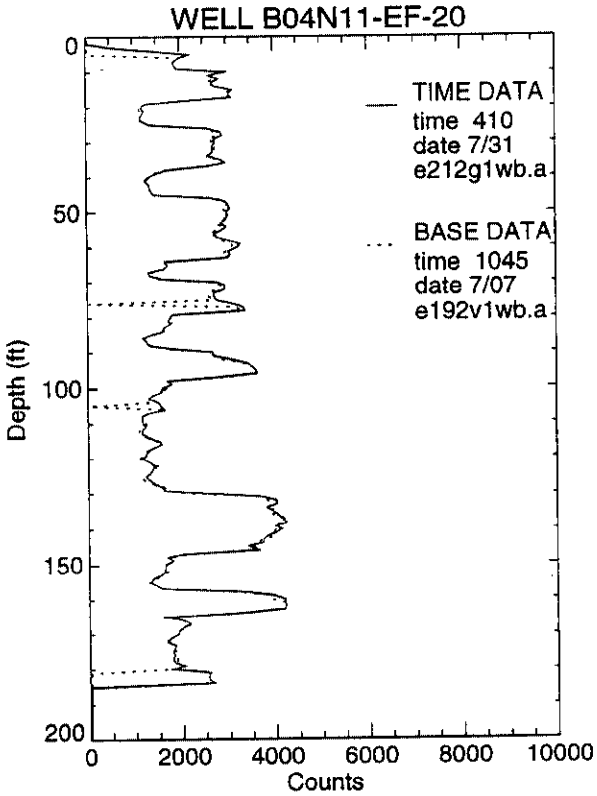

WELL B04N11-EF-20
TIME DATA
time 1658
date 7/11
e192v1wf.a
BASE DATA
time 1635
date 7/11
e192v1wf.a
Depth (ft)
Counts


WELL B04N11-EF-20
TIME DATA
time 1620
date 7/25
e206w1we.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts


WELL B04N11-EF-20
TIME DATA
time 1705
date 7/14
e195u1wd.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts


WELL B04N11-EF-20
TIME DATA
time 1948
date 7/25
e206x1wc.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts


WELL B04N11-EF-20
TIME DATA
time 1200
date 7/28
e209n1wg.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 410
date 7/31
e212g1wb.a
BASE DATA
time 1045
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
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150
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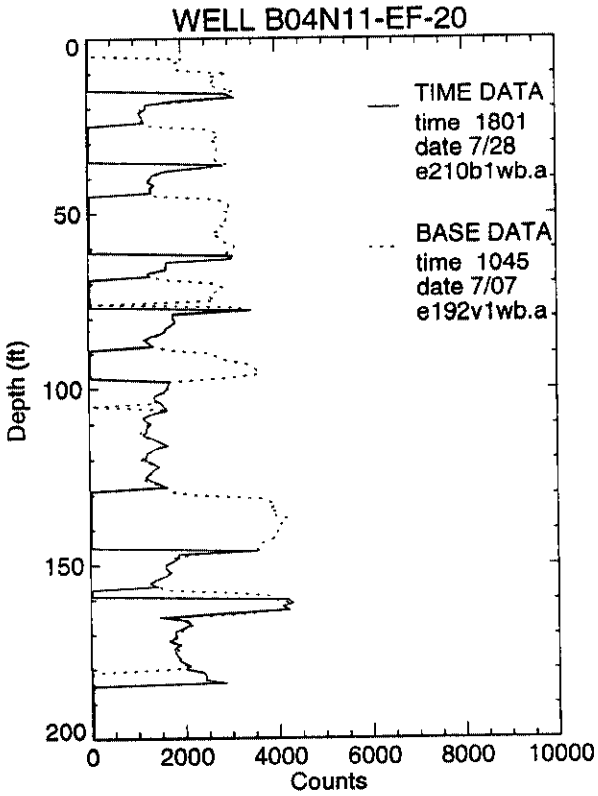
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 1801
date 7/28
e210b1wb.a
BASE DATA
time 1045
date 7/07
e192v1wb.a
Depth (ft)
Counts
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150
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0
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4000
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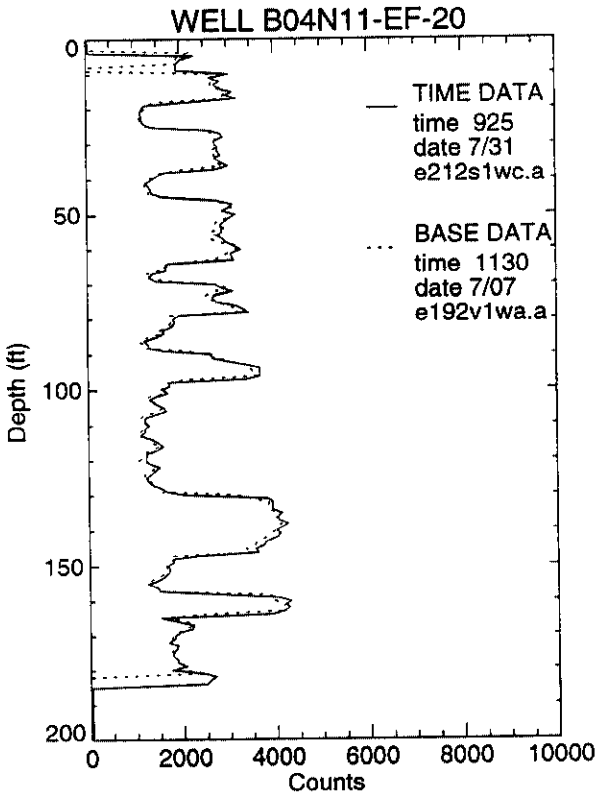
8000
10000


WELL B04N11-EF-20
TIME DATA
time 925
date 7/31
e212s1wc.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts
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150
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0
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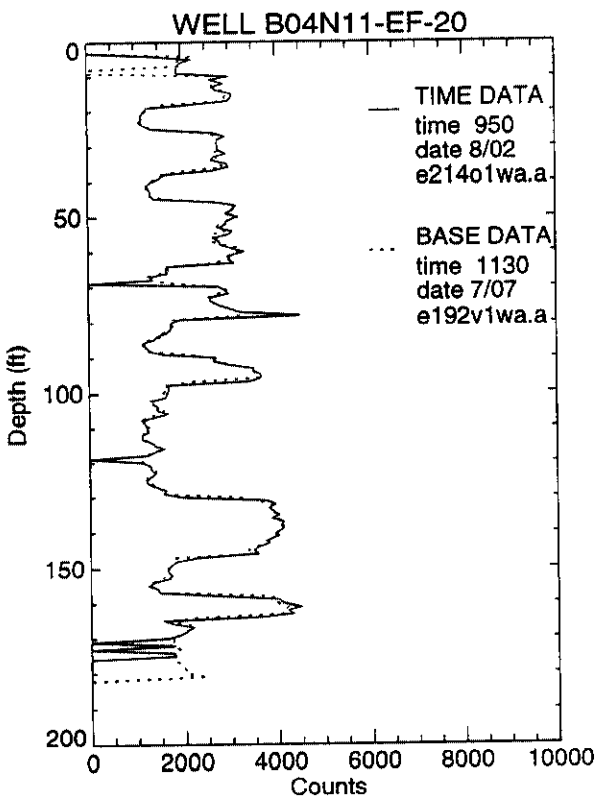
8000
10000


WELL B04N11-EF-20
TIME DATA
time 950
date 8/02
e214o1wa.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts
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150
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0
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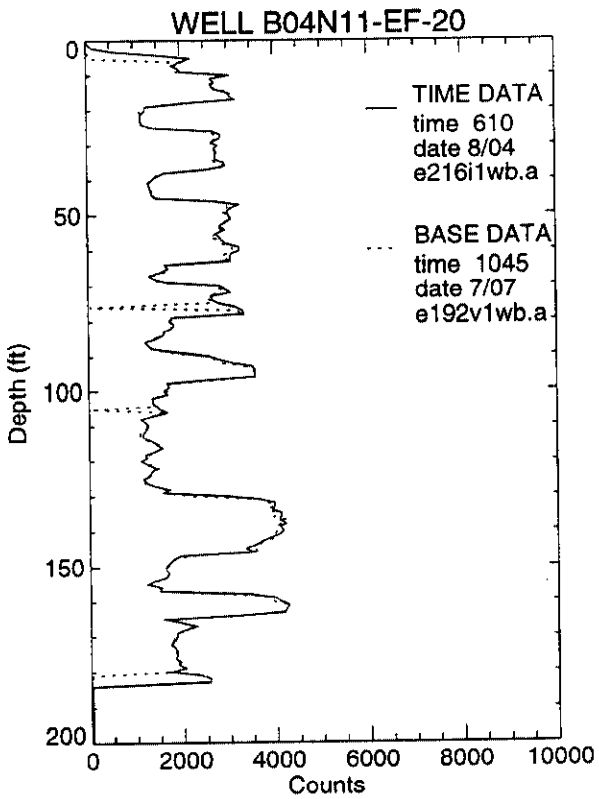
4000
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 610
date 8/04
e216i1wb.a
BASE DATA
time 1045
date 7/07
e192v1wb.a
Depth (ft)
Counts
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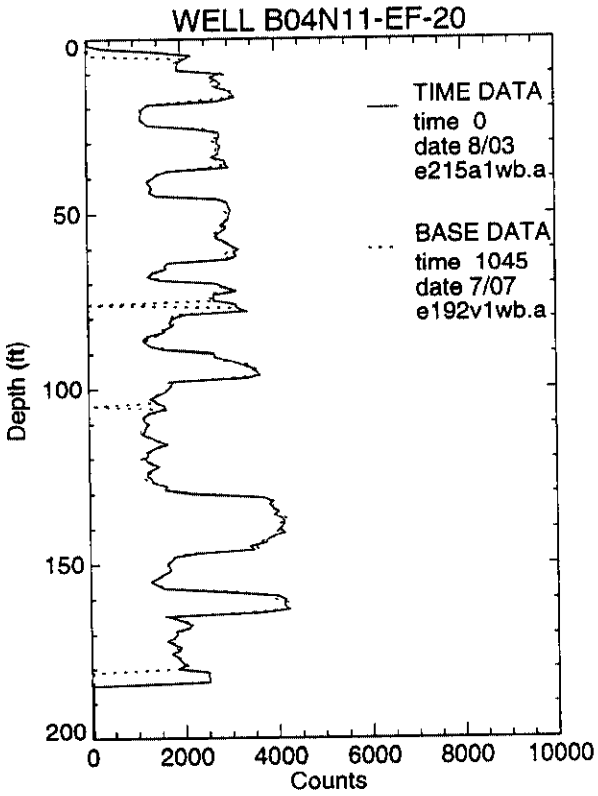
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 0
date 8/03
e215a1wb.a
BASE DATA
time 1045
date 7/07
e192v1wb.a
Depth (ft)
Counts
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150
200
0
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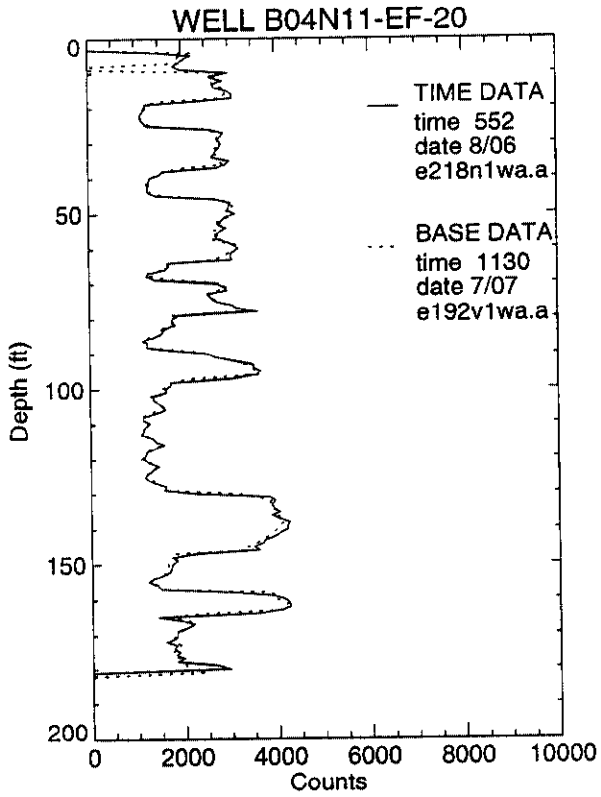
4000
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 552
date 8/06
e218n1wa.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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150
200
0
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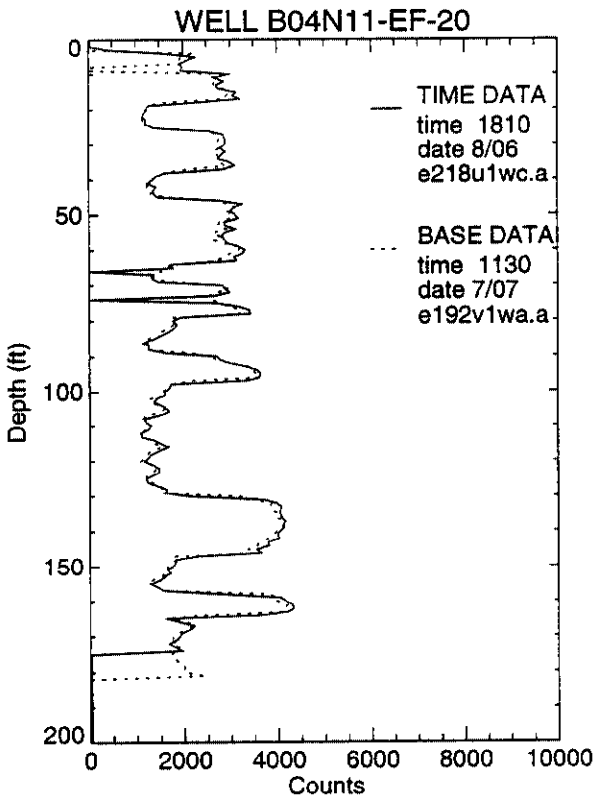
4000
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 1810
date 8/06
e218u1wc.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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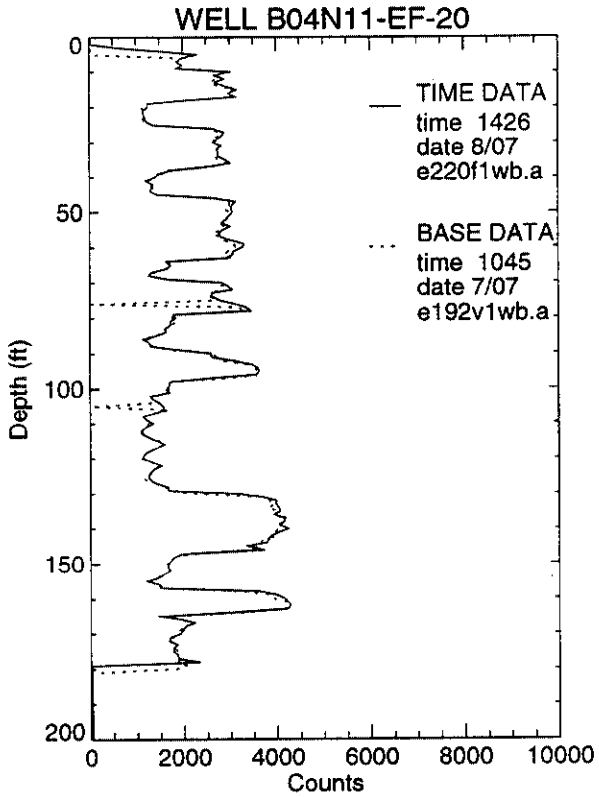
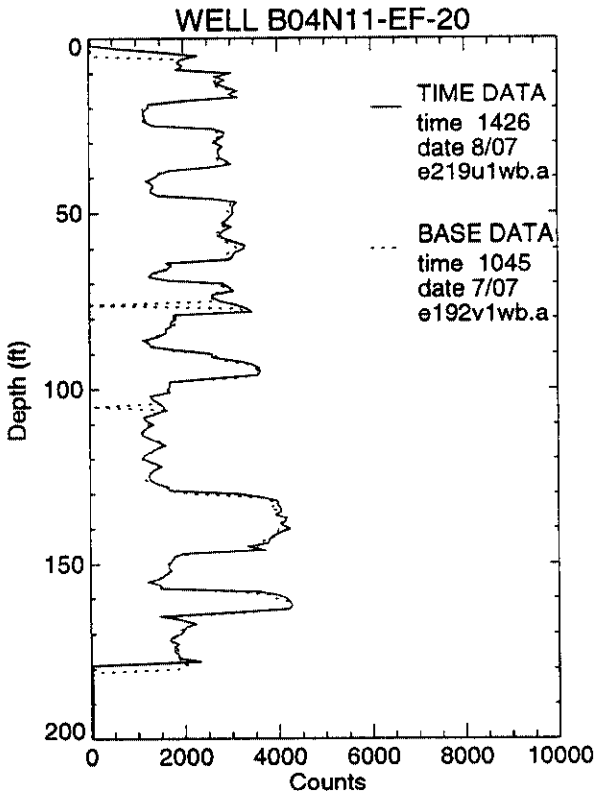
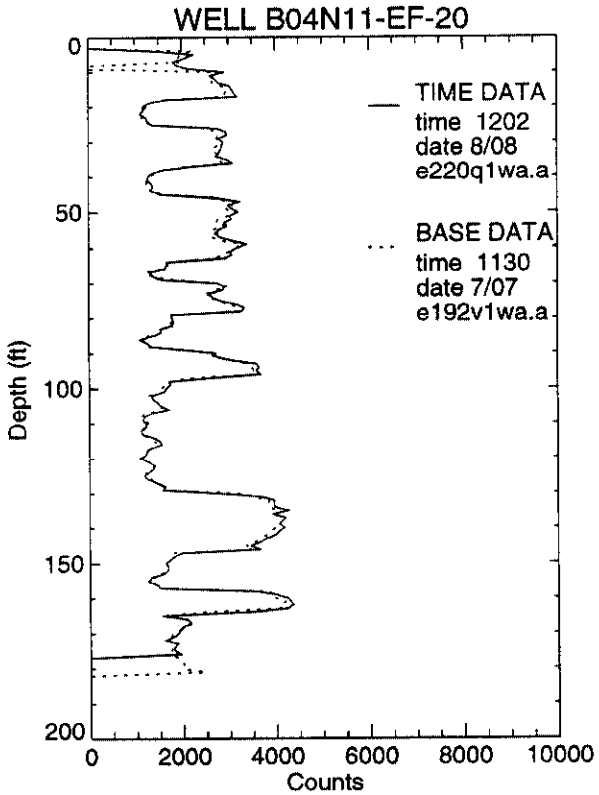
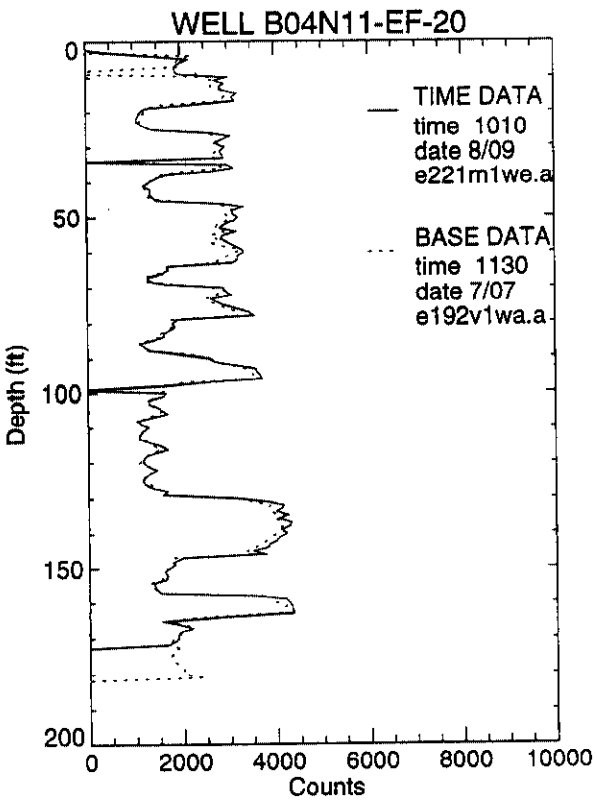
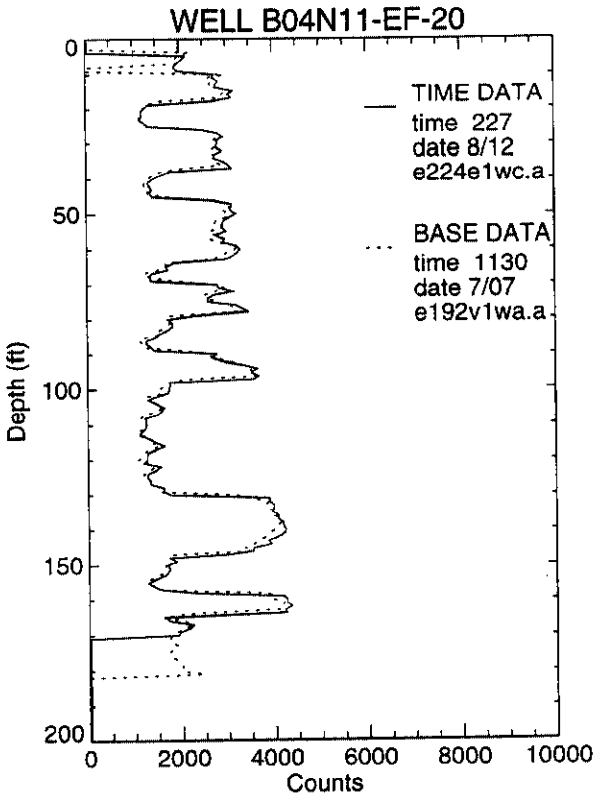
100
150
200
0
2000
4000
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 1426
date 8/07
e220f1wb.a
BASE DATA
time 1045
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 1426
date 8/07
e219u1wb.a
BASE DATA
time 1045
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 1202
date 8/08
e220q1wa.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 1010
date 8/09
e221m1we.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 227
date 8/12
e224e1wc.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
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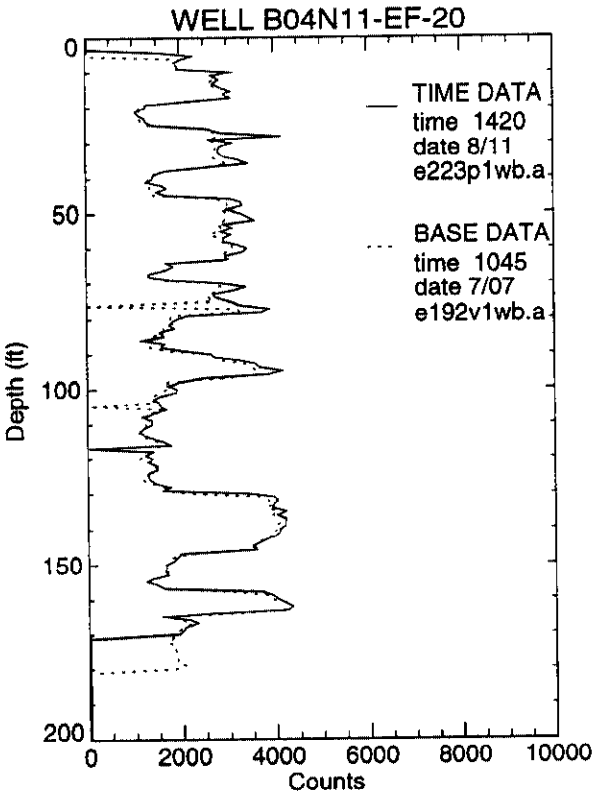
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 1420
date 8/11
e223p1wb.a
BASE DATA
time 1045
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
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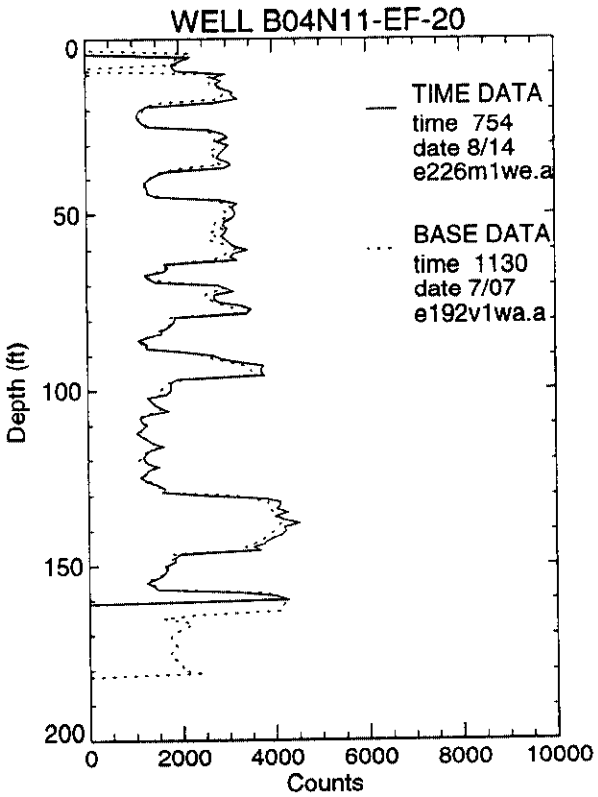
8000
10000


WELL B04N11-EF-20
TIME DATA
time 754
date 8/14
e226m1we.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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100
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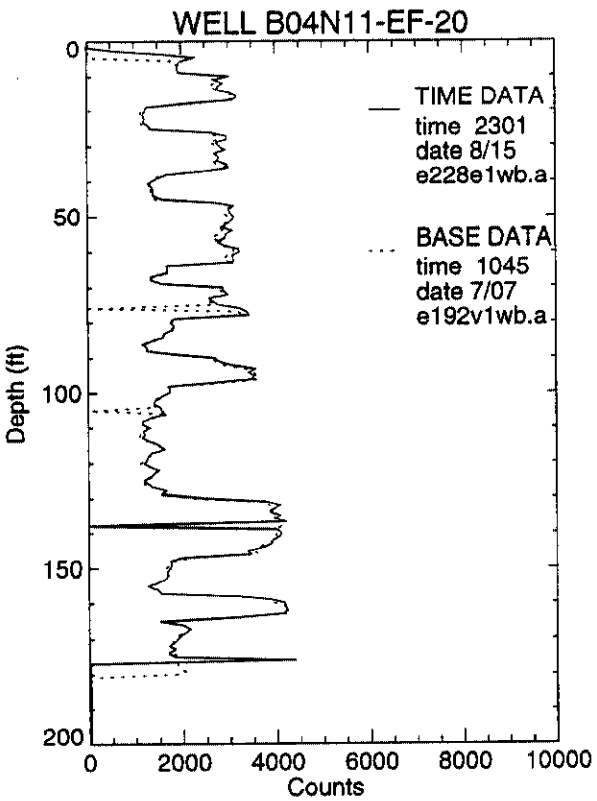
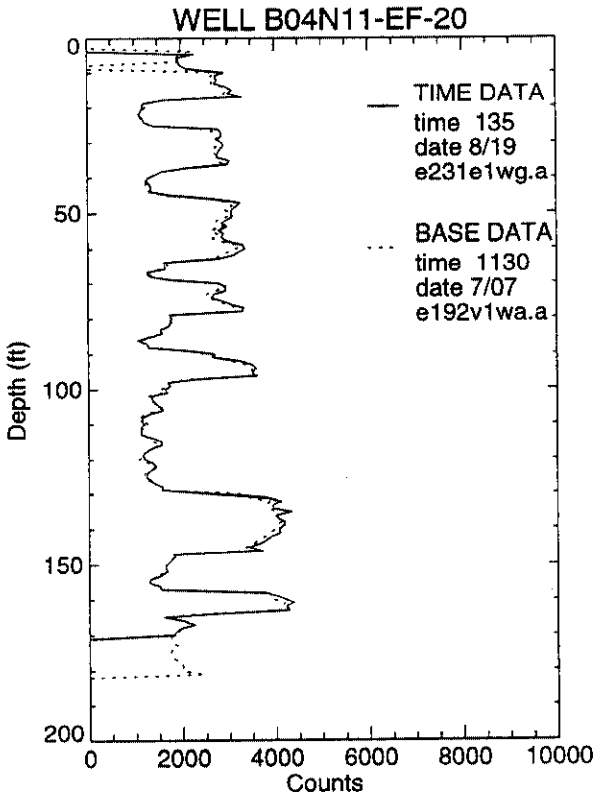
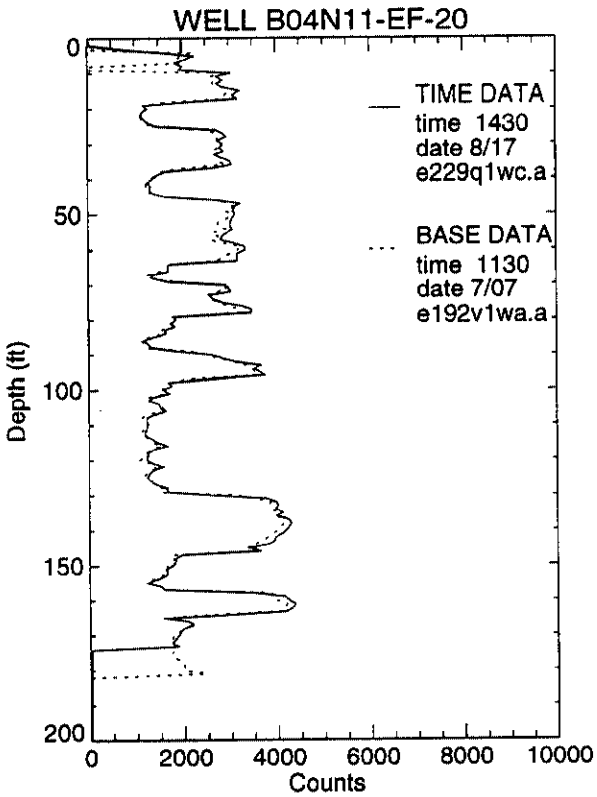
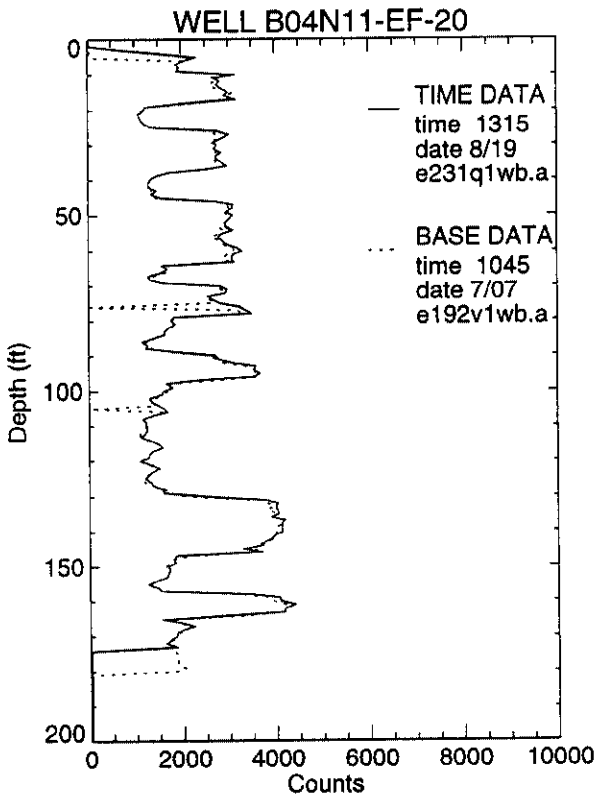
0
2000
4000
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 2301
date 8/15
e228e1wb.a
BASE DATA
time 1045
date 7/07
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 135
date 8/19
e231e1wg.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 1430
date 8/17
e229q1wc.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 1315
date 8/19
e231q1wb.a
BASE DATA
time 1045
date 7/07
e192v1wb.a
Depth (ft)
Counts
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150
200
0
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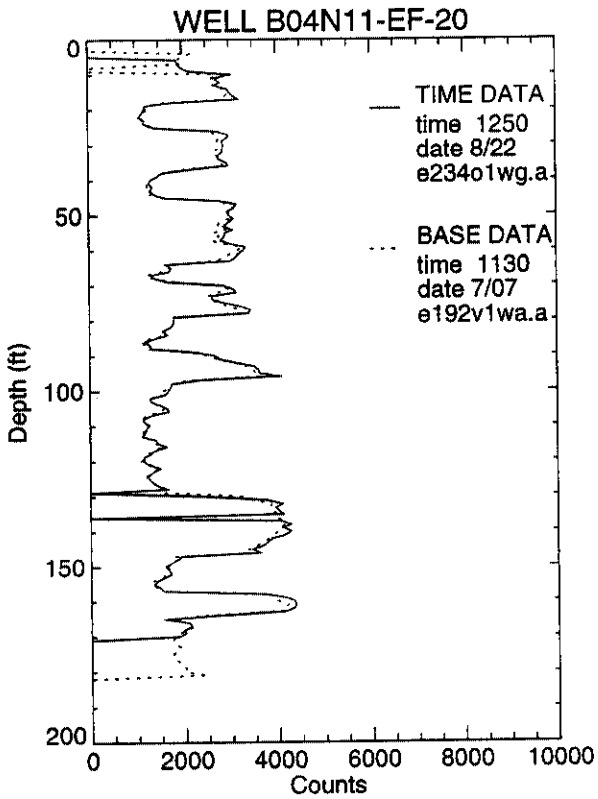
4000
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 1250
date 8/22
e234o1wg.a
BASE DATA
time 1130
date 7/07
e192v1wa.a
Depth (ft)
Counts
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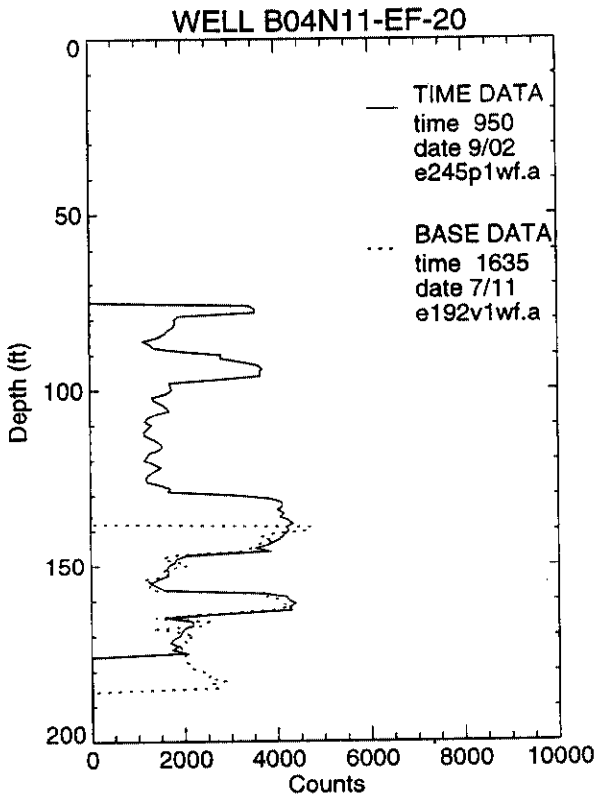
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 950
date 9/02
e245p1wf.a
BASE DATA
time 1635
date 7/11
e192v1wf.a
Depth (ft)
Counts
0
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150
200
0
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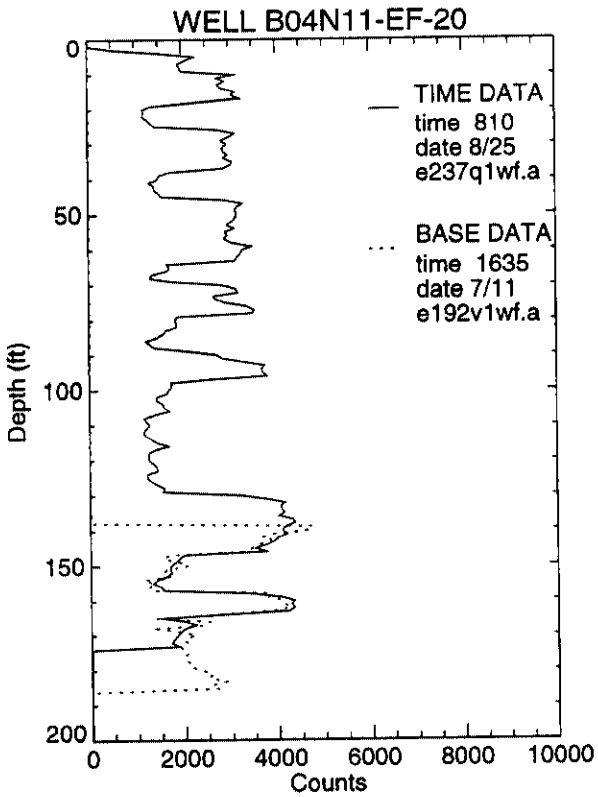
4000
6000
8000
10000


WELL B04N11-EF-20
TIME DATA
time 810
date 8/25
e237q1wf.a
BASE DATA
time 1635
date 7/11
e192v1wf.a
Depth (ft)
Counts
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150
200
0
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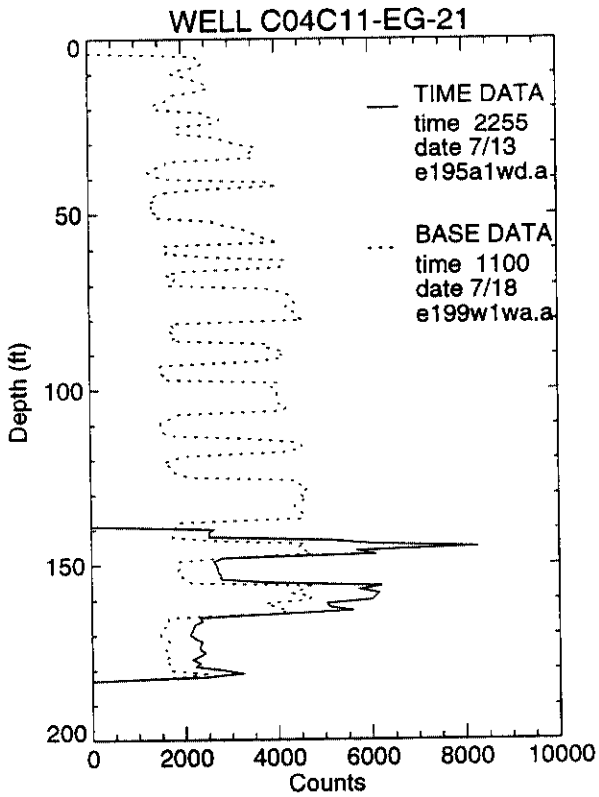
4000
6000
8000
10000


WELL C04C11-EG-21
TIME DATA
time 2255
date 7/13
e195a1wd.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
0
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200
0
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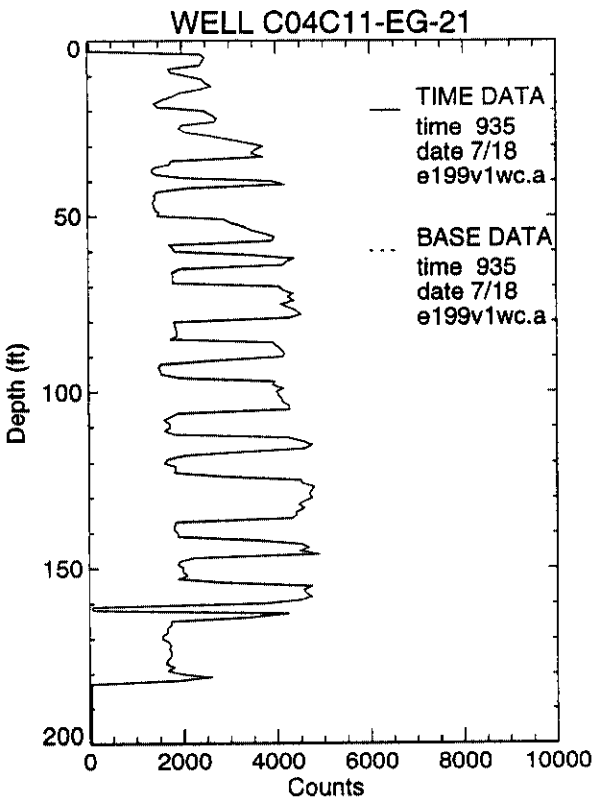
4000
6000
8000
10000


WELL C04C11-EG-21
TIME DATA
time 935
date 7/18
e199v1wc.a
BASE DATA
time 935
date 7/18
e199v1wc.a
Depth (ft)
Counts
0
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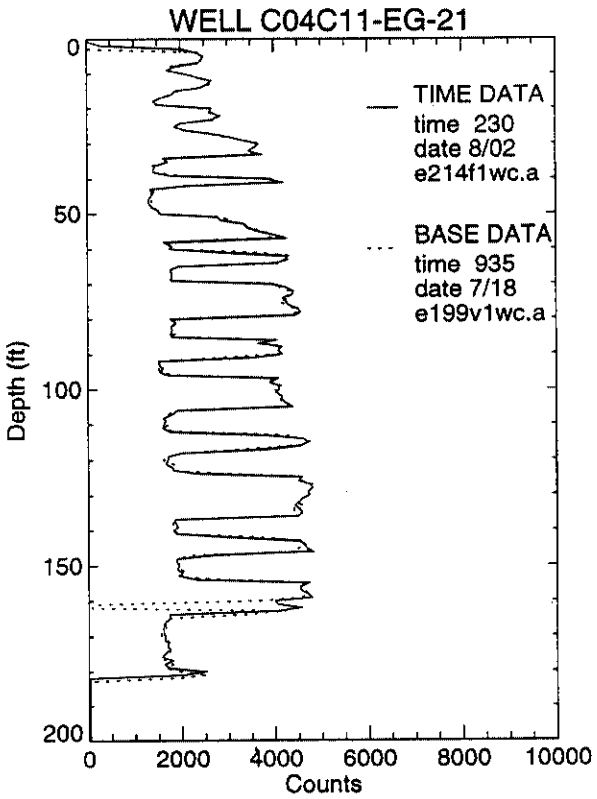
150
200
0
2000
4000
6000
8000
10000


WELL C04C11-EG-21
TIME DATA
time 230
date 8/02
e214f1wc.a
BASE DATA
time 935
date 7/18
e199v1wc.a
Depth (ft)
Counts
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150
200
0
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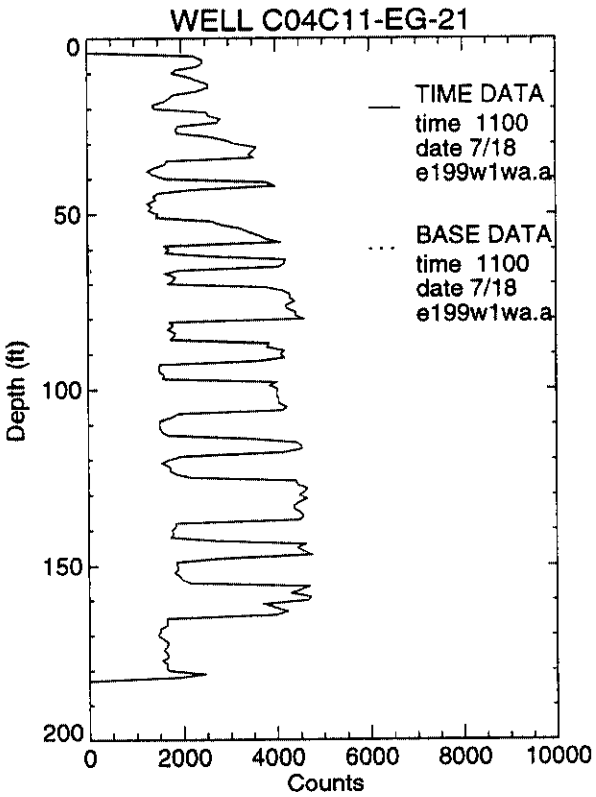
4000
6000
8000
10000


WELL C04C11-EG-21
TIME DATA
time 1100
date 7/18
e199w1wa.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
0
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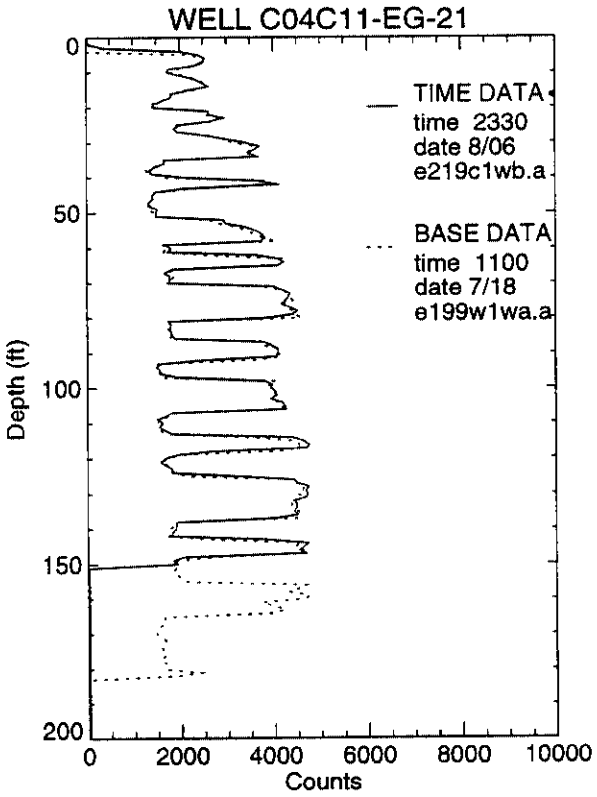
150
200
0
2000
4000
6000
8000
10000


WELL C04C11-EG-21
TIME DATA
time 2330
date 8/06
e219c1wb.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
0
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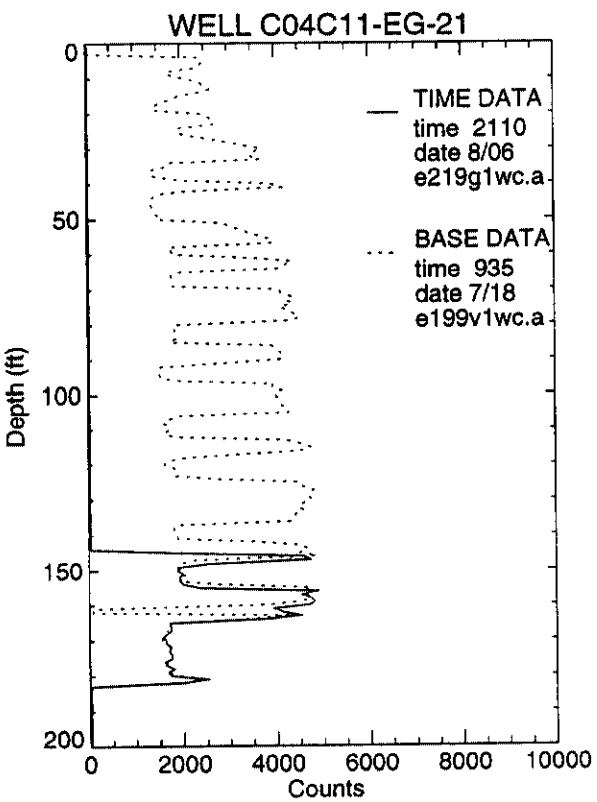
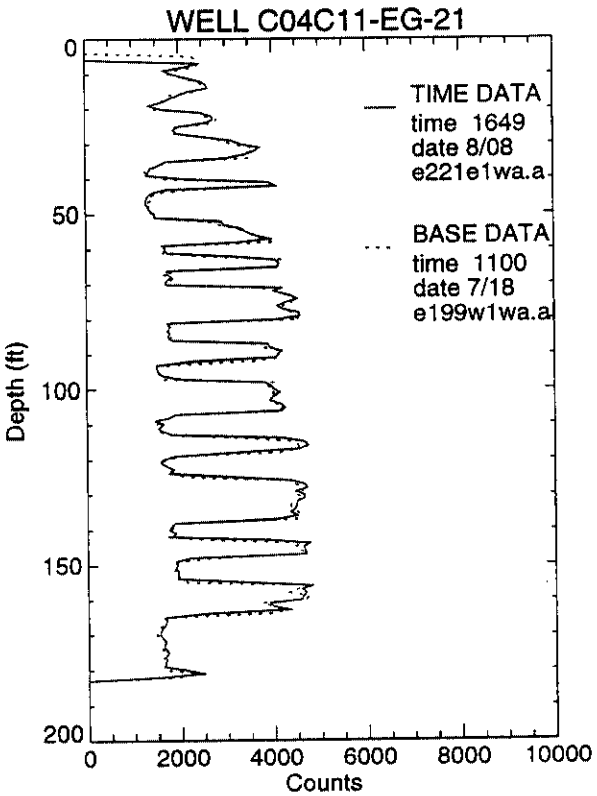
150
200
0
2000
4000
6000
8000
10000


WELL C04C11-EG-21
TIME DATA
time 2110
date 8/06
e219g1wc.a
BASE DATA
time 935
date 7/18
e199v1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL C04C11-EG-21
TIME DATA
time 1649
date 8/08
e221e1wa.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
0
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150
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0
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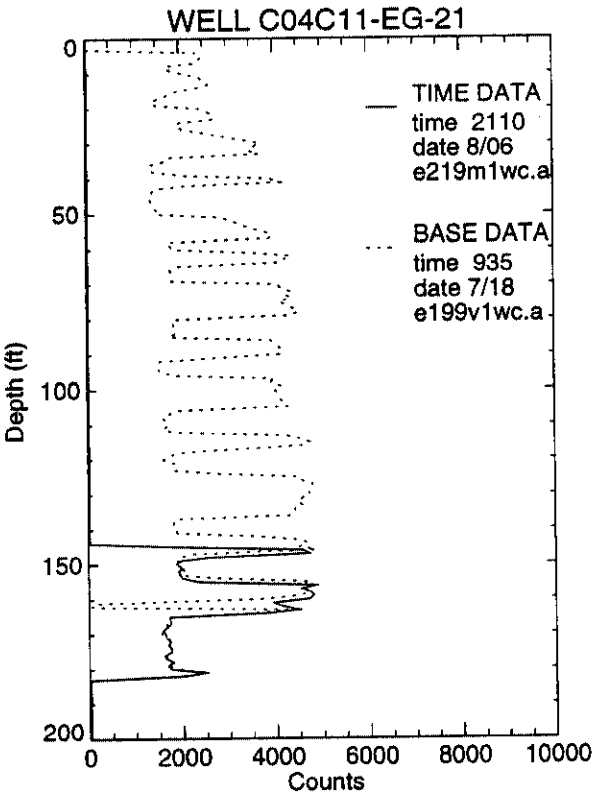
4000
6000
8000
10000


WELL C04C11-EG-21
TIME DATA
time 2110
date 8/06
e219m1wc.a
BASE DATA
time 935
date 7/18
e199v1wc.a
Depth (ft)
Counts
0
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150
200
0
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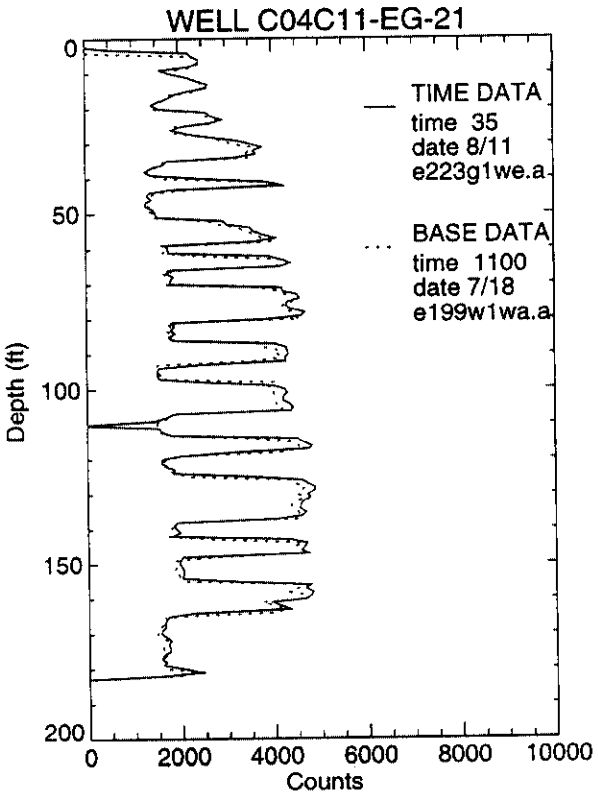
4000
6000
8000
10000


WELL C04C11-EG-21
TIME DATA
time 35
date 8/11
e223g1we.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
0
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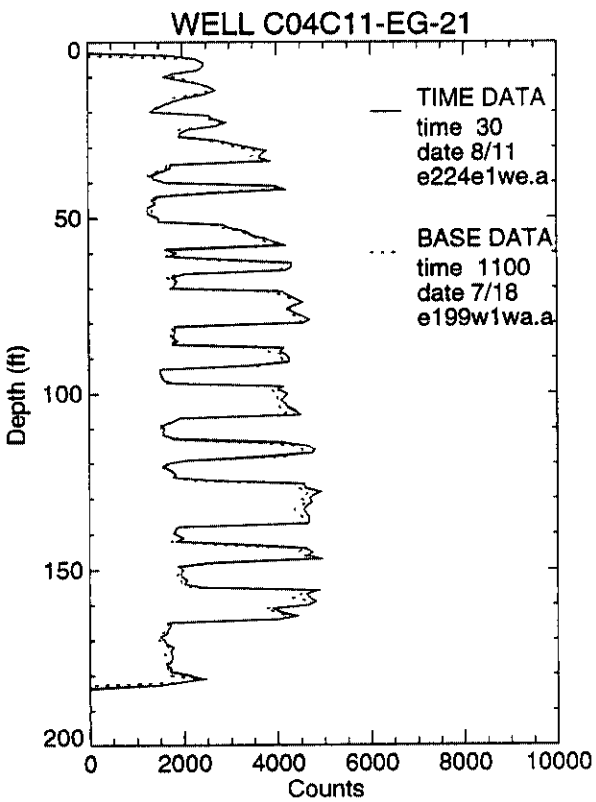
150
200
0
2000
4000
6000
8000
10000


WELL C04C11-EG-21
TIME DATA
time 30
date 8/11
e224e1we.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
0
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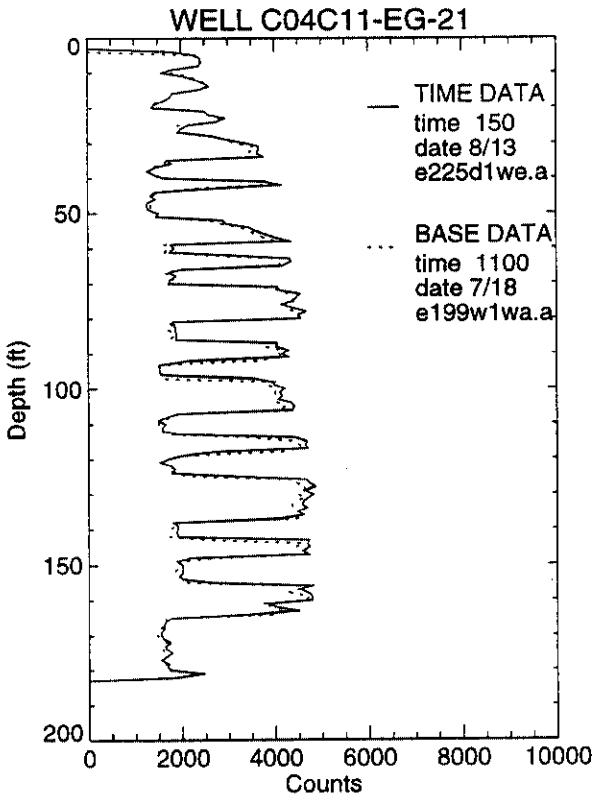
150
200
0
2000
4000
6000
8000
10000


WELL C04C11-EG-21
TIME DATA
time 150
date 8/13
e225d1we.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
0
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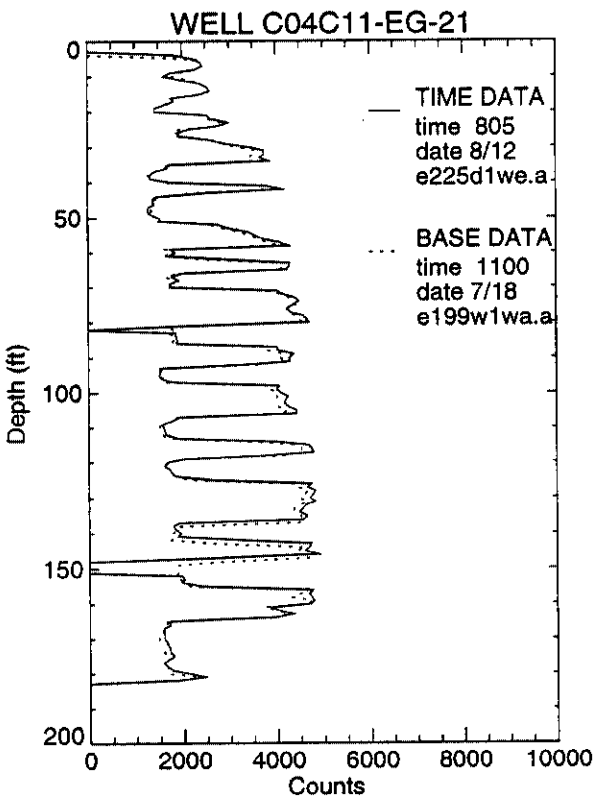
150
200
0
2000
4000
6000
8000
10000


WELL C04C11-EG-21
TIME DATA
time 805
date 8/12
e225d1we.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
0
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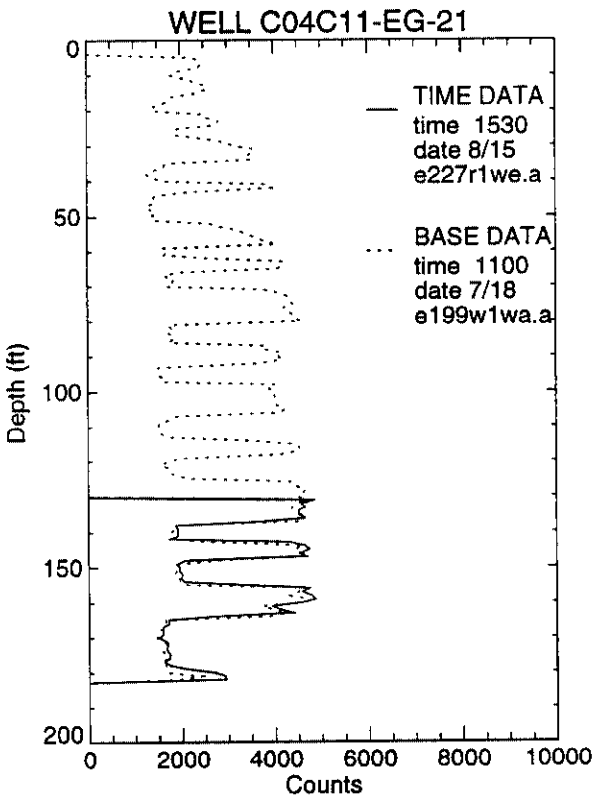
150
200
0
2000
4000
6000
8000
10000


WELL C04C11-EG-21
TIME DATA
time 1530
date 8/15
e227r1we.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
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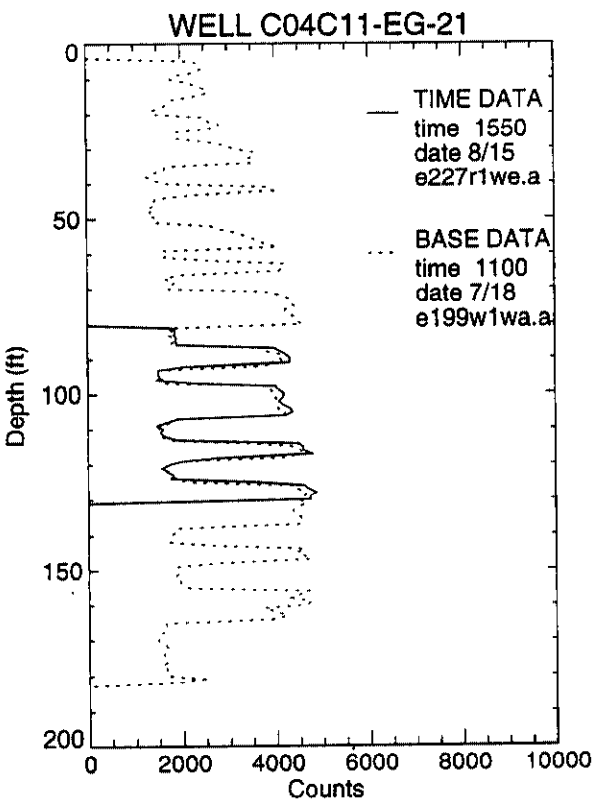
WELL C04C11-EG-21
TIME DATA
time 1550
date 8/15
e227r1we.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
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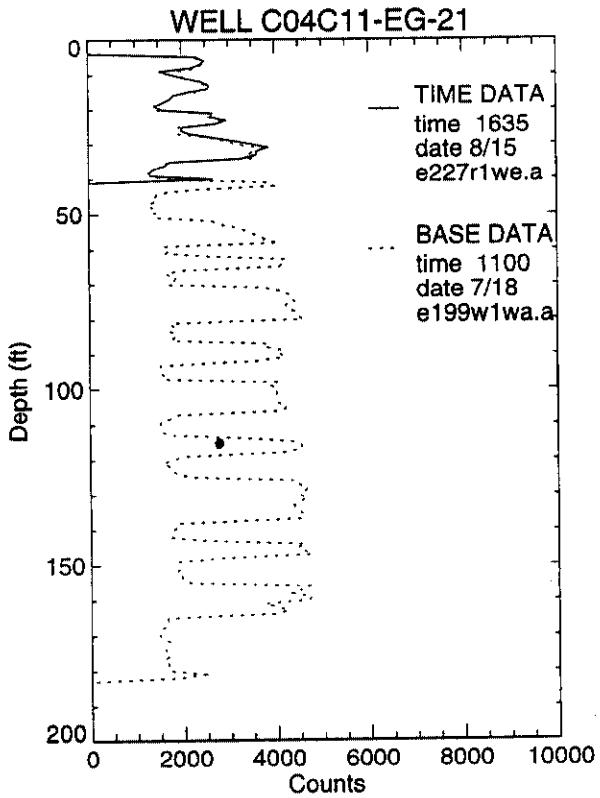
WELL C04C11-EG-21
TIME DATA
time 1635
date 8/15
e227r1we.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
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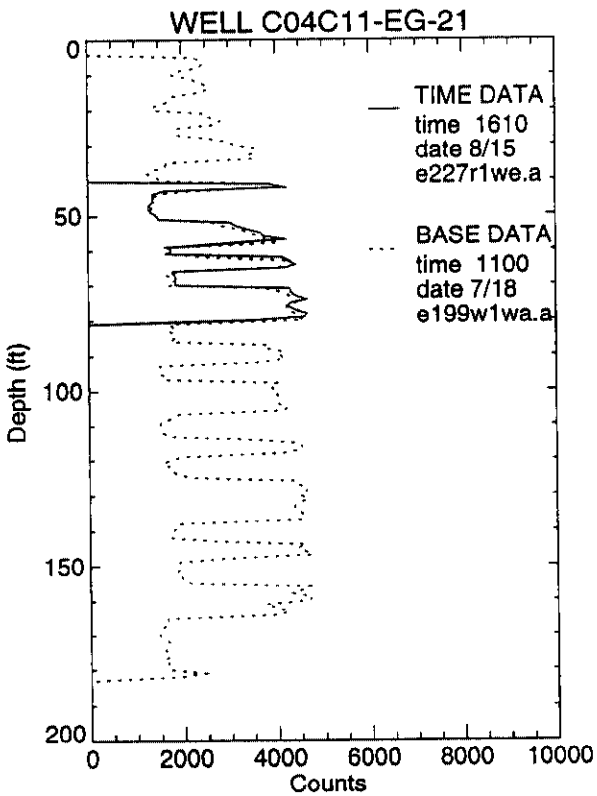
WELL C04C11-EG-21
TIME DATA
time 1610
date 8/15
e227r1we.a
BASE DATA
time 1100
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e199w1wa.a
Depth (ft)
Counts
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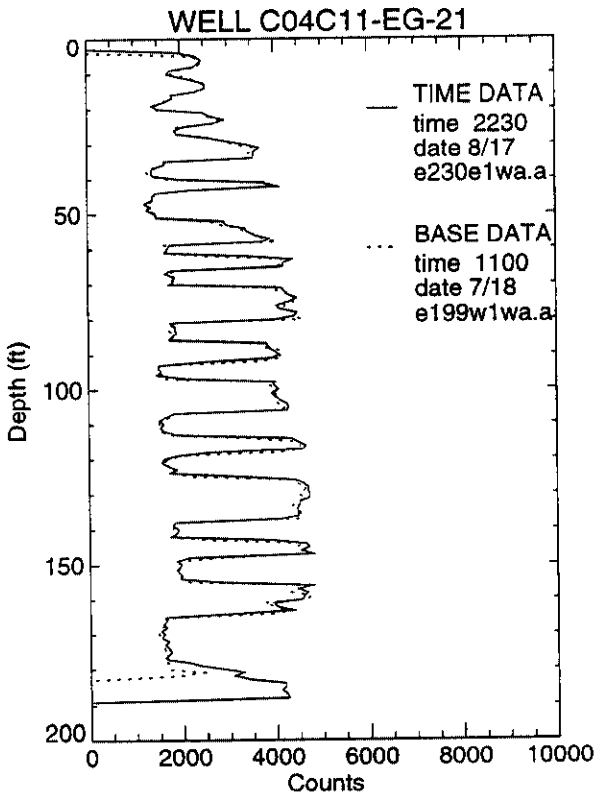
WELL C04C11-EG-21
TIME DATA
time 2230
date 8/17
e230e1wa.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
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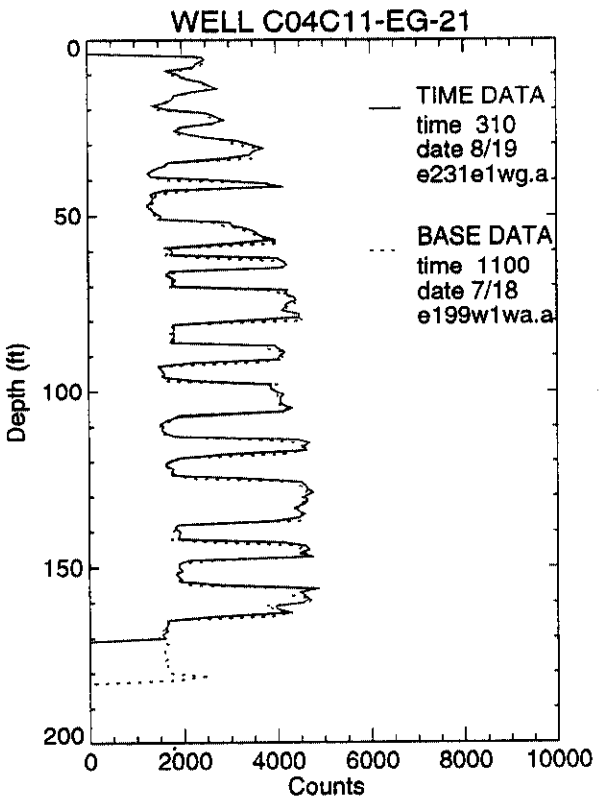
WELL C04C11-EG-21
TIME DATA
time 310
date 8/19
e231e1wg.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
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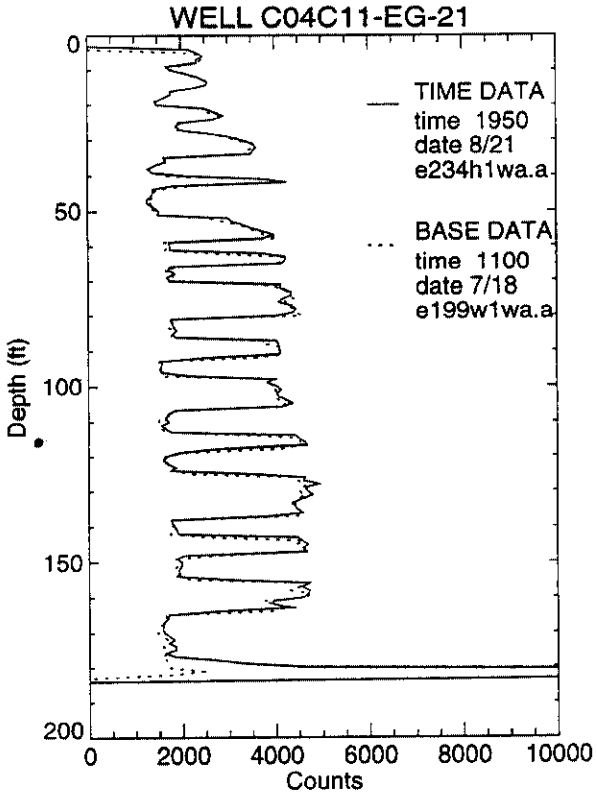
WELL C04C11-EG-21
TIME DATA
time 1950
date 8/21
e234h1wa.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
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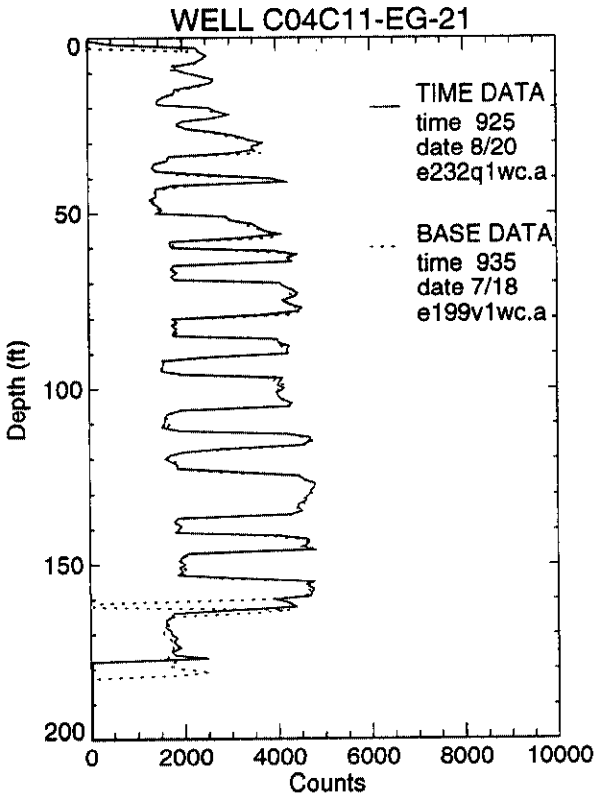
WELL C04C11-EG-21
TIME DATA
time 925
date 8/20
e232q1wc.a
BASE DATA
time 935
date 7/18
e199v1wc.a
Depth (ft)
Counts
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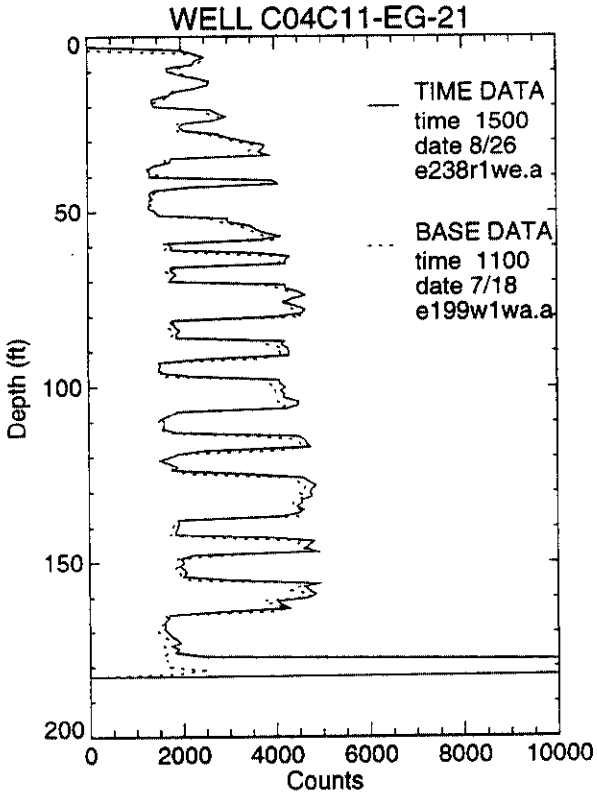
WELL C04C11-EG-21
TIME DATA
time 1500
date 8/26
e238r1we.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
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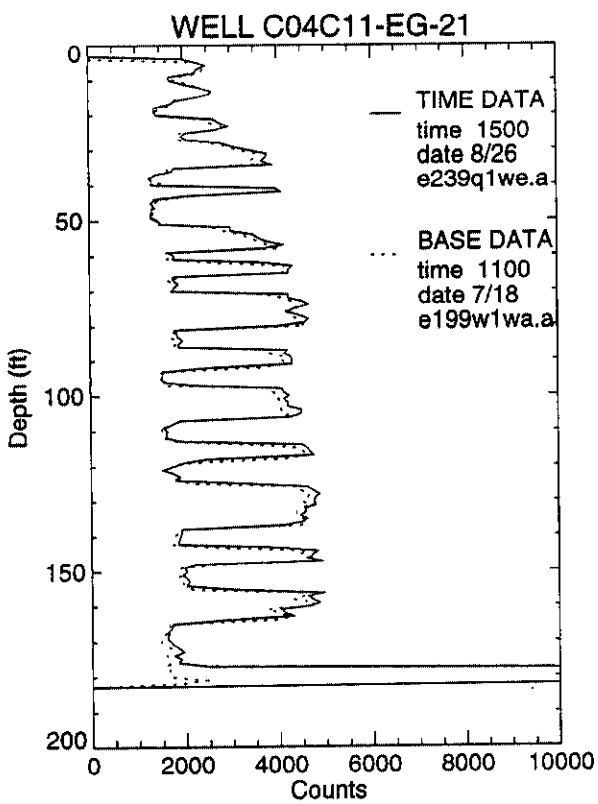
WELL C04C11-EG-21
TIME DATA
time 1500
date 8/26
e239q1we.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
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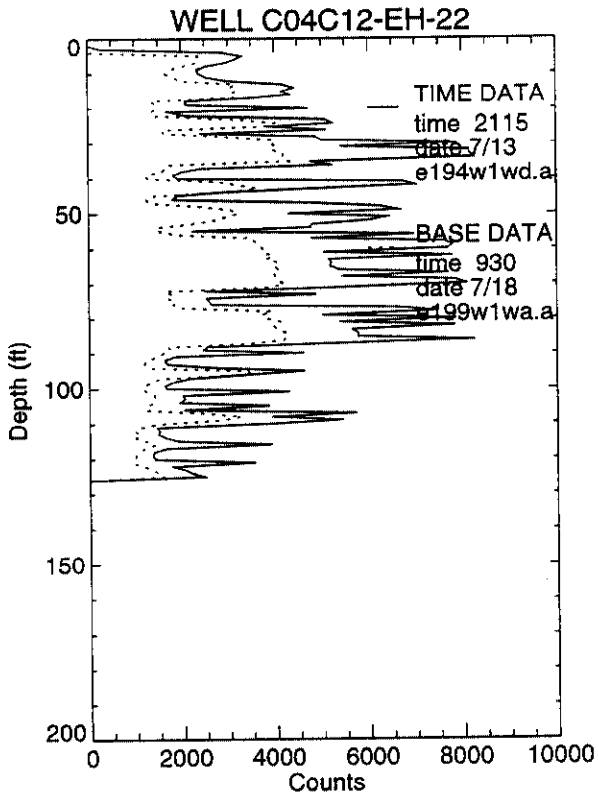
WELL C04C12-EH-22
TIME DATA
time 2115
date 7/13
e194w1wd.a
BASE DATA
time 930
date 7/18
e199w1wa.a
Depth (ft)
Counts
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0
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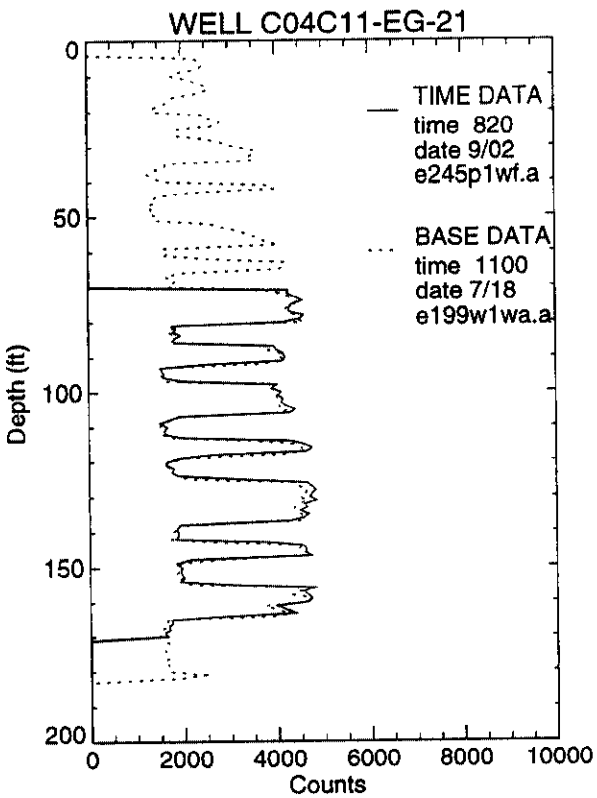
10000


WELL C04C11-EG-21
TIME DATA
time 820
date 9/02
e245p1wf.a
BASE DATA
time 1100
date 7/18
e199w1wa.a
Depth (ft)
Counts
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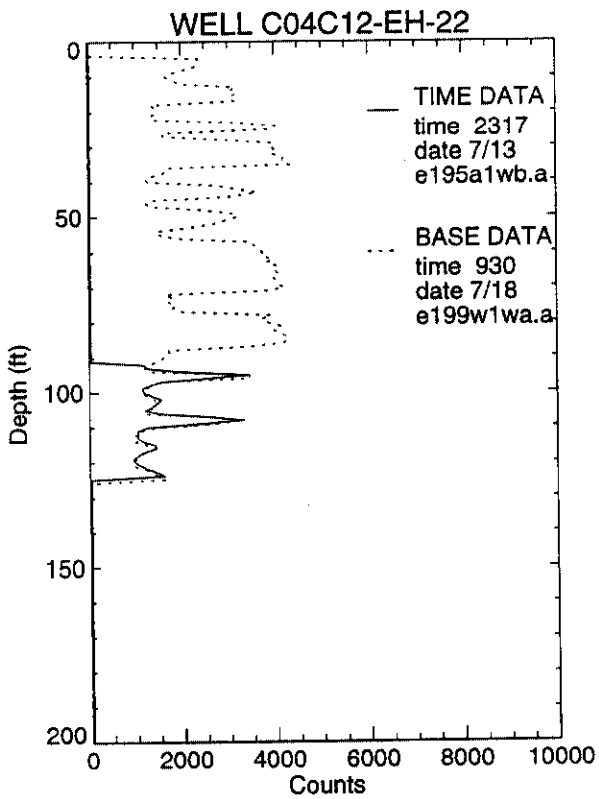
WELL C04C12-EH-22
TIME DATA
time 2317
date 7/13
e195a1wb.a
BASE DATA
time 930
date 7/18
e199w1wa.a
Depth (ft)
Counts
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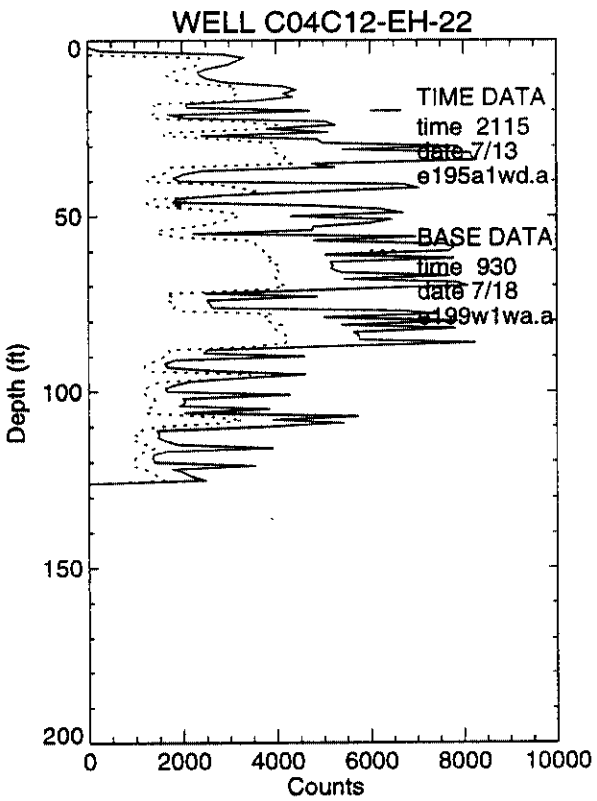
WELL C04C12-EH-22
TIME DATA
time 2115
date 7/13
e195a1wd.a
BASE DATA
time 930
date 7/18
e199w1wa.a
Depth (ft)
Counts
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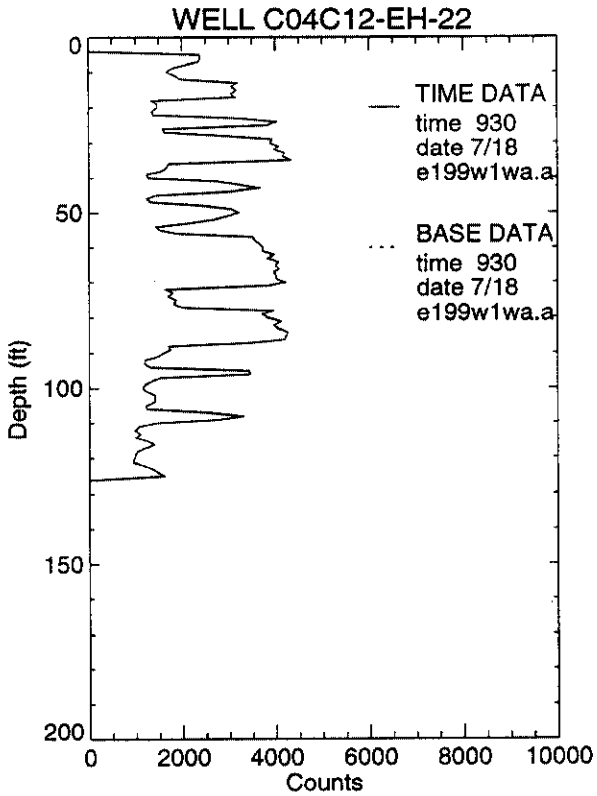
WELL C04C12-EH-22
TIME DATA
time 930
date 7/18
e199w1wa.a
BASE DATA
time 930
date 7/18
e199w1wa.a
Depth (ft)
Counts
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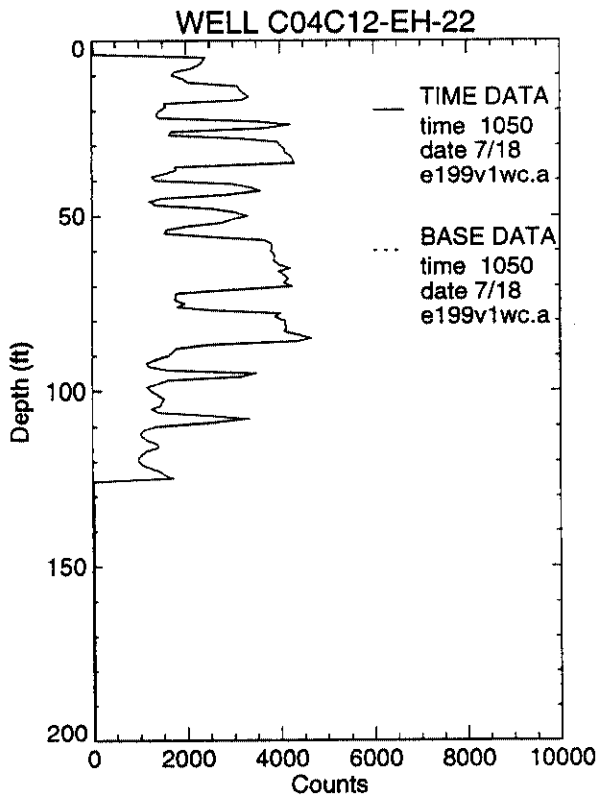
WELL C04C12-EH-22
TIME DATA
time 1050
date 7/18
e199v1wc.a
BASE DATA
time 1050
date 7/18
e199v1wc.a
Depth (ft)
Counts
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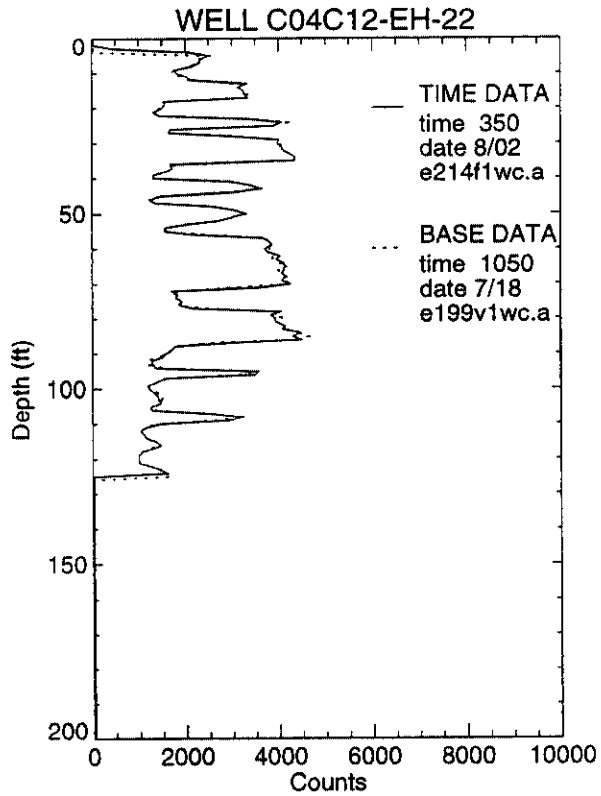
WELL C04C12-EH-22
TIME DATA
time 350
date 8/02
e214f1wc.a
BASE DATA
time 1050
date 7/18
e199v1wc.a
Depth (ft)
Counts
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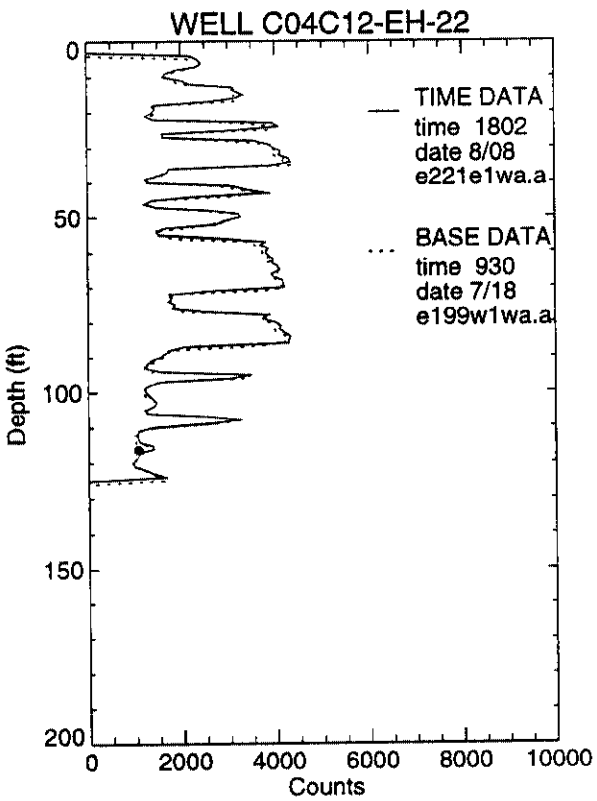
WELL C04C12-EH-22
TIME DATA
time 1802
date 8/08
e221e1wa.a
BASE DATA
time 930
date 7/18
e199w1wa.a
Depth (ft)
Counts
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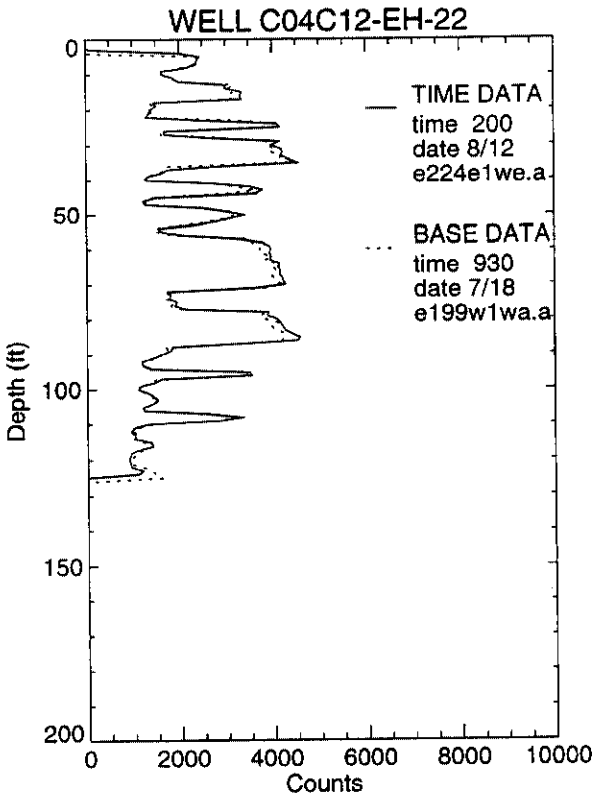
WELL C04C12-EH-22
TIME DATA
time 200
date 8/12
e224e1we.a
BASE DATA
time 930
date 7/18
e199w1wa.a
Depth (ft)
Counts
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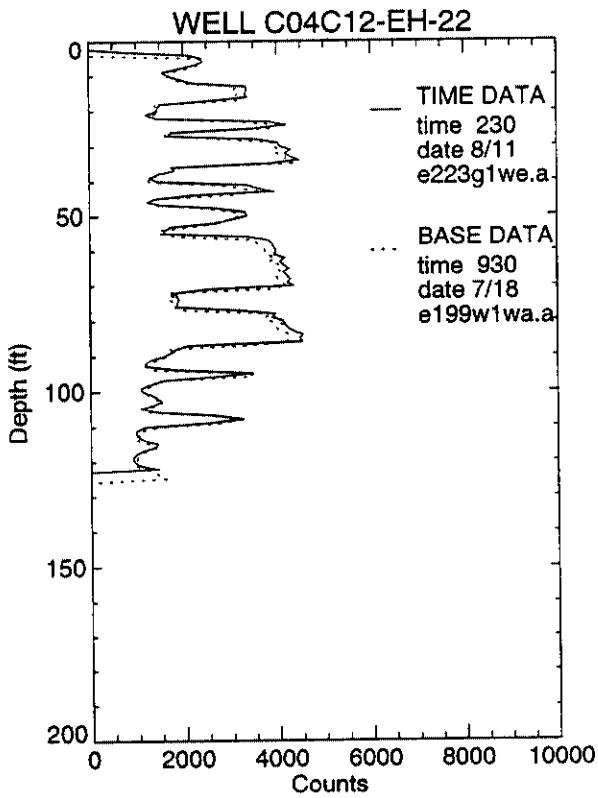
WELL C04C12-EH-22
TIME DATA
time 230
date 8/11
e223g1we.a
BASE DATA
time 930
date 7/18
e199w1wa.a
Depth (ft)
Counts
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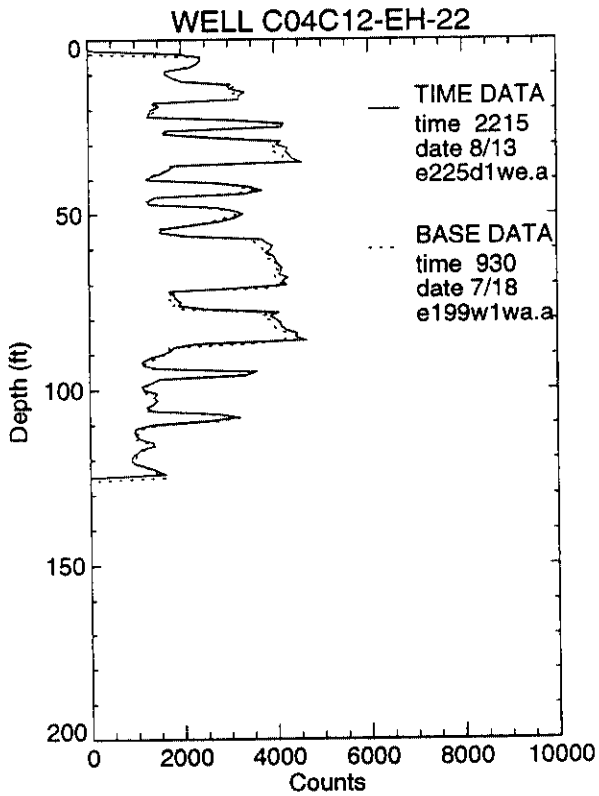
WELL C04C12-EH-22
TIME DATA
time 2215
date 8/13
e225d1we.a
BASE DATA
time 930
date 7/18
e199w1wa.a
Depth (ft)
Counts
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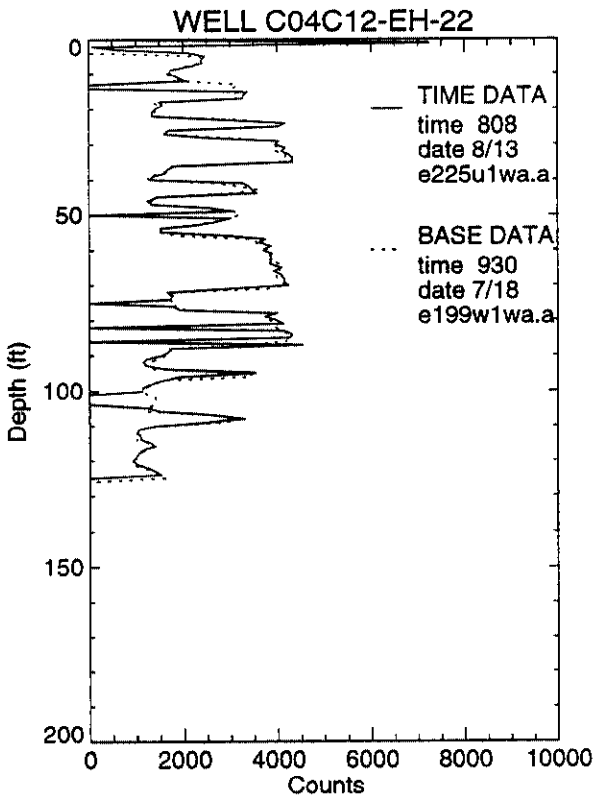
WELL C04C12-EH-22
TIME DATA
time 808
date 8/13
e225u1wa.a
BASE DATA
time 930
date 7/18
e199w1wa.a
Depth (ft)
Counts
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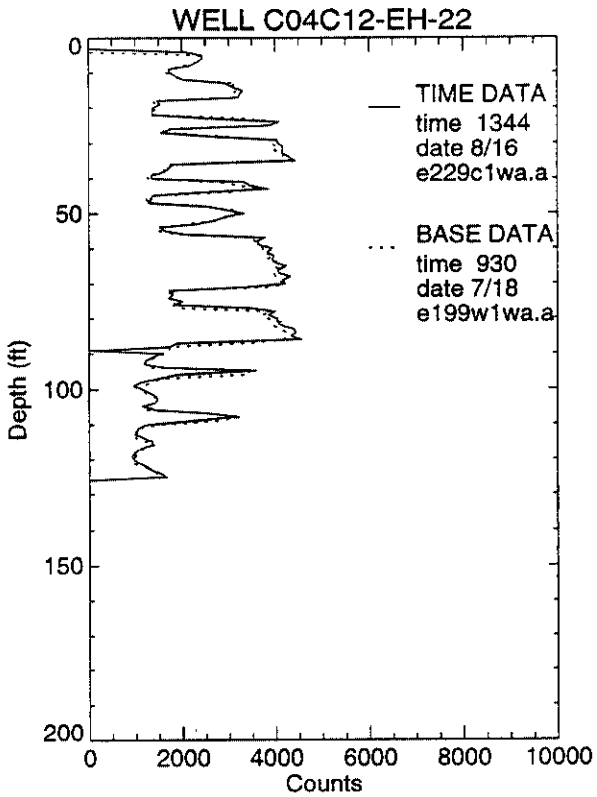
WELL C04C12-EH-22
TIME DATA
time 1344
date 8/16
e229c1wa.a
BASE DATA
time 930
date 7/18
e199w1wa.a
Depth (ft)
Counts
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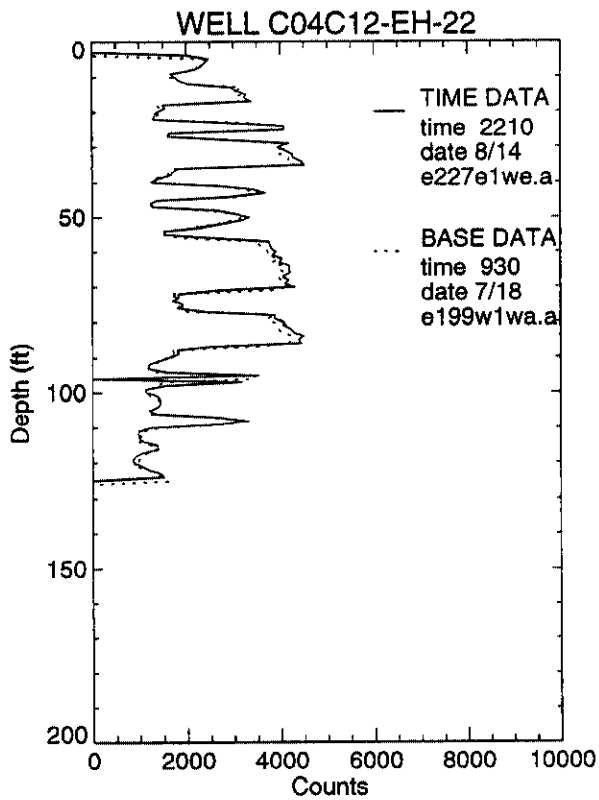
WELL C04C12-EH-22
TIME DATA
time 2210
date 8/14
e227e1we.a
BASE DATA
time 930
date 7/18
e199w1wa.a
Depth (ft)
Counts
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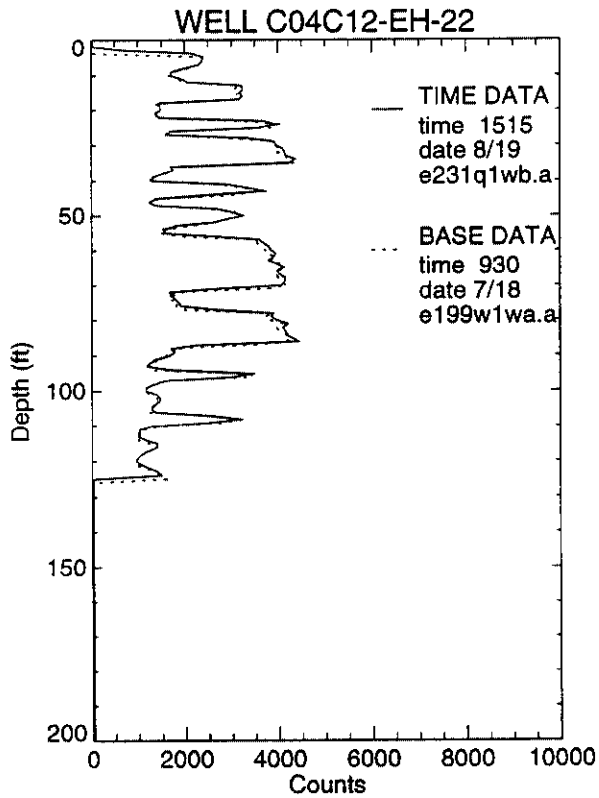
WELL C04C12-EH-22
TIME DATA
time 1515
date 8/19
e231q1wb.a
BASE DATA
time 930
date 7/18
e199w1wa.a
Depth (ft)
Counts
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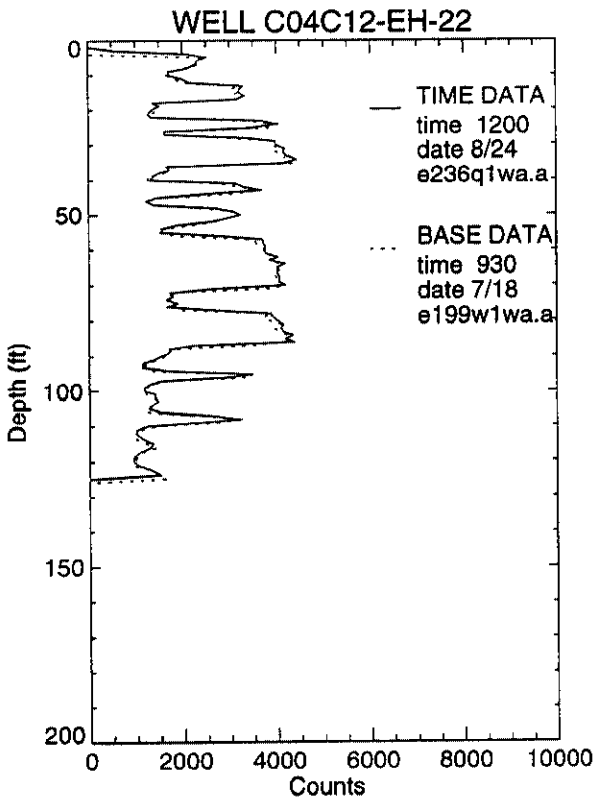
WELL C04C12-EH-22
TIME DATA
time 1200
date 8/24
e236q1wa.a
BASE DATA
time 930
date 7/18
e199w1wa.a
Depth (ft)
Counts
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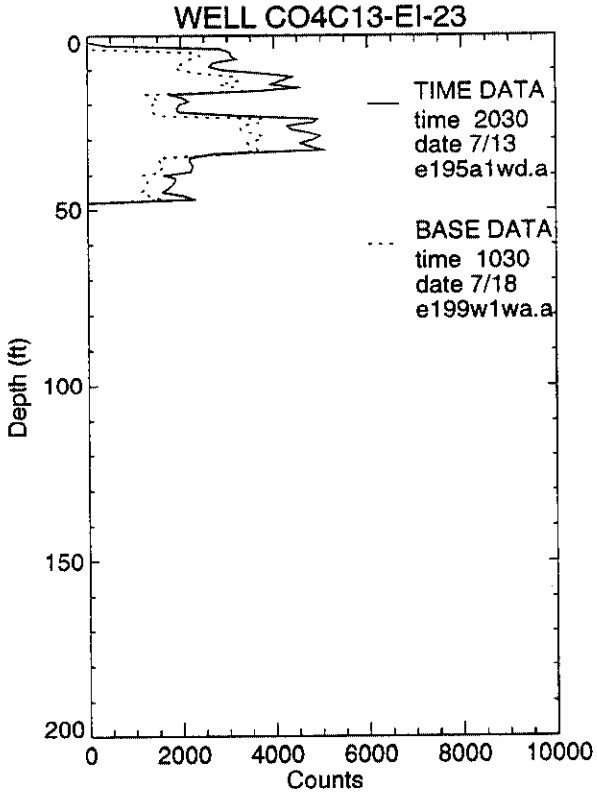
WELL CO4C13-EI-23
TIME DATA
time 2030
date 7/13
e195a1wd.a
BASE DATA
time 1030
date 7/18
e199w1wa.a
Depth (ft)
Counts
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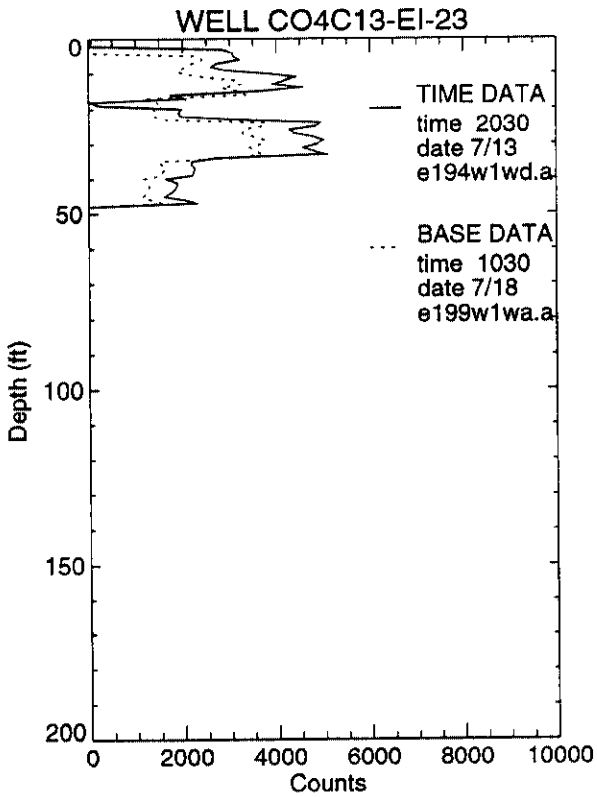
WELL CO4C13-EI-23
TIME DATA
time 2030
date 7/13
e194w1wd.a
BASE DATA
time 1030
date 7/18
e199w1wa.a
Depth (ft)
Counts
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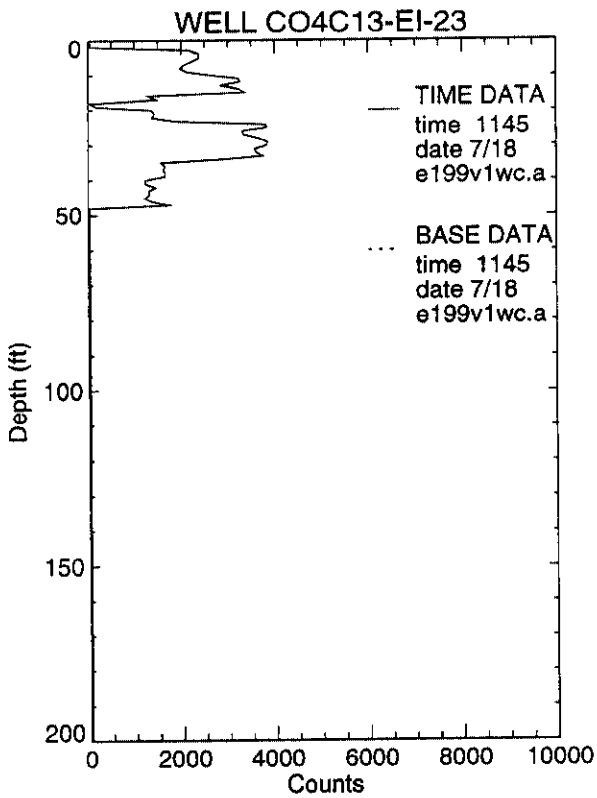
WELL CO4C13-EI-23
TIME DATA
time 1145
date 7/18
e199v1wc.a
BASE DATA
time 1145
date 7/18
e199v1wc.a
Depth (ft)
Counts
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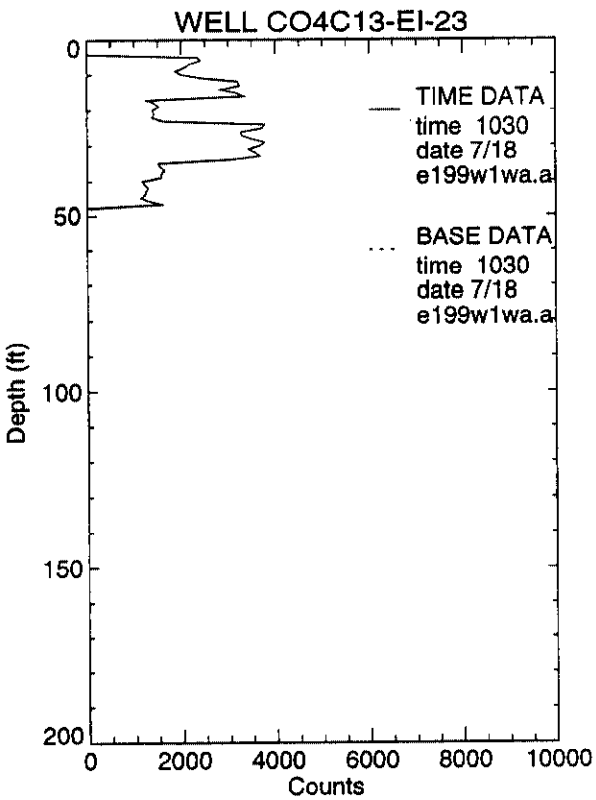
WELL CO4C13-EI-23
TIME DATA
time 1030
date 7/18
e199w1wa.a
BASE DATA
time 1030
date 7/18
e199w1wa.a
Depth (ft)
Counts
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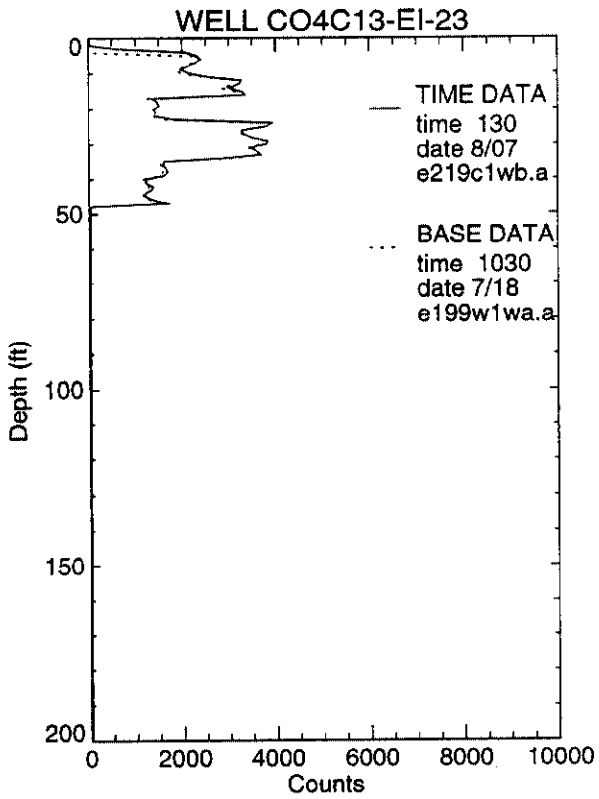
WELL CO4C13-EI-23
TIME DATA
time 130
date 8/07
e219c1wb.a
BASE DATA
time 1030
date 7/18
e199w1wa.a
Depth (ft)
Counts
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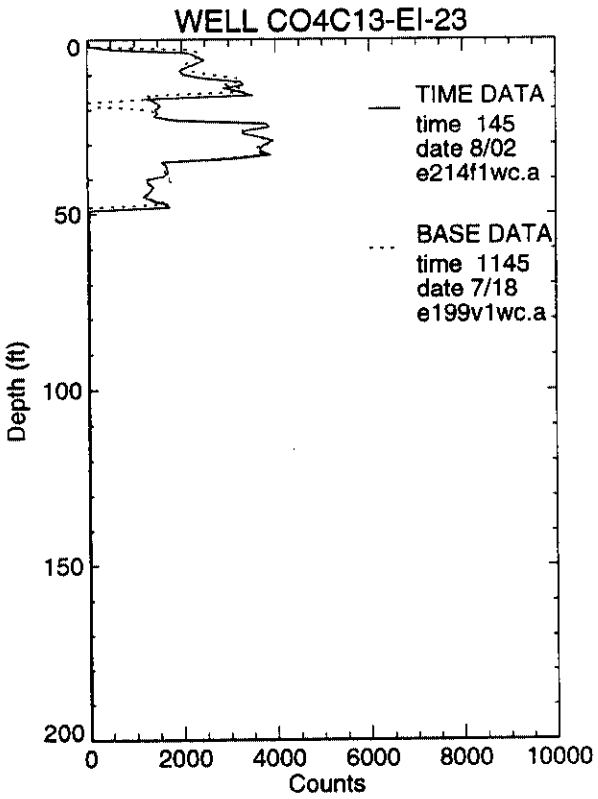
WELL CO4C13-EI-23
TIME DATA
time 145
date 8/02
e214f1wc.a
BASE DATA
time 1145
date 7/18
e199v1wc.a
Depth (ft)
Counts
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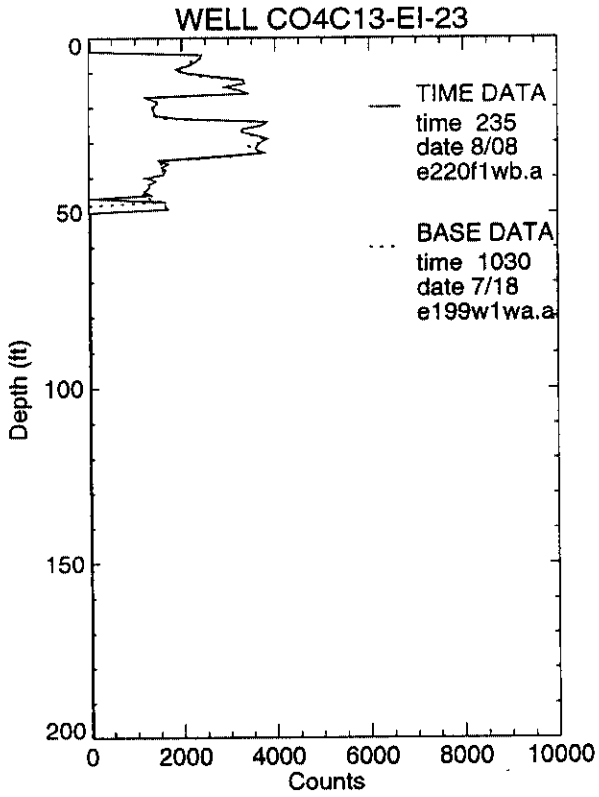
WELL CO4C13-EI-23
TIME DATA
time 235
date 8/08
e220f1wb.a
BASE DATA
time 1030
date 7/18
e199w1wa.a
Depth (ft)
Counts
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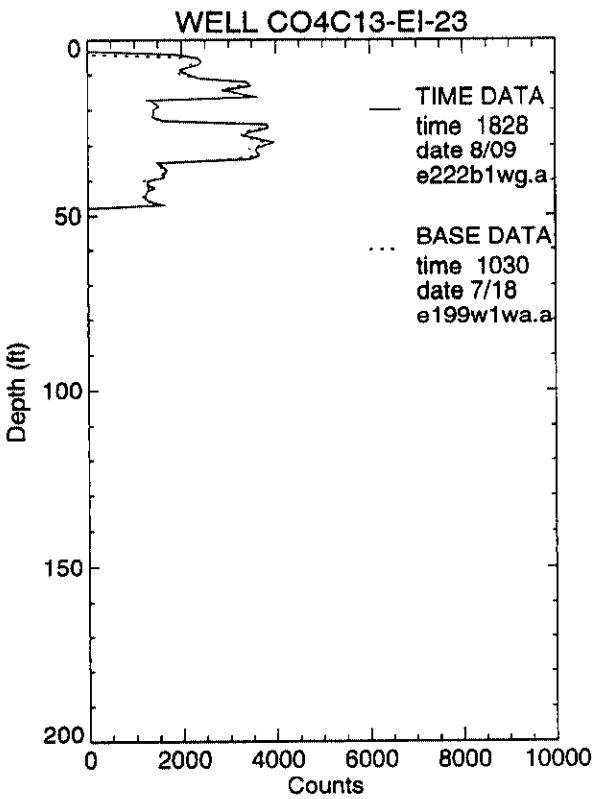
WELL CO4C13-EI-23
TIME DATA
time 1828
date 8/09
e222b1wg.a
BASE DATA
time 1030
date 7/18
e199w1wa.a
Depth (ft)
Counts
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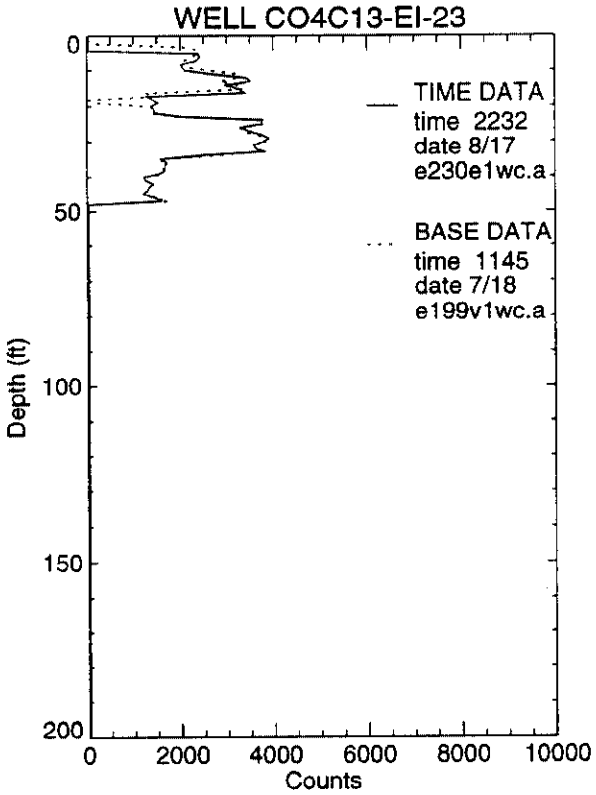
WELL CO4C13-EI-23
TIME DATA
time 2232
date 8/17
e230e1wc.a
BASE DATA
time 1145
date 7/18
e199v1wc.a
Depth (ft)
Counts
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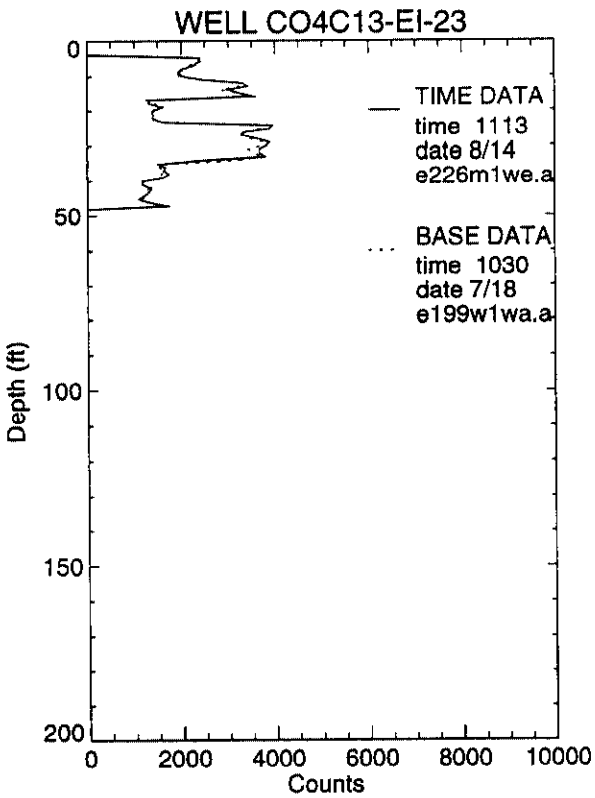
WELL CO4C13-EI-23
TIME DATA
time 1113
date 8/14
e226m1we.a
BASE DATA
time 1030
date 7/18
e199w1wa.a
Depth (ft)
Counts
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50
100
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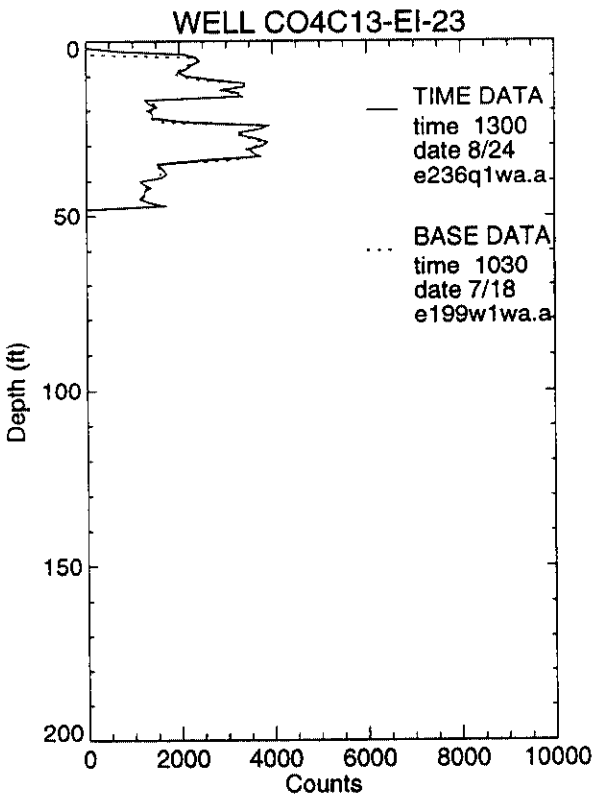
WELL CO4C13-EI-23
TIME DATA
time 1300
date 8/24
e236q1wa.a
BASE DATA
time 1030
date 7/18
e199w1wa.a
Depth (ft)
Counts
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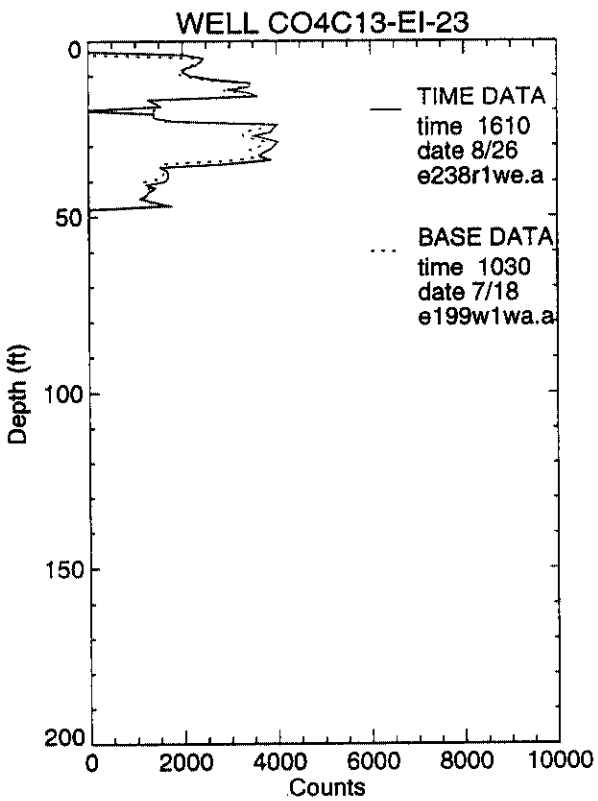
WELL CO4C13-EI-23
TIME DATA
time 1610
date 8/26
e238r1we.a
BASE DATA
time 1030
date 7/18
e199w1wa.a
Depth (ft)
Counts
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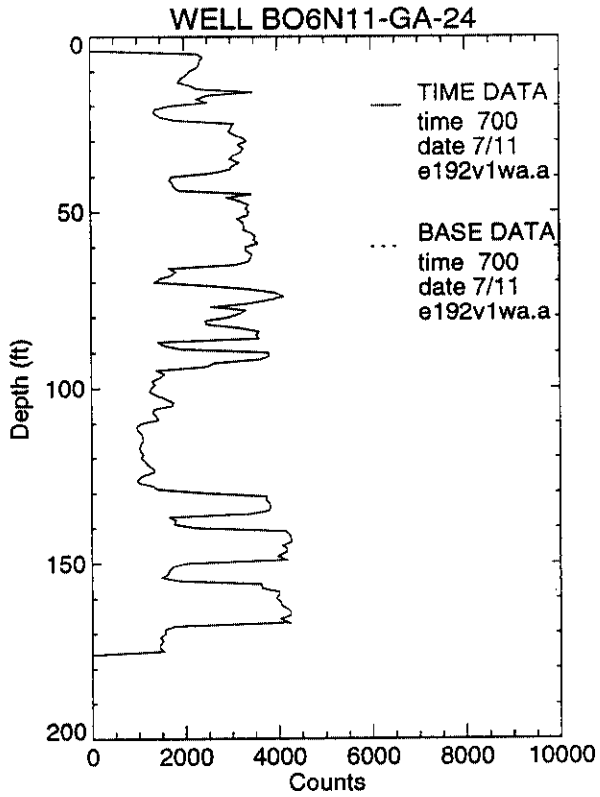
WELL BO6N11-GA-24
TIME DATA
time 700
date 7/11
e192v1wa.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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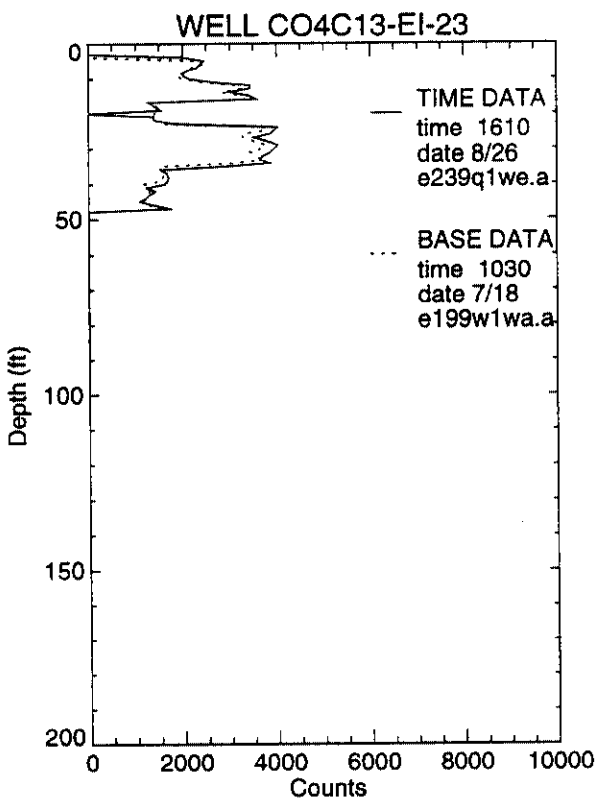
WELL CO4C13-EI-23
TIME DATA
time 1610
date 8/26
e239q1we.a
BASE DATA
time 1030
date 7/18
e199w1wa.a
Depth (ft)
Counts
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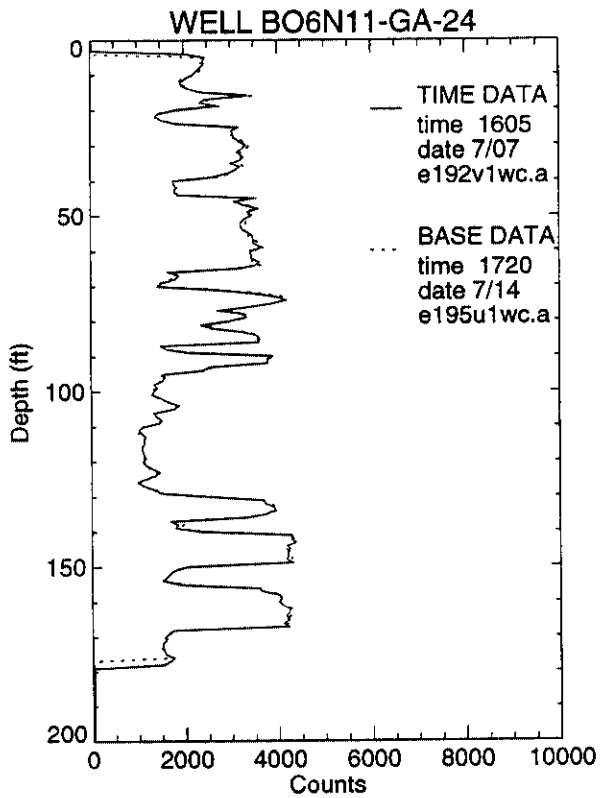
WELL BO6N11-GA-24
TIME DATA
time 1605
date 7/07
e192v1wc.a
BASE DATA
time 1720
date 7/14
e195u1wc.a
Depth (ft)
Counts
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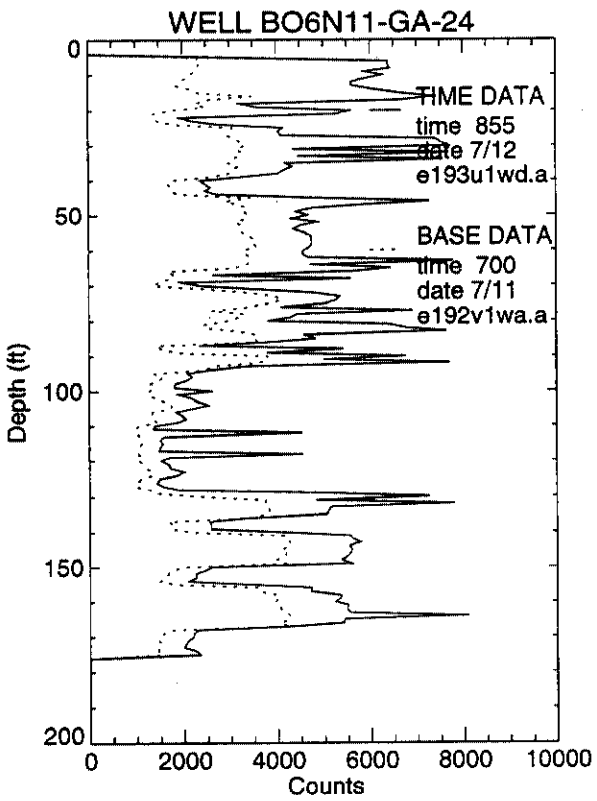
WELL BO6N11-GA-24
TIME DATA
time 855
date 7/12
e193u1wd.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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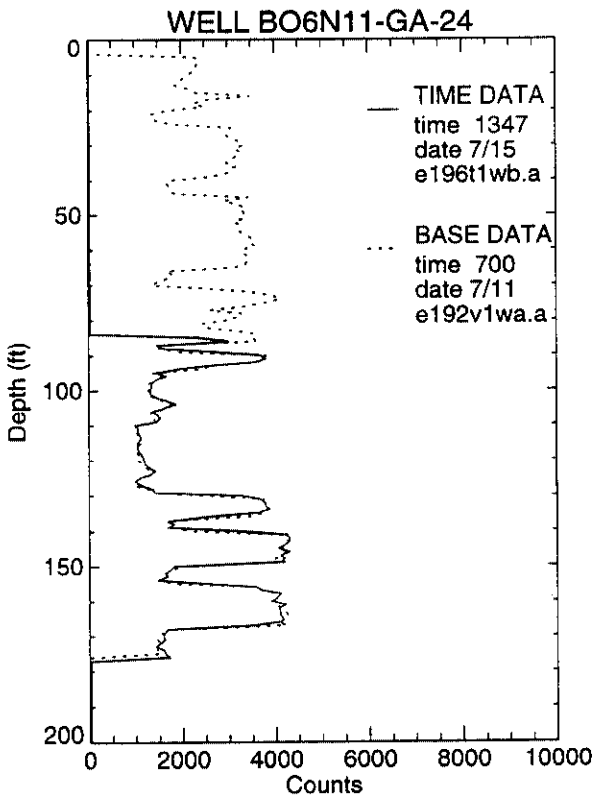
WELL BO6N11-GA-24
TIME DATA
time 1347
date 7/15
e196t1wb.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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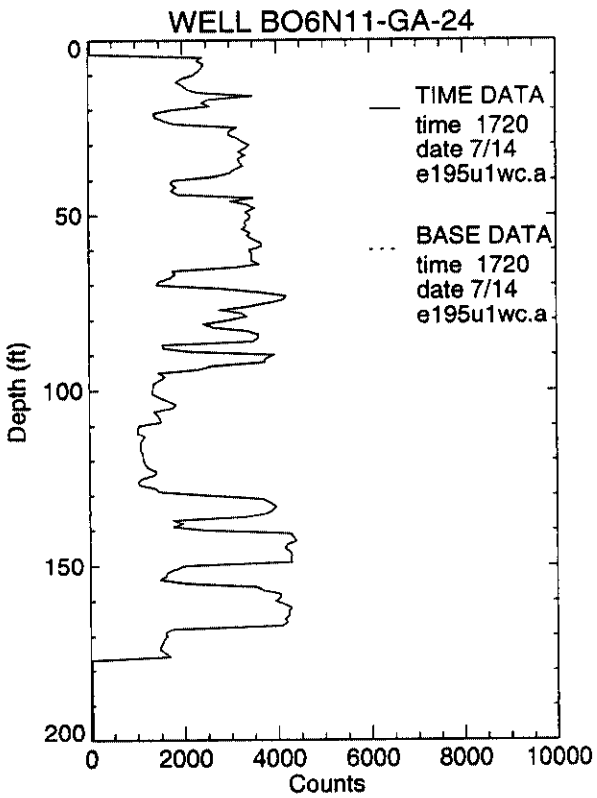
WELL BO6N11-GA-24
TIME DATA
time 1720
date 7/14
e195u1wc.a
BASE DATA
time 1720
date 7/14
e195u1wc.a
Depth (ft)
Counts
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150
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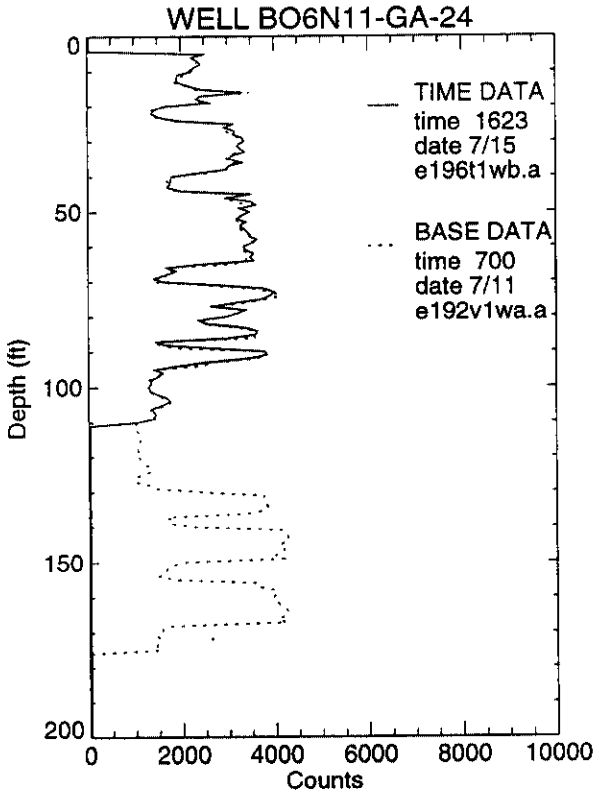
10000


WELL BO6N11-GA-24
TIME DATA
time 1623
date 7/15
e196t1wb.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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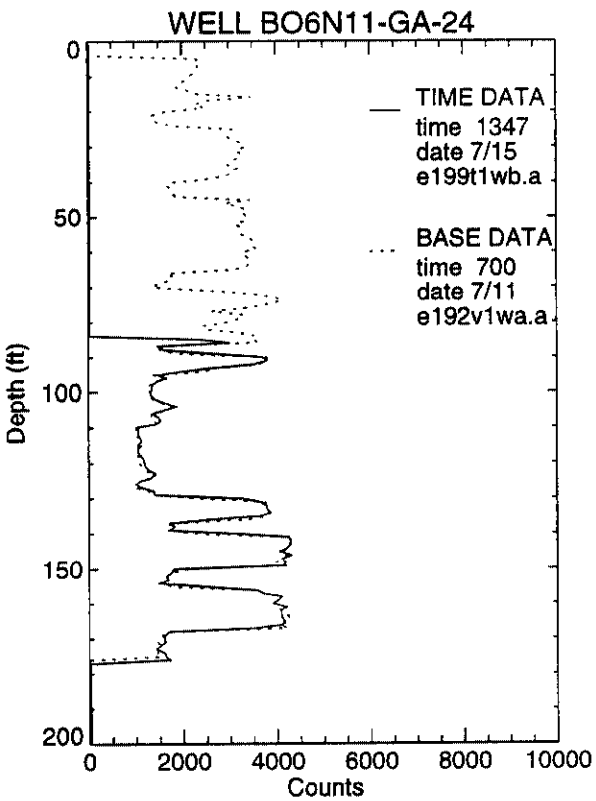
WELL BO6N11-GA-24
TIME DATA
time 1347
date 7/15
e199t1wb.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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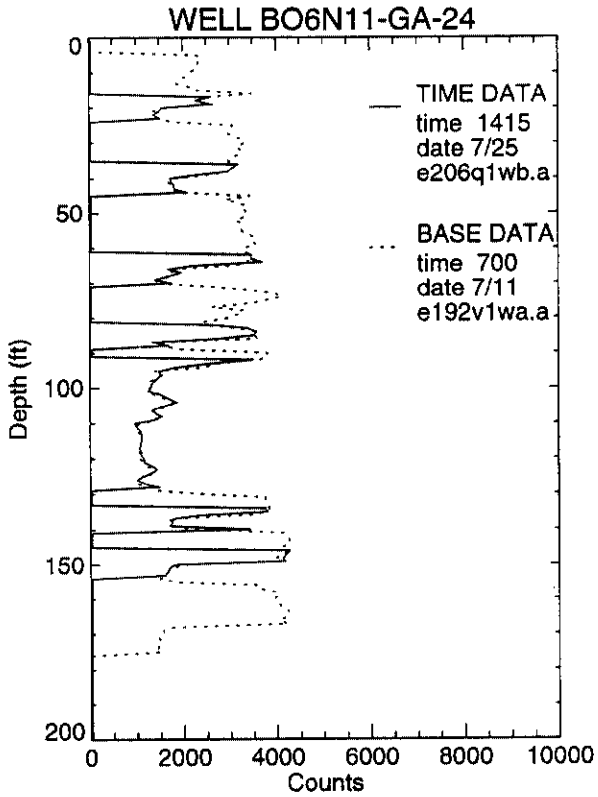
WELL BO6N11-GA-24
TIME DATA
time 1415
date 7/25
e206q1wb.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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150
200
0
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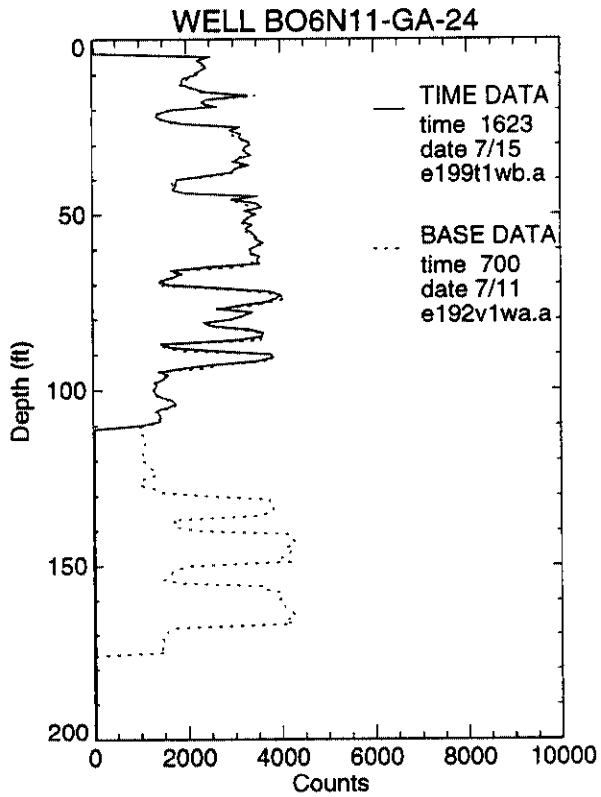
4000
6000
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 1623
date 7/15
e199t1wb.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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100
150
200
0
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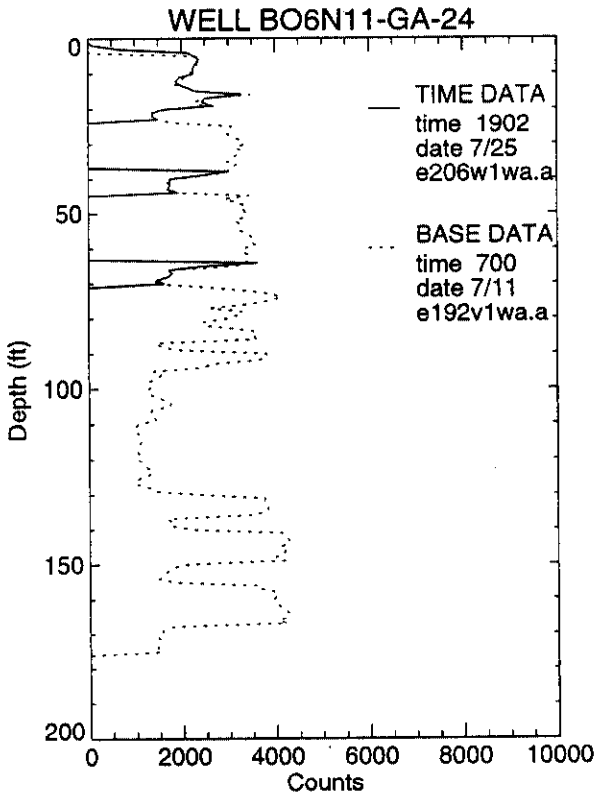
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 1902
date 7/25
e206w1wa.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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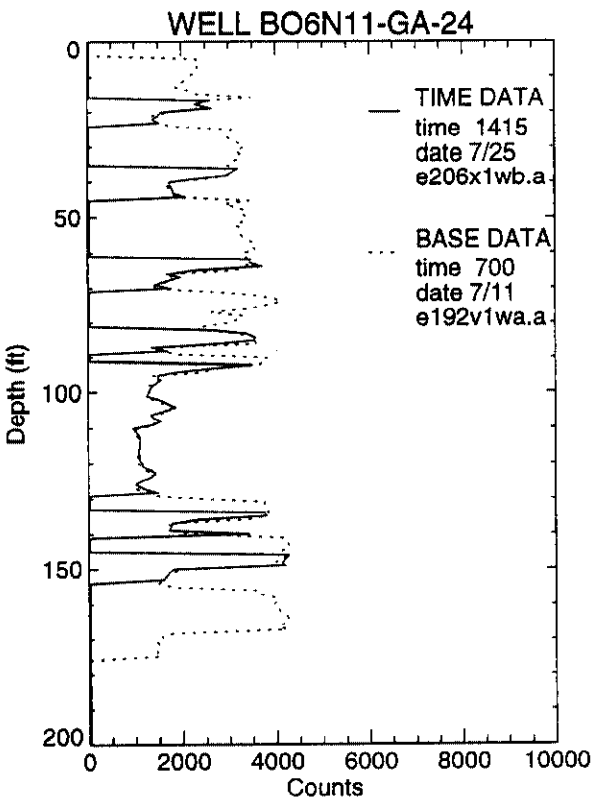
10000


WELL BO6N11-GA-24
TIME DATA
time 1415
date 7/25
e206x1wb.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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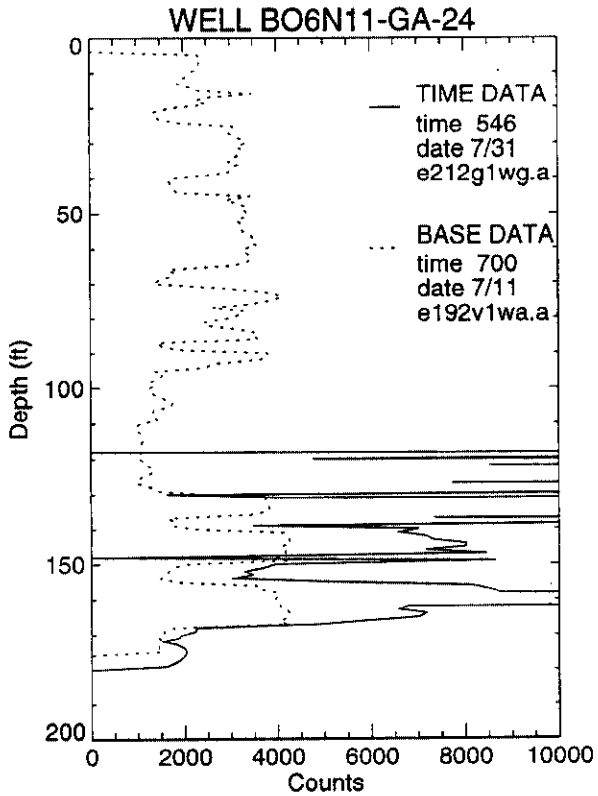
10000


WELL BO6N11-GA-24
TIME DATA
time 546
date 7/31
e212g1wg.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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100
150
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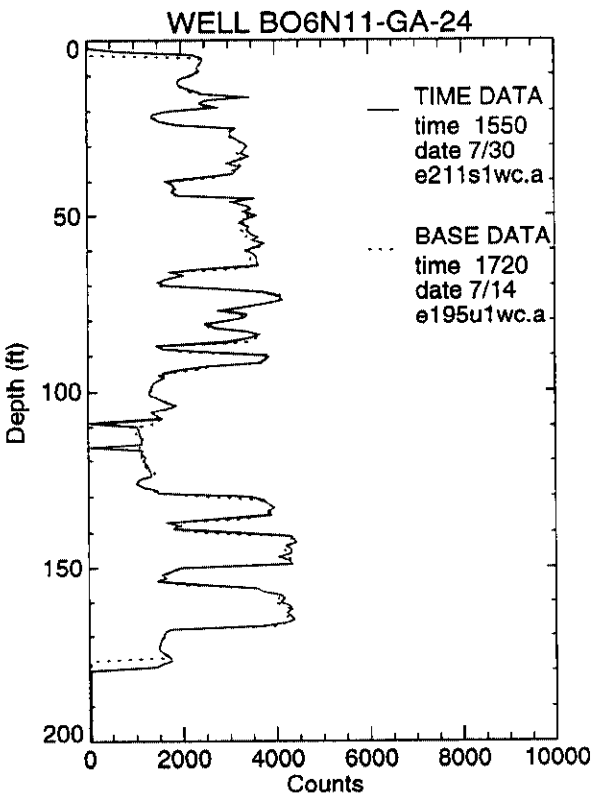
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 1550
date 7/30
e211s1wc.a
BASE DATA
time 1720
date 7/14
e195u1wc.a
Depth (ft)
Counts
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100
150
200
0
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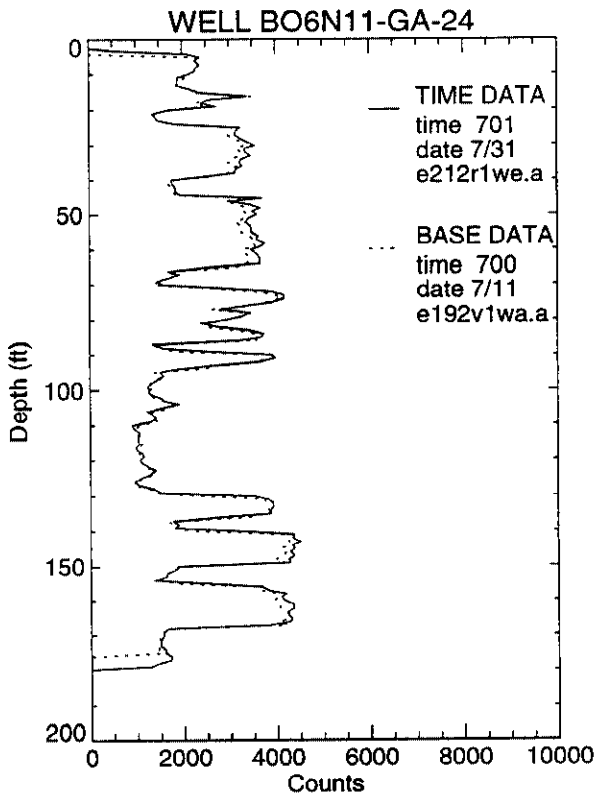
6000
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 701
date 7/31
e212r1we.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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150
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0
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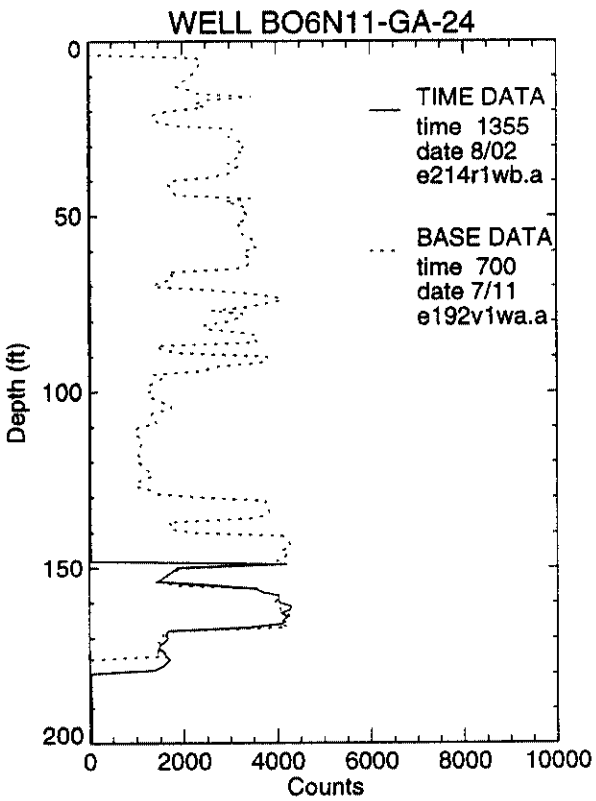
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 1355
date 8/02
e214r1wb.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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150
200
0
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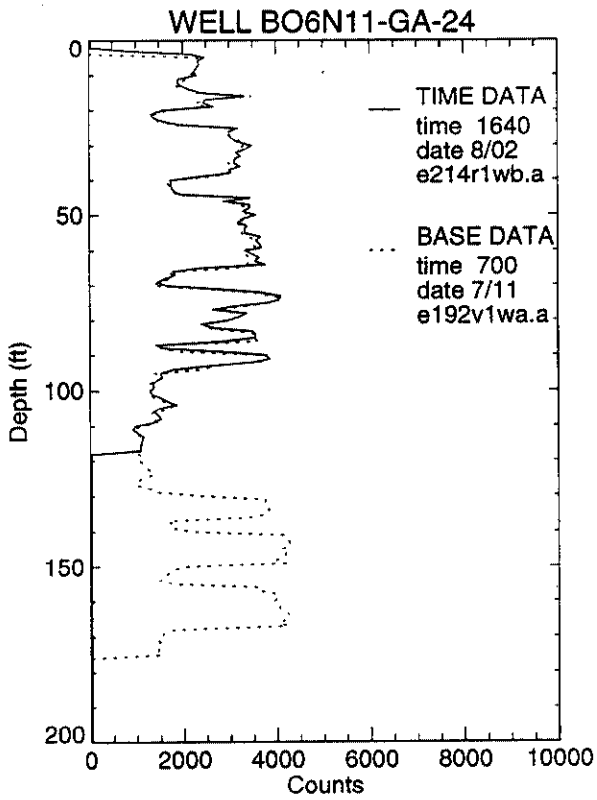
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 1640
date 8/02
e214r1wb.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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150
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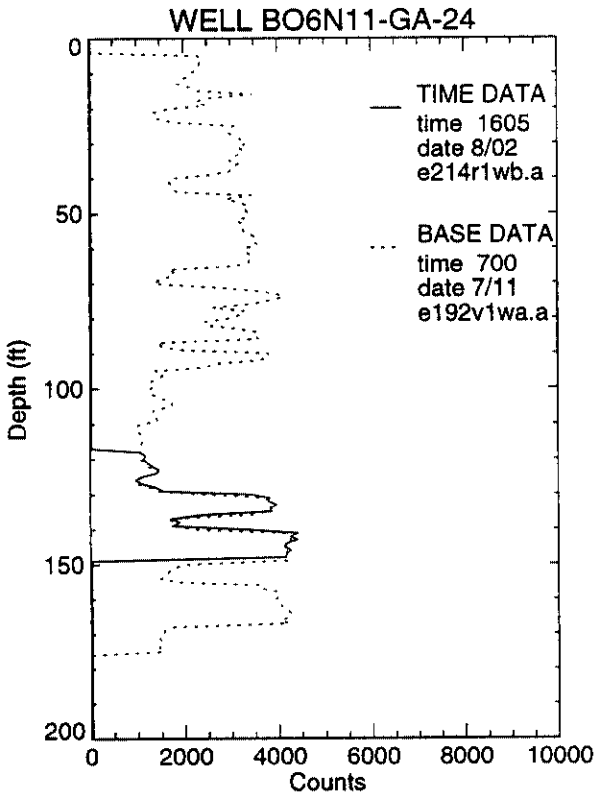
10000


WELL BO6N11-GA-24
TIME DATA
time 1605
date 8/02
e214r1wb.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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150
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8000
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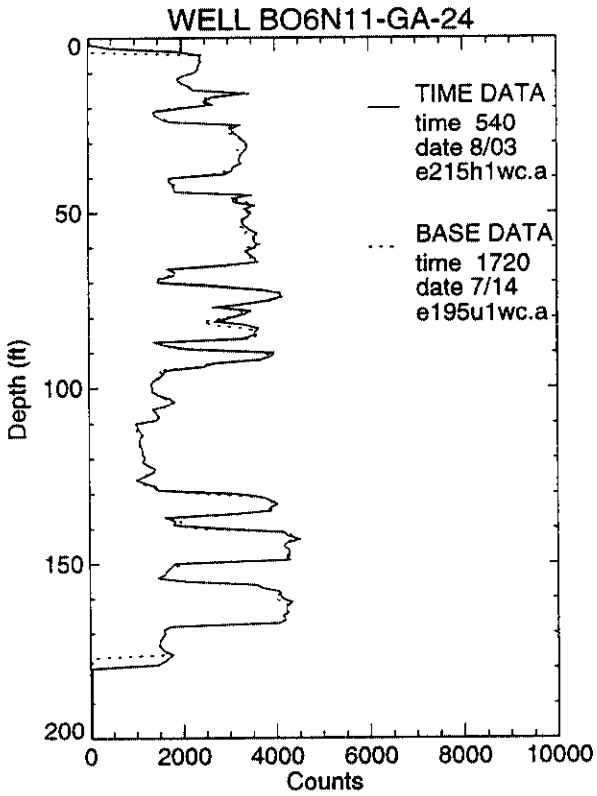
WELL BO6N11-GA-24
TIME DATA
time 540
date 8/03
e215h1wc.a
BASE DATA
time 1720
date 7/14
e195u1wc.a
Depth (ft)
Counts
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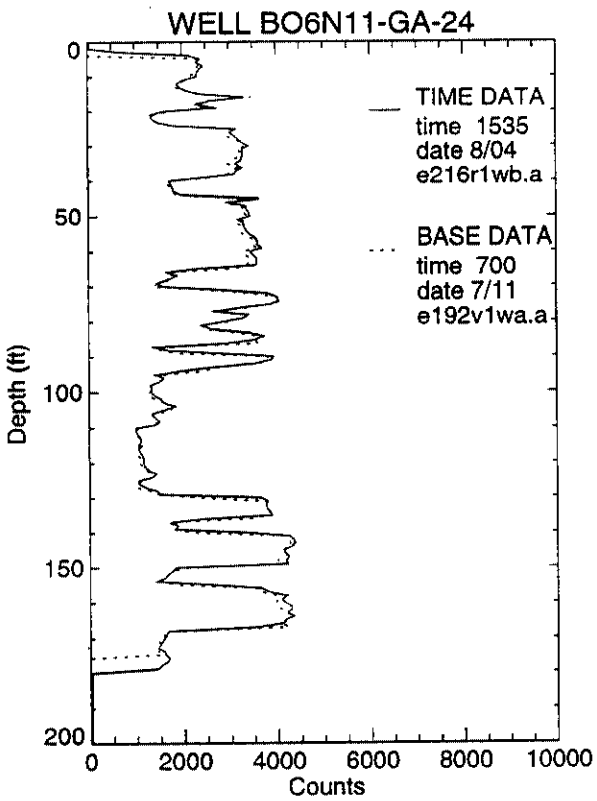
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 1535
date 8/04
e216r1wb.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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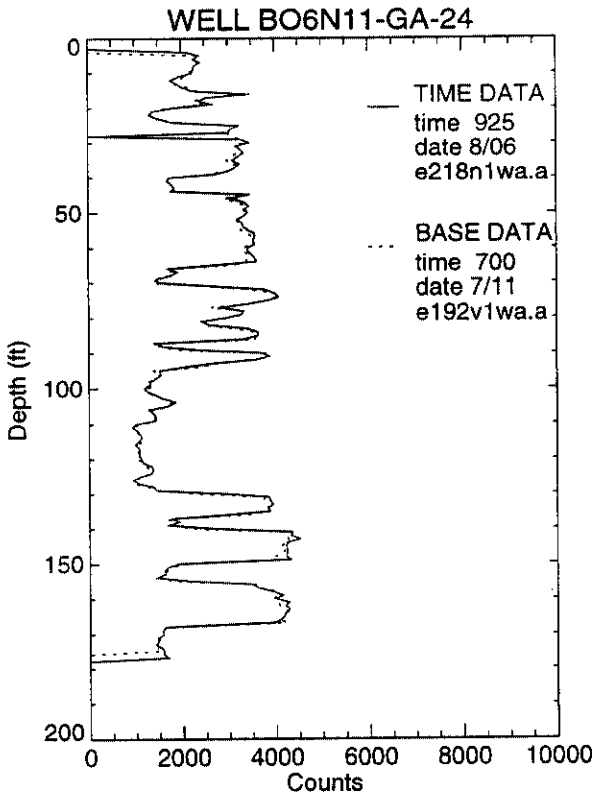
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 925
date 8/06
e218n1wa.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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0
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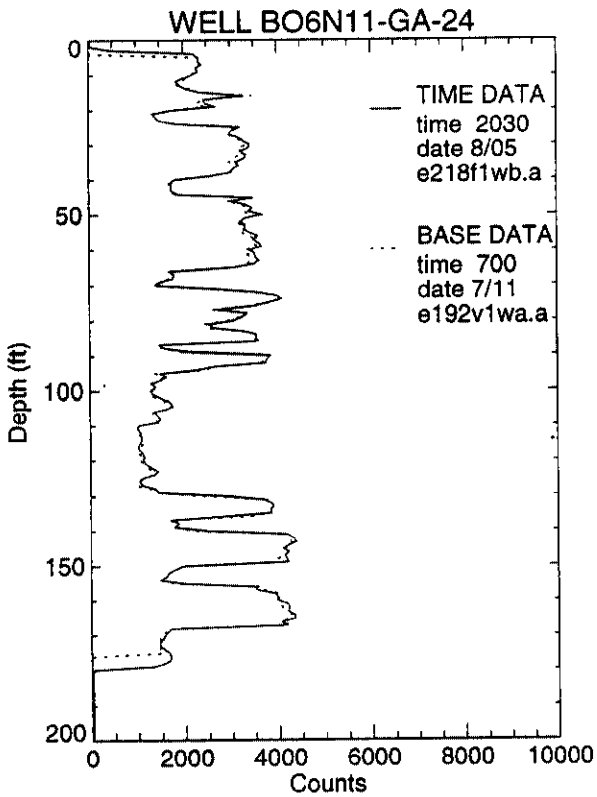
6000
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 2030
date 8/05
e218f1wb.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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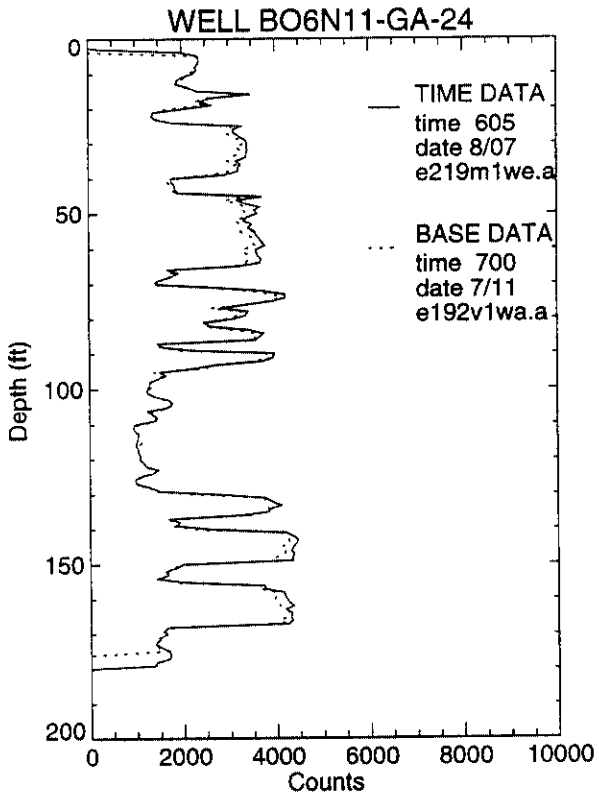
10000


WELL BO6N11-GA-24
TIME DATA
time 605
date 8/07
e219m1we.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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0
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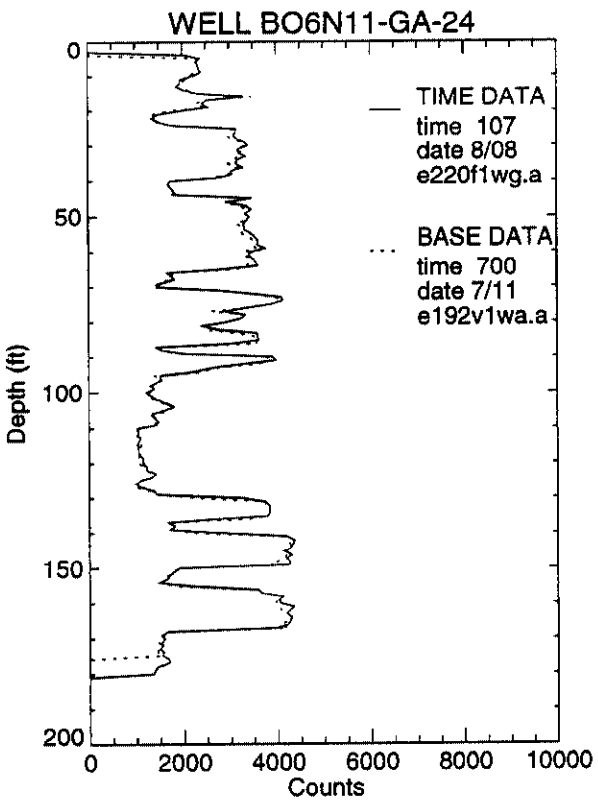
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 107
date 8/08
e220f1wg.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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0
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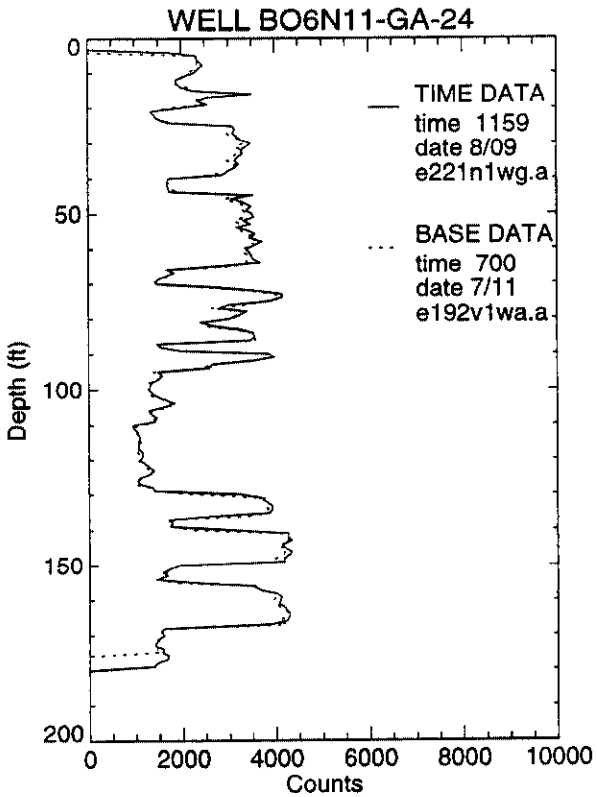
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 1159
date 8/09
e221n1wg.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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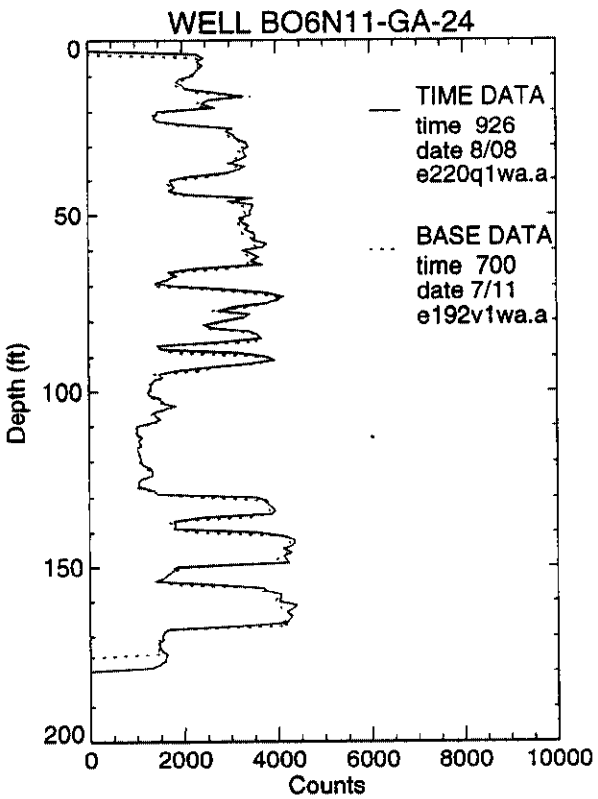
WELL BO6N11-GA-24
TIME DATA
time 926
date 8/08
e220q1wa.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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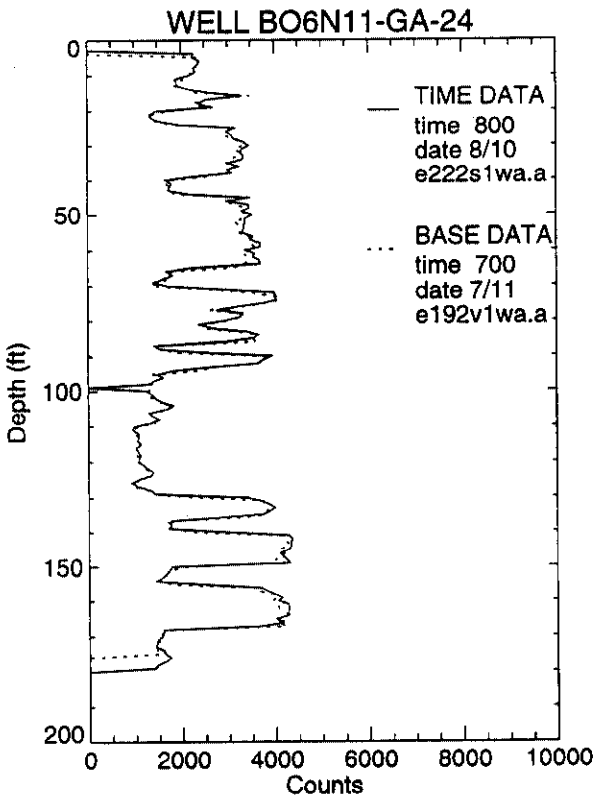
WELL BO6N11-GA-24
TIME DATA
time 800
date 8/10
e222s1wa.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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8000
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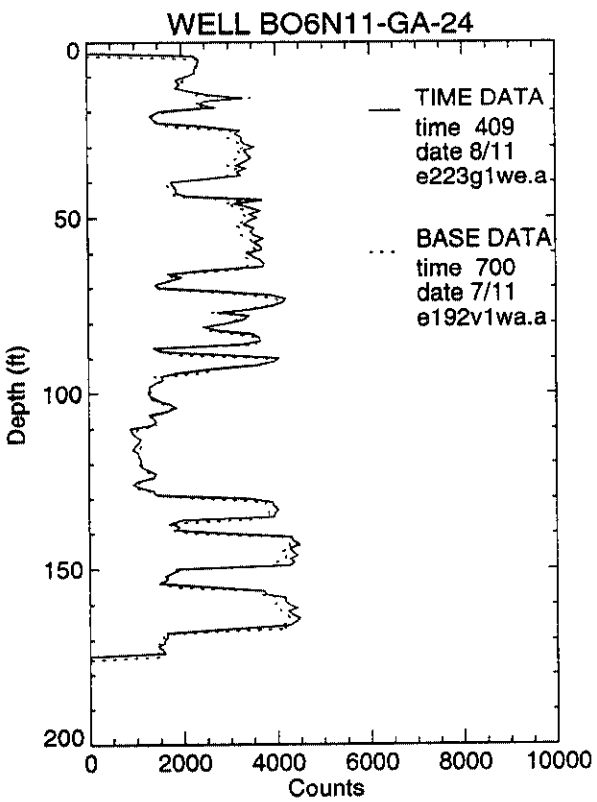
WELL BO6N11-GA-24
TIME DATA
time 409
date 8/11
e223g1we.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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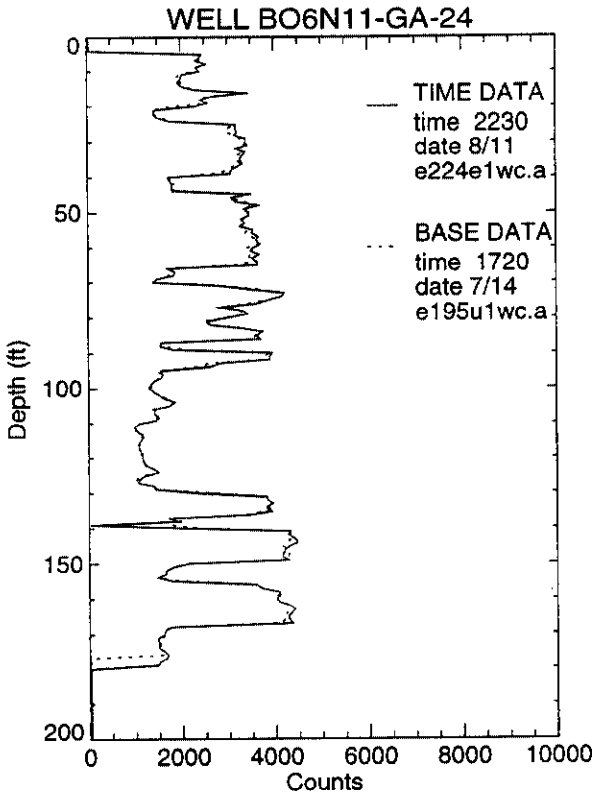
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 2230
date 8/11
e224e1wc.a
BASE DATA
time 1720
date 7/14
e195u1wc.a
Depth (ft)
Counts
0
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0
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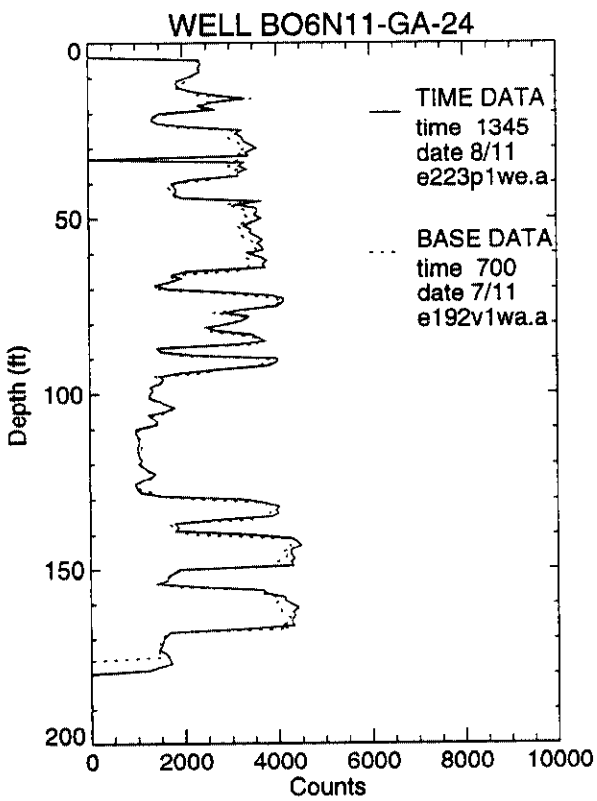
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 1345
date 8/11
e223p1we.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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150
200
0
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4000
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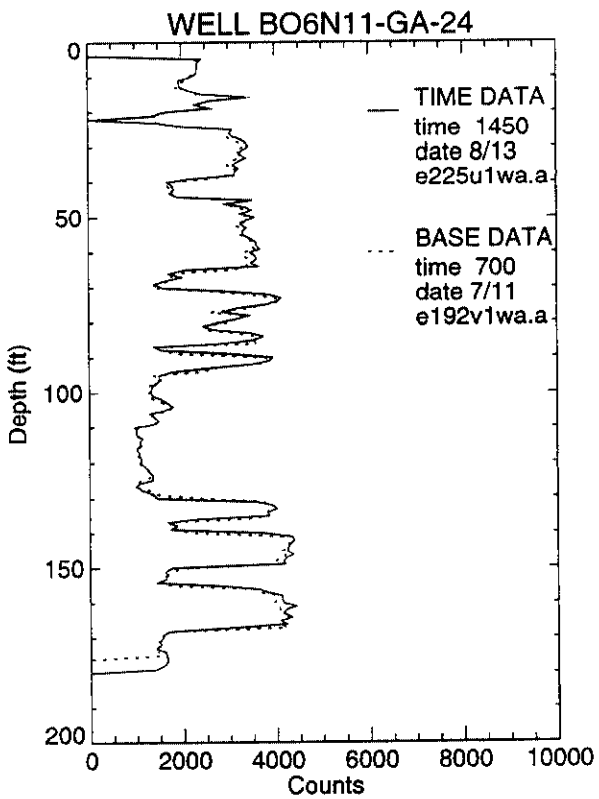
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 1450
date 8/13
e225u1wa.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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8000
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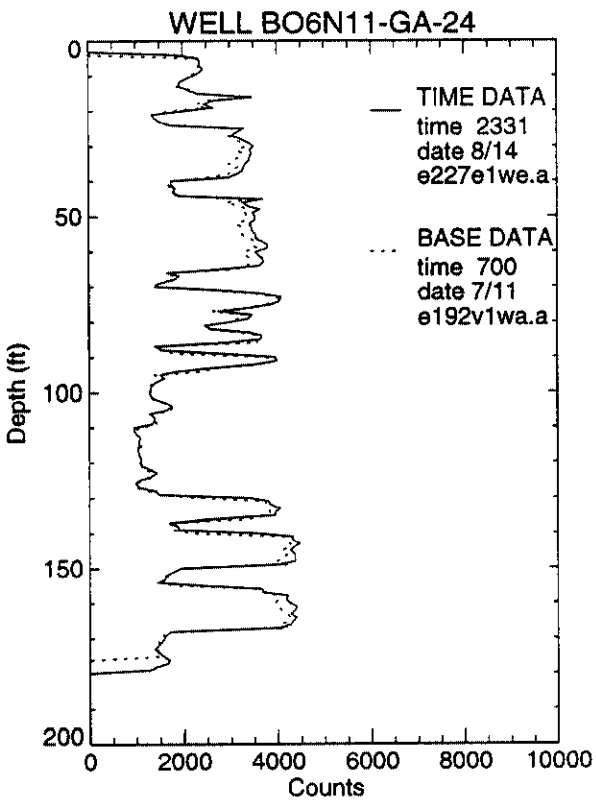
WELL BO6N11-GA-24
TIME DATA
time 2331
date 8/14
e227e1we.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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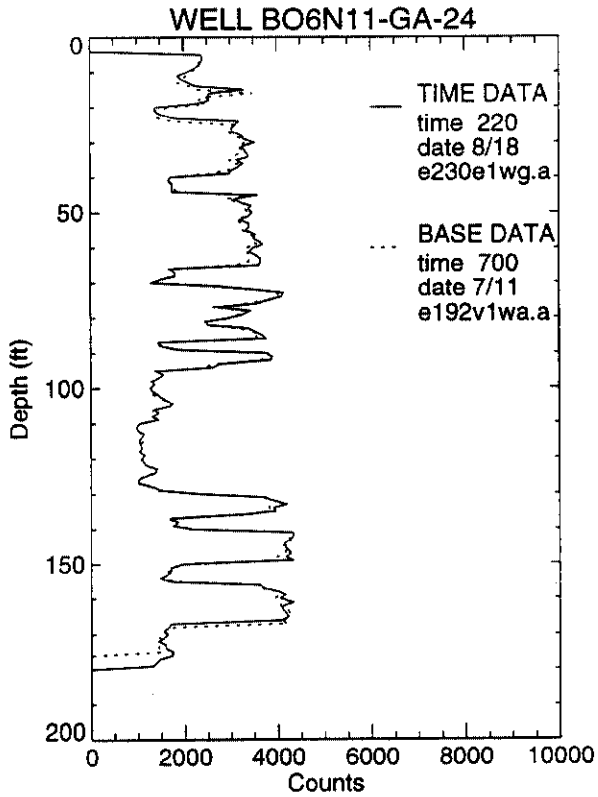
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 220
date 8/18
e230e1wg.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
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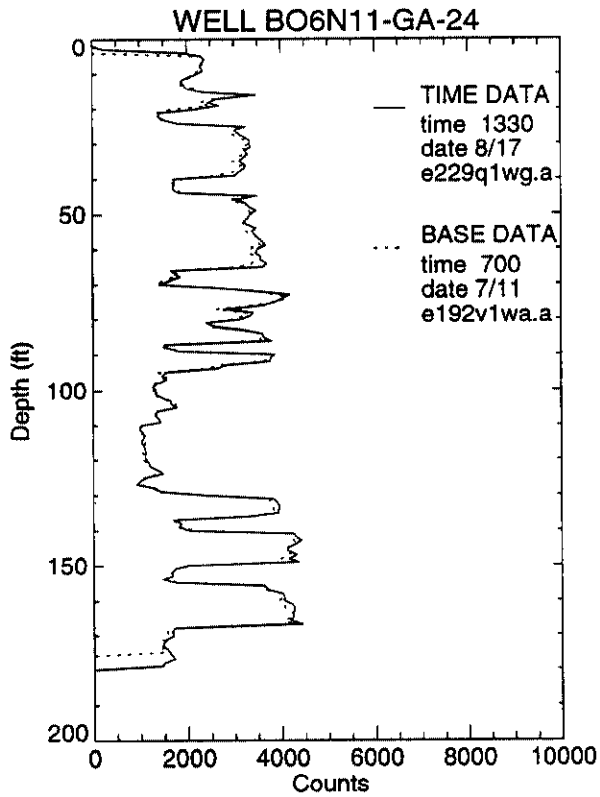
WELL BO6N11-GA-24
TIME DATA
time 1330
date 8/17
e229q1wg.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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150
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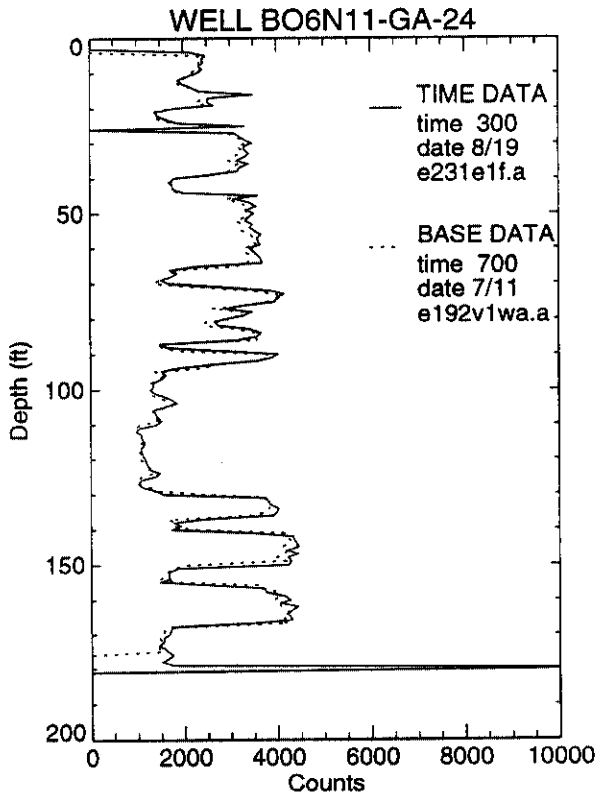
8000
10000


WELL BO6N11-GA-24
TIME DATA
time 300
date 8/19
e231e1f.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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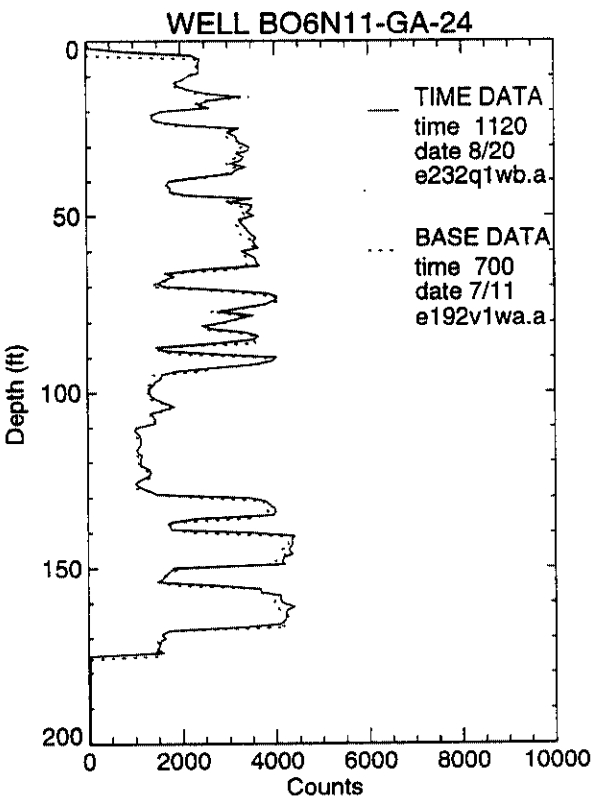
WELL BO6N11-GA-24
TIME DATA
time 1120
date 8/20
e232q1wb.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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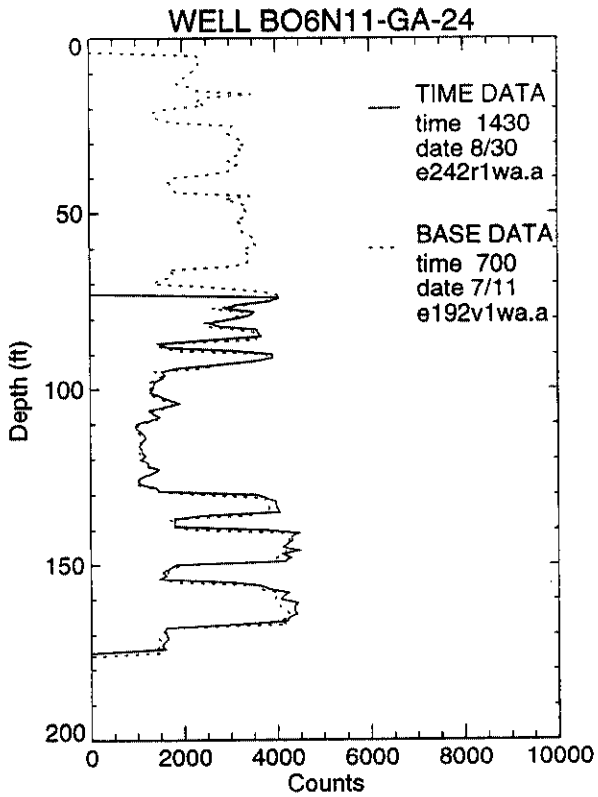
WELL BO6N11-GA-24
TIME DATA
time 1430
date 8/30
e242r1wa.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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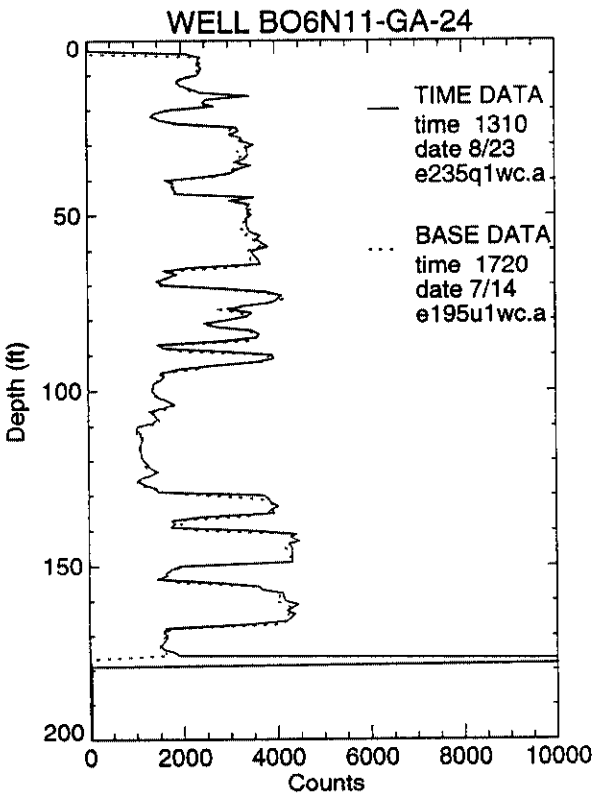
WELL BO6N11-GA-24
TIME DATA
time 1310
date 8/23
e235q1wc.a
BASE DATA
time 1720
date 7/14
e195u1wc.a
Depth (ft)
Counts
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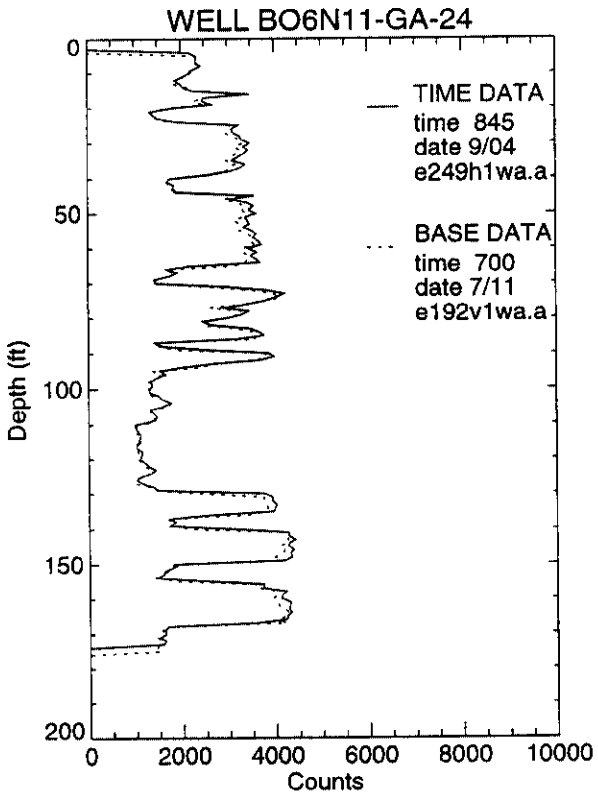
WELL BO6N11-GA-24
TIME DATA
time 845
date 9/04
e249h1wa.a
BASE DATA
time 700
date 7/11
e192v1wa.a
Depth (ft)
Counts
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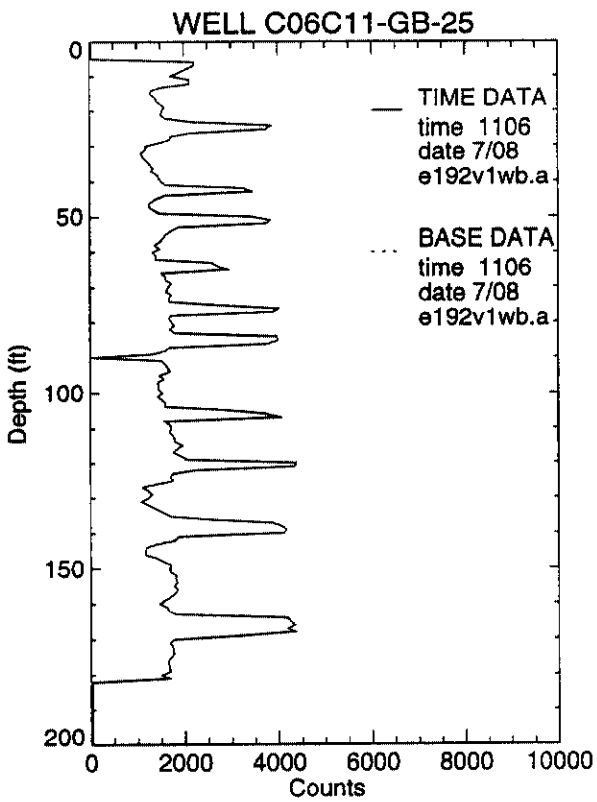
WELL C06C11-GB-25
TIME DATA
time 1106
date 7/08
e192v1wb.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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150
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8000
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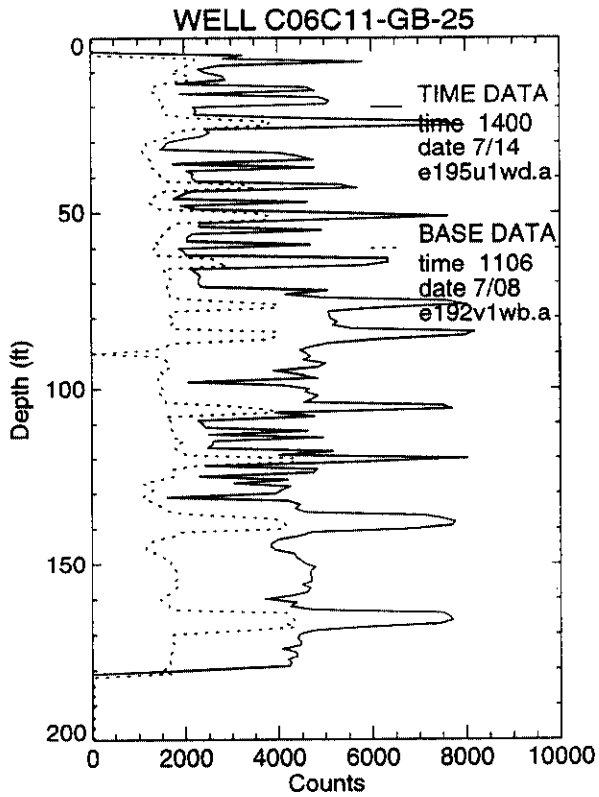
WELL C06C11-GB-25
TIME DATA
time 1400
date 7/14
e195u1wd.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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150
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0
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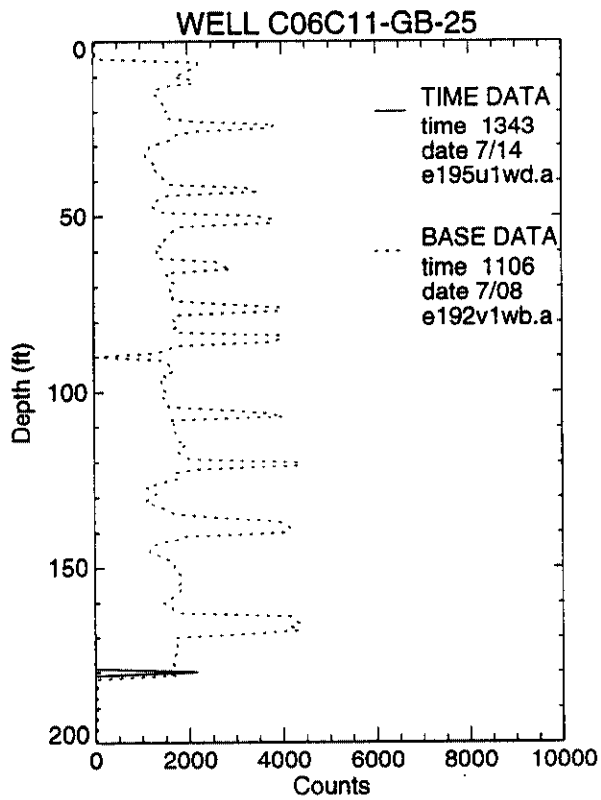
8000
10000


WELL C06C11-GB-25
TIME DATA
time 1343
date 7/14
e195u1wd.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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0
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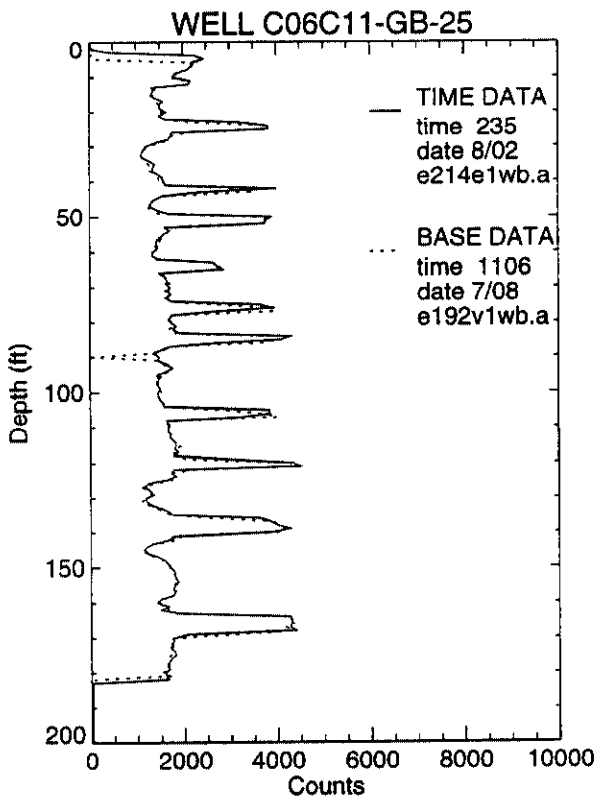
10000


WELL C06C11-GB-25
TIME DATA
time 235
date 8/02
e214e1wb.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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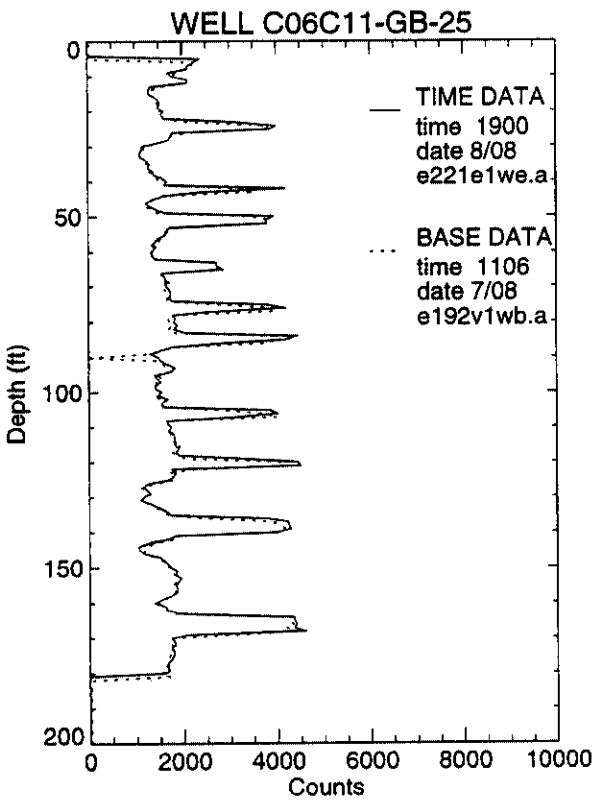
WELL C06C11-GB-25
TIME DATA
time 1900
date 8/08
e221e1we.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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0
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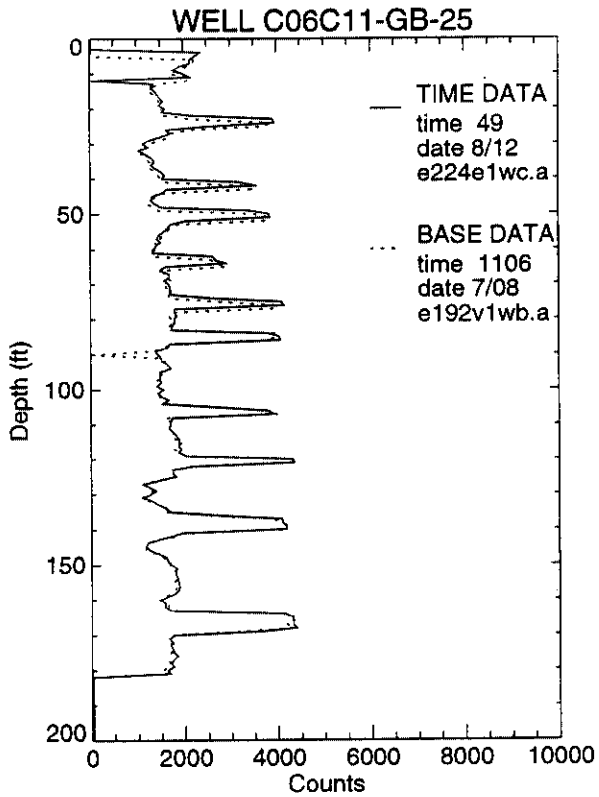
8000
10000


WELL C06C11-GB-25
TIME DATA
time 49
date 8/12
e224e1wc.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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100
150
200
0
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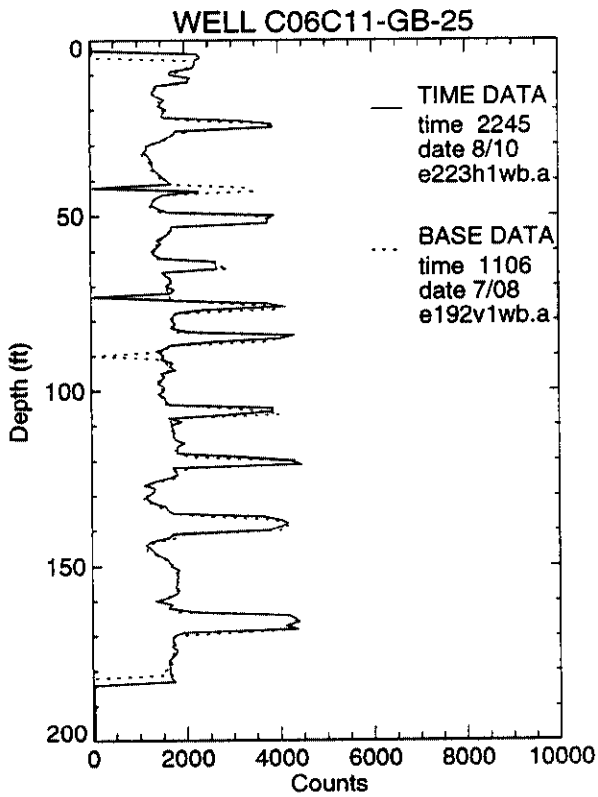
8000
10000


WELL C06C11-GB-25
TIME DATA
time 2245
date 8/10
e223h1wb.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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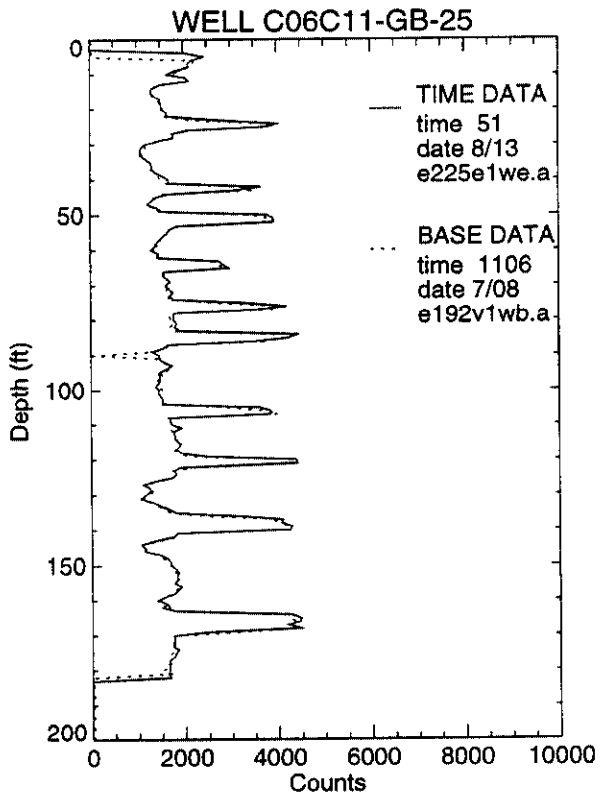
WELL C06C11-GB-25
TIME DATA
time 51
date 8/13
e225e1we.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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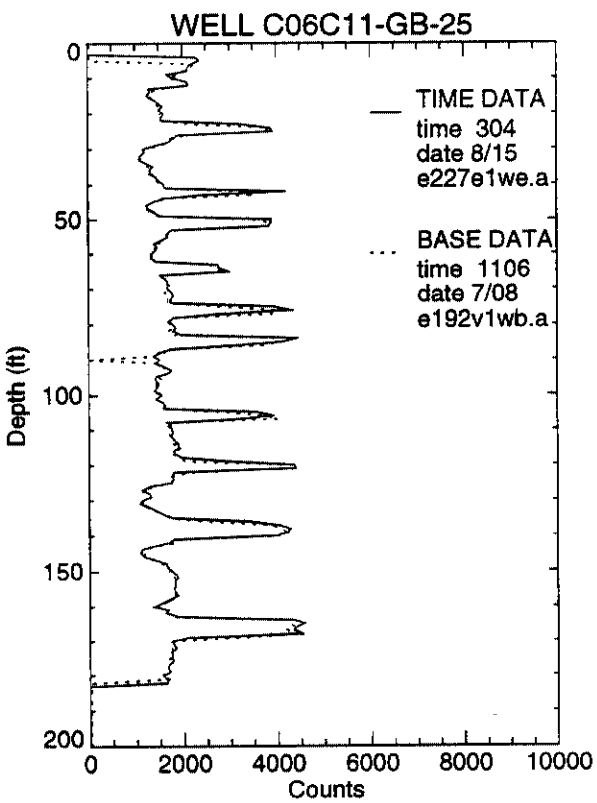
WELL C06C11-GB-25
TIME DATA
time 304
date 8/15
e227e1we.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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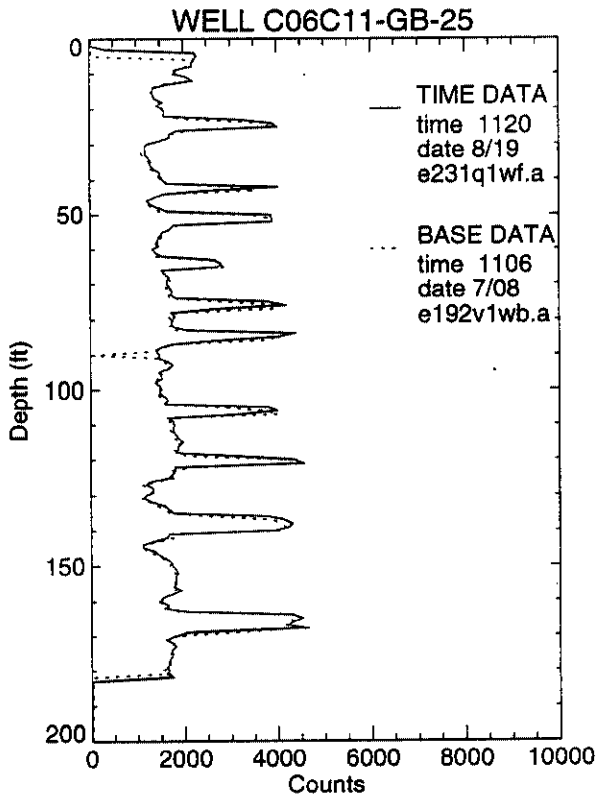
WELL C06C11-GB-25
TIME DATA
time 1120
date 8/19
e231q1wf.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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150
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0
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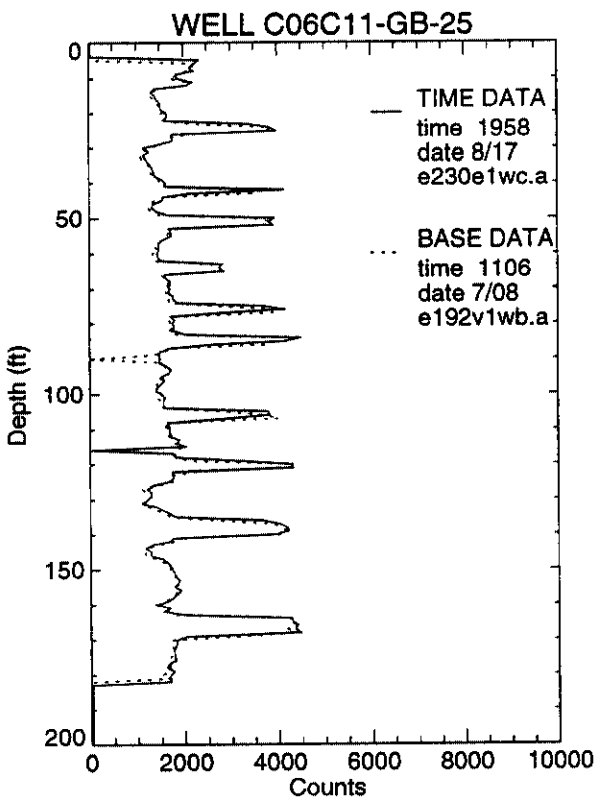
8000
10000


WELL C06C11-GB-25
TIME DATA
time 1958
date 8/17
e230e1wc.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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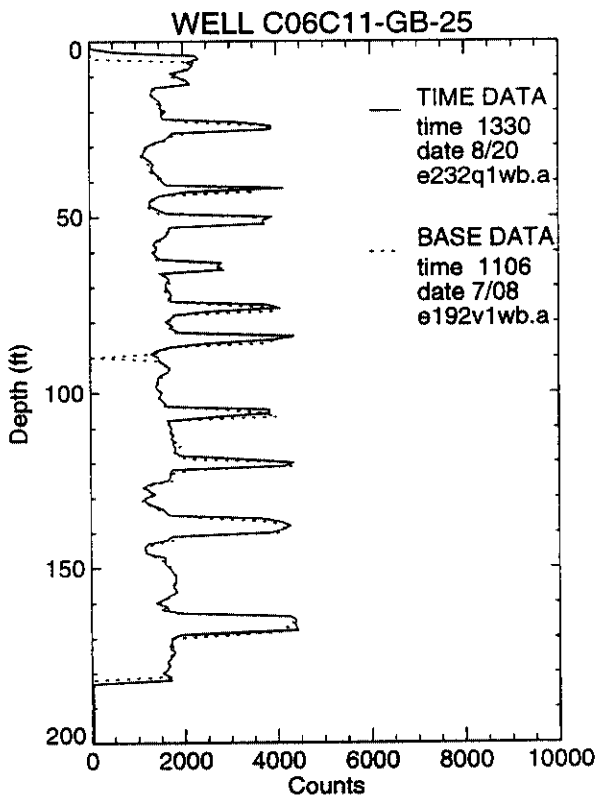
WELL C06C11-GB-25
TIME DATA
time 1330
date 8/20
e232q1wb.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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150
200
0
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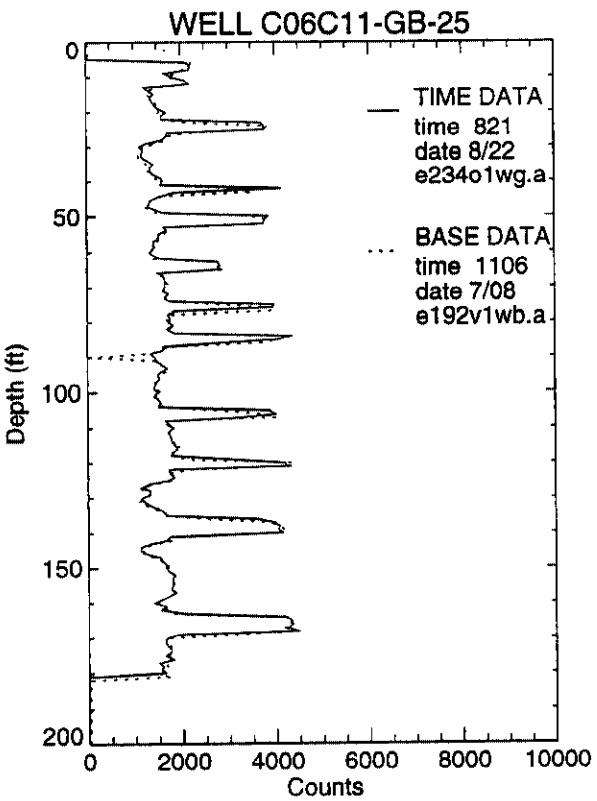
WELL C06C11-GB-25
TIME DATA
time 821
date 8/22
e234o1wg.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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0
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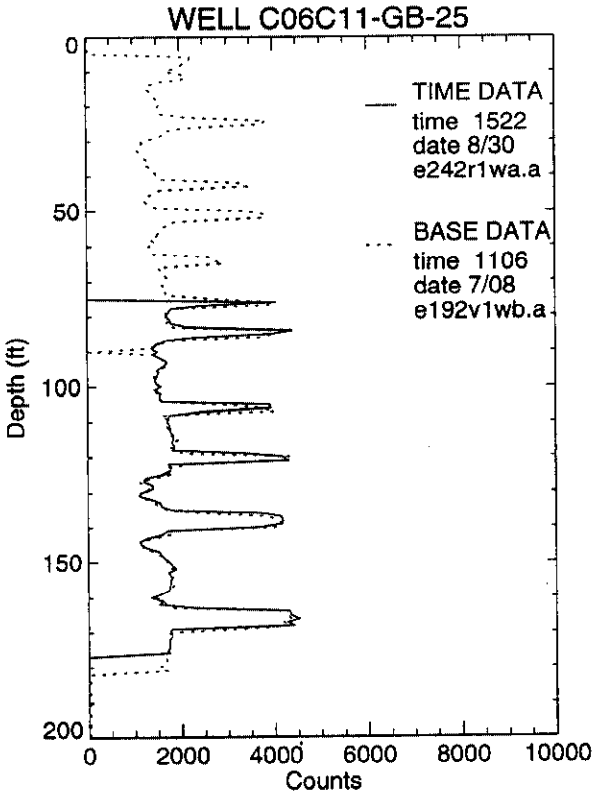
10000


WELL C06C11-GB-25
TIME DATA
time 1522
date 8/30
e242r1wa.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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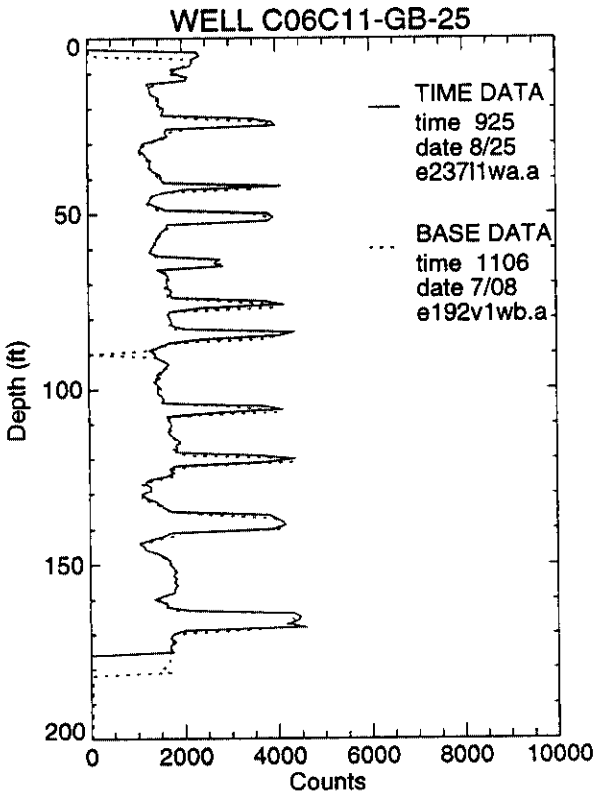
WELL C06C11-GB-25
TIME DATA
time 925
date 8/25
e237l1wa.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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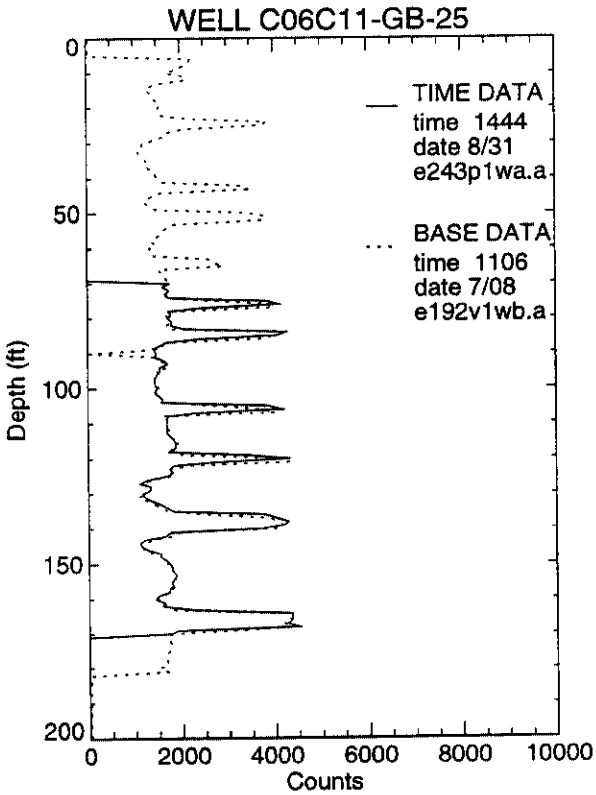
WELL C06C11-GB-25
TIME DATA
time 1444
date 8/31
e243p1wa.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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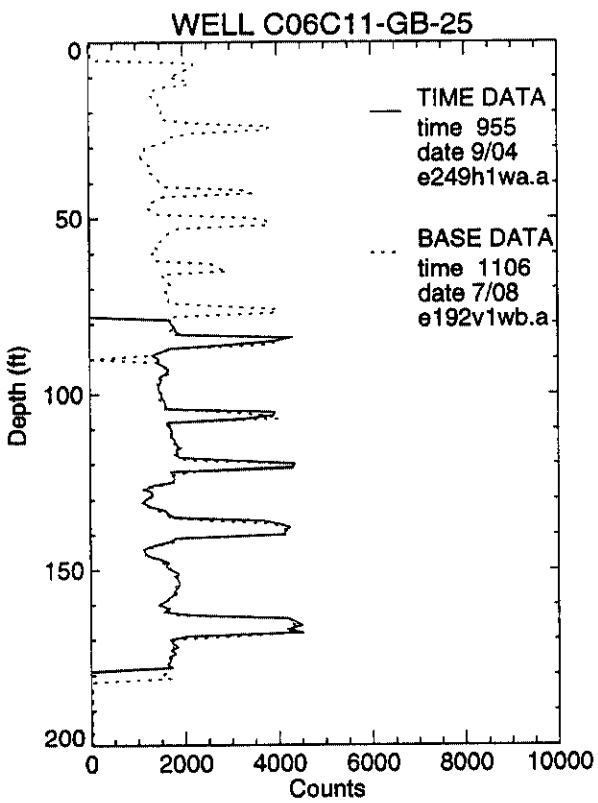
WELL C06C11-GB-25
TIME DATA
time 955
date 9/04
e249h1wa.a
BASE DATA
time 1106
date 7/08
e192v1wb.a
Depth (ft)
Counts
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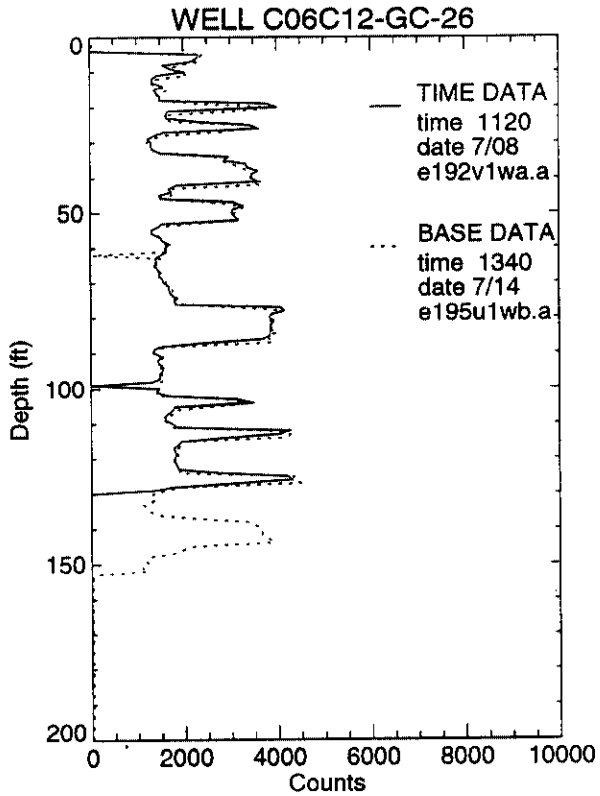
10000


WELL C06C12-GC-26
TIME DATA
time 1120
date 7/08
e192v1wa.a
BASE DATA
time 1340
date 7/14
e195u1wb.a
Depth (ft)
Counts
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150
200
0
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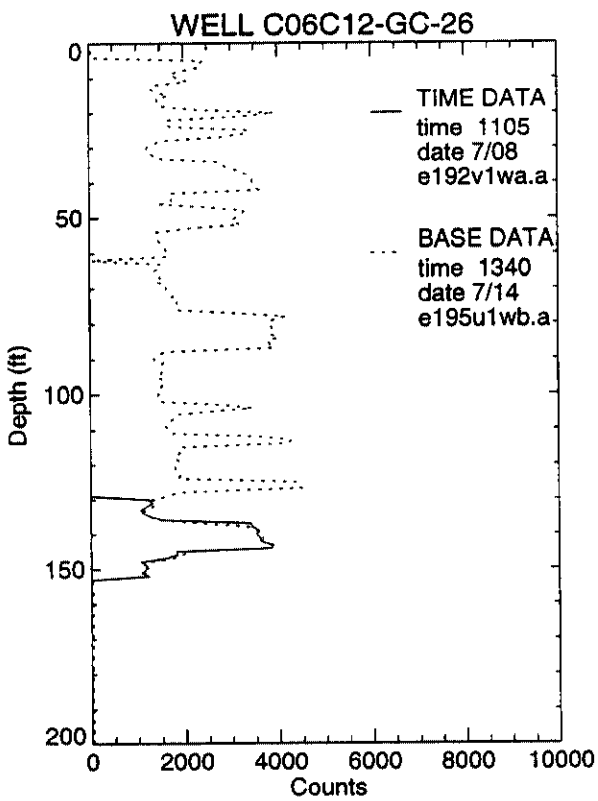
8000
10000


WELL C06C12-GC-26
TIME DATA
time 1105
date 7/08
e192v1wa.a
BASE DATA
time 1340
date 7/14
e195u1wb.a
Depth (ft)
Counts
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0
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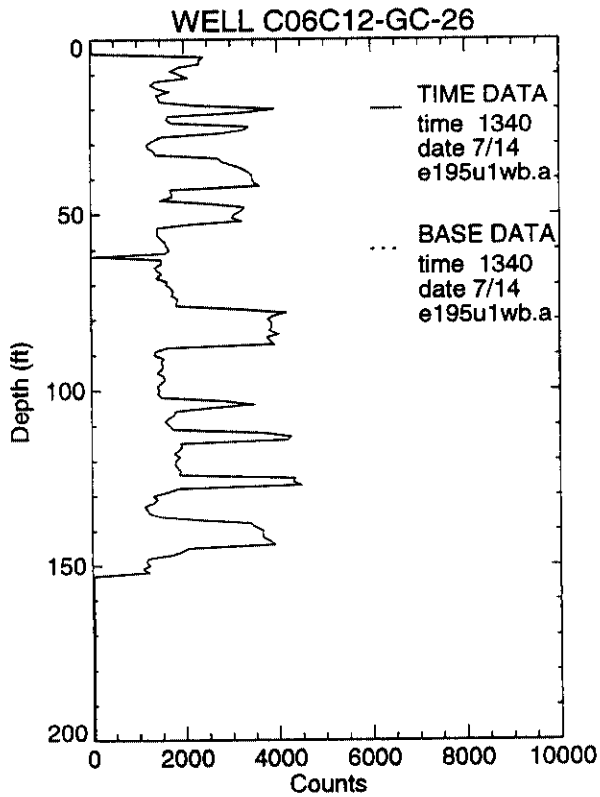
6000
8000
10000


WELL C06C12-GC-26
TIME DATA
time 1340
date 7/14
e195u1wb.a
BASE DATA
time 1340
date 7/14
e195u1wb.a
Depth (ft)
Counts
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150
200
0
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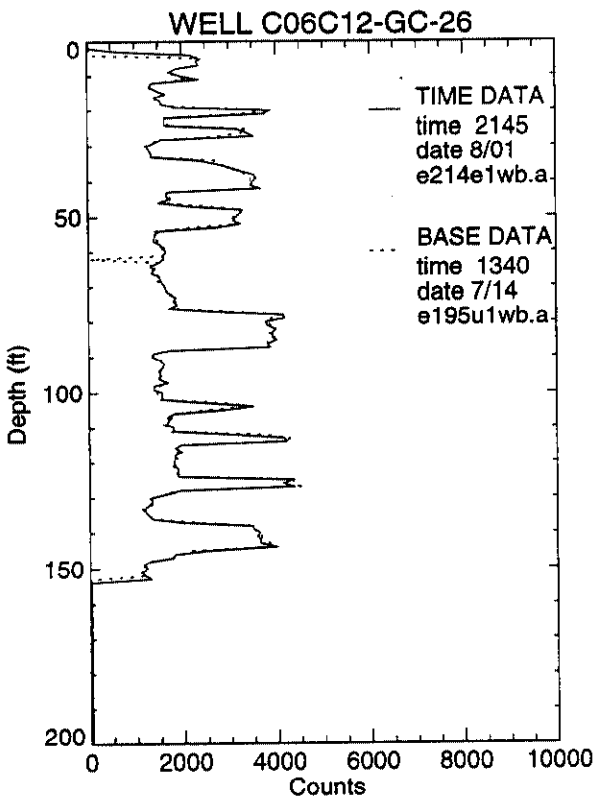
4000
6000
8000
10000


WELL C06C12-GC-26
TIME DATA
time 2145
date 8/01
e214e1wb.a
BASE DATA
time 1340
date 7/14
e195u1wb.a
Depth (ft)
Counts
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0
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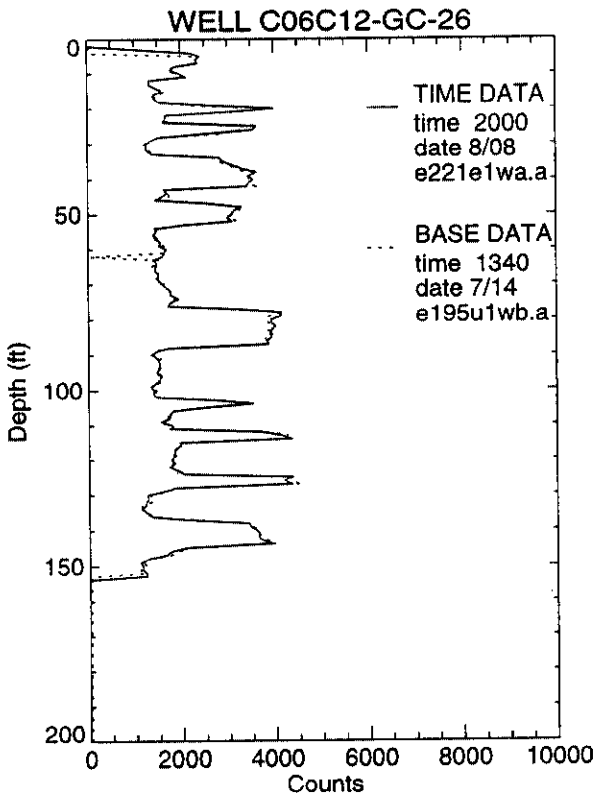
8000
10000


WELL C06C12-GC-26
TIME DATA
time 2000
date 8/08
e221e1wa.a
BASE DATA
time 1340
date 7/14
e195u1wb.a
Depth (ft)
Counts
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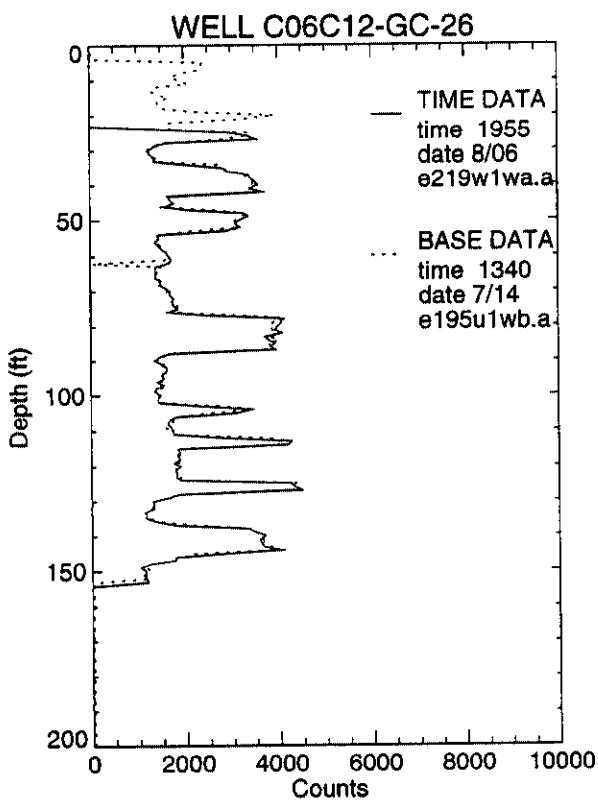
WELL C06C12-GC-26
TIME DATA
time 1955
date 8/06
e219w1wa.a
BASE DATA
time 1340
date 7/14
e195u1wb.a
Depth (ft)
Counts
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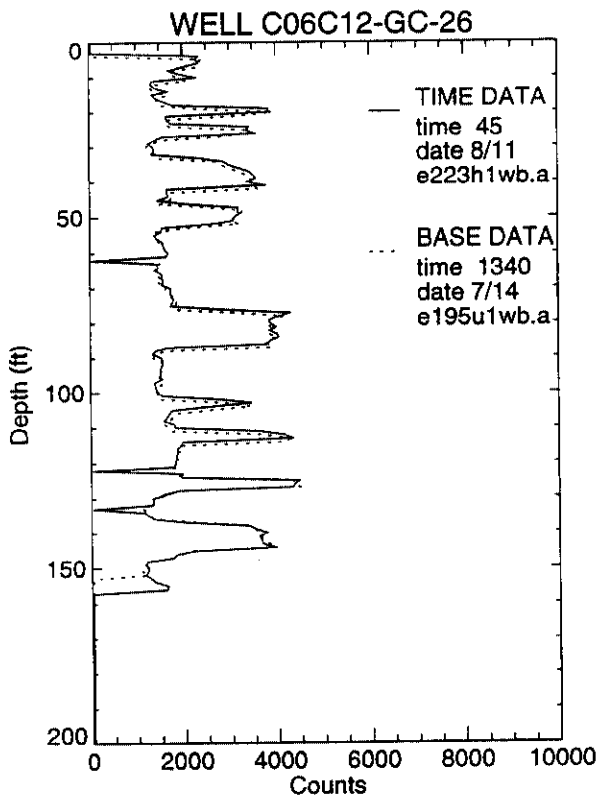
6000
8000
10000


WELL C06C12-GC-26
TIME DATA
time 45
date 8/11
e223h1wb.a
BASE DATA
time 1340
date 7/14
e195u1wb.a
Depth (ft)
Counts
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0
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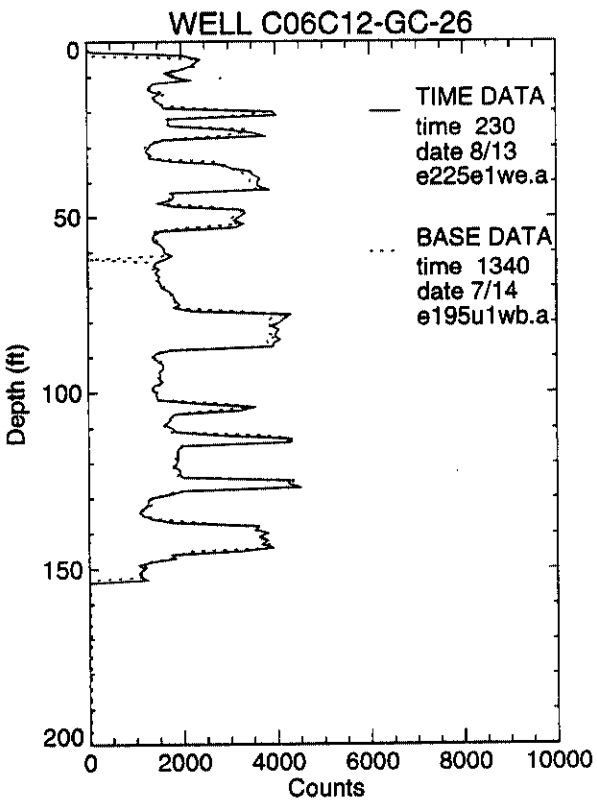
6000
8000
10000


WELL C06C12-GC-26
TIME DATA
time 230
date 8/13
e225e1we.a
BASE DATA
time 1340
date 7/14
e195u1wb.a
Depth (ft)
Counts
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0
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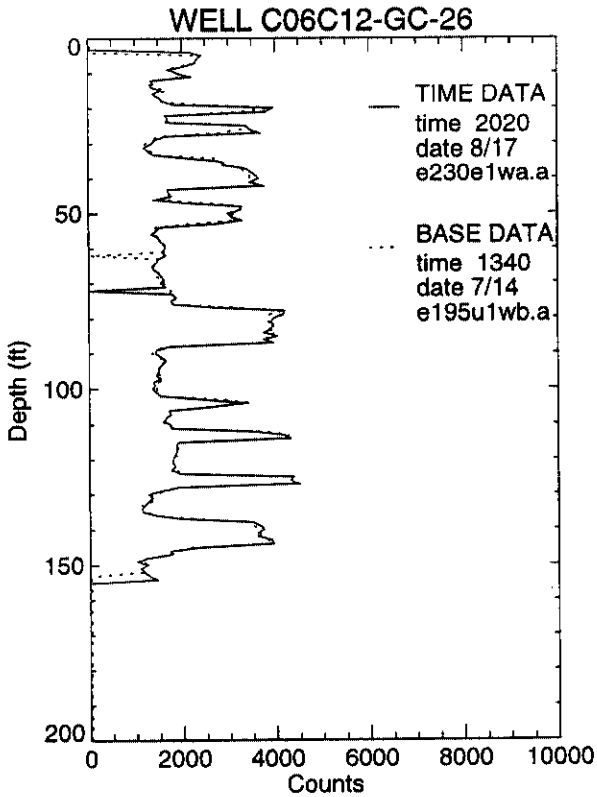
4000
6000
8000
10000


WELL C06C12-GC-26
TIME DATA
time 2020
date 8/17
e230e1wa.a
BASE DATA
time 1340
date 7/14
e195u1wb.a
Depth (ft)
Counts
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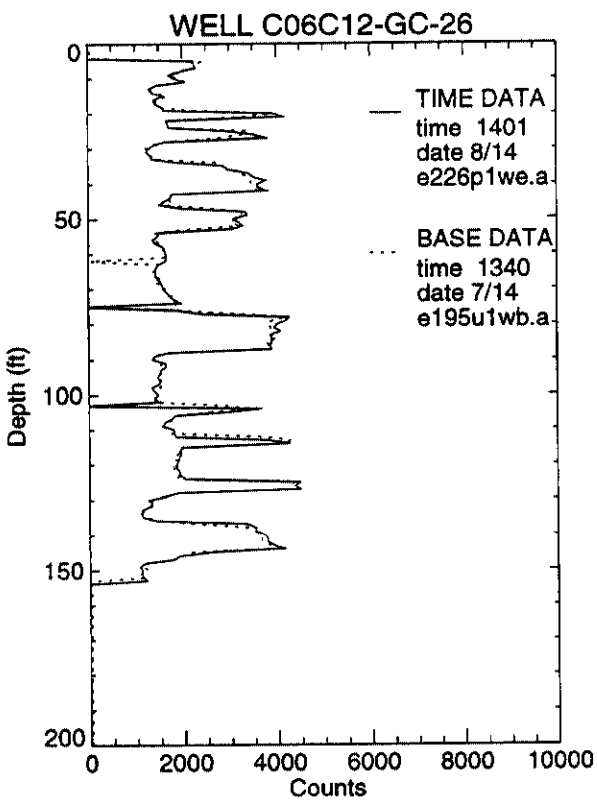
0
2000
4000
6000
8000
10000


WELL C06C12-GC-26
TIME DATA
time 1401
date 8/14
e226p1we.a
BASE DATA
time 1340
date 7/14
e195u1wb.a
Depth (ft)
Counts
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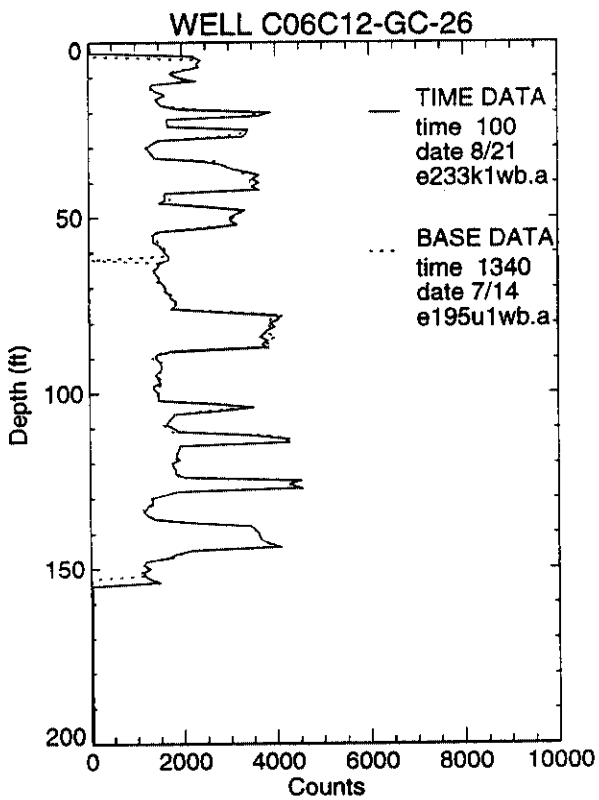
4000
6000
8000
10000


WELL C06C12-GC-26
TIME DATA
time 100
date 8/21
e233k1wb.a
BASE DATA
time 1340
date 7/14
e195u1wb.a
Depth (ft)
Counts
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8000
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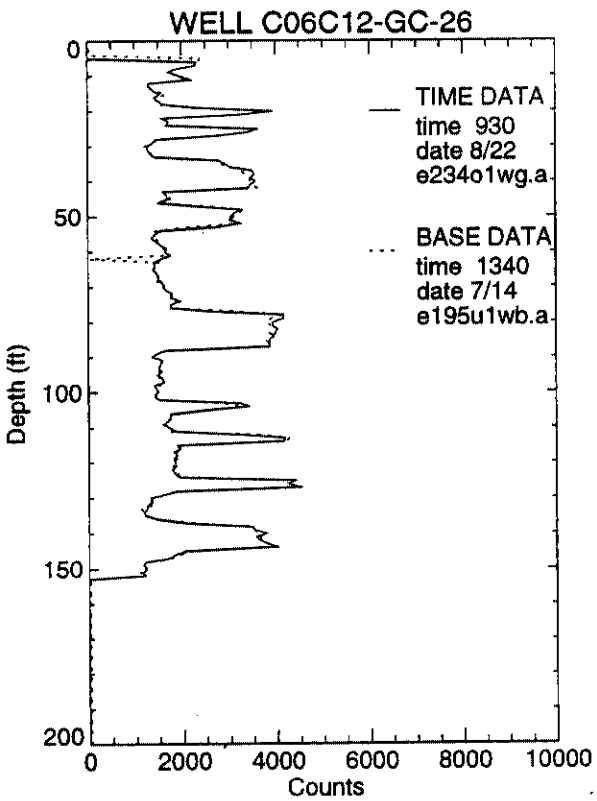
WELL C06C12-GC-26
TIME DATA
time 930
date 8/22
e234o1wg.a
BASE DATA
time 1340
date 7/14
e195u1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
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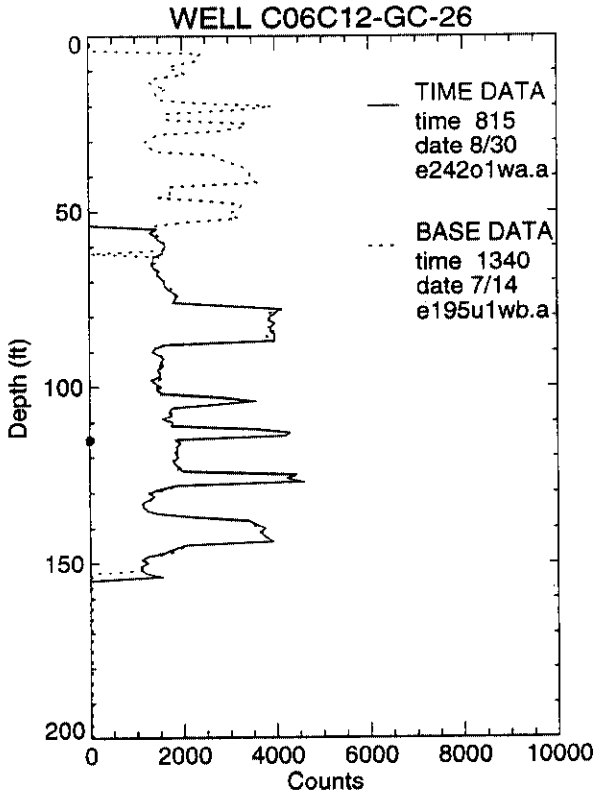
WELL C06C12-GC-26
TIME DATA
time 815
date 8/30
e242o1wa.a
BASE DATA
time 1340
date 7/14
e195u1wb.a
Depth (ft)
Counts
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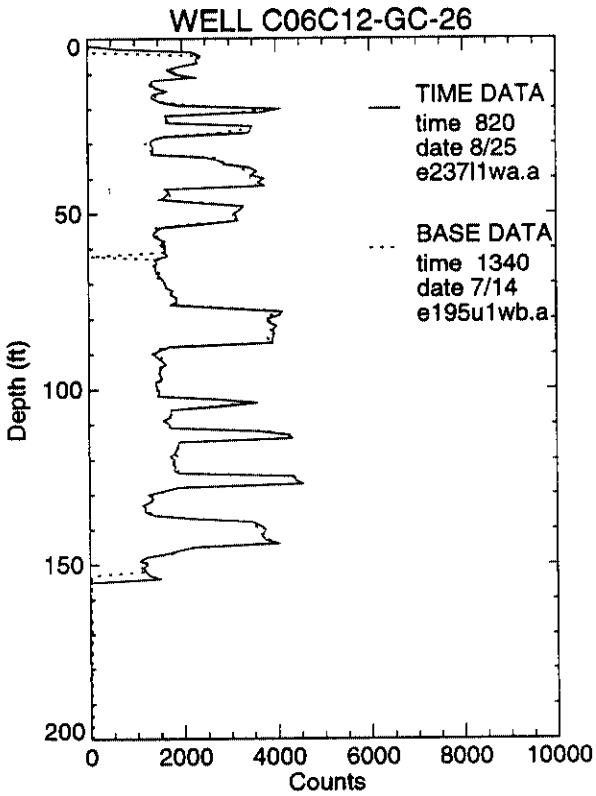
10000


WELL C06C12-GC-26
TIME DATA
time 820
date 8/25
e237l1wa.a
BASE DATA
time 1340
date 7/14
e195u1wb.a
Depth (ft)
Counts
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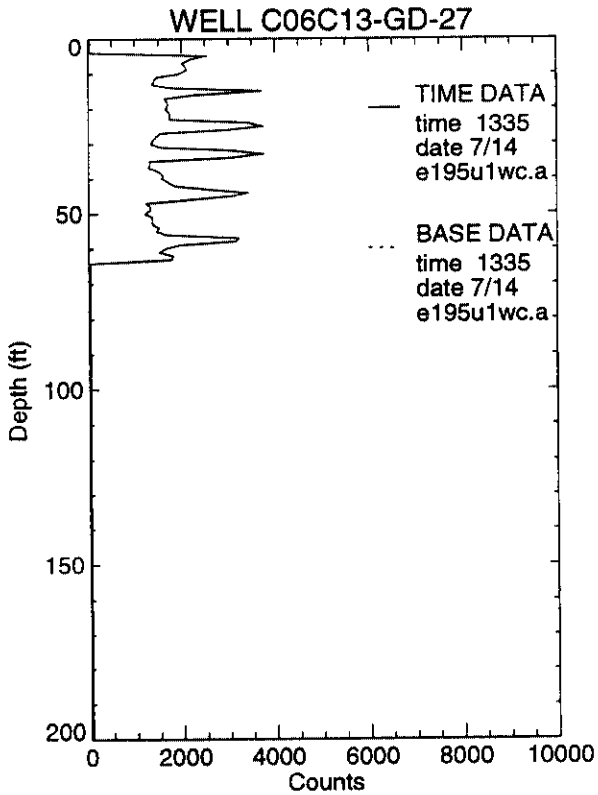
WELL C06C13-GD-27
TIME DATA
time 1335
date 7/14
e195u1wc.a
BASE DATA
time 1335
date 7/14
e195u1wc.a
Depth (ft)
Counts
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150
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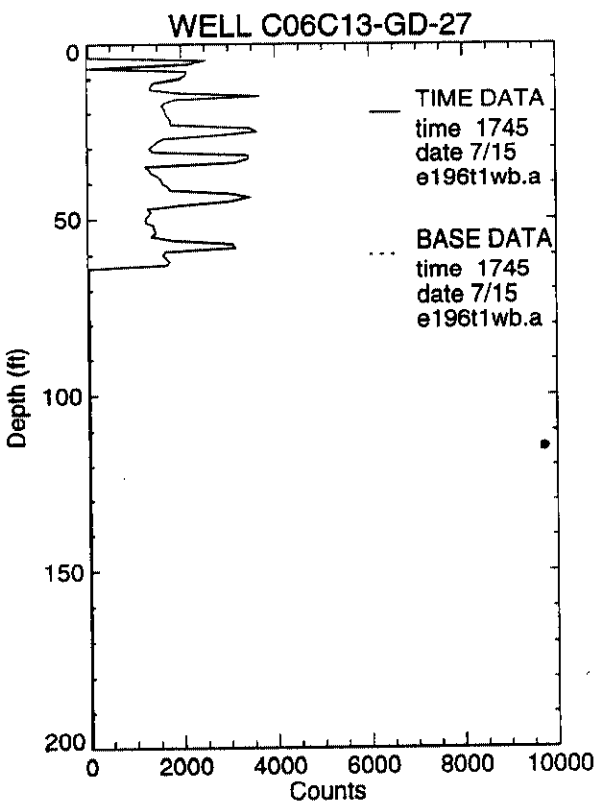
WELL C06C13-GD-27
TIME DATA
time 1745
date 7/15
e196t1wb.a
BASE DATA
time 1745
date 7/15
e196t1wb.a
Depth (ft)
Counts
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0
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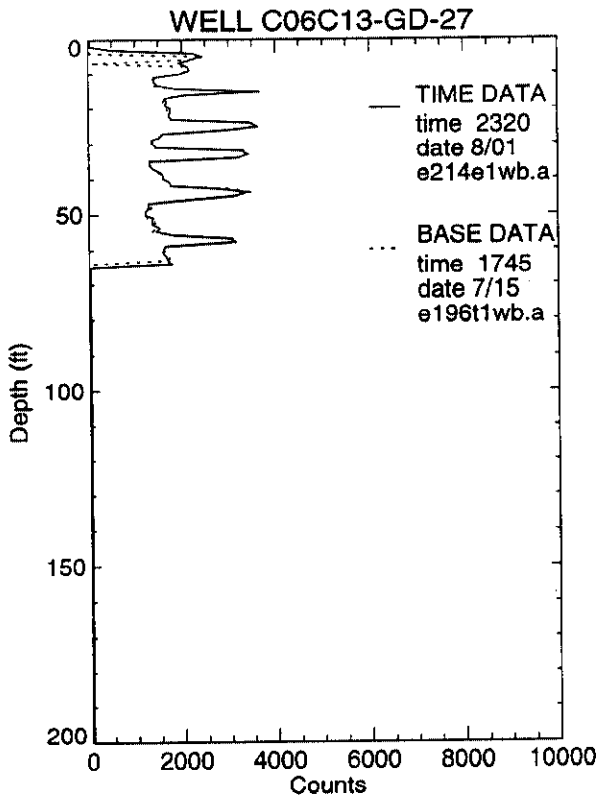
10000


WELL C06C13-GD-27
TIME DATA
time 2320
date 8/01
e214e1wb.a
BASE DATA
time 1745
date 7/15
e196t1wb.a
Depth (ft)
Counts
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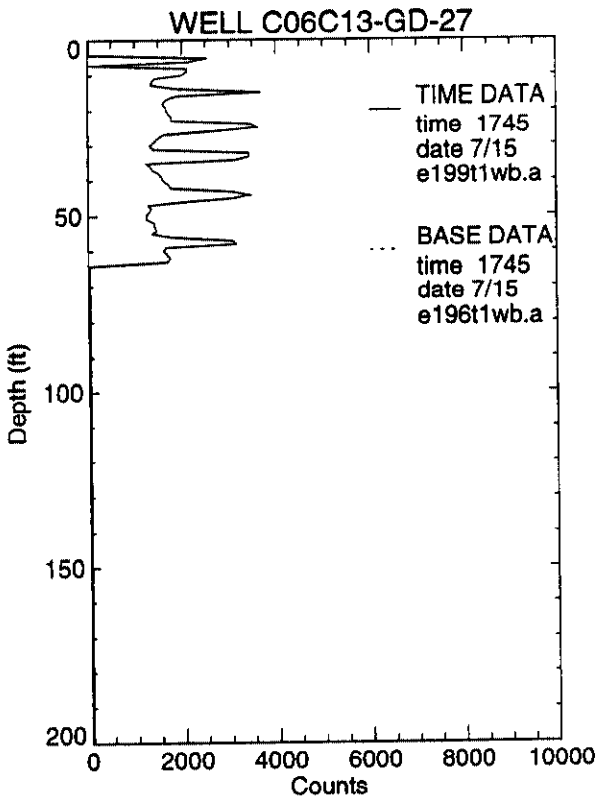
WELL C06C13-GD-27
TIME DATA
time 1745
date 7/15
e199t1wb.a
BASE DATA
time 1745
date 7/15
e196t1wb.a
Depth (ft)
Counts
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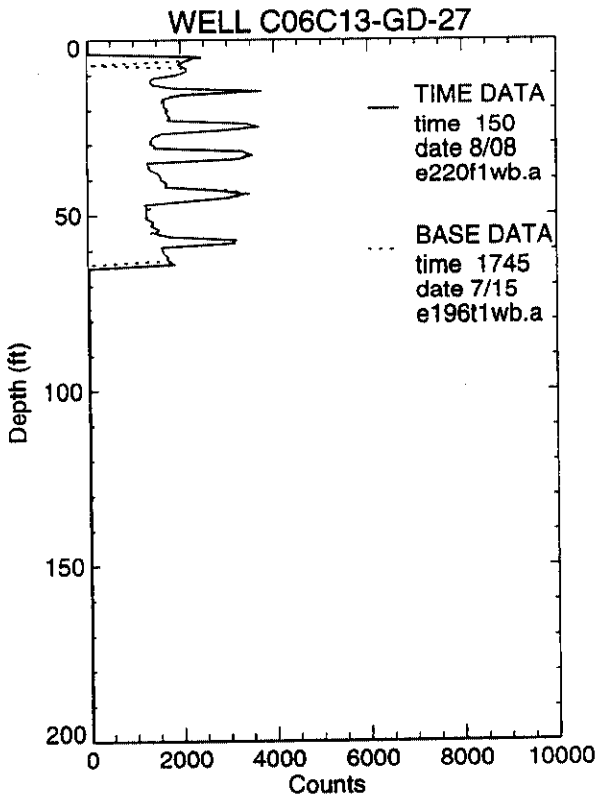
WELL C06C13-GD-27
TIME DATA
time 150
date 8/08
e220f1wb.a
BASE DATA
time 1745
date 7/15
e196t1wb.a
Depth (ft)
Counts
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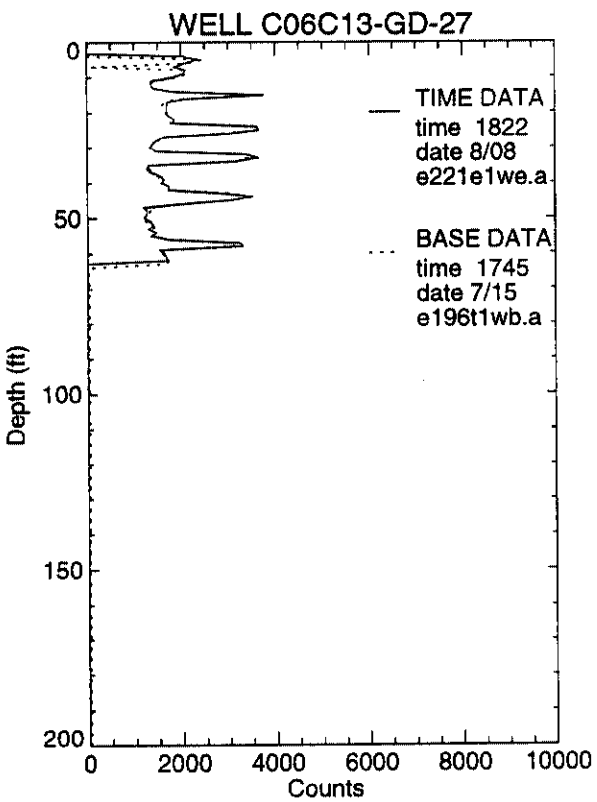
WELL C06C13-GD-27
TIME DATA
time 1822
date 8/08
e221e1we.a
BASE DATA
time 1745
date 7/15
e196t1wb.a
Depth (ft)
Counts
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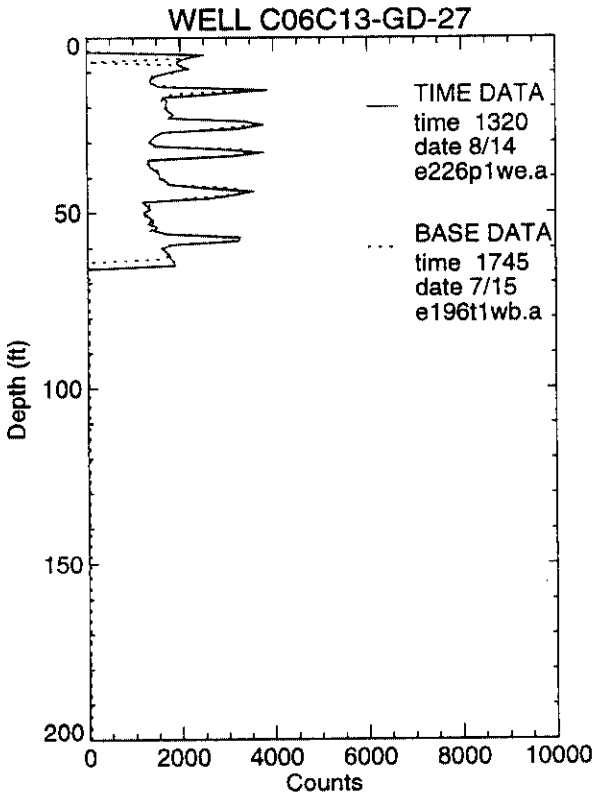
10000


WELL C06C13-GD-27
TIME DATA
time 1320
date 8/14
e226p1we.a
BASE DATA
time 1745
date 7/15
e196t1wb.a
Depth (ft)
Counts
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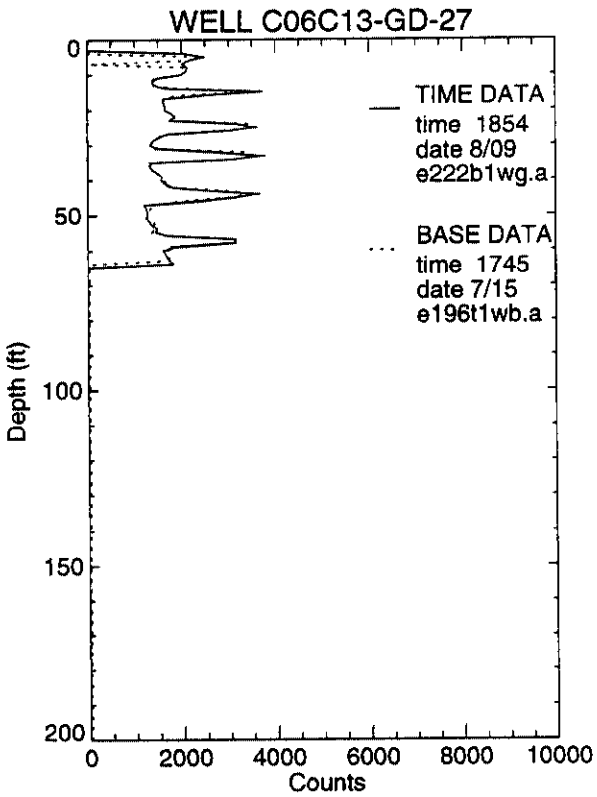
8000
10000


WELL C06C13-GD-27
TIME DATA
time 1854
date 8/09
e222b1wg.a
BASE DATA
time 1745
date 7/15
e196t1wb.a
Depth (ft)
Counts
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150
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0
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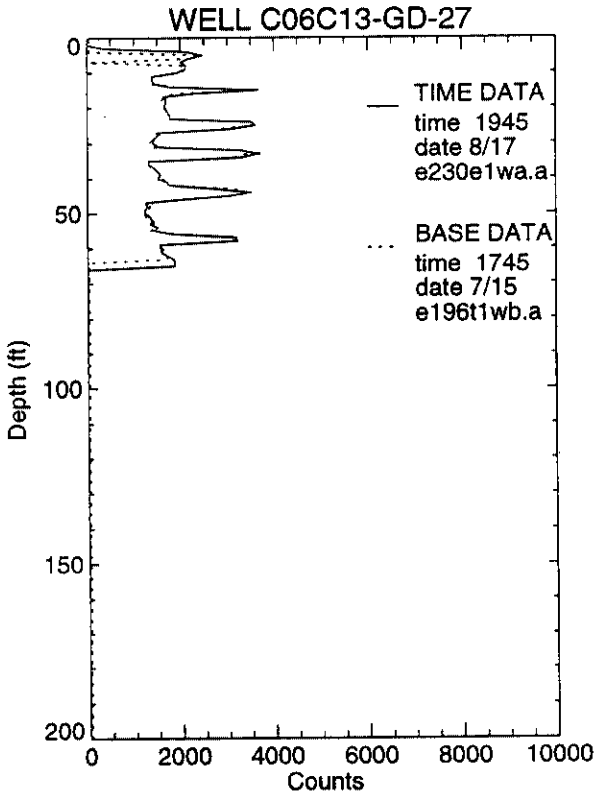
8000
10000


WELL C06C13-GD-27
TIME DATA
time 1945
date 8/17
e230e1wa.a
BASE DATA
time 1745
date 7/15
e196t1wb.a
Depth (ft)
Counts
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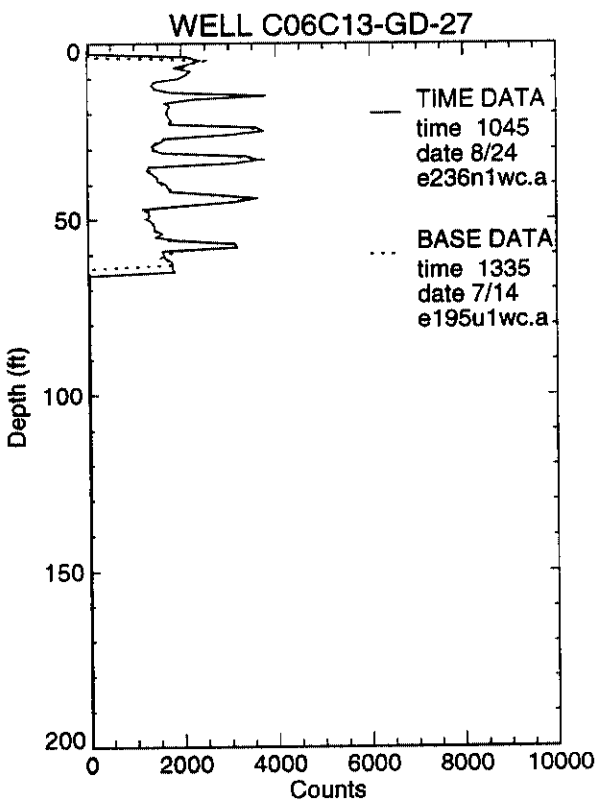
10000


WELL C06C13-GD-27
TIME DATA
time 1045
date 8/24
e236n1wc.a
BASE DATA
time 1335
date 7/14
e195u1wc.a
Depth (ft)
Counts
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200
0
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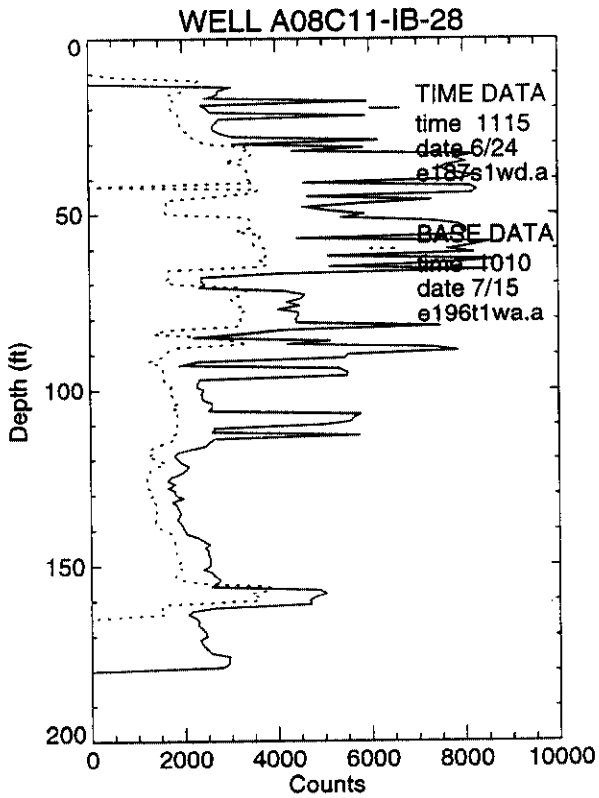
8000
10000


WELL A08C11-IB-28
TIME DATA
time 1115
date 6/24
e187s1wd.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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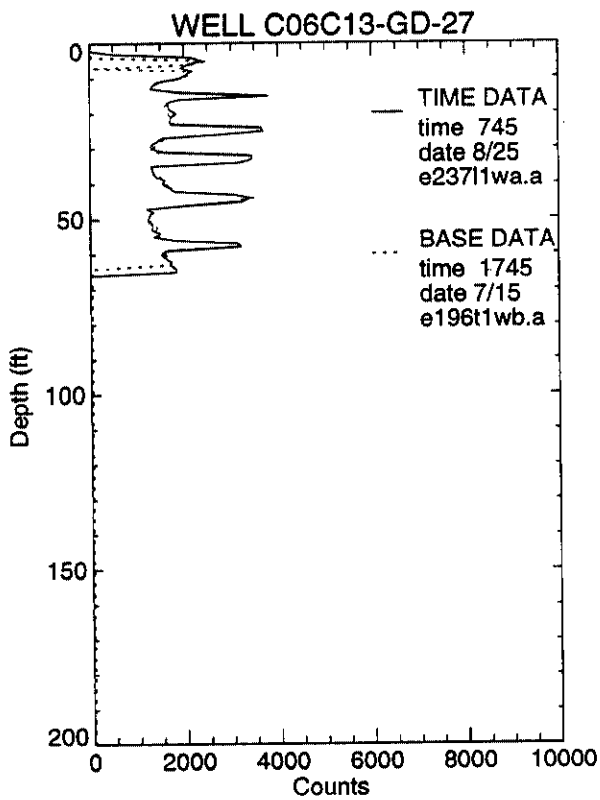
WELL C06C13-GD-27
TIME DATA
time 745
date 8/25
e237l1wa.a
BASE DATA
time 1745
date 7/15
e196t1wb.a
Depth (ft)
Counts
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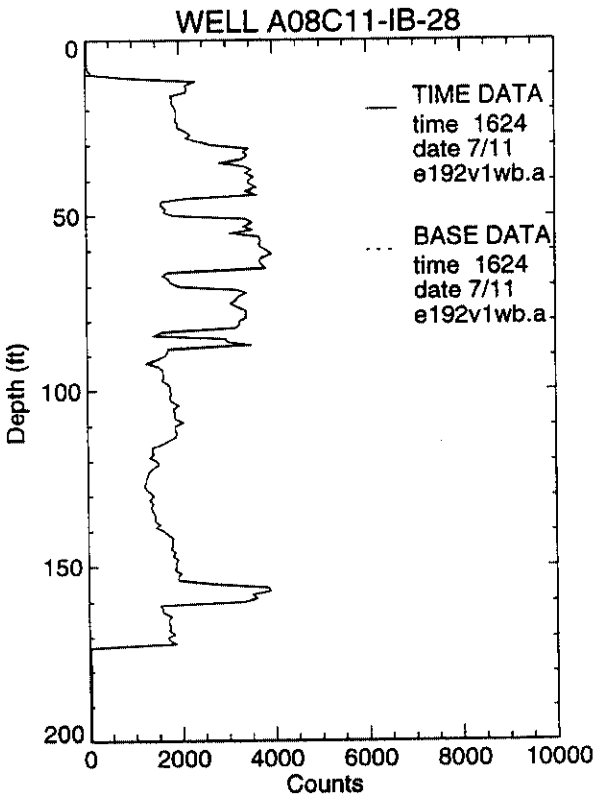
WELL A08C11-IB-28
TIME DATA
time 1624
date 7/11
e192v1wb.a
BASE DATA
time 1624
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
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0
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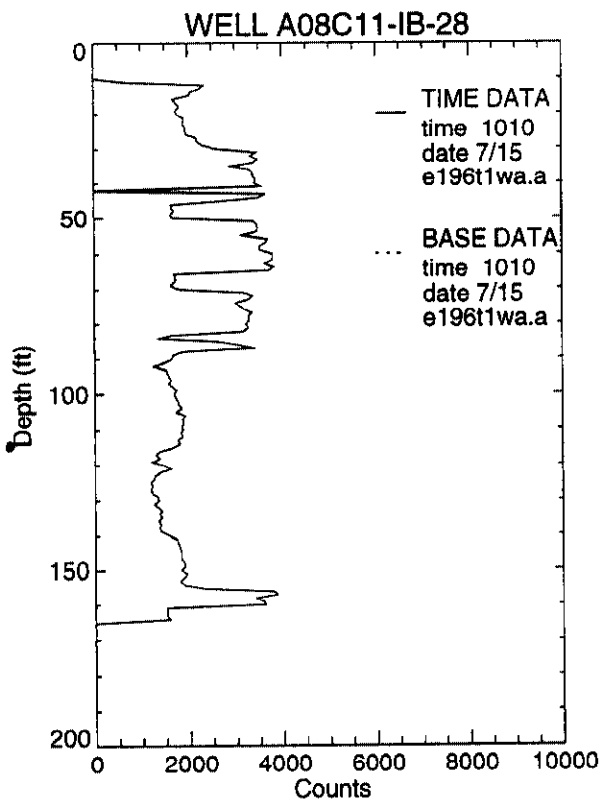
WELL A08C11-IB-28
TIME DATA
time 1010
date 7/15
e196t1wa.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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0
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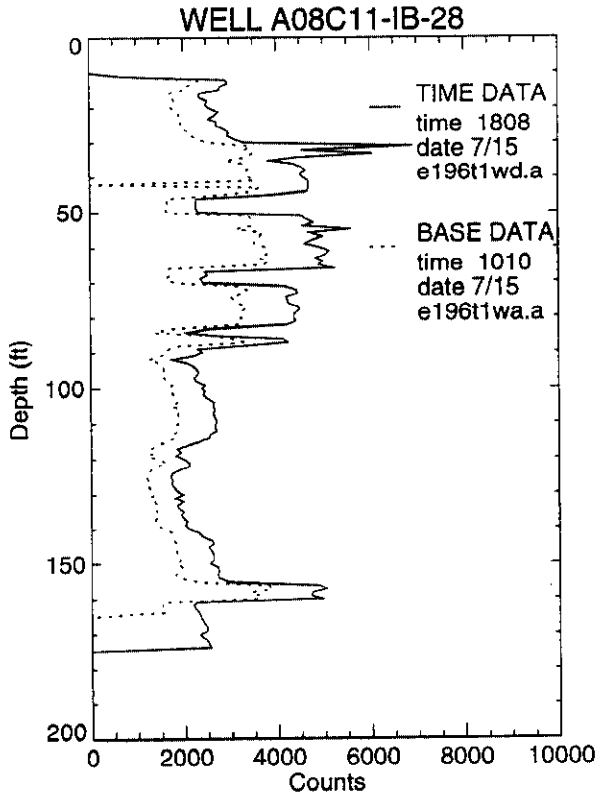
10000


WELL A08C11-IB-28
TIME DATA
time 1808
date 7/15
e196t1wd.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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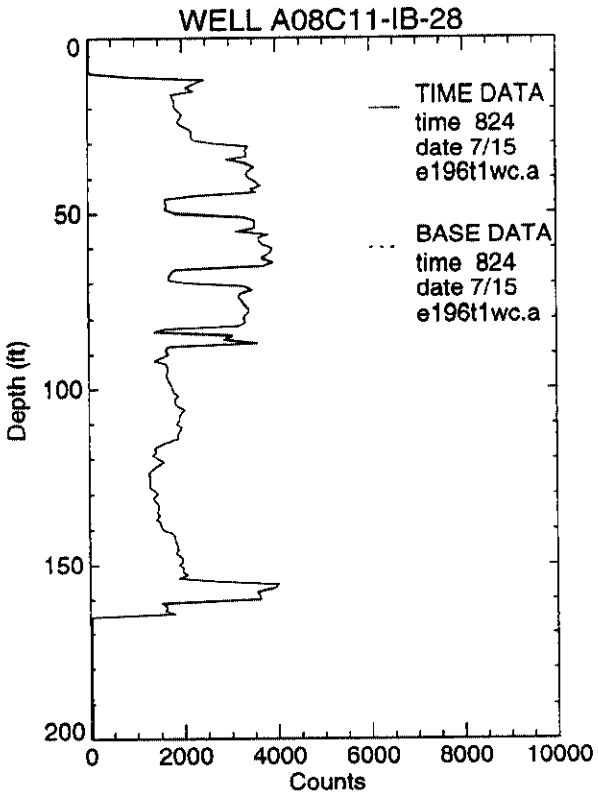
WELL A08C11-IB-28
TIME DATA
time 824
date 7/15
e196t1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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0
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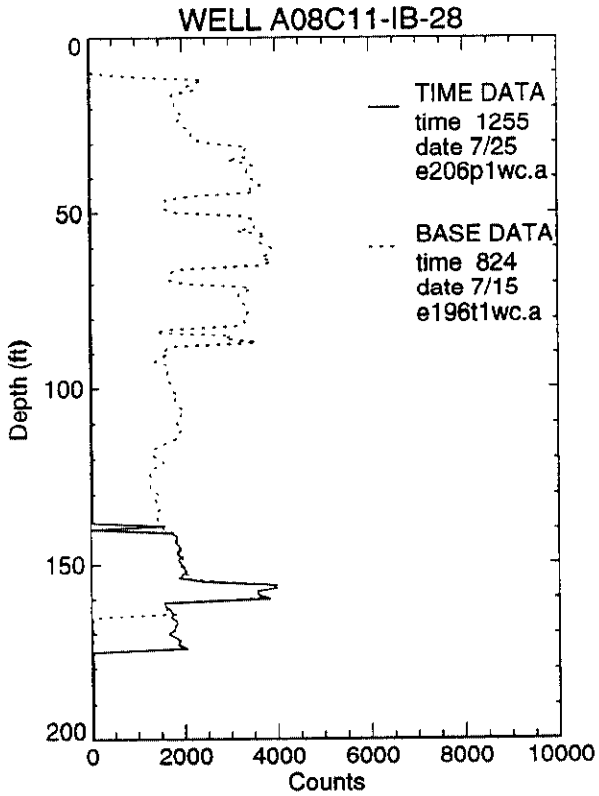
WELL A08C11-IB-28
TIME DATA
time 1255
date 7/25
e206p1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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150
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0
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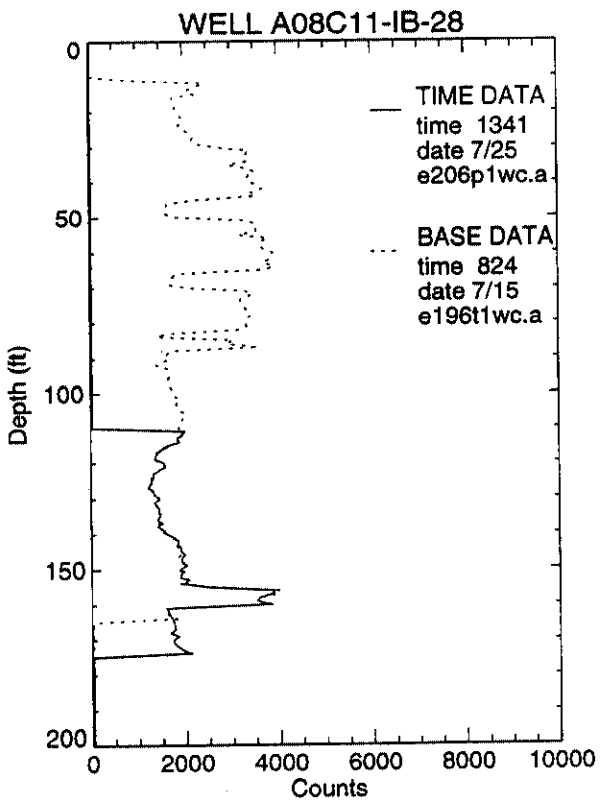
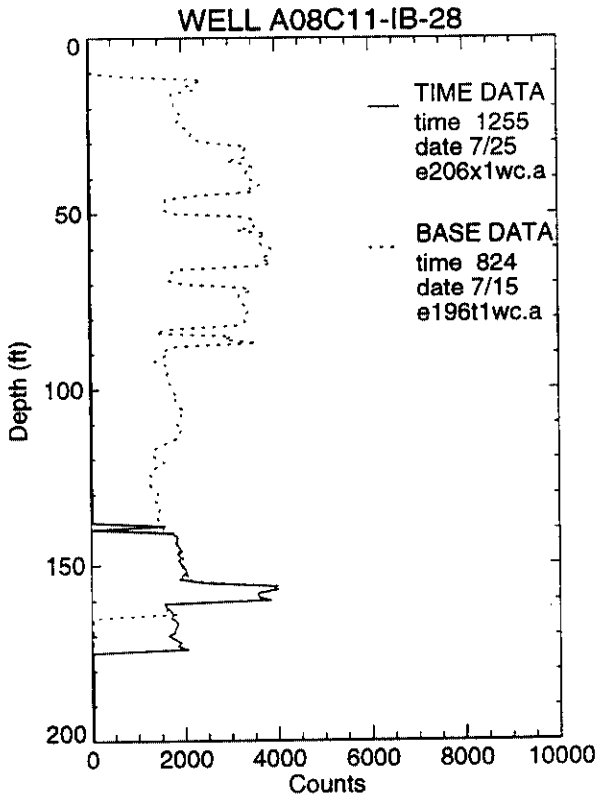
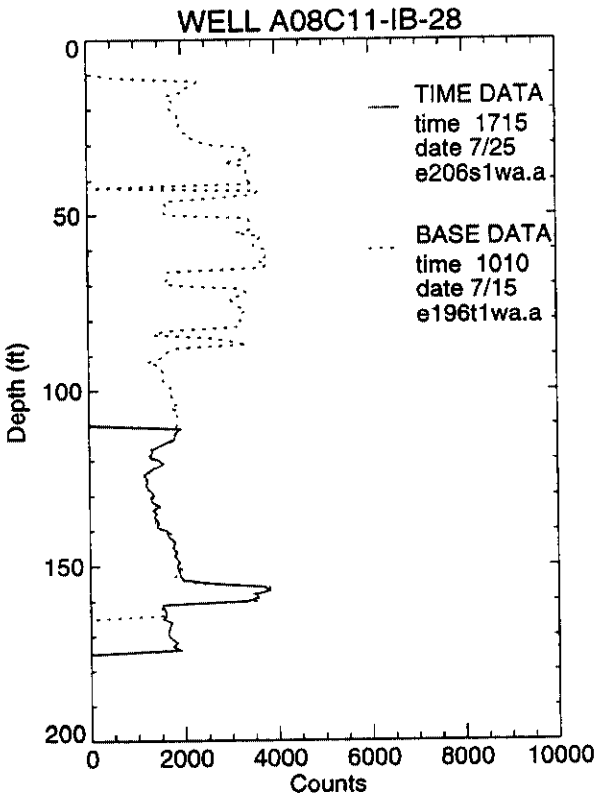
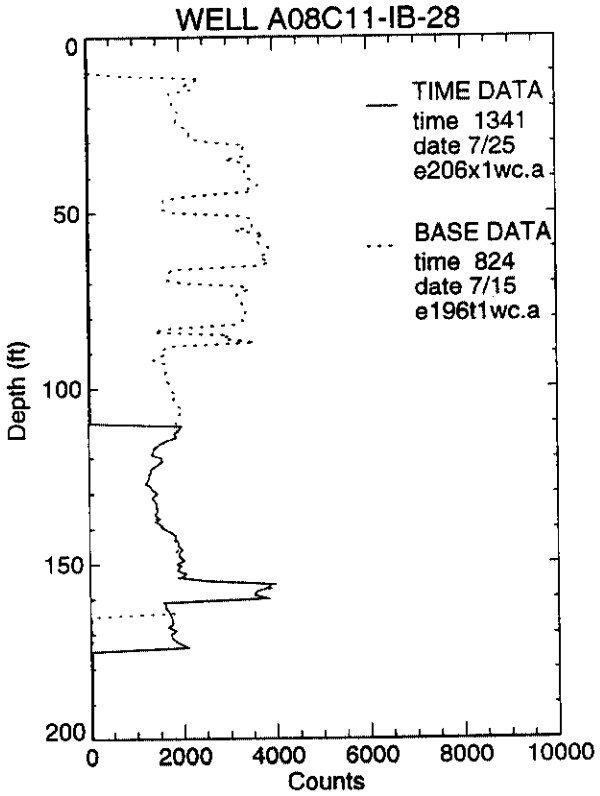
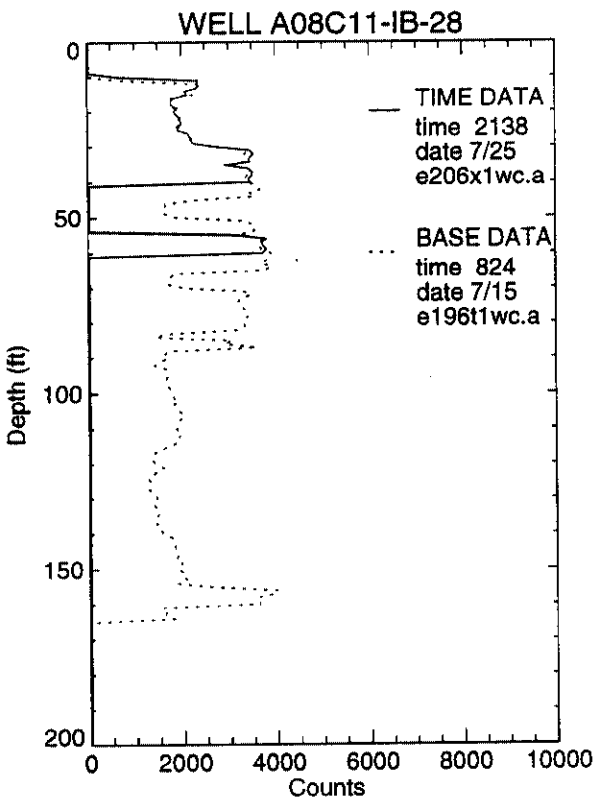
10000


WELL A08C11-IB-28
TIME DATA
time 1341
date 7/25
e206p1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts


WELL A08C11-IB-28
TIME DATA
time 1255
date 7/25
e206x1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts


WELL A08C11-IB-28
TIME DATA
time 1715
date 7/25
e206s1wa.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts


WELL A08C11-IB-28
TIME DATA
time 1341
date 7/25
e206x1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts


WELL A08C11-IB-28
TIME DATA
time 2138
date 7/25
e206x1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts
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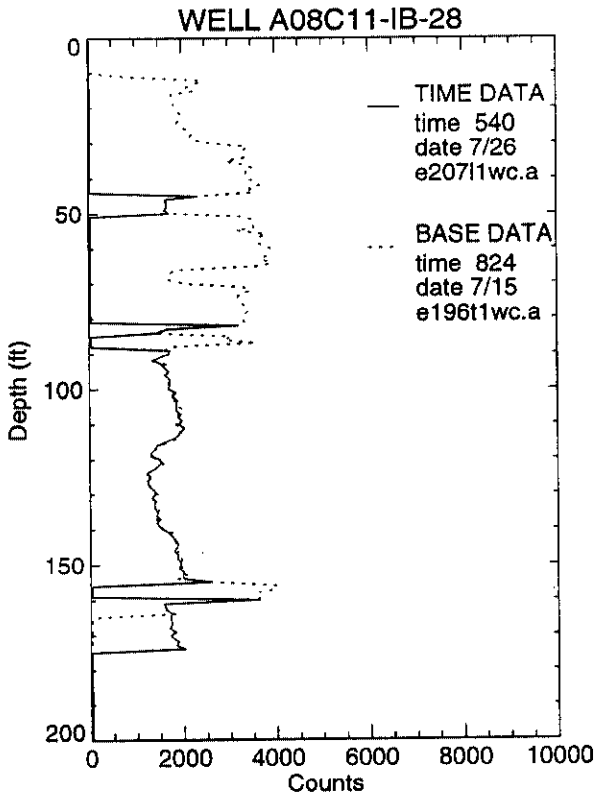
10000


WELL A08C11-IB-28
TIME DATA
time 540
date 7/26
e207l1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts
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150
200
0
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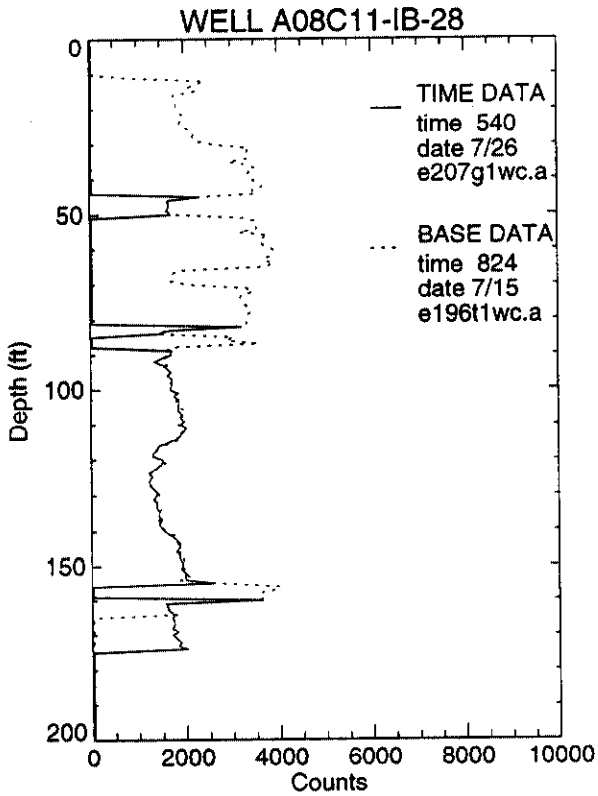
6000
8000
10000


WELL A08C11-IB-28
TIME DATA
time 540
date 7/26
e207g1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts
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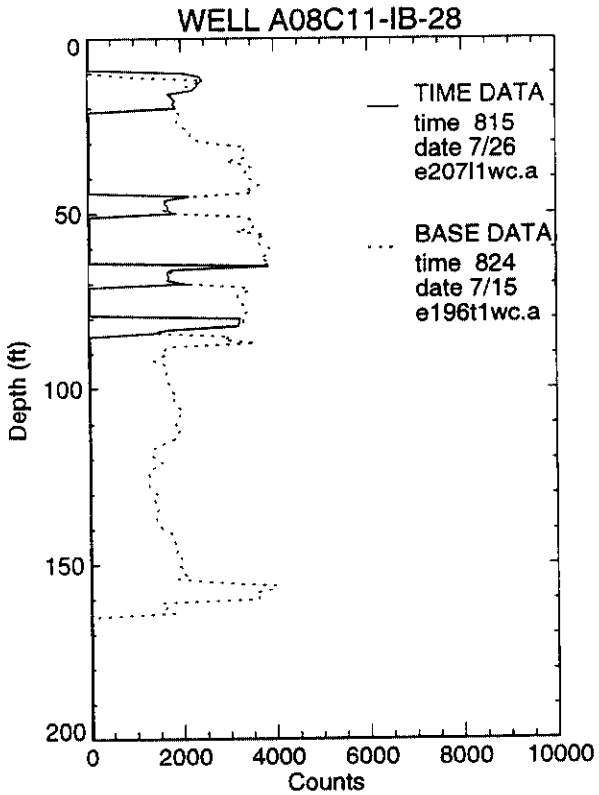
WELL A08C11-IB-28
TIME DATA
time 815
date 7/26
e207l1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts
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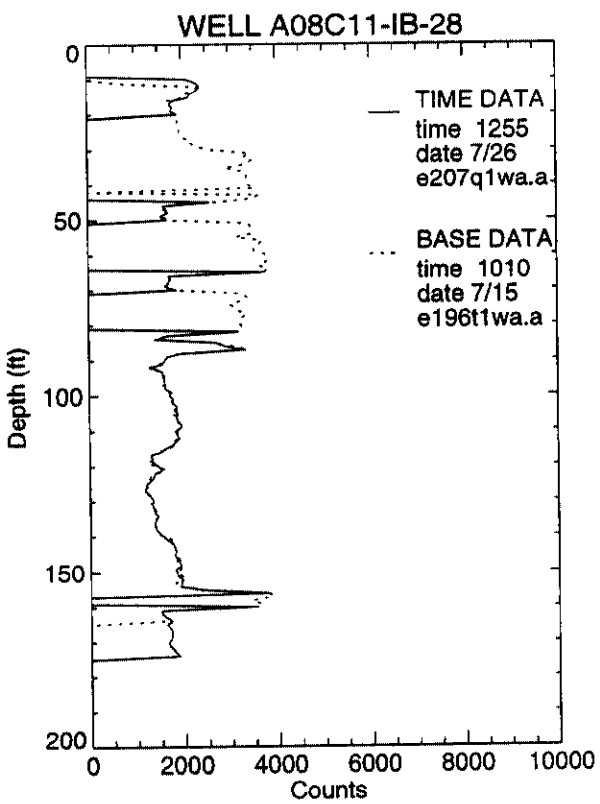
WELL A08C11-IB-28
TIME DATA
time 1255
date 7/26
e207q1wa.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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0
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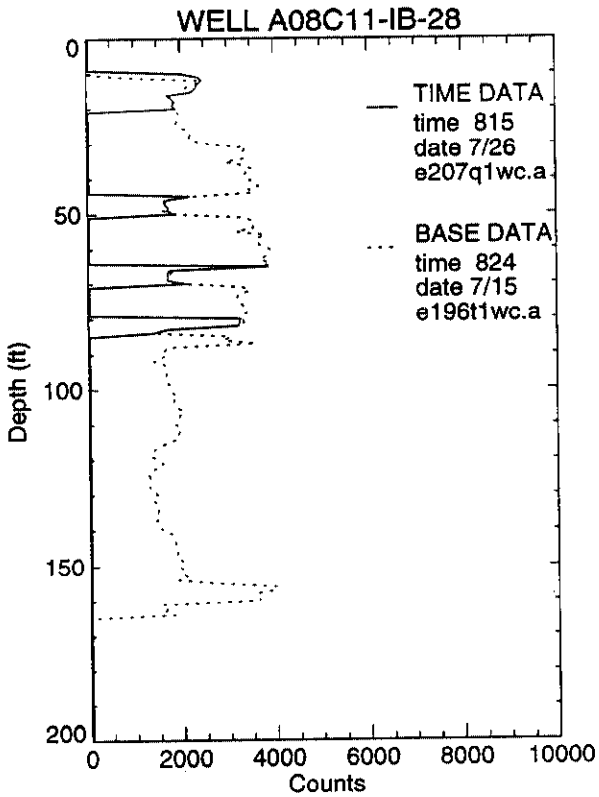
8000
10000


WELL A08C11-IB-28
TIME DATA
time 815
date 7/26
e207q1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts
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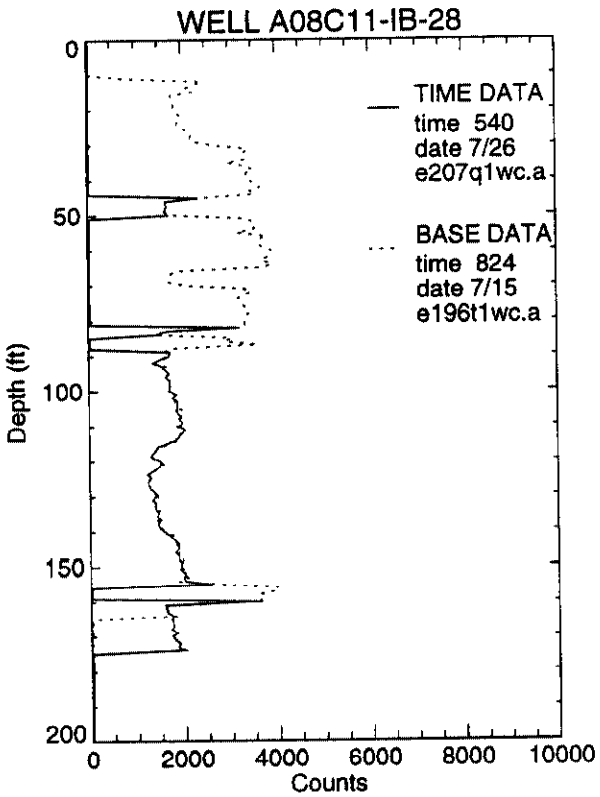
WELL A08C11-IB-28
TIME DATA
time 540
date 7/26
e207q1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts
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150
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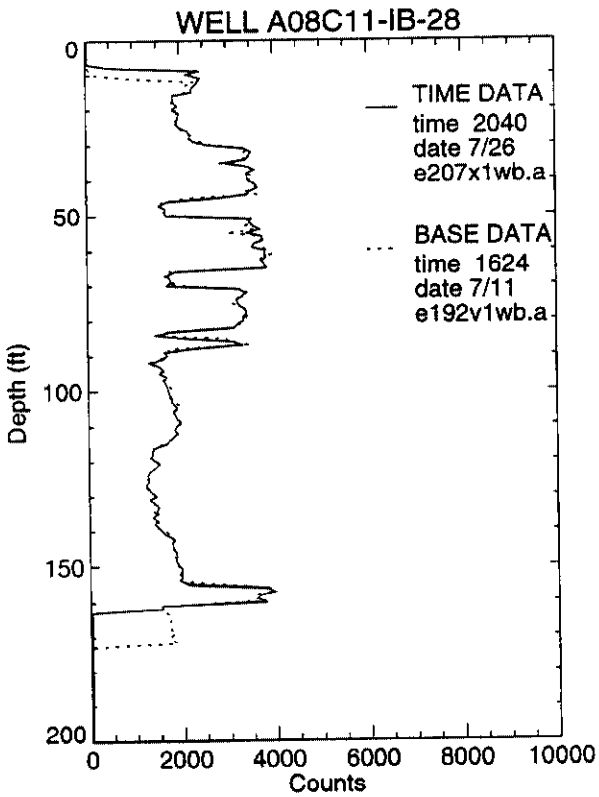
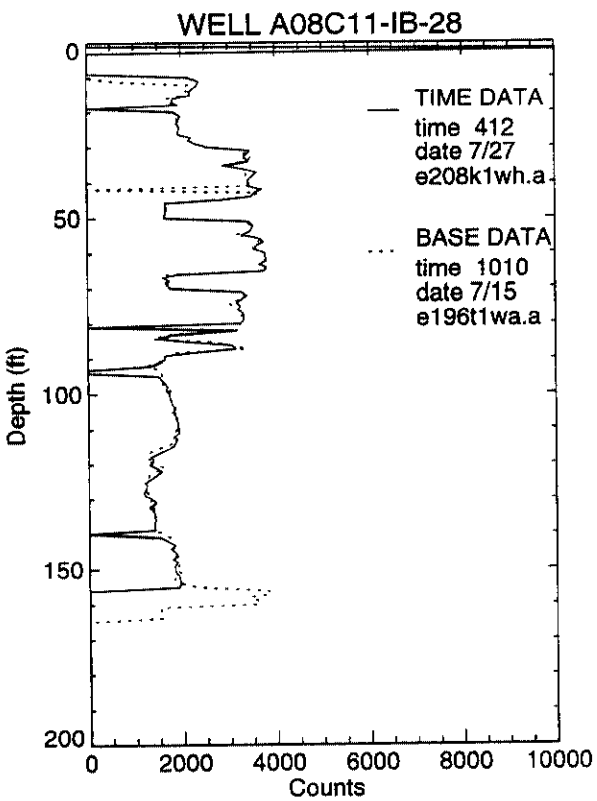

WELL A08C11-IB-28
TIME DATA
time 2040
date 7/26
e207x1wb.a
BASE DATA
time 1624
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A08C11-IB-28
TIME DATA
time 412
date 7/27
e208k1wh.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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150
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0
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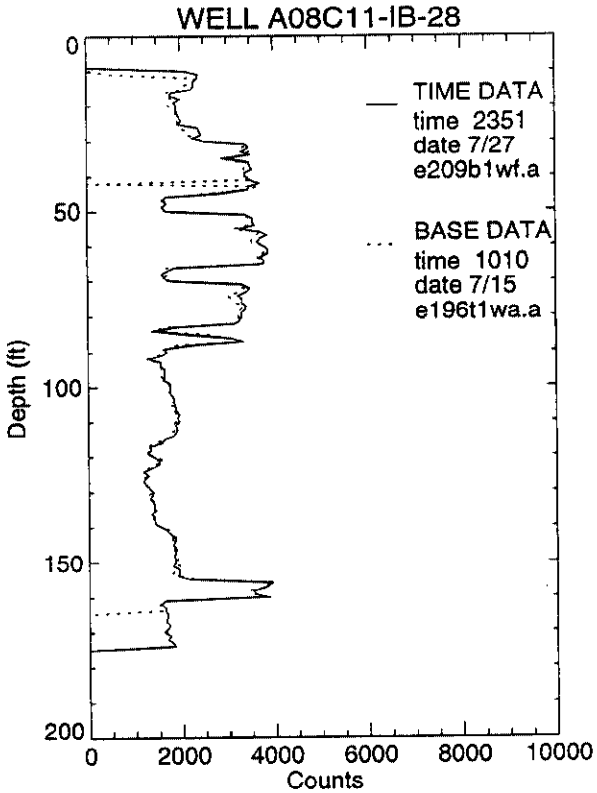
8000
10000


WELL A08C11-IB-28
TIME DATA
time 2351
date 7/27
e209b1wf.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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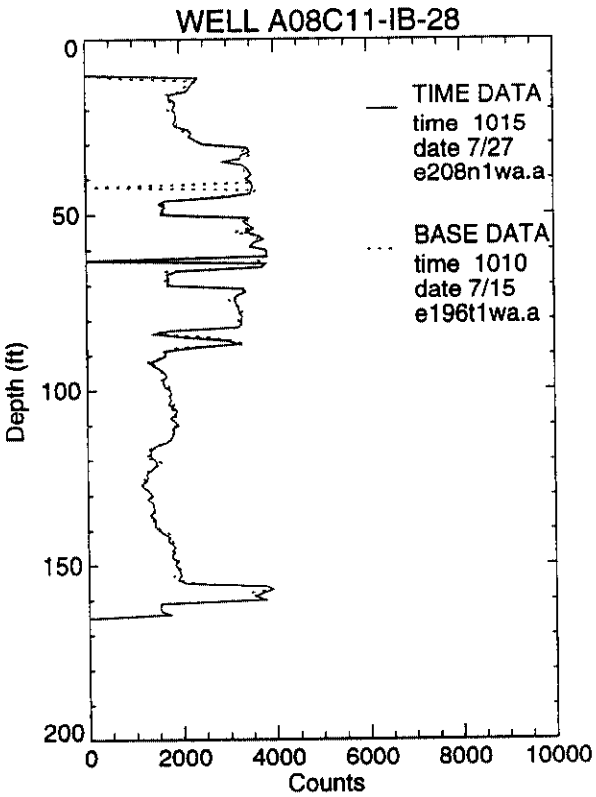
10000


WELL A08C11-IB-28
TIME DATA
time 1015
date 7/27
e208n1wa.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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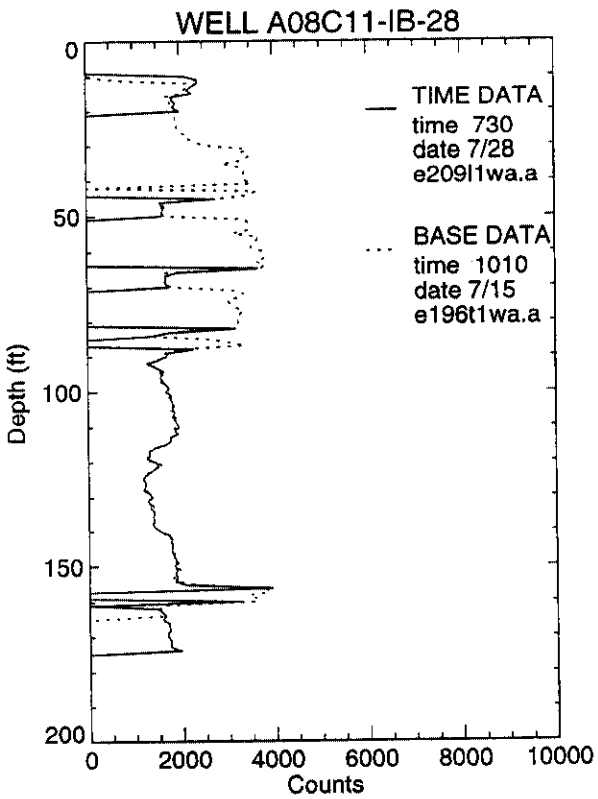
8000
10000


WELL A08C11-IB-28
TIME DATA
time 730
date 7/28
e209l1wa.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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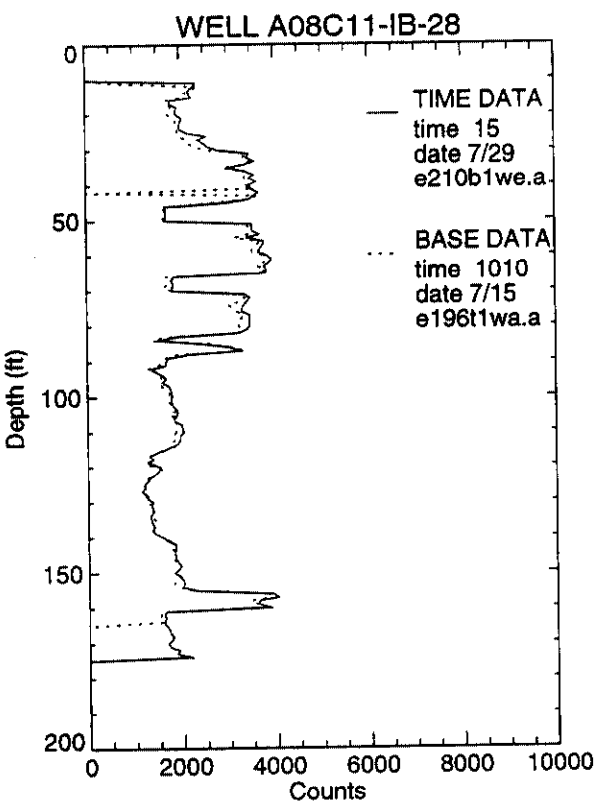
WELL A08C11-IB-28
TIME DATA
time 15
date 7/29
e210b1we.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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150
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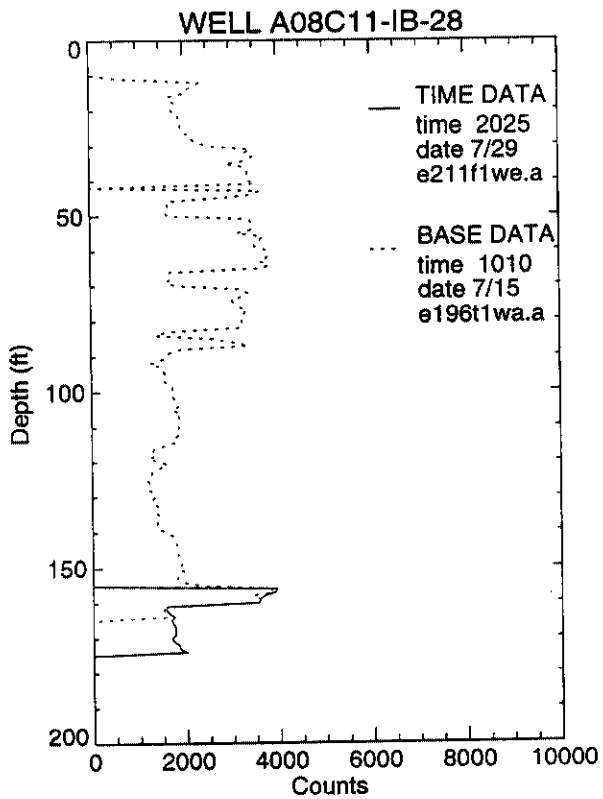
8000
10000


WELL A08C11-IB-28
TIME DATA
time 2025
date 7/29
e211f1we.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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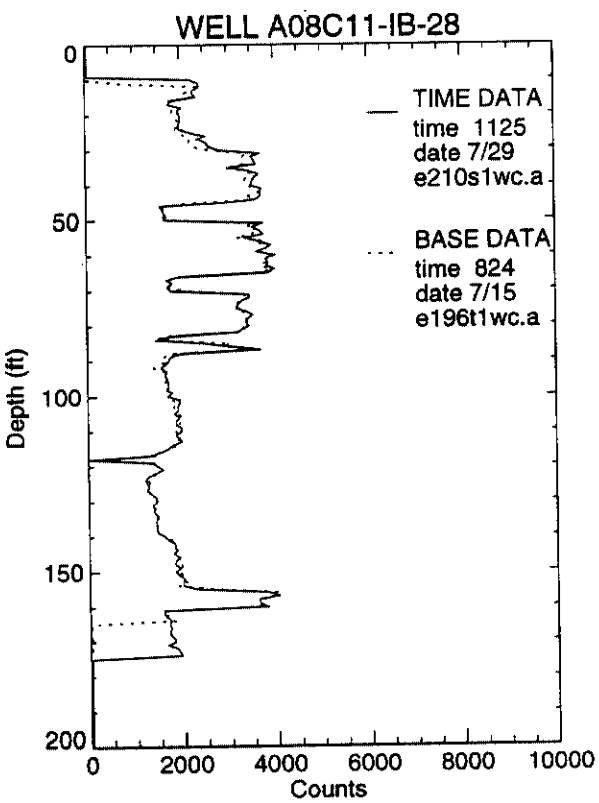
WELL A08C11-IB-28
TIME DATA
time 1125
date 7/29
e210s1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts
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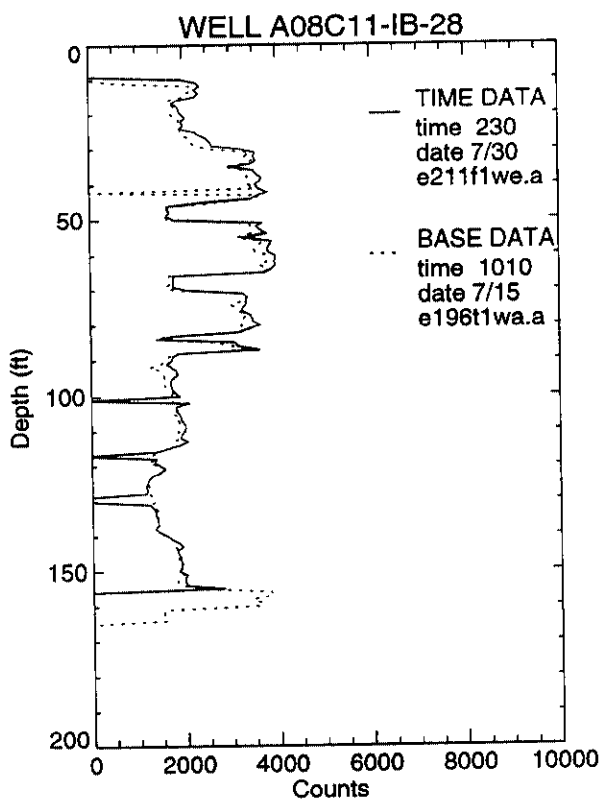
10000


WELL A08C11-IB-28
TIME DATA
time 230
date 7/30
e211f1we.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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0
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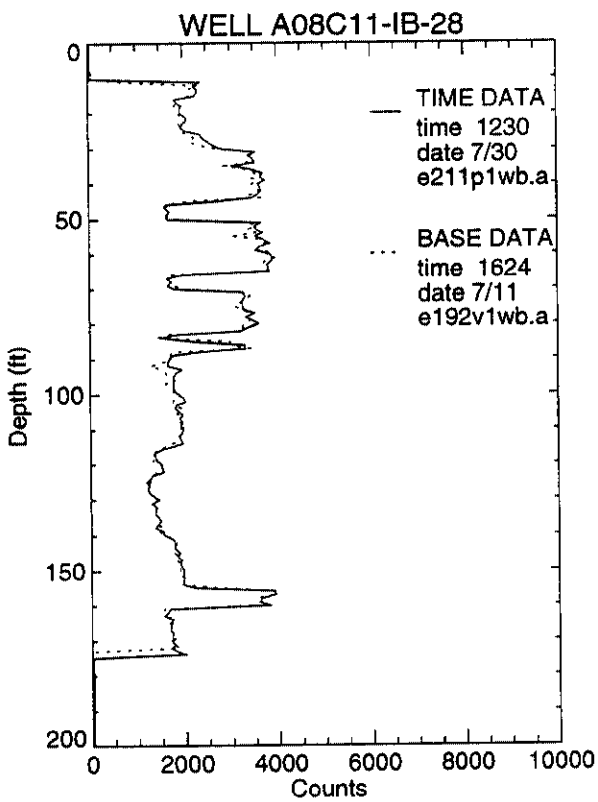
8000
10000


WELL A08C11-IB-28
TIME DATA
time 1230
date 7/30
e211p1wb.a
BASE DATA
time 1624
date 7/11
e192v1wb.a
Depth (ft)
Counts
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150
200
0
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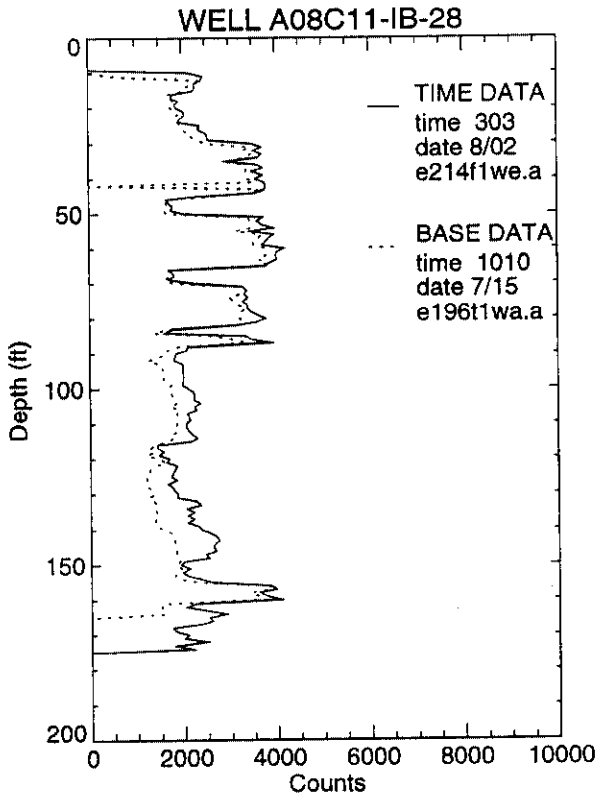
6000
8000
10000


WELL A08C11-IB-28
TIME DATA
time 303
date 8/02
e214f1we.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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100
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200
0
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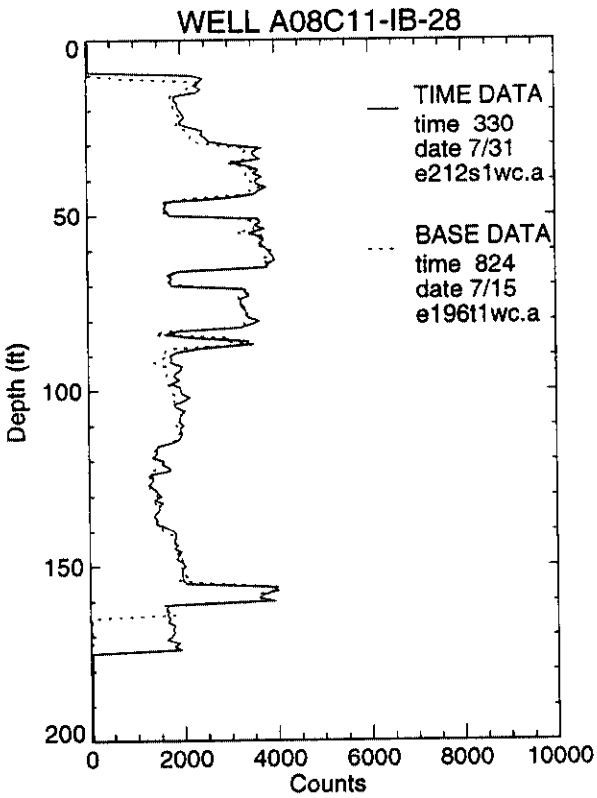
6000
8000
10000


WELL A08C11-IB-28
TIME DATA
time 330
date 7/31
e212s1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts
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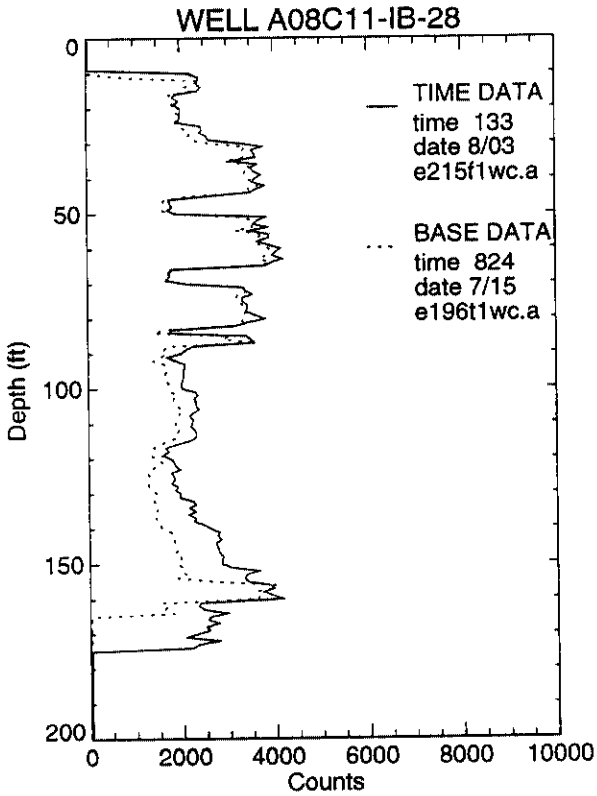
WELL A08C11-IB-28
TIME DATA
time 133
date 8/03
e215f1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts
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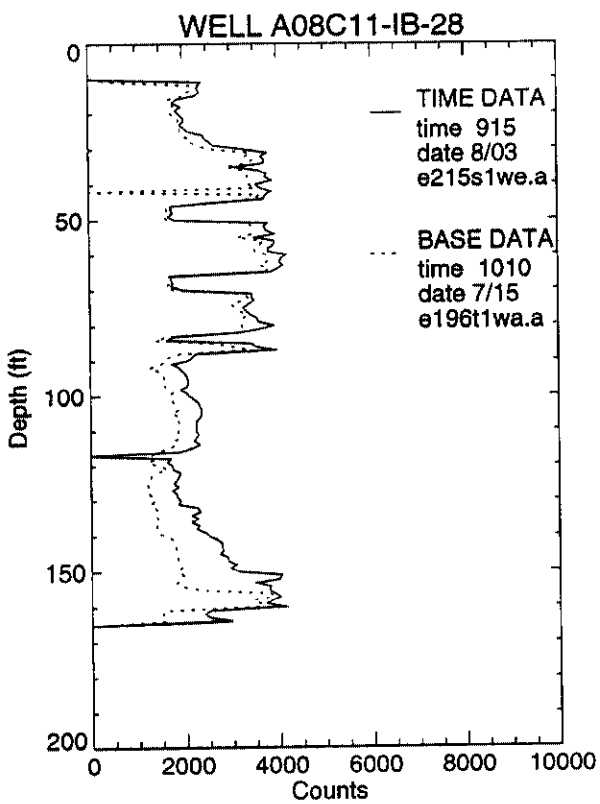
10000


WELL A08C11-IB-28
TIME DATA
time 915
date 8/03
e215s1we.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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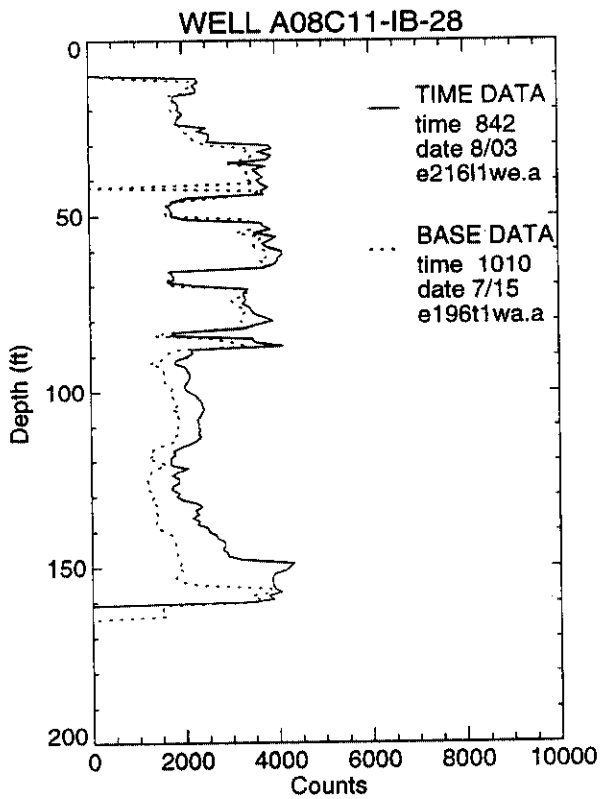
100
150
200
0
2000
4000
6000
8000
10000


WELL A08C11-IB-28
TIME DATA
time 842
date 8/03
e216l1we.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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0
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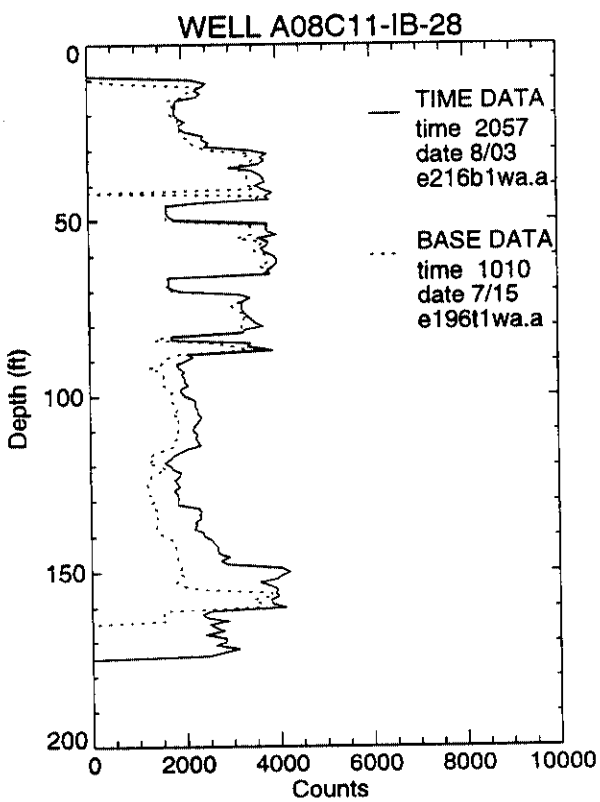
10000


WELL A08C11-IB-28
TIME DATA
time 2057
date 8/03
e216b1wa.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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0
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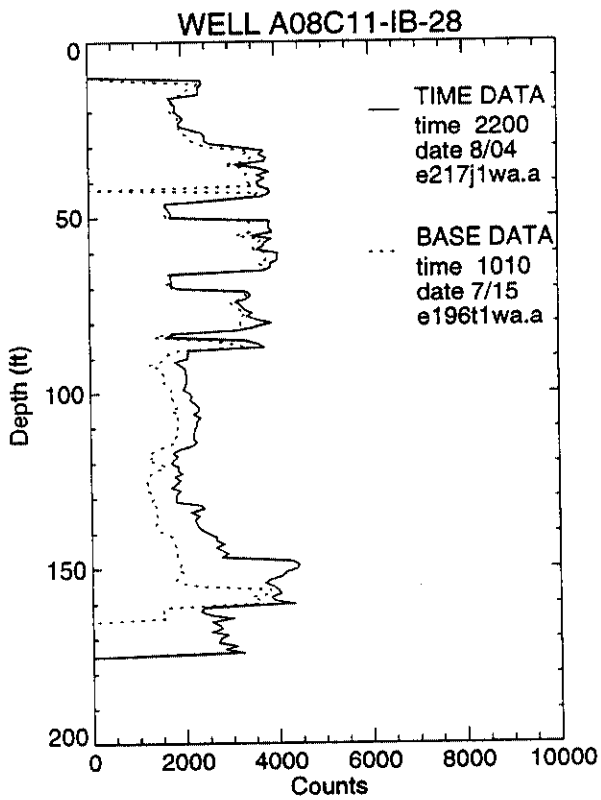
10000


WELL A08C11-IB-28
TIME DATA
time 2200
date 8/04
e217j1wa.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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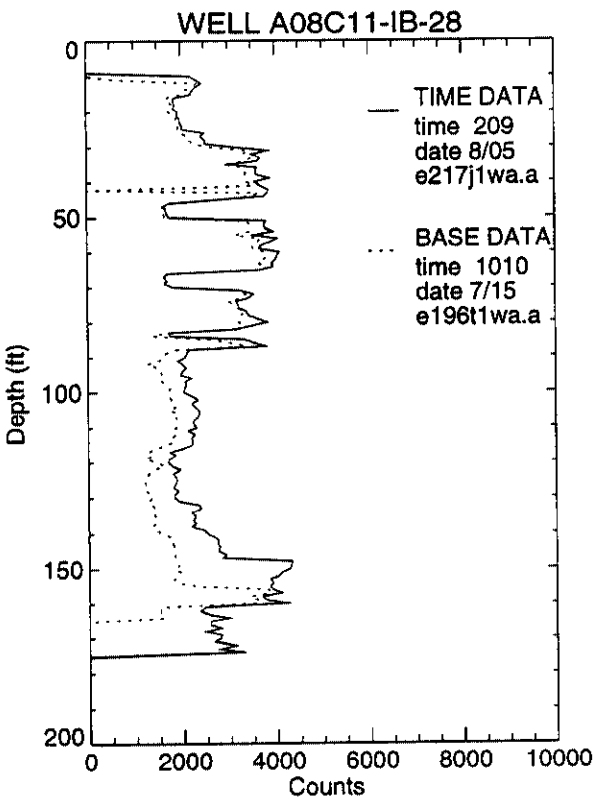
4000
6000
8000
10000


WELL A08C11-IB-28
TIME DATA
time 209
date 8/05
e217j1wa.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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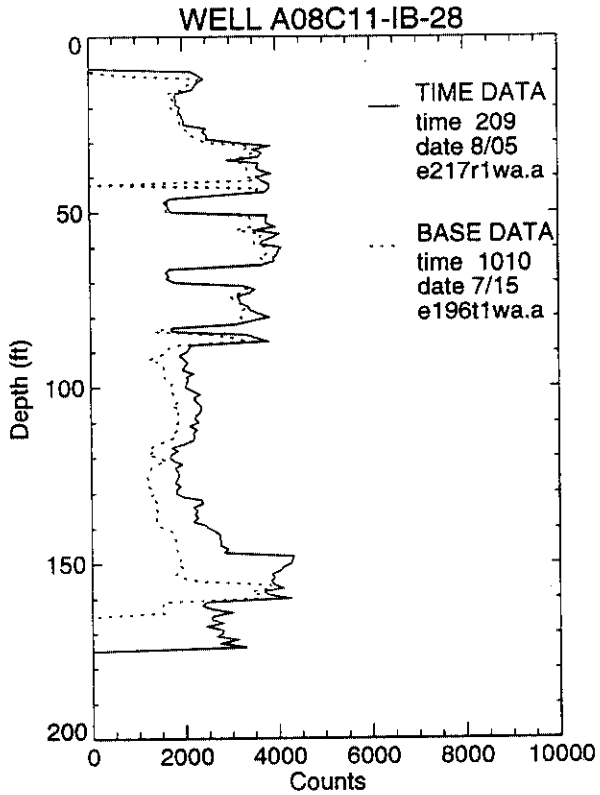
150
200
0
2000
4000
6000
8000
10000


WELL A08C11-IB-28
TIME DATA
time 209
date 8/05
e217r1wa.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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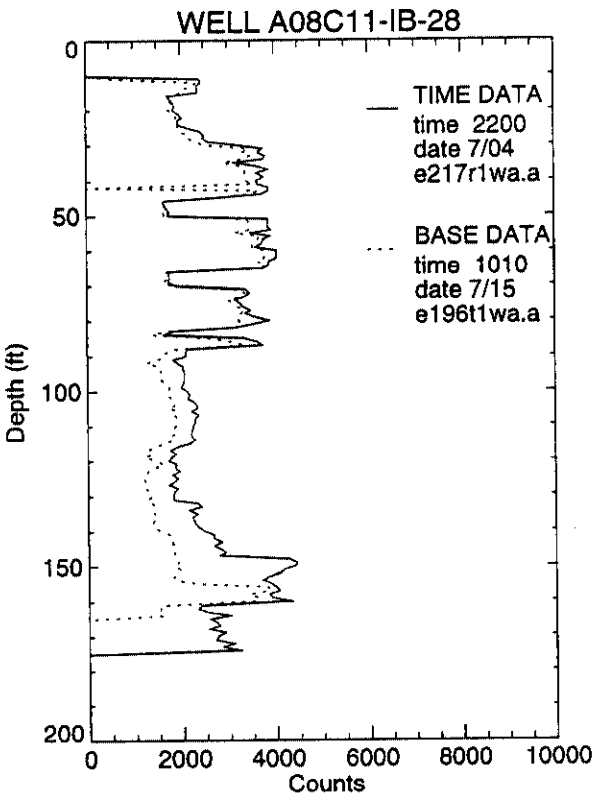
10000


WELL A08C11-IB-28
TIME DATA
time 2200
date 7/04
e217r1wa.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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150
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0
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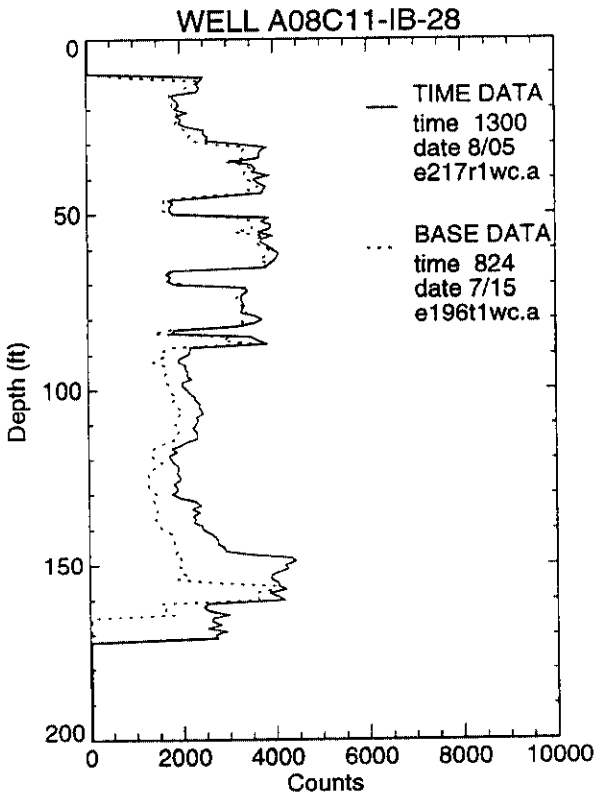
10000


WELL A08C11-IB-28
TIME DATA
time 1300
date 8/05
e217r1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts
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150
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0
2000
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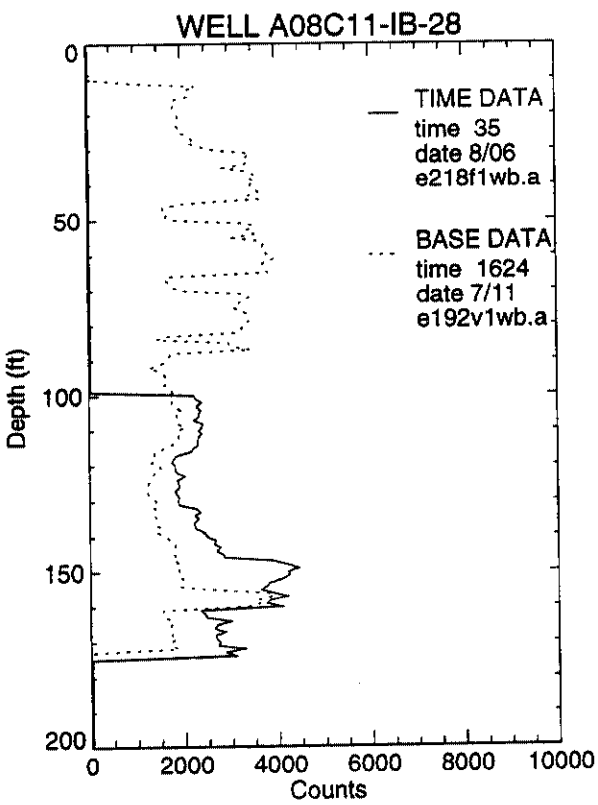
8000
10000


WELL A08C11-IB-28
TIME DATA
time 35
date 8/06
e218f1wb.a
BASE DATA
time 1624
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
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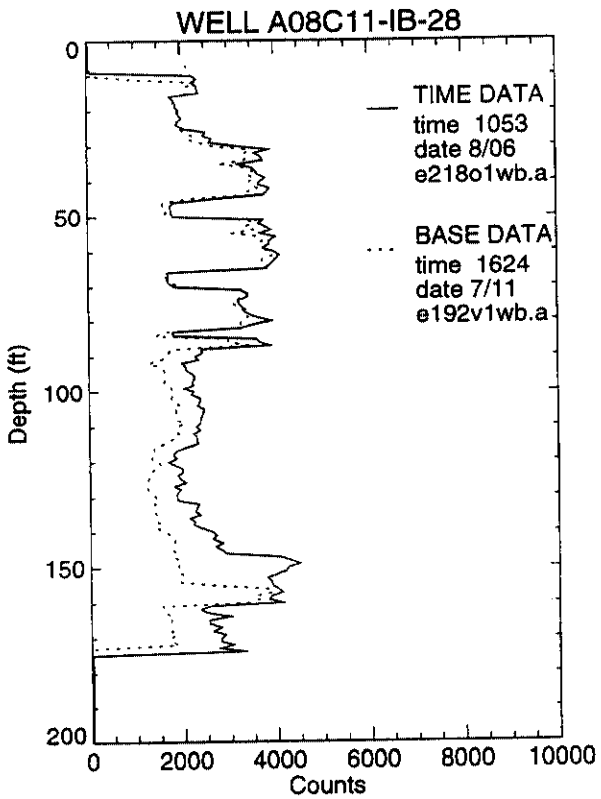
100
150
200
0
2000
4000
6000
8000
10000


WELL A08C11-IB-28
TIME DATA
time 1053
date 8/06
e218o1wb.a
BASE DATA
time 1624
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
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100
150
200
0
2000
4000
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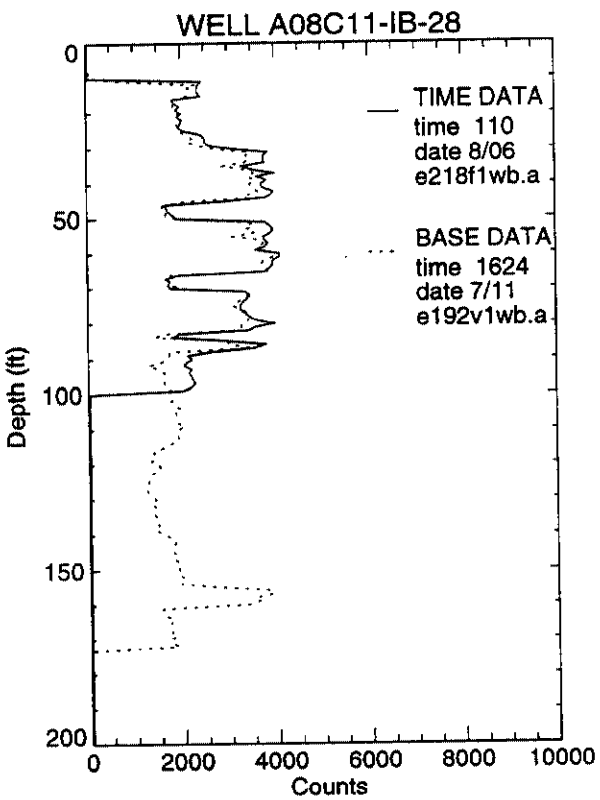
8000
10000


WELL A08C11-IB-28
TIME DATA
time 110
date 8/06
e218f1wb.a
BASE DATA
time 1624
date 7/11
e192v1wb.a
Depth (ft)
Counts
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0
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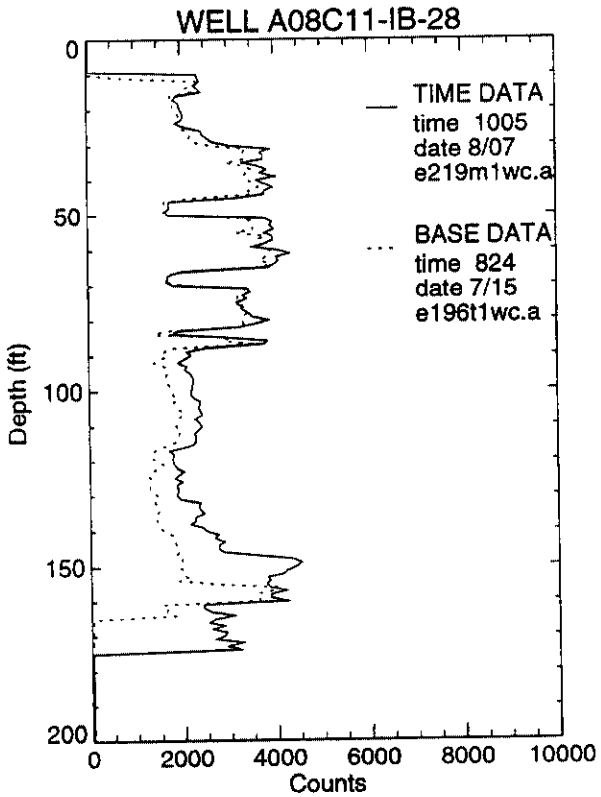
10000


WELL A08C11-IB-28
TIME DATA
time 1005
date 8/07
e219m1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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150
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0
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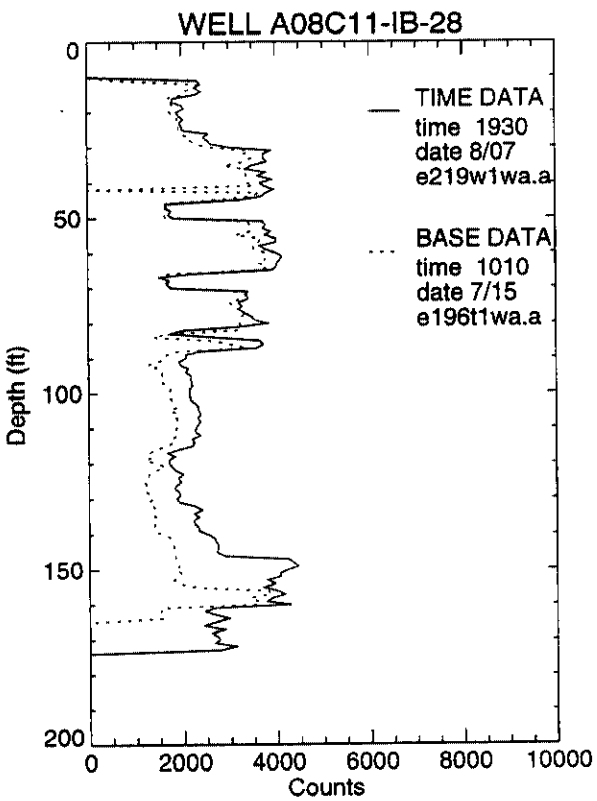
8000
10000


WELL A08C11-IB-28
TIME DATA
time 1930
date 8/07
e219w1wa.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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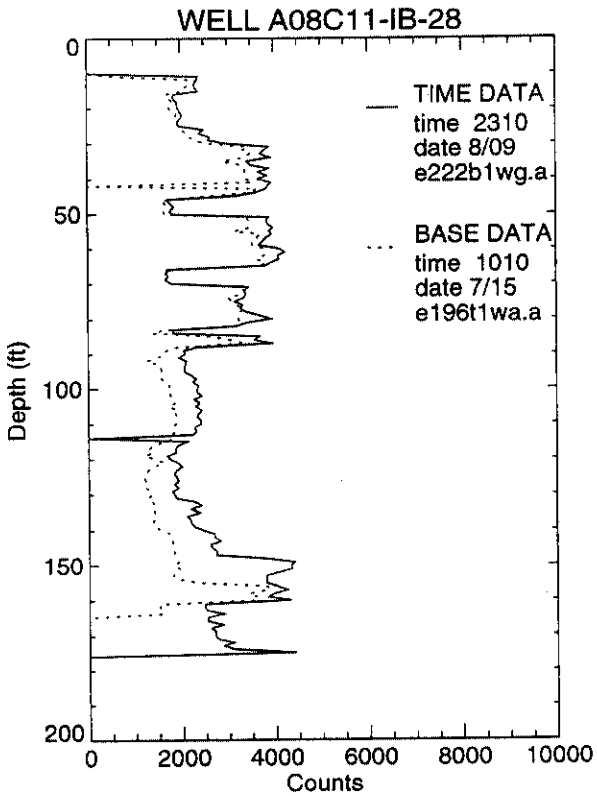
10000


WELL A08C11-IB-28
TIME DATA
time 2310
date 8/09
e222b1wg.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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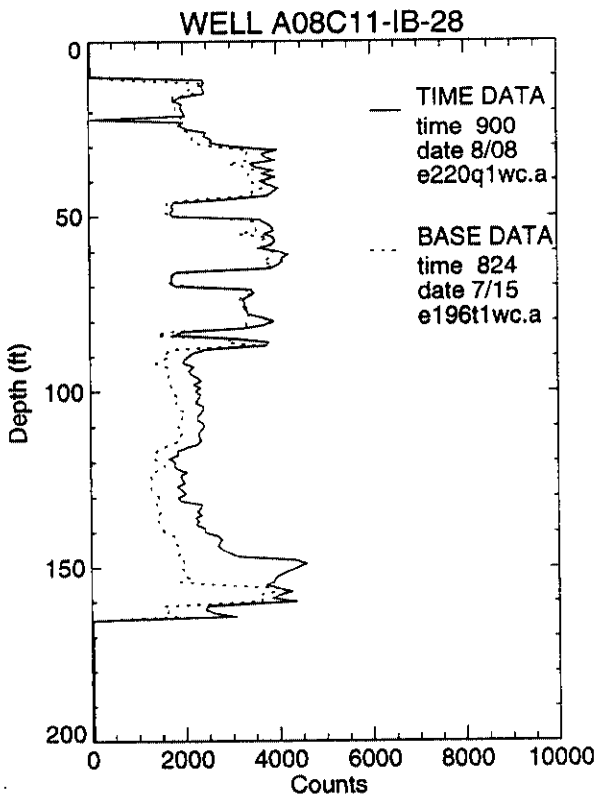
8000
10000


WELL A08C11-IB-28
TIME DATA
time 900
date 8/08
e220q1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts
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150
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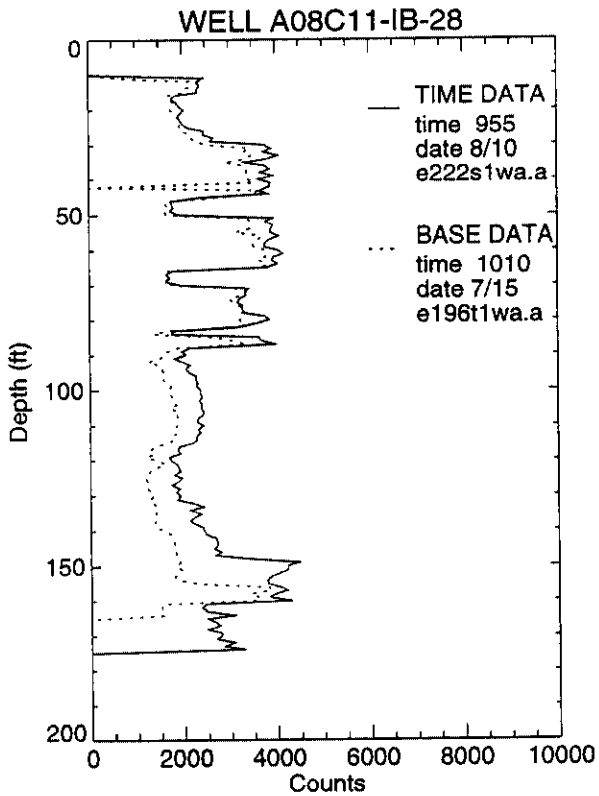
8000
10000


WELL A08C11-IB-28
TIME DATA
time 955
date 8/10
e222s1wa.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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150
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0
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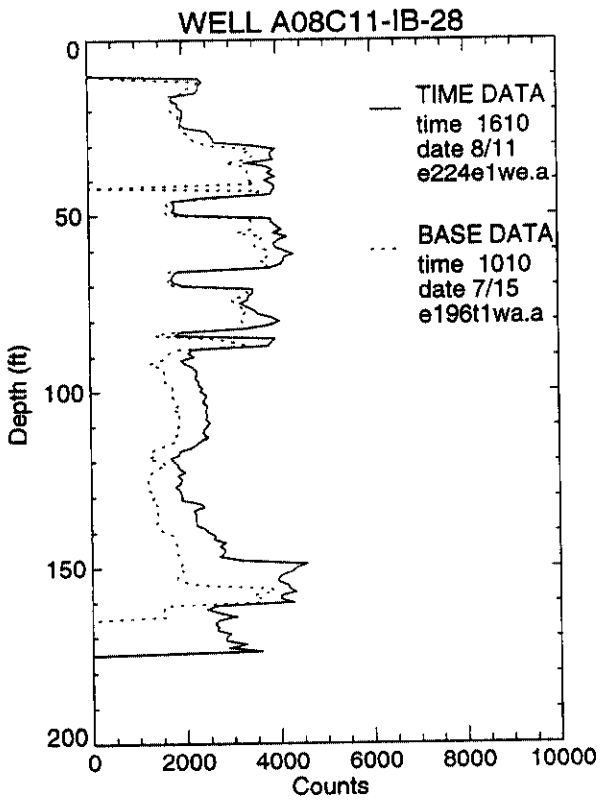
6000
8000
10000


WELL A08C11-IB-28
TIME DATA
time 1610
date 8/11
e224e1we.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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0
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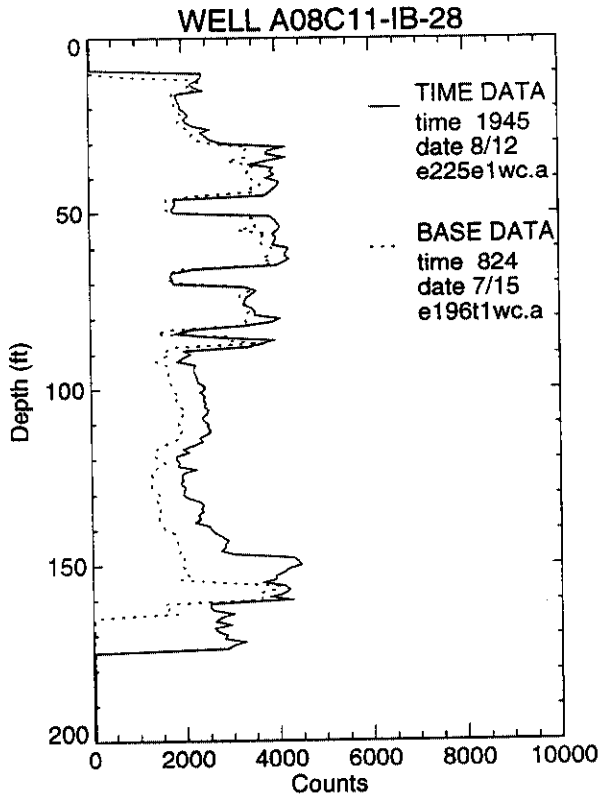
8000
10000


WELL A08C11-IB-28
TIME DATA
time 1945
date 8/12
e225e1wc.a
BASE DATA
time 824
date 7/15
e196t1wc.a
Depth (ft)
Counts
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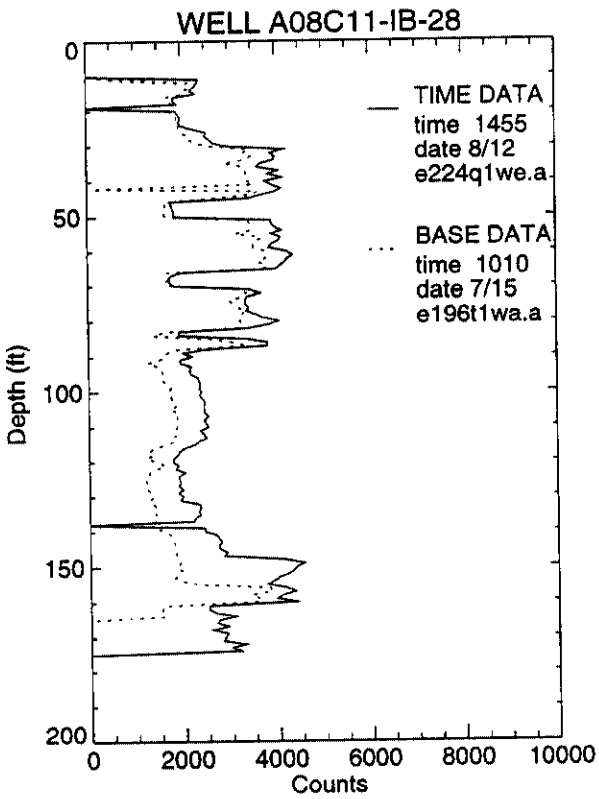
8000
10000


WELL A08C11-IB-28
TIME DATA
time 1455
date 8/12
e224q1we.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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150
200
0
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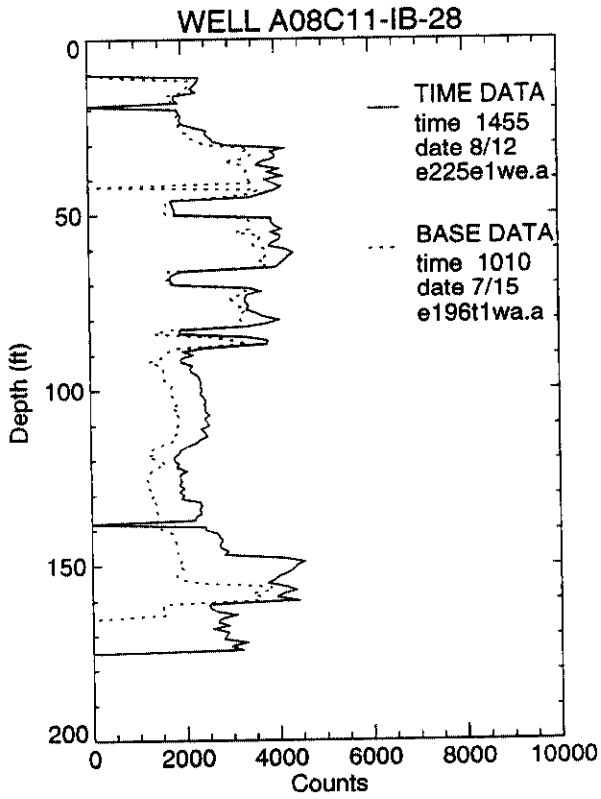
6000
8000
10000


WELL A08C11-IB-28
TIME DATA
time 1455
date 8/12
e225e1we.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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150
200
0
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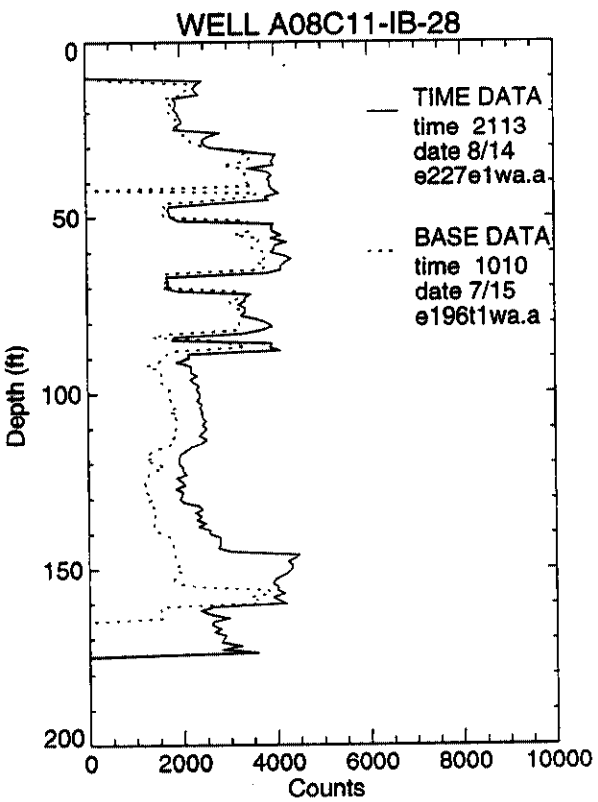
6000
8000
10000


WELL A08C11-IB-28
TIME DATA
time 2113
date 8/14
e227e1wa.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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0
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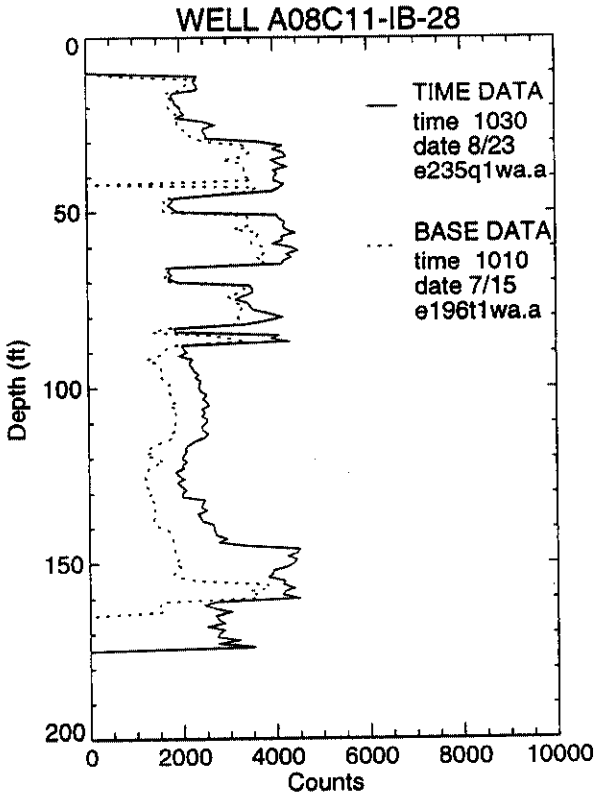
10000


WELL A08C11-IB-28
TIME DATA
time 1030
date 8/23
e235q1wa.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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150
200
0
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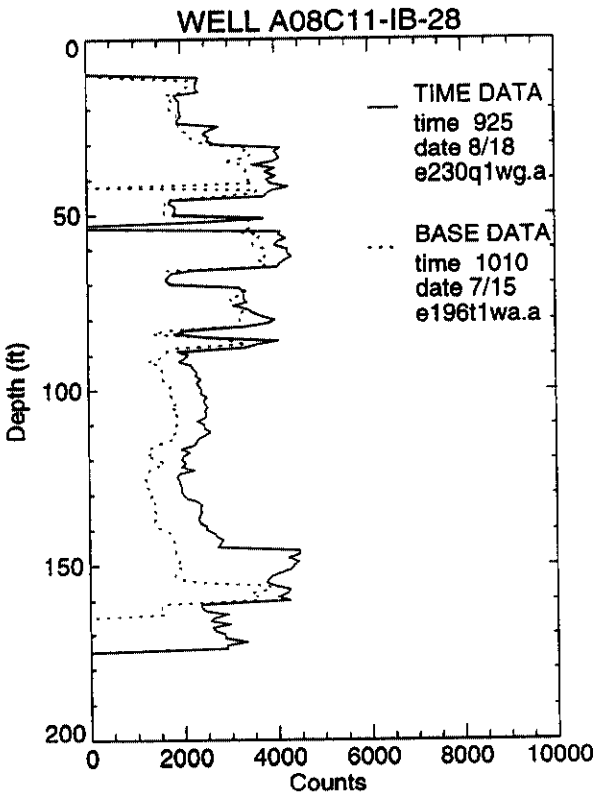
8000
10000


WELL A08C11-IB-28
TIME DATA
time 925
date 8/18
e230q1wg.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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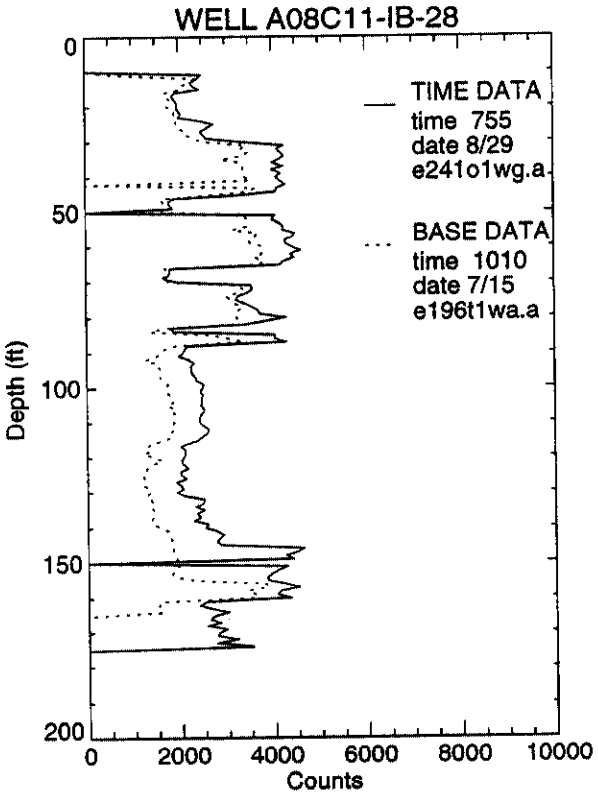
10000


WELL A08C11-IB-28
TIME DATA
time 755
date 8/29
e241o1wg.a
BASE DATA
time 1010
date 7/15
e196t1wa.a
Depth (ft)
Counts
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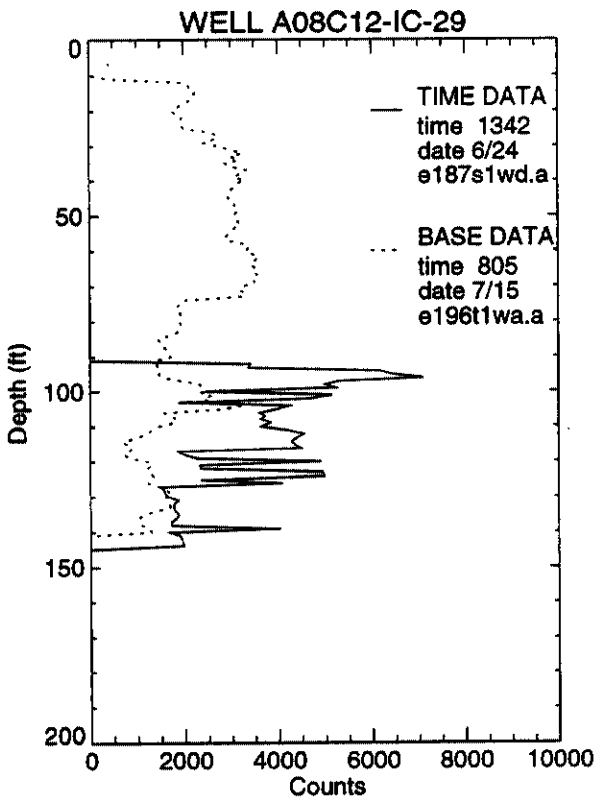
8000
10000


WELL A08C12-IC-29
TIME DATA
time 1342
date 6/24
e187s1wd.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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100
150
200
0
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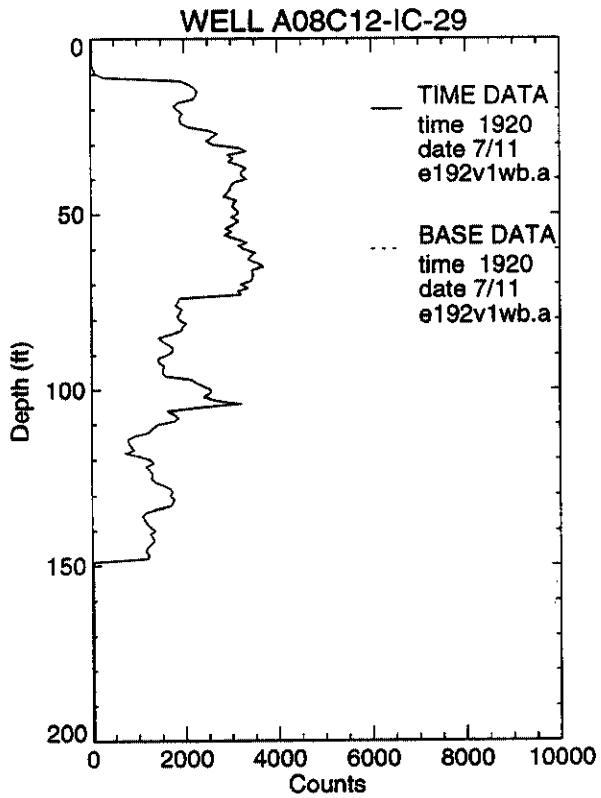
10000


WELL A08C12-IC-29
TIME DATA
time 1920
date 7/11
e192v1wb.a
BASE DATA
time 1920
date 7/11
e192v1wb.a
Depth (ft)
Counts
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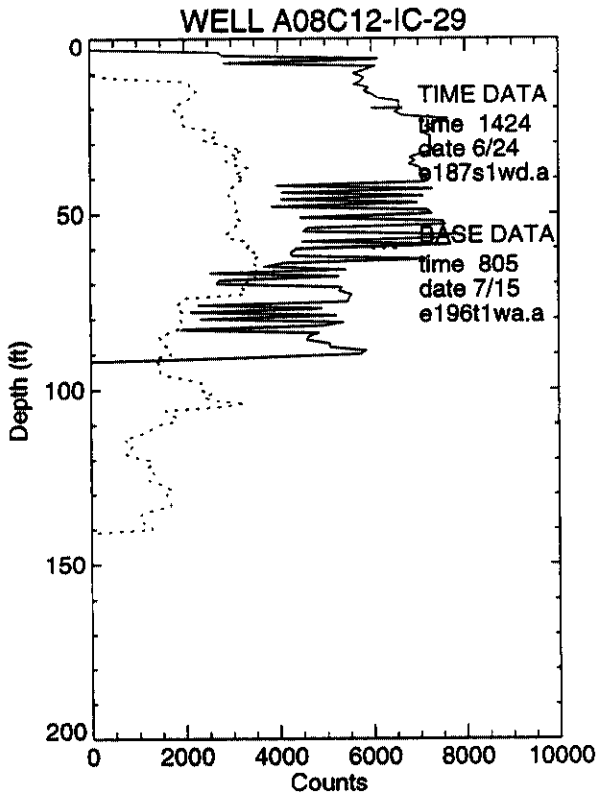
WELL A08C12-IC-29
TIME DATA
time 1424
date 6/24
e187s1wd.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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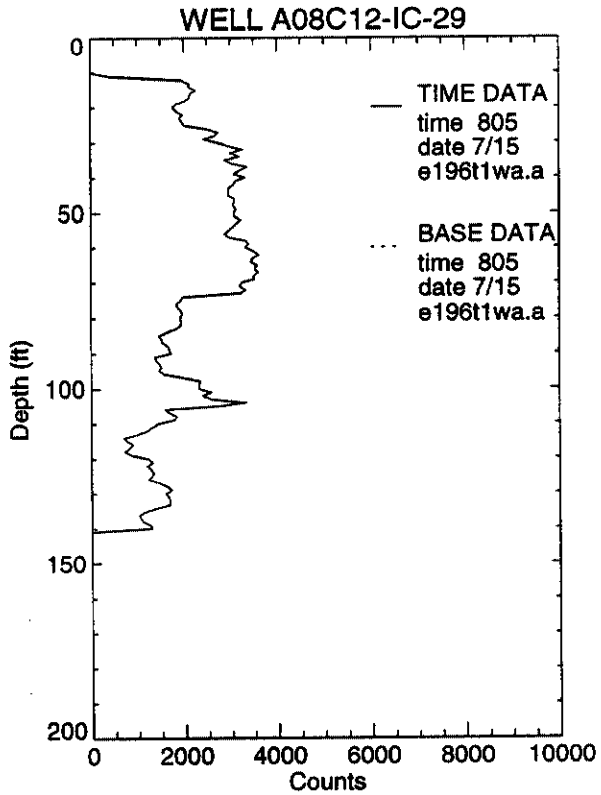
WELL A08C12-IC-29
TIME DATA
time 805
date 7/15
e196t1wa.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
50
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6000
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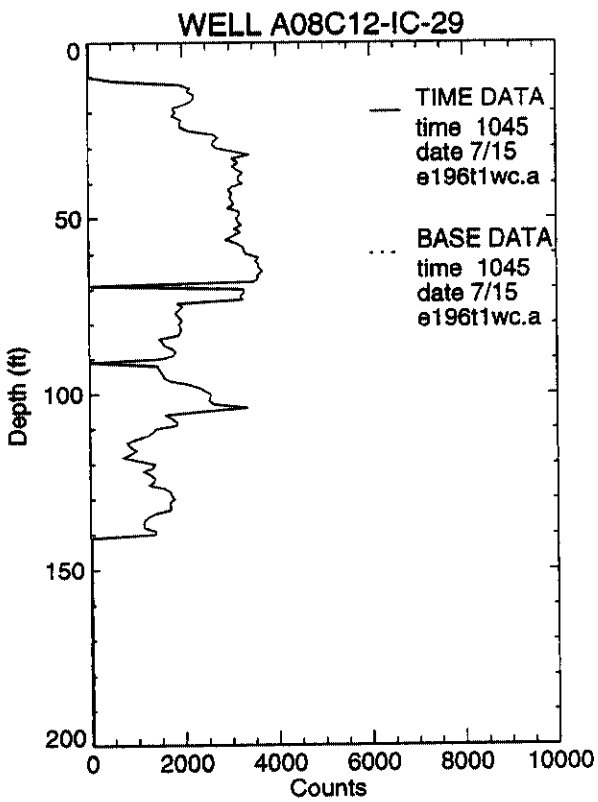
WELL A08C12-IC-29
TIME DATA
time 1045
date 7/15
e196t1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
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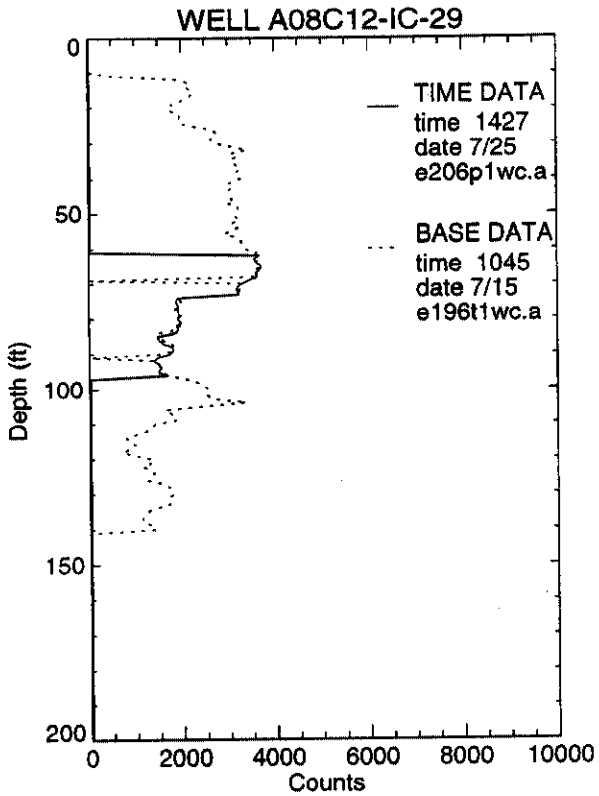
WELL A08C12-IC-29
TIME DATA
time 1427
date 7/25
e206p1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
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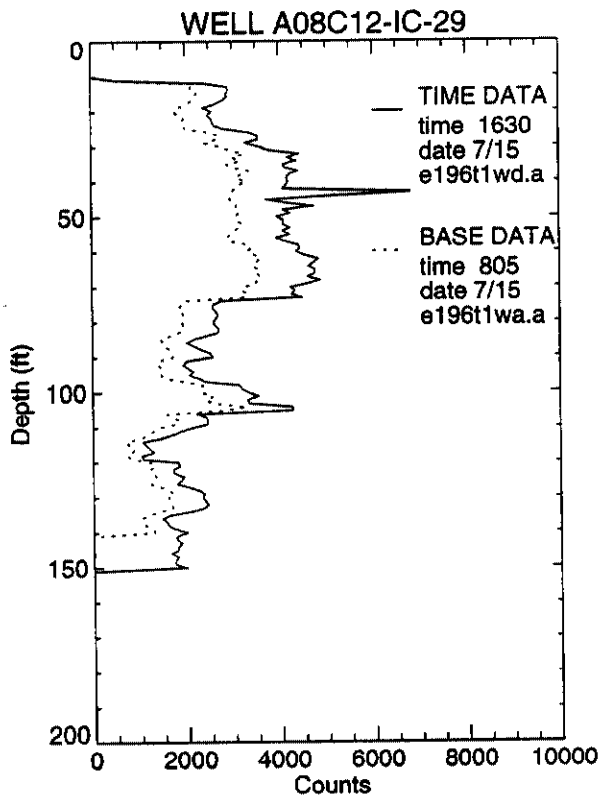
WELL A08C12-IC-29
TIME DATA
time 1630
date 7/15
e196t1wd.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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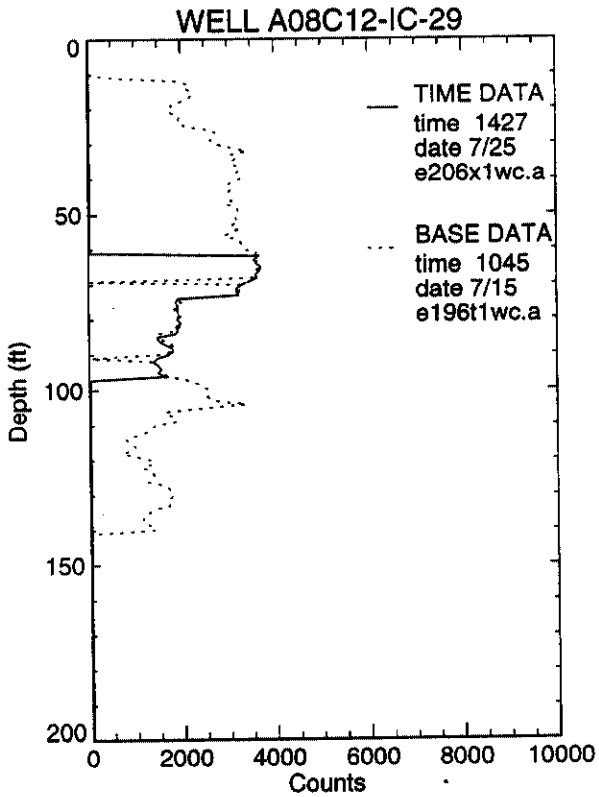
WELL A08C12-IC-29
TIME DATA
time 1427
date 7/25
e206x1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
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0
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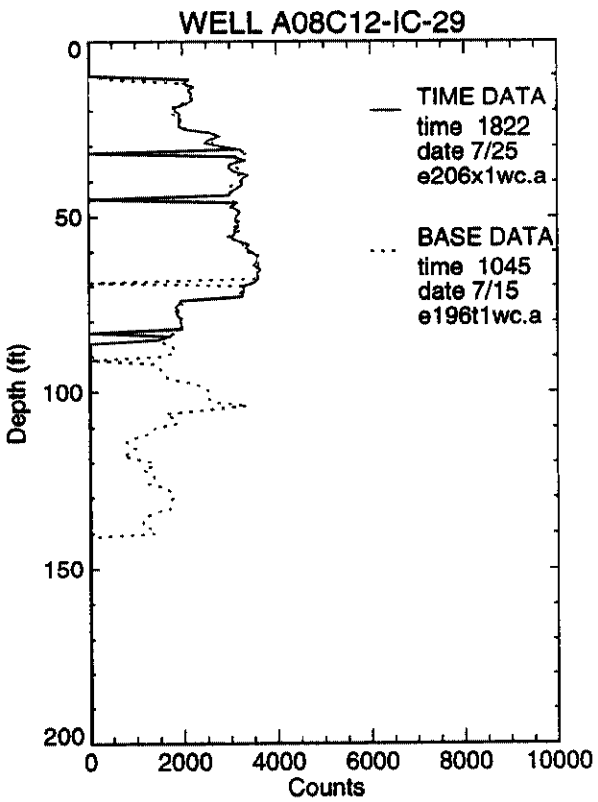
WELL A08C12-IC-29
TIME DATA
time 1822
date 7/25
e206x1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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150
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0
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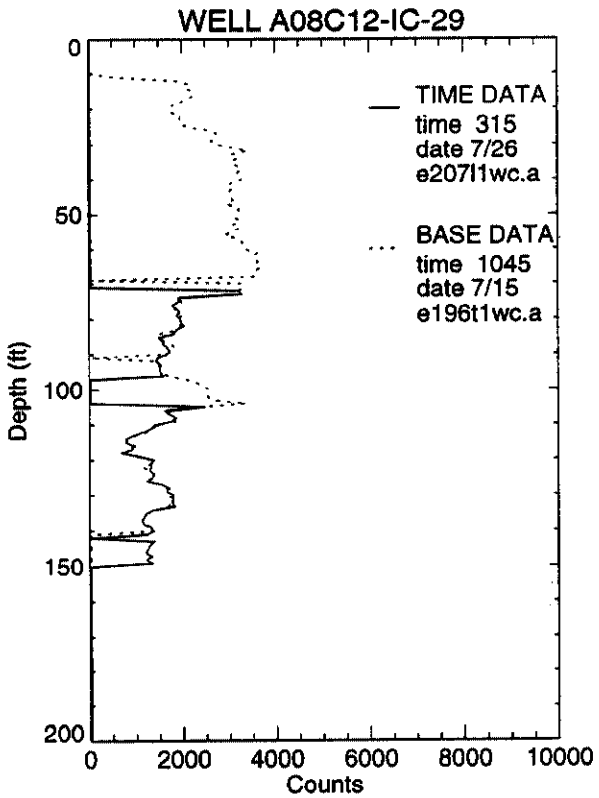
4000
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 315
date 7/26
e207l1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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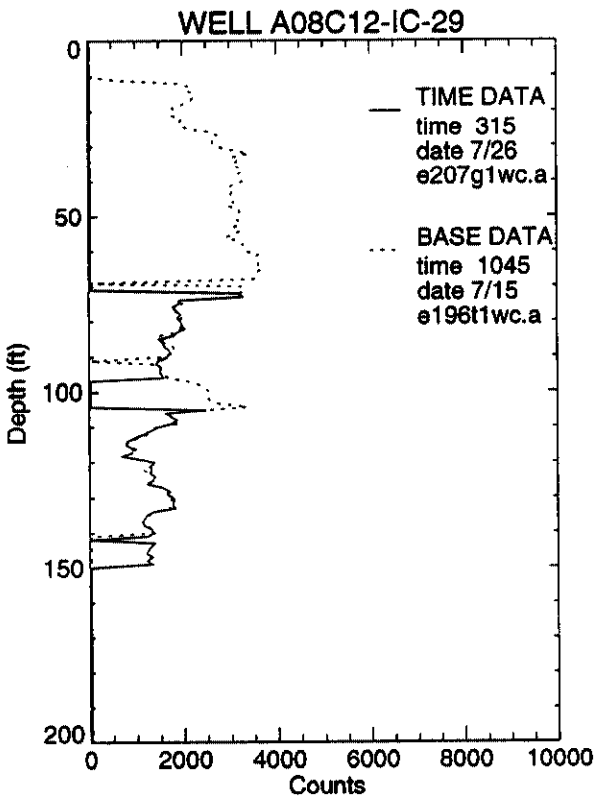
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 315
date 7/26
e207g1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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100
150
200
0
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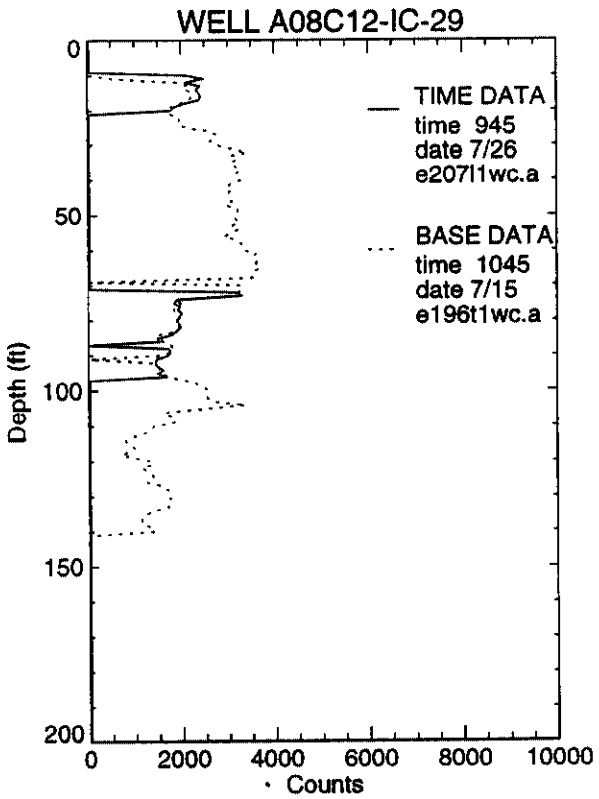
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 945
date 7/26
e207l1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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100
150
200
0
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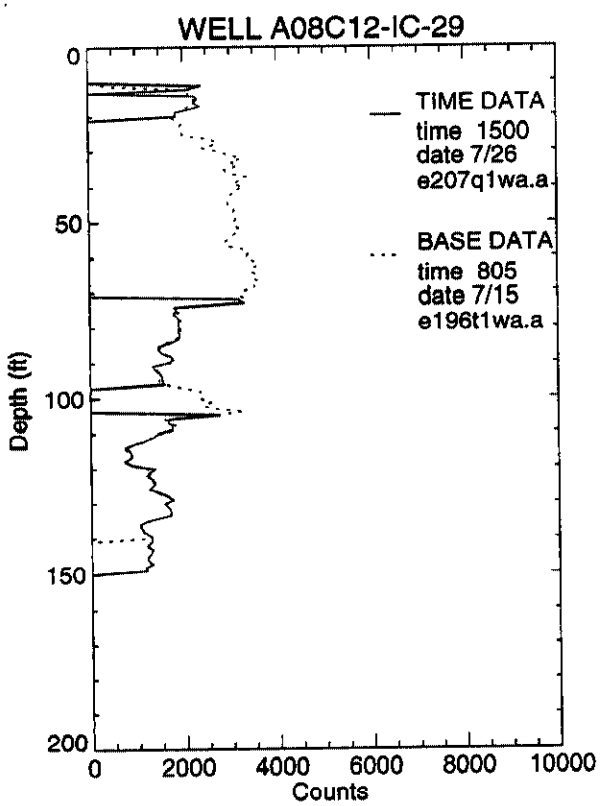
4000
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 1500
date 7/26
e207q1wa.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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150
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0
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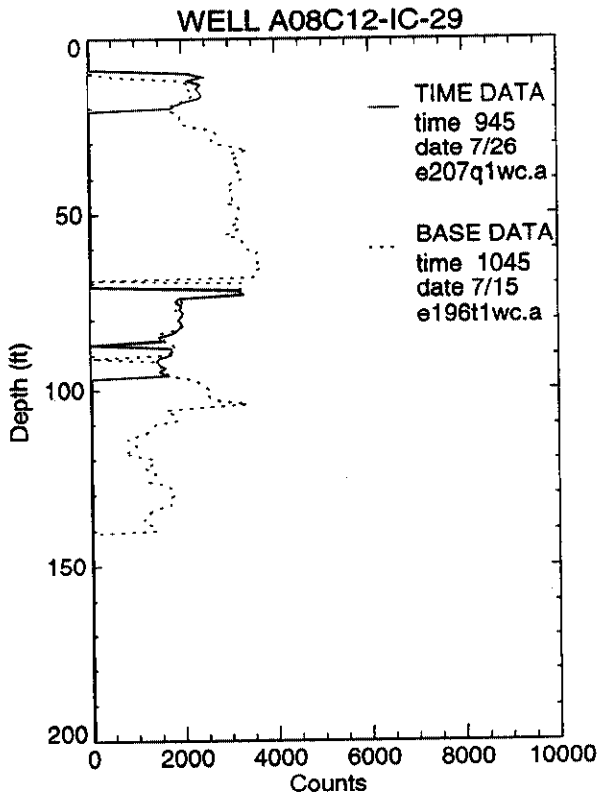
8000
10000


WELL A08C12-IC-29
TIME DATA
time 945
date 7/26
e207q1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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100
150
200
0
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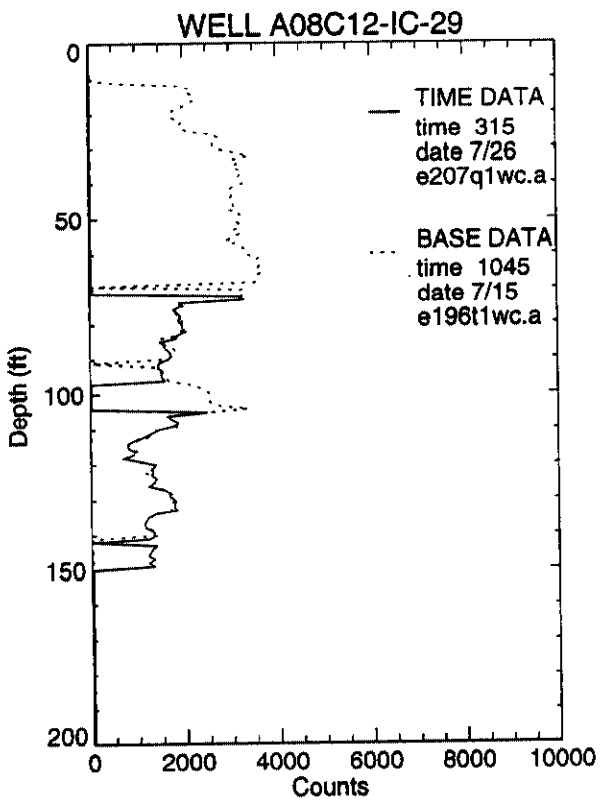
4000
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 315
date 7/26
e207q1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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100
150
200
0
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4000
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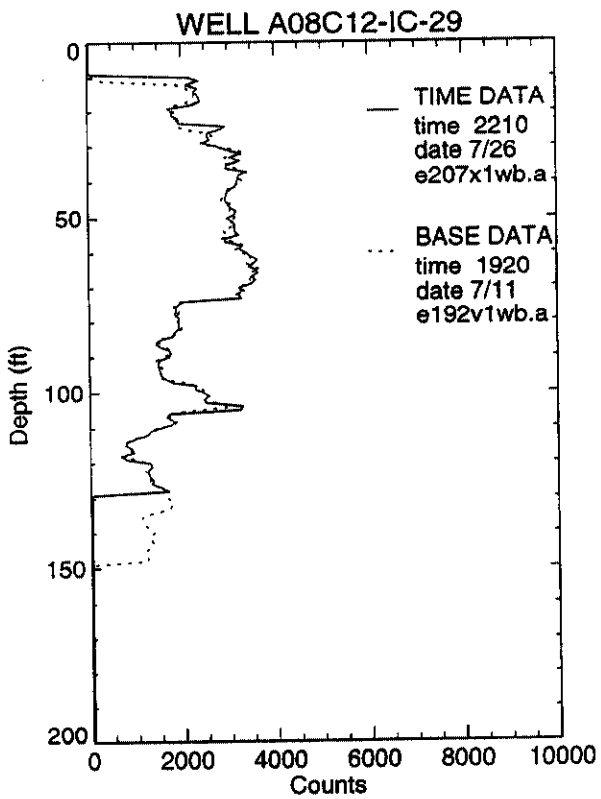
8000
10000


WELL A08C12-IC-29
TIME DATA
time 2210
date 7/26
e207x1wb.a
BASE DATA
time 1920
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
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150
200
0
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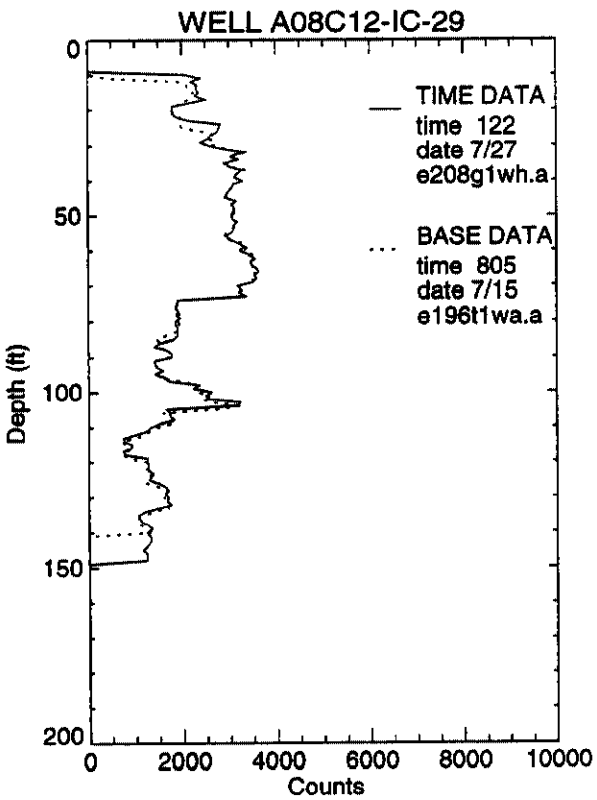
4000
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 122
date 7/27
e208g1wh.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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150
200
0
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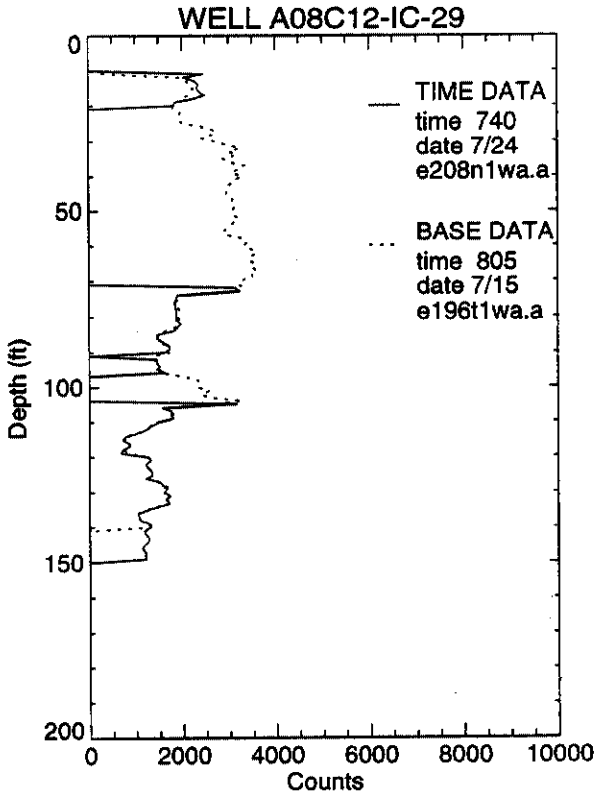
4000
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 740
date 7/24
e208n1wa.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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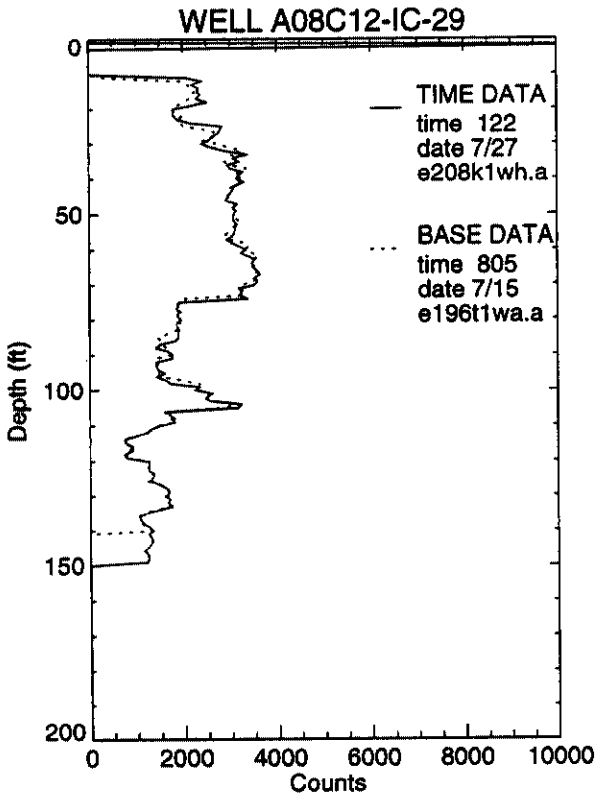
8000
10000


WELL A08C12-IC-29
TIME DATA
time 122
date 7/27
e208k1wh.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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150
200
0
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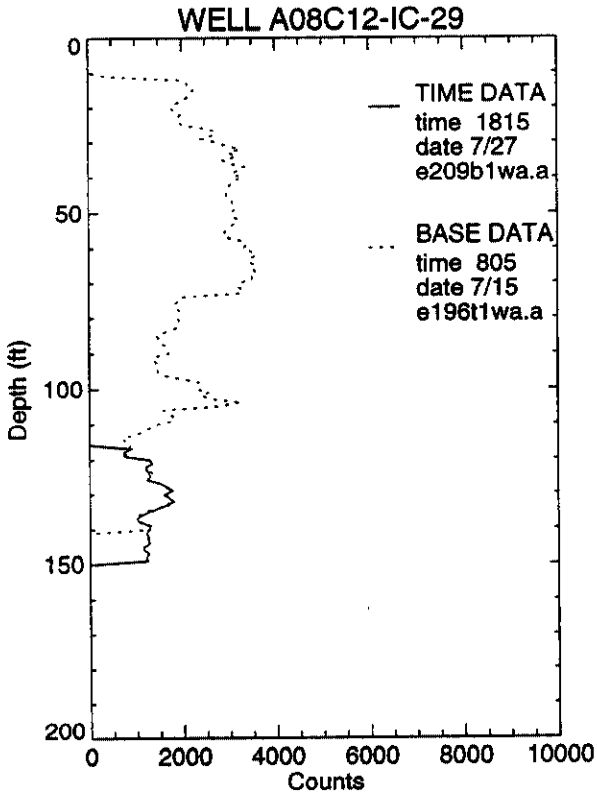
8000
10000


WELL A08C12-IC-29
TIME DATA
time 1815
date 7/27
e209b1wa.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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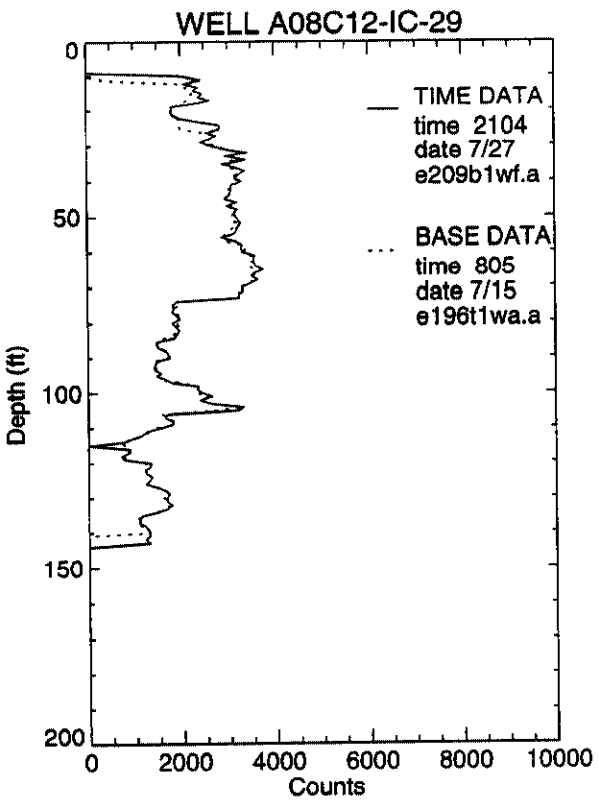
4000
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 2104
date 7/27
e209b1wf.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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150
200
0
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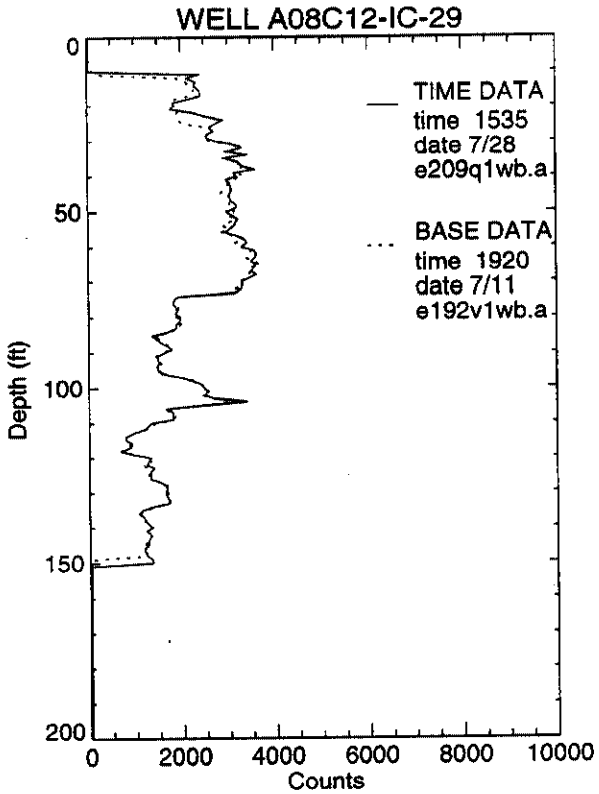
4000
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 1535
date 7/28
e209q1wb.a
BASE DATA
time 1920
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
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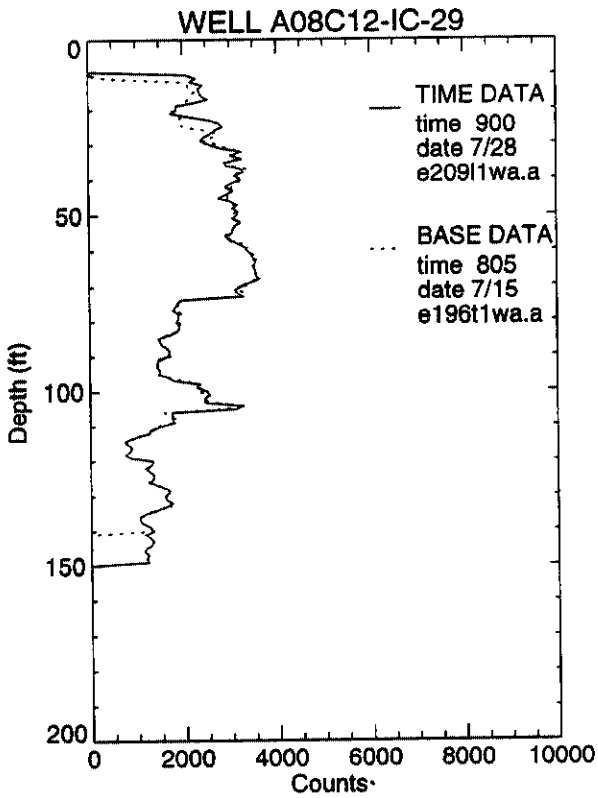
100
150
200
0
2000
4000
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 900
date 7/28
e209l1wa.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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0
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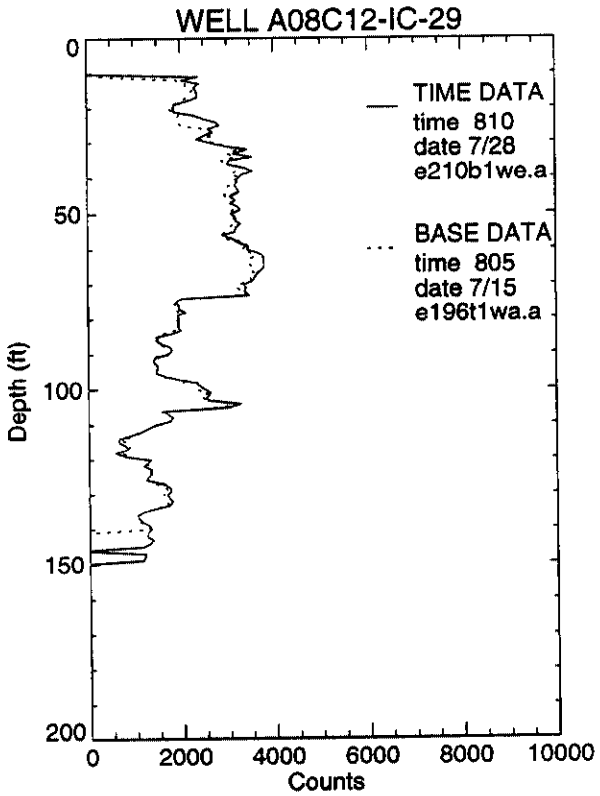
8000
10000


WELL A08C12-IC-29
TIME DATA
time 810
date 7/28
e210b1we.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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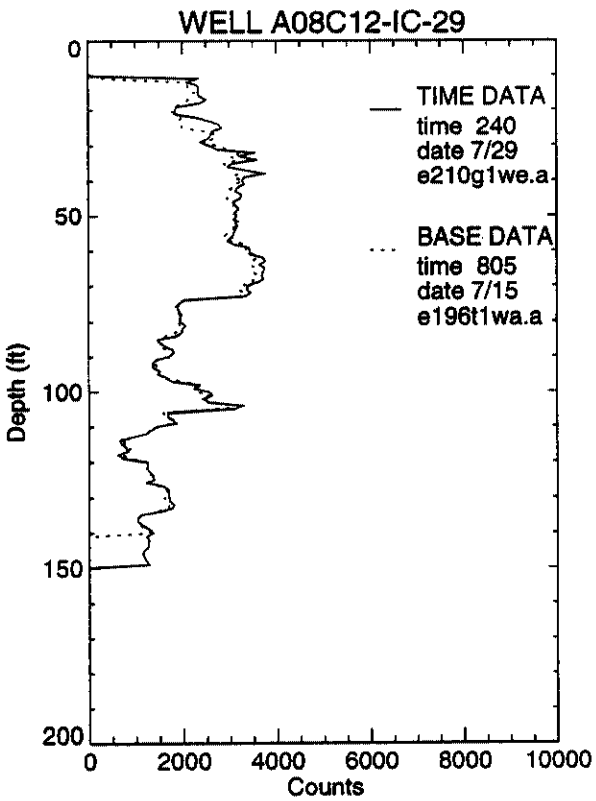
8000
10000


WELL A08C12-IC-29
TIME DATA
time 240
date 7/29
e210g1we.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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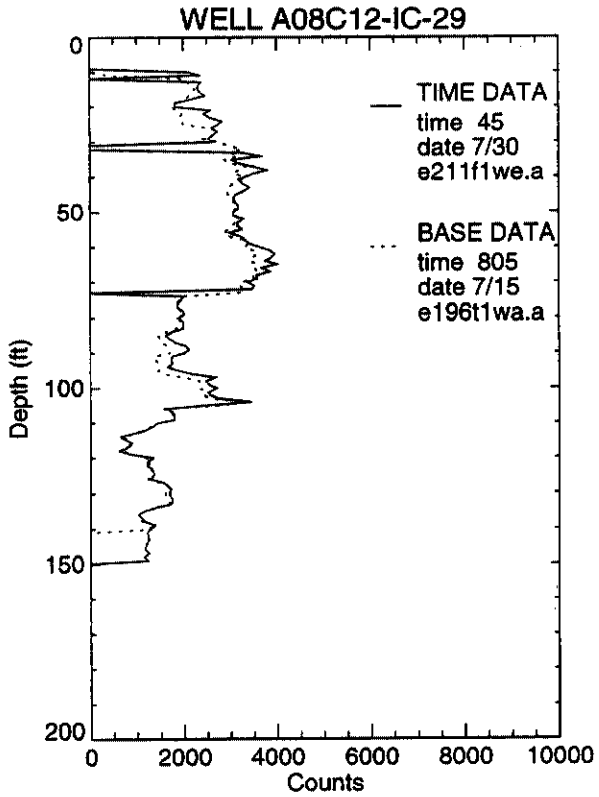
10000


WELL A08C12-IC-29
TIME DATA
time 45
date 7/30
e211f1we.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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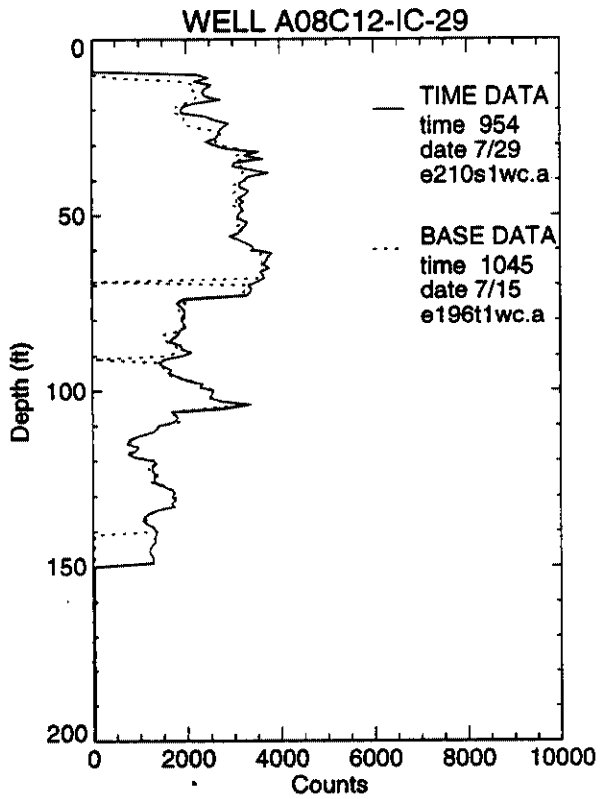
8000
10000


WELL A08C12-IC-29
TIME DATA
time 954
date 7/29
e210s1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
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0
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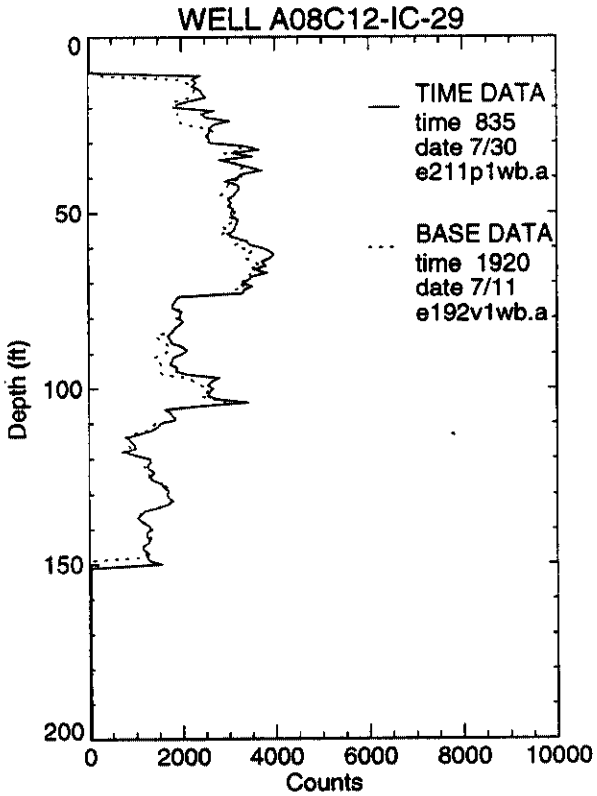
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 835
date 7/30
e211p1wb.a
BASE DATA
time 1920
date 7/11
e192v1wb.a
Depth (ft)
Counts
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0
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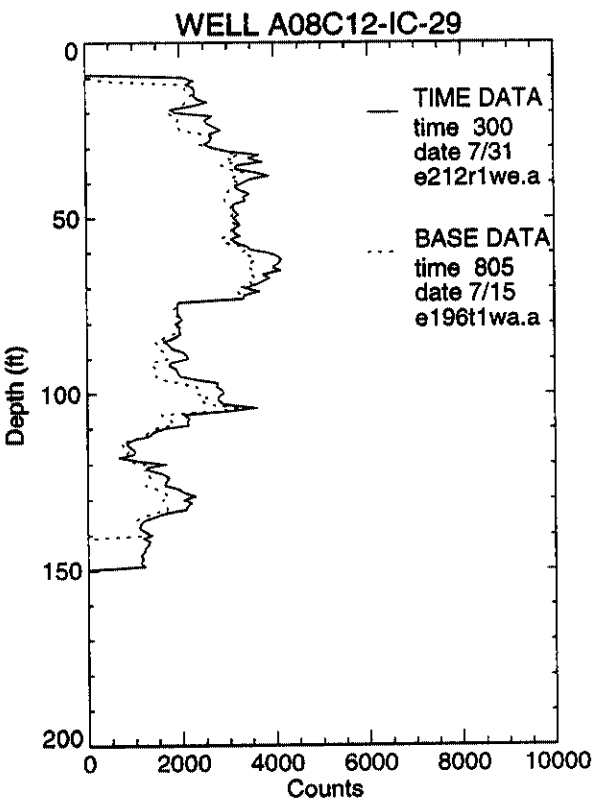
8000
10000


WELL A08C12-IC-29
TIME DATA
time 300
date 7/31
e212r1we.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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0
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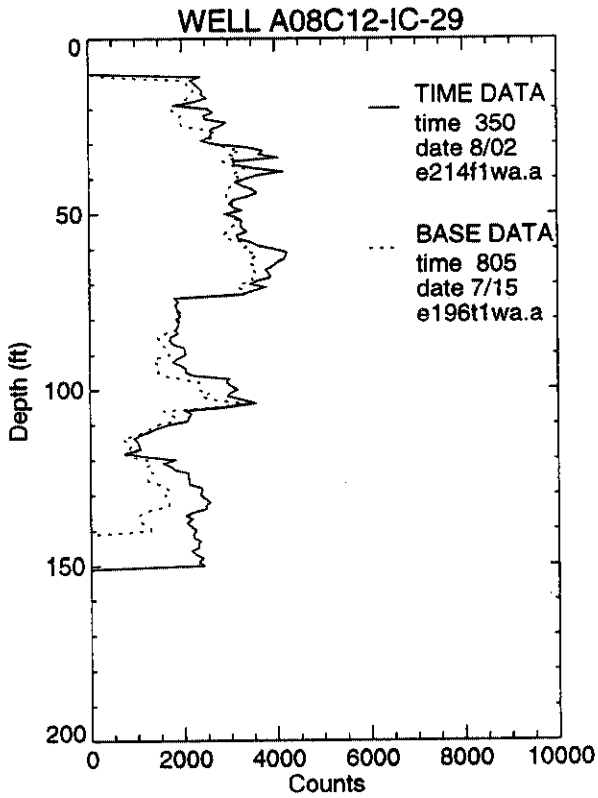
4000
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 350
date 8/02
e214f1wa.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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200
0
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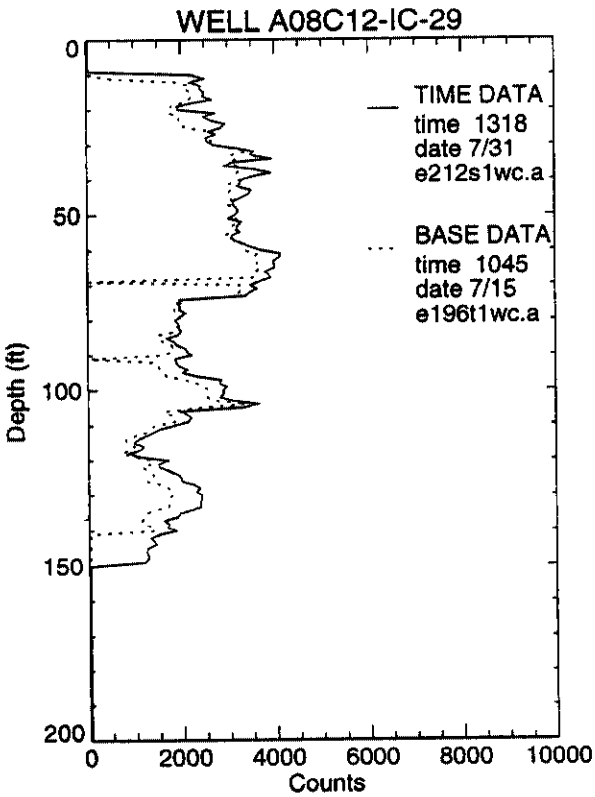
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 1318
date 7/31
e212s1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
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0
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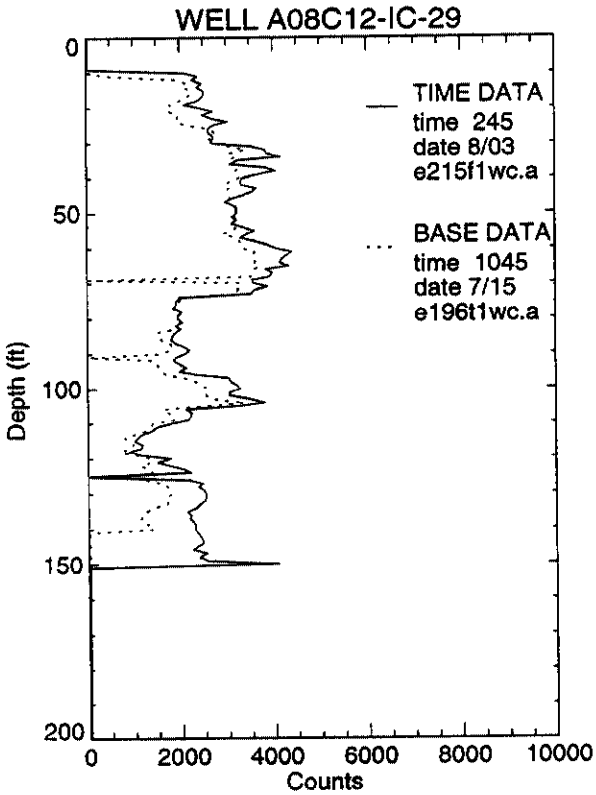
4000
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 245
date 8/03
e215f1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
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0
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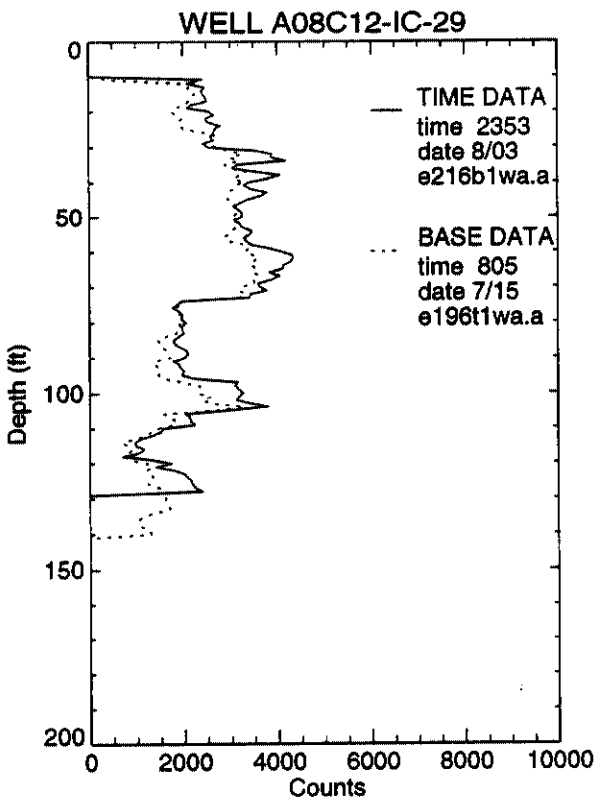
8000
10000


WELL A08C12-IC-29
TIME DATA
time 2353
date 8/03
e216b1wa.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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100
150
200
0
2000
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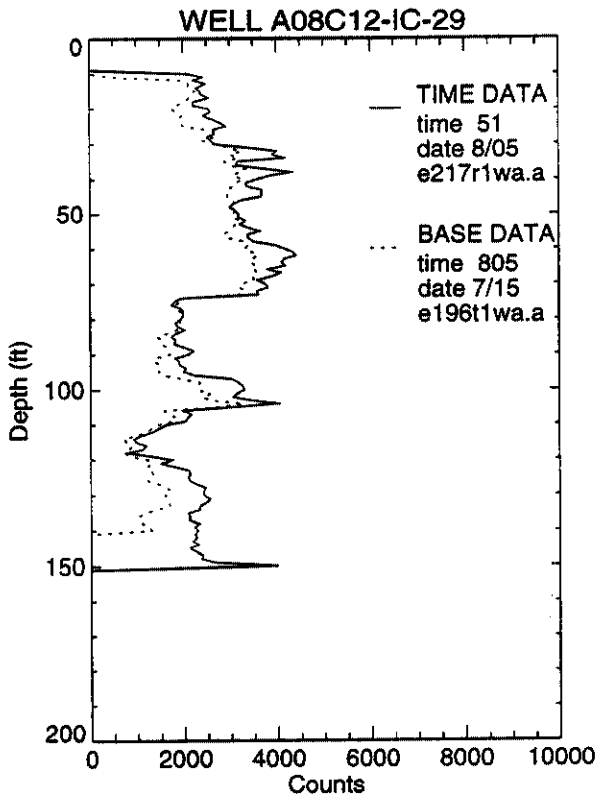
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 51
date 8/05
e217r1wa.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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0
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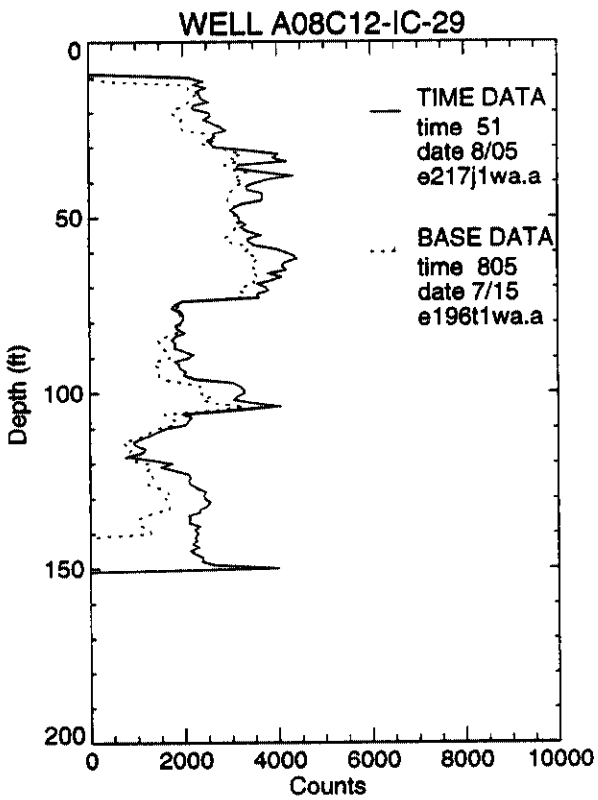
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 51
date 8/05
e217j1wa.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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150
200
0
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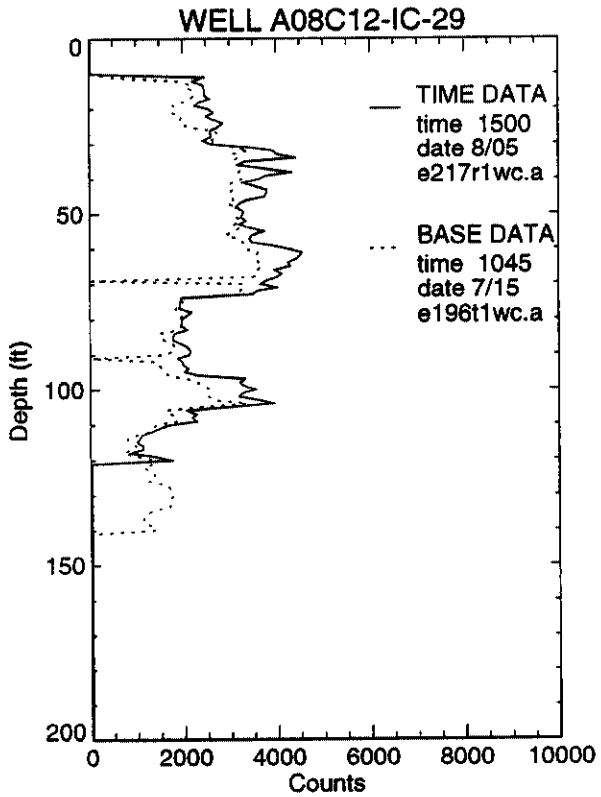
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 1500
date 8/05
e217r1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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150
200
0
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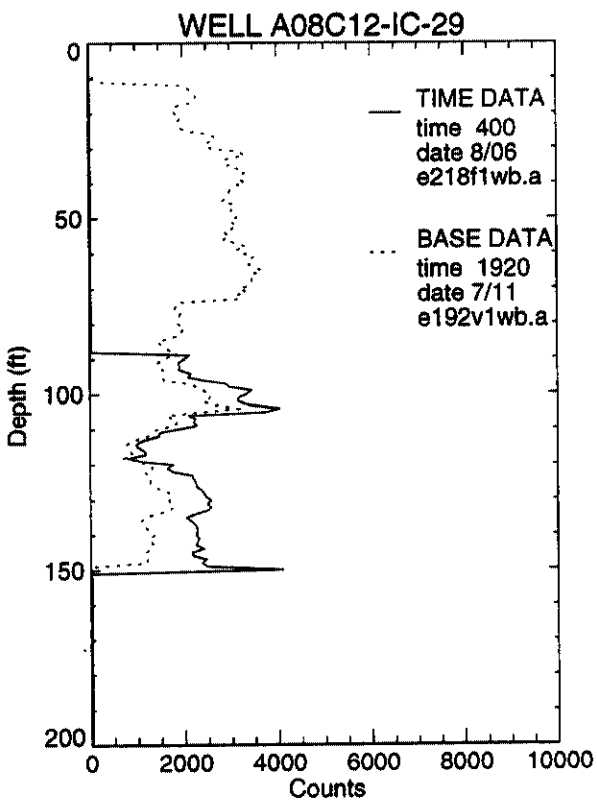
4000
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 400
date 8/06
e218f1wb.a
BASE DATA
time 1920
date 7/11
e192v1wb.a
Depth (ft)
Counts
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200
0
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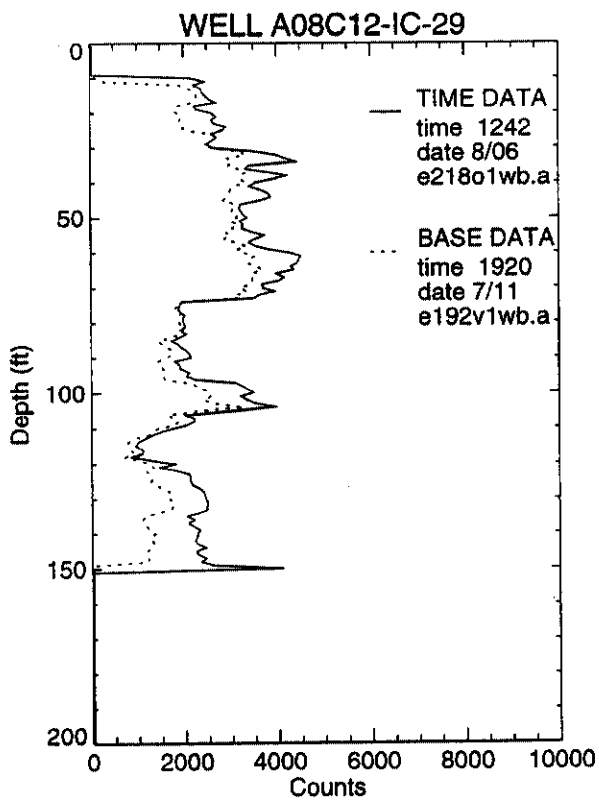
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 1242
date 8/06
e218o1wb.a
BASE DATA
time 1920
date 7/11
e192v1wb.a
Depth (ft)
Counts
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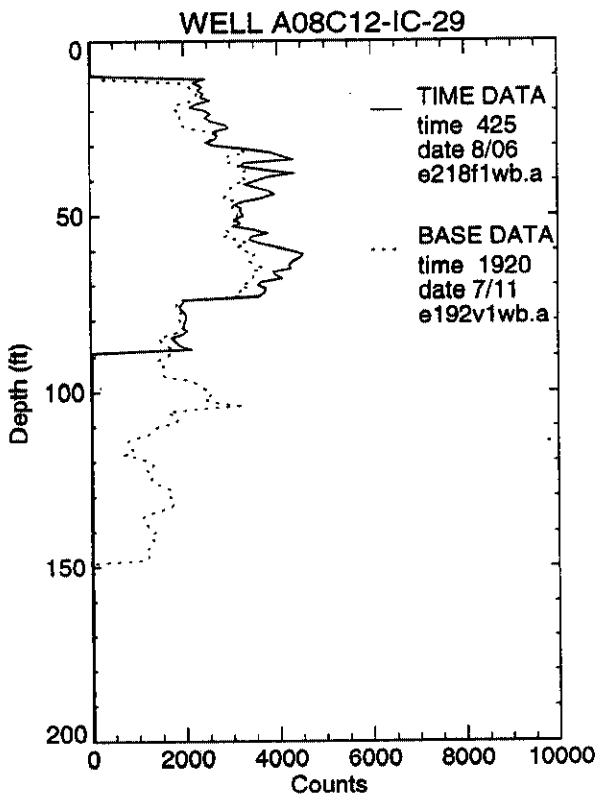
150
200
0
2000
4000
6000
8000
10000


WELL A08C12-IC-29
TIME DATA
time 425
date 8/06
e218f1wb.a
BASE DATA
time 1920
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
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100
150
200
0
2000
4000
6000
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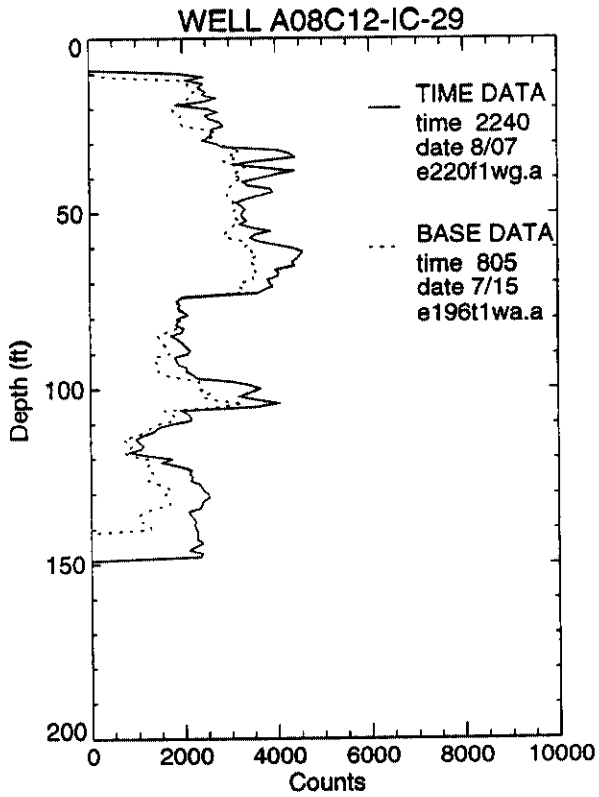
WELL A08C12-IC-29
TIME DATA
time 2240
date 8/07
e220f1wg.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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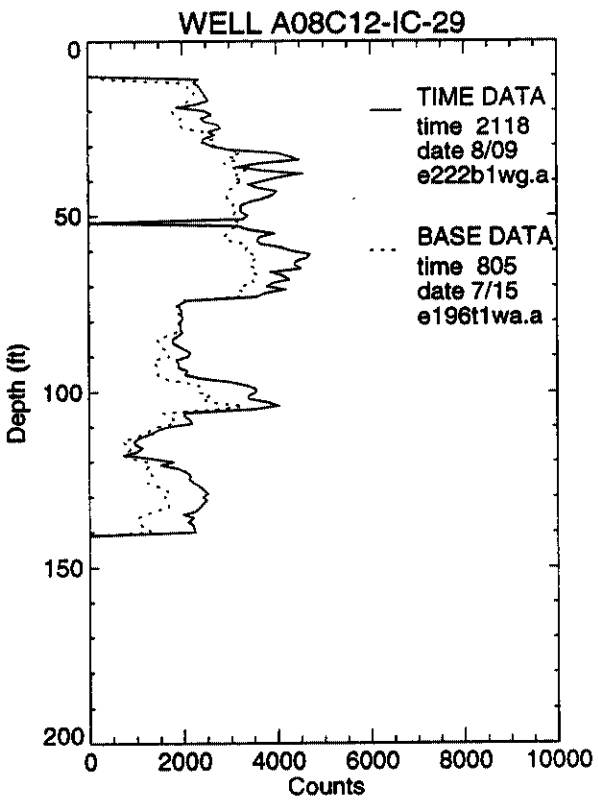
WELL A08C12-IC-29
TIME DATA
time 2118
date 8/09
e222b1wg.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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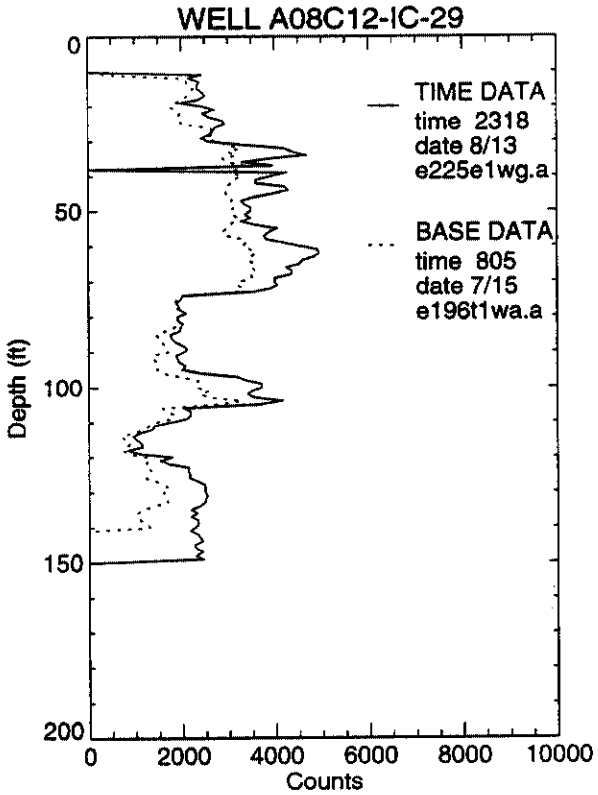
WELL A08C12-IC-29
TIME DATA
time 2318
date 8/13
e225e1wg.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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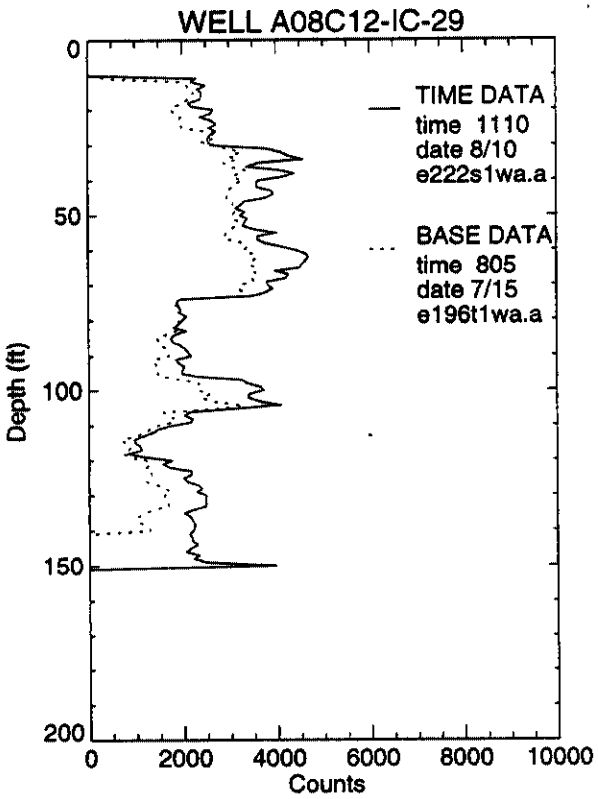
WELL A08C12-IC-29
TIME DATA
time 1110
date 8/10
e222s1wa.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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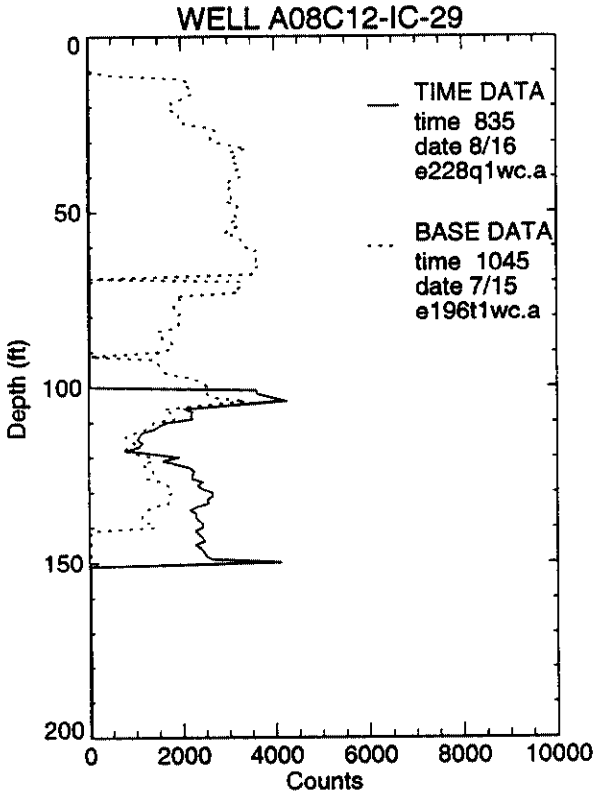
WELL A08C12-IC-29
TIME DATA
time 835
date 8/16
e228q1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
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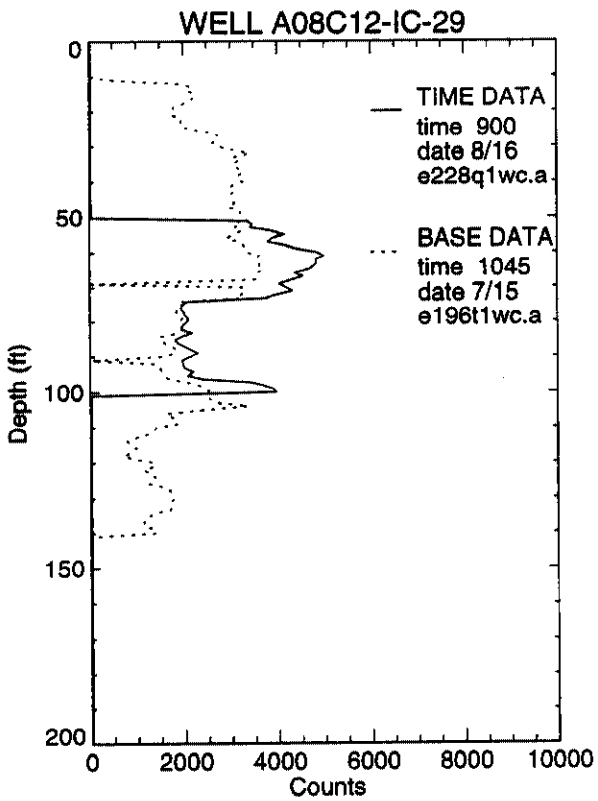
WELL A08C12-IC-29
TIME DATA
time 900
date 8/16
e228q1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
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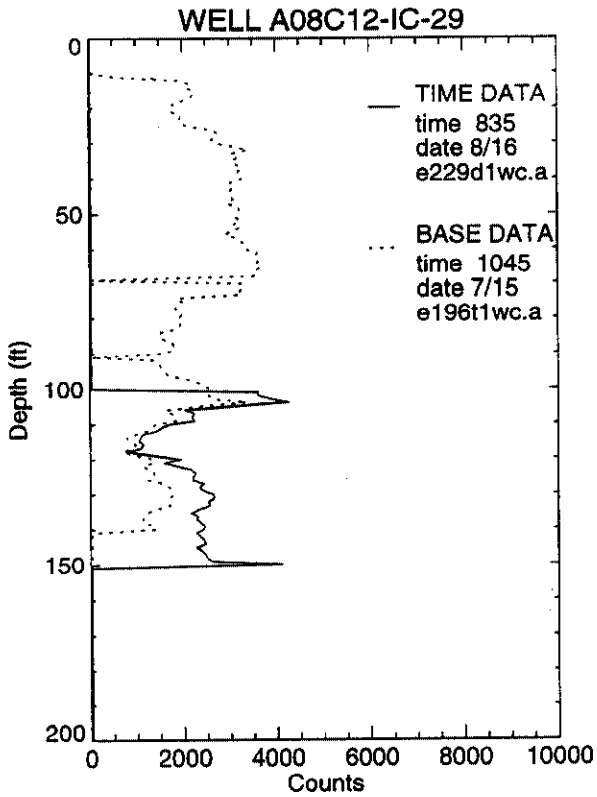
WELL A08C12-IC-29
TIME DATA
time 835
date 8/16
e229d1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
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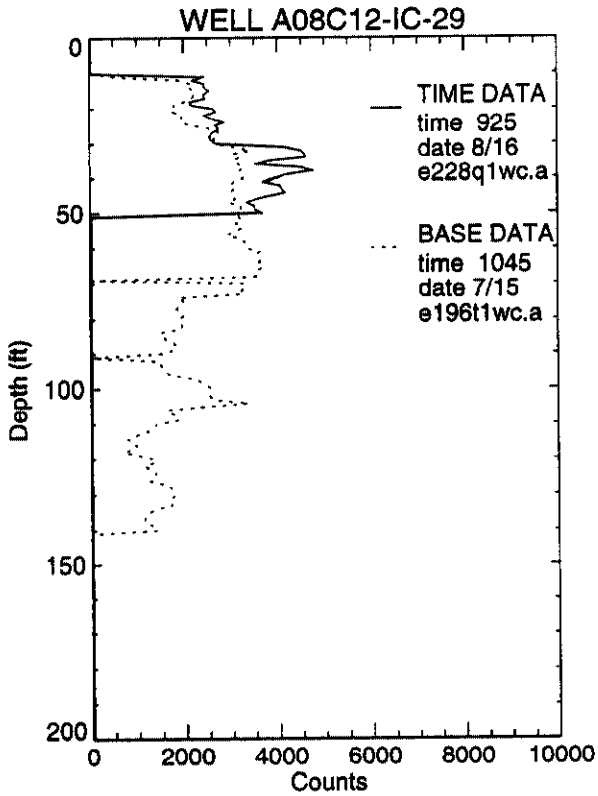
WELL A08C12-IC-29
TIME DATA
time 925
date 8/16
e228q1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
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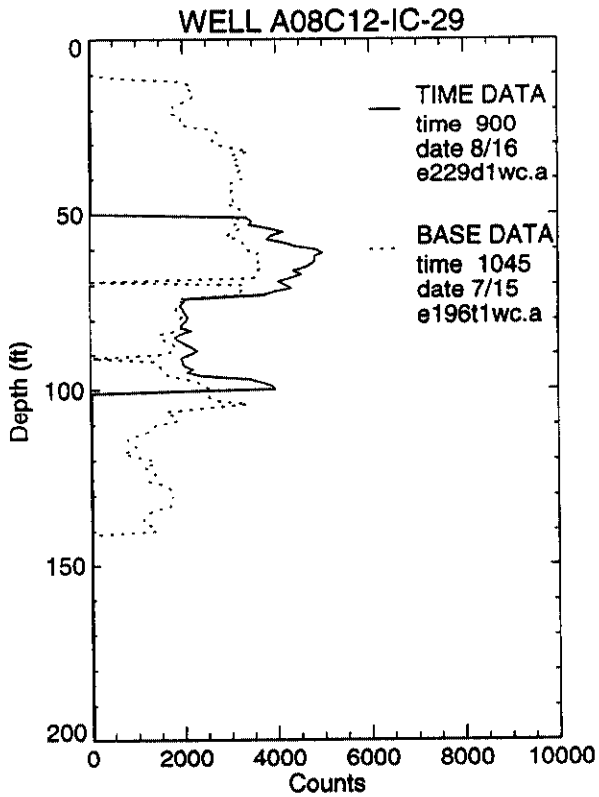
WELL A08C12-IC-29
TIME DATA
time 900
date 8/16
e229d1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
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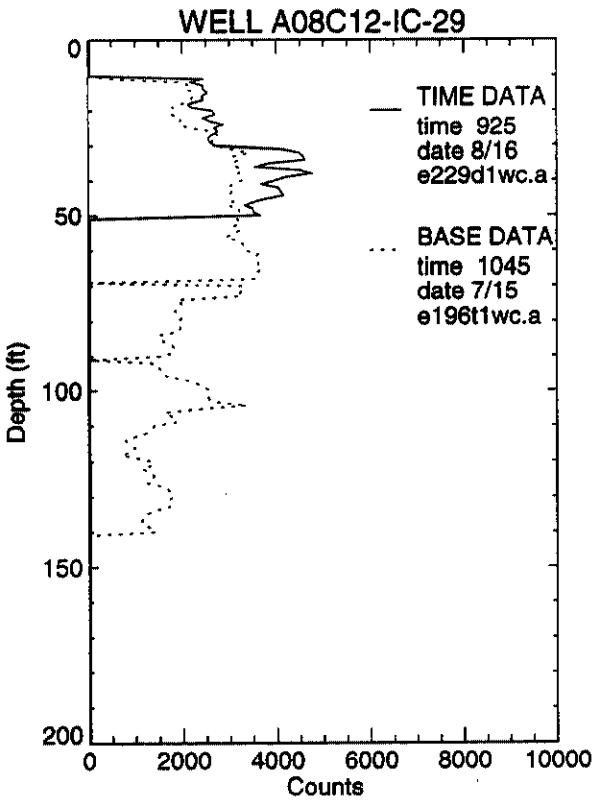
WELL A08C12-IC-29
TIME DATA
time 925
date 8/16
e229d1wc.a
BASE DATA
time 1045
date 7/15
e196t1wc.a
Depth (ft)
Counts
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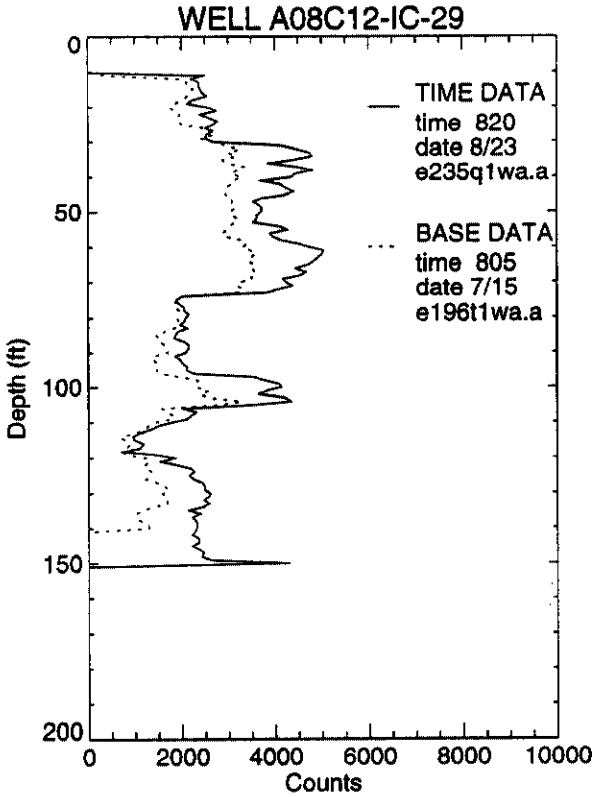
WELL A08C12-IC-29
TIME DATA
time 820
date 8/23
e235q1wa.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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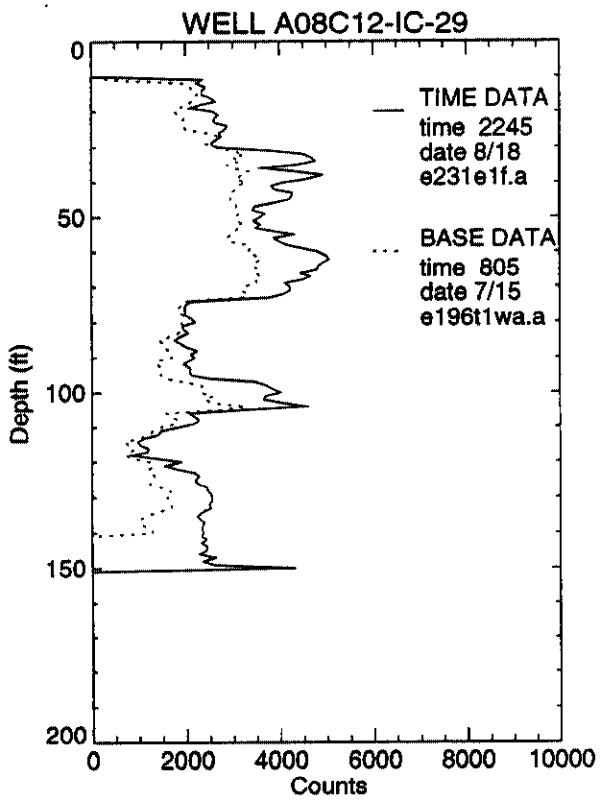
WELL A08C12-IC-29
TIME DATA
time 2245
date 8/18
e231e1f.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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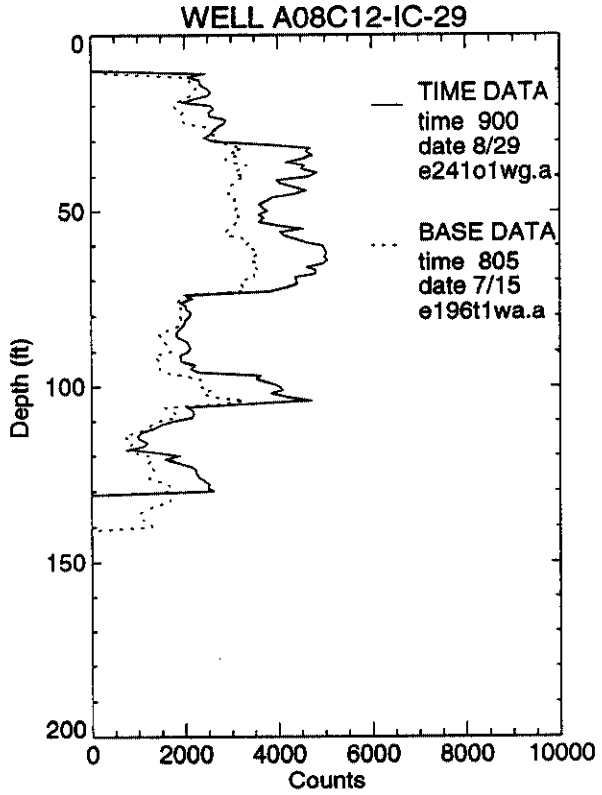
WELL A08C12-IC-29
TIME DATA
time 900
date 8/29
e241o1wg.a
BASE DATA
time 805
date 7/15
e196t1wa.a
Depth (ft)
Counts
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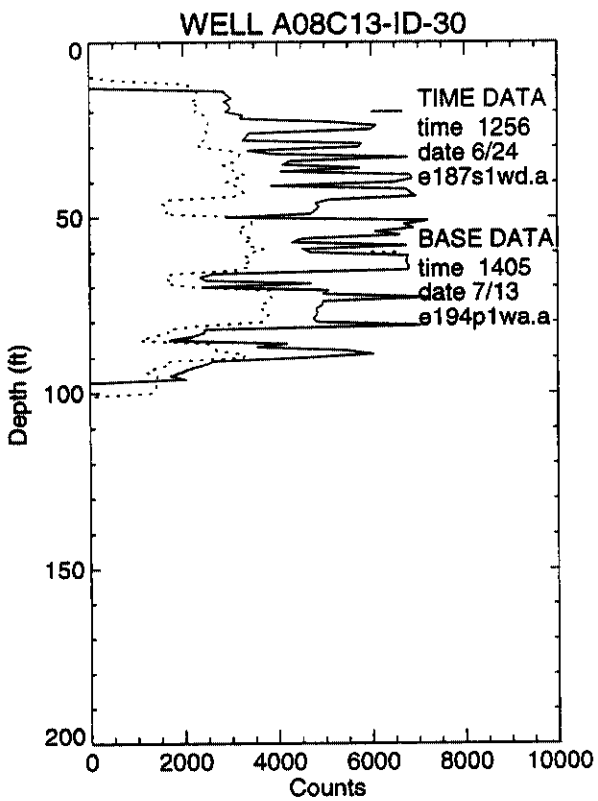
WELL A08C13-ID-30
TIME DATA
time 1256
date 6/24
e187s1wd.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
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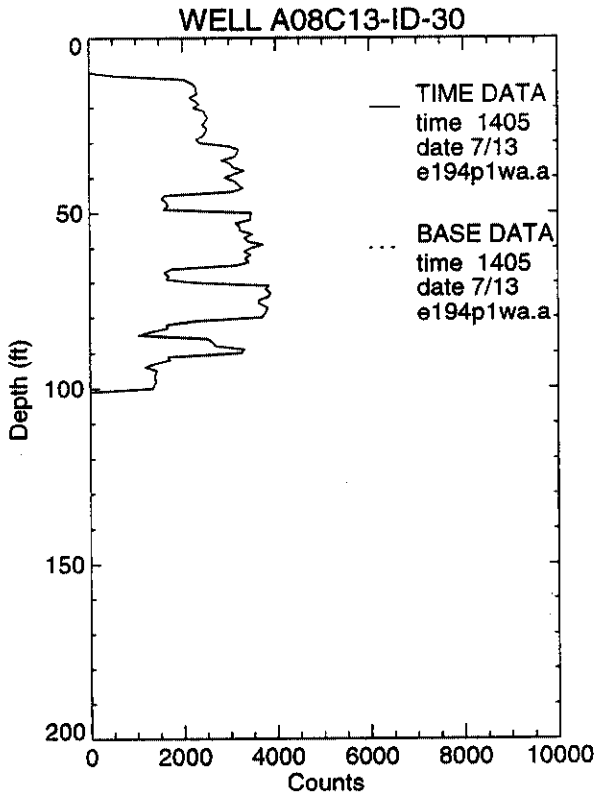
WELL A08C13-ID-30
TIME DATA
time 1405
date 7/13
e194p1wa.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
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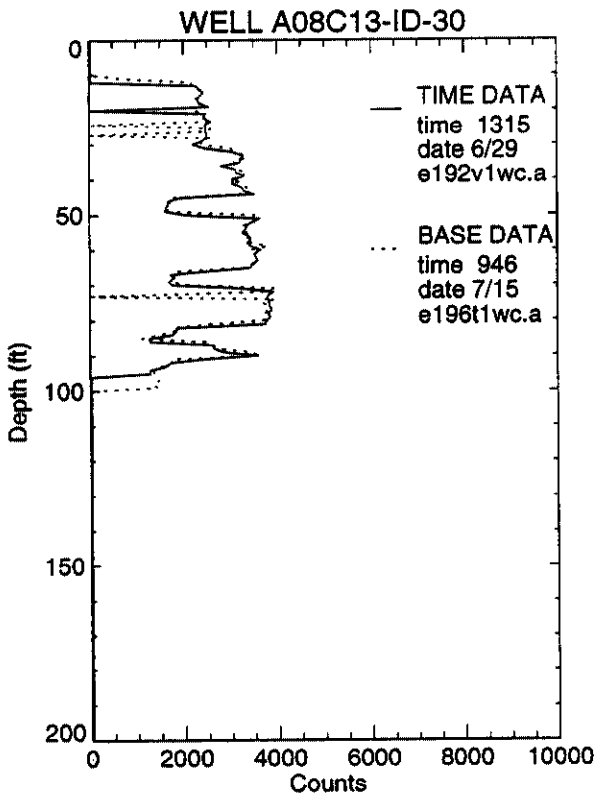
WELL A08C13-ID-30
TIME DATA
time 1315
date 6/29
e192v1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
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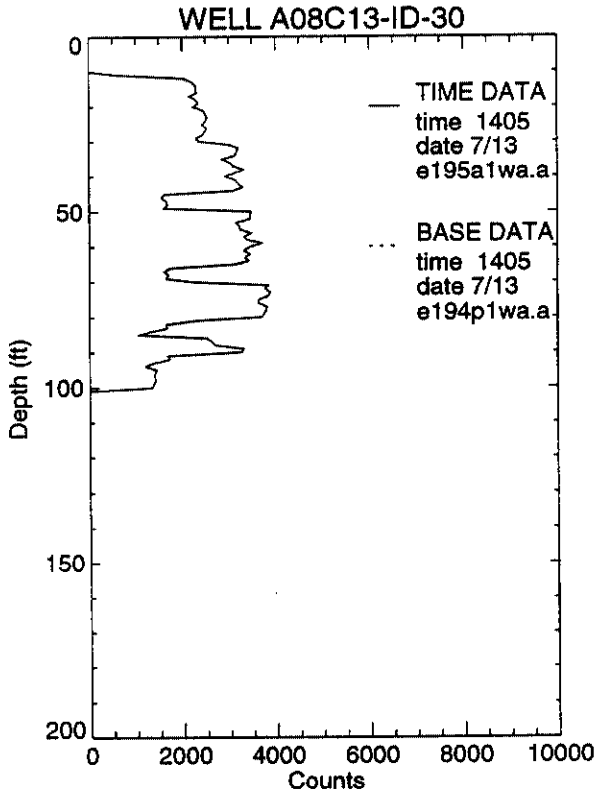
WELL A08C13-ID-30
TIME DATA
time 1405
date 7/13
e195a1wa.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
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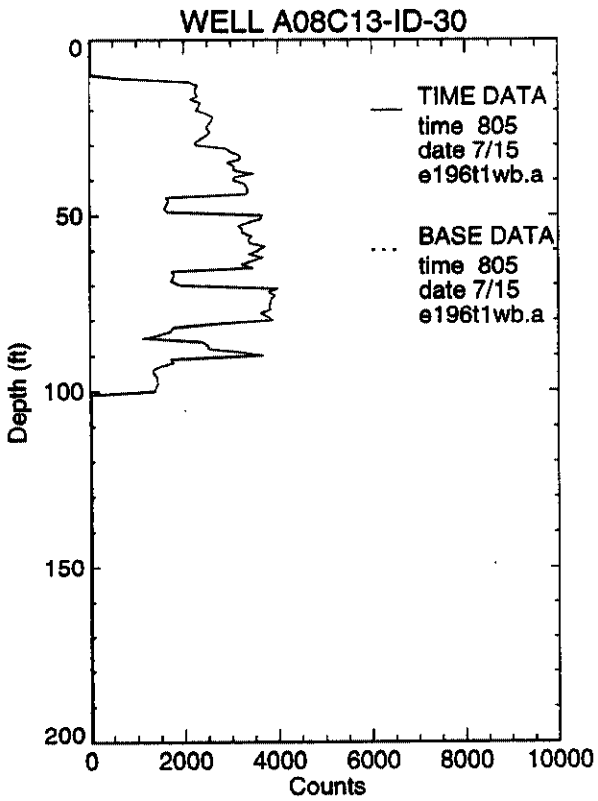
WELL A08C13-ID-30
TIME DATA
time 805
date 7/15
e196t1wb.a
BASE DATA
time 805
date 7/15
e196t1wb.a
Depth (ft)
Counts
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0
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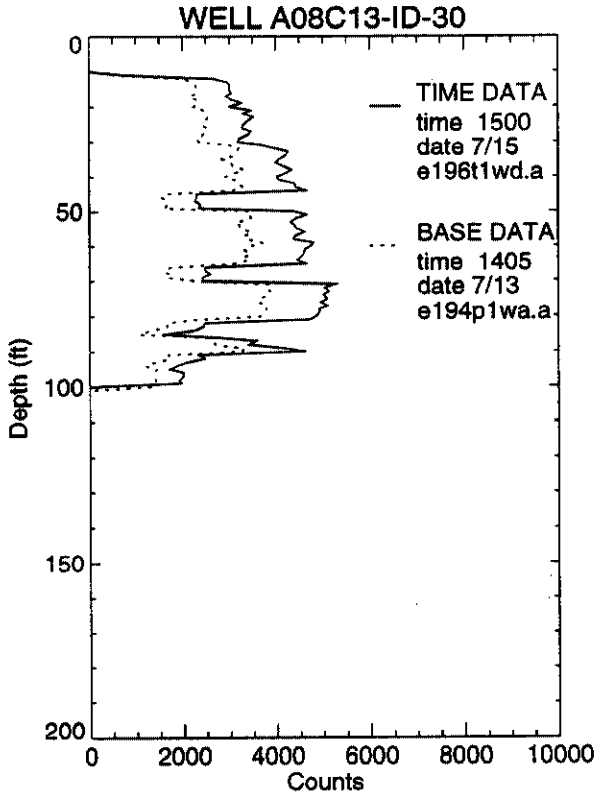
WELL A08C13-ID-30
TIME DATA
time 1500
date 7/15
e196t1wd.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
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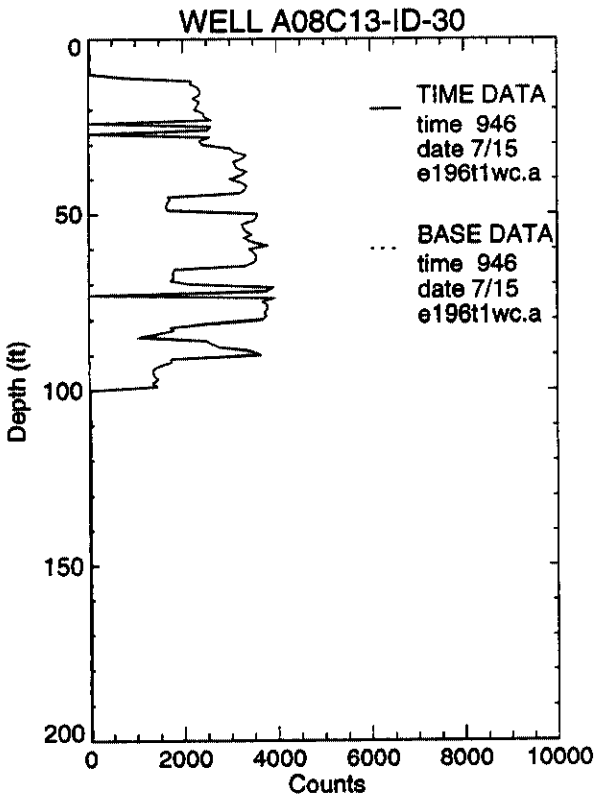
WELL A08C13-ID-30
TIME DATA
time 946
date 7/15
e196t1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
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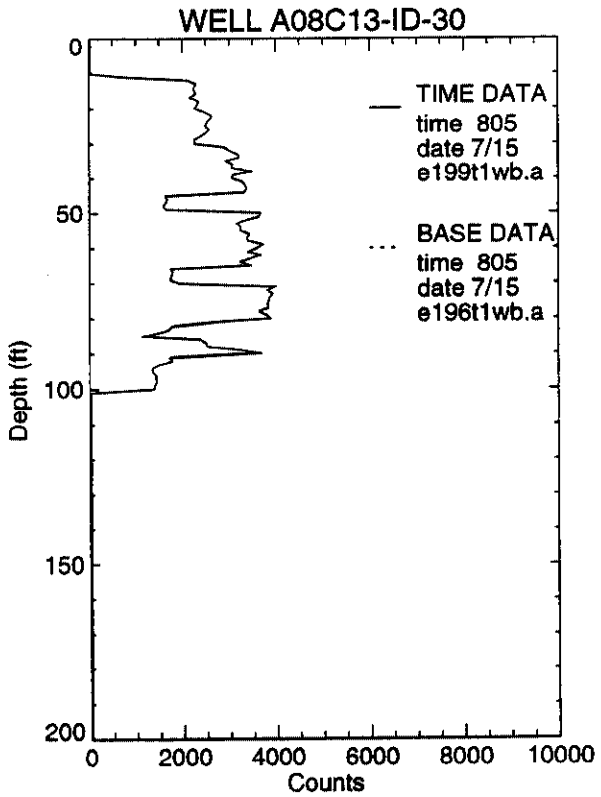
WELL A08C13-ID-30
TIME DATA
time 805
date 7/15
e199t1wb.a
BASE DATA
time 805
date 7/15
e196t1wb.a
Depth (ft)
Counts
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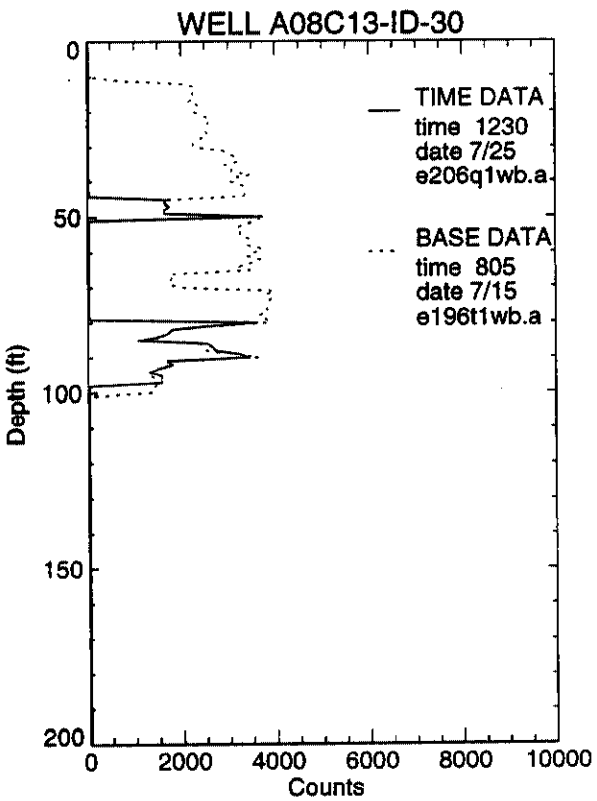
WELL A08C13-ID-30
TIME DATA
time 1230
date 7/25
e206q1wb.a
BASE DATA
time 805
date 7/15
e196t1wb.a
Depth (ft)
Counts
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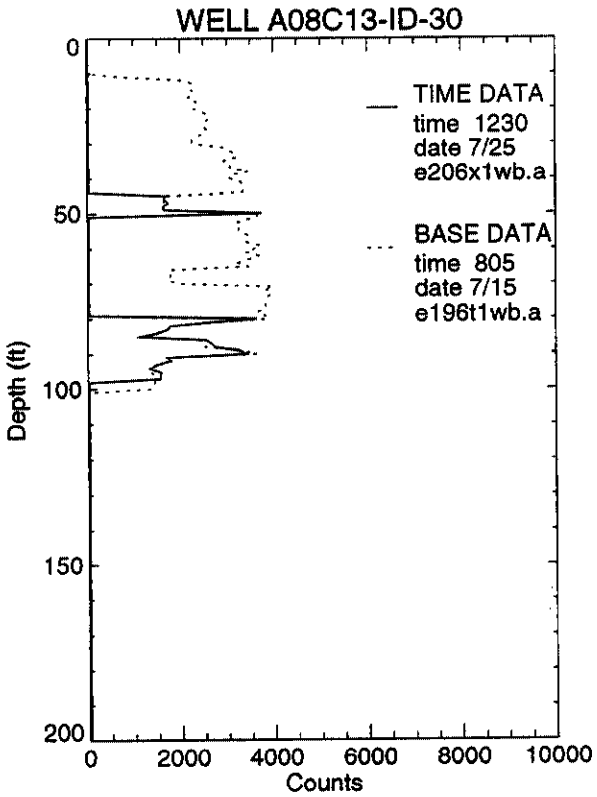
WELL A08C13-ID-30
TIME DATA
time 1230
date 7/25
e206x1wb.a
BASE DATA
time 805
date 7/15
e196t1wb.a
Depth (ft)
Counts
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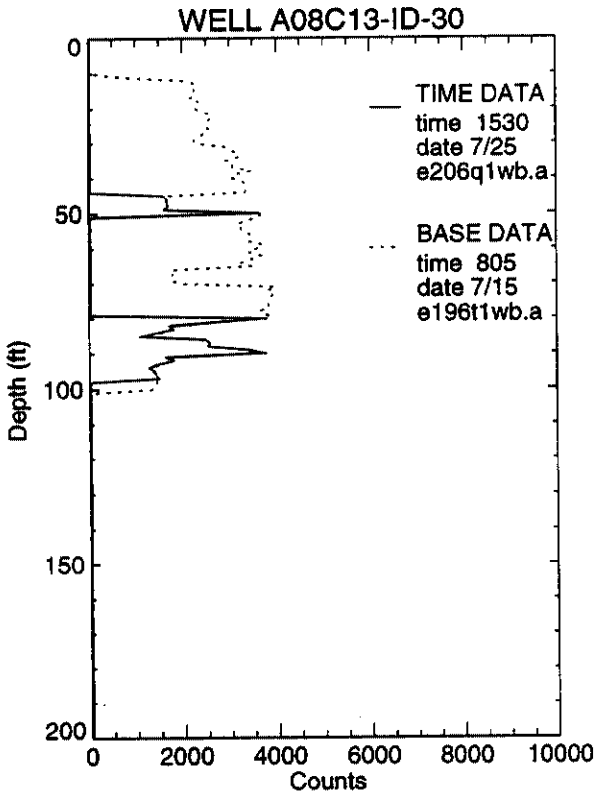
WELL A08C13-ID-30
TIME DATA
time 1530
date 7/25
e206q1wb.a
BASE DATA
time 805
date 7/15
e196t1wb.a
Depth (ft)
Counts
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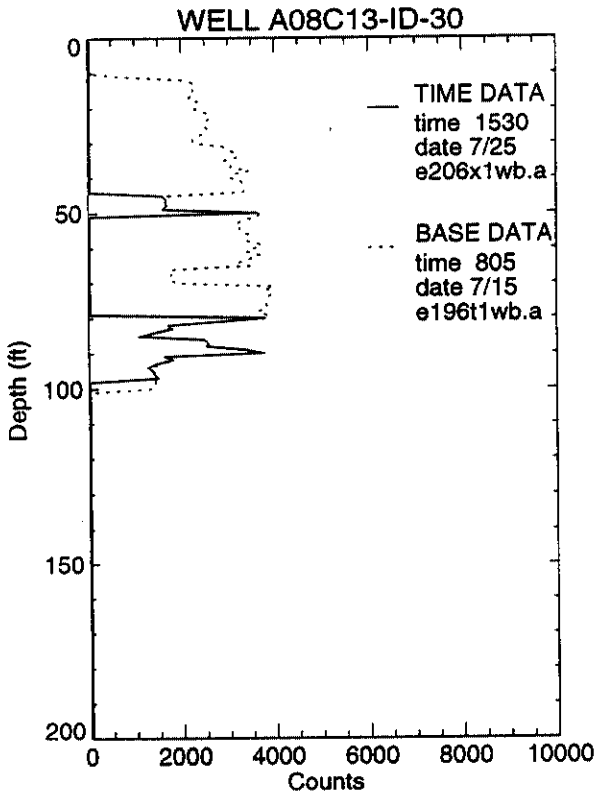
WELL A08C13-ID-30
TIME DATA
time 1530
date 7/25
e206x1wb.a
BASE DATA
time 805
date 7/15
e196t1wb.a
Depth (ft)
Counts
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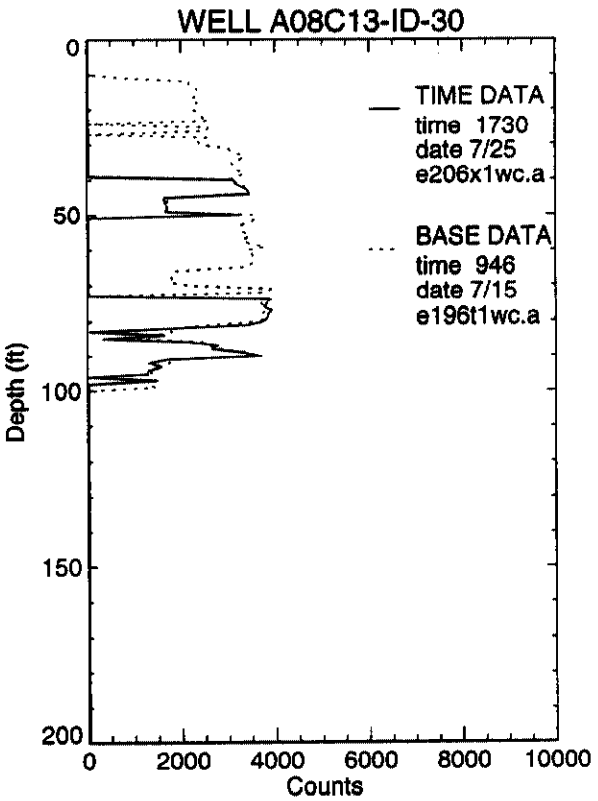
WELL A08C13-ID-30
TIME DATA
time 1730
date 7/25
e206x1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
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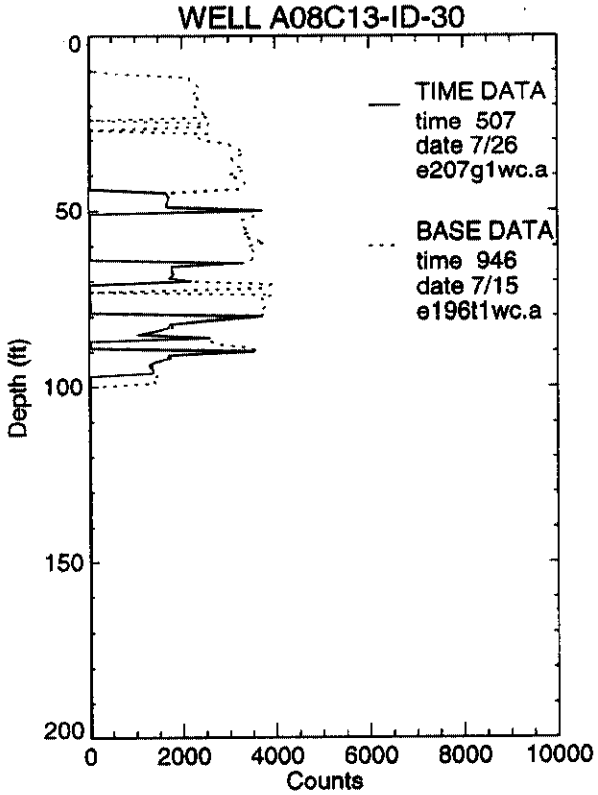
WELL A08C13-ID-30
TIME DATA
time 507
date 7/26
e207g1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
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0
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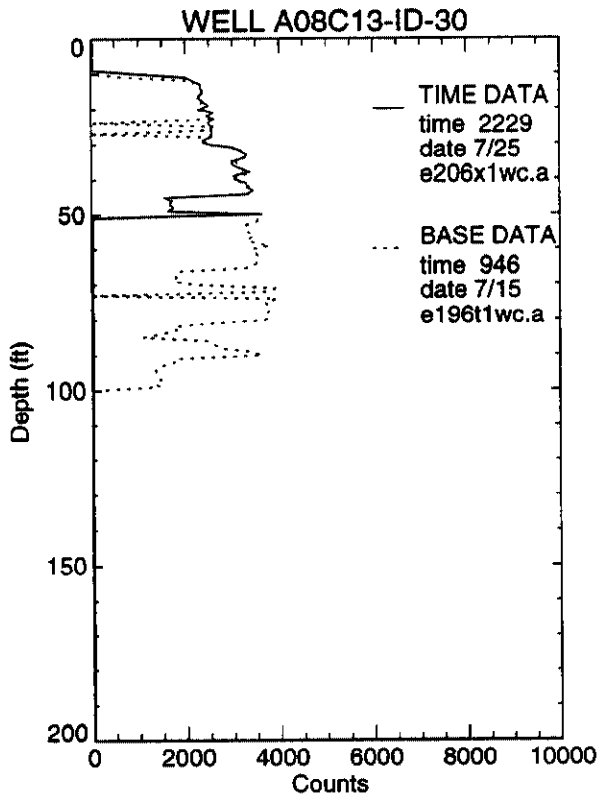
8000
10000


WELL A08C13-ID-30
TIME DATA
time 2229
date 7/25
e206x1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
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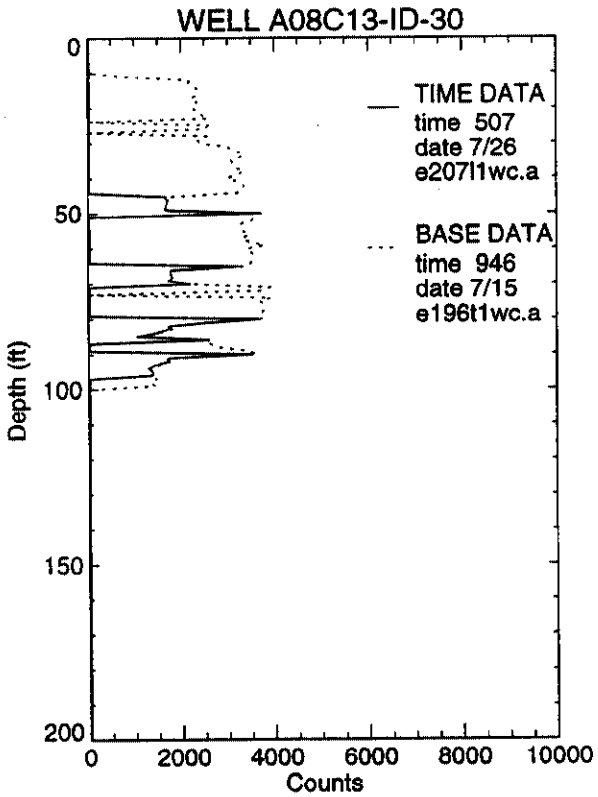
WELL A08C13-ID-30
TIME DATA
time 507
date 7/26
e207l1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
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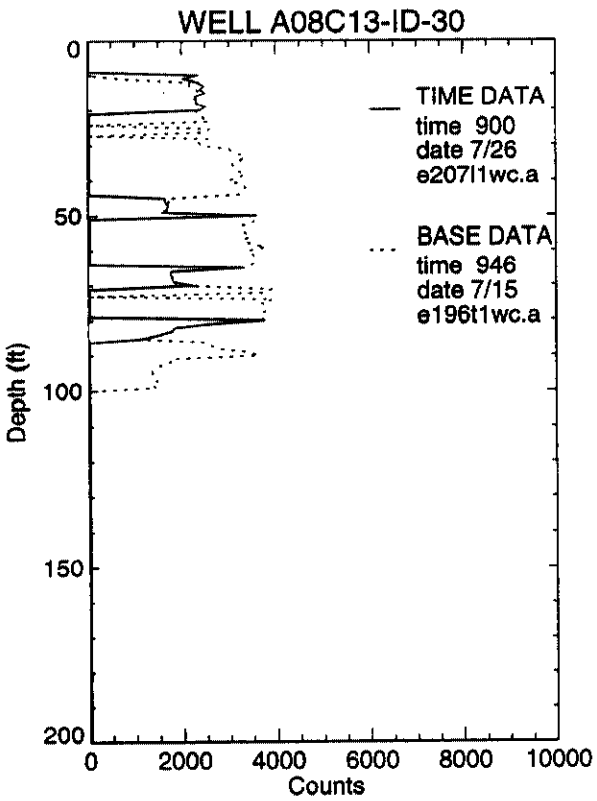
WELL A08C13-ID-30
TIME DATA
time 900
date 7/26
e207l1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
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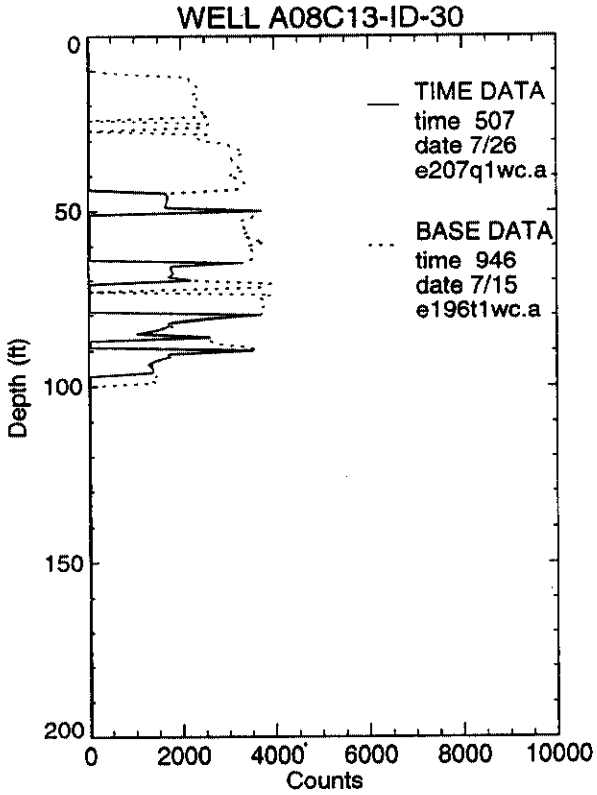
WELL A08C13-ID-30
TIME DATA
time 507
date 7/26
e207q1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
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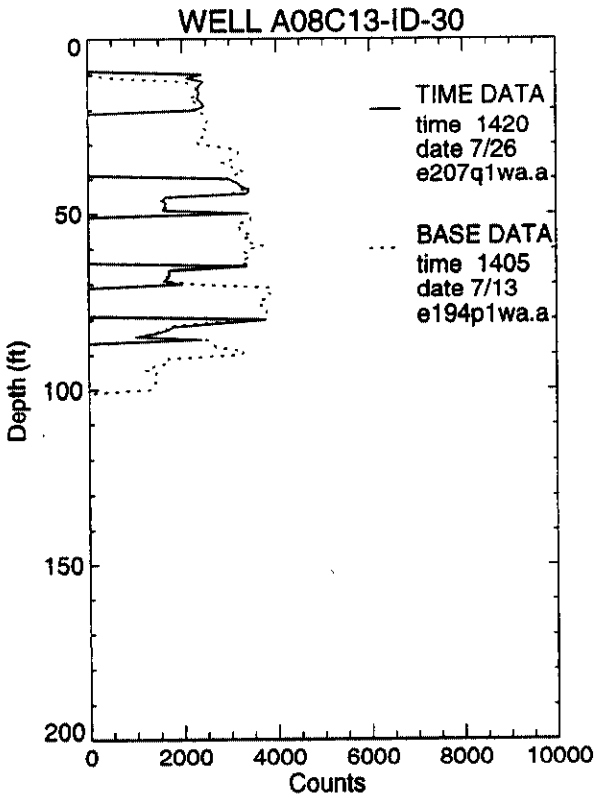
WELL A08C13-ID-30
TIME DATA
time 1420
date 7/26
e207q1wa.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
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0
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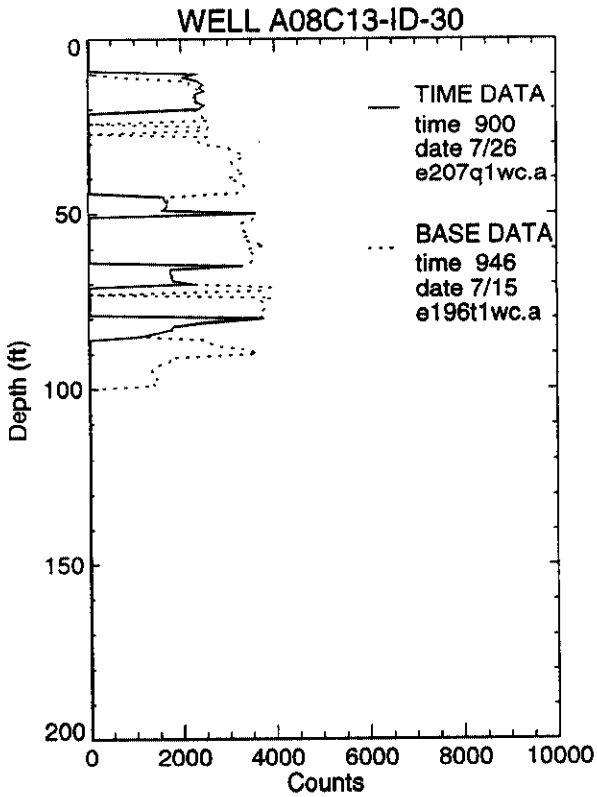
WELL A08C13-ID-30
TIME DATA
time 900
date 7/26
e207q1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
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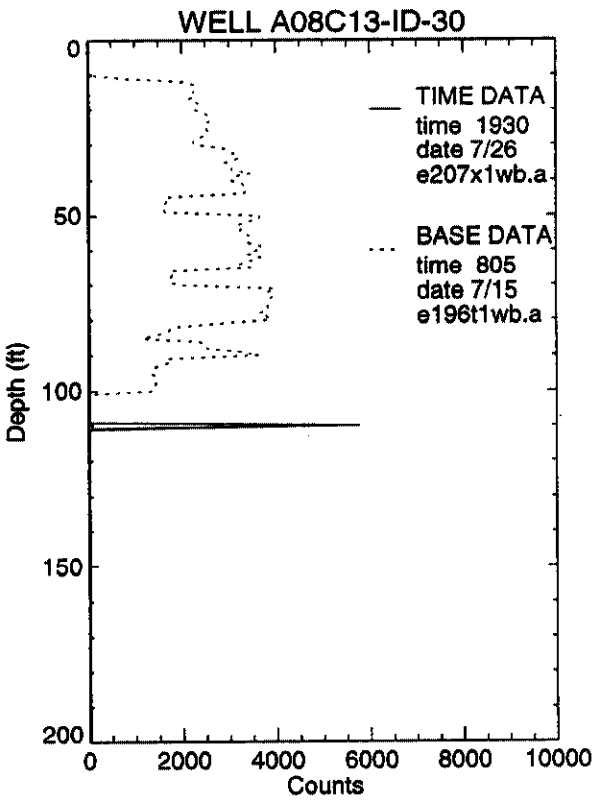
WELL A08C13-ID-30
TIME DATA
time 1930
date 7/26
e207x1wb.a
BASE DATA
time 805
date 7/15
e196t1wb.a
Depth (ft)
Counts
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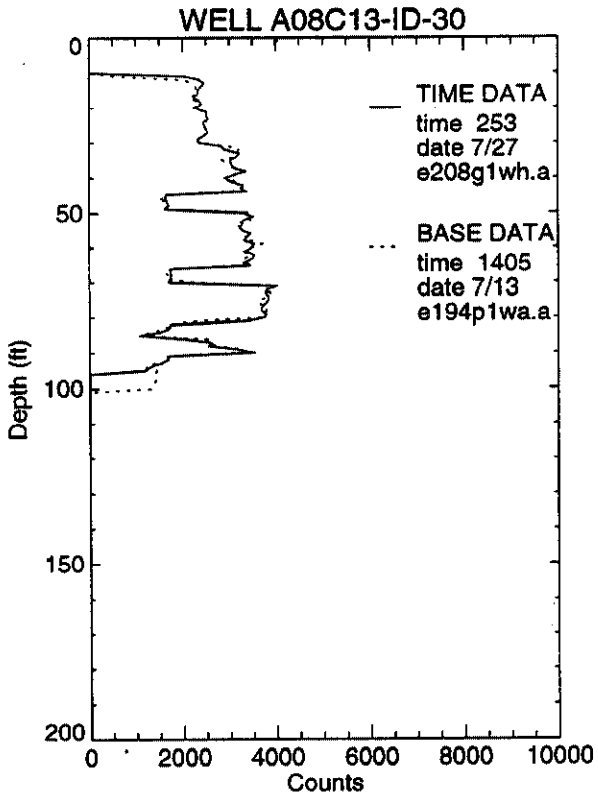
WELL A08C13-ID-30
TIME DATA
time 253
date 7/27
e208g1wh.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
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200
0
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4000
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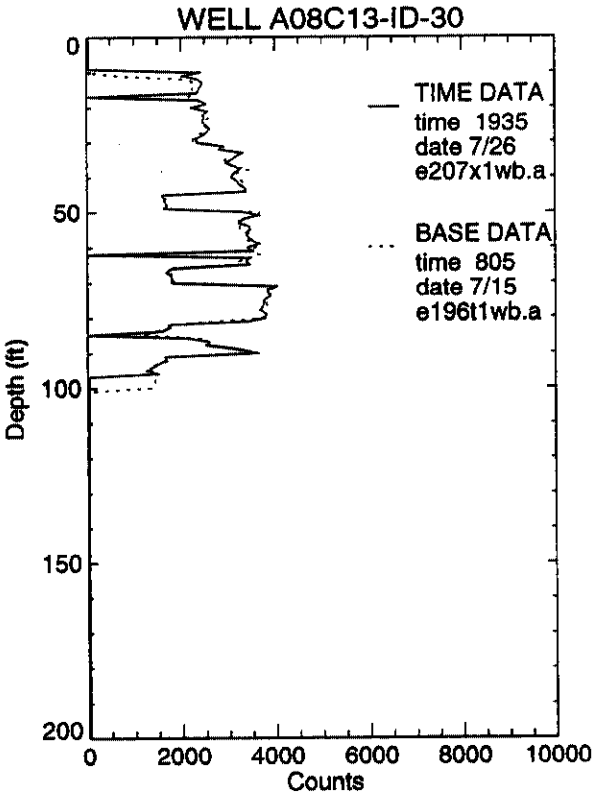
WELL A08C13-ID-30
TIME DATA
time 1935
date 7/26
e207x1wb.a
BASE DATA
time 805
date 7/15
e196t1wb.a
Depth (ft)
Counts
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150
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0
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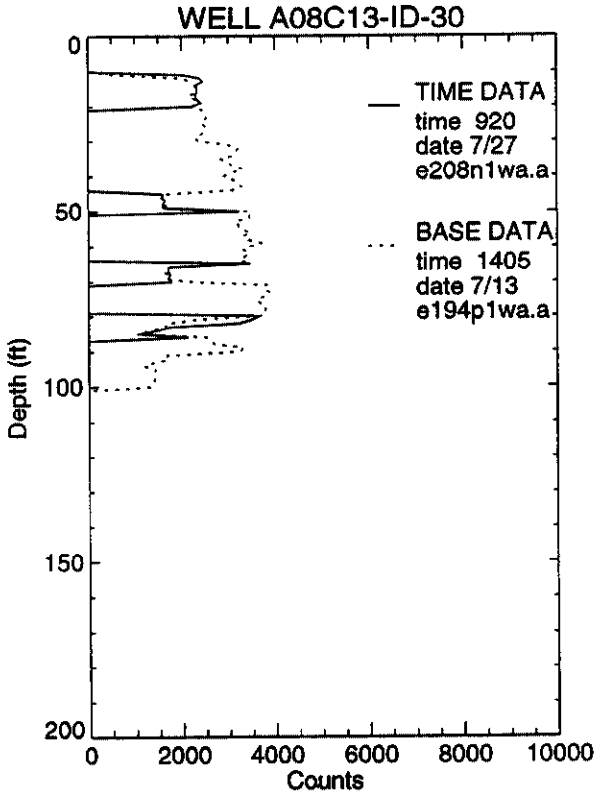
10000


WELL A08C13-ID-30
TIME DATA
time 920
date 7/27
e208n1wa.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
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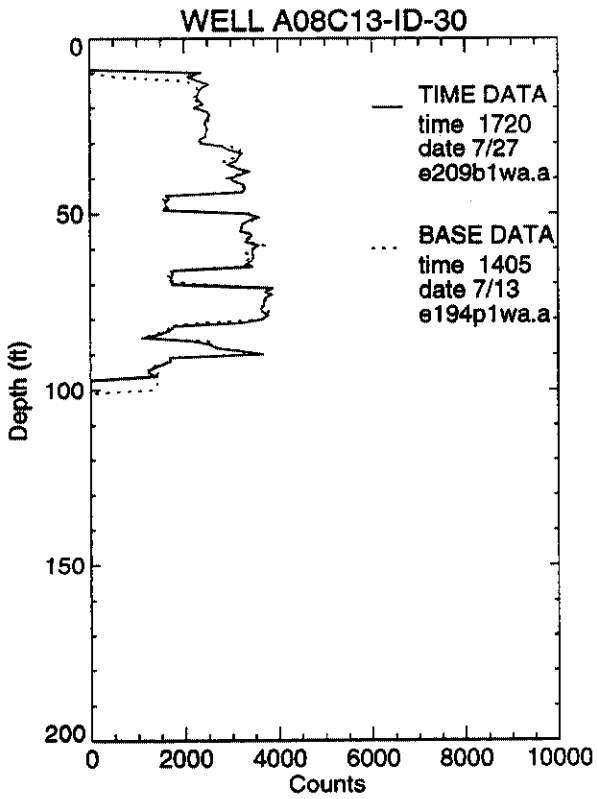
WELL A08C13-ID-30
TIME DATA
time 1720
date 7/27
e209b1wa.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
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150
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0
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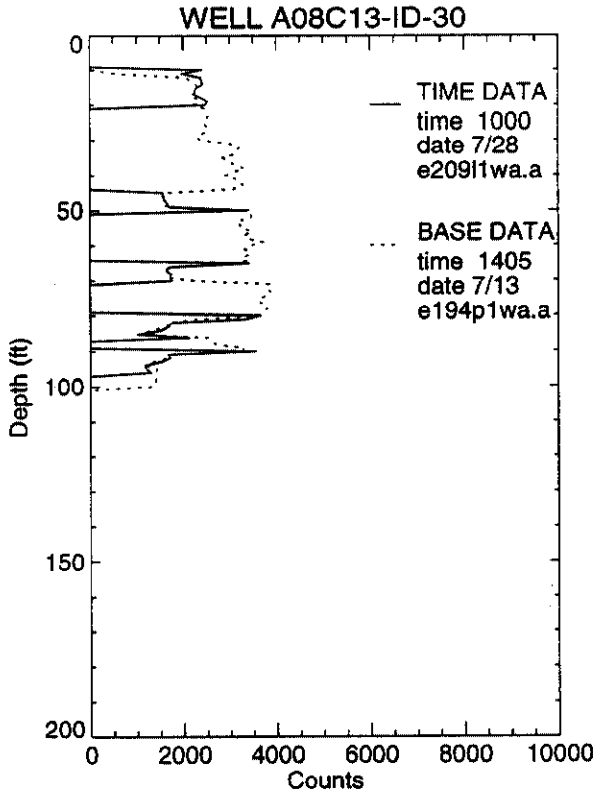
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 1000
date 7/28
e209l1wa.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
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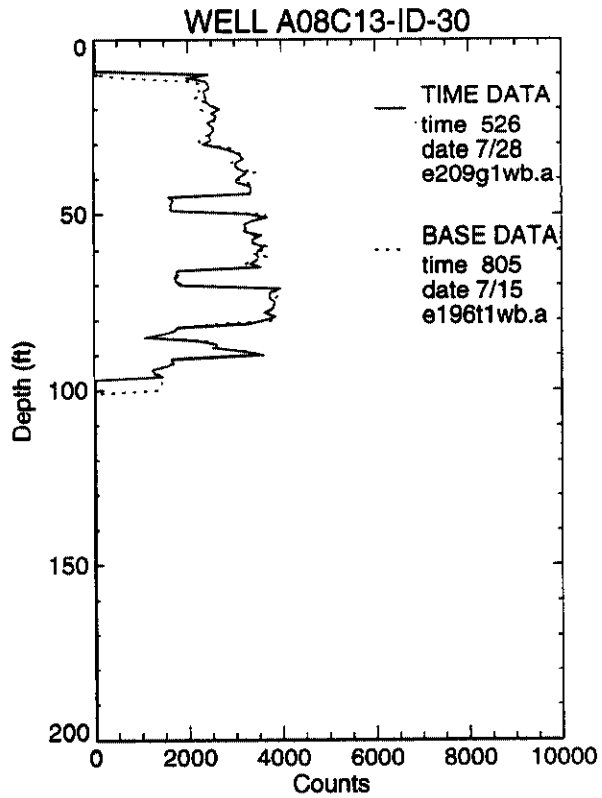
100
150
200
0
2000
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 526
date 7/28
e209g1wb.a
BASE DATA
time 805
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
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100
150
200
0
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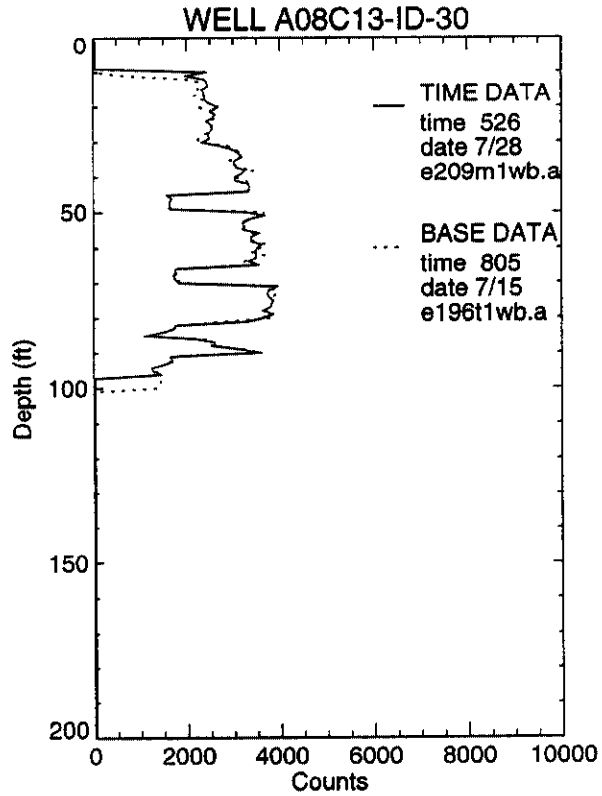
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 526
date 7/28
e209m1wb.a
BASE DATA
time 805
date 7/15
e196t1wb.a
Depth (ft)
Counts
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150
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0
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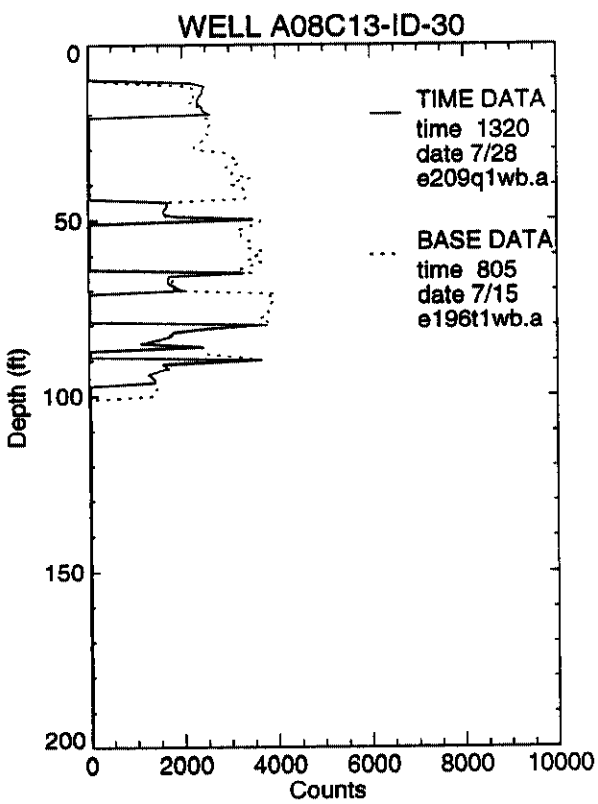
8000
10000


WELL A08C13-ID-30
TIME DATA
time 1320
date 7/28
e209q1wb.a
BASE DATA
time 805
date 7/15
e196t1wb.a
Depth (ft)
Counts
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150
200
0
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4000
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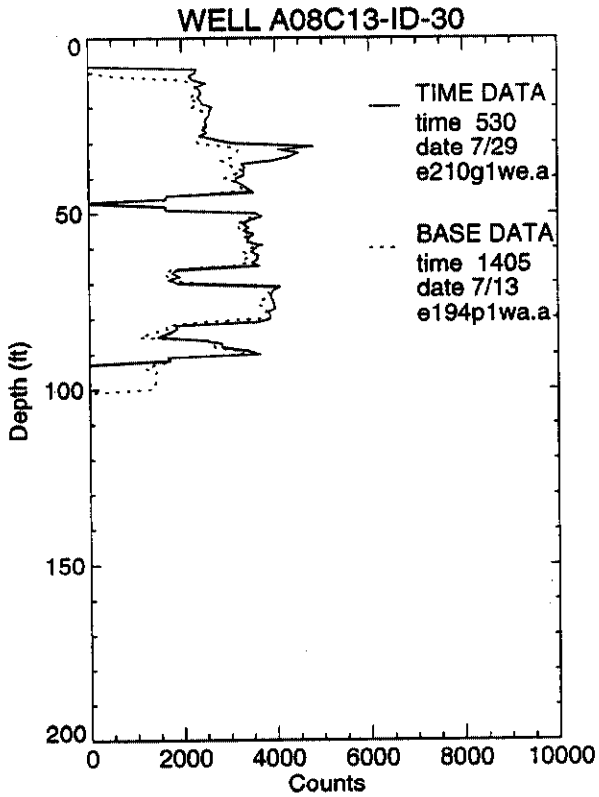
8000
10000


WELL A08C13-ID-30
TIME DATA
time 530
date 7/29
e210g1we.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
0
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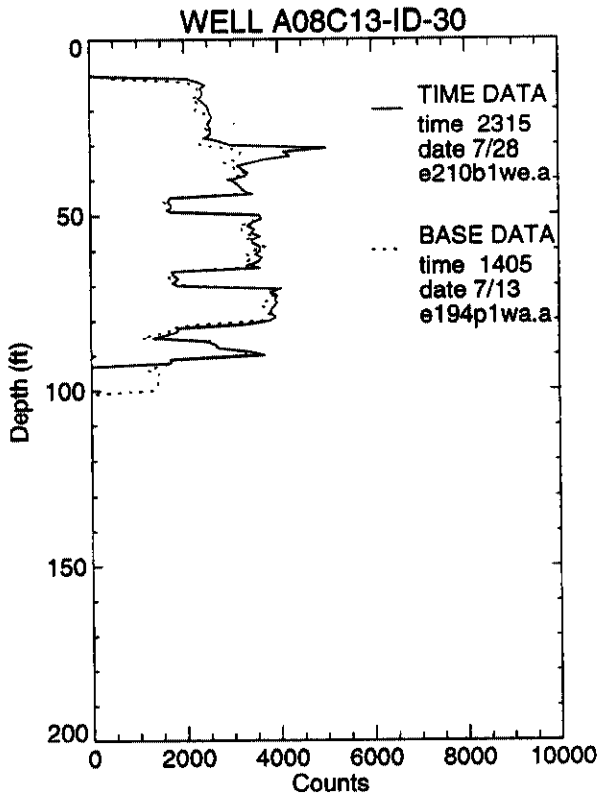
150
200
0
2000
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 2315
date 7/28
e210b1we.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
0
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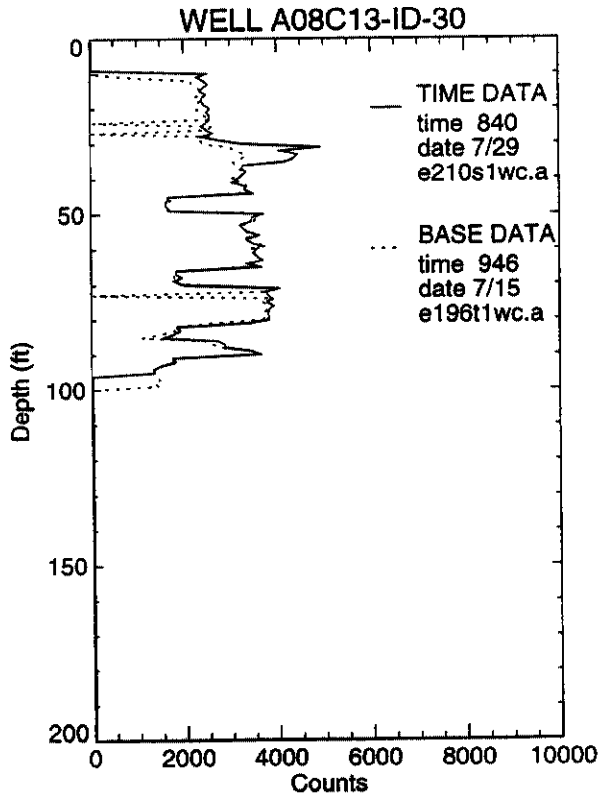
100
150
200
0
2000
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 840
date 7/29
e210s1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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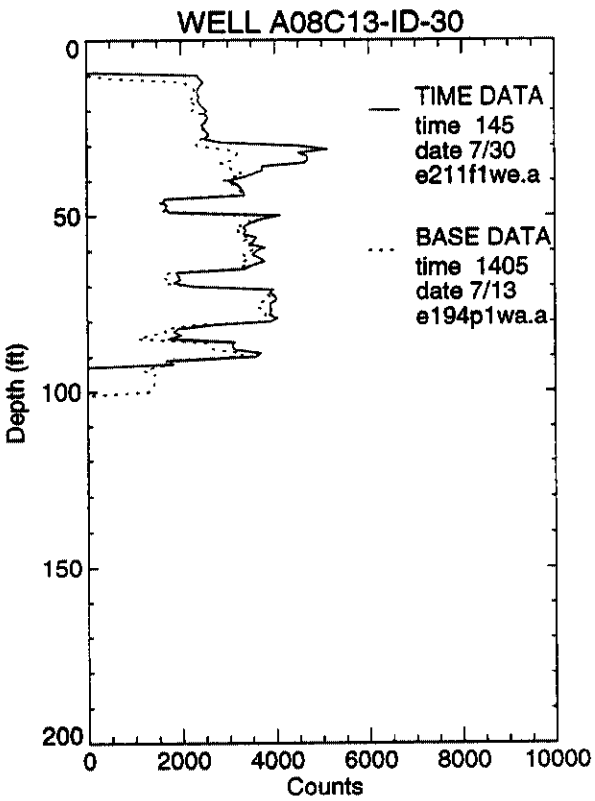
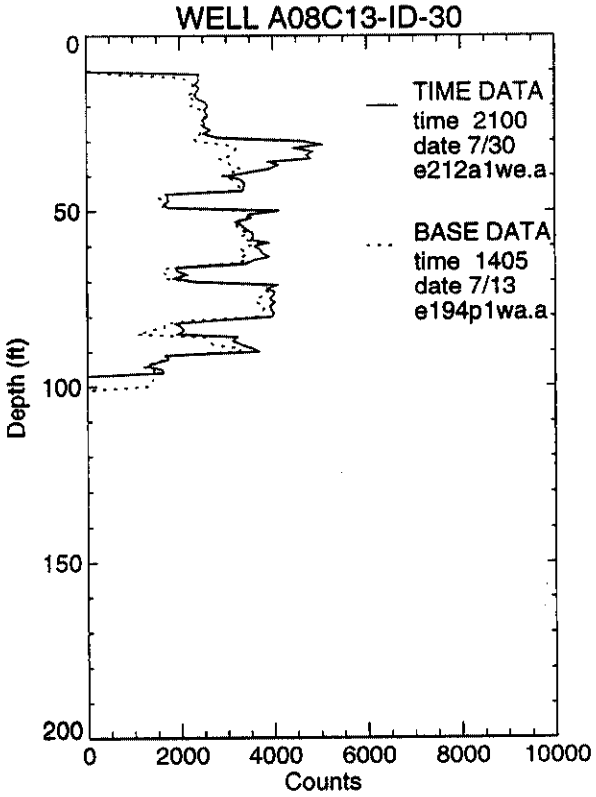
150
200
0
2000
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 145
date 7/30
e211f1we.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 2100
date 7/30
e212a1we.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
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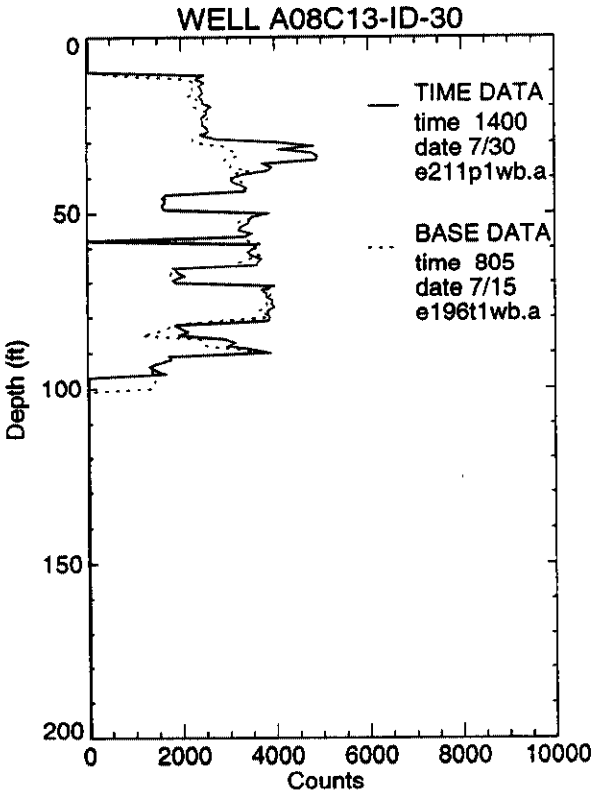
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 1400
date 7/30
e211p1wb.a
BASE DATA
time 805
date 7/15
e196t1wb.a
Depth (ft)
Counts
0
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150
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0
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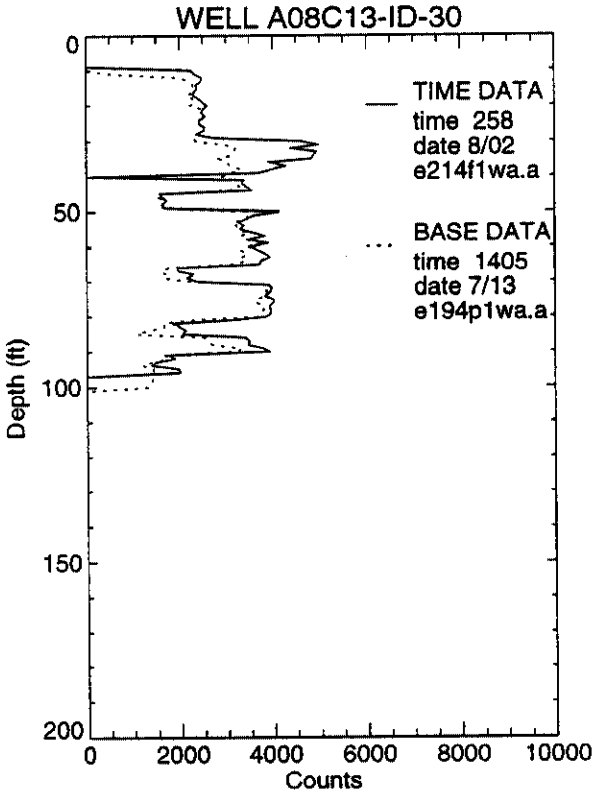
8000
10000


WELL A08C13-ID-30
TIME DATA
time 258
date 8/02
e214f1wa.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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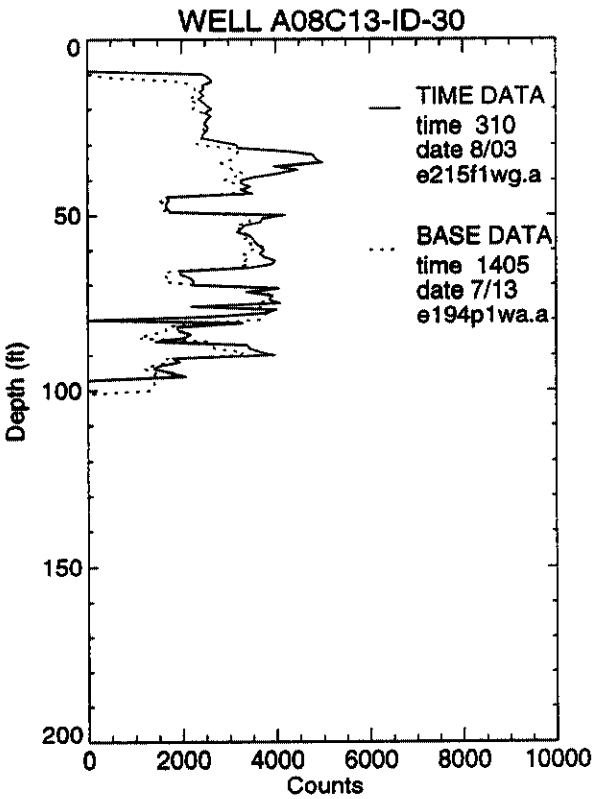
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 310
date 8/03
e215f1wg.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
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200
0
2000
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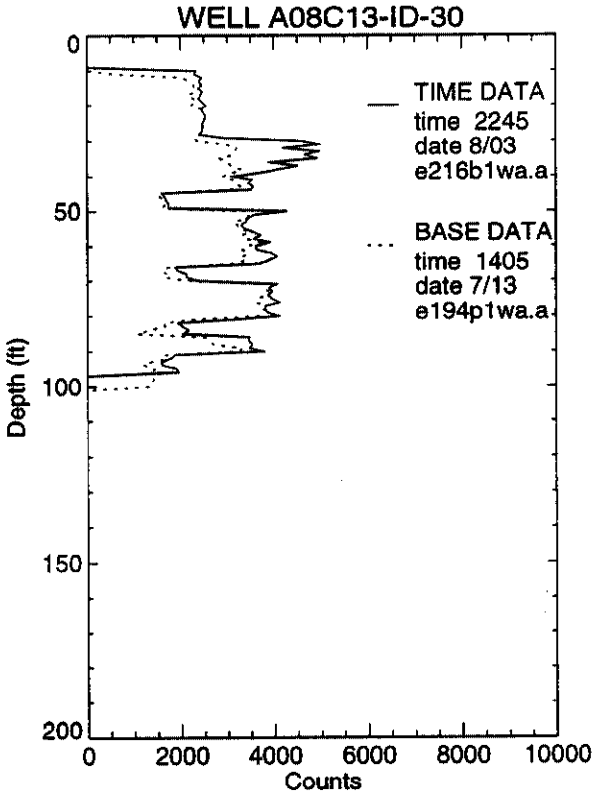
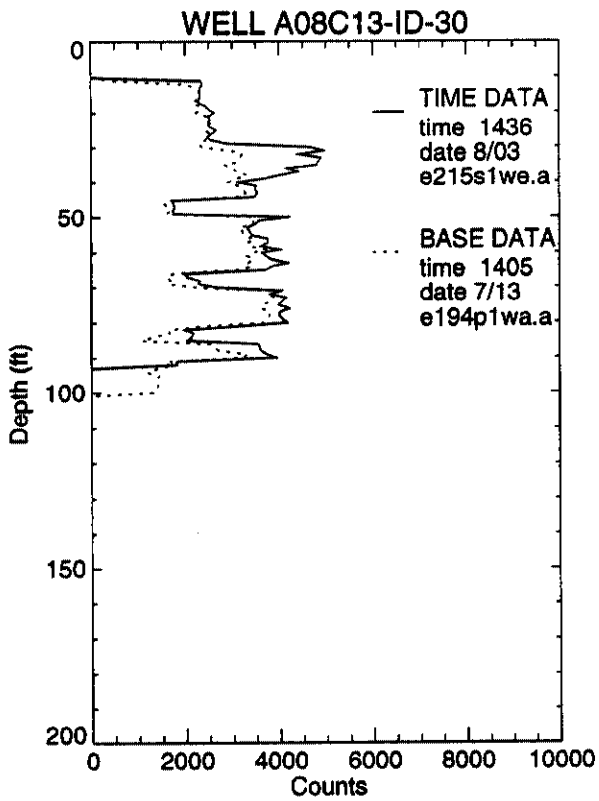
8000
10000


WELL A08C13-ID-30
TIME DATA
time 2245
date 8/03
e216b1wa.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 1436
date 8/03
e215s1we.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
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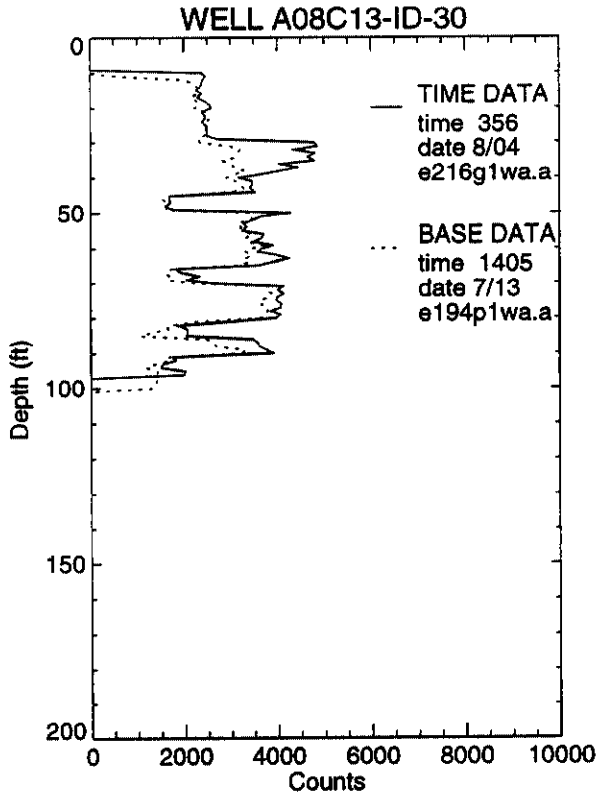
100
150
200
0
2000
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 356
date 8/04
e216g1wa.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
0
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150
200
0
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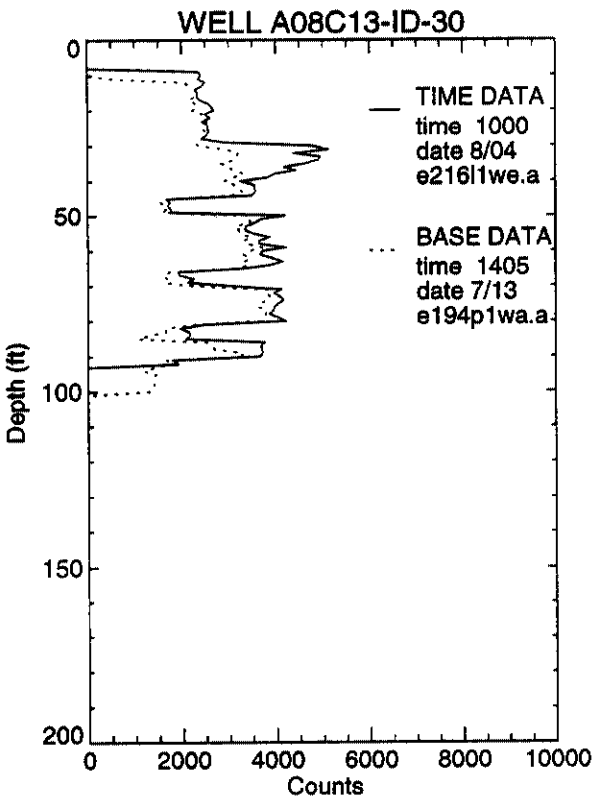
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 1000
date 8/04
e216l1we.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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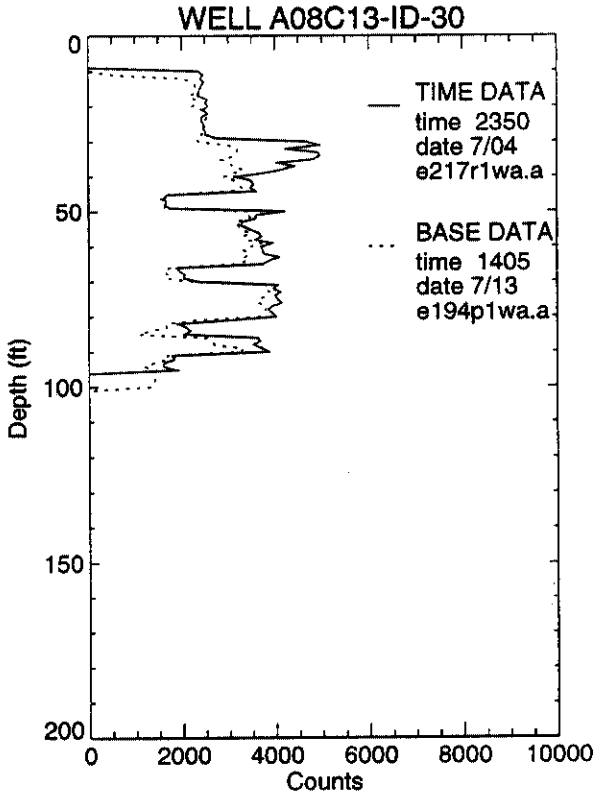
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 2350
date 7/04
e217r1wa.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
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200
0
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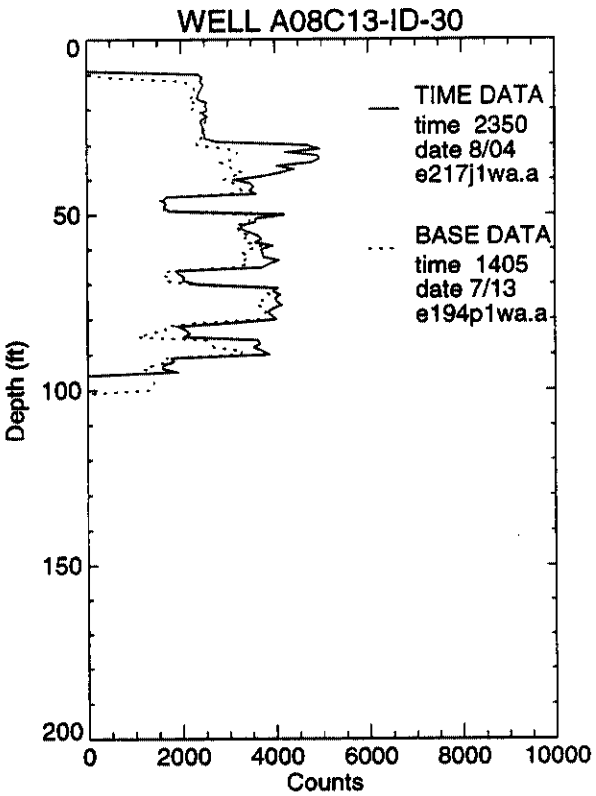
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 2350
date 8/04
e217j1wa.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
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150
200
0
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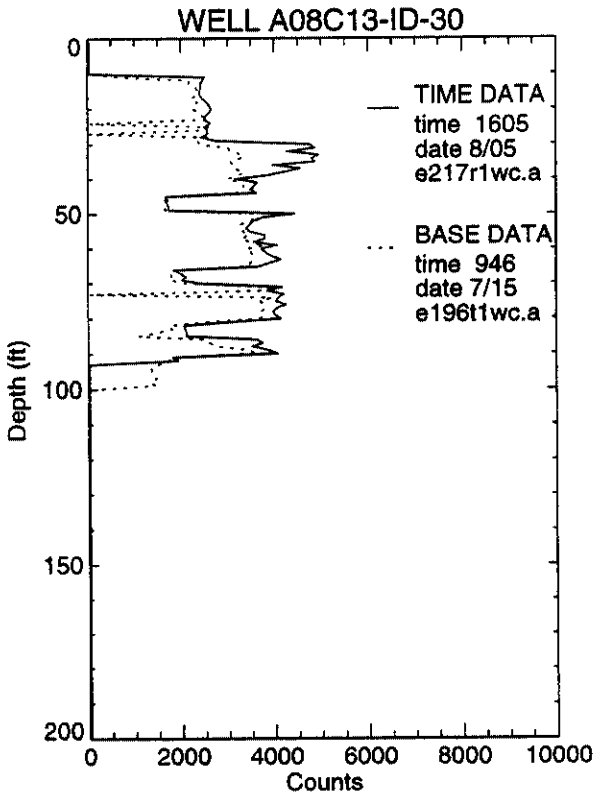
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 1605
date 8/05
e217r1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
50
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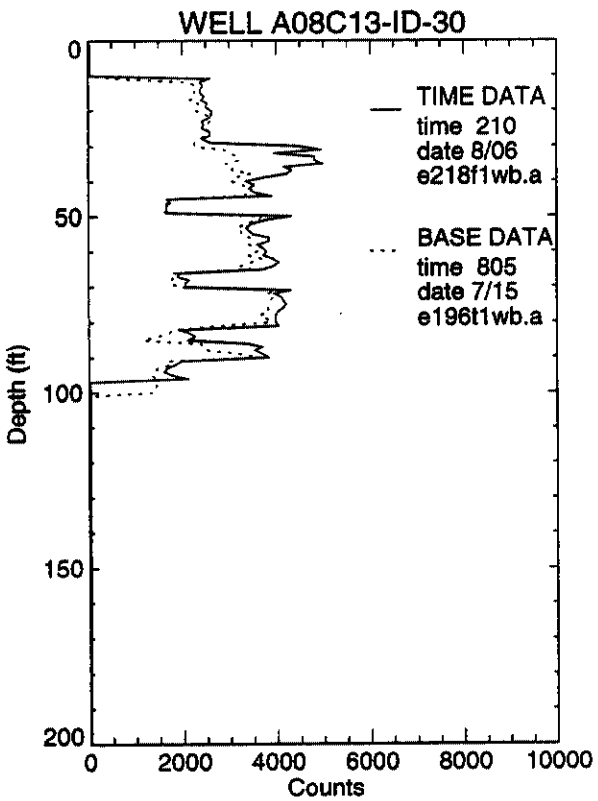
150
200
0
2000
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 210
date 8/06
e218f1wb.a
BASE DATA
time 805
date 7/15
e196t1wb.a
Depth (ft)
Counts
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0
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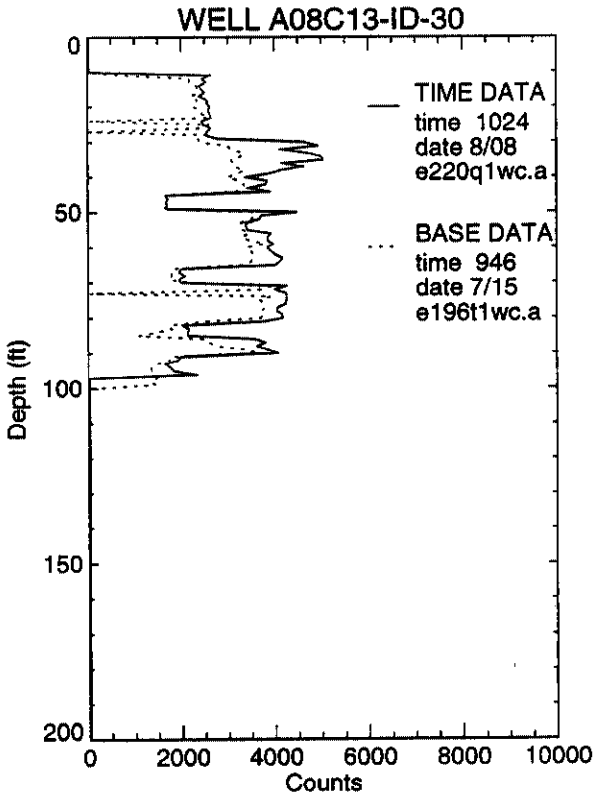
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 1024
date 8/08
e220q1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
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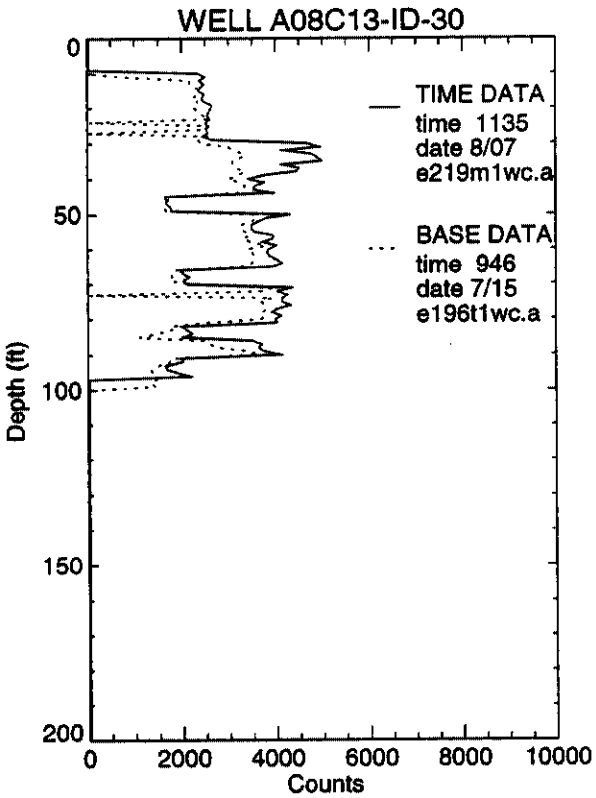
150
200
0
2000
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 1135
date 8/07
e219m1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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0
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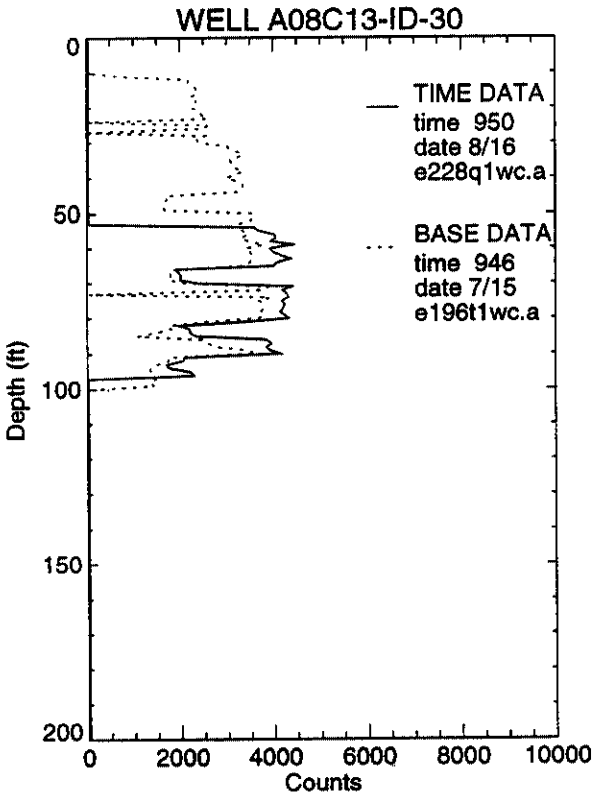
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 950
date 8/16
e228q1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
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150
200
0
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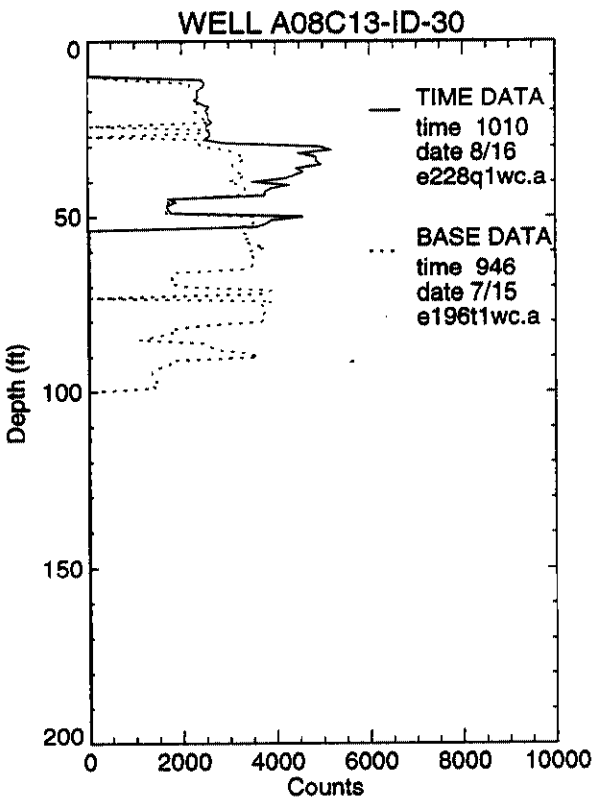
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 1010
date 8/16
e228q1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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150
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0
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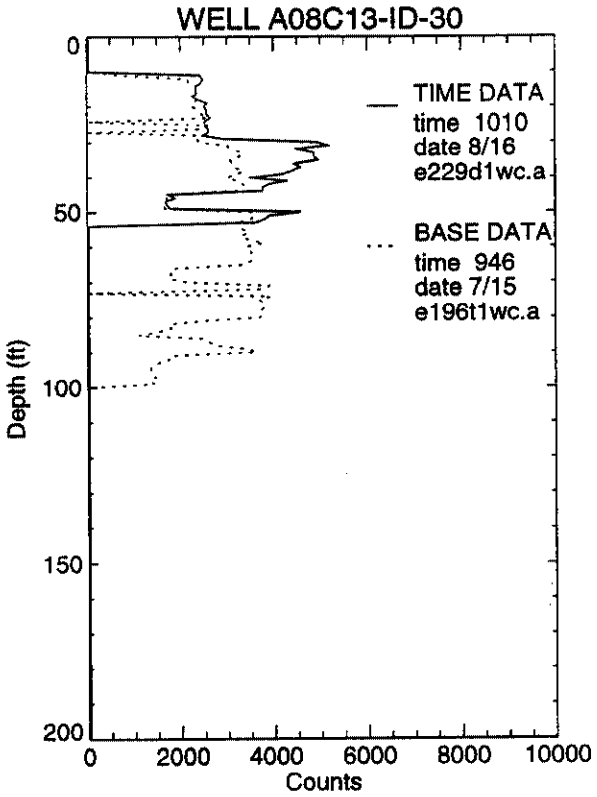
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 1010
date 8/16
e229d1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
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0
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8000
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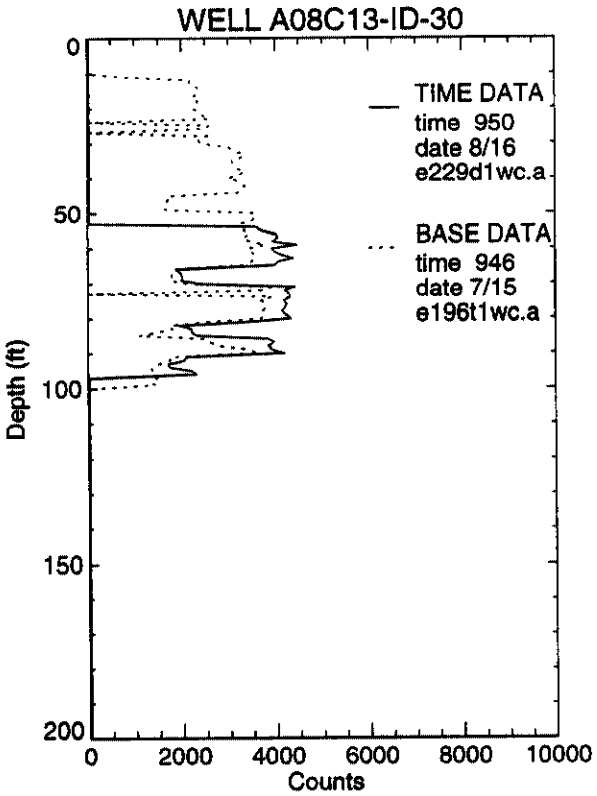
WELL A08C13-ID-30
TIME DATA
time 950
date 8/16
e229d1wc.a
BASE DATA
time 946
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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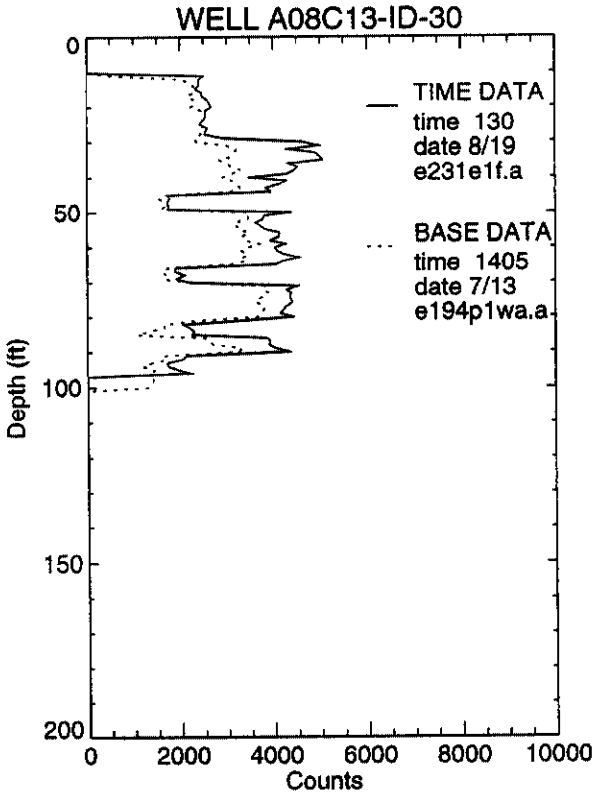
100
150
200
0
2000
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 130
date 8/19
e231e1f.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
0
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200
0
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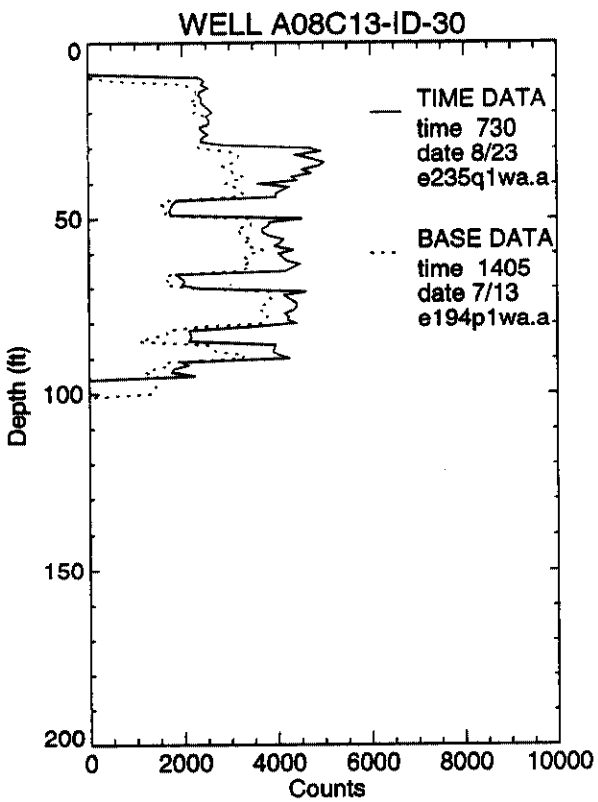
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 730
date 8/23
e235q1wa.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
0
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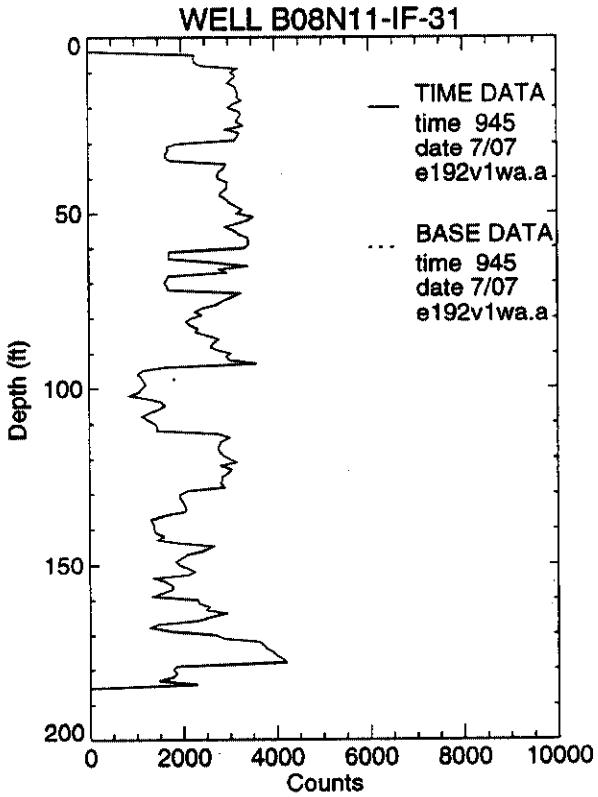
100
150
200
0
2000
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 945
date 7/07
e192v1wa.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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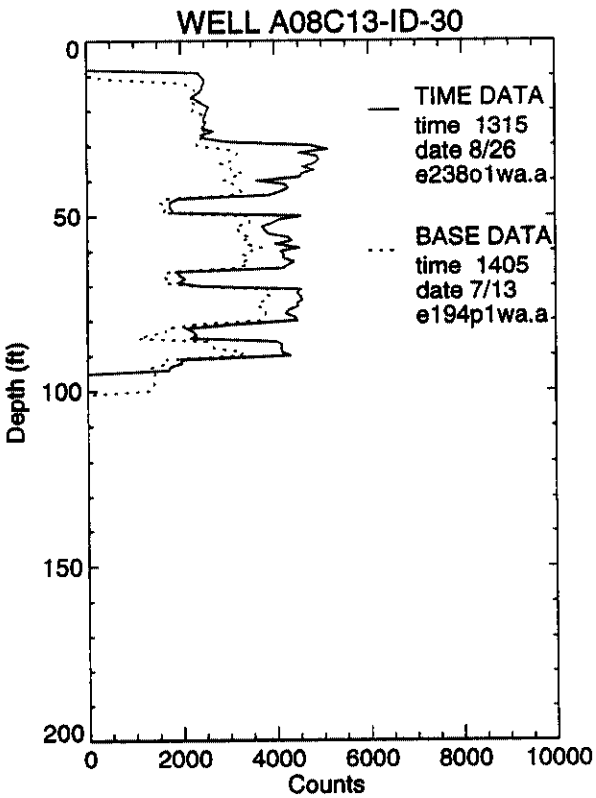
100
150
200
0
2000
4000
6000
8000
10000


WELL A08C13-ID-30
TIME DATA
time 1315
date 8/26
e238o1wa.a
BASE DATA
time 1405
date 7/13
e194p1wa.a
Depth (ft)
Counts
0
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150
200
0
2000
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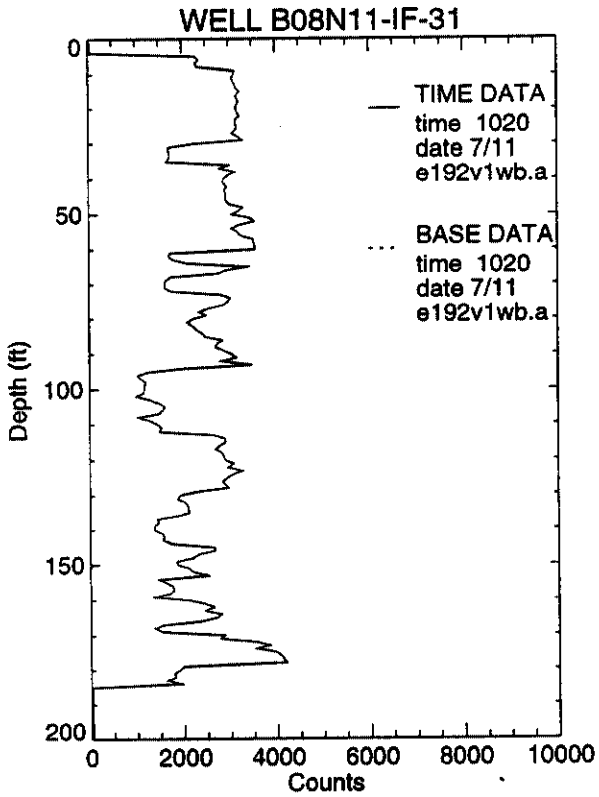
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 1020
date 7/11
e192v1wb.a
BASE DATA
time 1020
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
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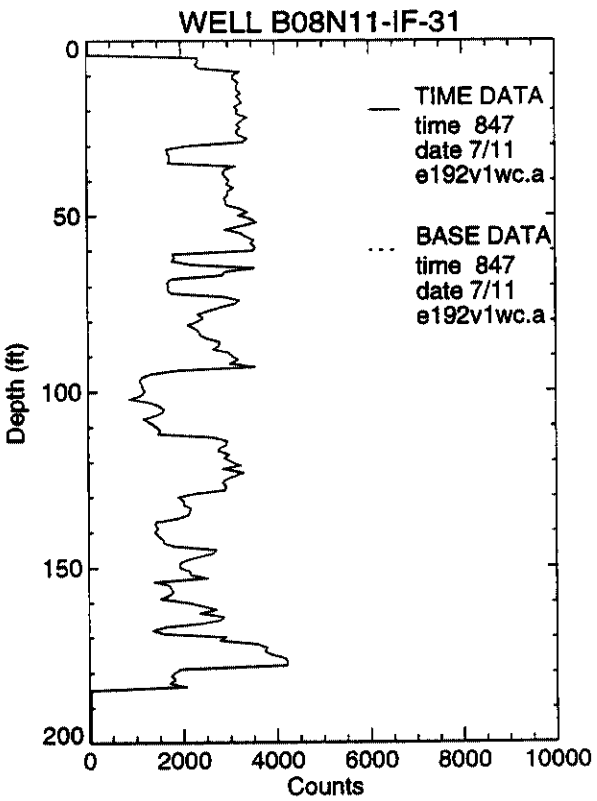
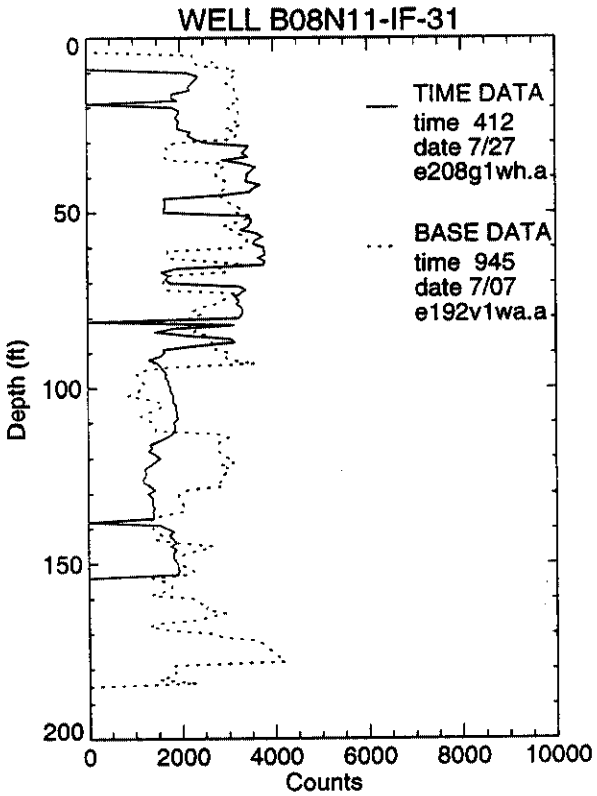
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 847
date 7/11
e192v1wc.a
BASE DATA
time 847
date 7/11
e192v1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 412
date 7/27
e208g1wh.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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150
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0
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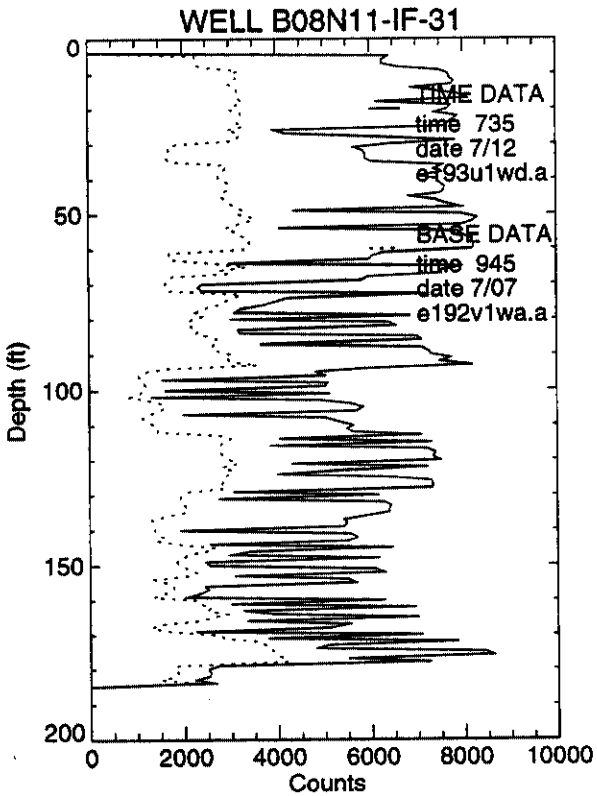
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 735
date 7/12
e193u1wd.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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150
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0
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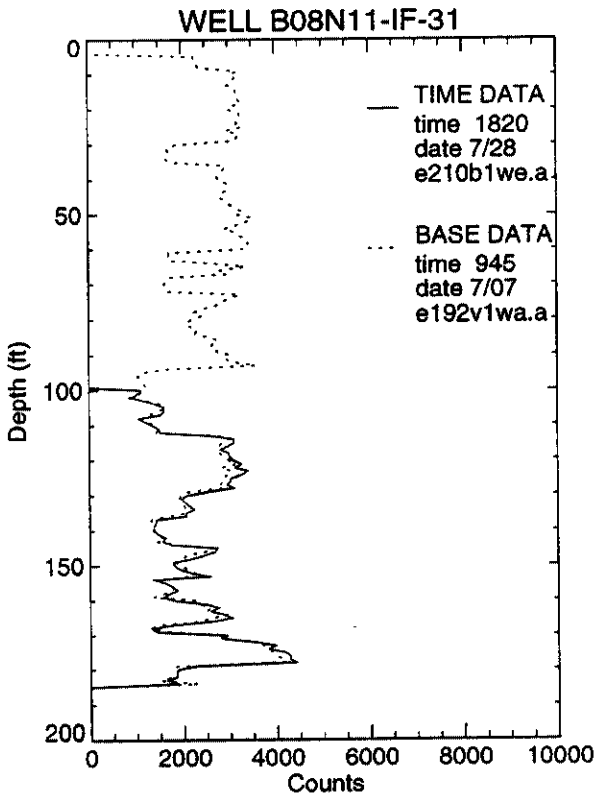
10000


WELL B08N11-IF-31
TIME DATA
time 1820
date 7/28
e210b1we.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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150
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0
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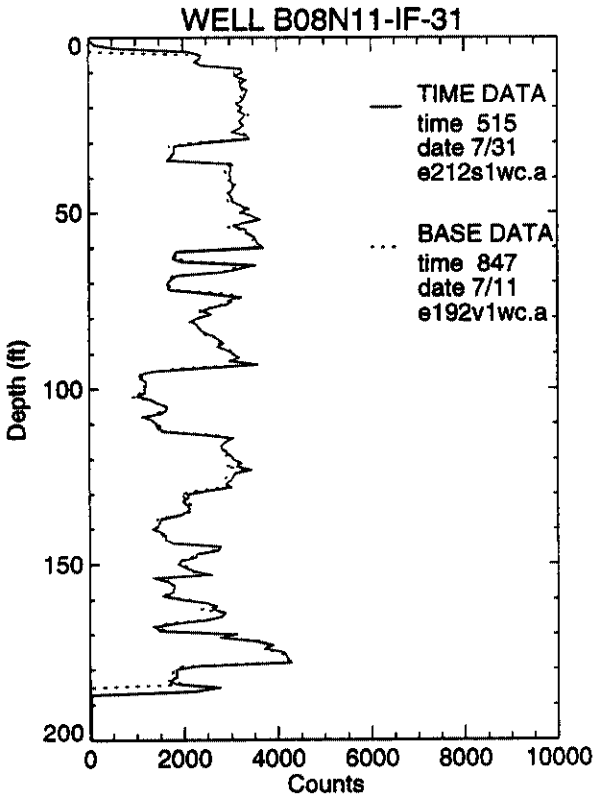
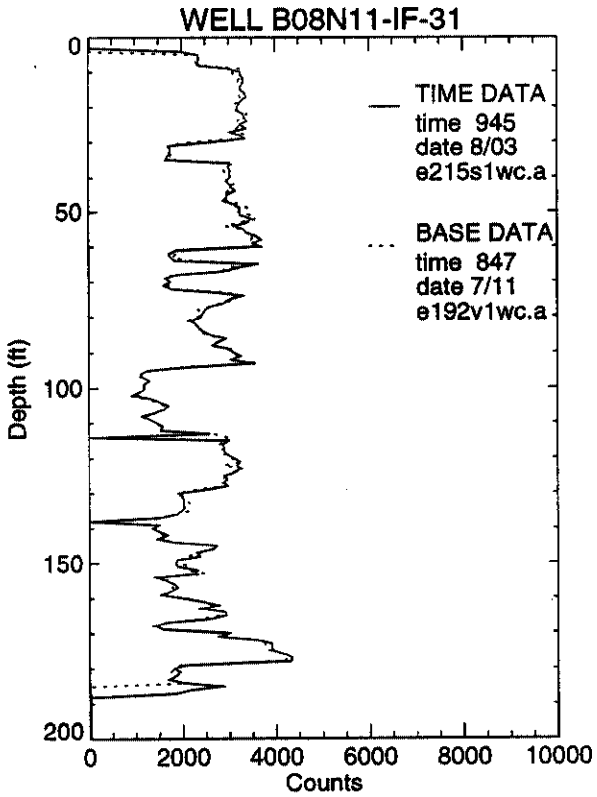
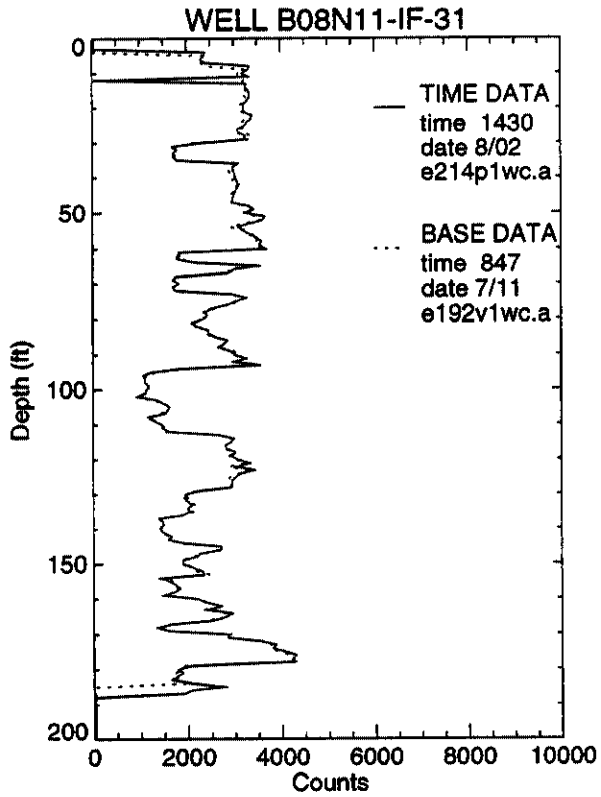
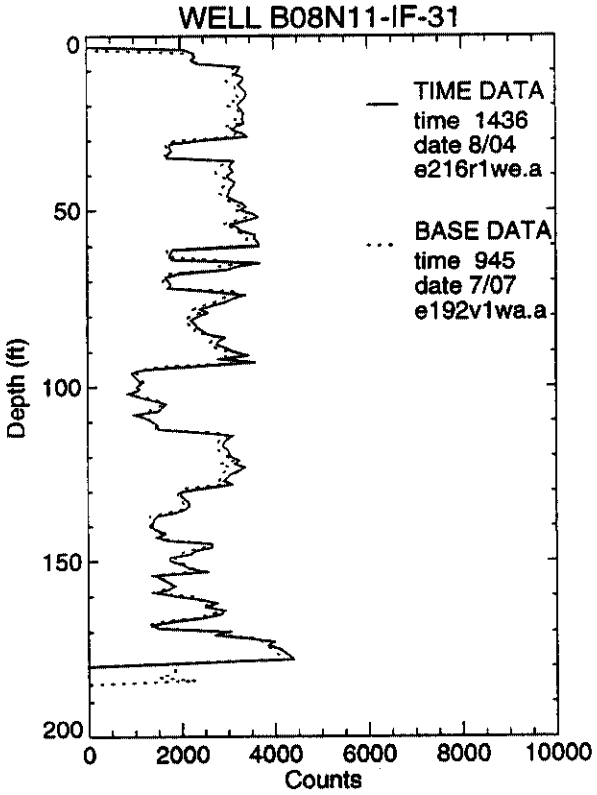
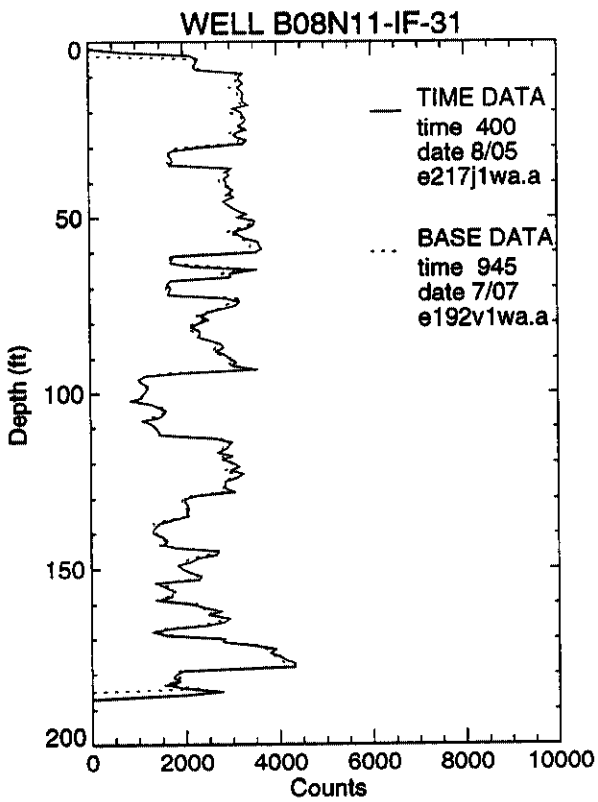
4000
6000
8000
10000

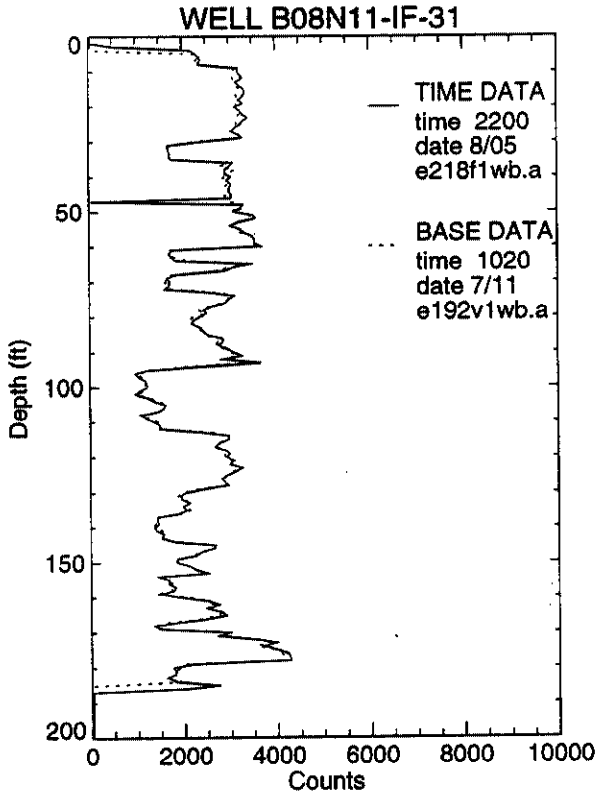

WELL B08N11-IF-31
TIME DATA
time 515
date 7/31
e212s1wc.a
BASE DATA
time 847
date 7/11
e192v1wc.a
Depth (ft)
Counts

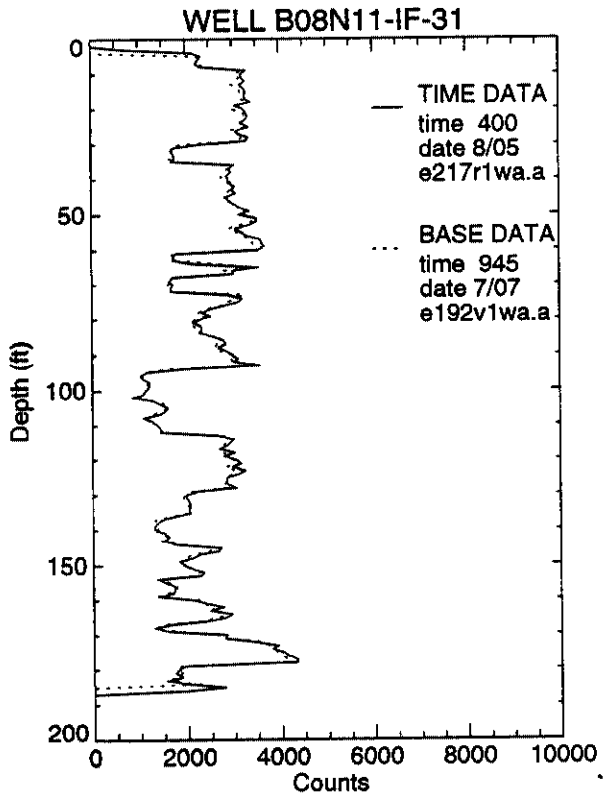

WELL B08N11-IF-31
TIME DATA
time 945
date 8/03
e215s1wc.a
BASE DATA
time 847
date 7/11
e192v1wc.a
Depth (ft)
Counts


WELL B08N11-IF-31
TIME DATA
time 1430
date 8/02
e214p1wc.a
BASE DATA
time 847
date 7/11
e192v1wc.a
Depth (ft)
Counts


WELL B08N11-IF-31
TIME DATA
time 1436
date 8/04
e216r1we.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts


WELL B08N11-IF-31
TIME DATA
time 400
date 8/05
e217j1wa.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 2200
date 8/05
e218f1wb.a
BASE DATA
time 1020
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 400
date 8/05
e217r1wa.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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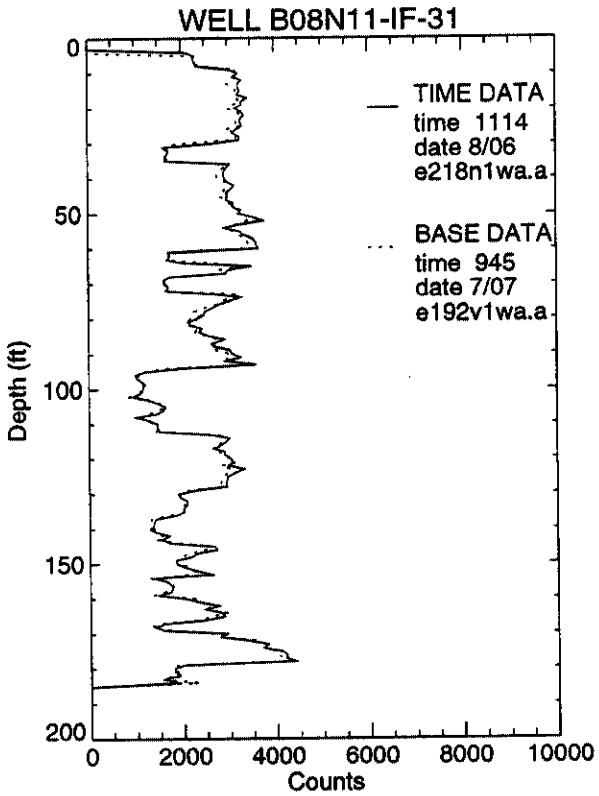
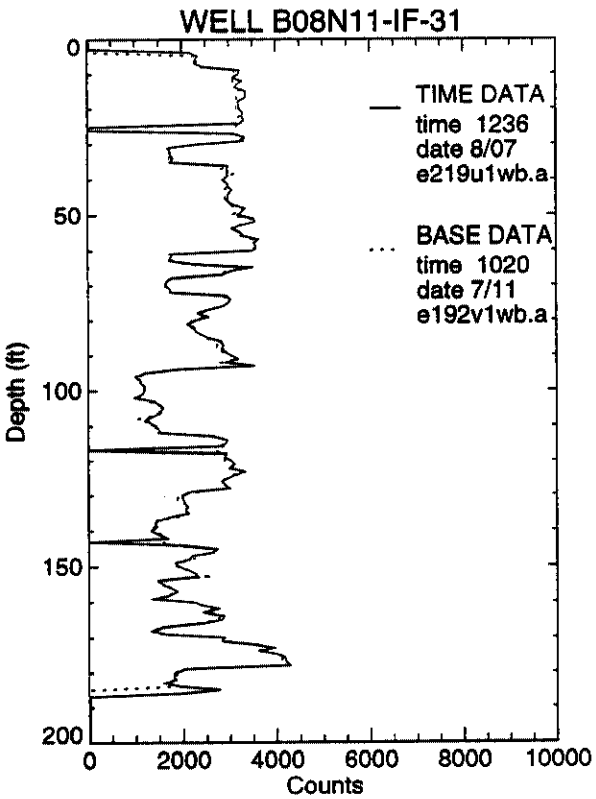
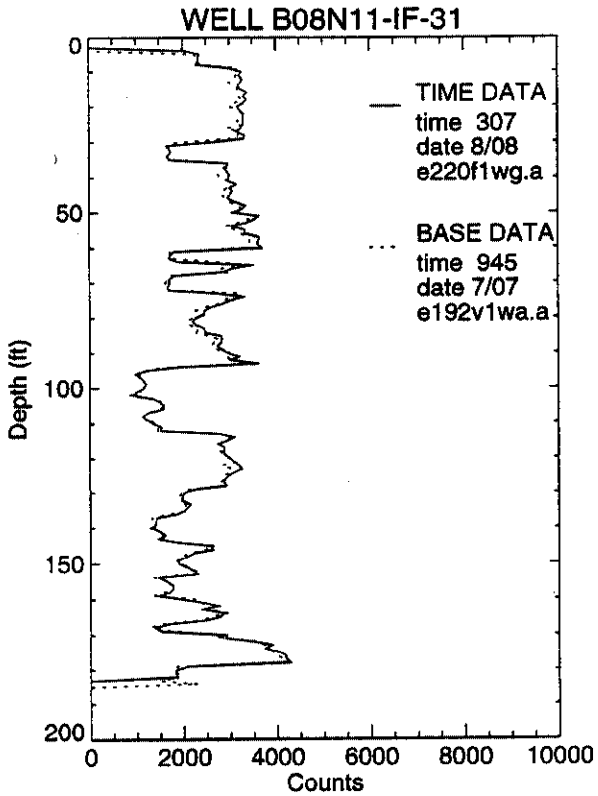
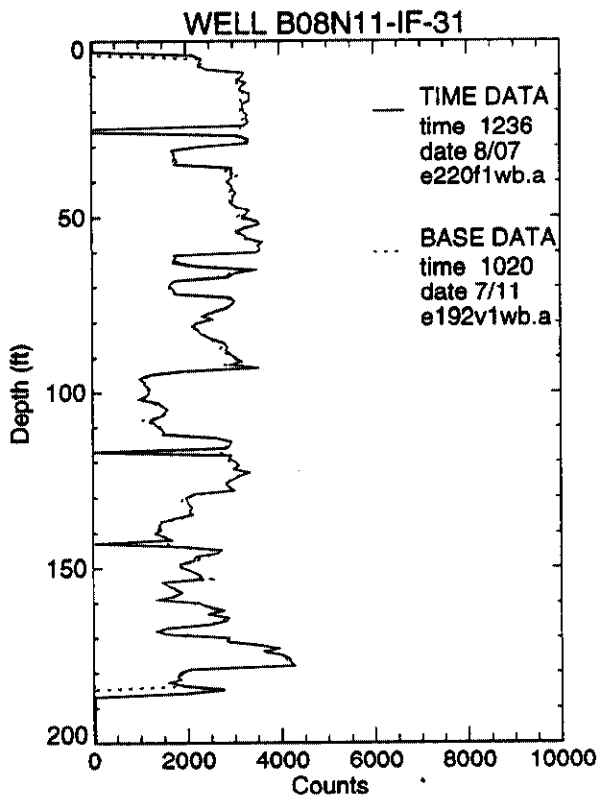
100
150
200
0
2000
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 1114
date 8/06
e218n1wa.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 1236
date 8/07
e219u1wb.a
BASE DATA
time 1020
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 307
date 8/08
e220f1wg.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 1236
date 8/07
e220f1wb.a
BASE DATA
time 1020
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
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6000
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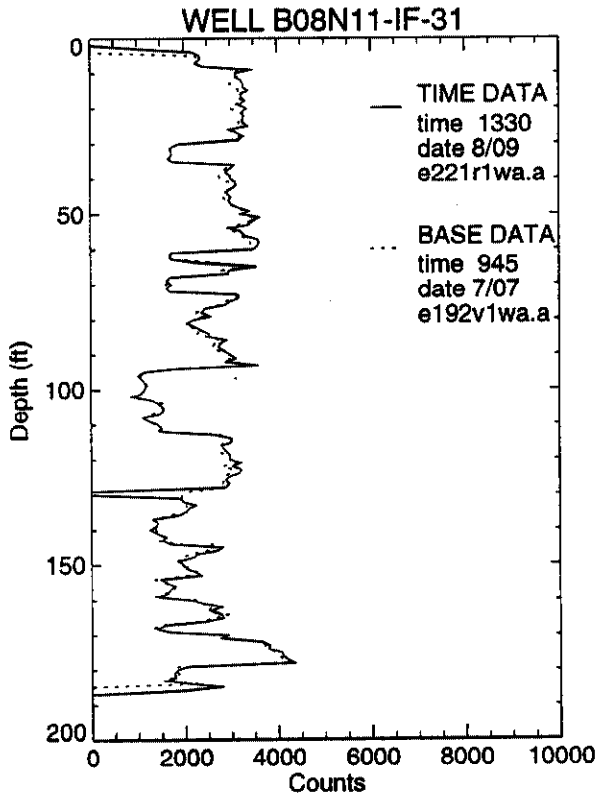
10000


WELL B08N11-IF-31
TIME DATA
time 1330
date 8/09
e221r1wa.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
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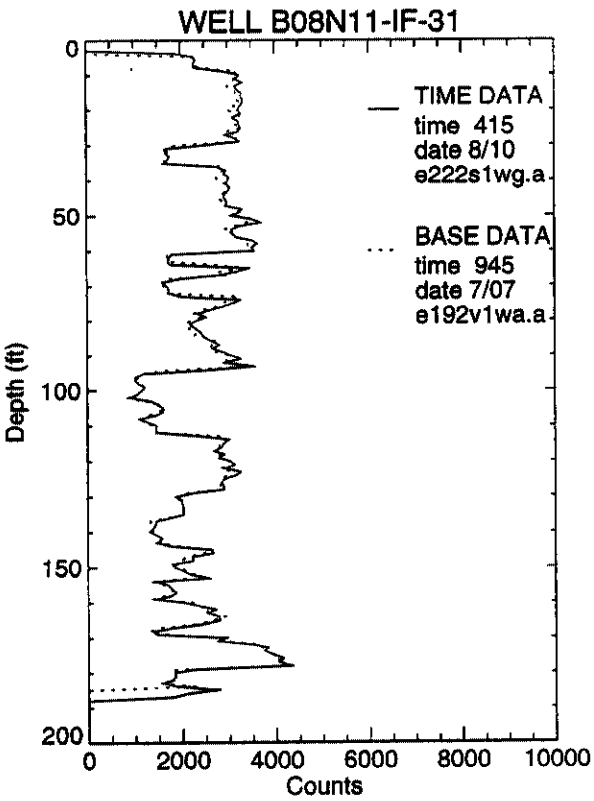
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 415
date 8/10
e222s1wg.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
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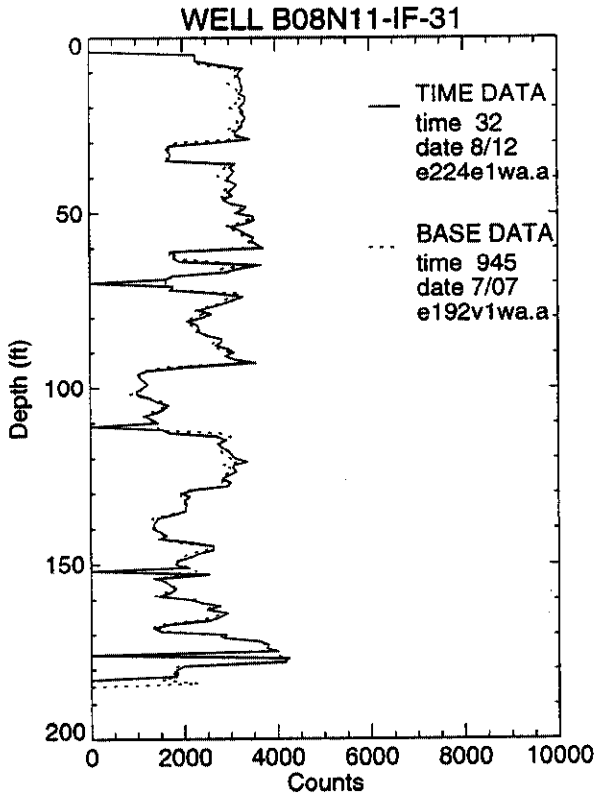
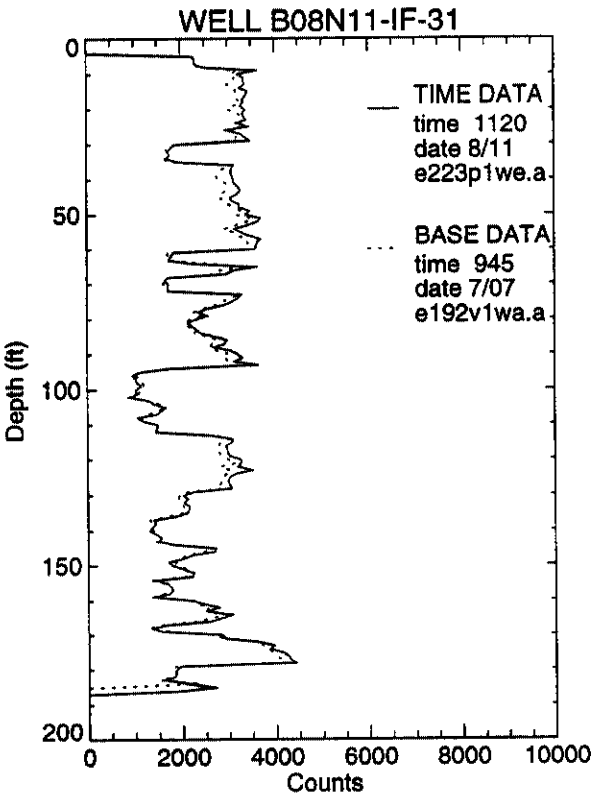
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 32
date 8/12
e224e1wa.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 1120
date 8/11
e223p1we.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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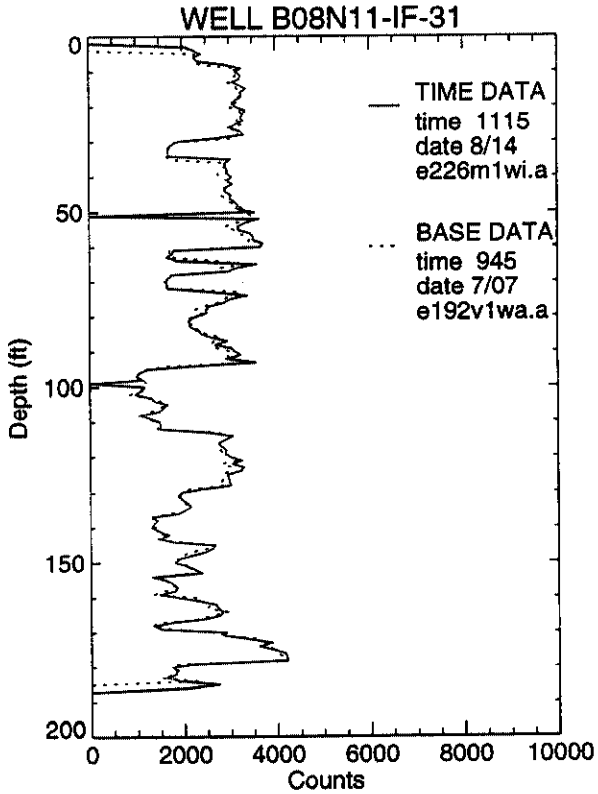
150
200
0
2000
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 1115
date 8/14
e226m1wi.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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150
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0
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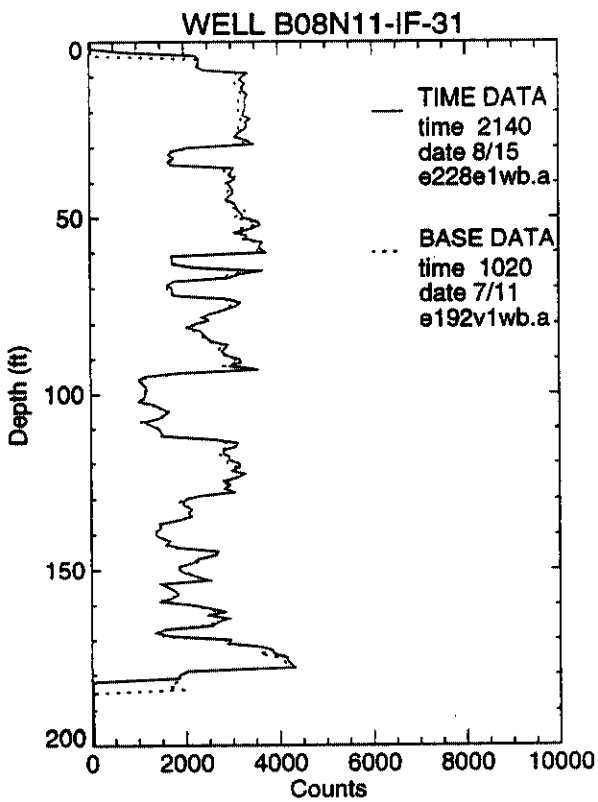
8000
10000


WELL B08N11-IF-31
TIME DATA
time 2140
date 8/15
e228e1wb.a
BASE DATA
time 1020
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
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150
200
0
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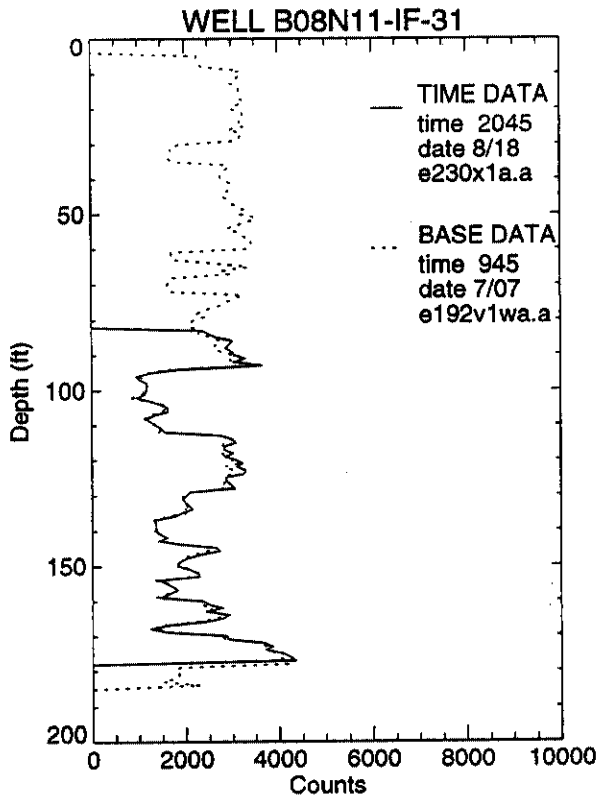
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 2045
date 8/18
e230x1a.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
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150
200
0
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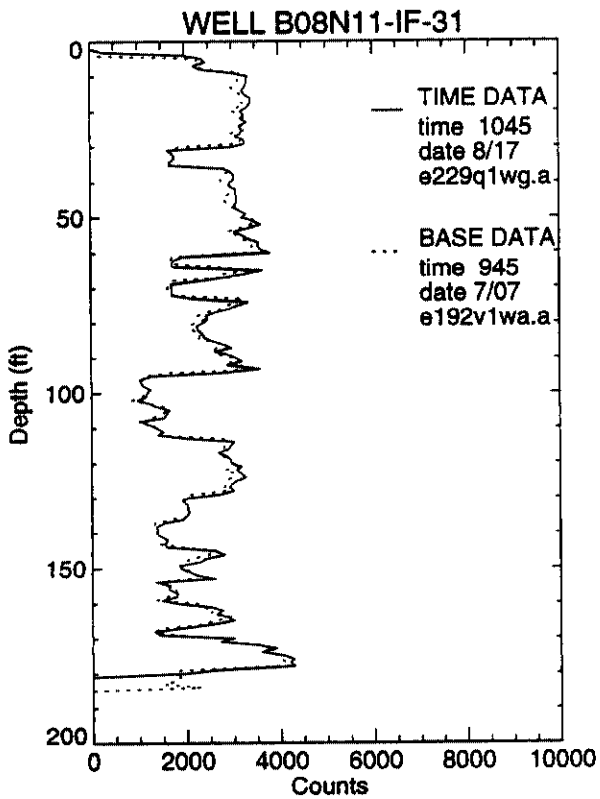
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 1045
date 8/17
e229q1wg.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
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0
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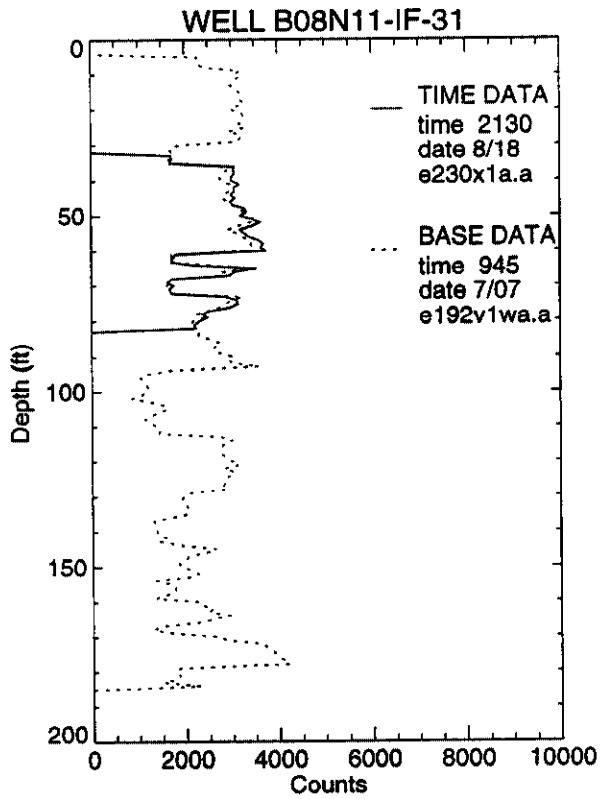
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 2130
date 8/18
e230x1a.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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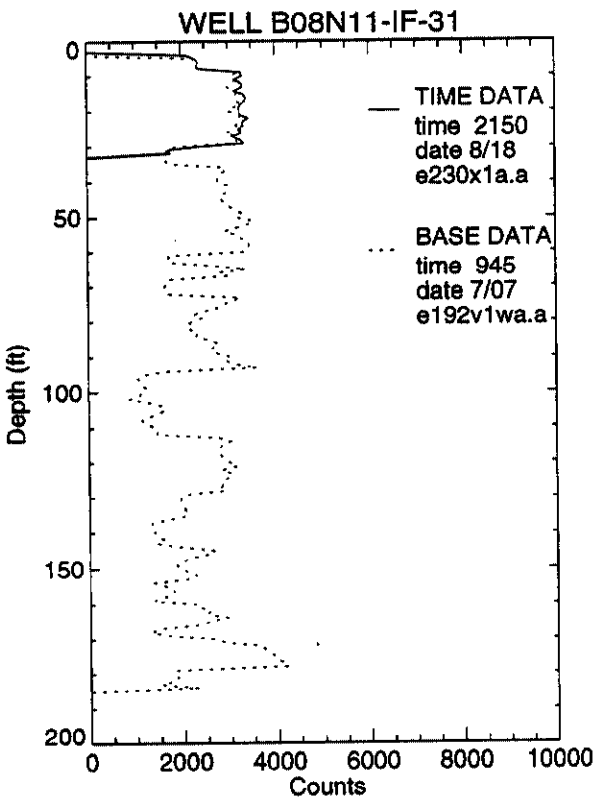
150
200
0
2000
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 2150
date 8/18
e230x1a.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
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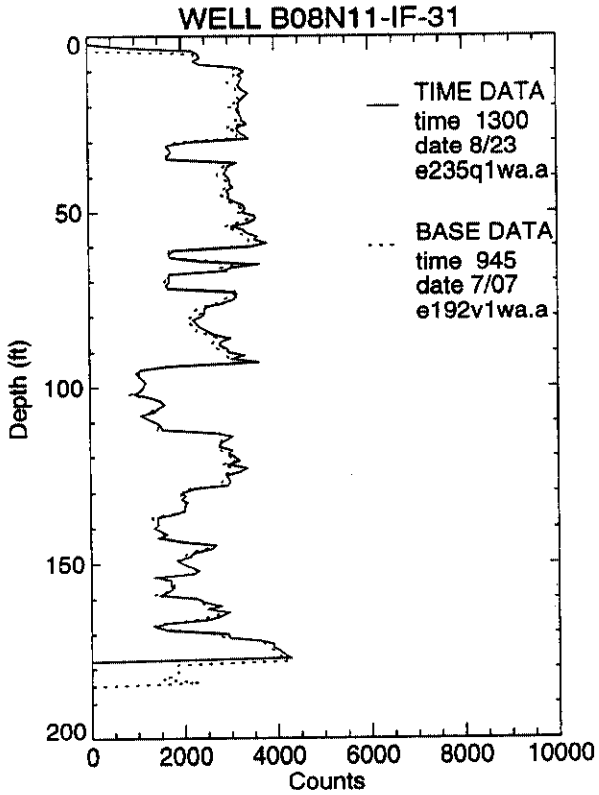
150
200
0
2000
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 1300
date 8/23
e235q1wa.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
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150
200
0
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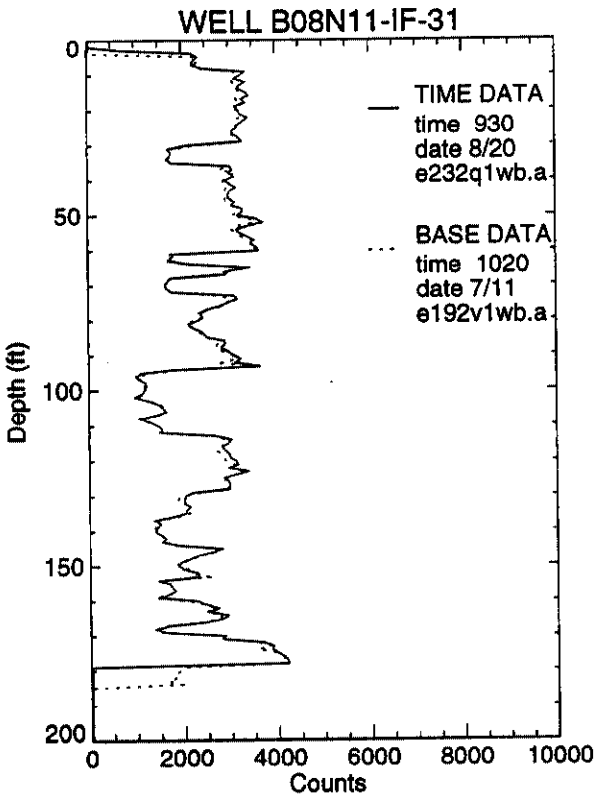
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 930
date 8/20
e232q1wb.a
BASE DATA
time 1020
date 7/11
e192v1wb.a
Depth (ft)
Counts
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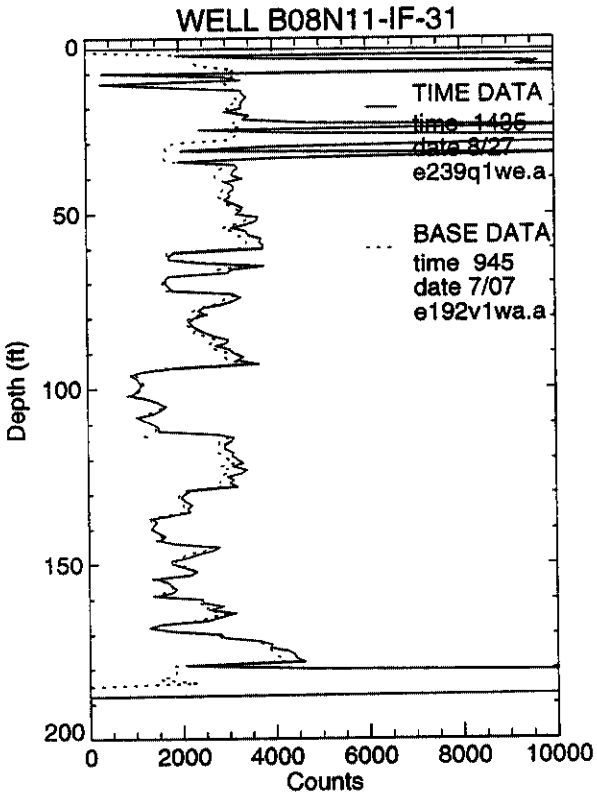
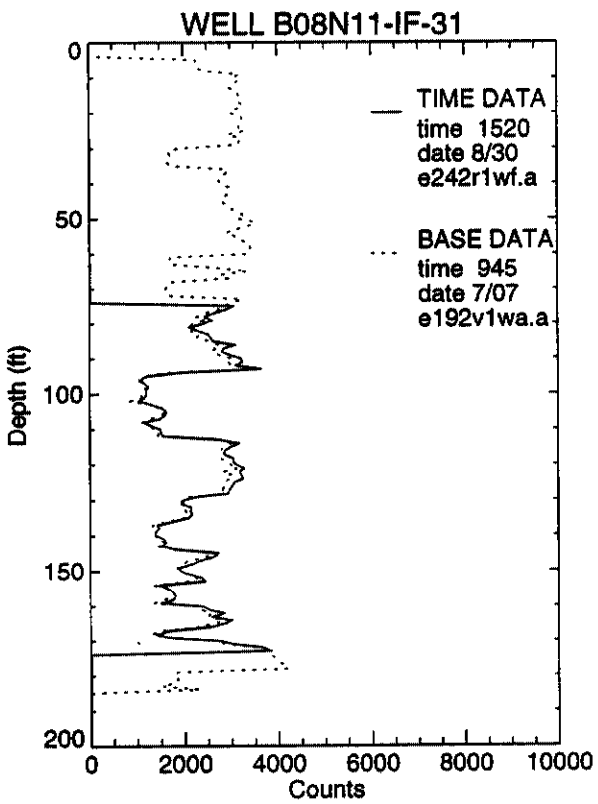
100
150
200
0
2000
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 1435
date 8/27
e239q1we.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 1520
date 8/30
e242r1wf.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
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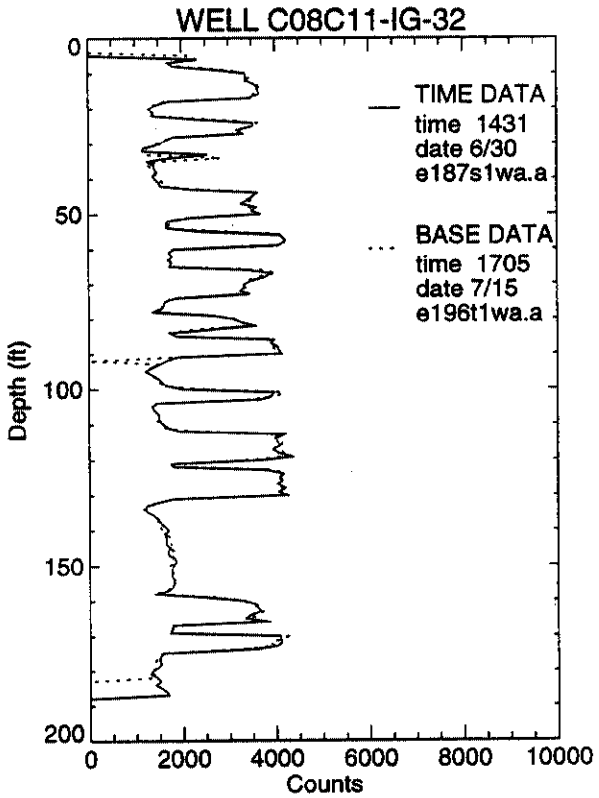
150
200
0
2000
4000
6000
8000
10000


WELL C08C11-IG-32
TIME DATA
time 1431
date 6/30
e187s1wa.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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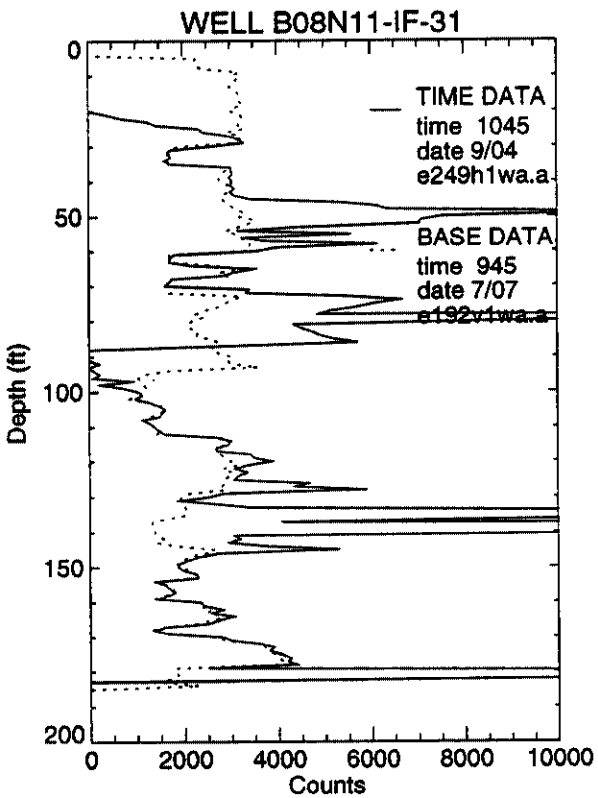
100
150
200
0
2000
4000
6000
8000
10000


WELL B08N11-IF-31
TIME DATA
time 1045
date 9/04
e249h1wa.a
BASE DATA
time 945
date 7/07
e192v1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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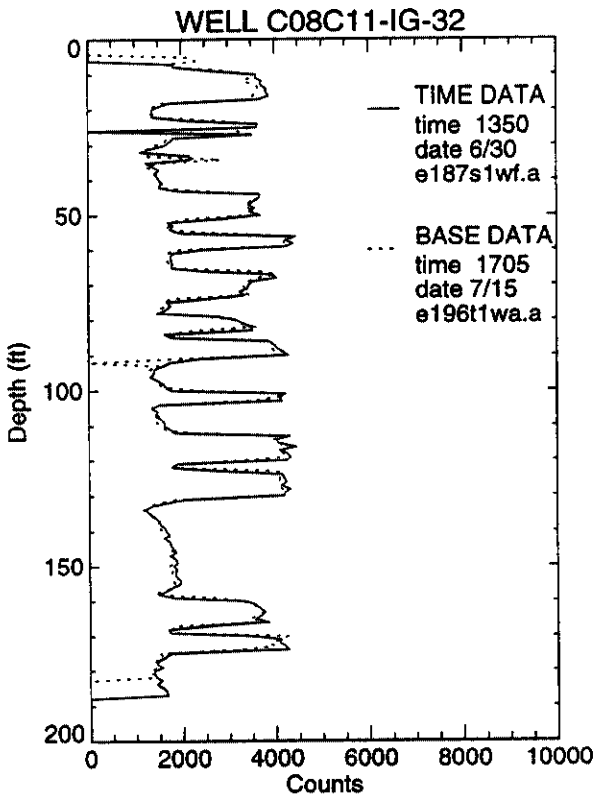
4000
6000
8000
10000


WELL C08C11-IG-32
TIME DATA
time 1350
date 6/30
e187s1wf.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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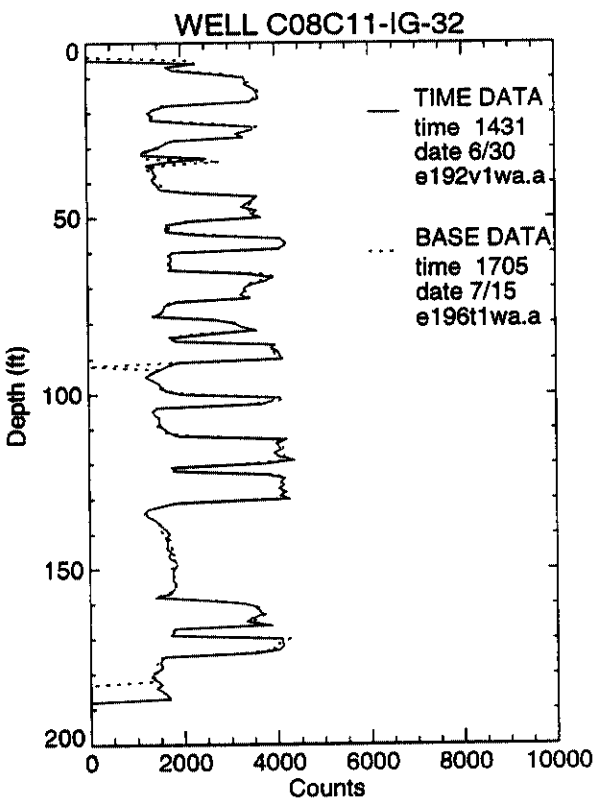
4000
6000
8000
10000


WELL C08C11-IG-32
TIME DATA
time 1431
date 6/30
e192v1wa.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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150
200
0
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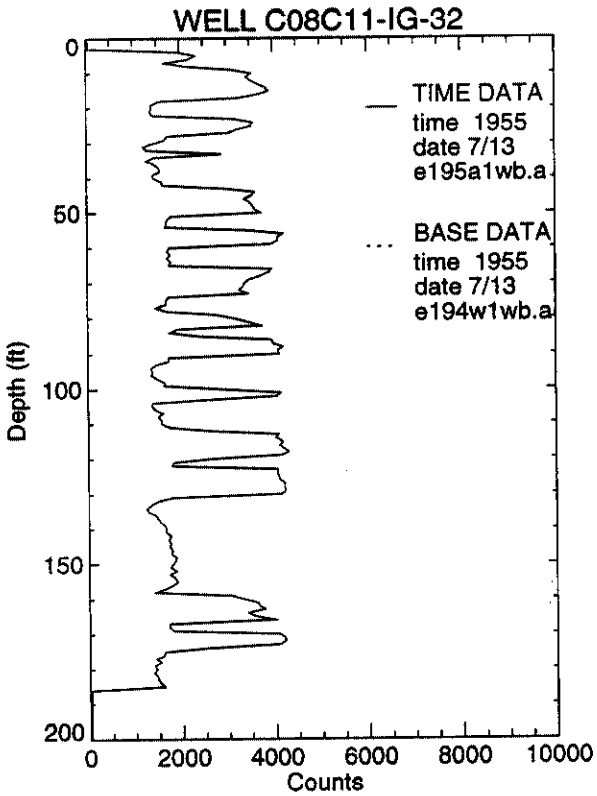
8000
10000


WELL C08C11-IG-32
TIME DATA
time 1955
date 7/13
e195a1wb.a
BASE DATA
time 1955
date 7/13
e194w1wb.a
Depth (ft)
Counts
0
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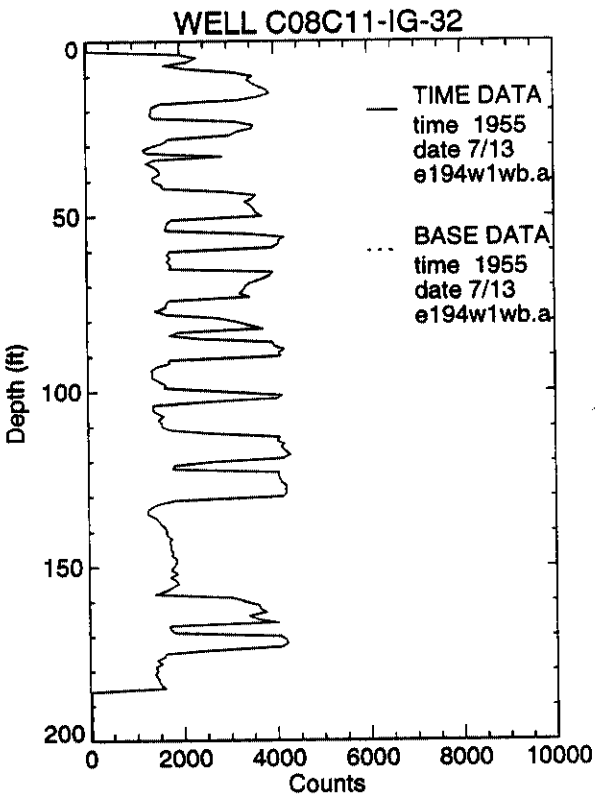
100
150
200
0
2000
4000
6000
8000
10000


WELL C08C11-IG-32
TIME DATA
time 1955
date 7/13
e194w1wb.a
BASE DATA
time 1955
date 7/13
e194w1wb.a
Depth (ft)
Counts
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100
150
200
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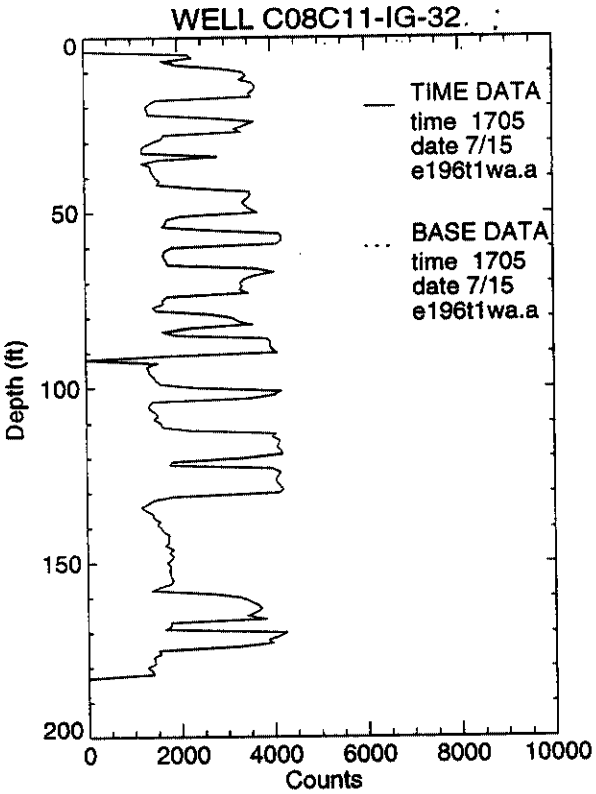
2000
4000
6000
8000
10000


WELL C08C11-IG-32
TIME DATA
time 1705
date 7/15
e196t1wa.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
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0
2000
4000
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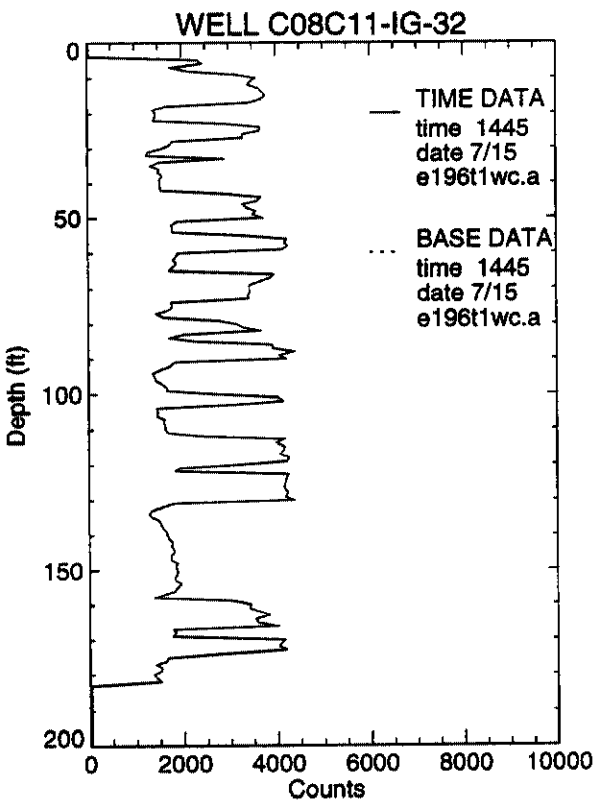
8000
10000


WELL C08C11-IG-32
TIME DATA
time 1445
date 7/15
e196t1wc.a
BASE DATA
time 1445
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
50
100
150
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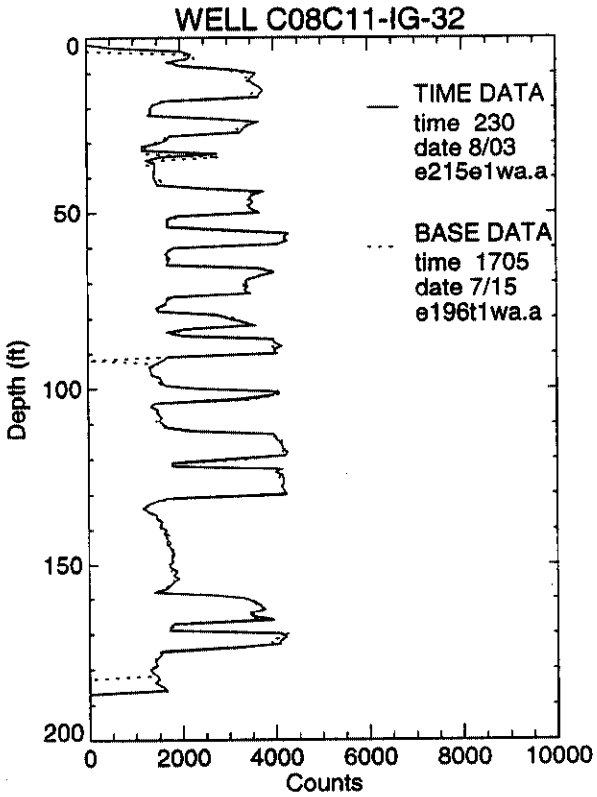
WELL C08C11-IG-32
TIME DATA
time 230
date 8/03
e215e1wa.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
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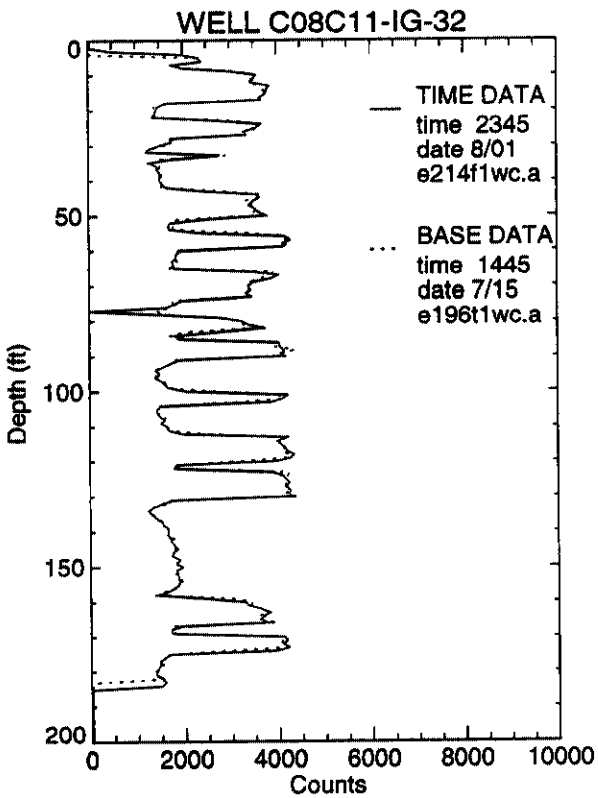
8000
10000


WELL C08C11-IG-32
TIME DATA
time 2345
date 8/01
e214f1wc.a
BASE DATA
time 1445
date 7/15
e196t1wc.a
Depth (ft)
Counts
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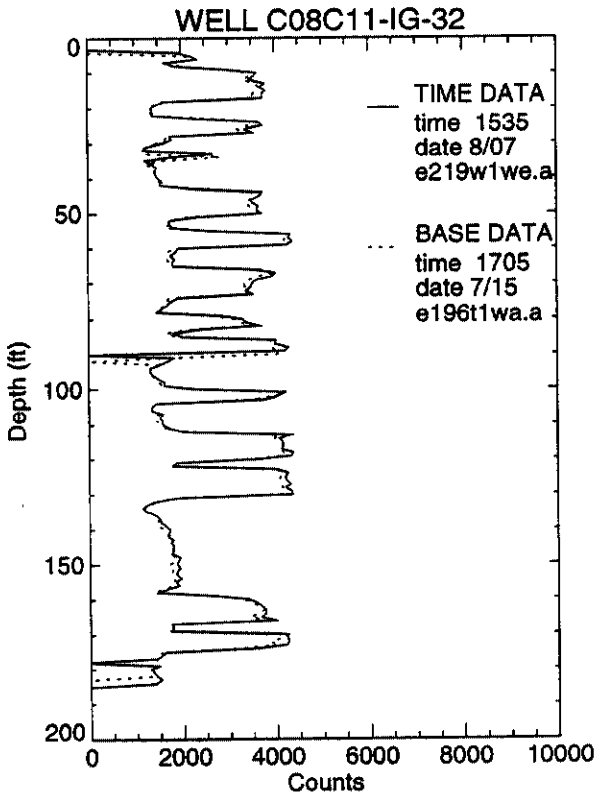
10000


WELL C08C11-IG-32
TIME DATA
time 1535
date 8/07
e219w1we.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
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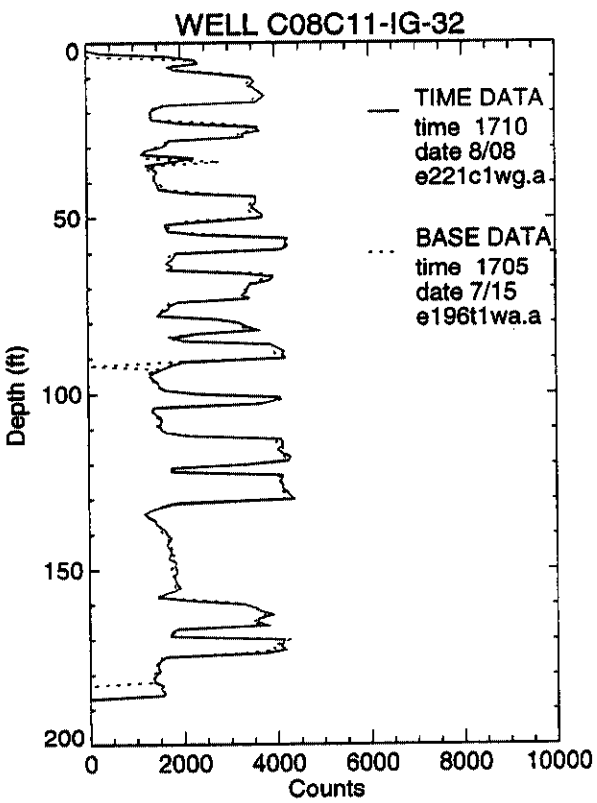
10000


WELL C08C11-IG-32
TIME DATA
time 1710
date 8/08
e221c1wg.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
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0
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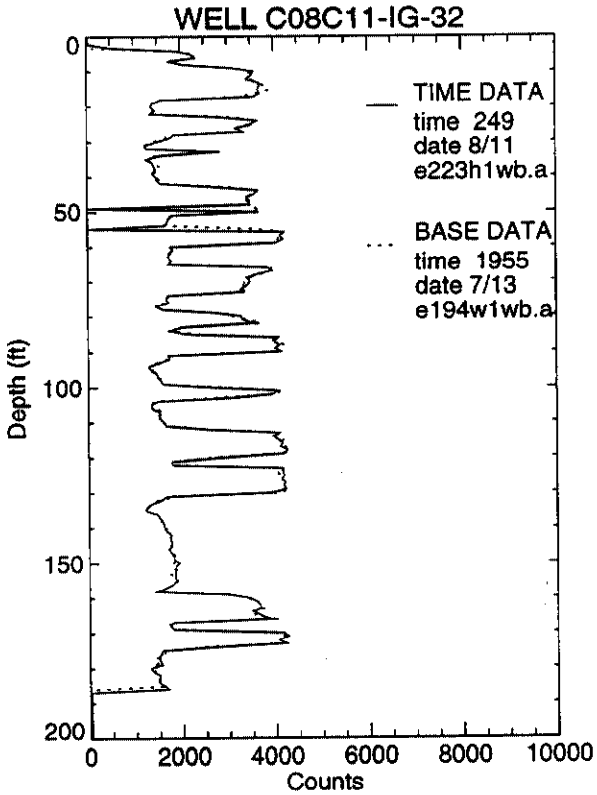
8000
10000


WELL C08C11-IG-32
TIME DATA
time 249
date 8/11
e223h1wb.a
BASE DATA
time 1955
date 7/13
e194w1wb.a
Depth (ft)
Counts
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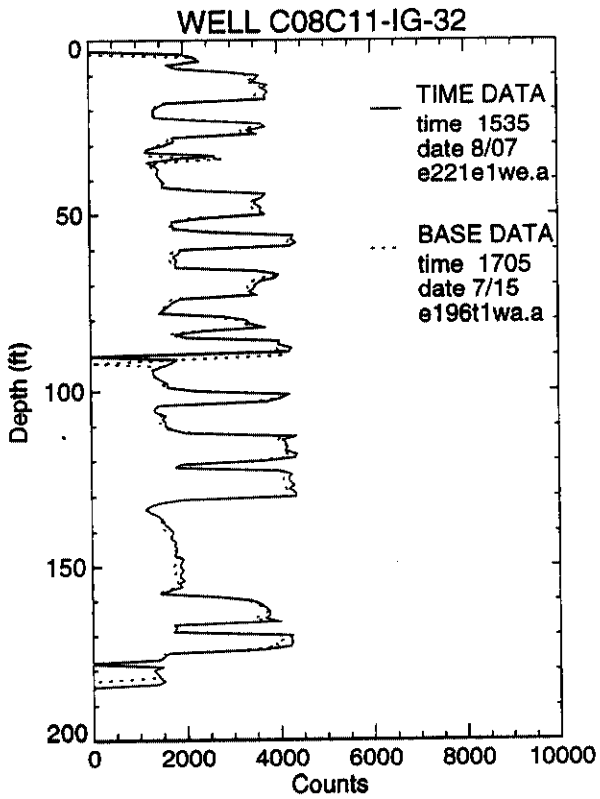
8000
10000


WELL C08C11-IG-32
TIME DATA
time 1535
date 8/07
e221e1we.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
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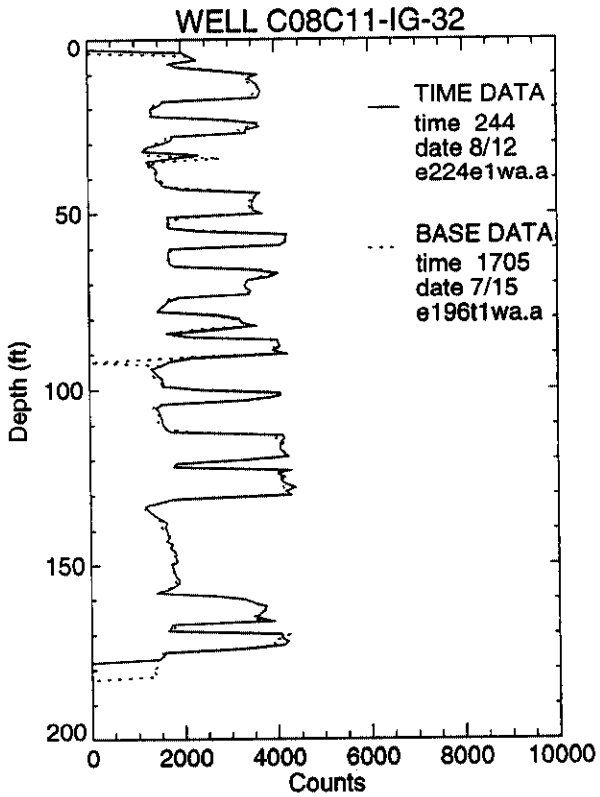
WELL C08C11-IG-32
TIME DATA
time 244
date 8/12
e224e1wa.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
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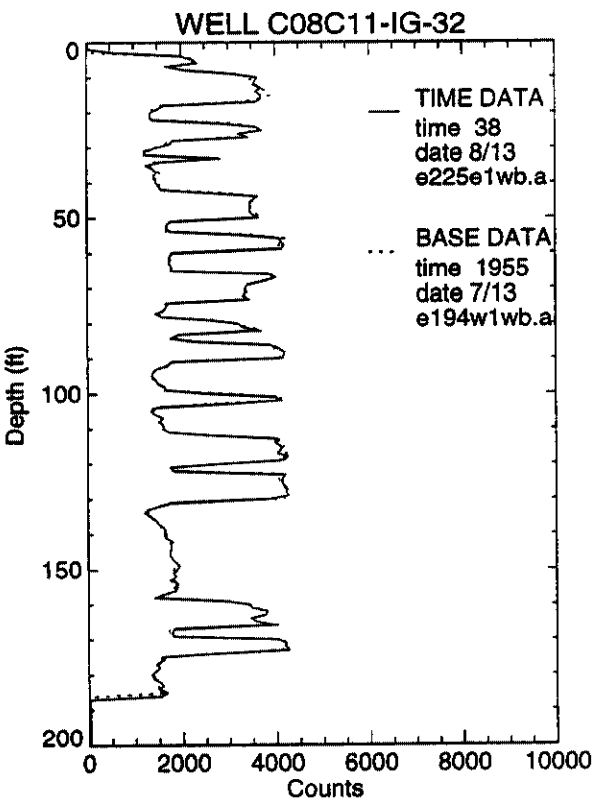
8000
10000


WELL C08C11-IG-32
TIME DATA
time 38
date 8/13
e225e1wb.a
BASE DATA
time 1955
date 7/13
e194w1wb.a
Depth (ft)
Counts
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0
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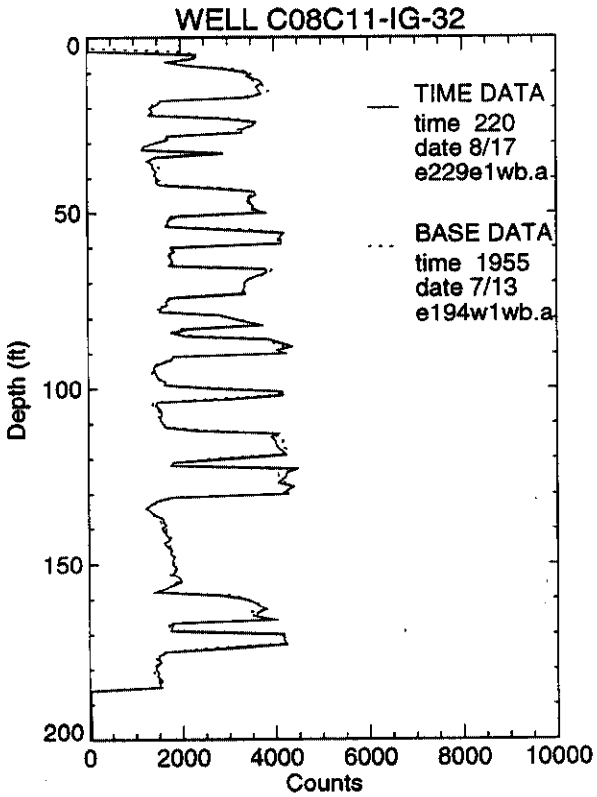
8000
10000


WELL C08C11-IG-32
TIME DATA
time 220
date 8/17
e229e1wb.a
BASE DATA
time 1955
date 7/13
e194w1wb.a
Depth (ft)
Counts
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0
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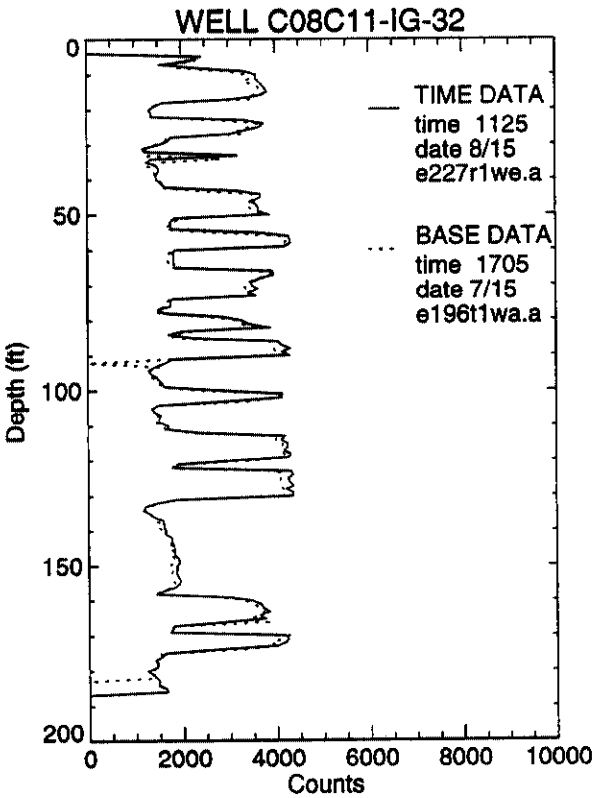
8000
10000


WELL C08C11-IG-32
TIME DATA
time 1125
date 8/15
e227r1we.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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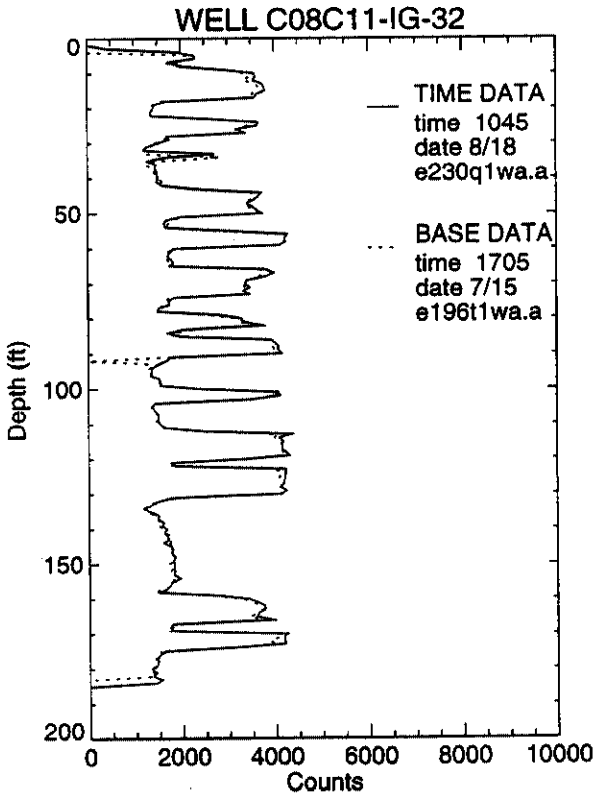
8000
10000


WELL C08C11-IG-32
TIME DATA
time 1045
date 8/18
e230q1wa.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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0
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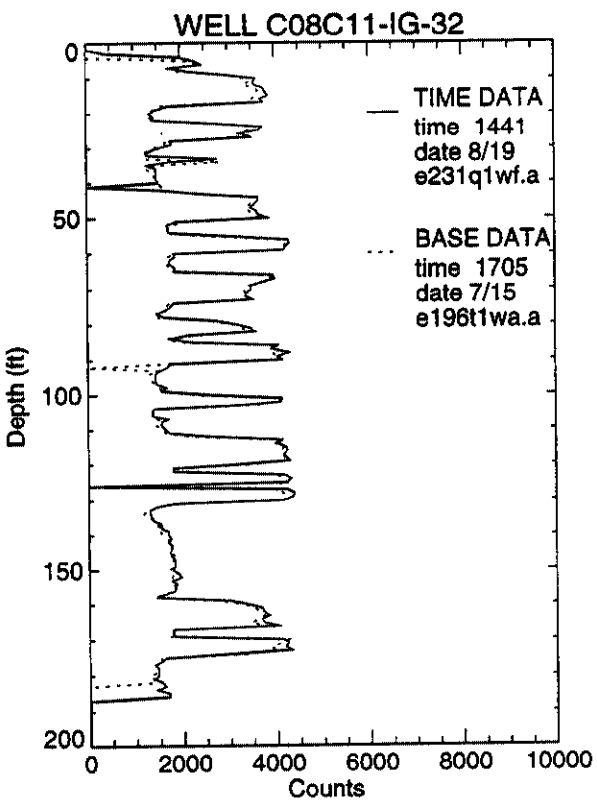
8000
10000


WELL C08C11-IG-32
TIME DATA
time 1441
date 8/19
e231q1wf.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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0
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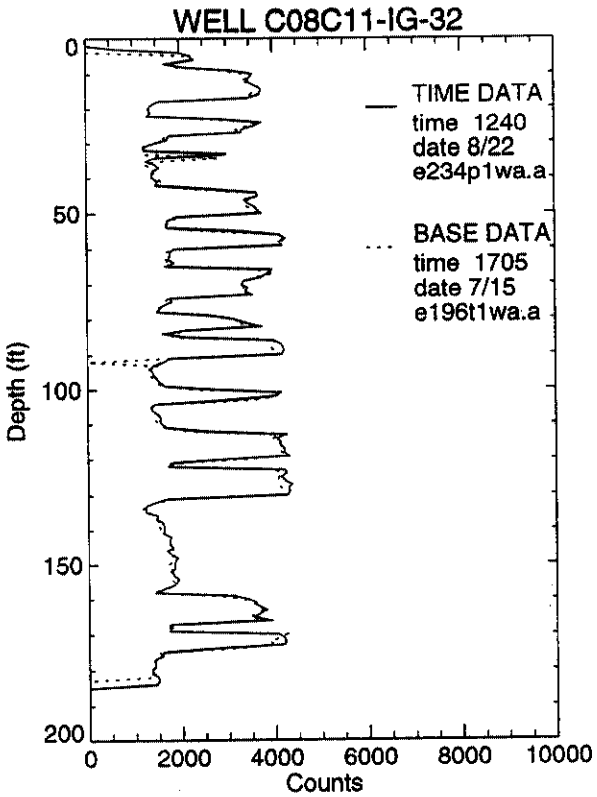
8000
10000


WELL C08C11-IG-32
TIME DATA
time 1240
date 8/22
e234p1wa.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
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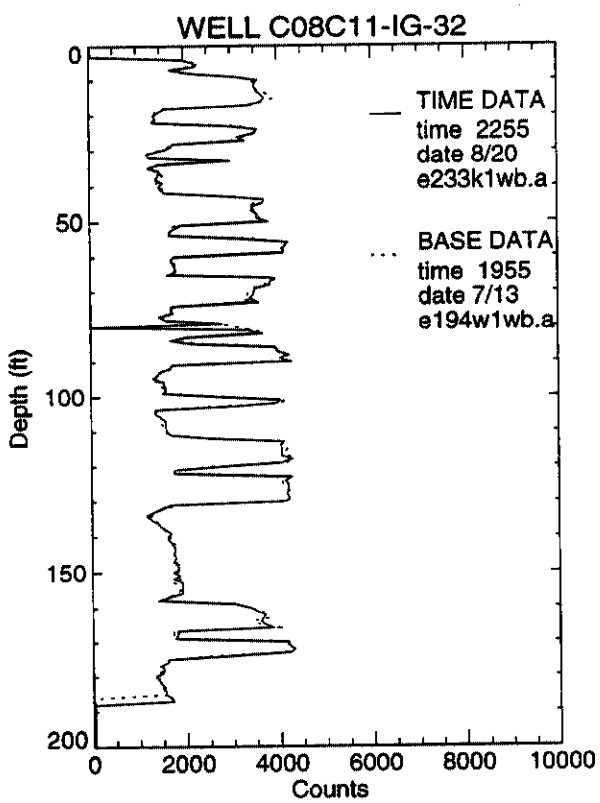
WELL C08C11-IG-32
TIME DATA
time 2255
date 8/20
e233k1wb.a
BASE DATA
time 1955
date 7/13
e194w1wb.a
Depth (ft)
Counts
0
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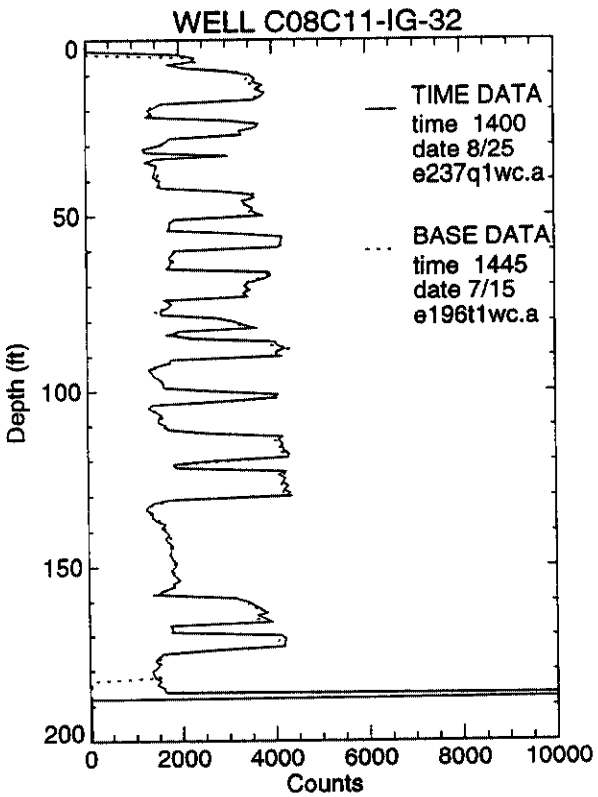
10000


WELL C08C11-IG-32
TIME DATA
time 1400
date 8/25
e237q1wc.a
BASE DATA
time 1445
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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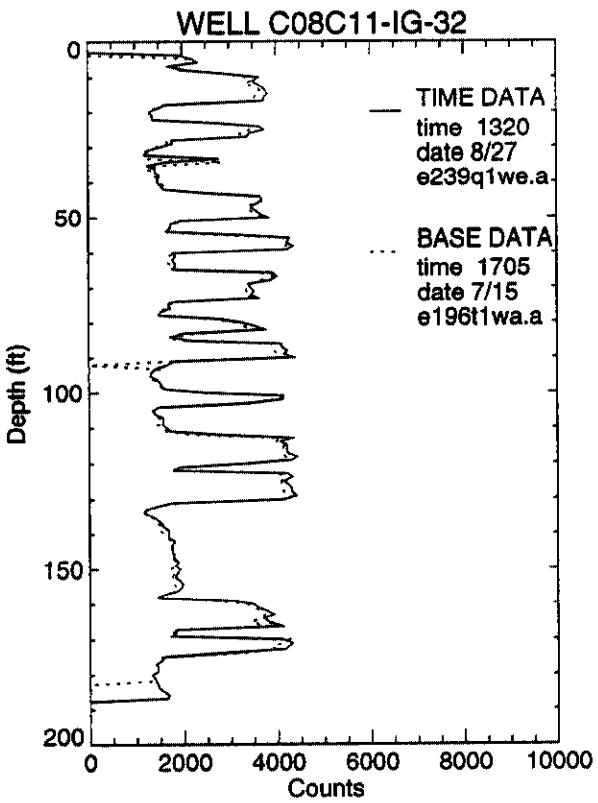
10000


WELL C08C11-IG-32
TIME DATA
time 1320
date 8/27
e239q1we.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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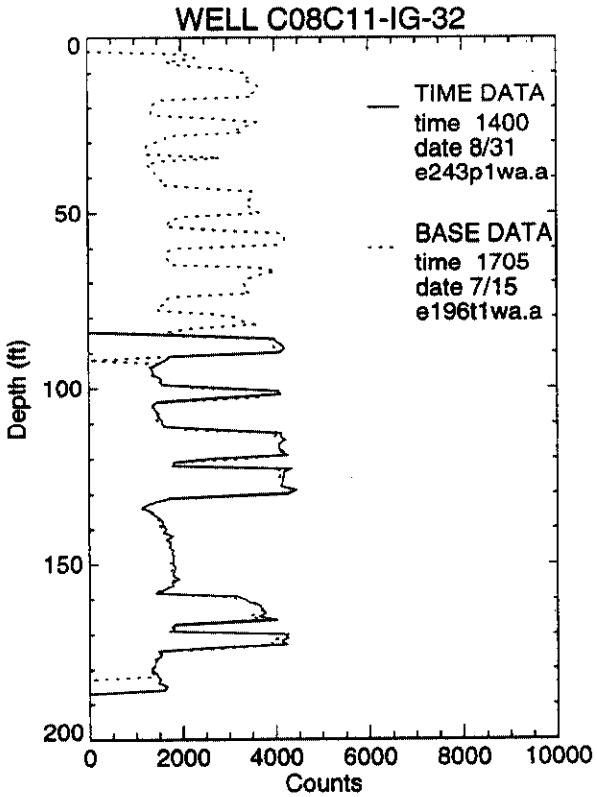
8000
10000


WELL C08C11-IG-32
TIME DATA
time 1400
date 8/31
e243p1wa.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
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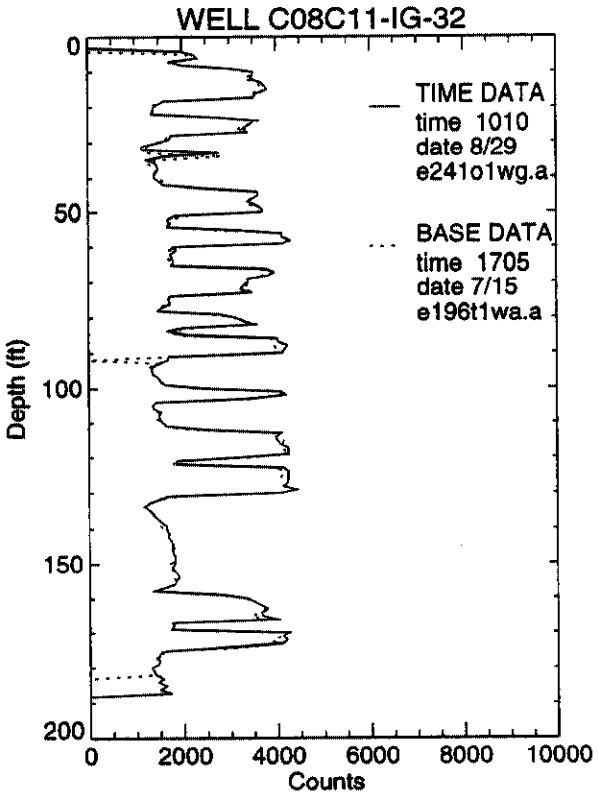
8000
10000


WELL C08C11-IG-32
TIME DATA
time 1010
date 8/29
e241o1wg.a
BASE DATA
time 1705
date 7/15
e196t1wa.a
Depth (ft)
Counts
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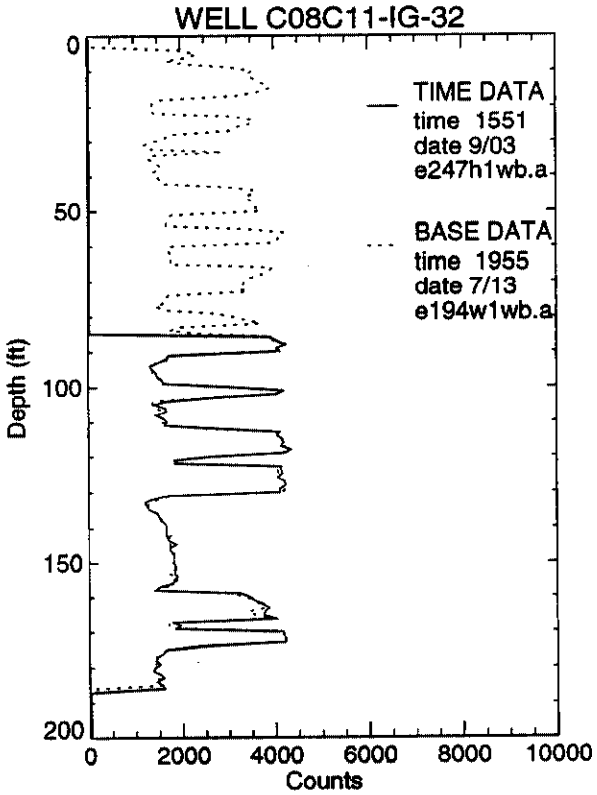
8000
10000


WELL C08C11-IG-32
TIME DATA
time 1551
date 9/03
e247h1wb.a
BASE DATA
time 1955
date 7/13
e194w1wb.a
Depth (ft)
Counts
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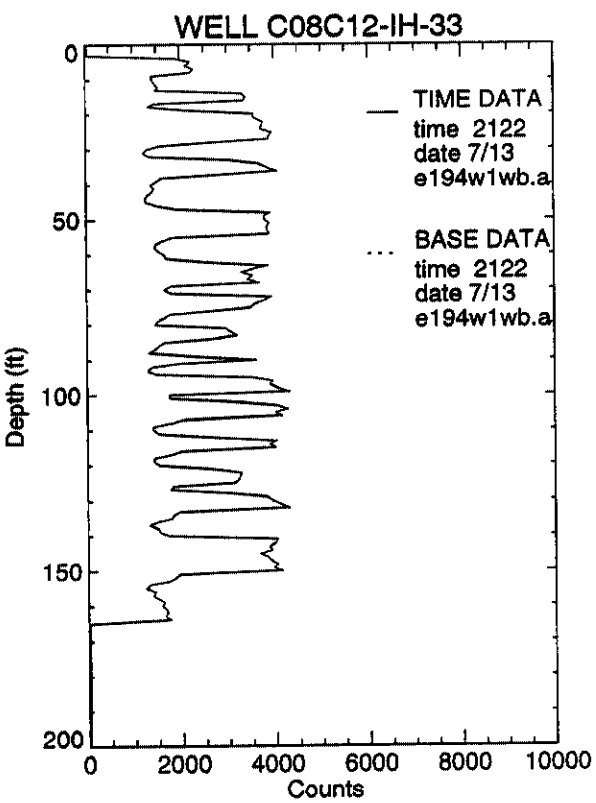
8000
10000


WELL C08C12-IH-33
TIME DATA
time 2122
date 7/13
e194w1wb.a
BASE DATA
time 2122
date 7/13
e194w1wb.a
Depth (ft)
Counts
0
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100
150
200
0
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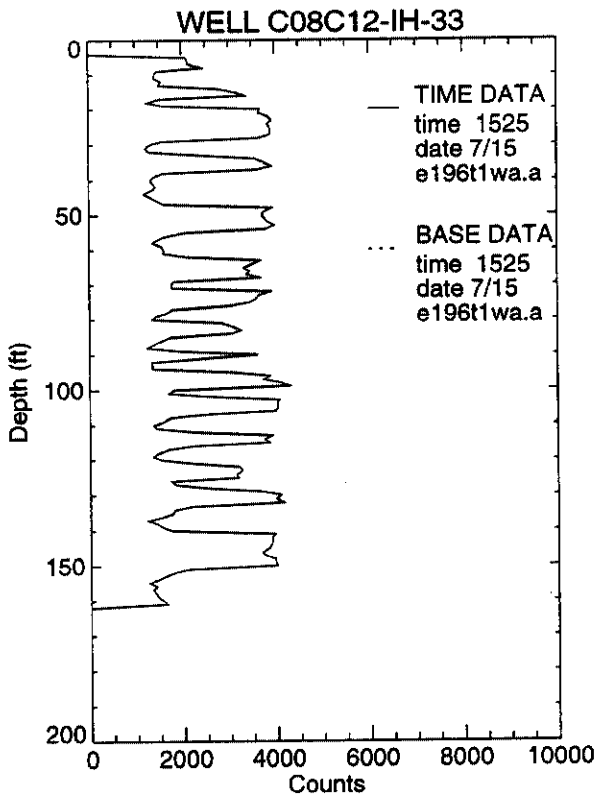
4000
6000
8000
10000


WELL C08C12-IH-33
TIME DATA
time 1525
date 7/15
e196t1wa.a
BASE DATA
time 1525
date 7/15
e196t1wa.a
Depth (ft)
Counts
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0
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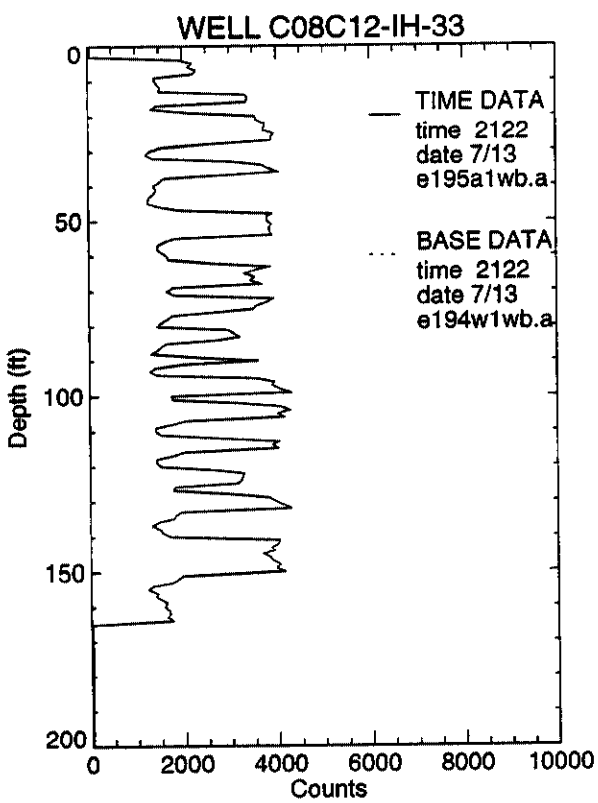
10000


WELL C08C12-IH-33
TIME DATA
time 2122
date 7/13
e195a1wb.a
BASE DATA
time 2122
date 7/13
e194w1wb.a
Depth (ft)
Counts
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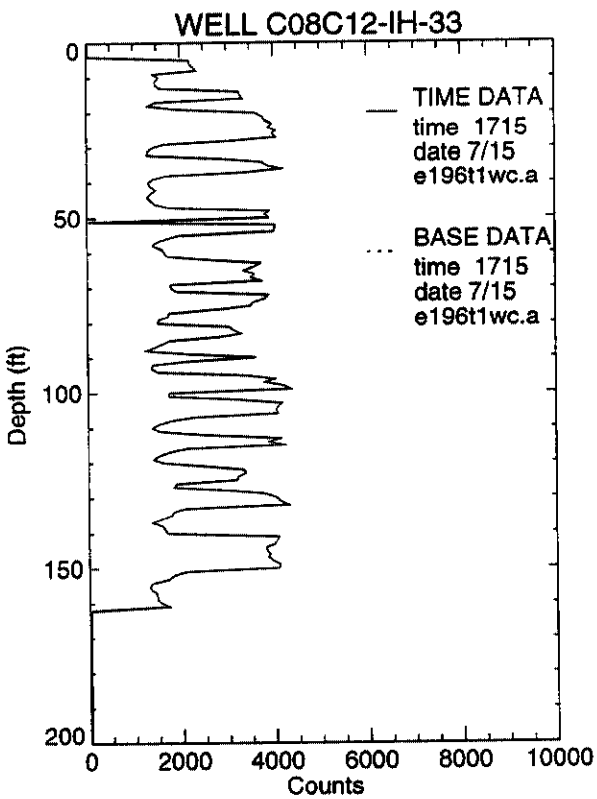
8000
10000


WELL C08C12-IH-33
TIME DATA
time 1715
date 7/15
e196t1wc.a
BASE DATA
time 1715
date 7/15
e196t1wc.a
Depth (ft)
Counts
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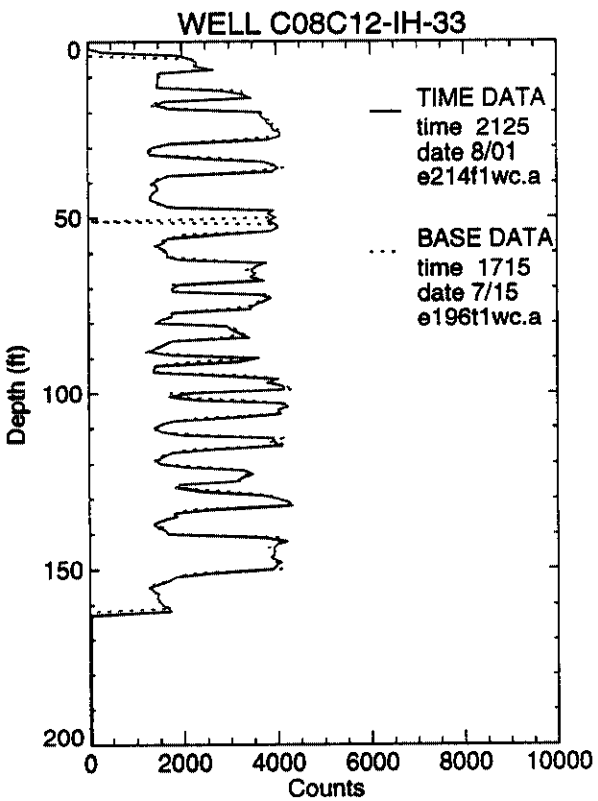
10000


WELL C08C12-IH-33
TIME DATA
time 2125
date 8/01
e214f1wc.a
BASE DATA
time 1715
date 7/15
e196t1wc.a
Depth (ft)
Counts
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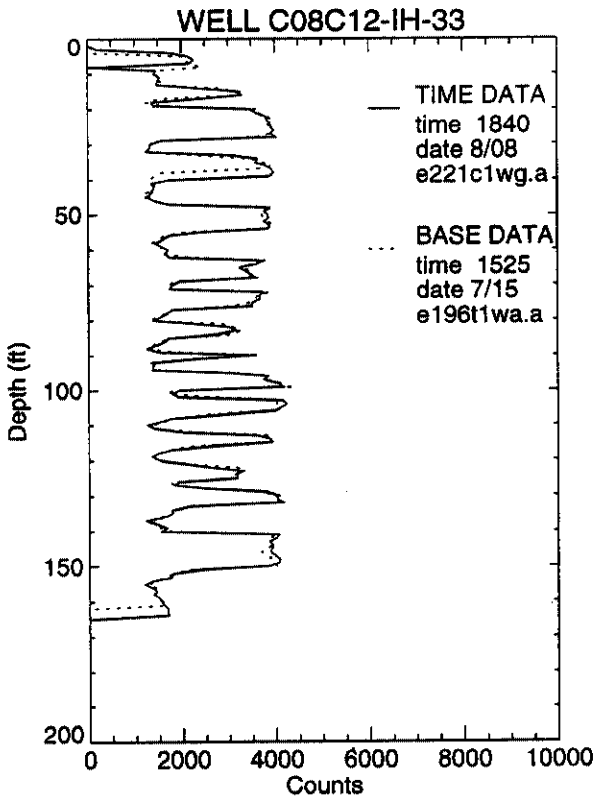
8000
10000


WELL C08C12-IH-33
TIME DATA
time 1840
date 8/08
e221c1wg.a
BASE DATA
time 1525
date 7/15
e196t1wa.a
Depth (ft)
Counts
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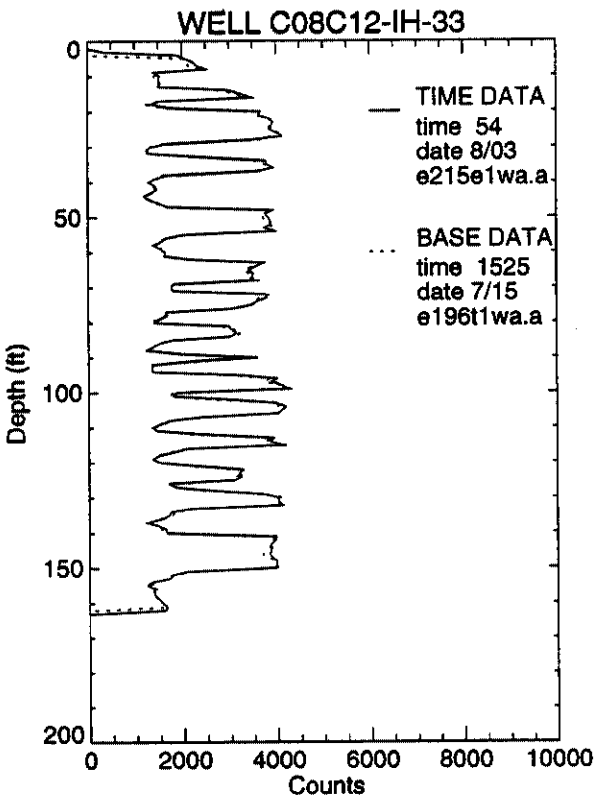
WELL C08C12-IH-33
TIME DATA
time 54
date 8/03
e215e1wa.a
BASE DATA
time 1525
date 7/15
e196t1wa.a
Depth (ft)
Counts
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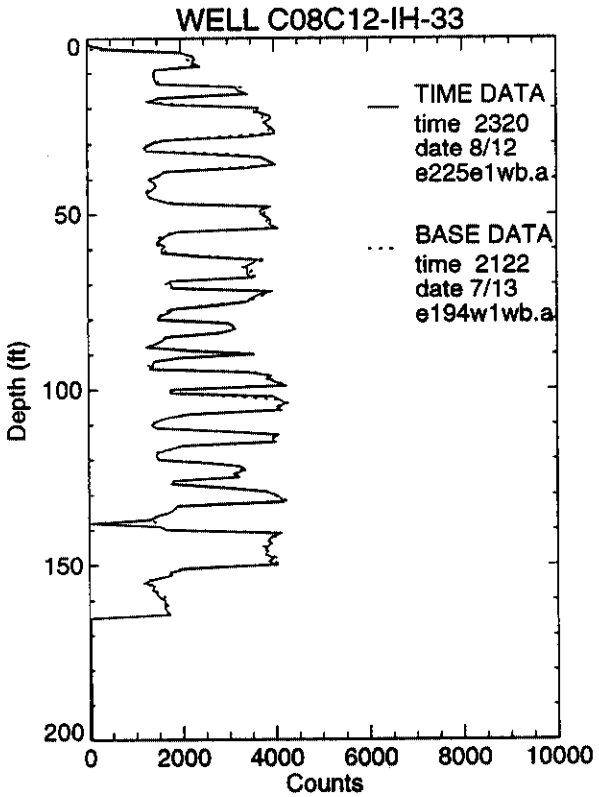
WELL C08C12-IH-33
TIME DATA
time 2320
date 8/12
e225e1wb.a
BASE DATA
time 2122
date 7/13
e194w1wb.a
Depth (ft)
Counts
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0
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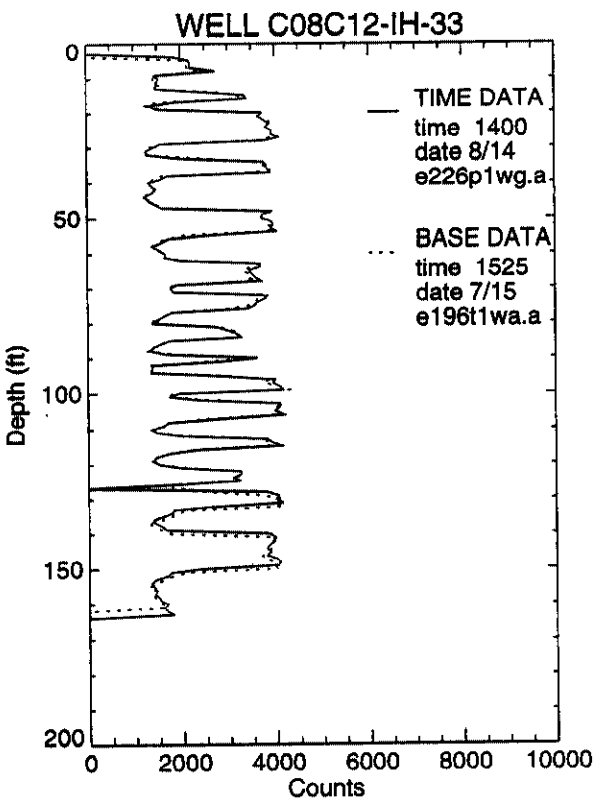
10000


WELL C08C12-IH-33
TIME DATA
time 1400
date 8/14
e226p1wg.a
BASE DATA
time 1525
date 7/15
e196t1wa.a
Depth (ft)
Counts
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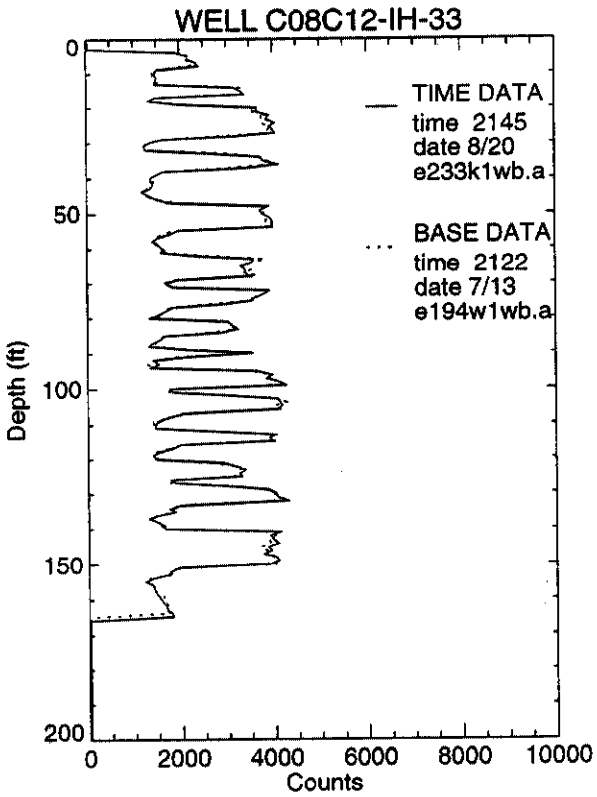
10000


WELL C08C12-IH-33
TIME DATA
time 2145
date 8/20
e233k1wb.a
BASE DATA
time 2122
date 7/13
e194w1wb.a
Depth (ft)
Counts
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0
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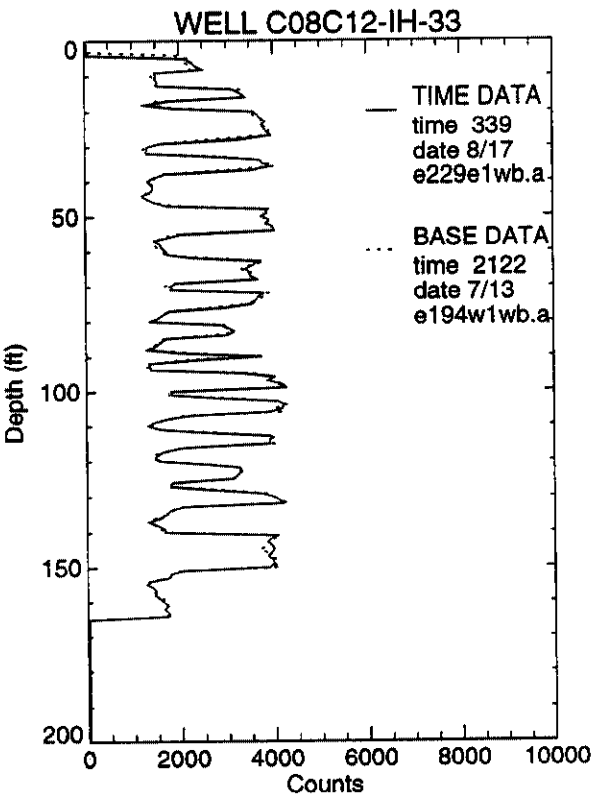
8000
10000


WELL C08C12-IH-33
TIME DATA
time 339
date 8/17
e229e1wb.a
BASE DATA
time 2122
date 7/13
e194w1wb.a
Depth (ft)
Counts
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0
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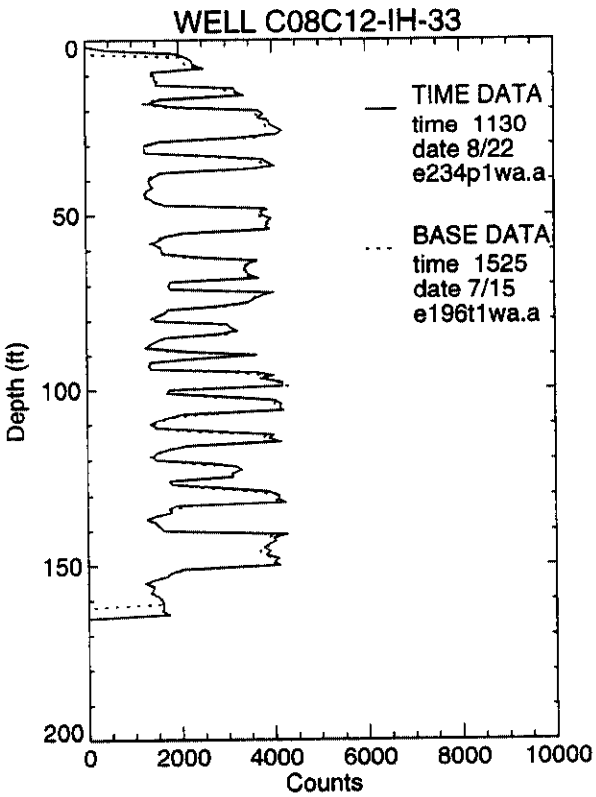
6000
8000
10000


WELL C08C12-IH-33
TIME DATA
time 1130
date 8/22
e234p1wa.a
BASE DATA
time 1525
date 7/15
e196t1wa.a
Depth (ft)
Counts
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0
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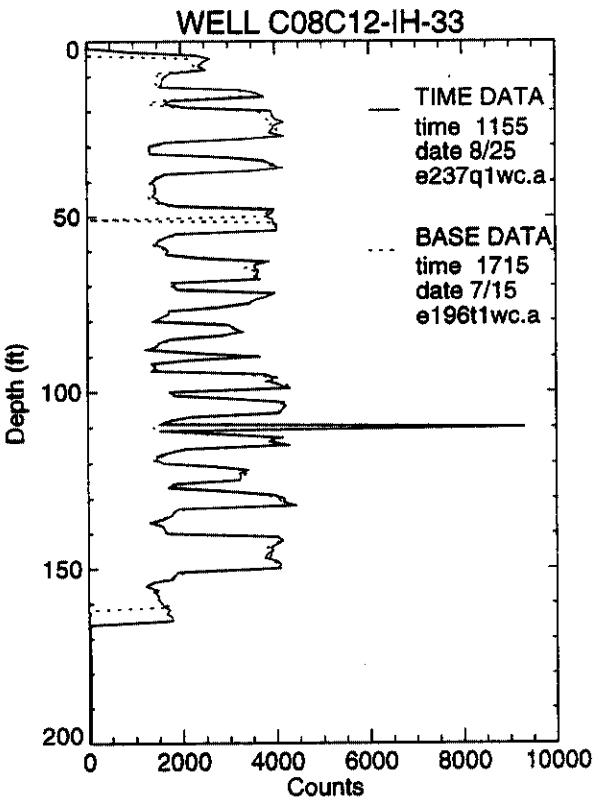
10000


WELL C08C12-IH-33
TIME DATA
time 1155
date 8/25
e237q1wc.a
BASE DATA
time 1715
date 7/15
e196t1wc.a
Depth (ft)
Counts
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150
200
0
2000
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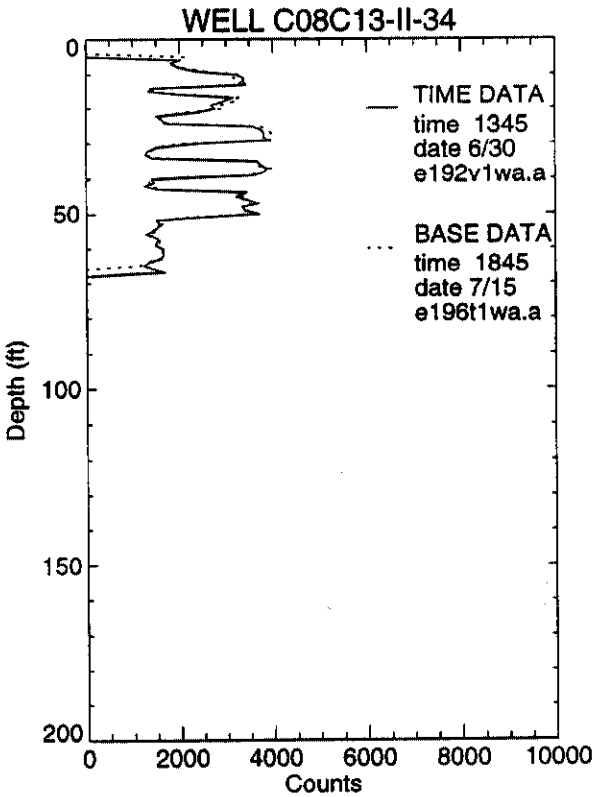
8000
10000


WELL C08C13-II-34
TIME DATA
time 1345
date 6/30
e192v1wa.a
BASE DATA
time 1845
date 7/15
e196t1wa.a
Depth (ft)
Counts
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150
200
0
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4000
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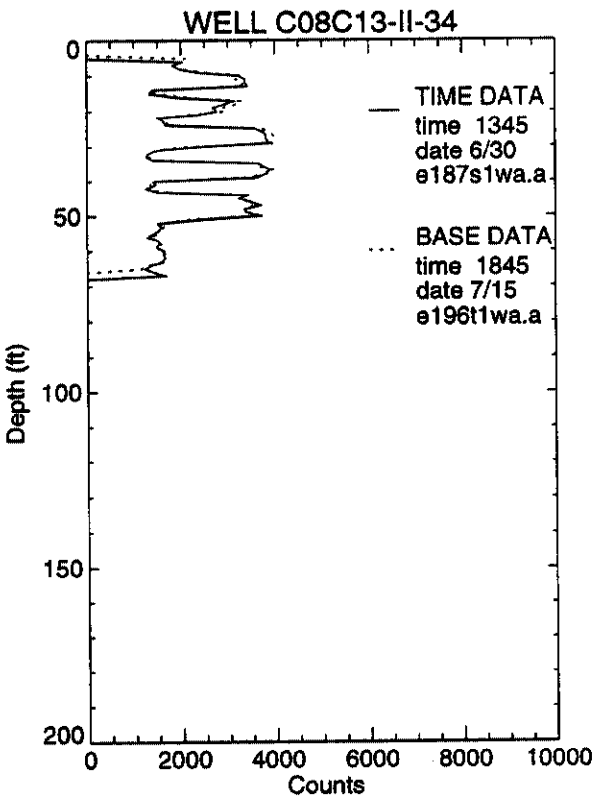
8000
10000


WELL C08C13-II-34
TIME DATA
time 1345
date 6/30
e187s1wa.a
BASE DATA
time 1845
date 7/15
e196t1wa.a
Depth (ft)
Counts
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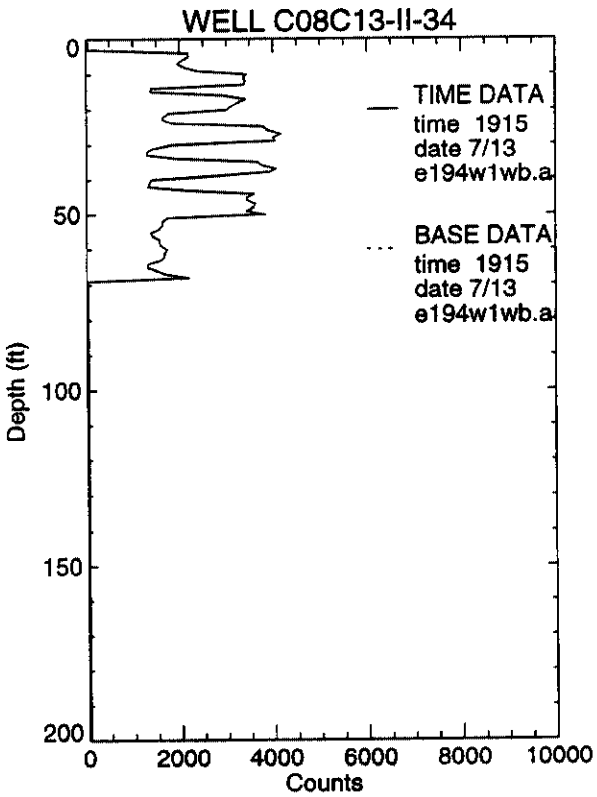
WELL C08C13-II-34
TIME DATA
time 1915
date 7/13
e194w1wb.a
BASE DATA
time 1915
date 7/13
e194w1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
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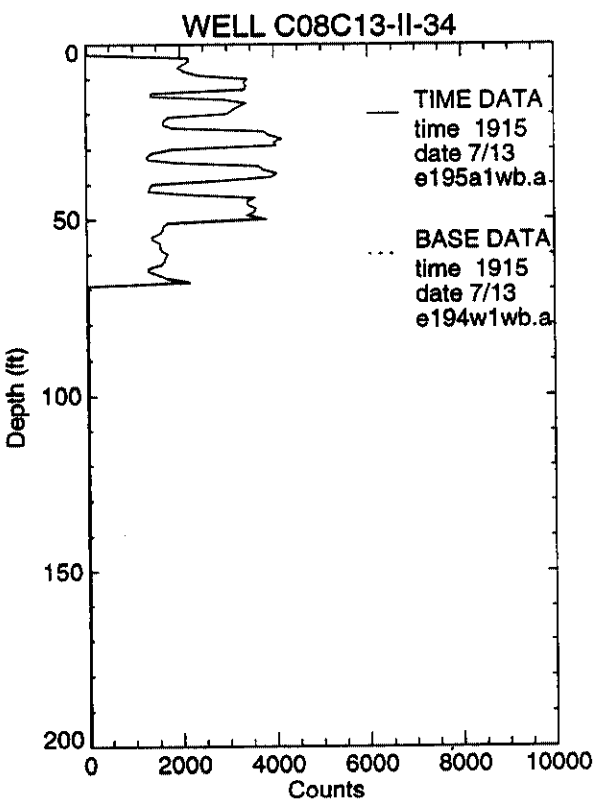
WELL C08C13-II-34
TIME DATA
time 1915
date 7/13
e195a1wb.a
BASE DATA
time 1915
date 7/13
e194w1wb.a
Depth (ft)
Counts
0
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150
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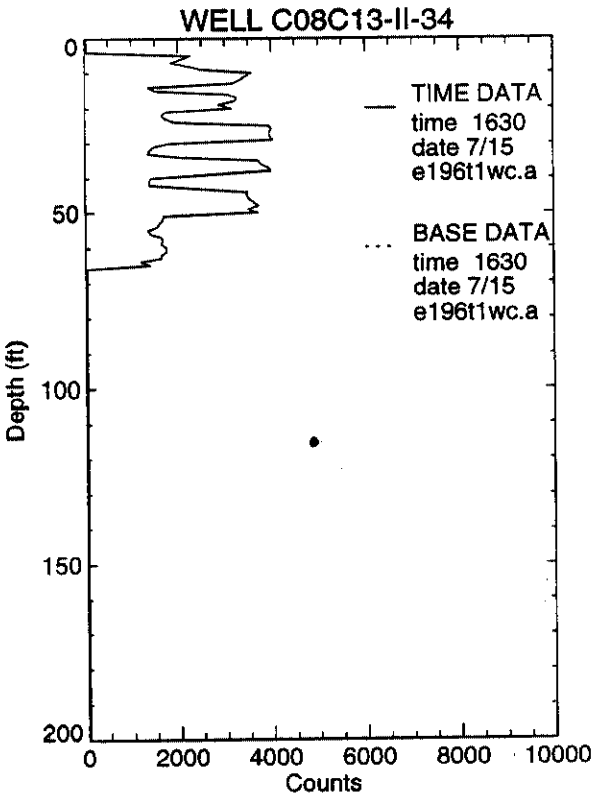
6000
8000
10000


WELL C08C13-II-34
TIME DATA
time 1630
date 7/15
e196t1wc.a
BASE DATA
time 1630
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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150
200
0
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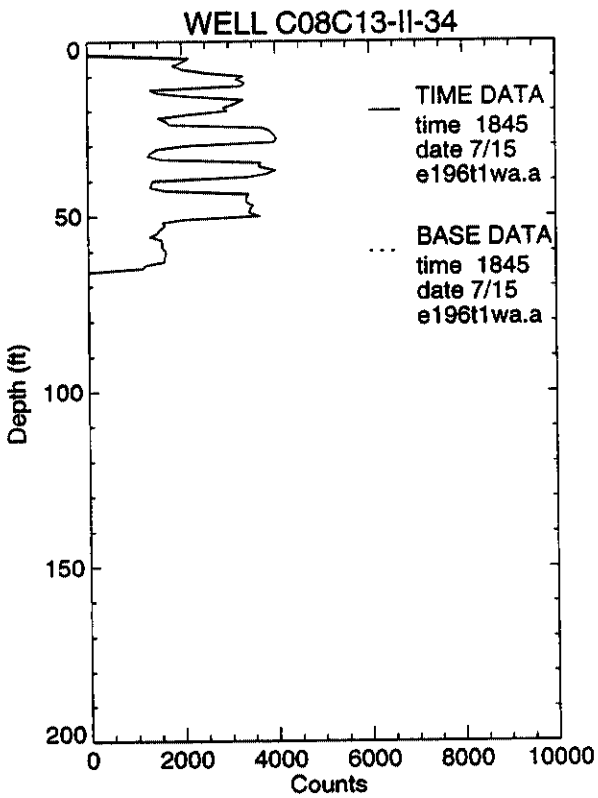
4000
6000
8000
10000


WELL C08C13-II-34
TIME DATA
time 1845
date 7/15
e196t1wa.a
BASE DATA
time 1845
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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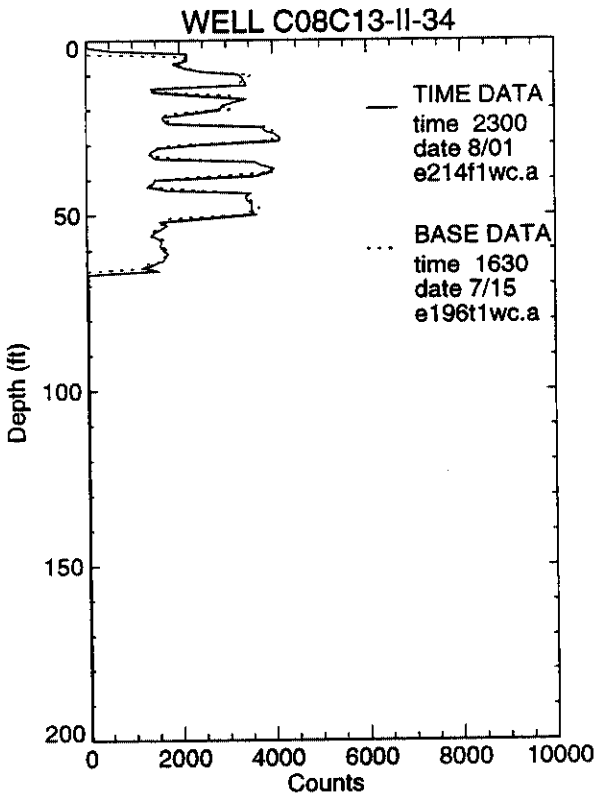
4000
6000
8000
10000


WELL C08C13-II-34
TIME DATA
time 2300
date 8/01
e214f1wc.a
BASE DATA
time 1630
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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150
200
0
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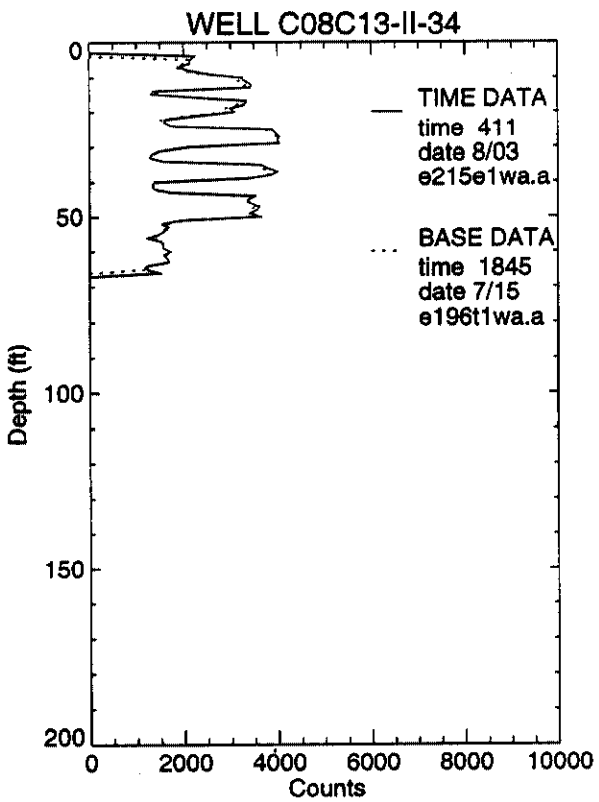
4000
6000
8000
10000


WELL C08C13-II-34
TIME DATA
time 411
date 8/03
e215e1wa.a
BASE DATA
time 1845
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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150
200
0
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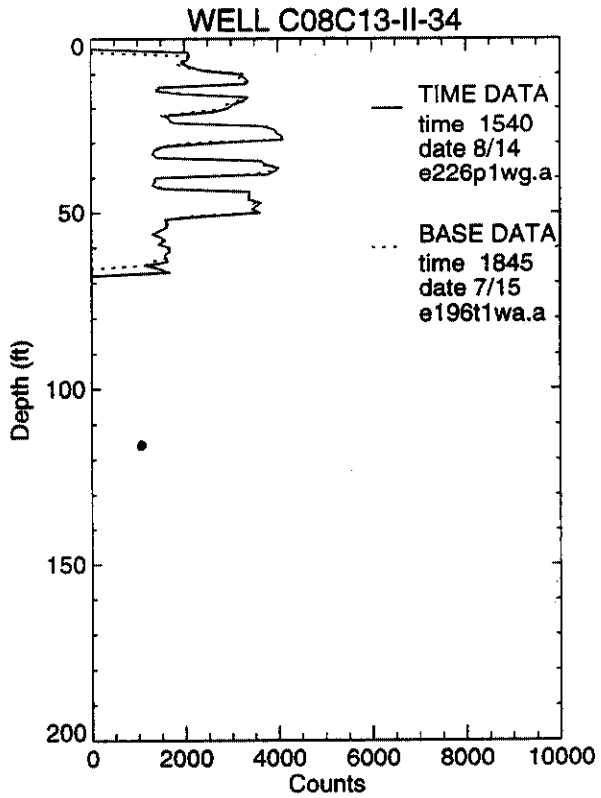
4000
6000
8000
10000


WELL C08C13-II-34
TIME DATA
time 1540
date 8/14
e226p1wg.a
BASE DATA
time 1845
date 7/15
e196t1wa.a
Depth (ft)
Counts
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150
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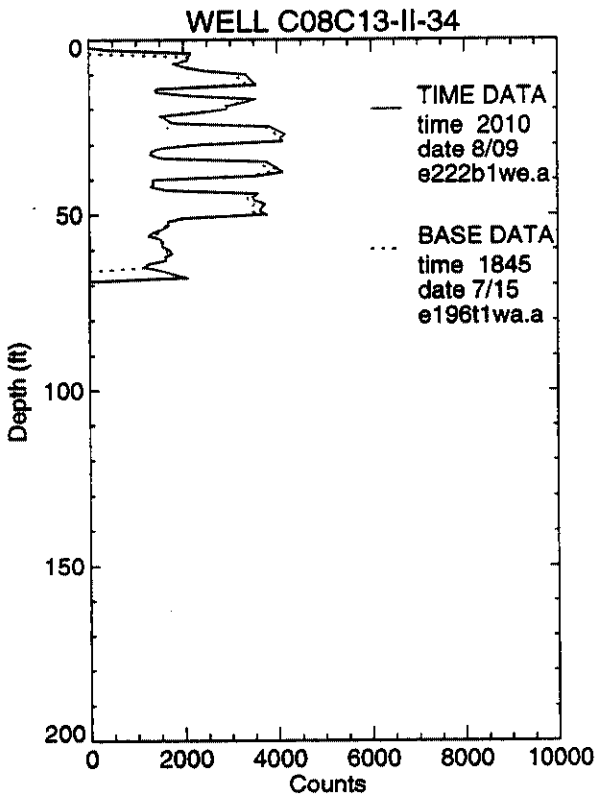
8000
10000


WELL C08C13-II-34
TIME DATA
time 2010
date 8/09
e222b1we.a
BASE DATA
time 1845
date 7/15
e196t1wa.a
Depth (ft)
Counts
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0
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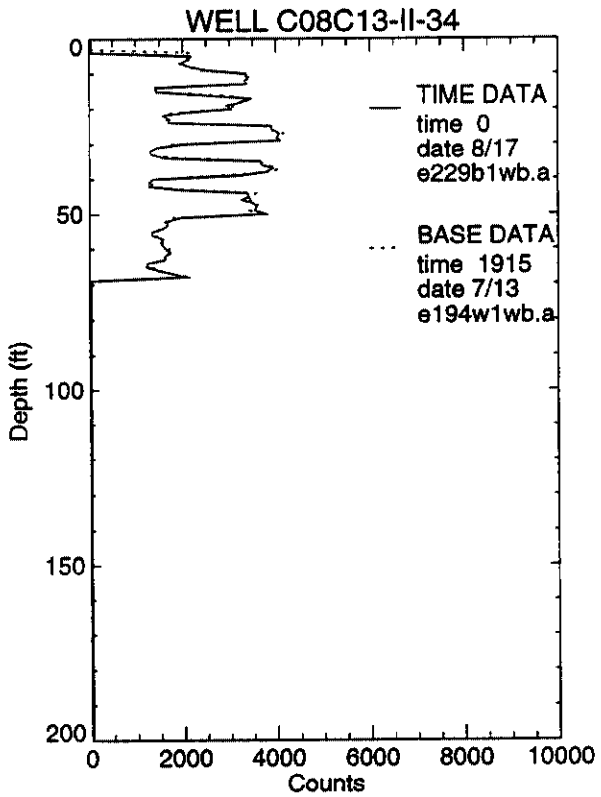
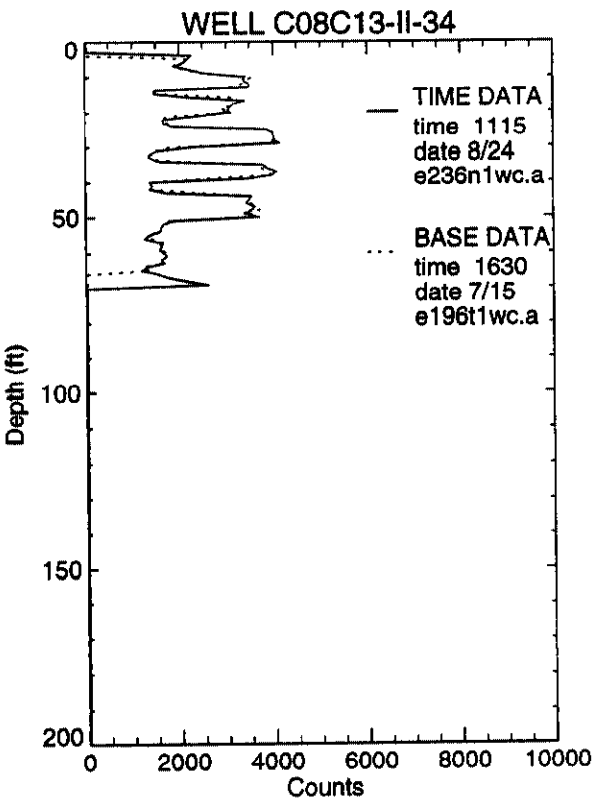
4000
6000
8000
10000


WELL C08C13-II-34
TIME DATA
time 0
date 8/17
e229b1wb.a
BASE DATA
time 1915
date 7/13
e194w1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL C08C13-II-34
TIME DATA
time 1115
date 8/24
e236n1wc.a
BASE DATA
time 1630
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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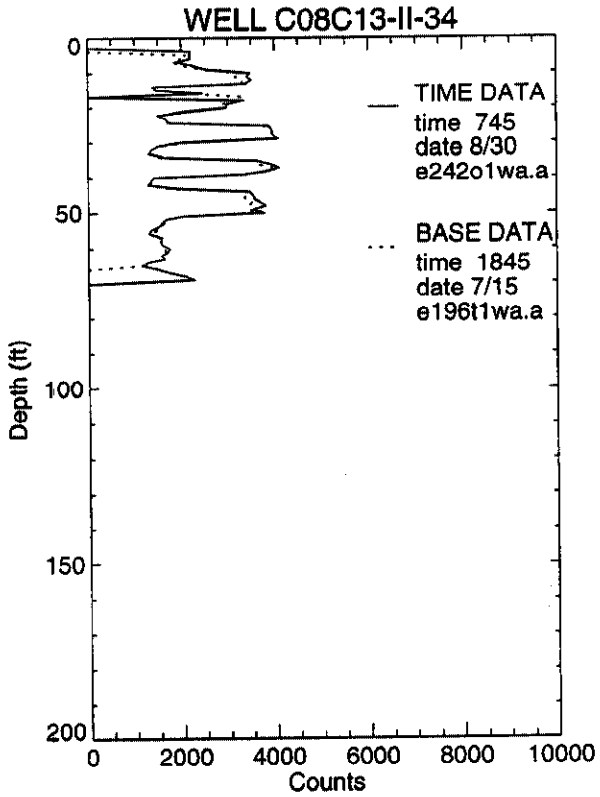
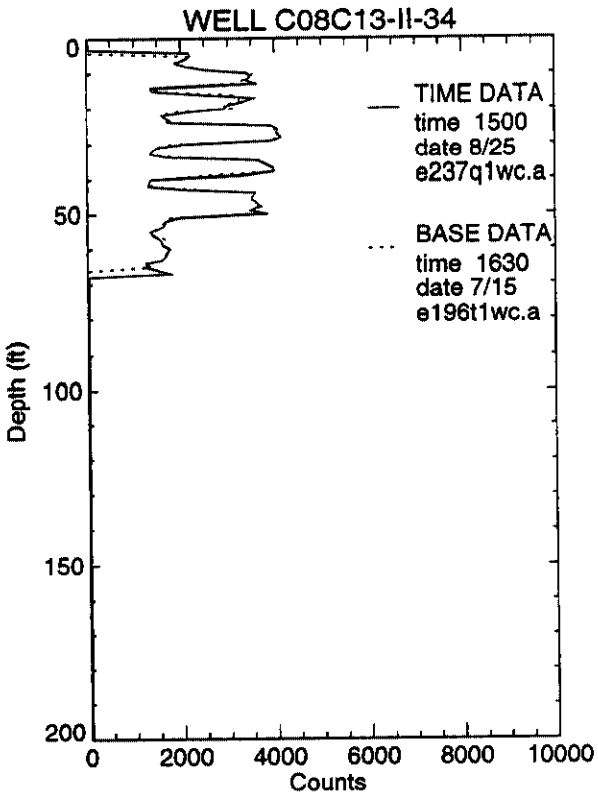
100
150
200
0
2000
4000
6000
8000
10000


WELL C08C13-II-34
TIME DATA
time 745
date 8/30
e242o1wa.a
BASE DATA
time 1845
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL C08C13-II-34
TIME DATA
time 1500
date 8/25
e237q1wc.a
BASE DATA
time 1630
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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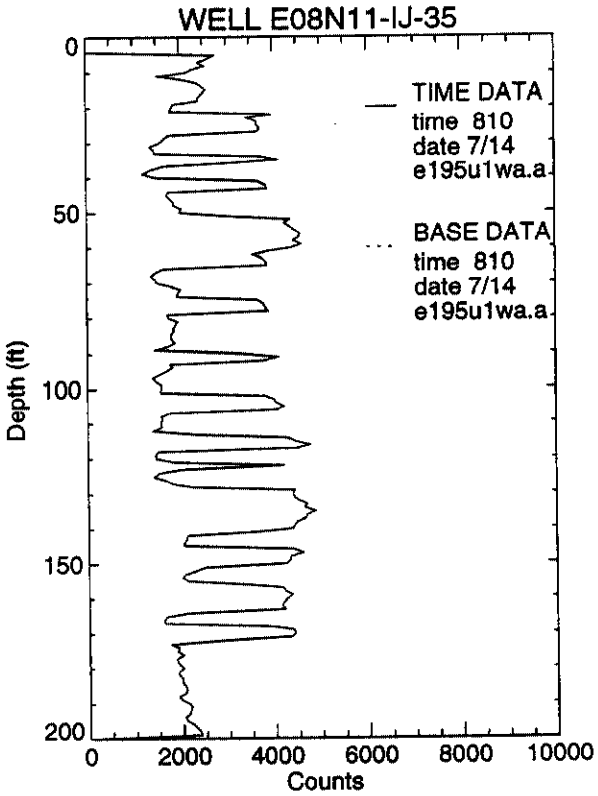
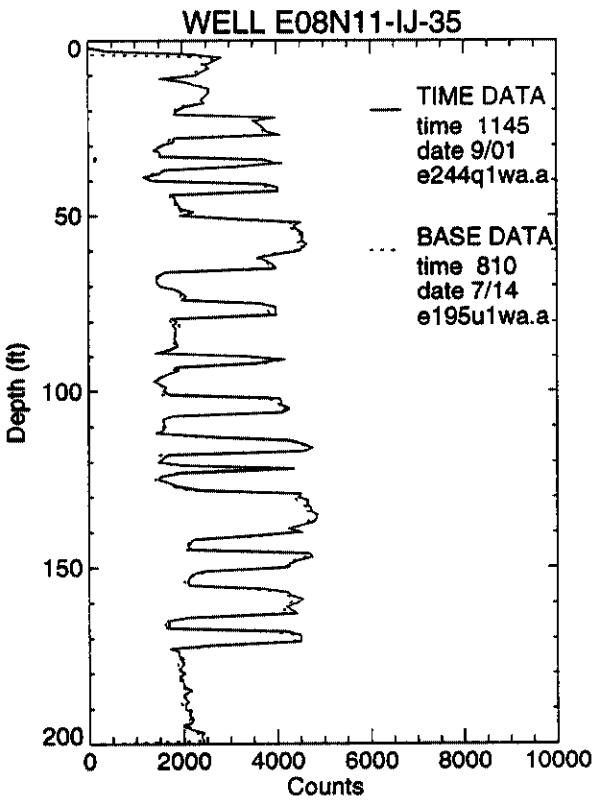
100
150
200
0
2000
4000
6000
8000
10000


WELL E08N11-IJ-35
TIME DATA
time 810
date 7/14
e195u1wa.a
BASE DATA
time 810
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL E08N11-IJ-35
TIME DATA
time 1145
date 9/01
e244q1wa.a
BASE DATA
time 810
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
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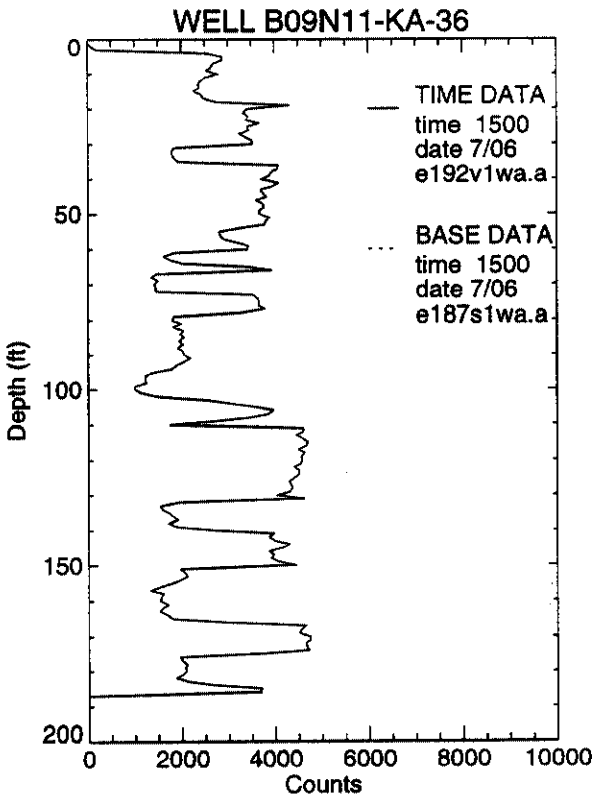
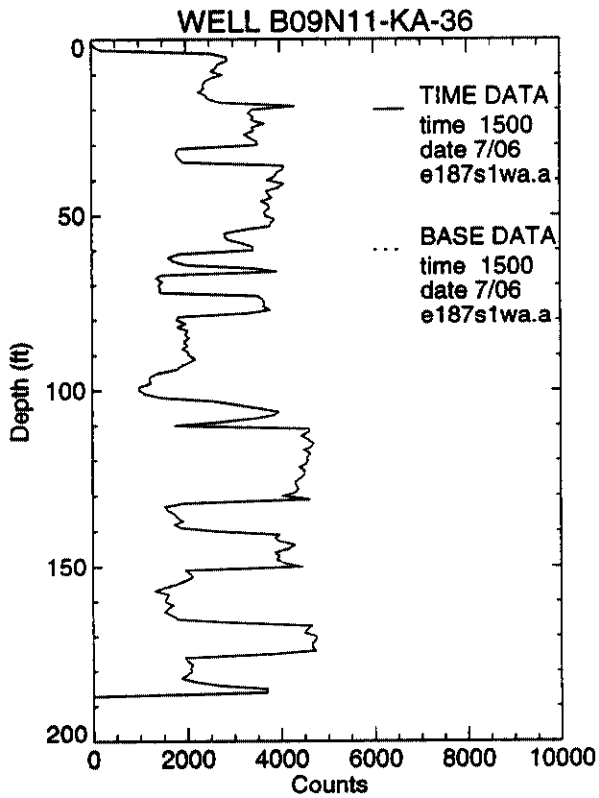
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 1500
date 7/06
e192v1wa.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 1500
date 7/06
e187s1wa.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
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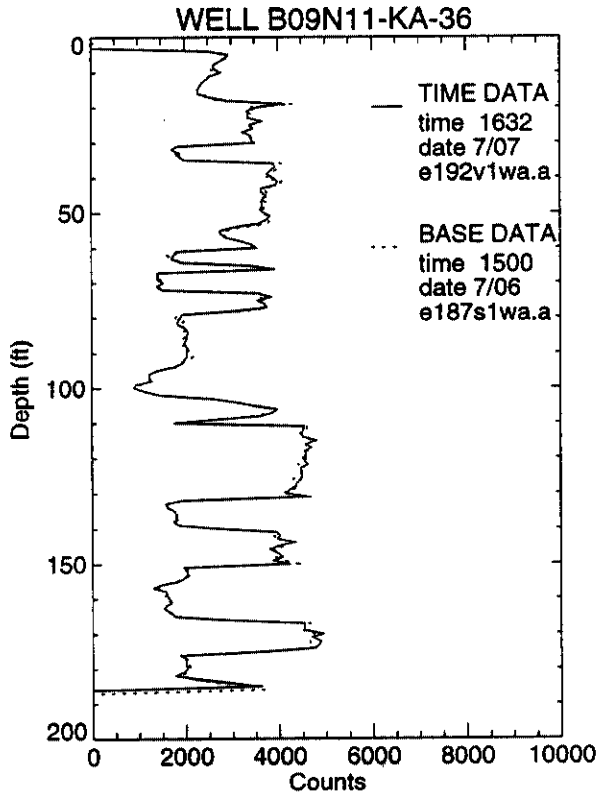
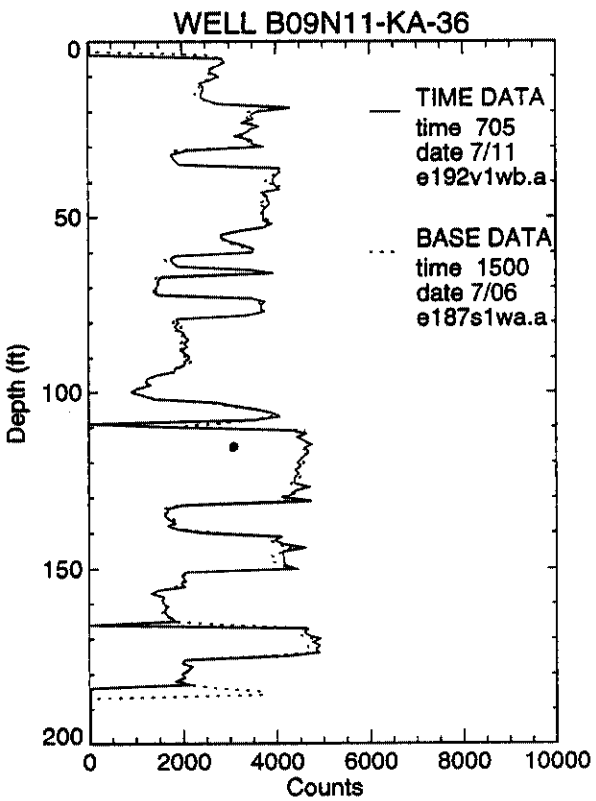
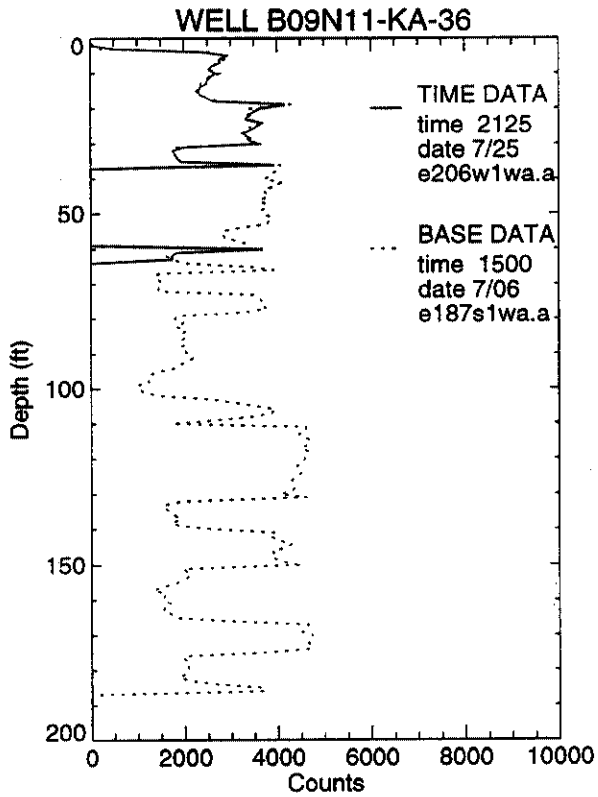
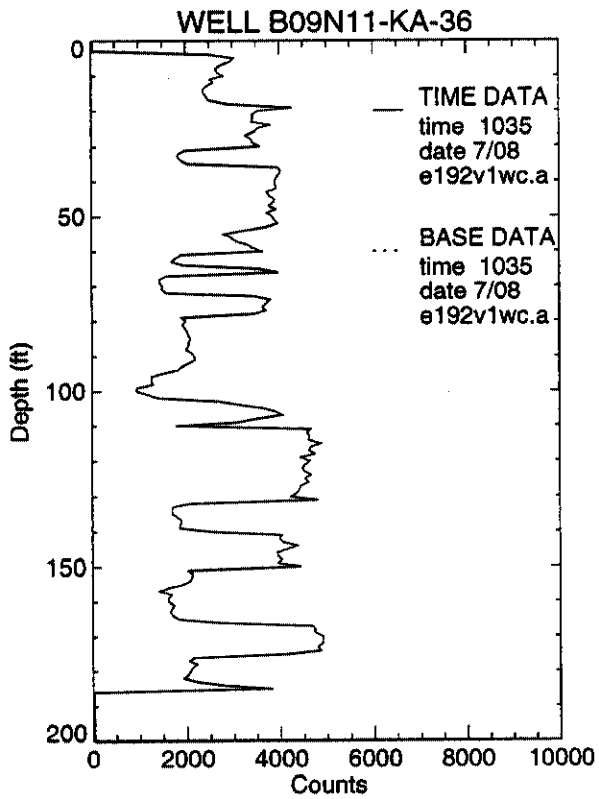
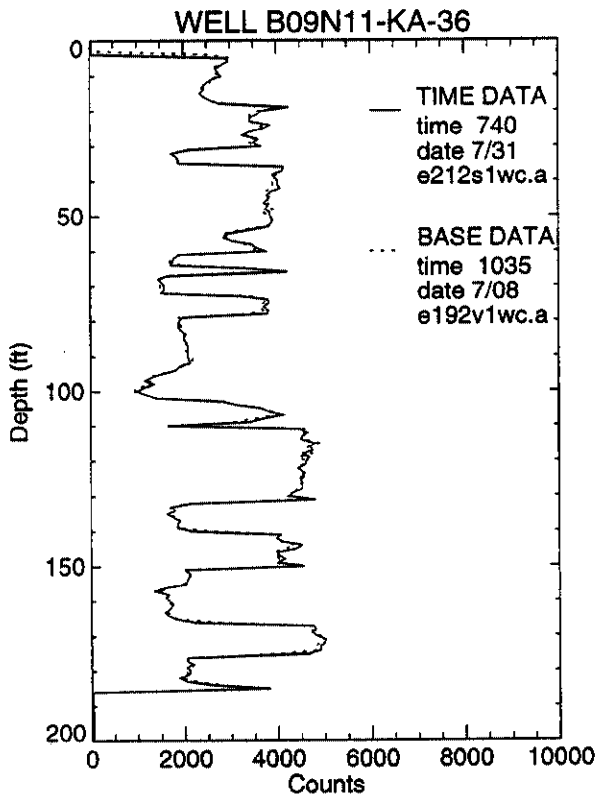
10000


WELL B09N11-KA-36
TIME DATA
time 1632
date 7/07
e192v1wa.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 705
date 7/11
e192v1wb.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 2125
date 7/25
e206w1wa.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 1035
date 7/08
e192v1wc.a
BASE DATA
time 1035
date 7/08
e192v1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 740
date 7/31
e212s1wc.a
BASE DATA
time 1035
date 7/08
e192v1wc.a
Depth (ft)
Counts
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150
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0
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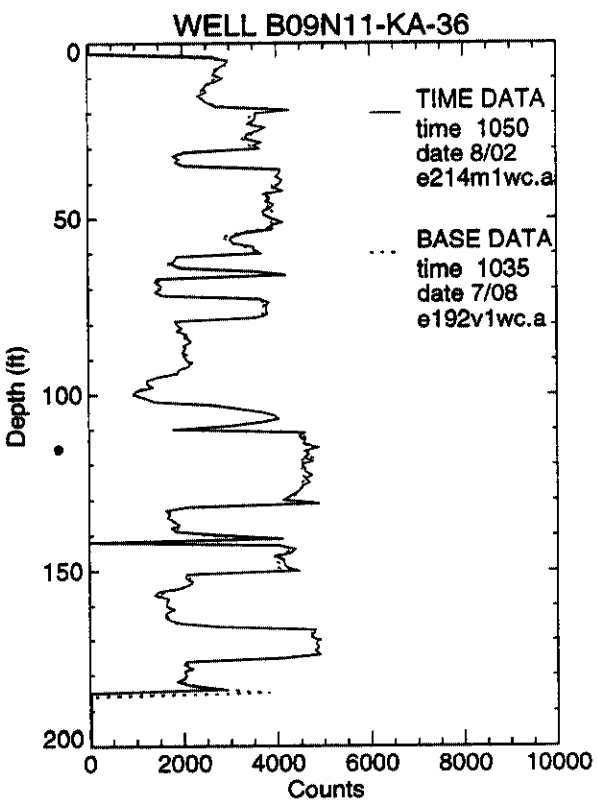
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 1050
date 8/02
e214m1wc.a
BASE DATA
time 1035
date 7/08
e192v1wc.a
Depth (ft)
Counts
0
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150
200
0
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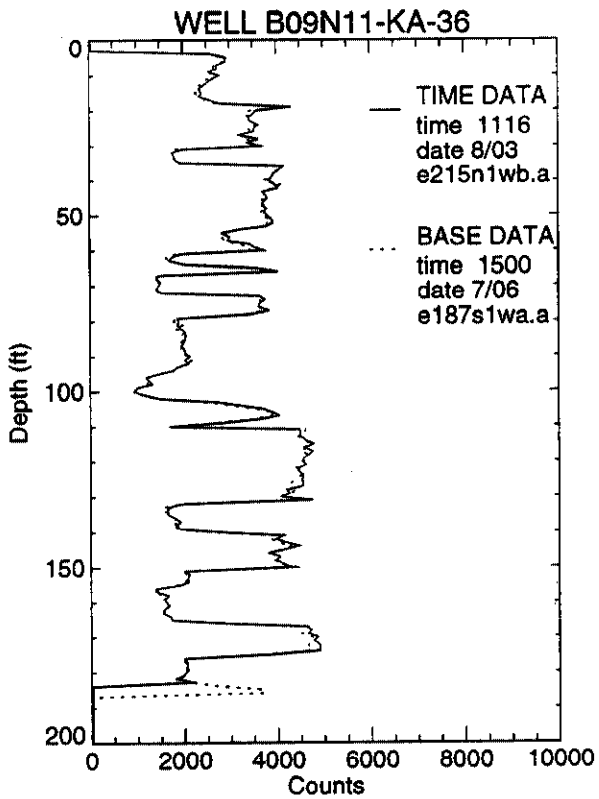
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 1116
date 8/03
e215n1wb.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
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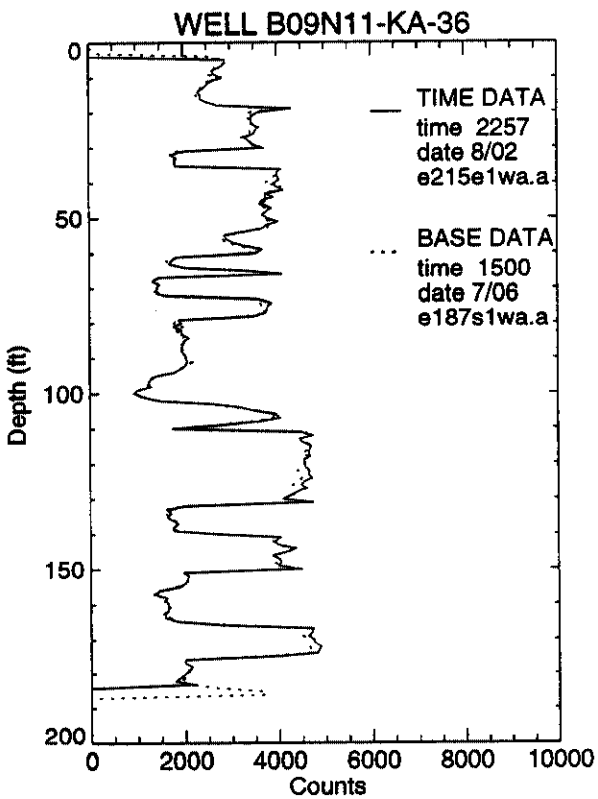
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 2257
date 8/02
e215e1wa.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
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150
200
0
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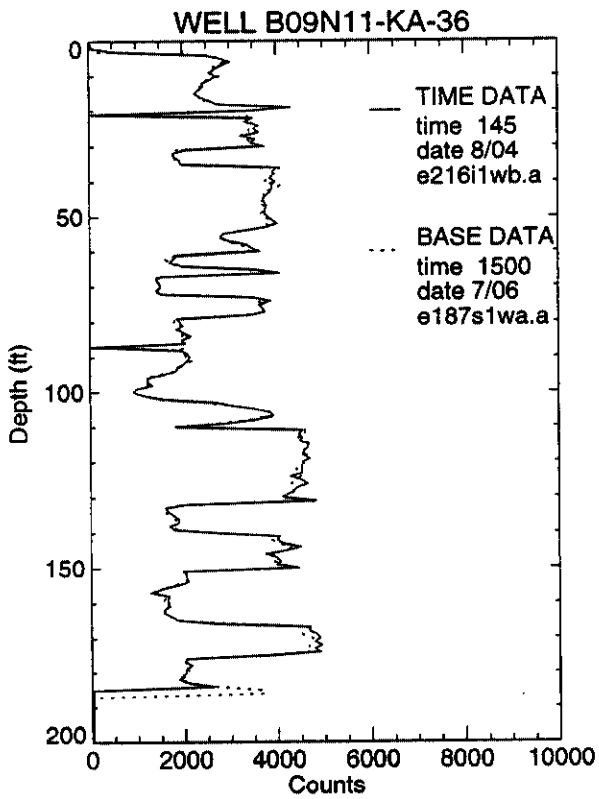
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 145
date 8/04
e216i1wb.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
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150
200
0
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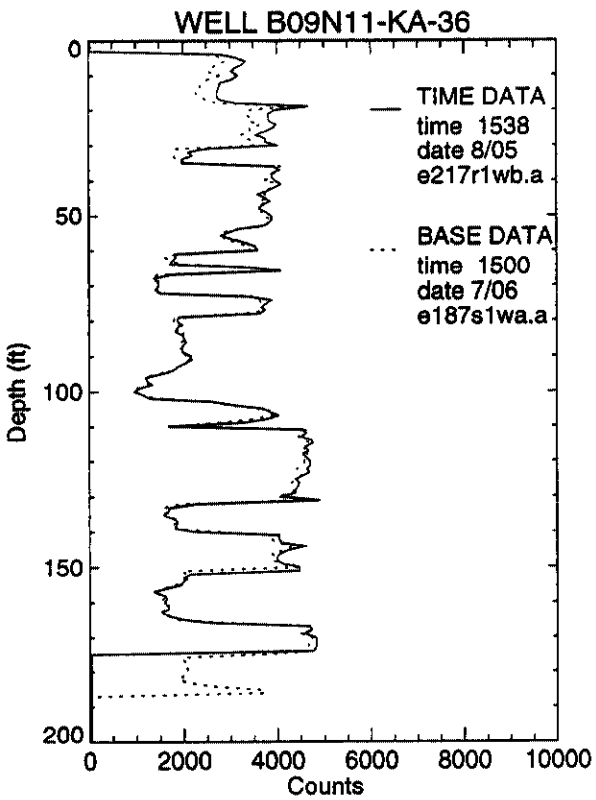
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 1538
date 8/05
e217r1wb.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
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150
200
0
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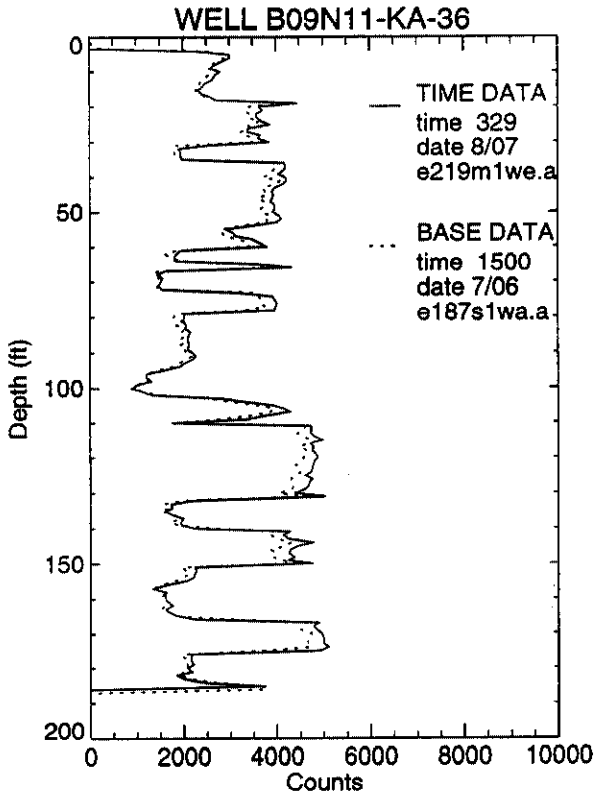
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 329
date 8/07
e219m1we.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
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150
200
0
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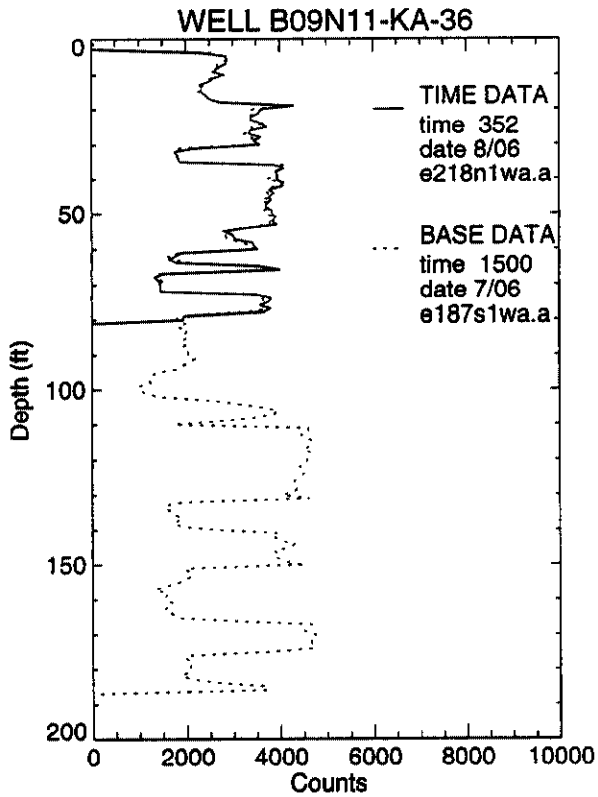
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 352
date 8/06
e218n1wa.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
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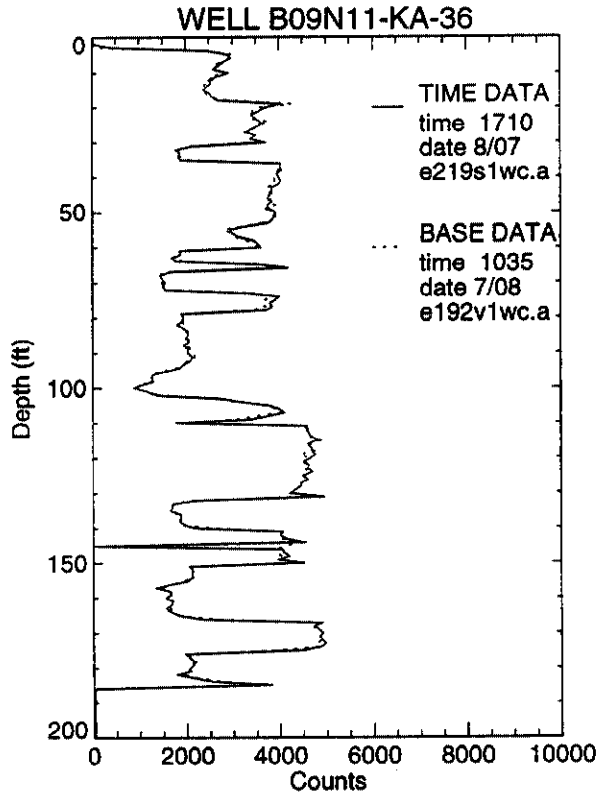
150
200
0
2000
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 1710
date 8/07
e219s1wc.a
BASE DATA
time 1035
date 7/08
e192v1wc.a
Depth (ft)
Counts
0
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150
200
0
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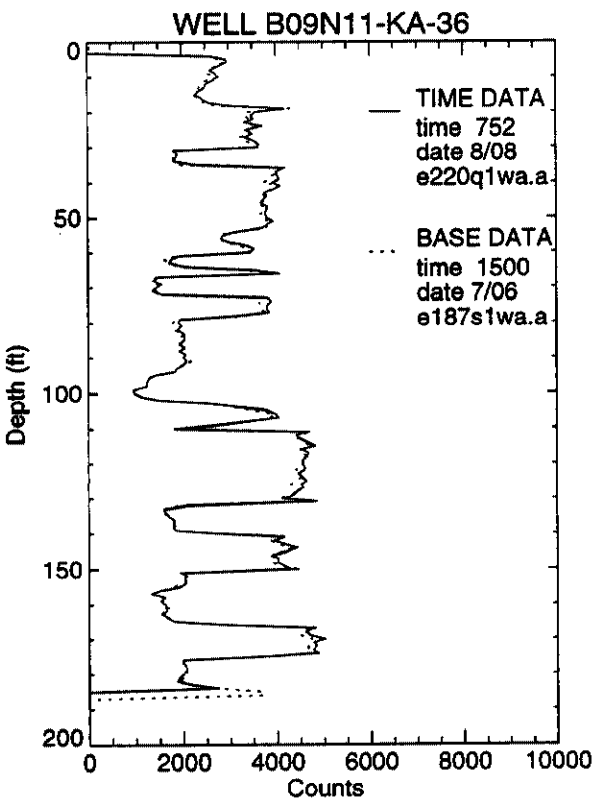
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 752
date 8/08
e220q1wa.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
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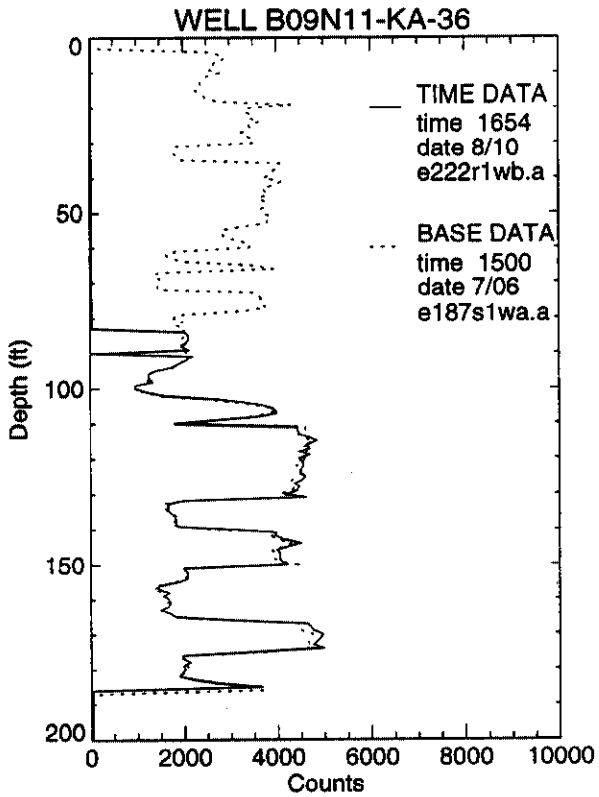
150
200
0
2000
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 1654
date 8/10
e222r1wb.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
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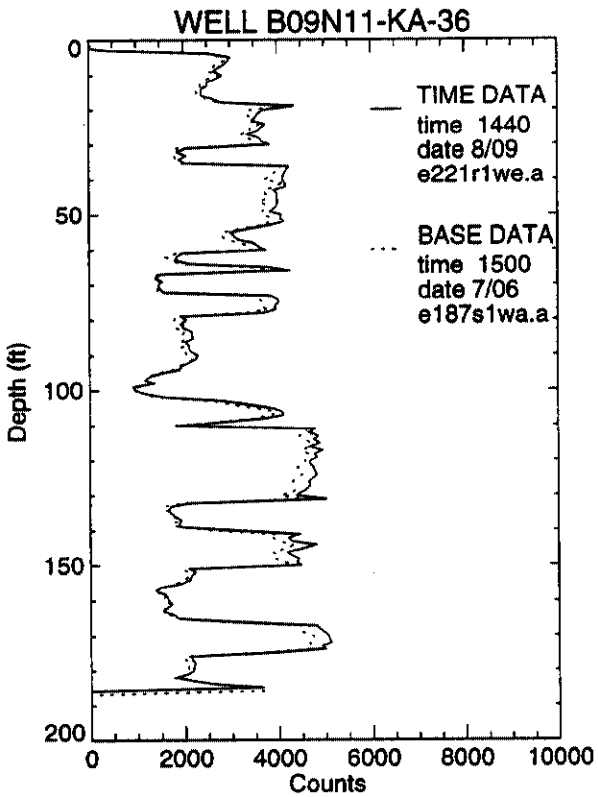
100
150
200
0
2000
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 1440
date 8/09
e221r1we.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
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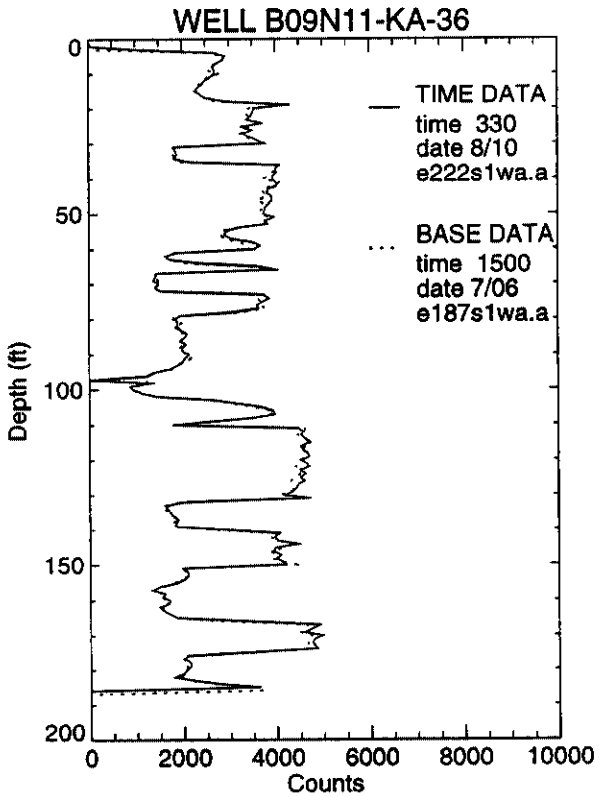
150
200
0
2000
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 330
date 8/10
e222s1wa.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
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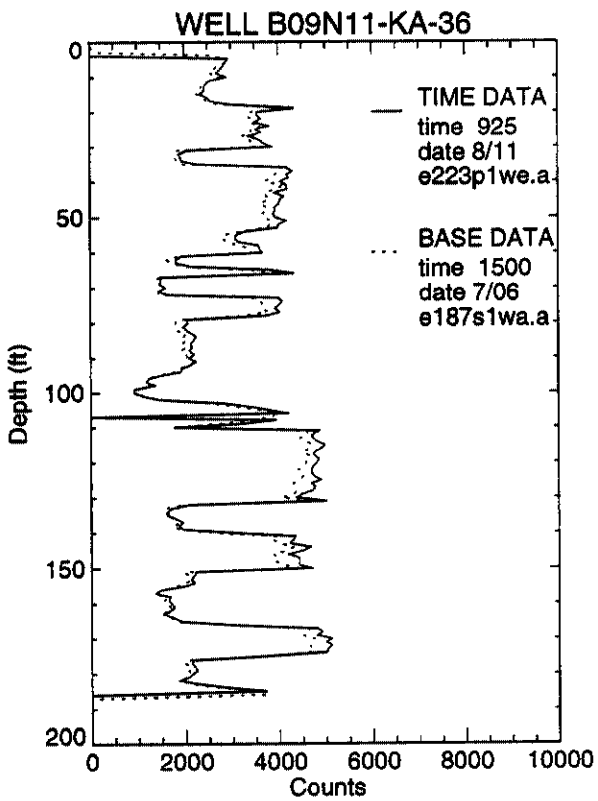
150
200
0
2000
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 925
date 8/11
e223p1we.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
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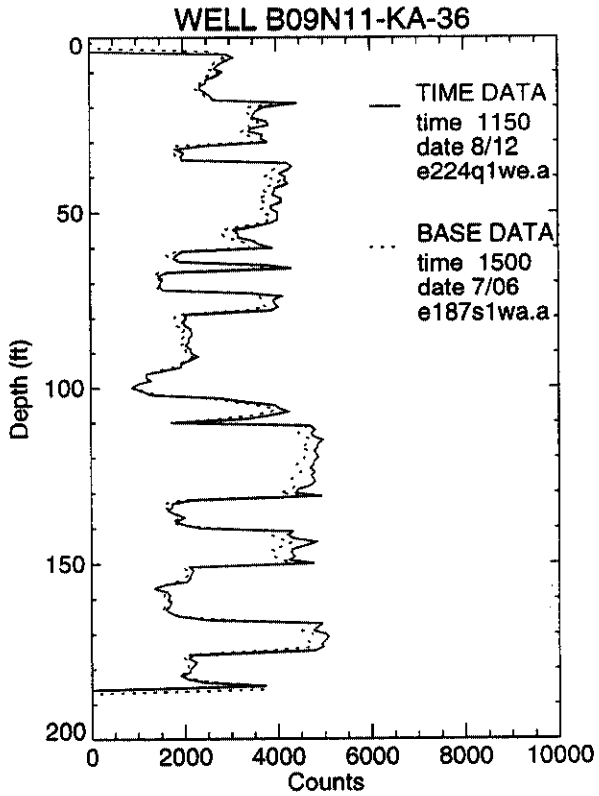
150
200
0
2000
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 1150
date 8/12
e224q1we.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
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150
200
0
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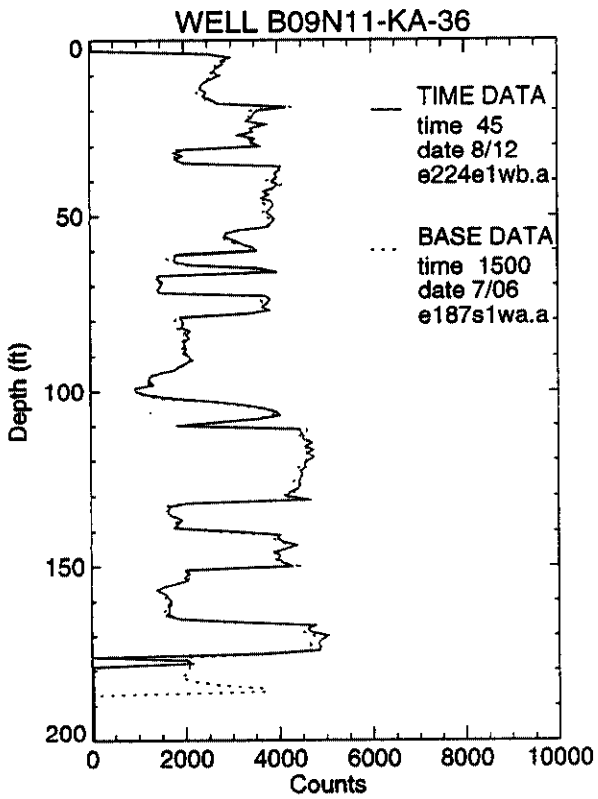
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 45
date 8/12
e224e1wb.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
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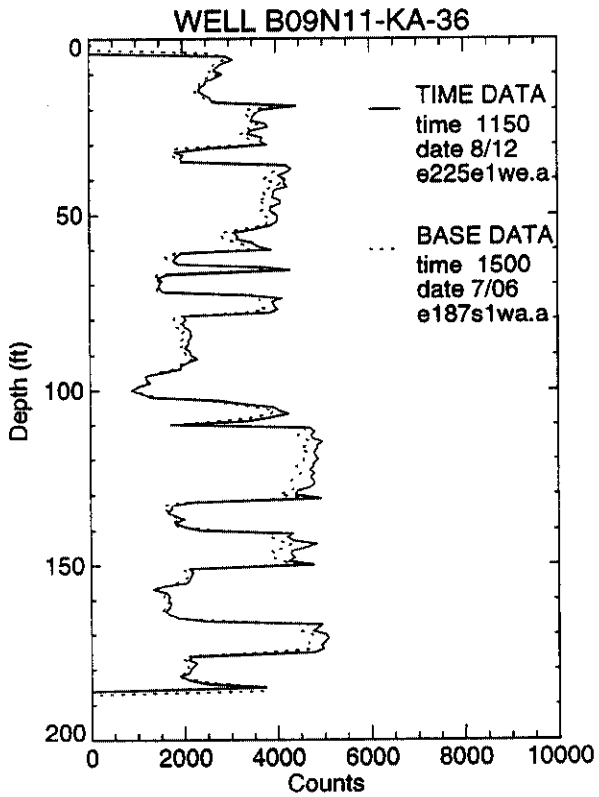
WELL B09N11-KA-36
TIME DATA
time 1150
date 8/12
e225e1we.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
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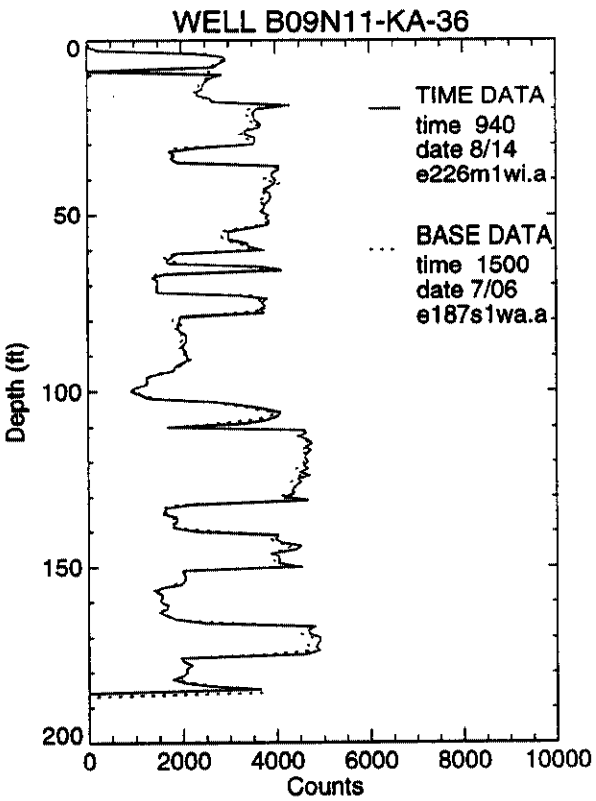
8000
10000


WELL B09N11-KA-36
TIME DATA
time 940
date 8/14
e226m1wi.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
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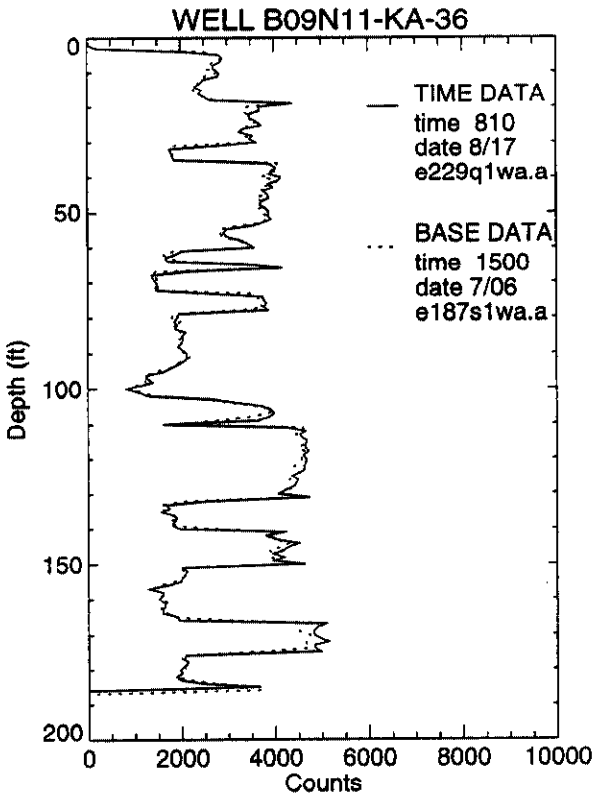
8000
10000


WELL B09N11-KA-36
TIME DATA
time 810
date 8/17
e229q1wa.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
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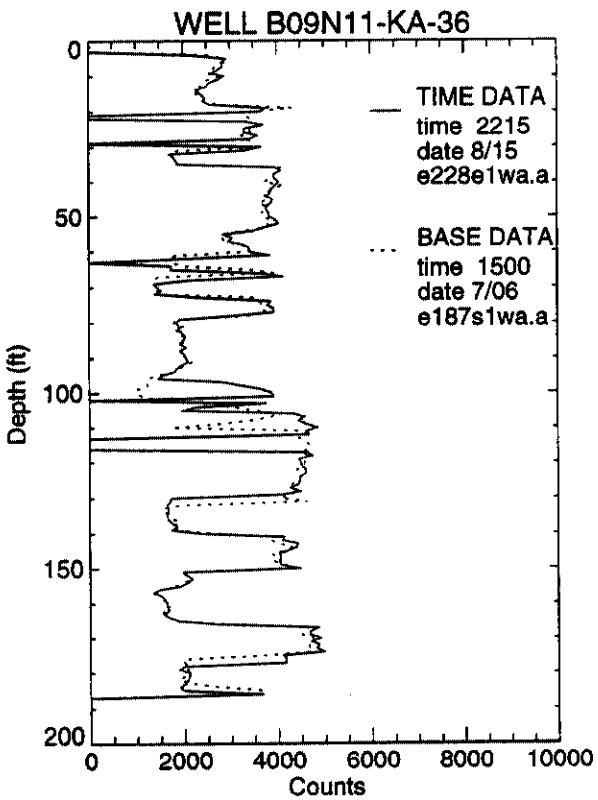
8000
10000


WELL B09N11-KA-36
TIME DATA
time 2215
date 8/15
e228e1wa.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
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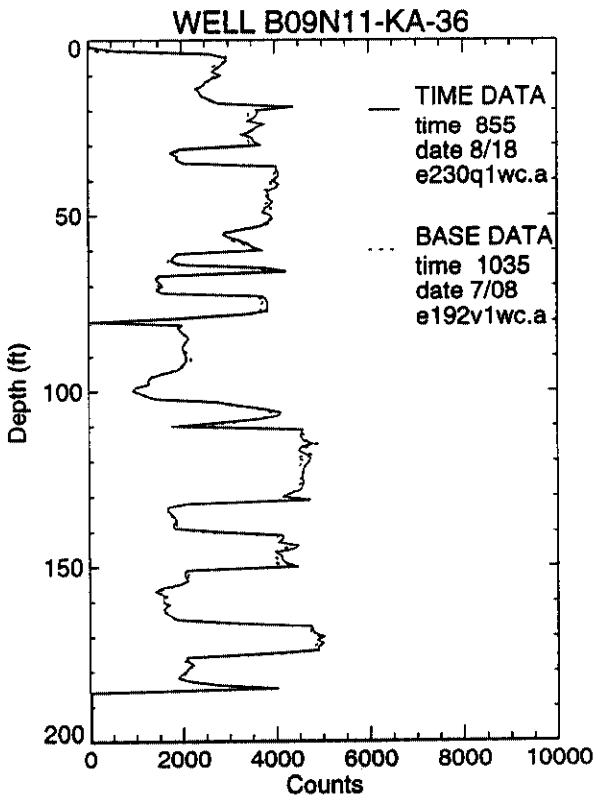
10000


WELL B09N11-KA-36
TIME DATA
time 855
date 8/18
e230q1wc.a
BASE DATA
time 1035
date 7/08
e192v1wc.a
Depth (ft)
Counts
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150
200
0
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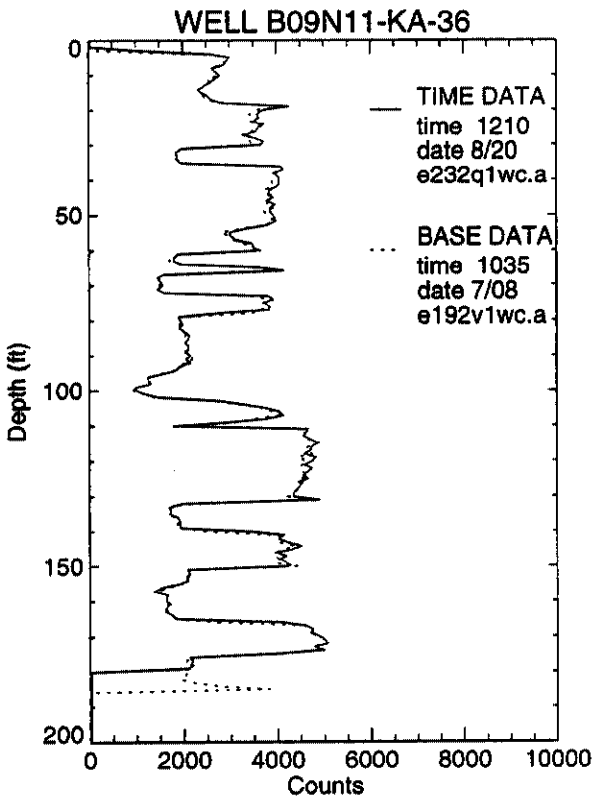
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 1210
date 8/20
e232q1wc.a
BASE DATA
time 1035
date 7/08
e192v1wc.a
Depth (ft)
Counts
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150
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0
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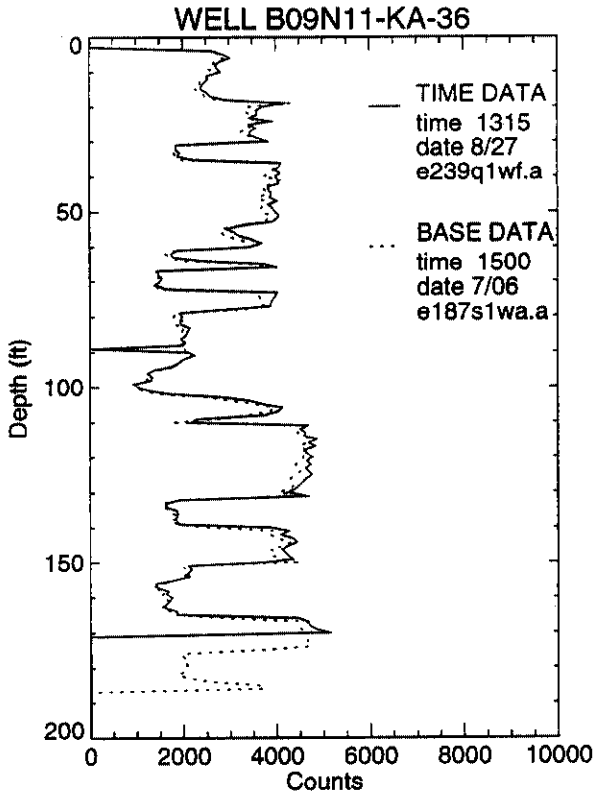
8000
10000


WELL B09N11-KA-36
TIME DATA
time 1315
date 8/27
e239q1wf.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
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150
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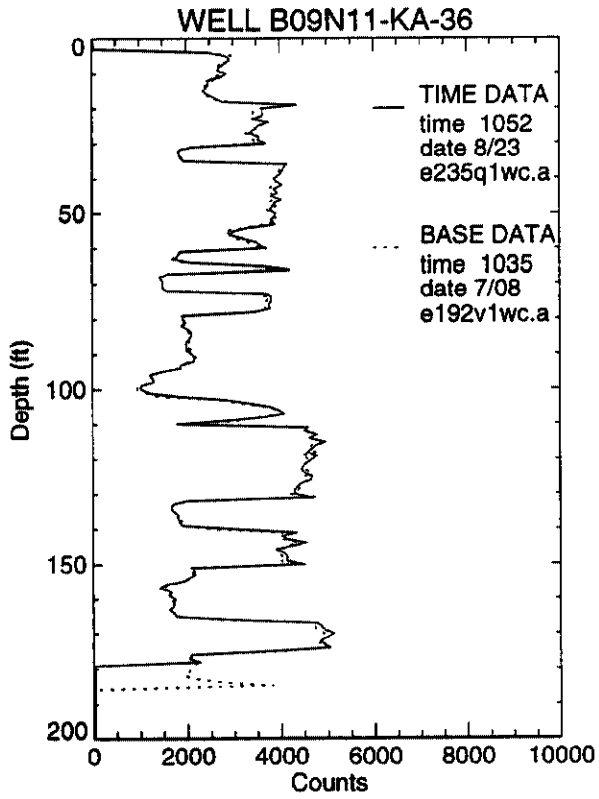
8000
10000


WELL B09N11-KA-36
TIME DATA
time 1052
date 8/23
e235q1wc.a
BASE DATA
time 1035
date 7/08
e192v1wc.a
Depth (ft)
Counts
0
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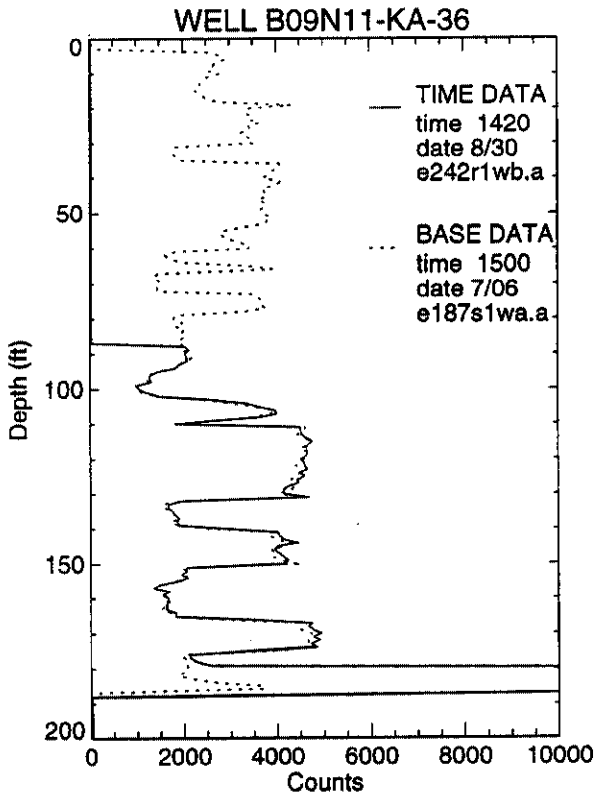
150
200
0
2000
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 1420
date 8/30
e242r1wb.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
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150
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0
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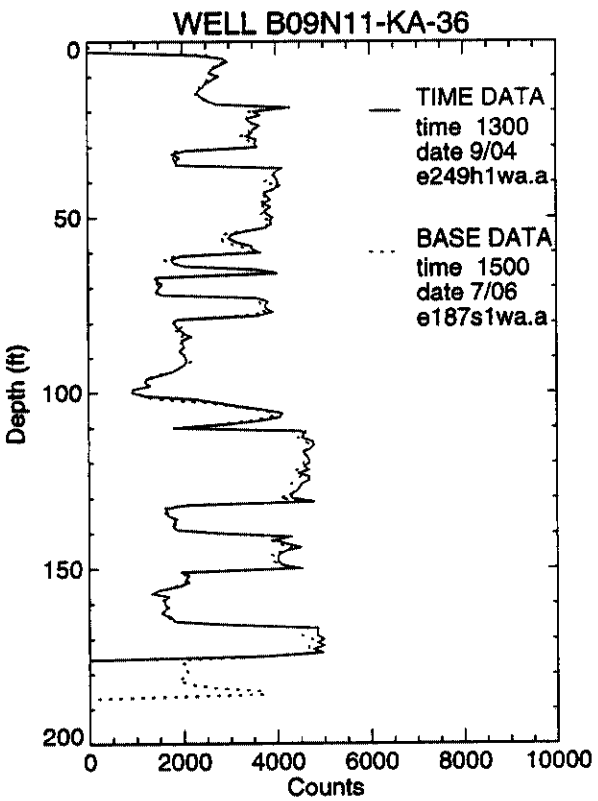
4000
6000
8000
10000


WELL B09N11-KA-36
TIME DATA
time 1300
date 9/04
e249h1wa.a
BASE DATA
time 1500
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
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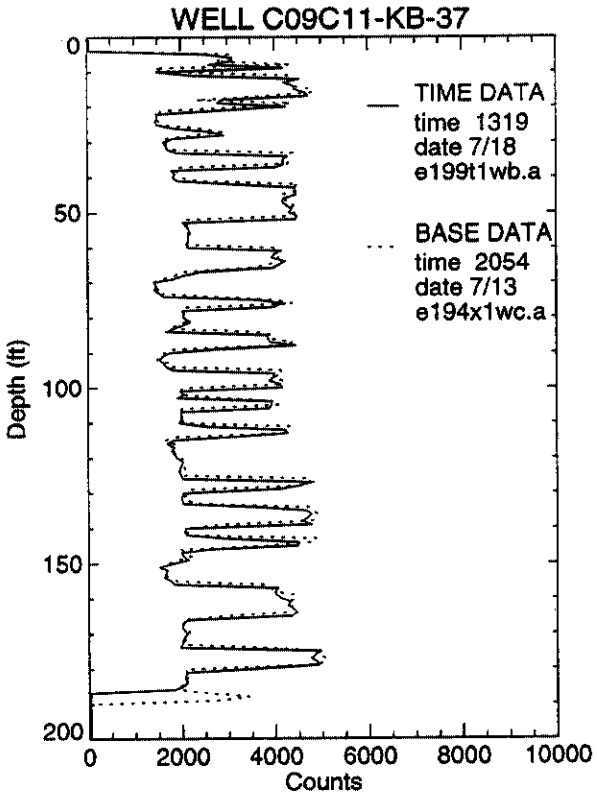
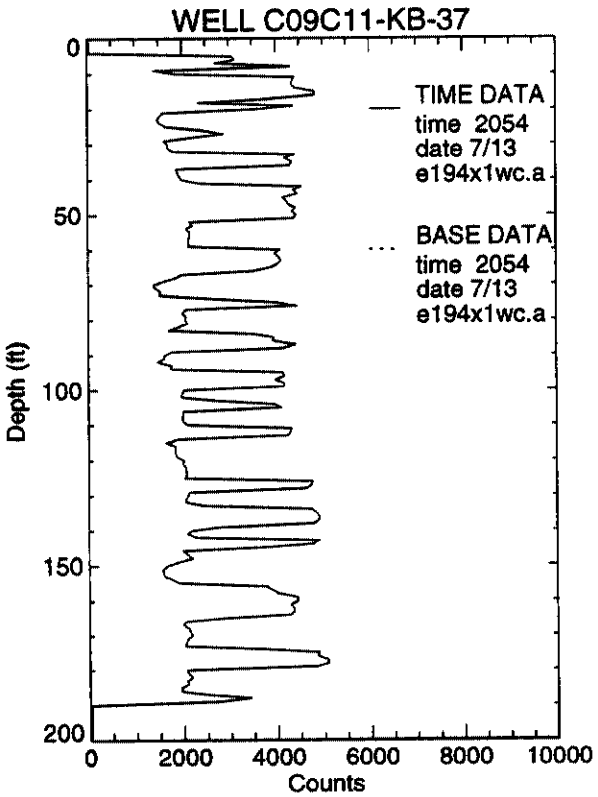
100
150
200
0
2000
4000
6000
8000
10000


WELL C09C11-KB-37
TIME DATA
time 1319
date 7/18
e199t1wb.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL C09C11-KB-37
TIME DATA
time 2054
date 7/13
e194x1wc.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
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100
150
200
0
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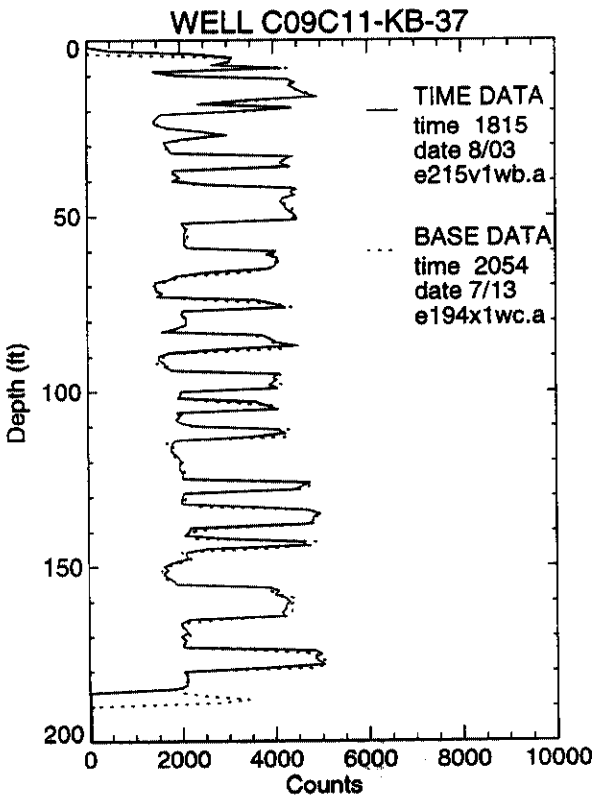
8000
10000


WELL C09C11-KB-37
TIME DATA
time 1815
date 8/03
e215v1wb.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
0
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100
150
200
0
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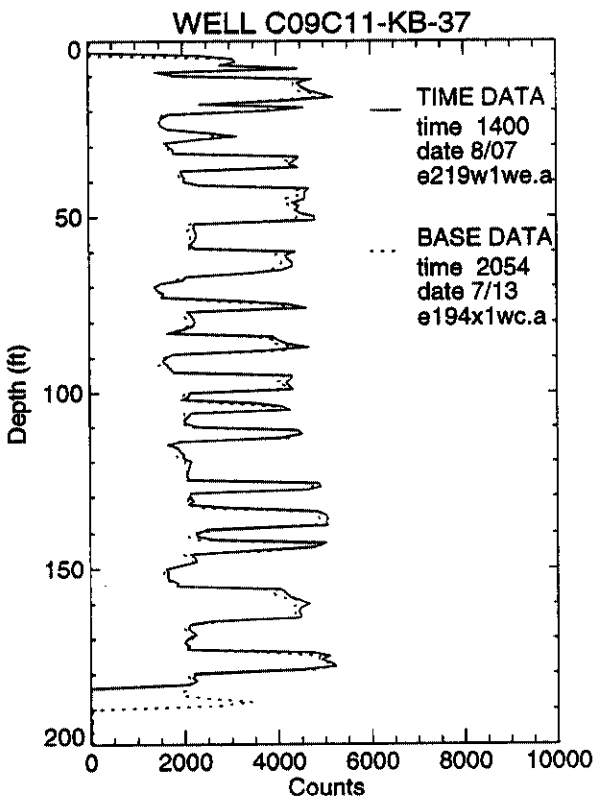
4000
6000
8000
10000


WELL C09C11-KB-37
TIME DATA
time 1400
date 8/07
e219w1we.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
0
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8000
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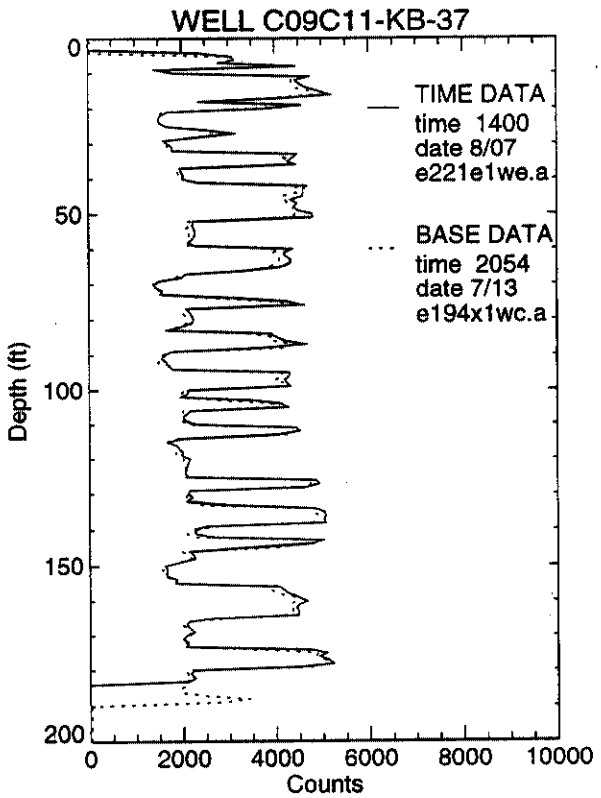
WELL C09C11-KB-37
TIME DATA
time 1400
date 8/07
e221e1we.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
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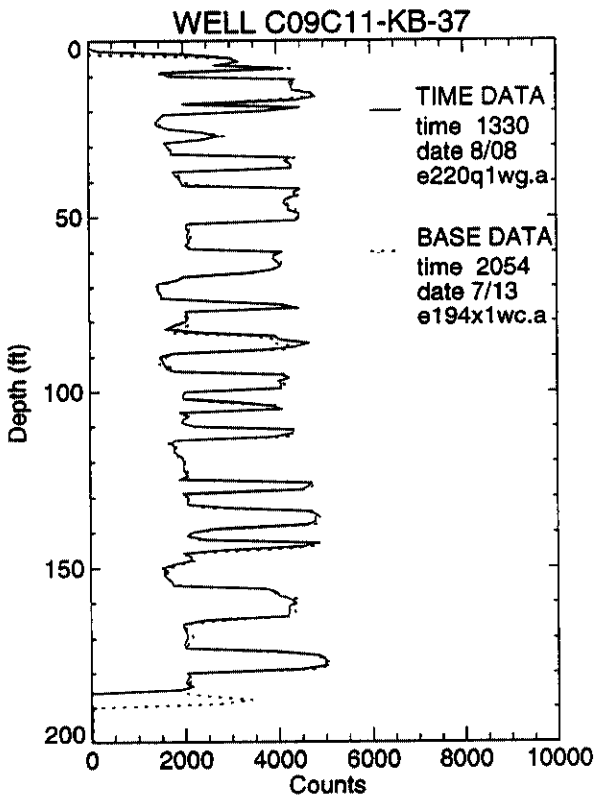
WELL C09C11-KB-37
TIME DATA
time 1330
date 8/08
e220q1wg.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
0
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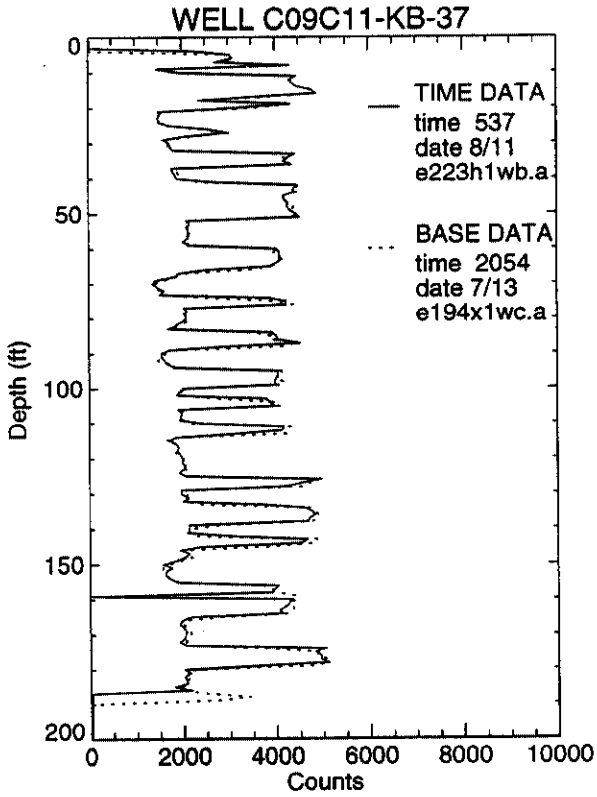
100
150
200
0
2000
4000
6000
8000
10000


WELL C09C11-KB-37
TIME DATA
time 537
date 8/11
e223h1wb.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
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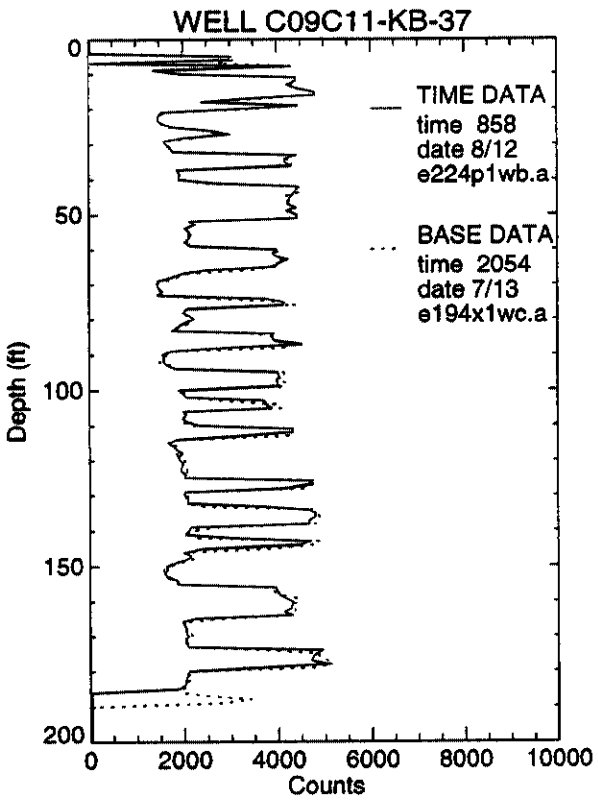
8000
10000


WELL C09C11-KB-37
TIME DATA
time 858
date 8/12
e224p1wb.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
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200
0
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4000
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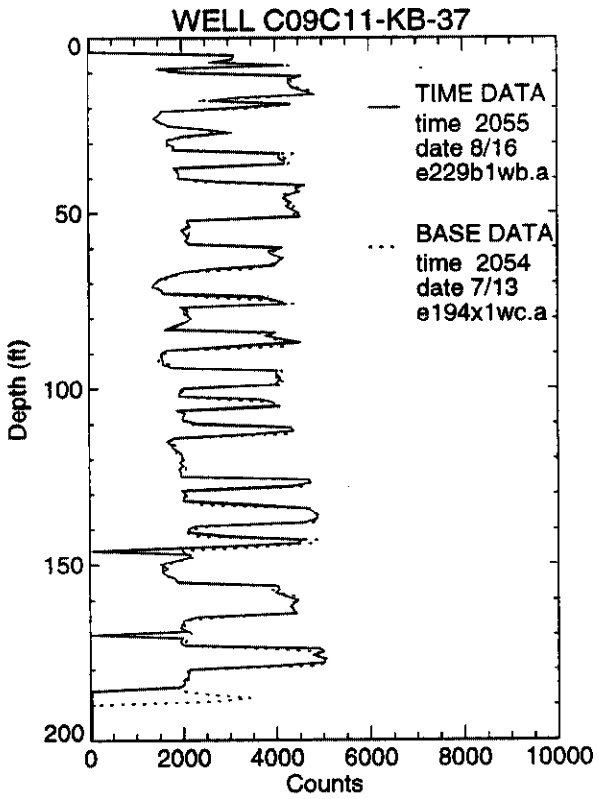
8000
10000


WELL C09C11-KB-37
TIME DATA
time 2055
date 8/16
e229b1wb.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
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150
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0
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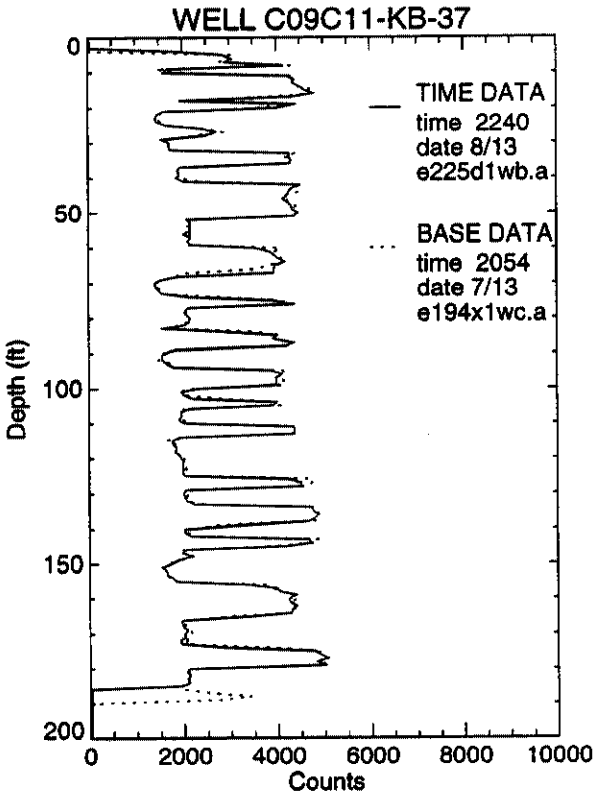
8000
10000


WELL C09C11-KB-37
TIME DATA
time 2240
date 8/13
e225d1wb.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
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0
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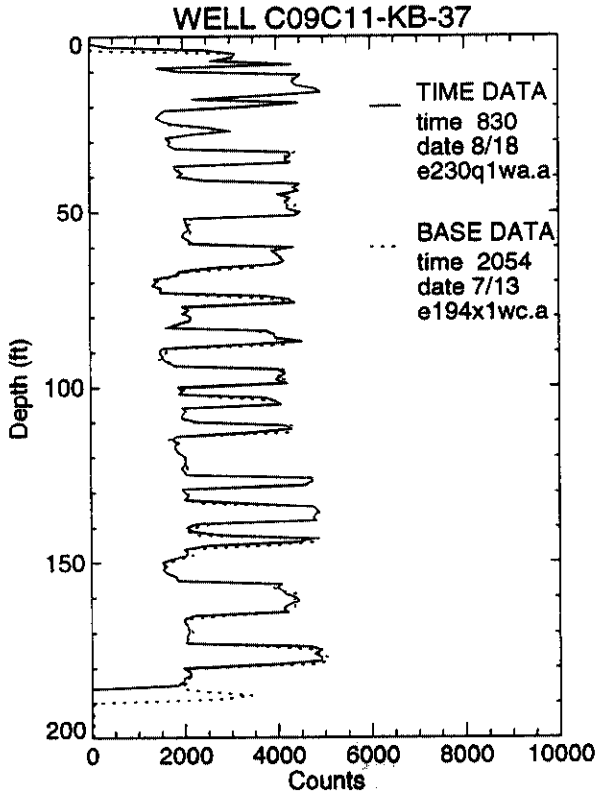
8000
10000


WELL C09C11-KB-37
TIME DATA
time 830
date 8/18
e230q1wa.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
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150
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0
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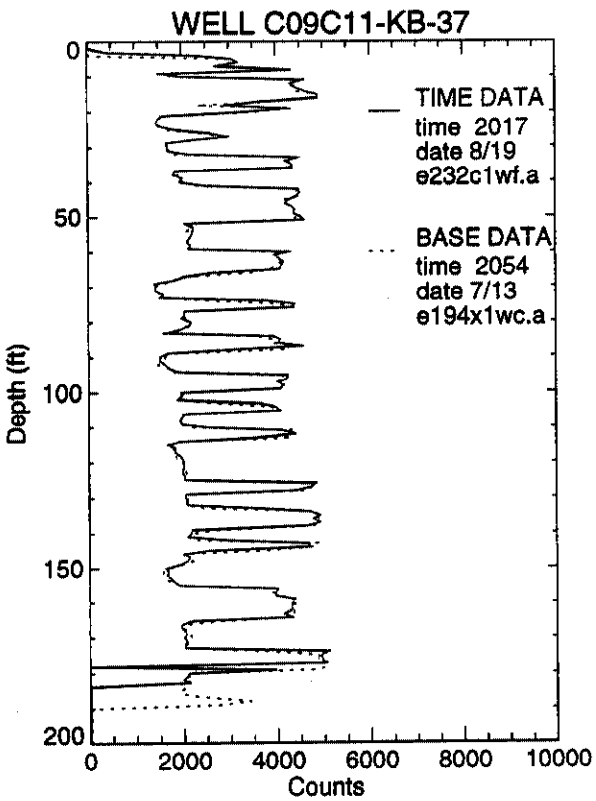
8000
10000


WELL C09C11-KB-37
TIME DATA
time 2017
date 8/19
e232c1wf.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
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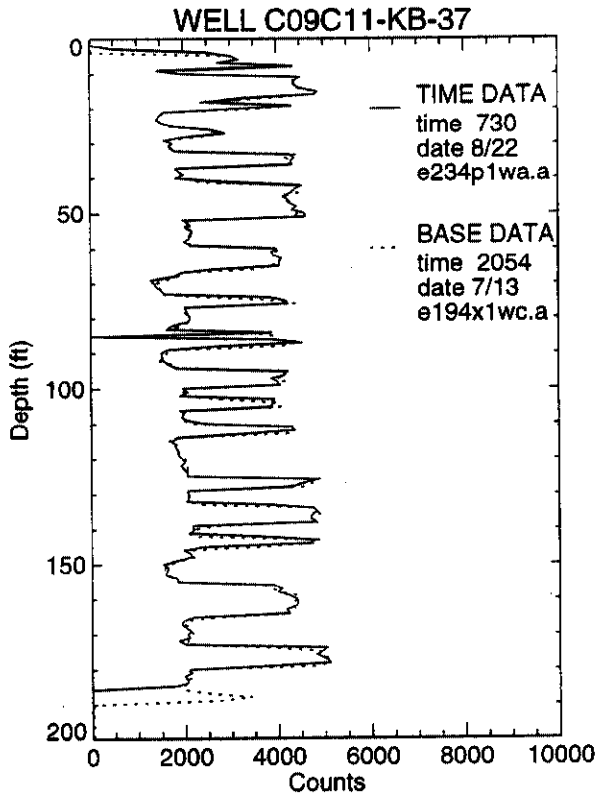
WELL C09C11-KB-37
TIME DATA
time 730
date 8/22
e234p1wa.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
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6000
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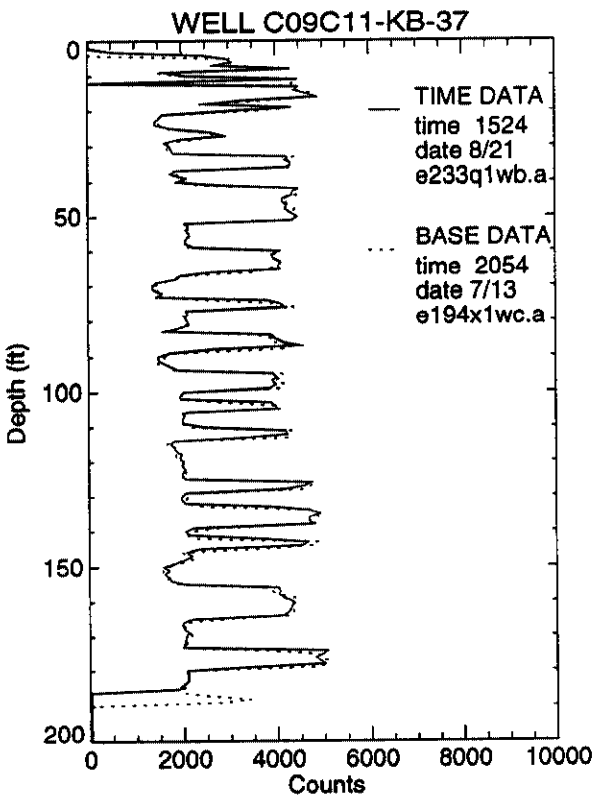
WELL C09C11-KB-37
TIME DATA
time 1524
date 8/21
e233q1wb.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
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0
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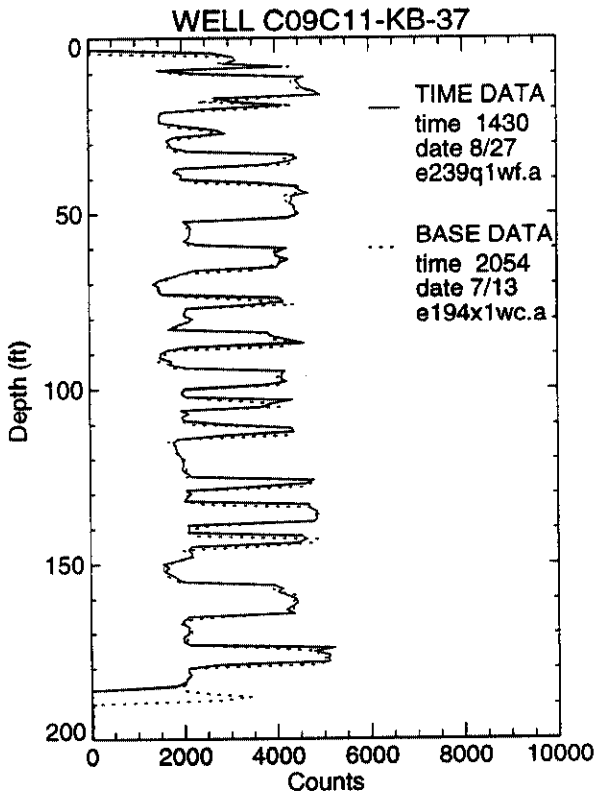
6000
8000
10000


WELL C09C11-KB-37
TIME DATA
time 1430
date 8/27
e239q1wf.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
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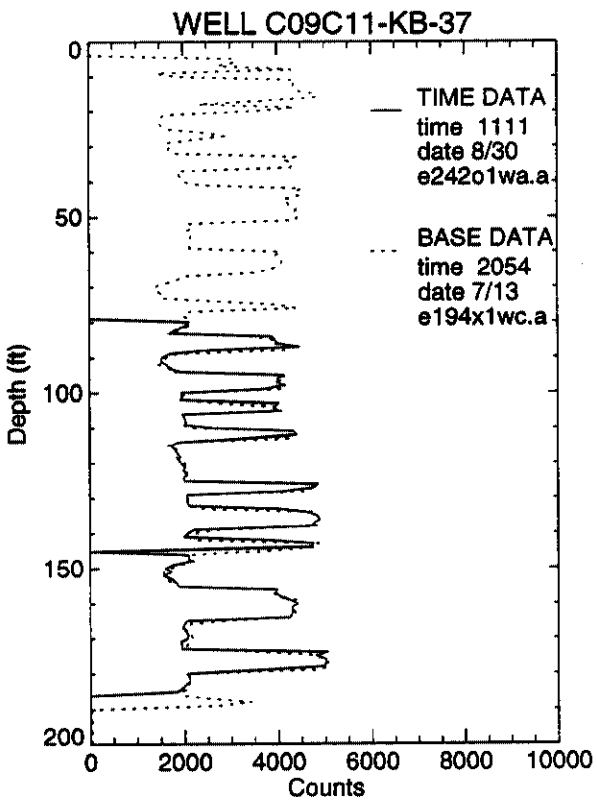
10000


WELL C09C11-KB-37
TIME DATA
time 1111
date 8/30
e242o1wa.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
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0
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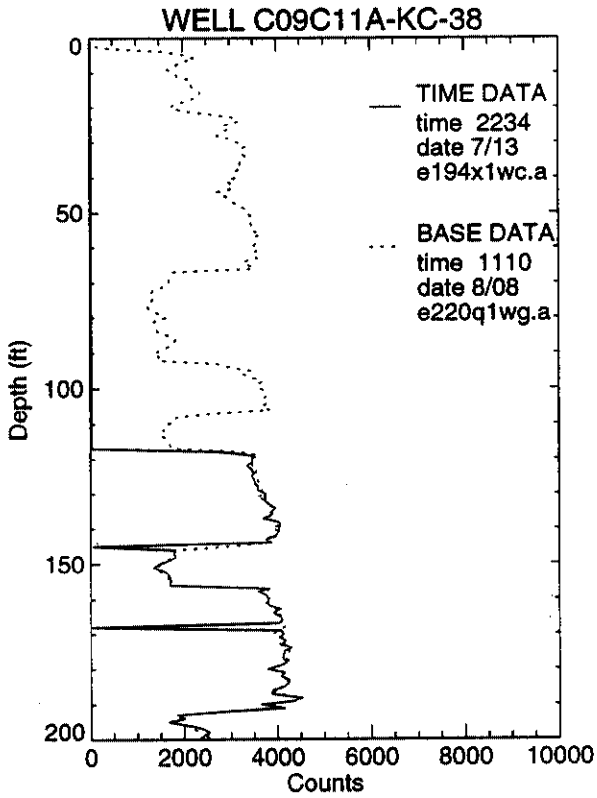
6000
8000
10000


WELL C09C11A-KC-38
TIME DATA
time 2234
date 7/13
e194x1wc.a
BASE DATA
time 1110
date 8/08
e220q1wg.a
Depth (ft)
Counts
0
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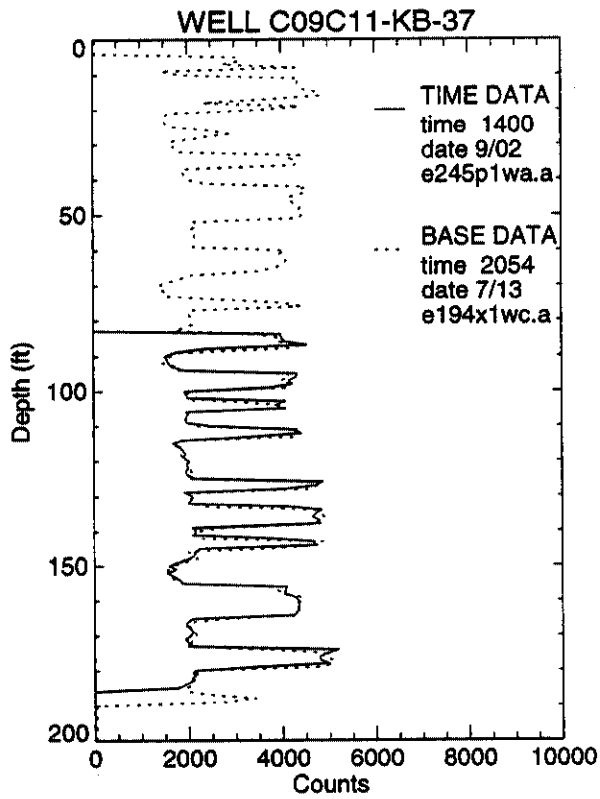
150
200
0
2000
4000
6000
8000
10000


WELL C09C11-KB-37
TIME DATA
time 1400
date 9/02
e245p1wa.a
BASE DATA
time 2054
date 7/13
e194x1wc.a
Depth (ft)
Counts
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0
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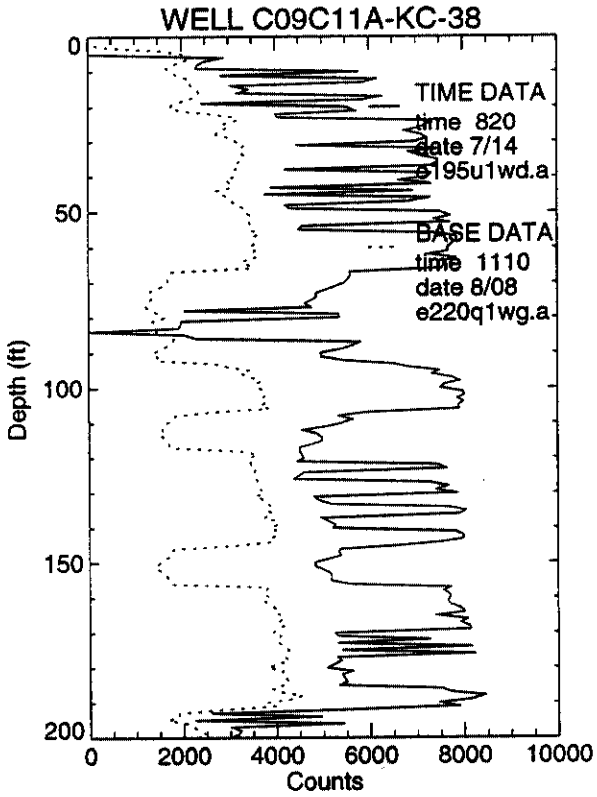
6000
8000
10000


WELL C09C11A-KC-38
TIME DATA
time 820
date 7/14
e195u1wd.a
BASE DATA
time 1110
date 8/08
e220q1wg.a
Depth (ft)
Counts
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0
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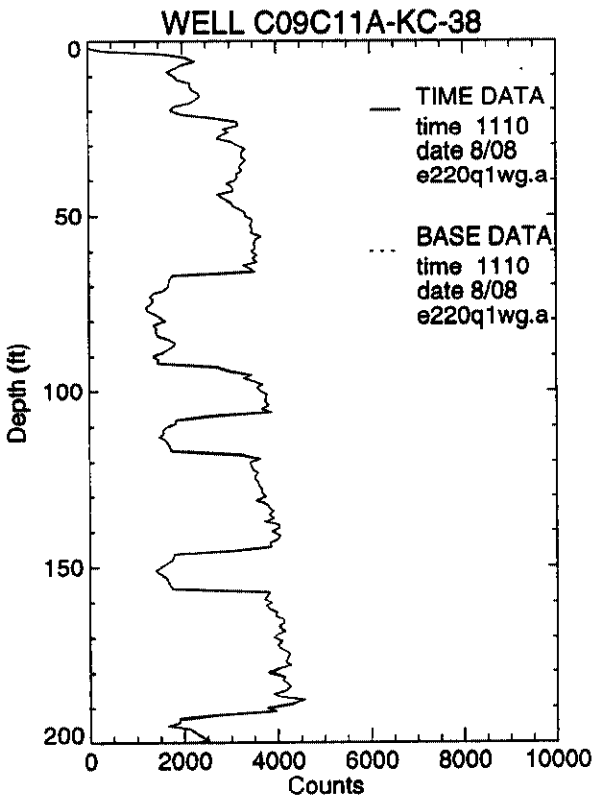
8000
10000


WELL C09C11A-KC-38
TIME DATA
time 1110
date 8/08
e220q1wg.a
BASE DATA
time 1110
date 8/08
e220q1wg.a
Depth (ft)
Counts
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150
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0
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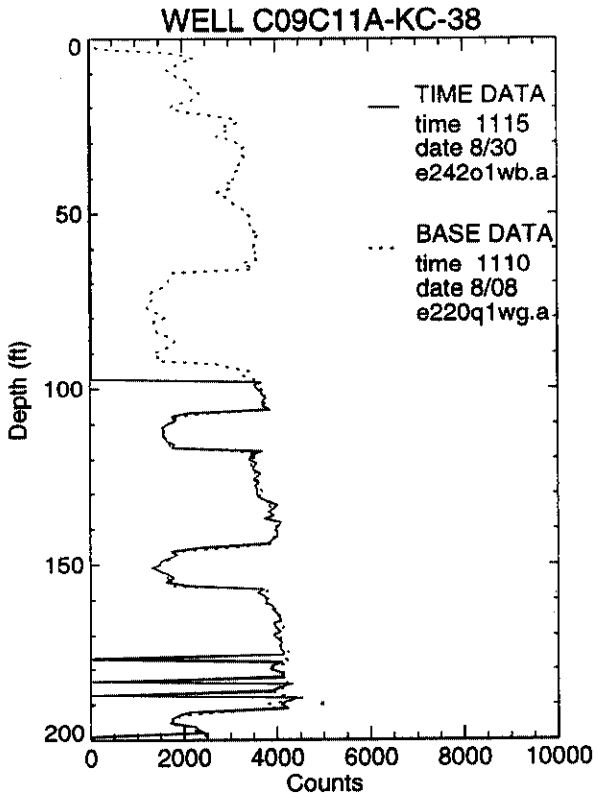
8000
10000


WELL C09C11A-KC-38
TIME DATA
time 1115
date 8/30
e242o1wb.a
BASE DATA
time 1110
date 8/08
e220q1wg.a
Depth (ft)
Counts
0
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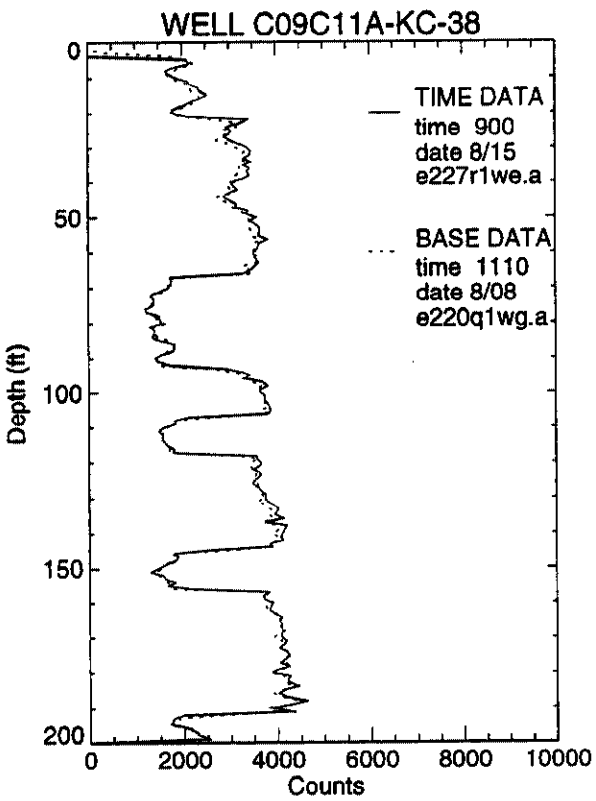
100
150
200
0
2000
4000
6000
8000
10000


WELL C09C11A-KC-38
TIME DATA
time 900
date 8/15
e227r1we.a
BASE DATA
time 1110
date 8/08
e220q1wg.a
Depth (ft)
Counts
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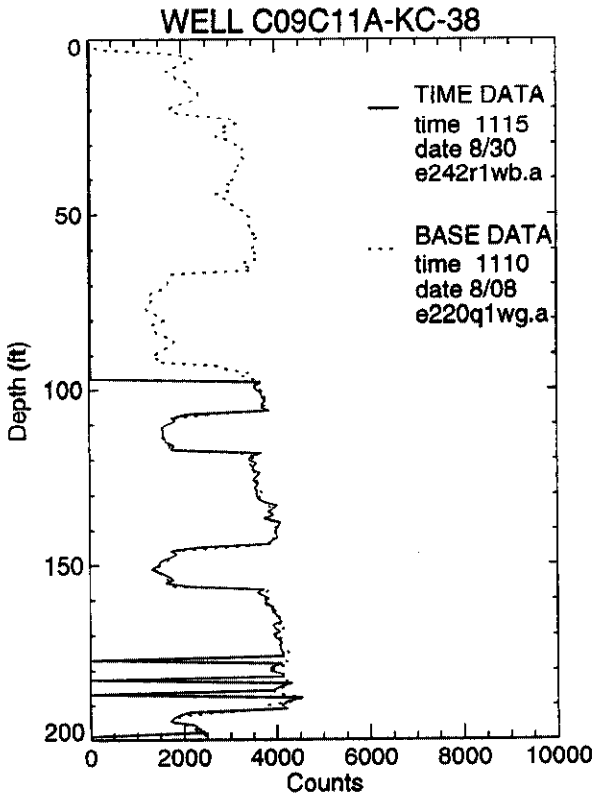
100
150
200
0
2000
4000
6000
8000
10000


WELL C09C11A-KC-38
TIME DATA
time 1115
date 8/30
e242r1wb.a
BASE DATA
time 1110
date 8/08
e220q1wg.a
Depth (ft)
Counts
0
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150
200
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4000
6000
8000
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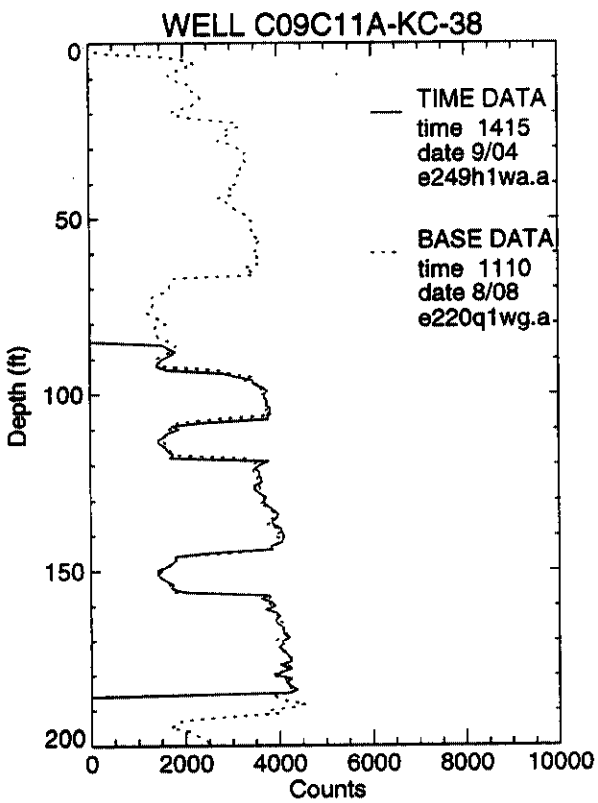
WELL C09C11A-KC-38
TIME DATA
time 1415
date 9/04
e249h1wa.a
BASE DATA
time 1110
date 8/08
e220q1wg.a
Depth (ft)
Counts
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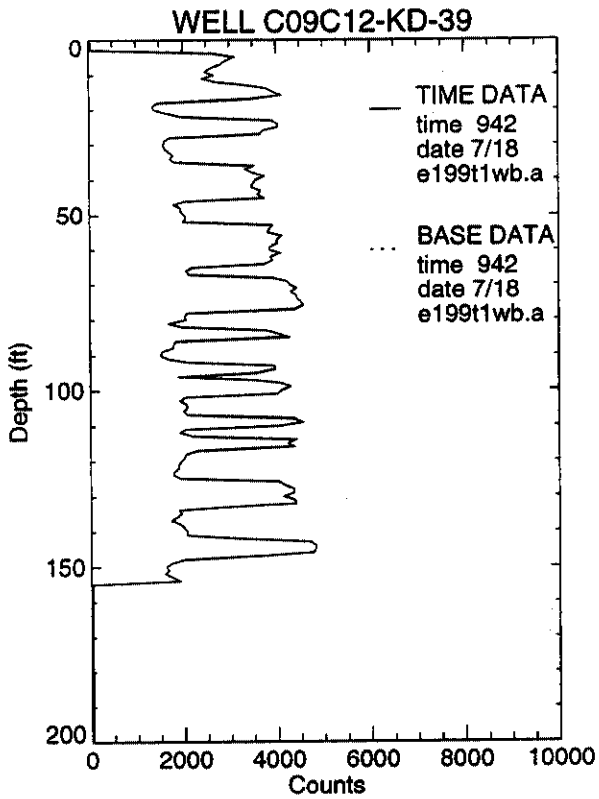
WELL C09C12-KD-39
TIME DATA
time 942
date 7/18
e199t1wb.a
BASE DATA
time 942
date 7/18
e199t1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
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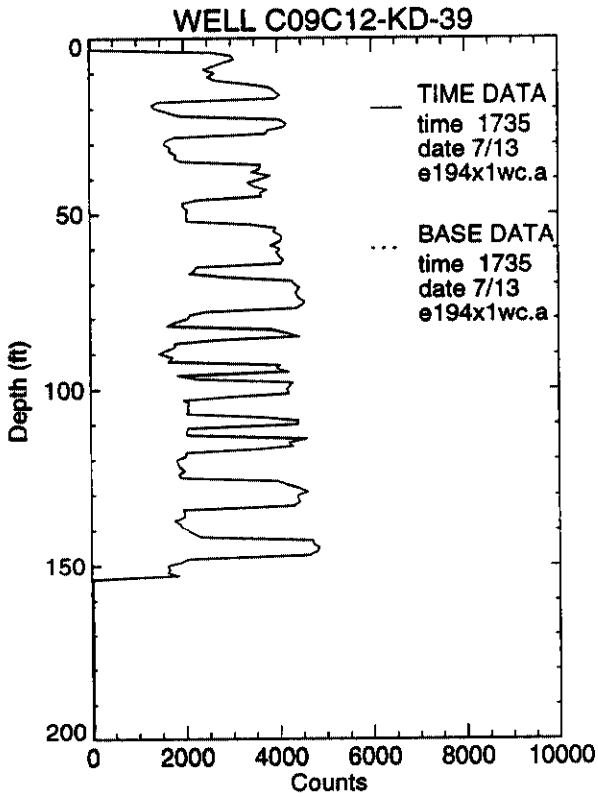
WELL C09C12-KD-39
TIME DATA
time 1735
date 7/13
e194x1wc.a
BASE DATA
time 1735
date 7/13
e194x1wc.a
Depth (ft)
Counts
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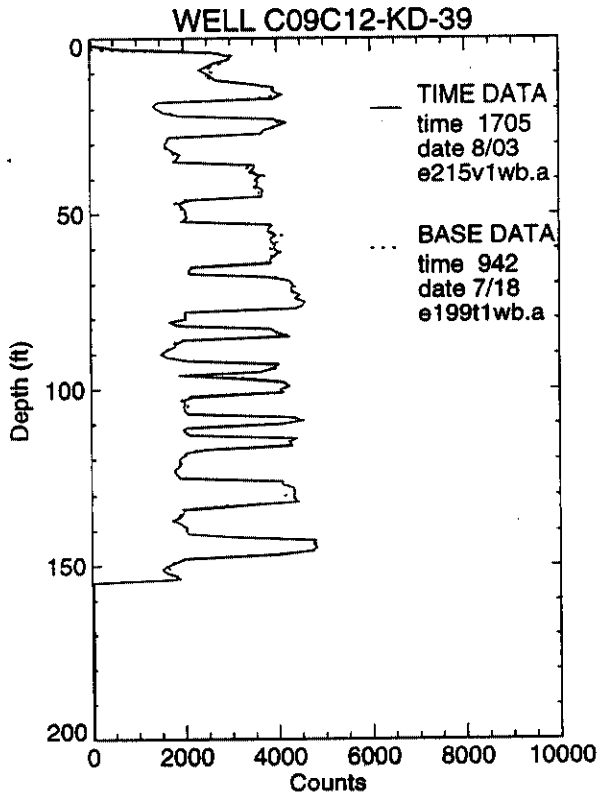
WELL C09C12-KD-39
TIME DATA
time 1705
date 8/03
e215v1wb.a
BASE DATA
time 942
date 7/18
e199t1wb.a
Depth (ft)
Counts
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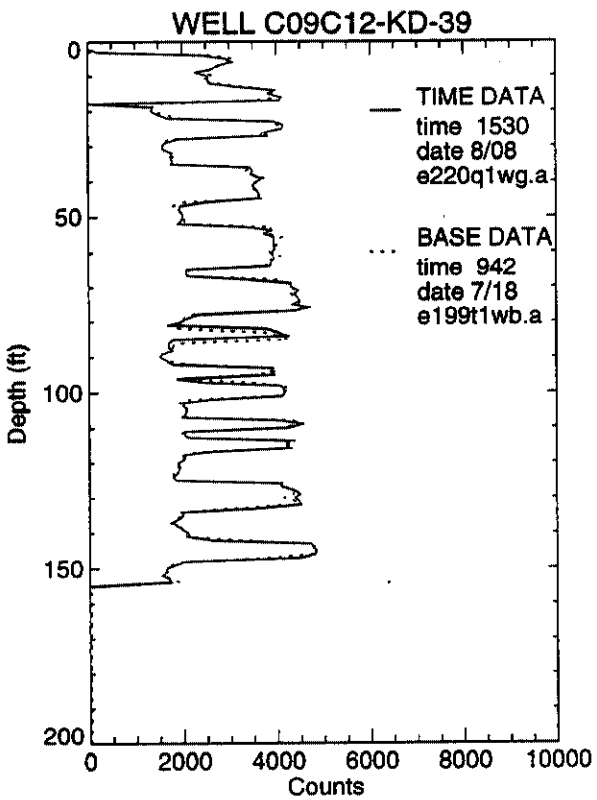
WELL C09C12-KD-39
TIME DATA
time 1530
date 8/08
e220q1wg.a
BASE DATA
time 942
date 7/18
e199t1wb.a
Depth (ft)
Counts
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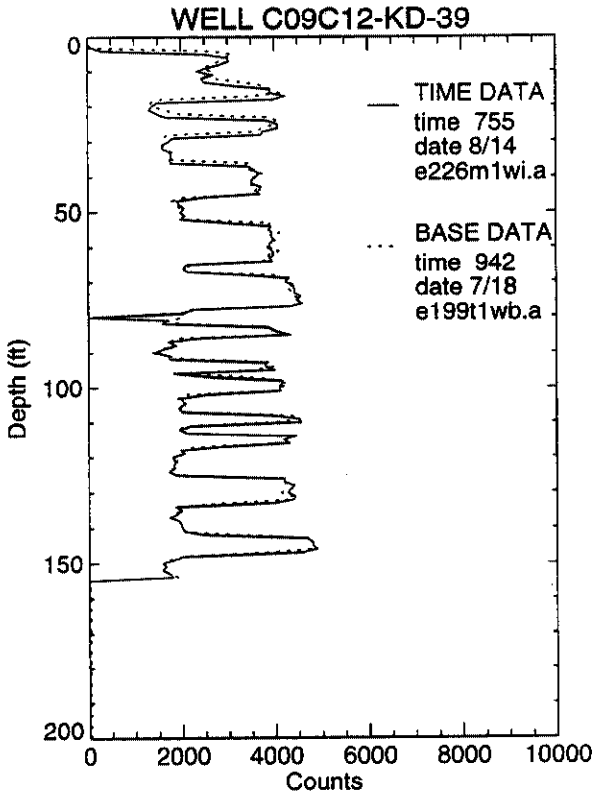
WELL C09C12-KD-39
TIME DATA
time 755
date 8/14
e226m1wi.a
BASE DATA
time 942
date 7/18
e199t1wb.a
Depth (ft)
Counts
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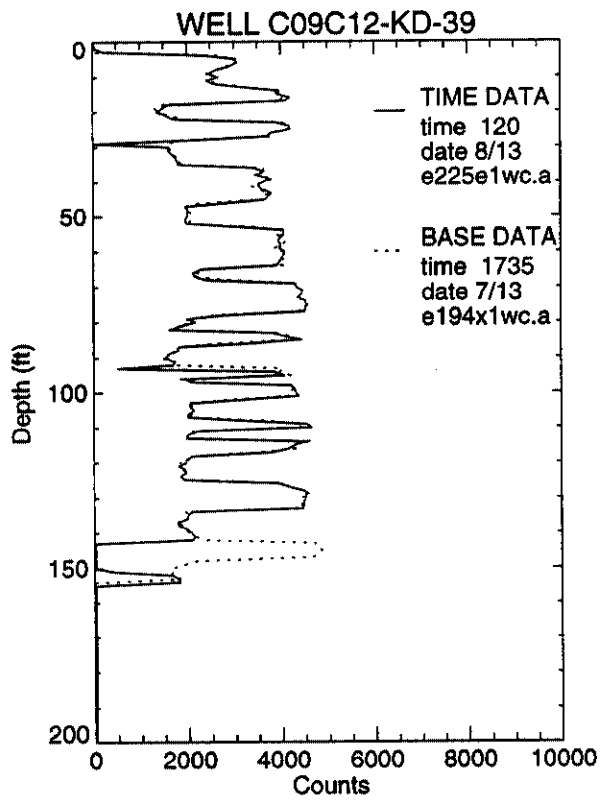
WELL C09C12-KD-39
TIME DATA
time 120
date 8/13
e225e1wc.a
BASE DATA
time 1735
date 7/13
e194x1wc.a
Depth (ft)
Counts
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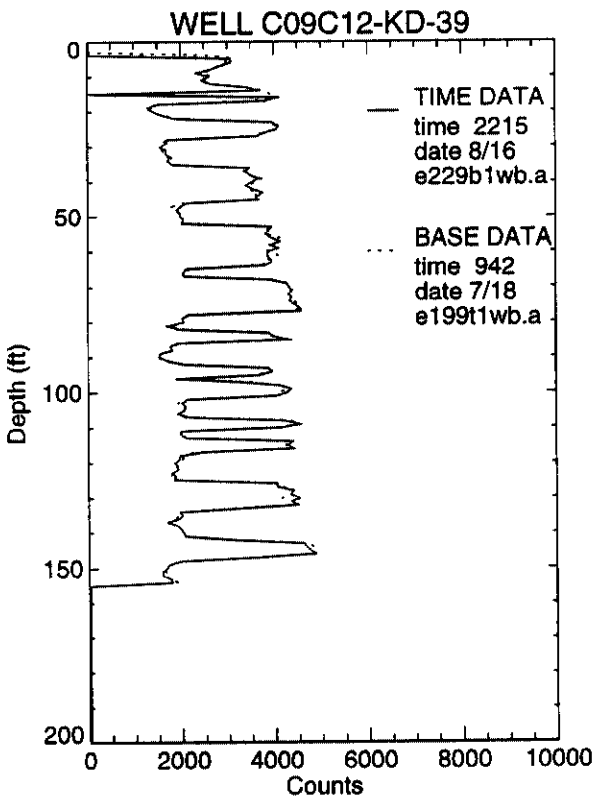
WELL C09C12-KD-39
TIME DATA
time 2215
date 8/16
e229b1wb.a
BASE DATA
time 942
date 7/18
e199t1wb.a
Depth (ft)
Counts
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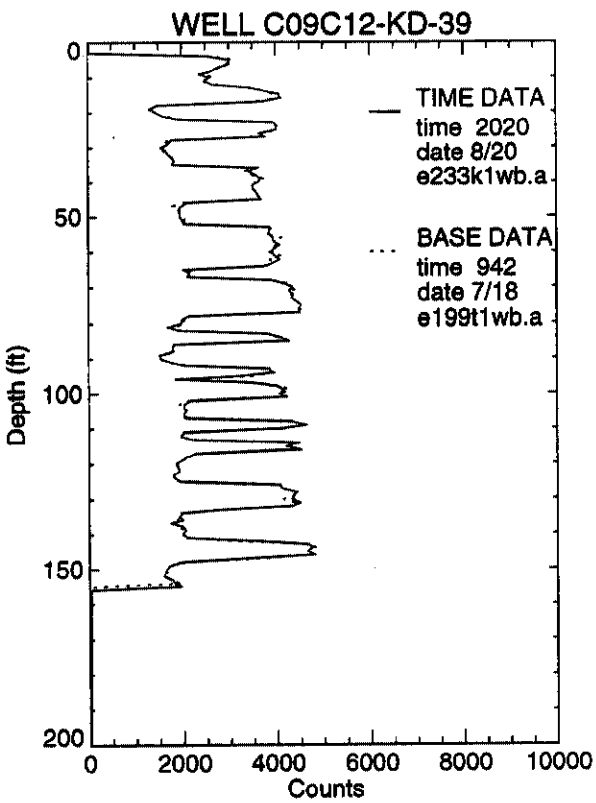
WELL C09C12-KD-39
TIME DATA
time 2020
date 8/20
e233k1wb.a
BASE DATA
time 942
date 7/18
e199t1wb.a
Depth (ft)
Counts
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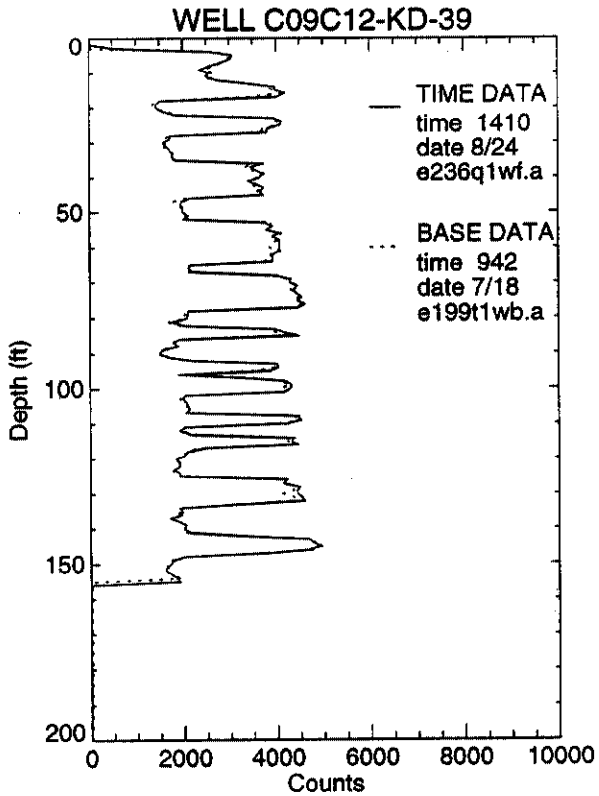
WELL C09C12-KD-39
TIME DATA
time 1410
date 8/24
e236q1wf.a
BASE DATA
time 942
date 7/18
e199t1wb.a
Depth (ft)
Counts
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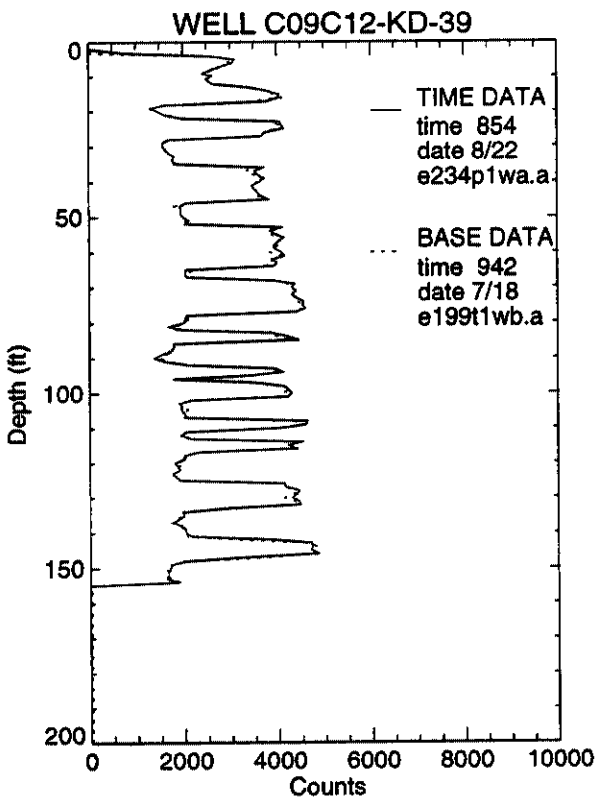
WELL C09C12-KD-39
TIME DATA
time 854
date 8/22
e234p1wa.a
BASE DATA
time 942
date 7/18
e199t1wb.a
Depth (ft)
Counts
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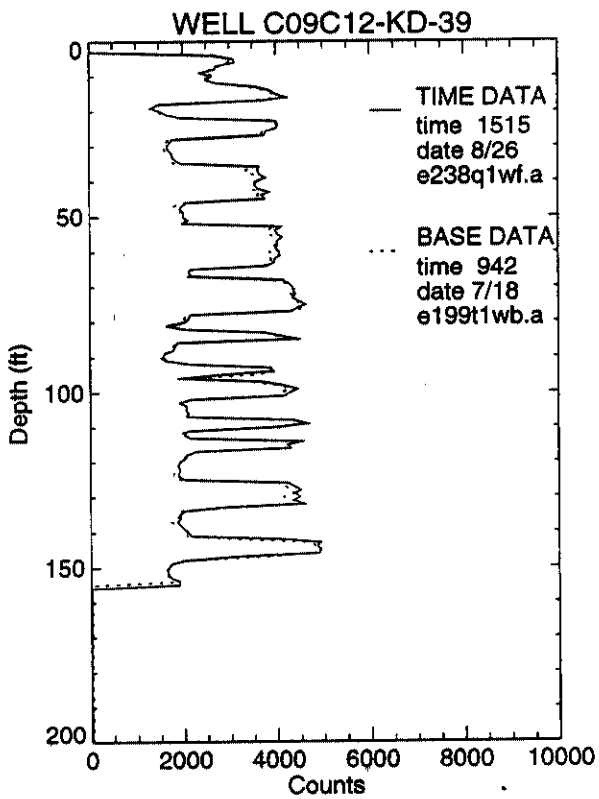
WELL C09C12-KD-39
TIME DATA
time 1515
date 8/26
e238q1wf.a
BASE DATA
time 942
date 7/18
e199t1wb.a
Depth (ft)
Counts
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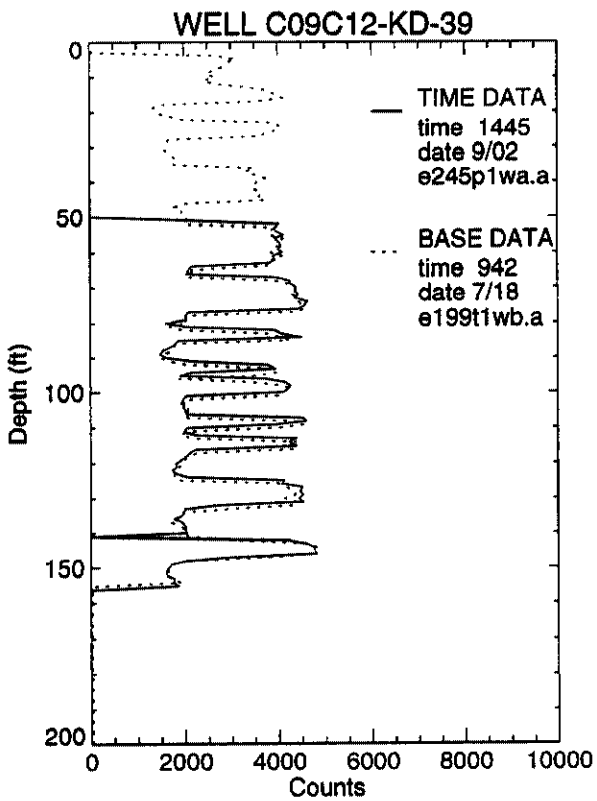
WELL C09C12-KD-39
TIME DATA
time 1445
date 9/02
e245p1wa.a
BASE DATA
time 942
date 7/18
e199t1wb.a
Depth (ft)
Counts
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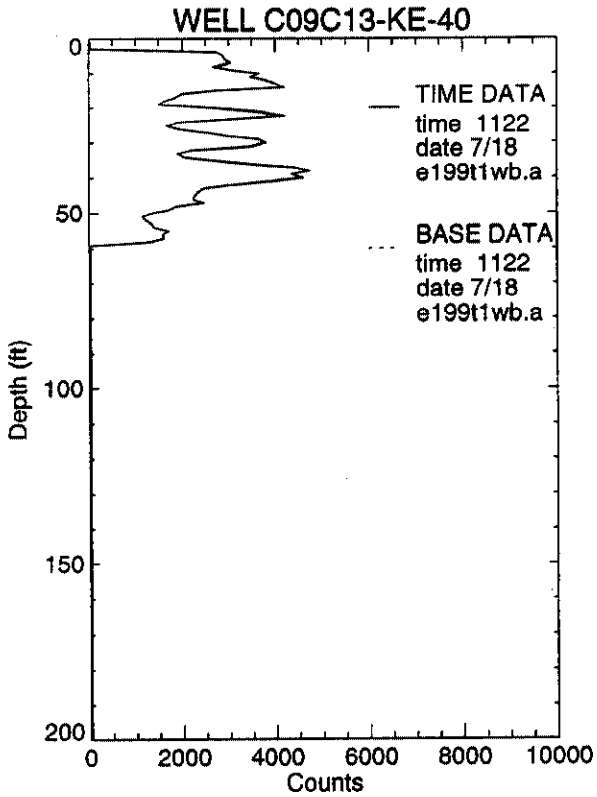
WELL C09C13-KE-40
TIME DATA
time 1122
date 7/18
e199t1wb.a
BASE DATA
time 1122
date 7/18
e199t1wb.a
Depth (ft)
Counts
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0
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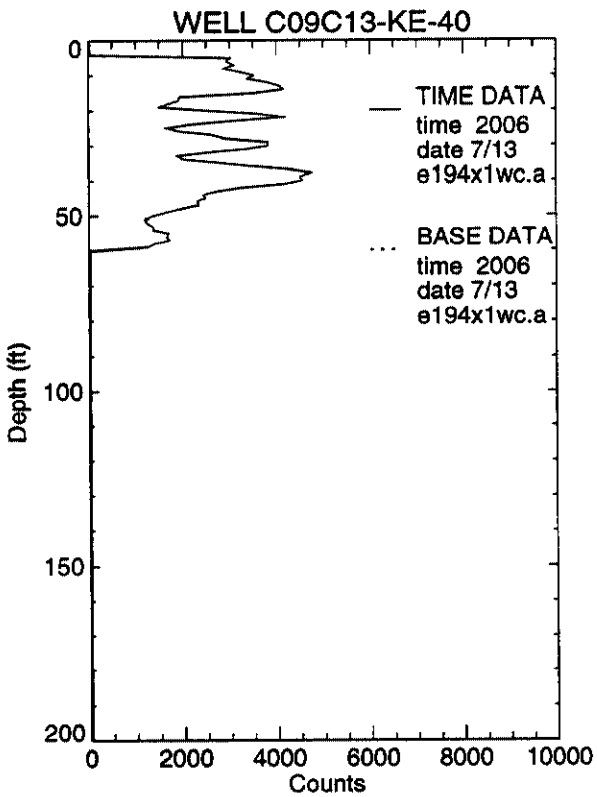
WELL C09C13-KE-40
TIME DATA
time 2006
date 7/13
e194x1wc.a
BASE DATA
time 2006
date 7/13
e194x1wc.a
Depth (ft)
Counts
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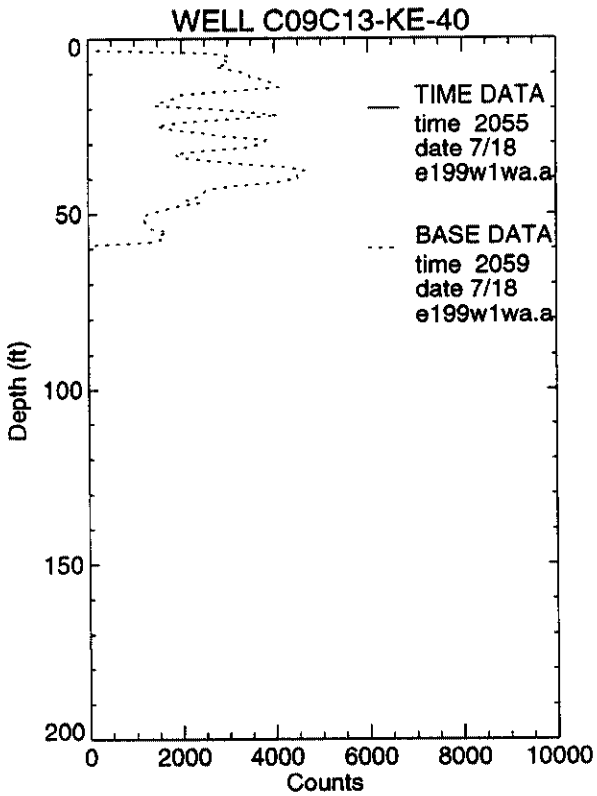
WELL C09C13-KE-40
TIME DATA
time 2055
date 7/18
e199w1wa.a
BASE DATA
time 2059
date 7/18
e199w1wa.a
Depth (ft)
Counts
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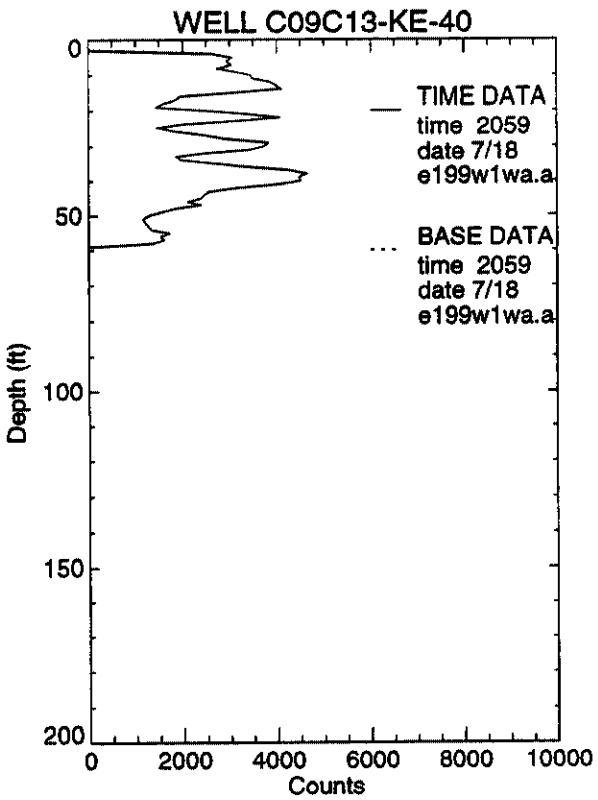
WELL C09C13-KE-40
TIME DATA
time 2059
date 7/18
e199w1wa.a
BASE DATA
time 2059
date 7/18
e199w1wa.a
Depth (ft)
Counts
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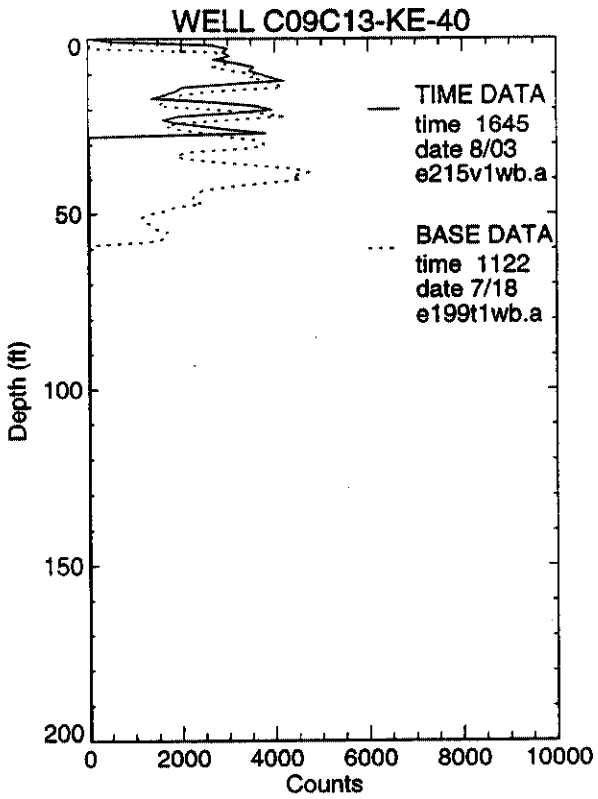
WELL C09C13-KE-40
TIME DATA
time 1645
date 8/03
e215v1wb.a
BASE DATA
time 1122
date 7/18
e199t1wb.a
Depth (ft)
Counts
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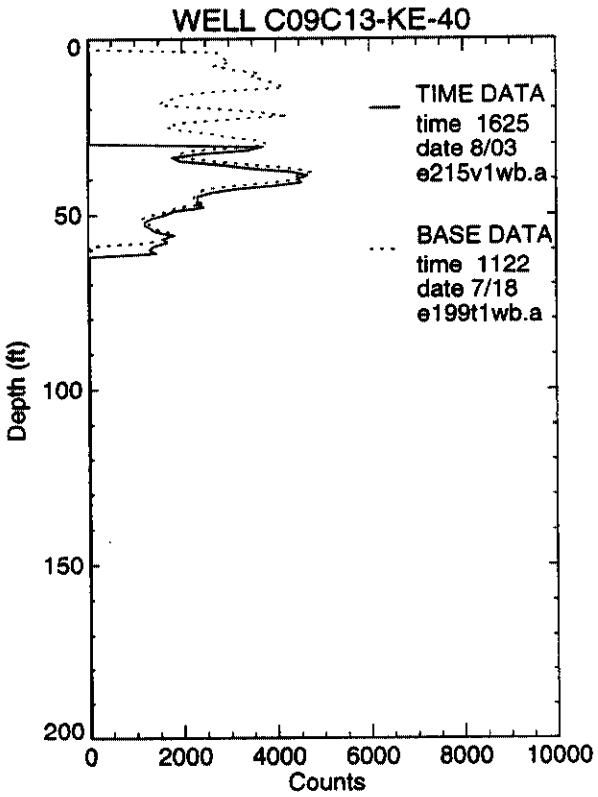
WELL C09C13-KE-40
TIME DATA
time 1625
date 8/03
e215v1wb.a
BASE DATA
time 1122
date 7/18
e199t1wb.a
Depth (ft)
Counts
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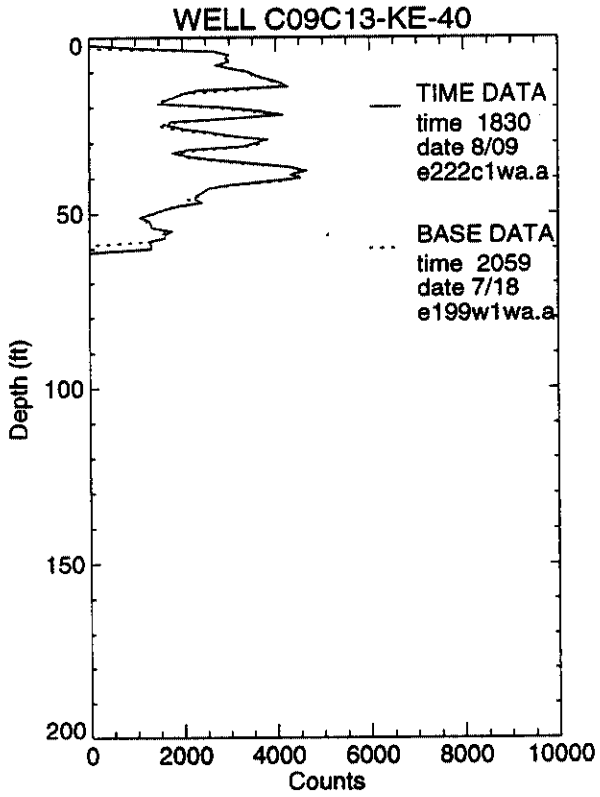
10000


WELL C09C13-KE-40
TIME DATA
time 1830
date 8/09
e222c1wa.a
BASE DATA
time 2059
date 7/18
e199w1wa.a
Depth (ft)
Counts
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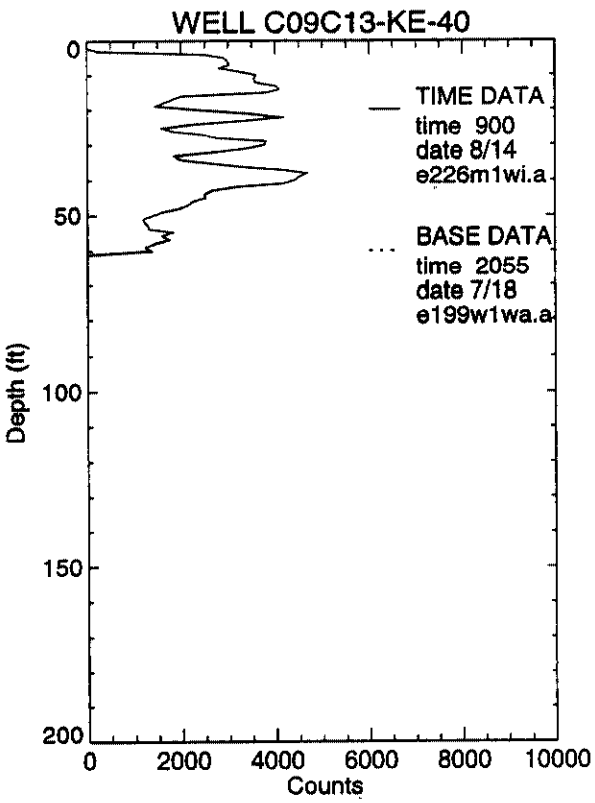
WELL C09C13-KE-40
TIME DATA
time 900
date 8/14
e226m1wi.a
BASE DATA
time 2055
date 7/18
e199w1wa.a
Depth (ft)
Counts
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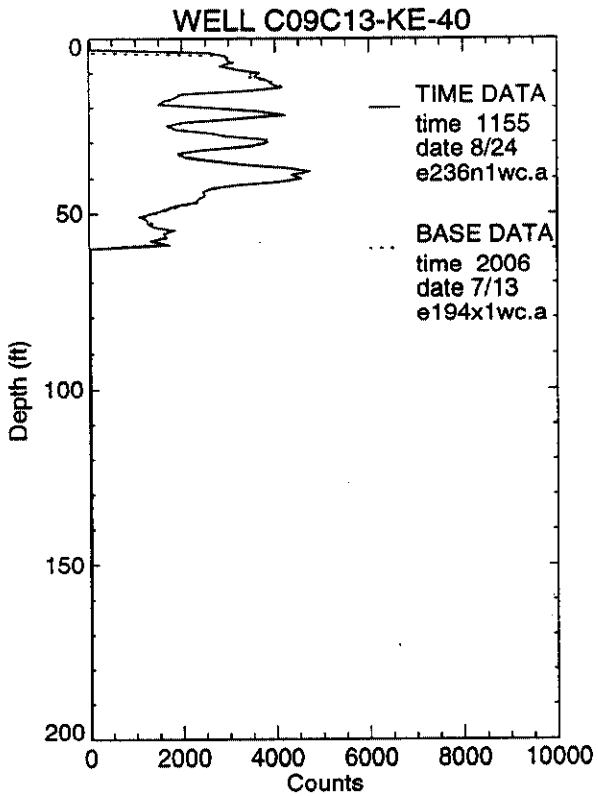
WELL C09C13-KE-40
TIME DATA
time 1155
date 8/24
e236n1wc.a
BASE DATA
time 2006
date 7/13
e194x1wc.a
Depth (ft)
Counts
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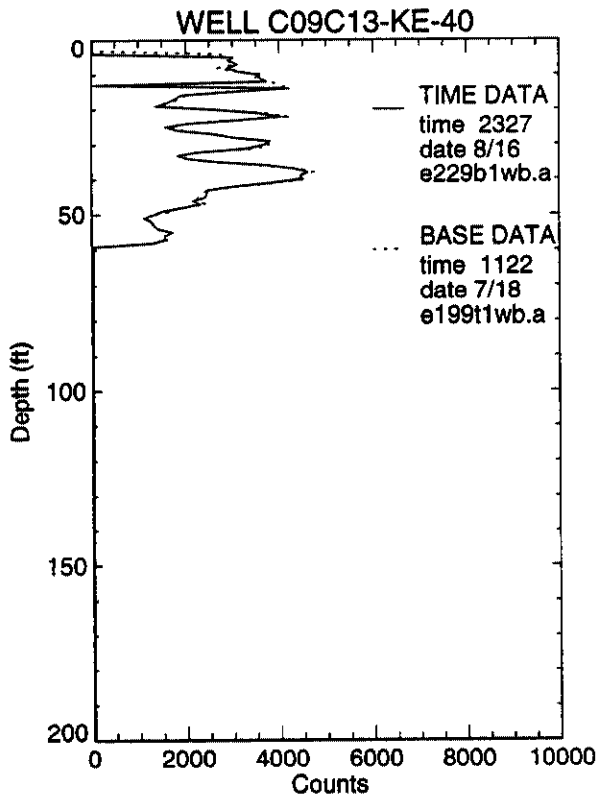
WELL C09C13-KE-40
TIME DATA
time 2327
date 8/16
e229b1wb.a
BASE DATA
time 1122
date 7/18
e199t1wb.a
Depth (ft)
Counts
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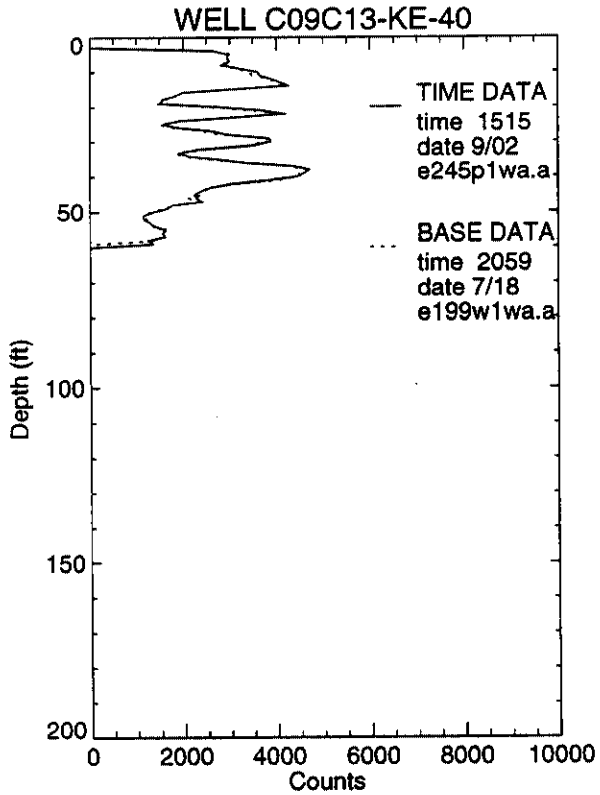
WELL C09C13-KE-40
TIME DATA
time 1515
date 9/02
e245p1wa.a
BASE DATA
time 2059
date 7/18
e199w1wa.a
Depth (ft)
Counts
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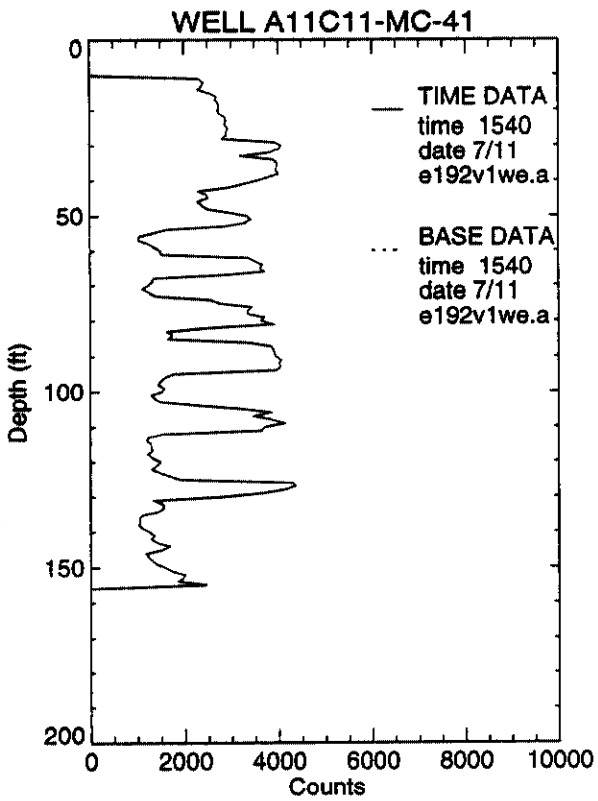
WELL A11C11-MC-41
TIME DATA
time 1540
date 7/11
e192v1we.a
BASE DATA
time 1540
date 7/11
e192v1we.a
Depth (ft)
Counts
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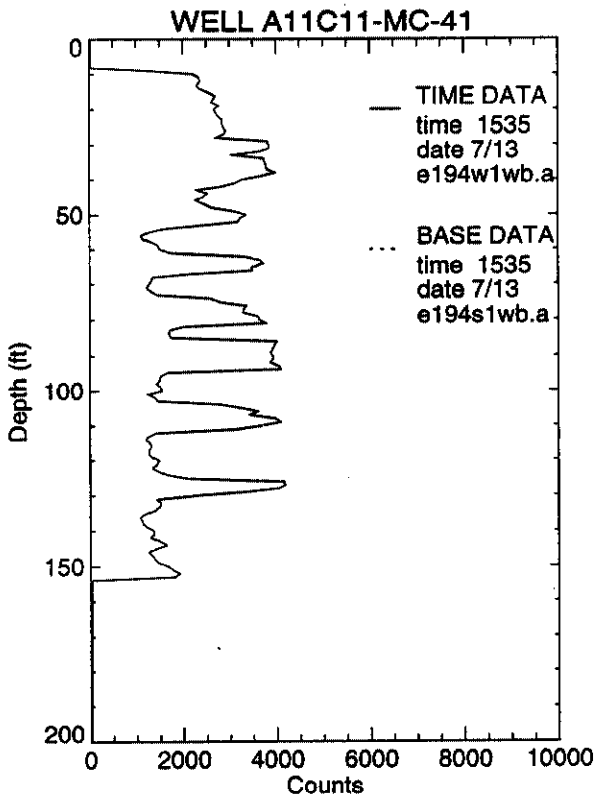
WELL A11C11-MC-41
TIME DATA
time 1535
date 7/13
e194w1wb.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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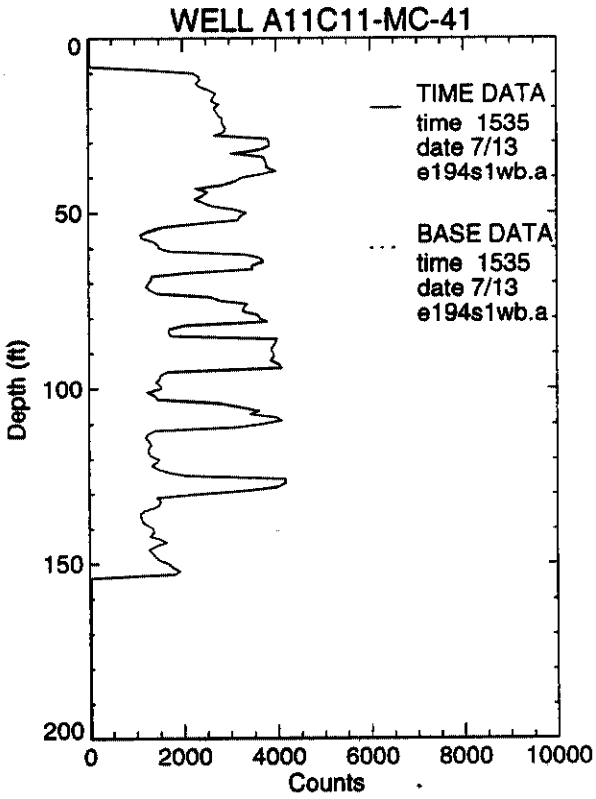
WELL A11C11-MC-41
TIME DATA
time 1535
date 7/13
e194s1wb.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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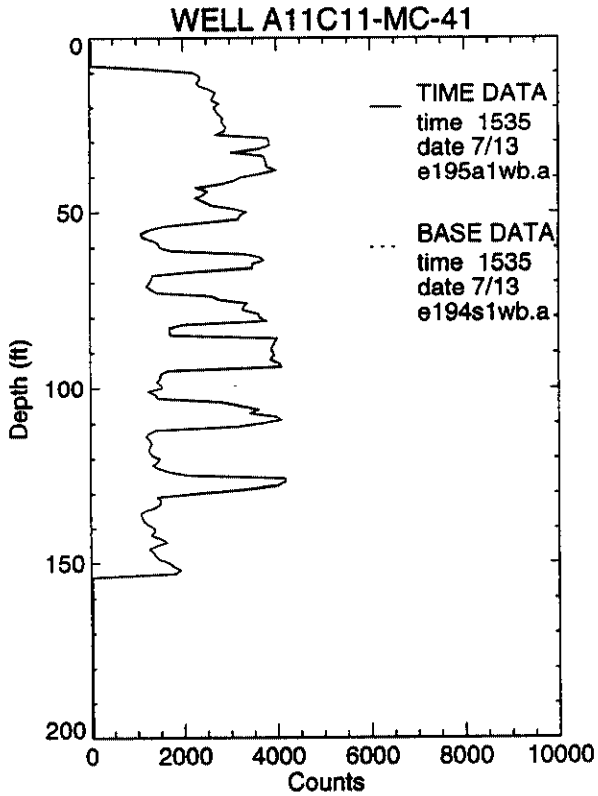
WELL A11C11-MC-41
TIME DATA
time 1535
date 7/13
e195a1wb.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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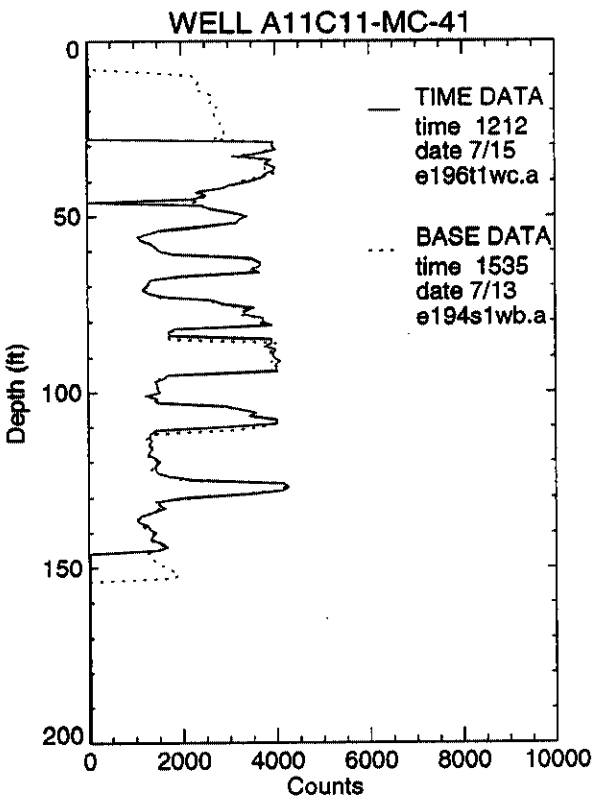
WELL A11C11-MC-41
TIME DATA
time 1212
date 7/15
e196t1wc.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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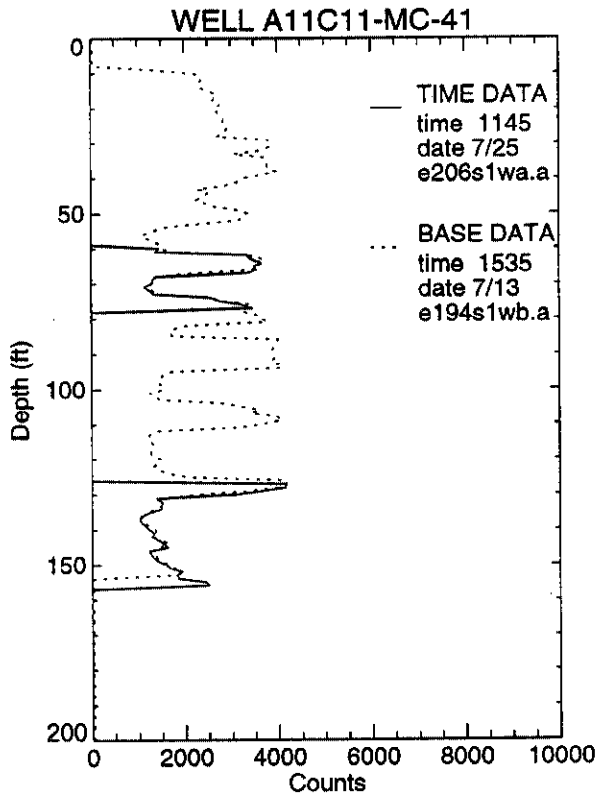
WELL A11C11-MC-41
TIME DATA
time 1145
date 7/25
e206s1wa.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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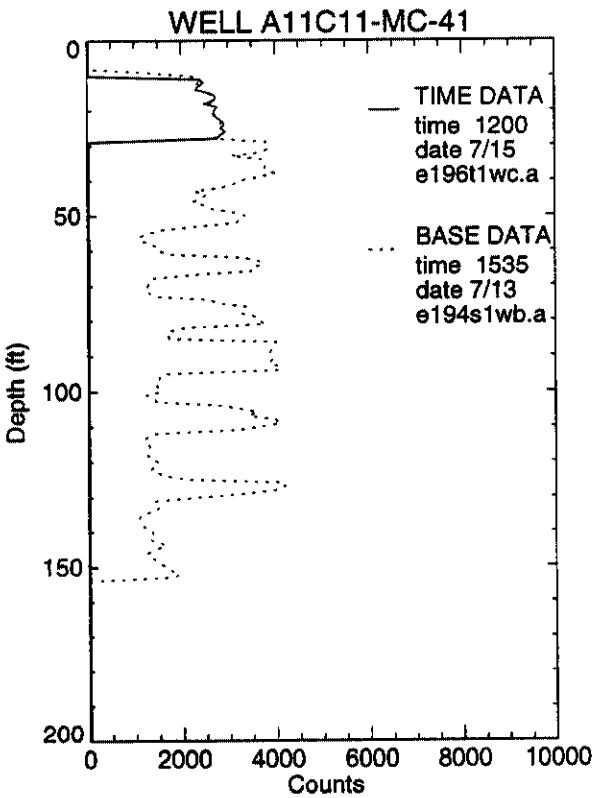
WELL A11C11-MC-41
TIME DATA
time 1200
date 7/15
e196t1wc.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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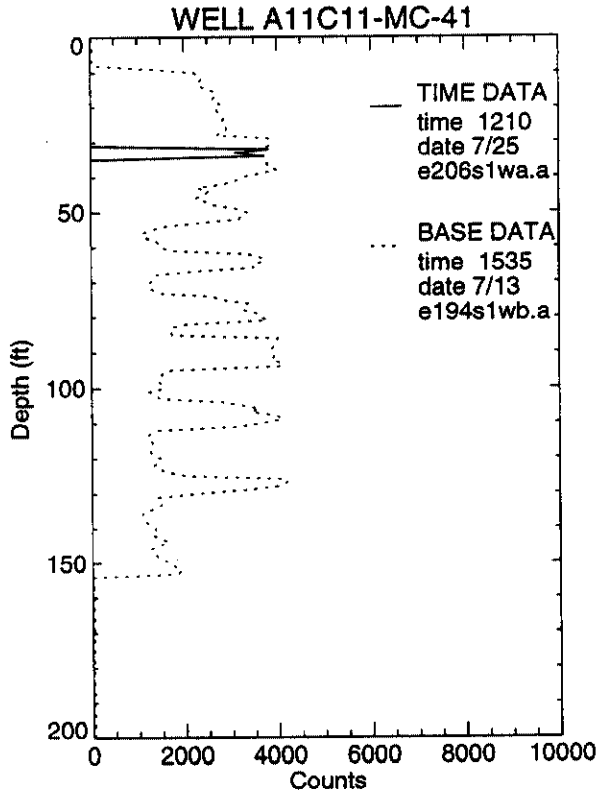
WELL A11C11-MC-41
TIME DATA
time 1210
date 7/25
e206s1wa.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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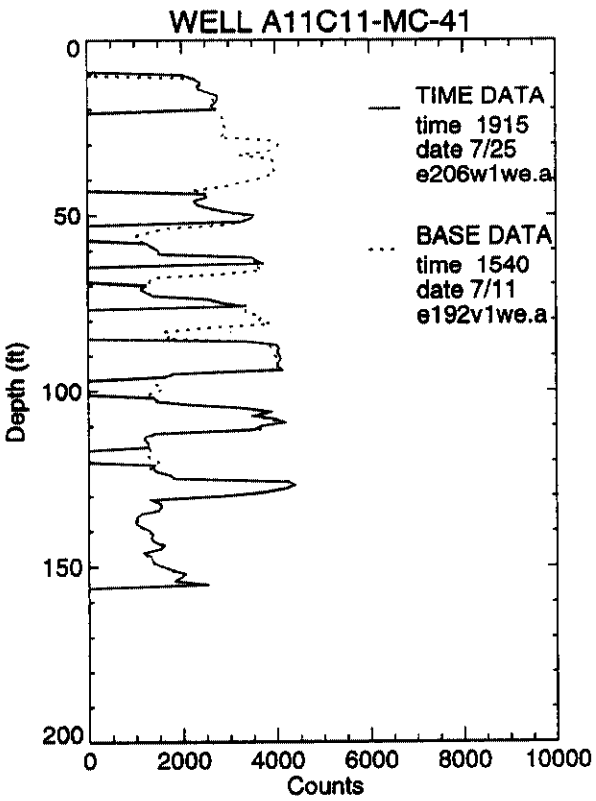
WELL A11C11-MC-41
TIME DATA
time 1915
date 7/25
e206w1we.a
BASE DATA
time 1540
date 7/11
e192v1we.a
Depth (ft)
Counts
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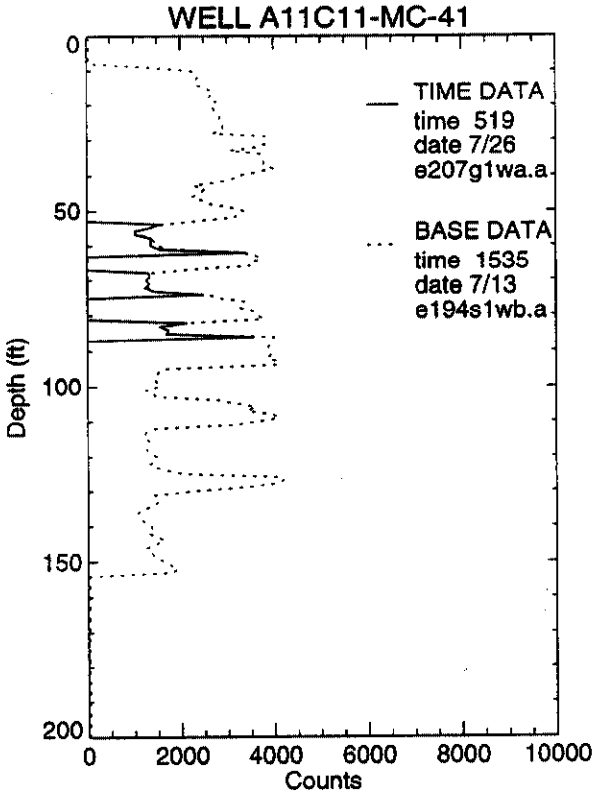
WELL A11C11-MC-41
TIME DATA
time 519
date 7/26
e207g1wa.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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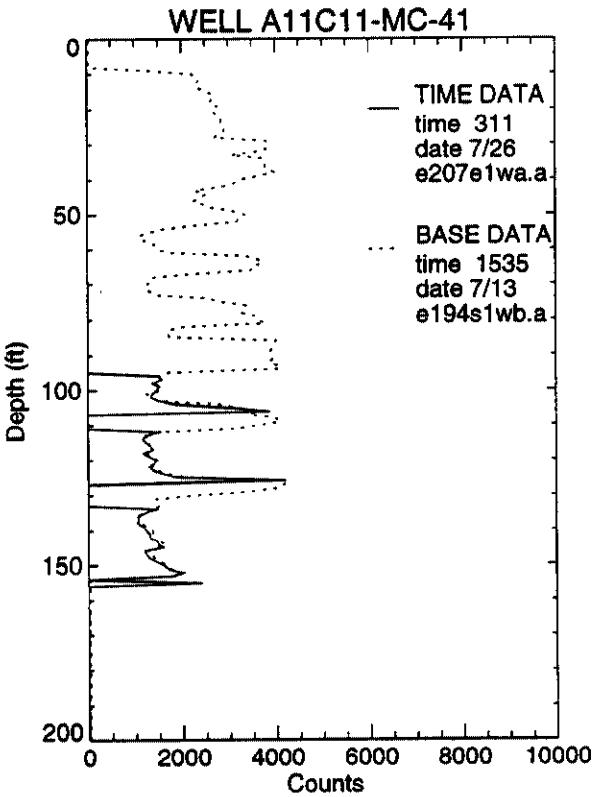
WELL A11C11-MC-41
TIME DATA
time 311
date 7/26
e207e1wa.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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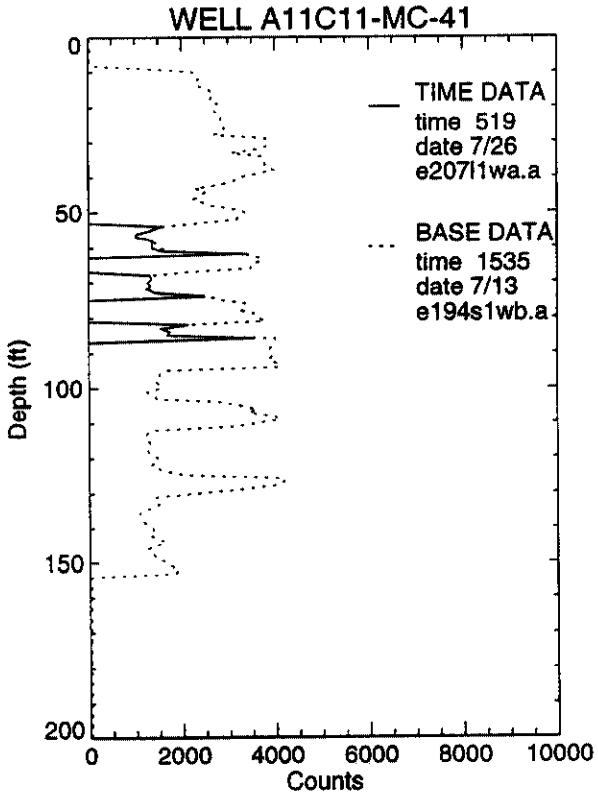
WELL A11C11-MC-41
TIME DATA
time 519
date 7/26
e207l1wa.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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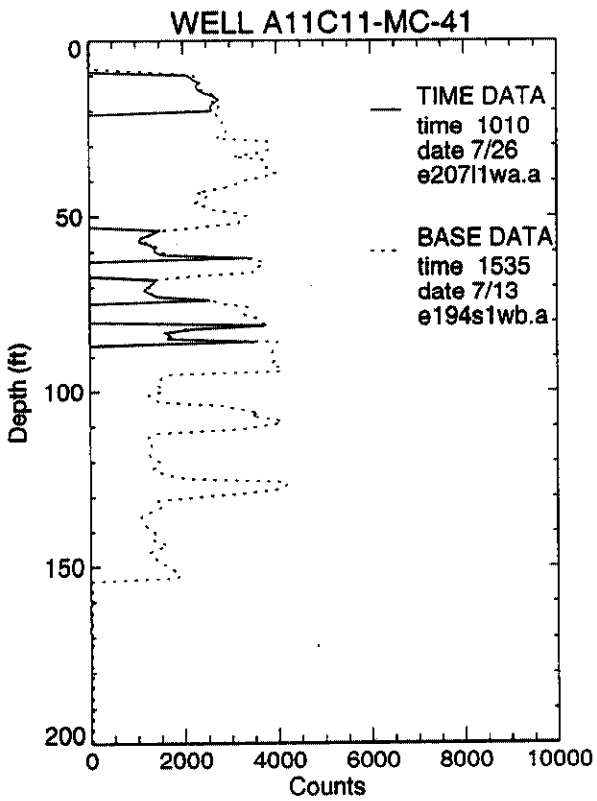
WELL A11C11-MC-41
TIME DATA
time 1010
date 7/26
e207l1wa.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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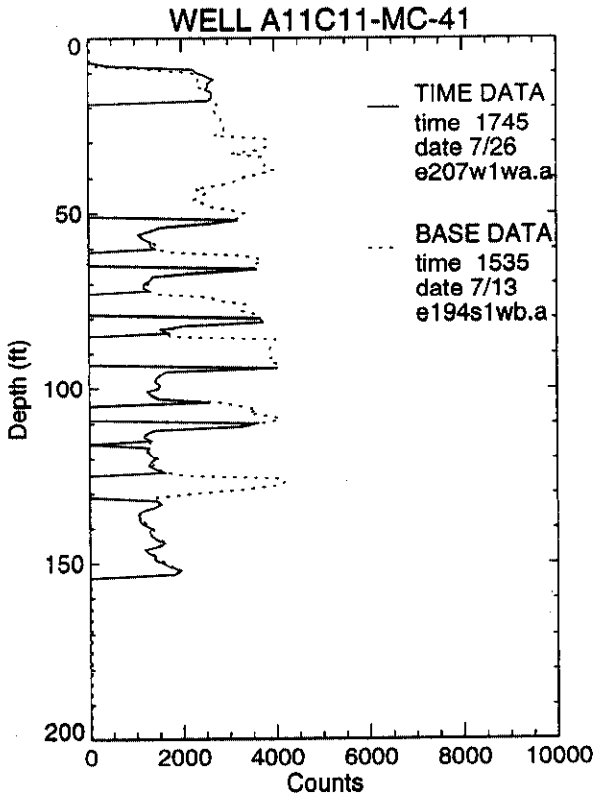
WELL A11C11-MC-41
TIME DATA
time 1745
date 7/26
e207w1wa.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
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150
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0
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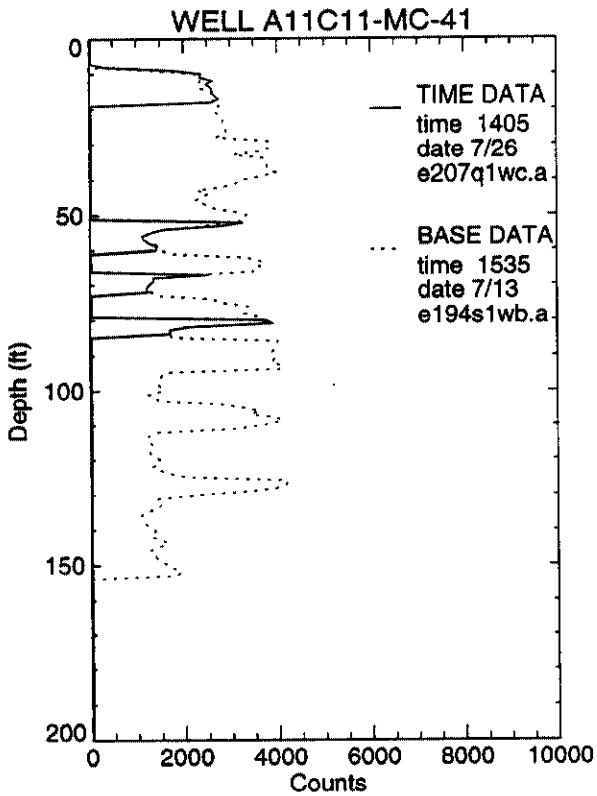
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 1405
date 7/26
e207q1wc.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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150
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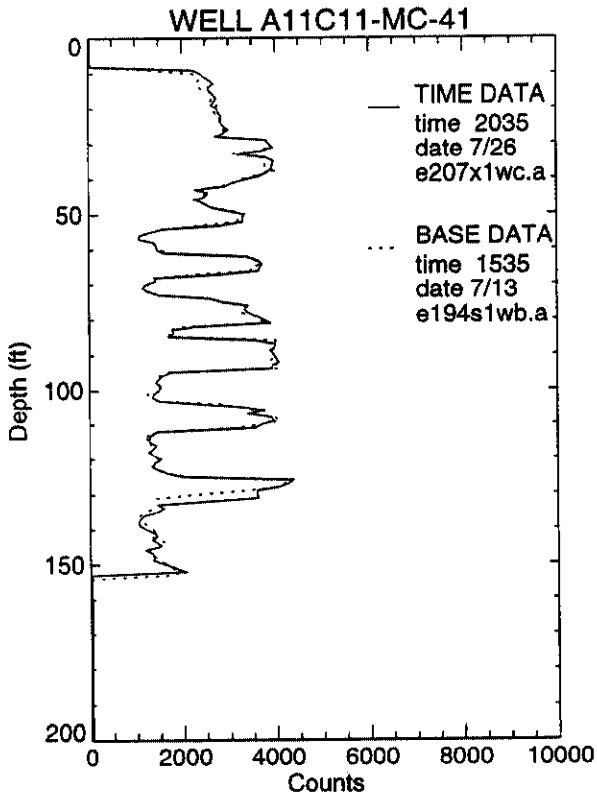
10000


WELL A11C11-MC-41
TIME DATA
time 2035
date 7/26
e207x1wc.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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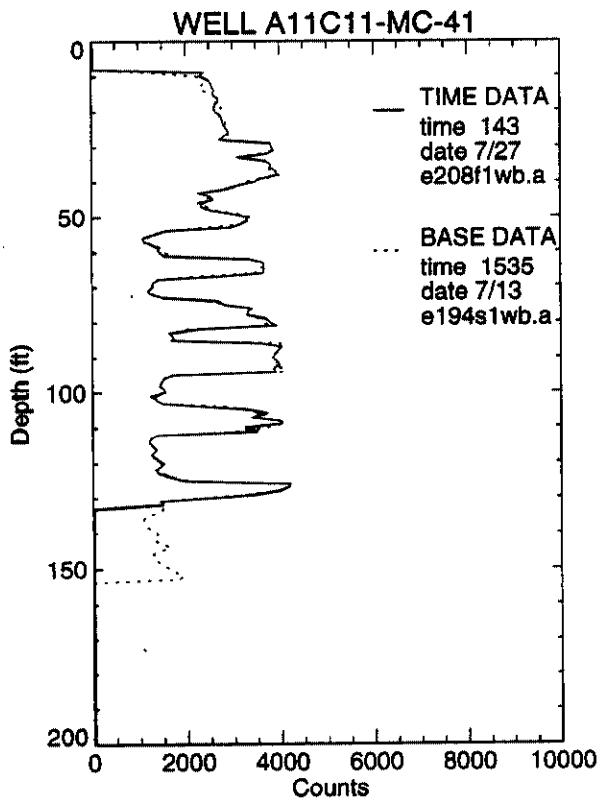
8000
10000


WELL A11C11-MC-41
TIME DATA
time 143
date 7/27
e208f1wb.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
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100
150
200
0
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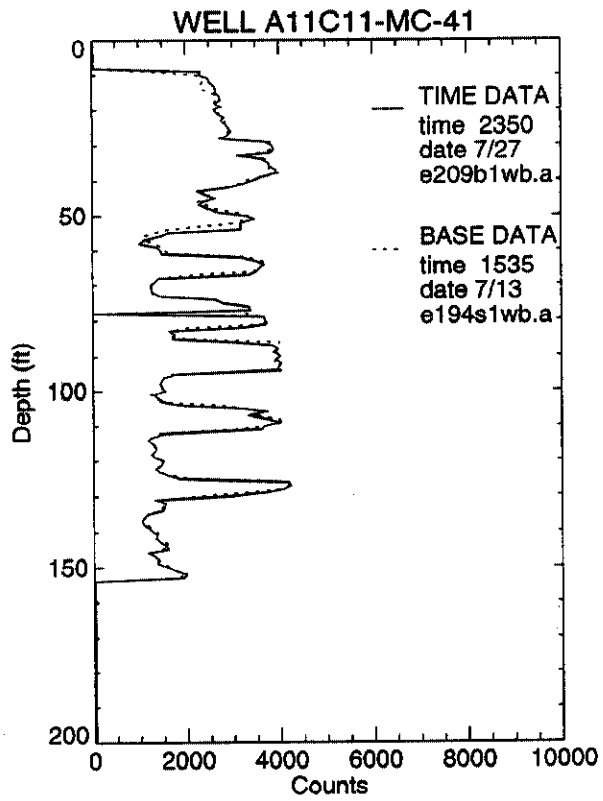
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 2350
date 7/27
e209b1wb.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
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150
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0
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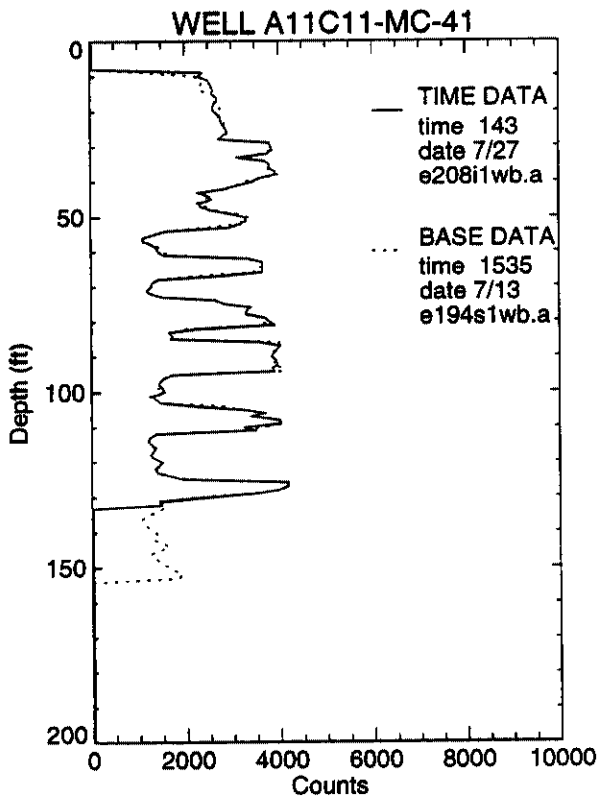
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 143
date 7/27
e208i1wb.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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150
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0
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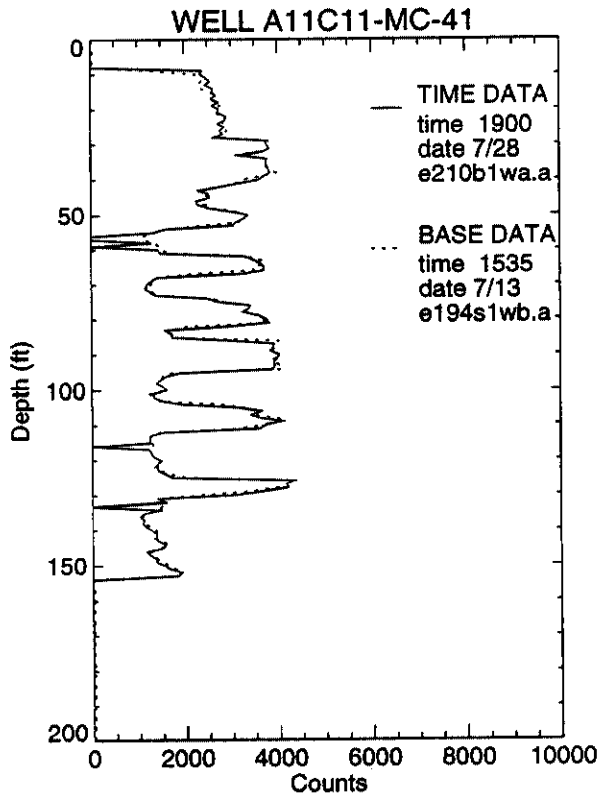
8000
10000


WELL A11C11-MC-41
TIME DATA
time 1900
date 7/28
e210b1wa.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
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150
200
0
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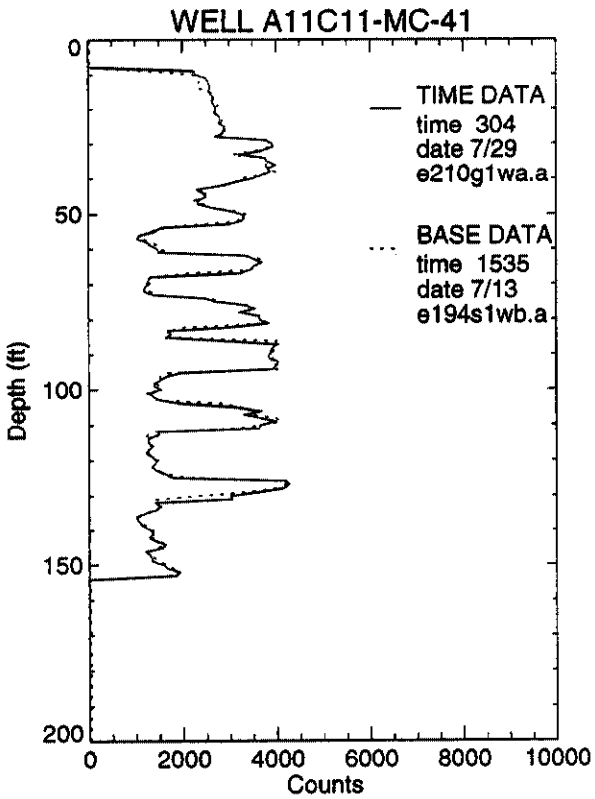
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 304
date 7/29
e210g1wa.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
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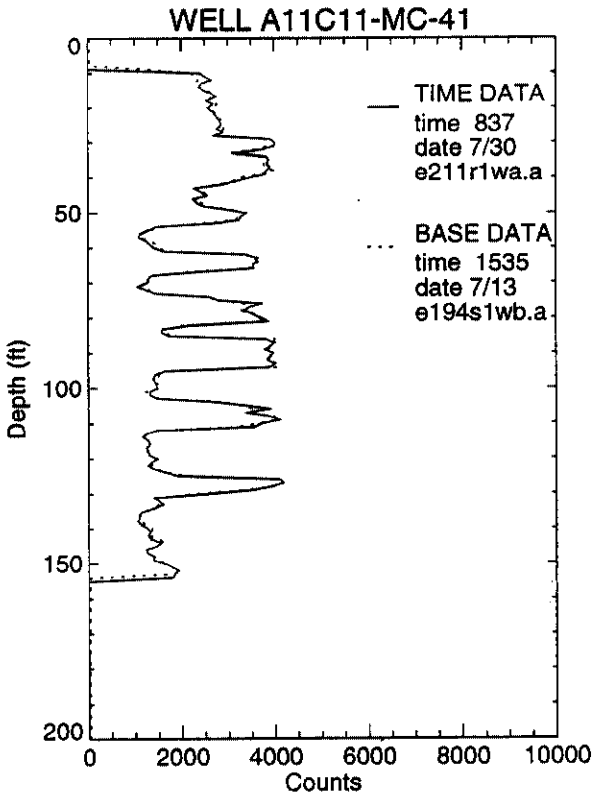
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 837
date 7/30
e211r1wa.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
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150
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0
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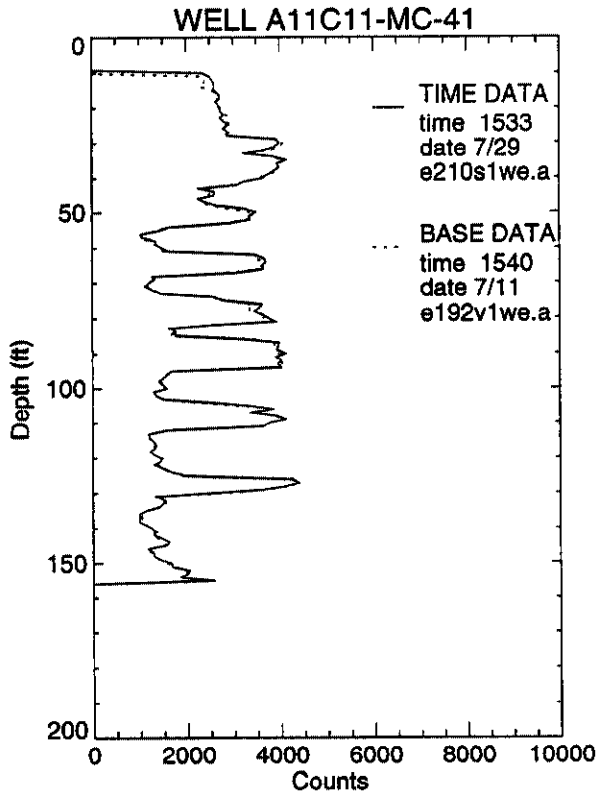
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 1533
date 7/29
e210s1we.a
BASE DATA
time 1540
date 7/11
e192v1we.a
Depth (ft)
Counts
0
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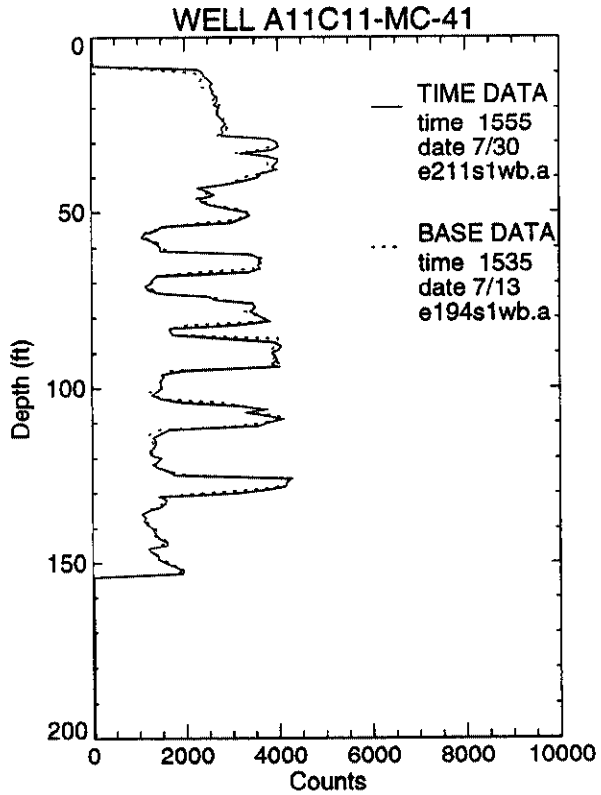
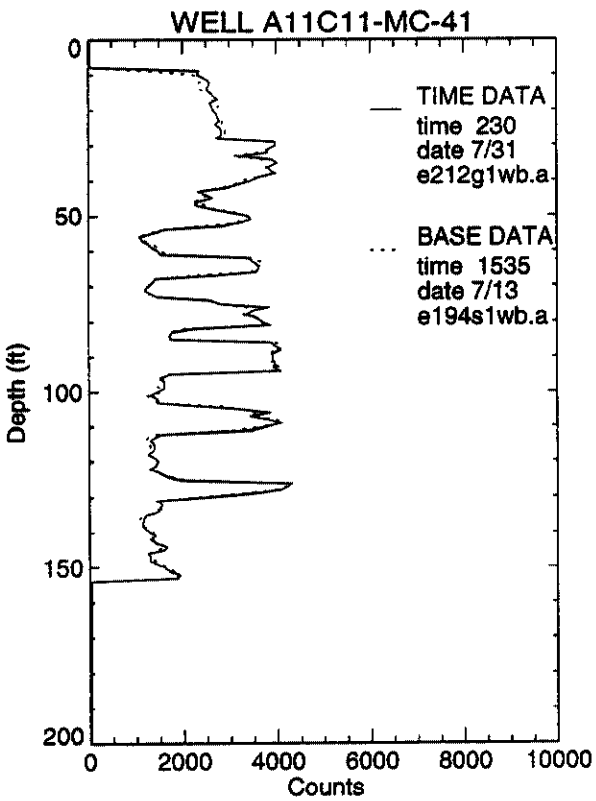
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 1555
date 7/30
e211s1wb.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 230
date 7/31
e212g1wb.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
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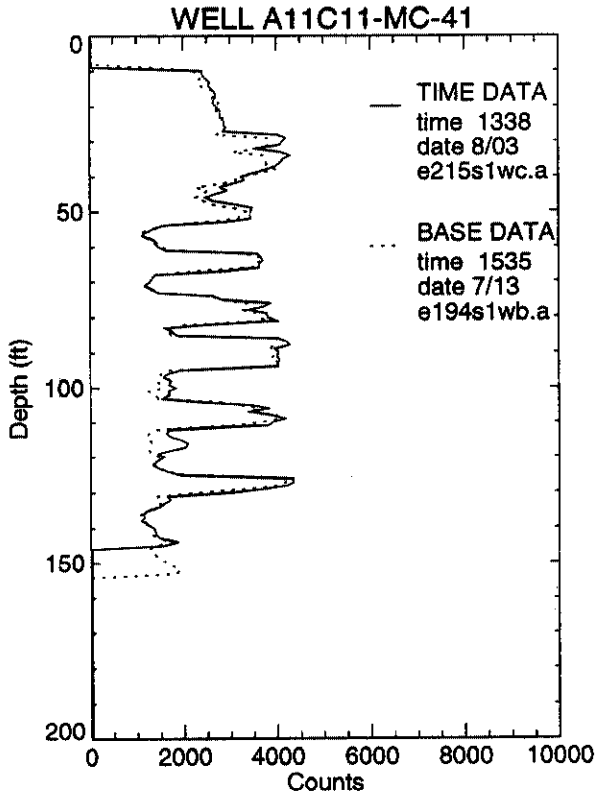
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 1338
date 8/03
e215s1wc.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
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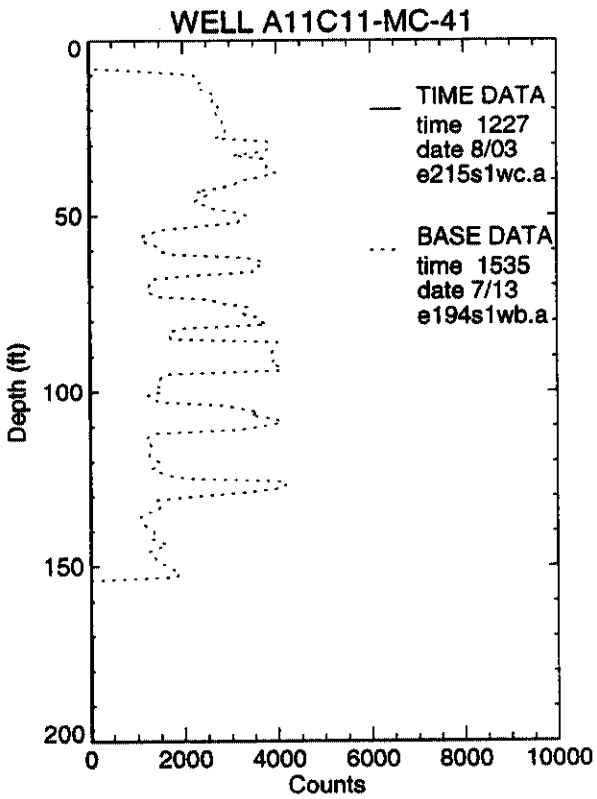
150
200
0
2000
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 1227
date 8/03
e215s1wc.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
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100
150
200
0
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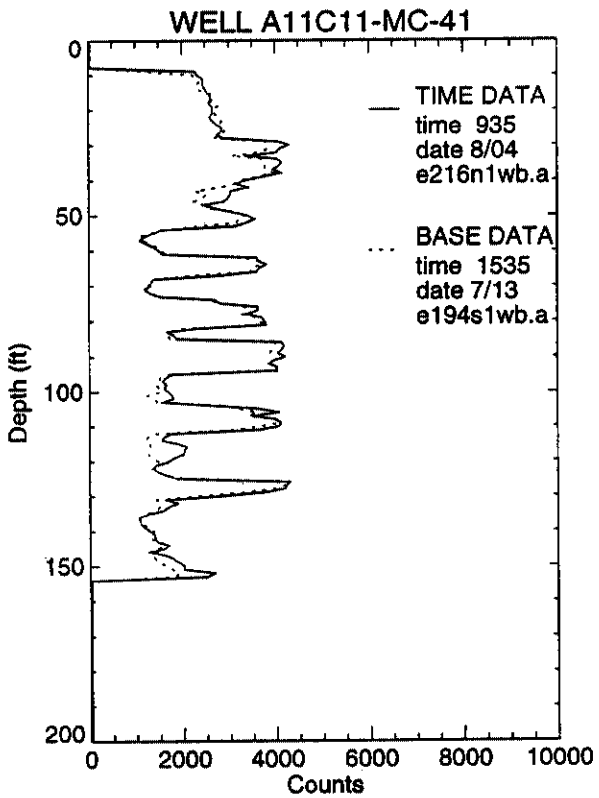
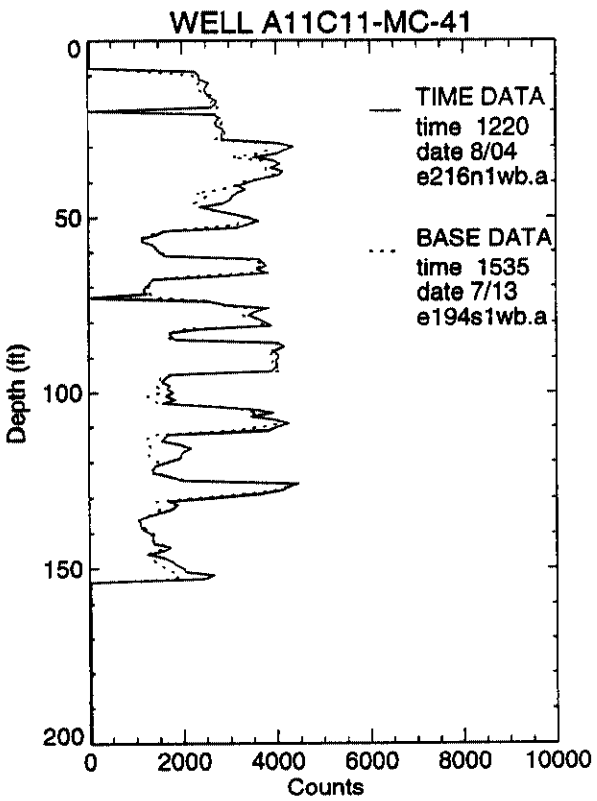
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 935
date 8/04
e216n1wb.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 1220
date 8/04
e216n1wb.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
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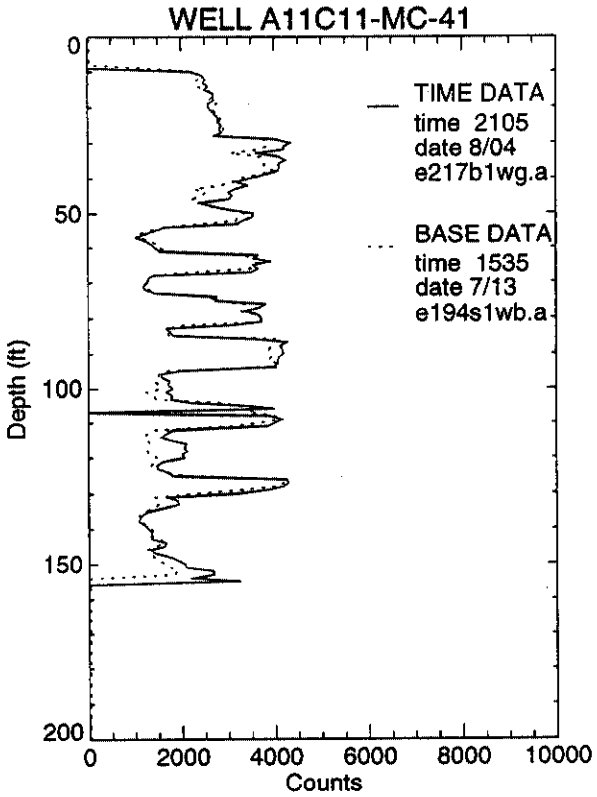
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 2105
date 8/04
e217b1wg.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
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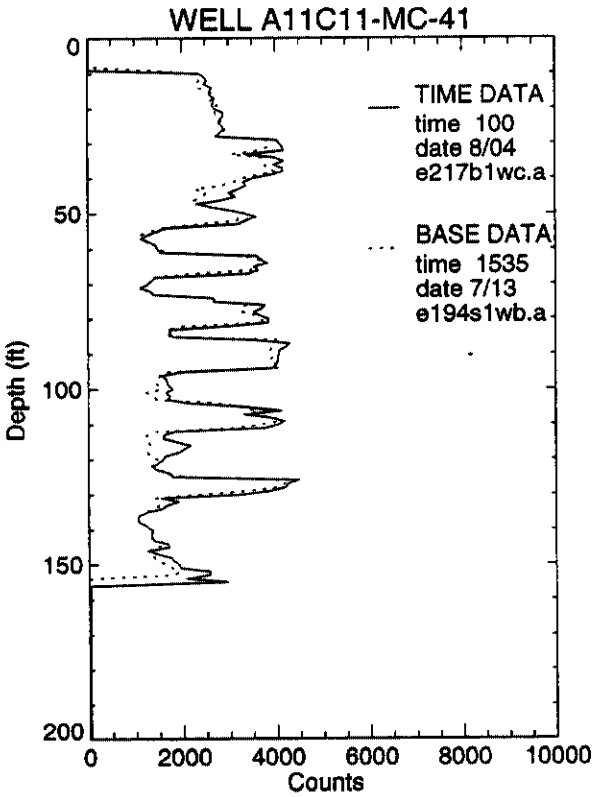
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 100
date 8/04
e217b1wc.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
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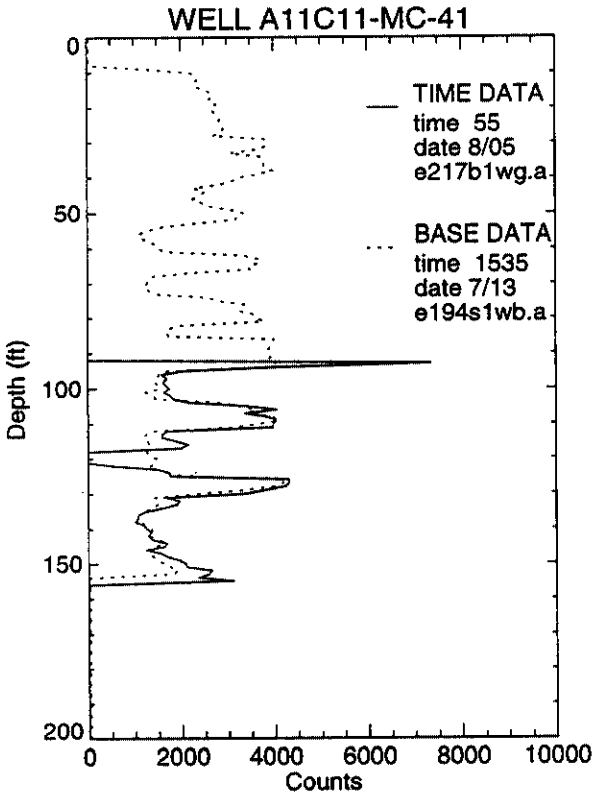
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 55
date 8/05
e217b1wg.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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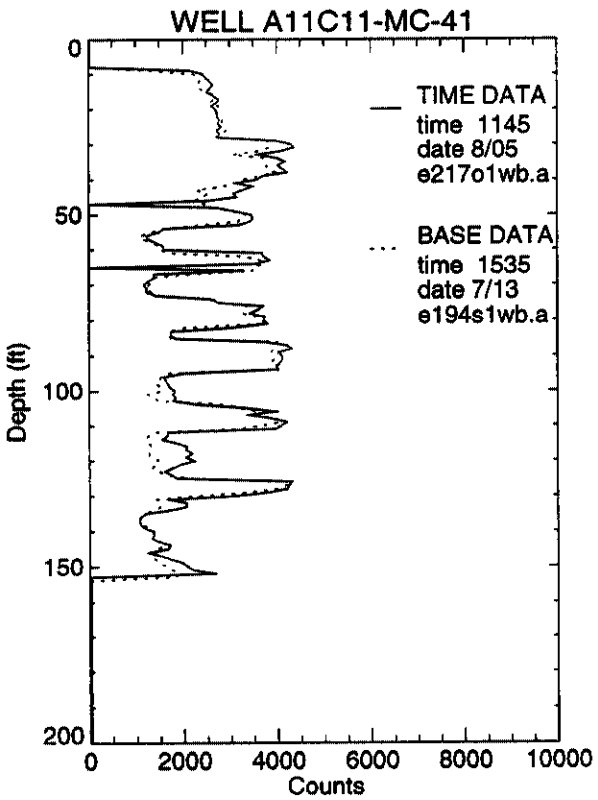
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 1145
date 8/05
e217o1wb.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
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150
200
0
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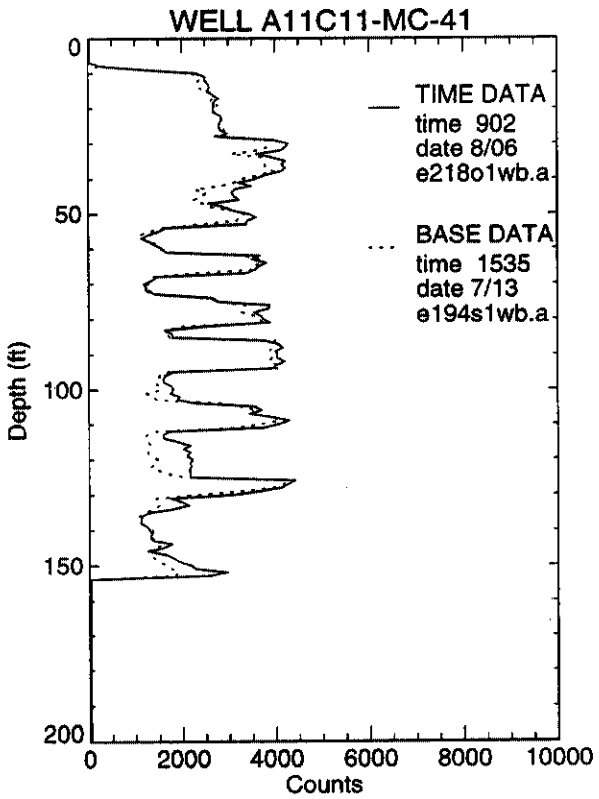
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 902
date 8/06
e218o1wb.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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150
200
0
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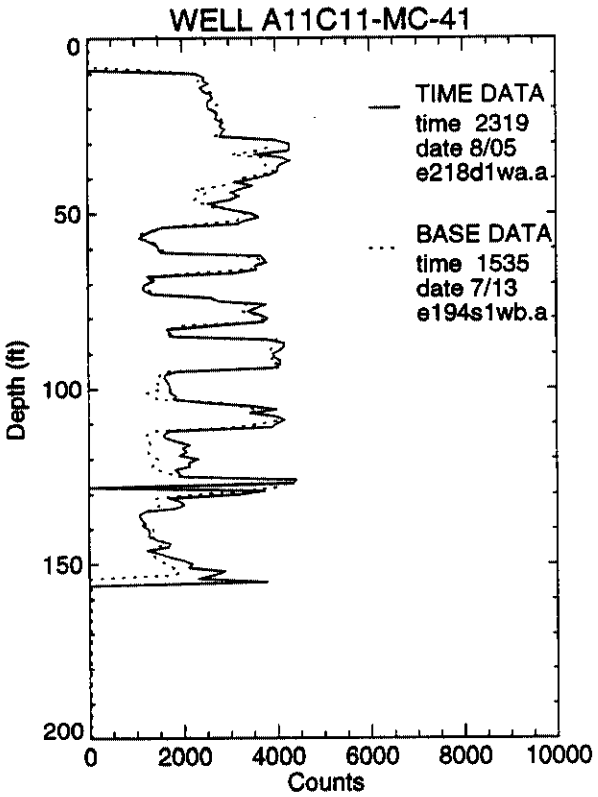
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 2319
date 8/05
e218d1wa.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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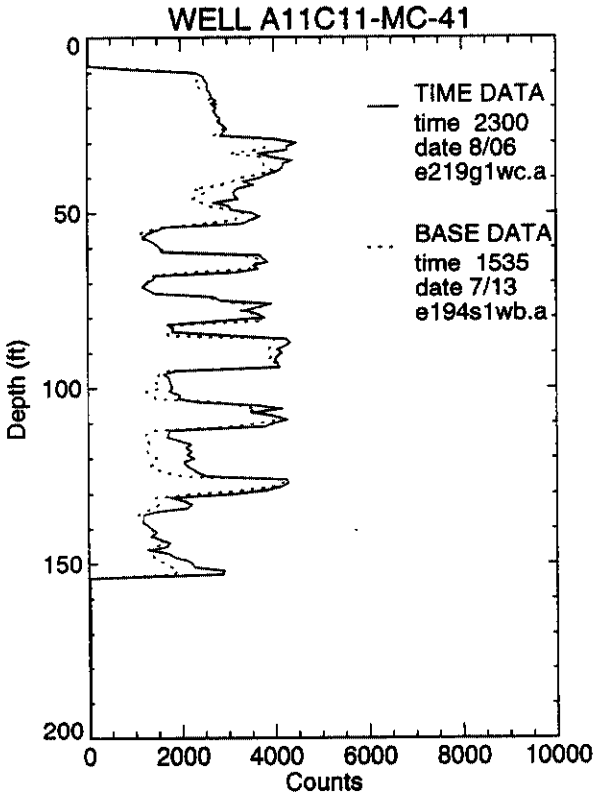
8000
10000


WELL A11C11-MC-41
TIME DATA
time 2300
date 8/06
e219g1wc.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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200
0
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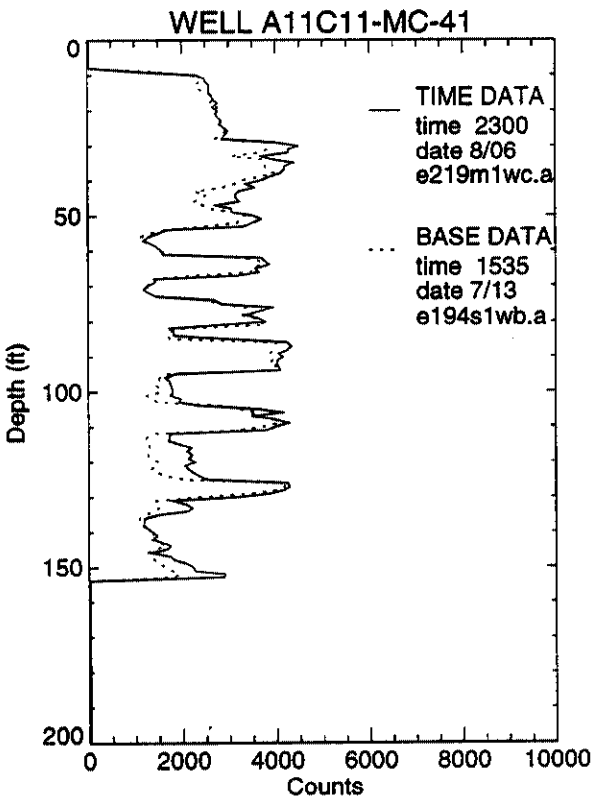
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 2300
date 8/06
e219m1wc.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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150
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0
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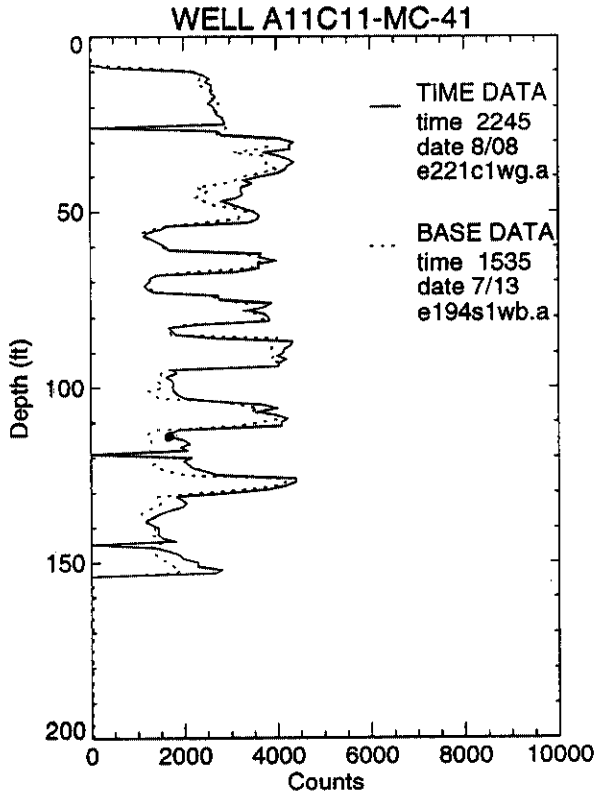
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 2245
date 8/08
e221c1wg.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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150
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0
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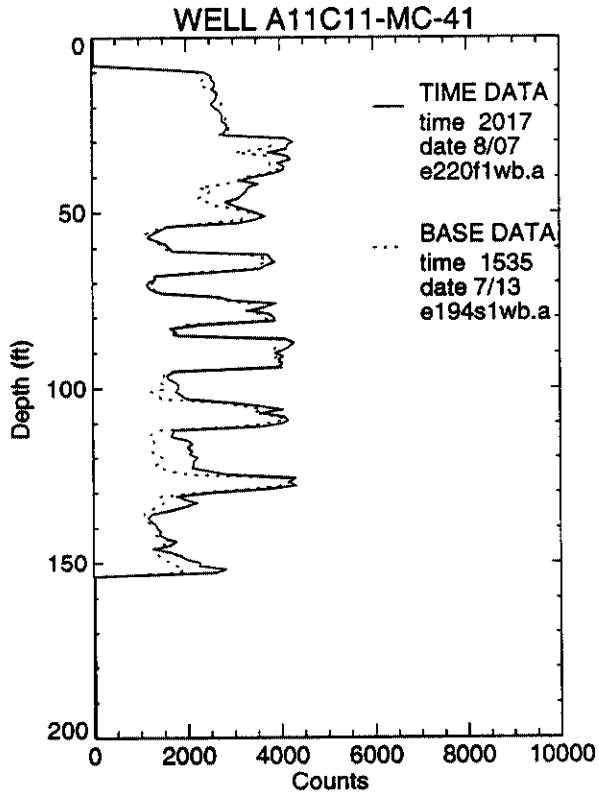
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 2017
date 8/07
e220f1wb.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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150
200
0
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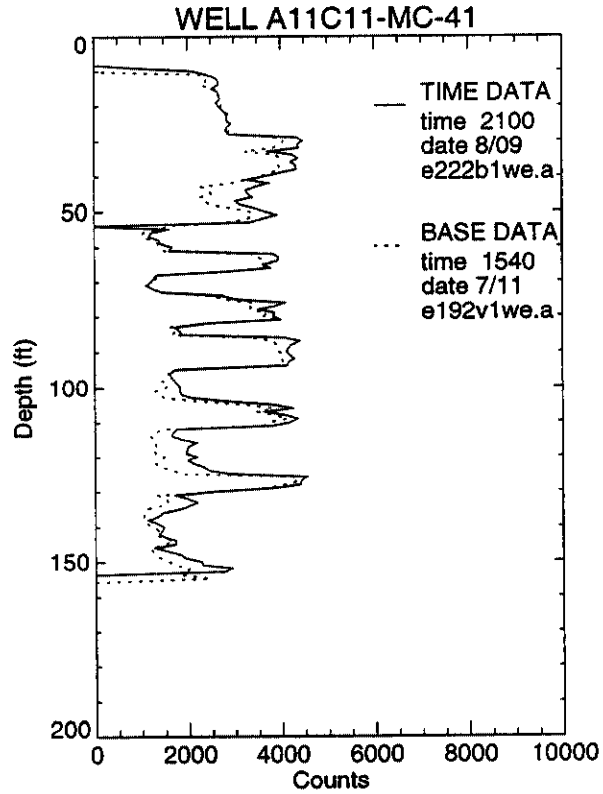
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 2100
date 8/09
e222b1we.a
BASE DATA
time 1540
date 7/11
e192v1we.a
Depth (ft)
Counts
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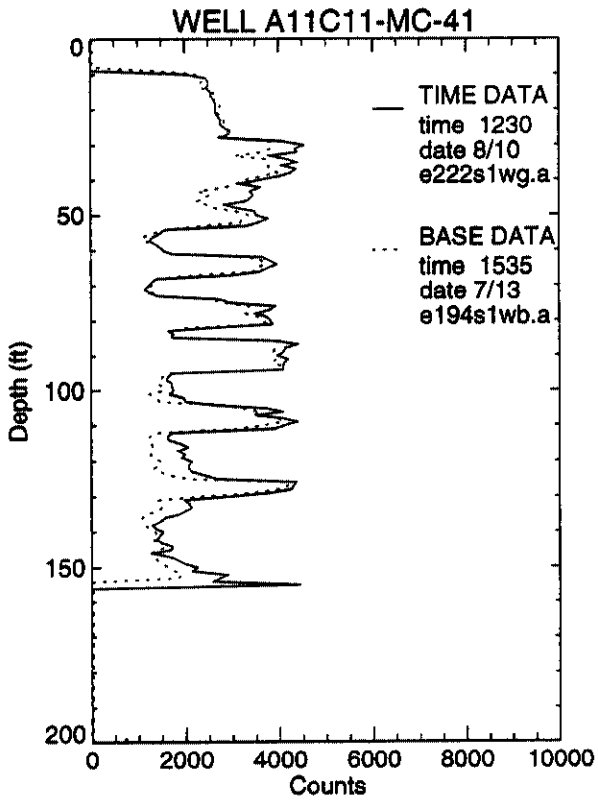
150
200
0
2000
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 1230
date 8/10
e222s1wg.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
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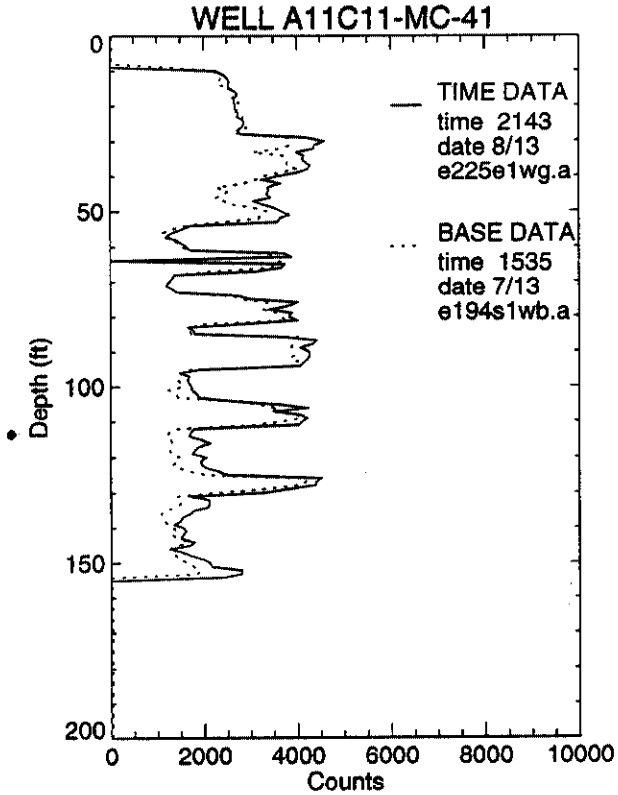
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 2143
date 8/13
e225e1wg.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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150
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0
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4000
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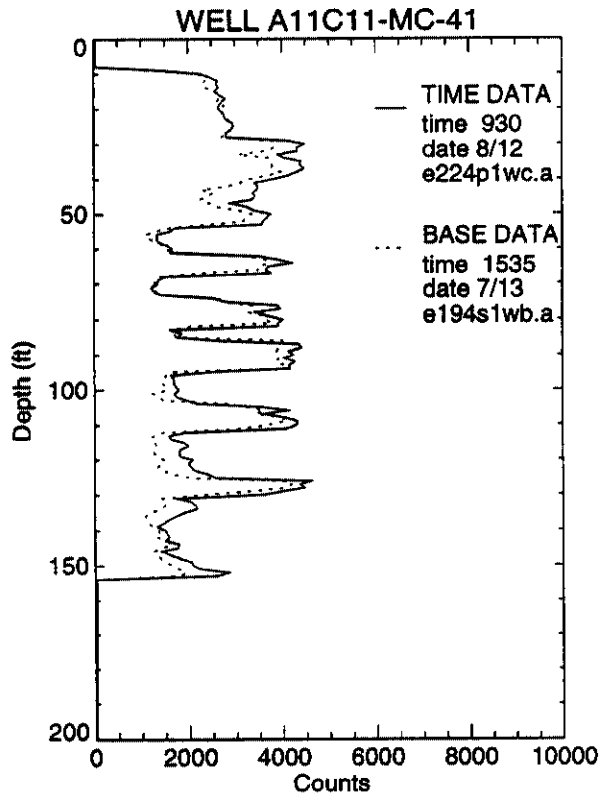
10000


WELL A11C11-MC-41
TIME DATA
time 930
date 8/12
e224p1wc.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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150
200
0
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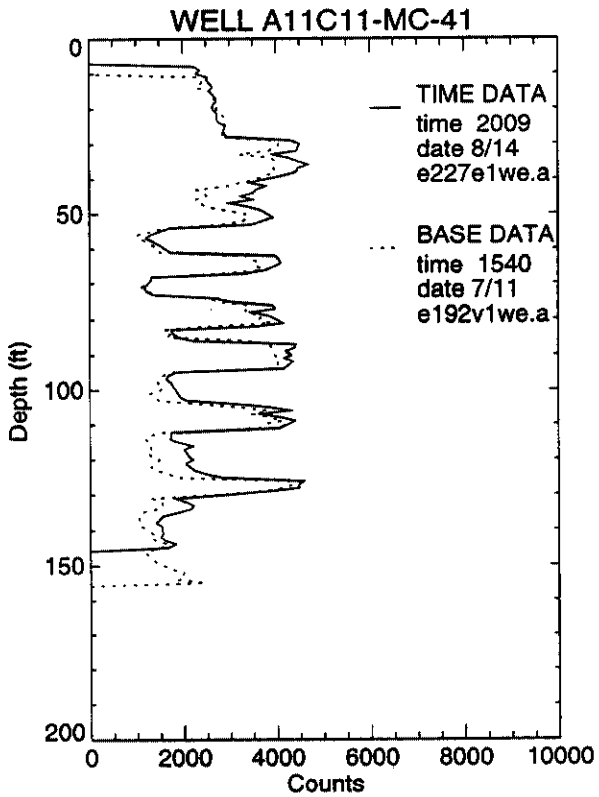
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 2009
date 8/14
e227e1we.a
BASE DATA
time 1540
date 7/11
e192v1we.a
Depth (ft)
Counts
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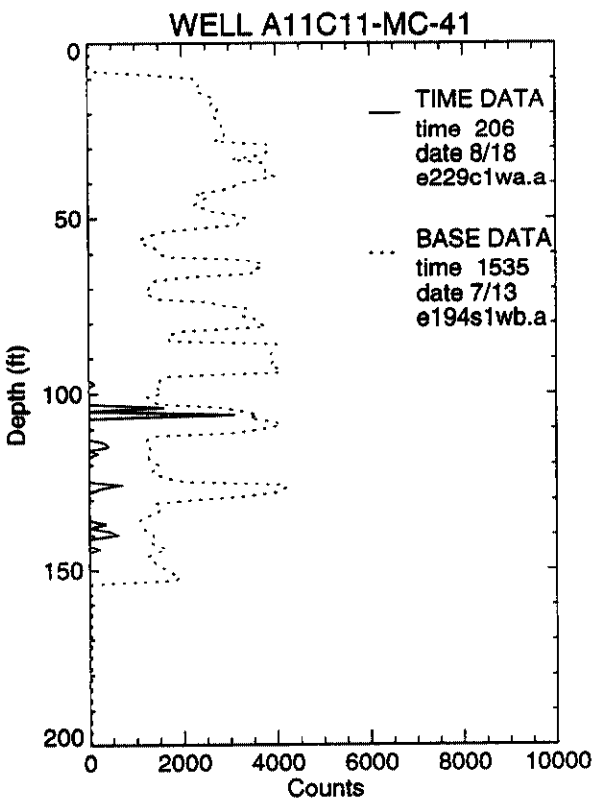
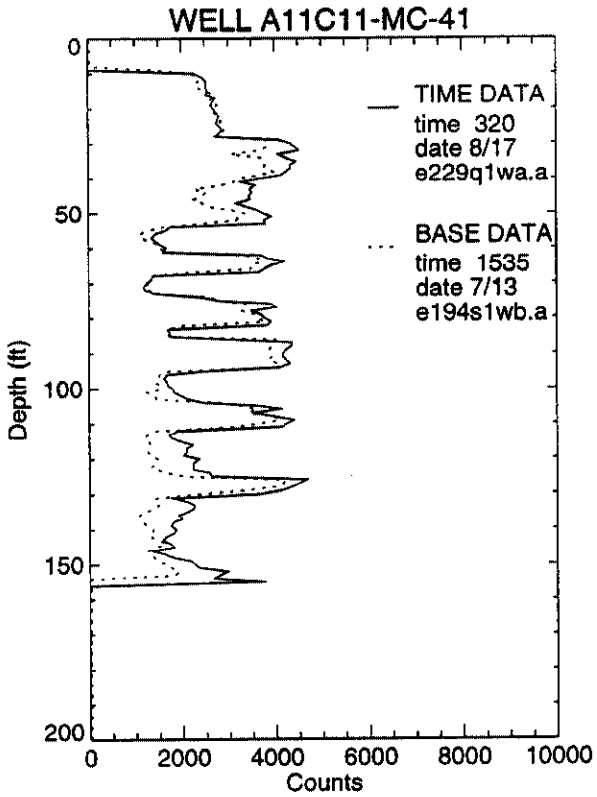
150
200
0
2000
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 206
date 8/18
e229c1wa.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 320
date 8/17
e229q1wa.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
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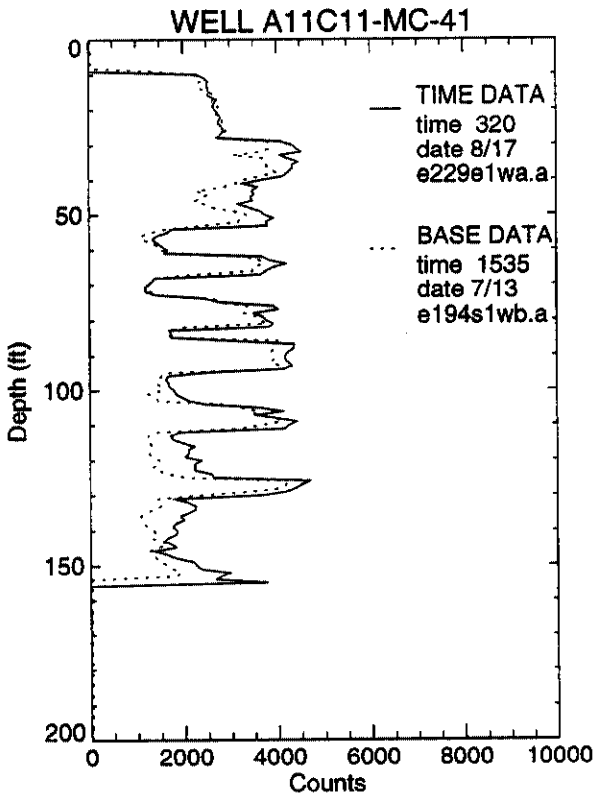
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 320
date 8/17
e229e1wa.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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200
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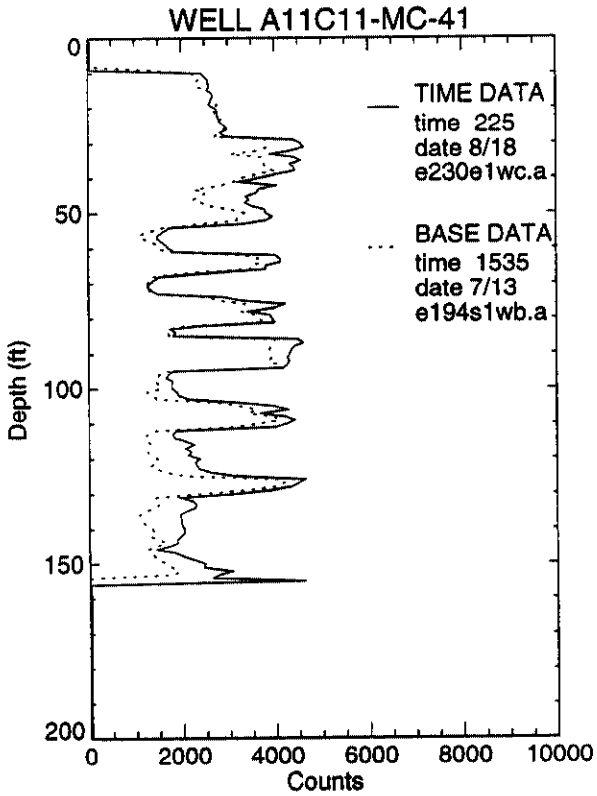
6000
8000
10000


WELL A11C11-MC-41
TIME DATA
time 225
date 8/18
e230e1wc.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
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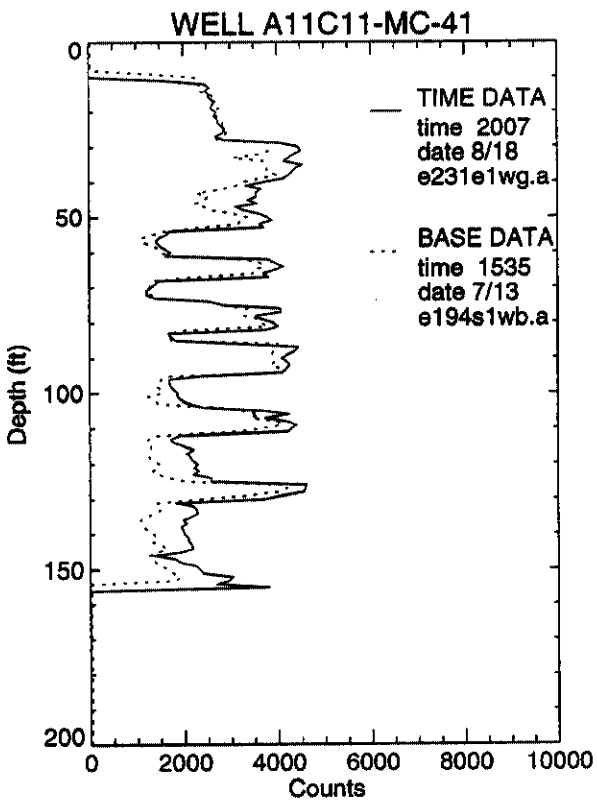
WELL A11C11-MC-41
TIME DATA
time 2007
date 8/18
e231e1wg.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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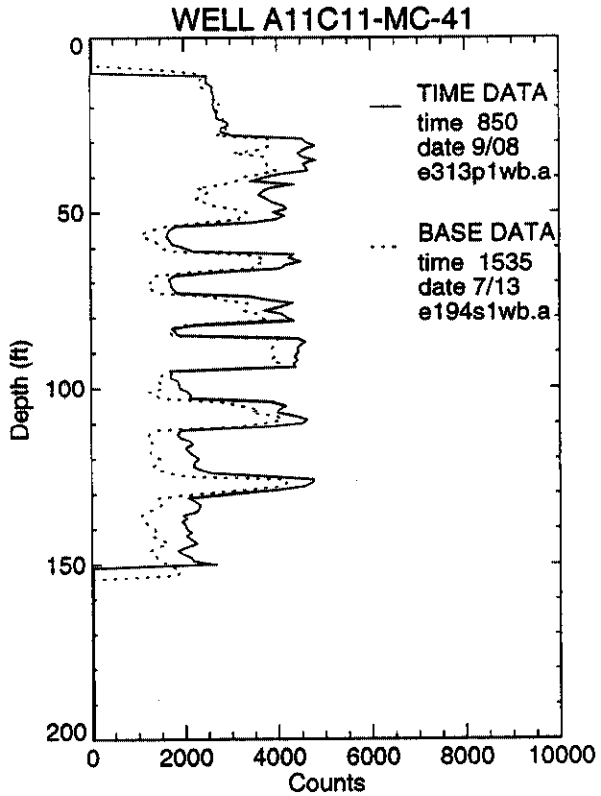
10000


WELL A11C11-MC-41
TIME DATA
time 850
date 9/08
e313p1wb.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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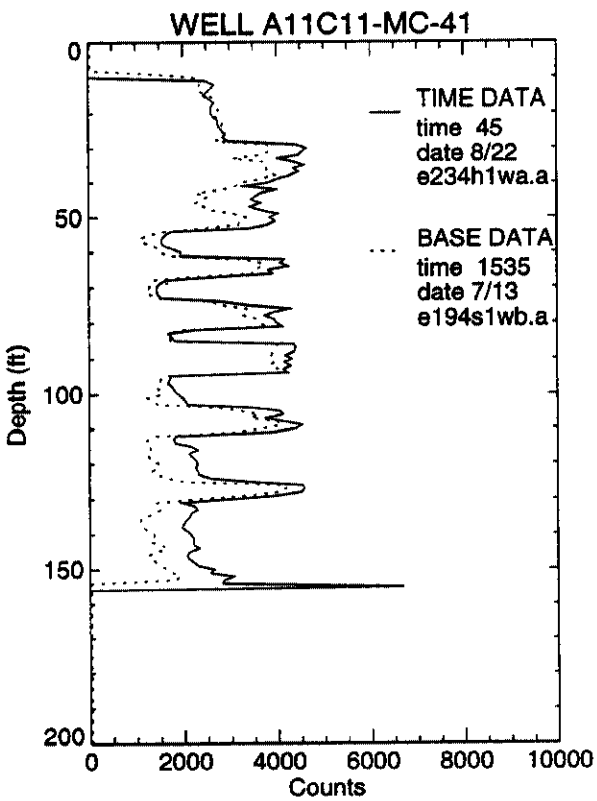
WELL A11C11-MC-41
TIME DATA
time 45
date 8/22
e234h1wa.a
BASE DATA
time 1535
date 7/13
e194s1wb.a
Depth (ft)
Counts
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6000
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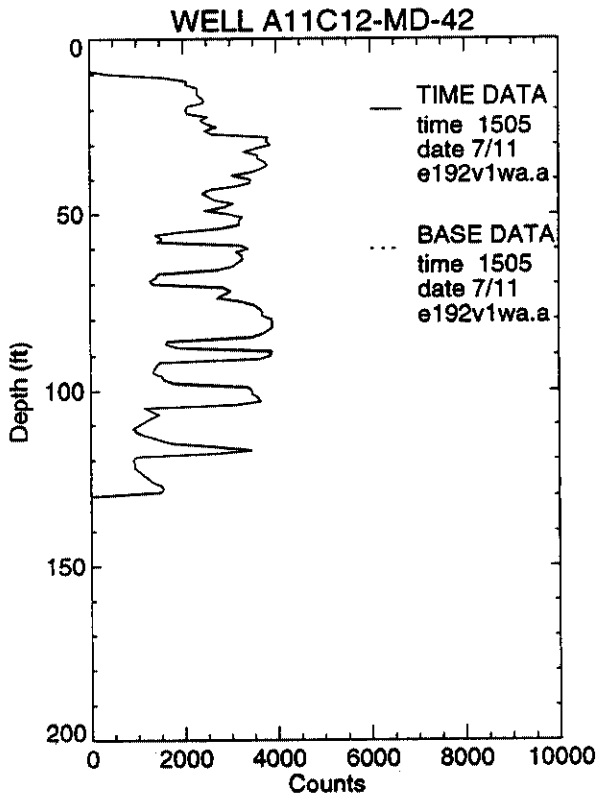
10000


WELL A11C12-MD-42
TIME DATA
time 1505
date 7/11
e192v1wa.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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150
200
0
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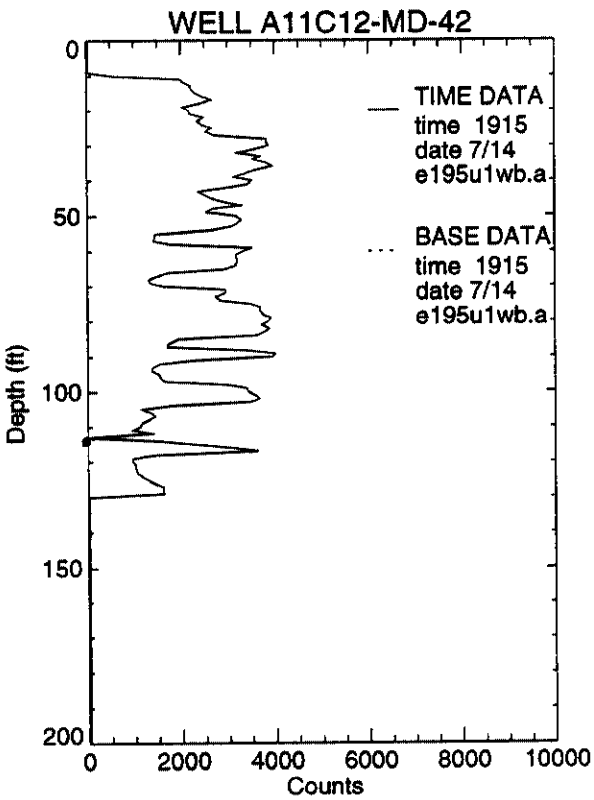
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 1915
date 7/14
e195u1wb.a
BASE DATA
time 1915
date 7/14
e195u1wb.a
Depth (ft)
Counts
0
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100
150
200
0
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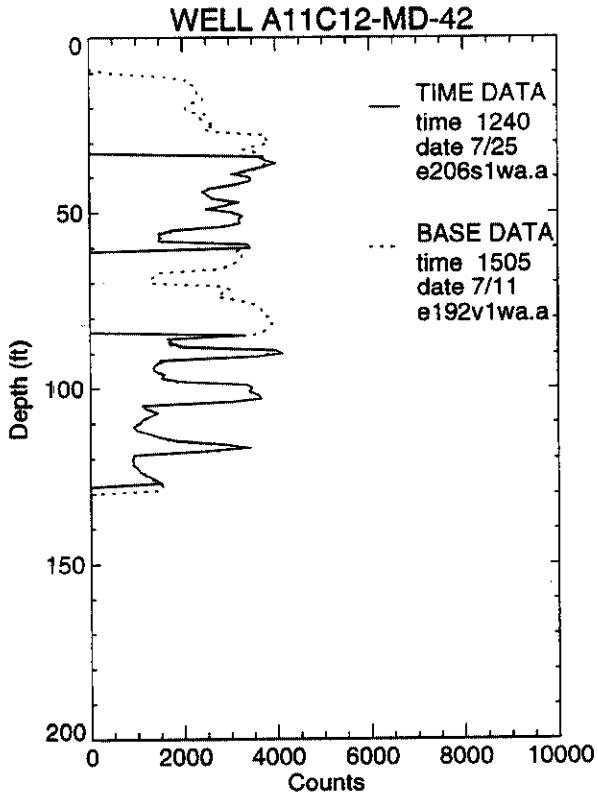
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 1240
date 7/25
e206s1wa.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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150
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0
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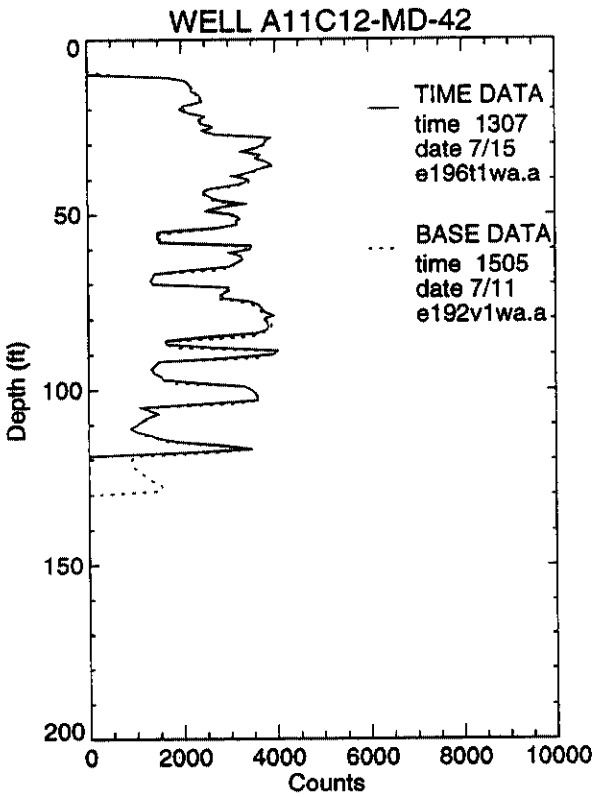
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 1307
date 7/15
e196t1wa.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
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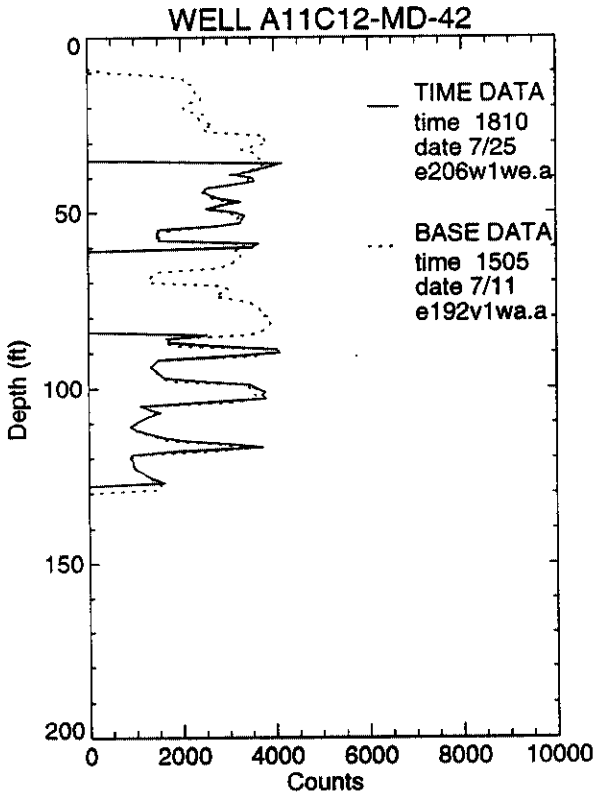
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 1810
date 7/25
e206w1we.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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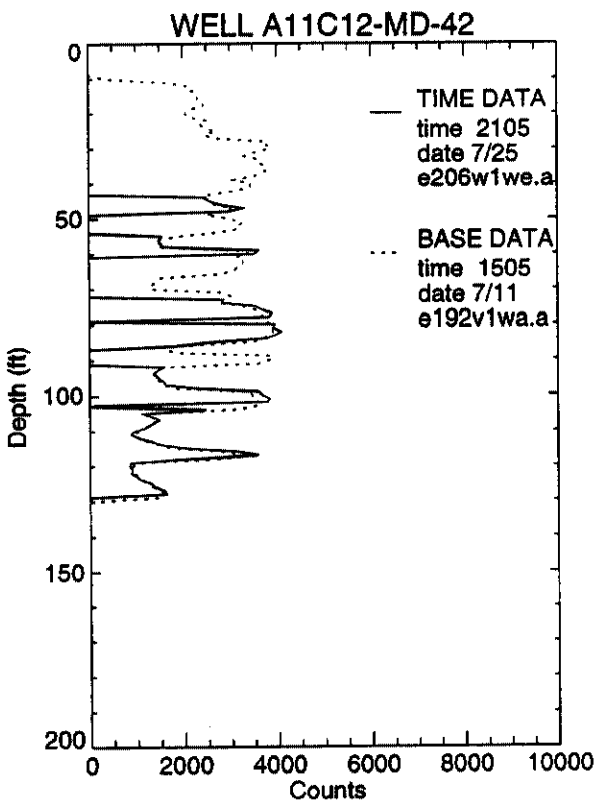
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 2105
date 7/25
e206w1we.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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100
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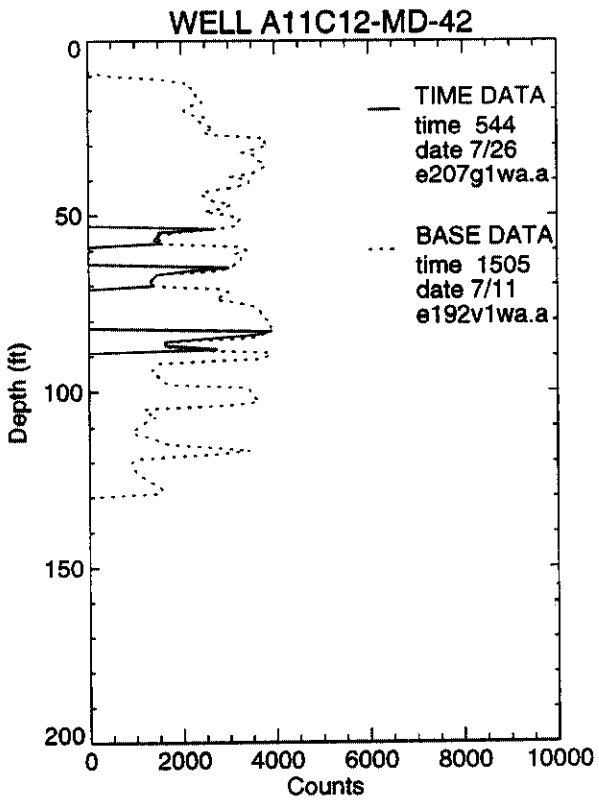
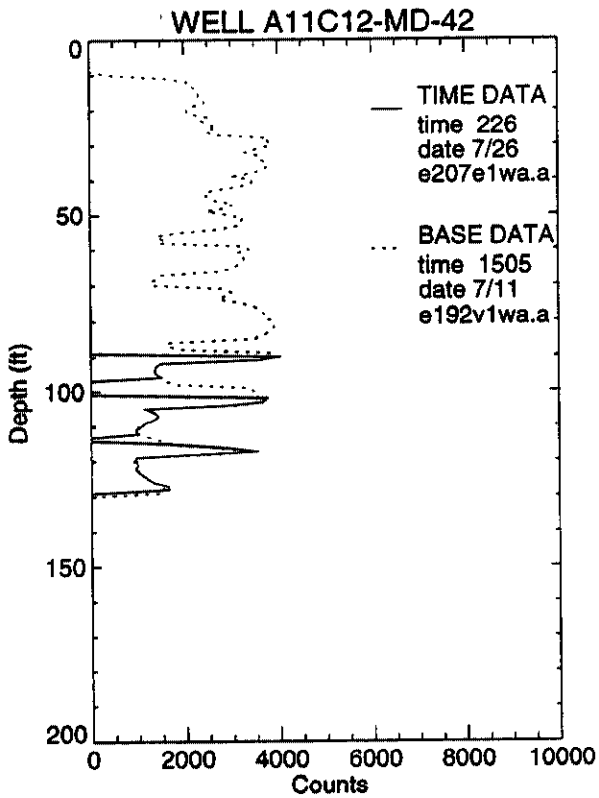
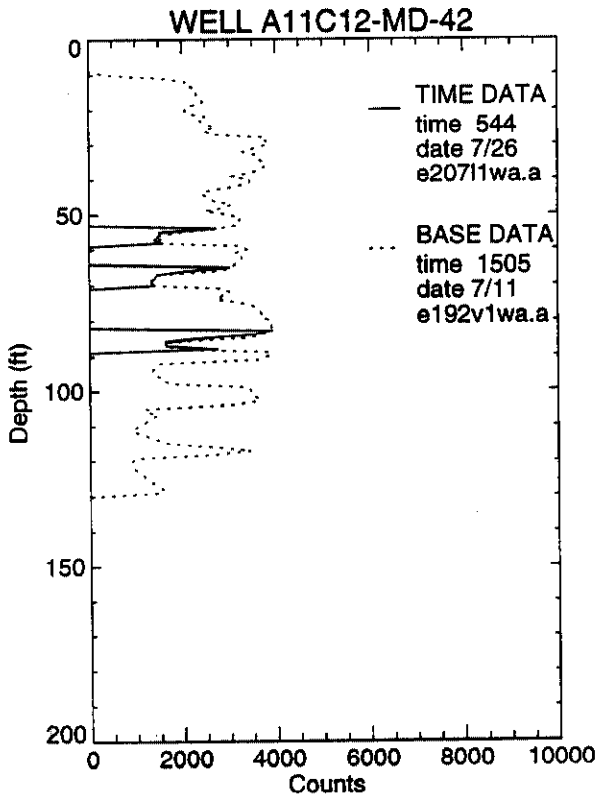
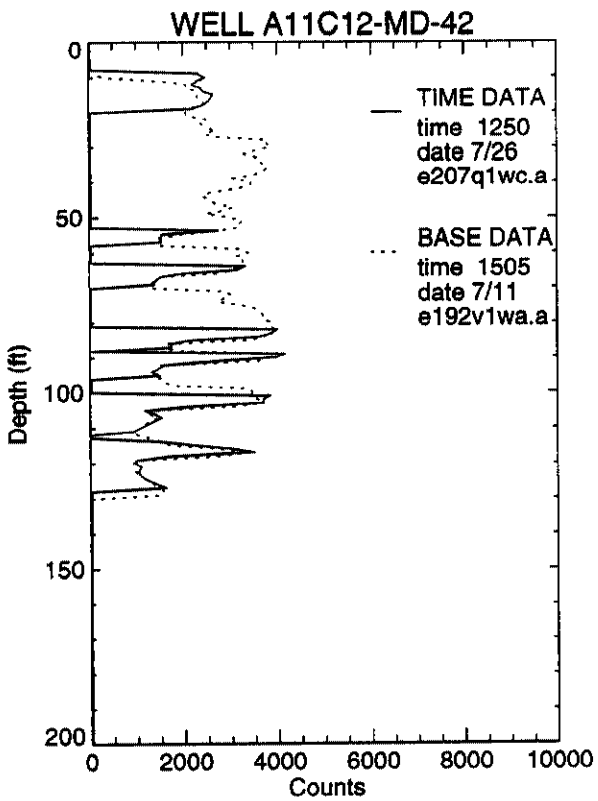
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 544
date 7/26
e207g1wa.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 226
date 7/26
e207e1wa.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 544
date 7/26
e207l1wa.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 1250
date 7/26
e207q1wc.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
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150
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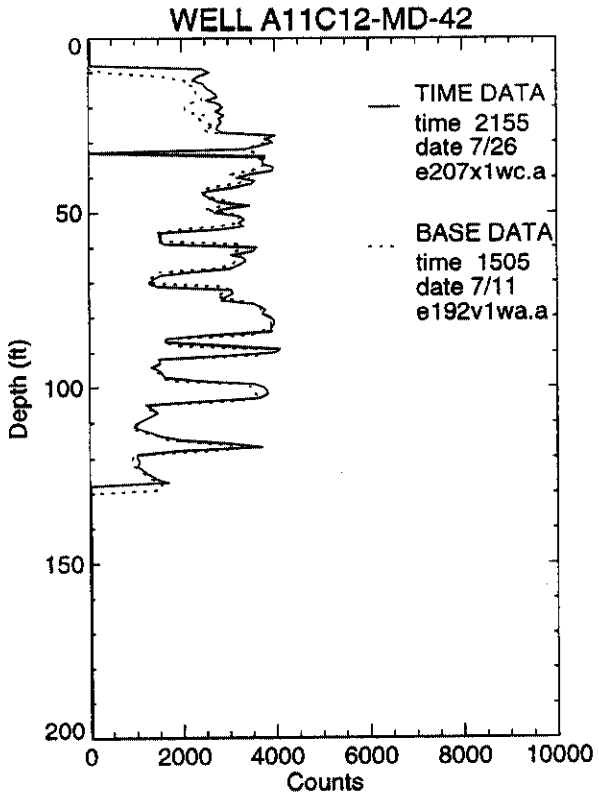
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 2155
date 7/26
e207x1wc.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
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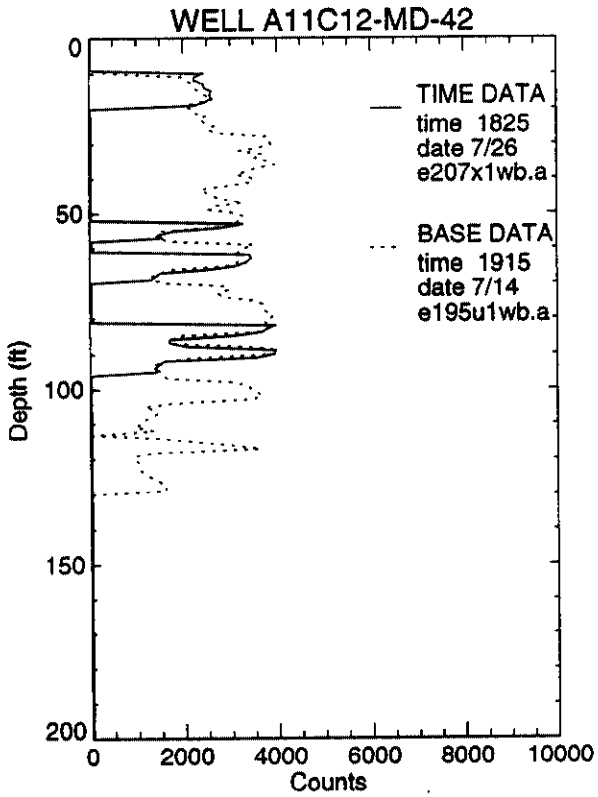
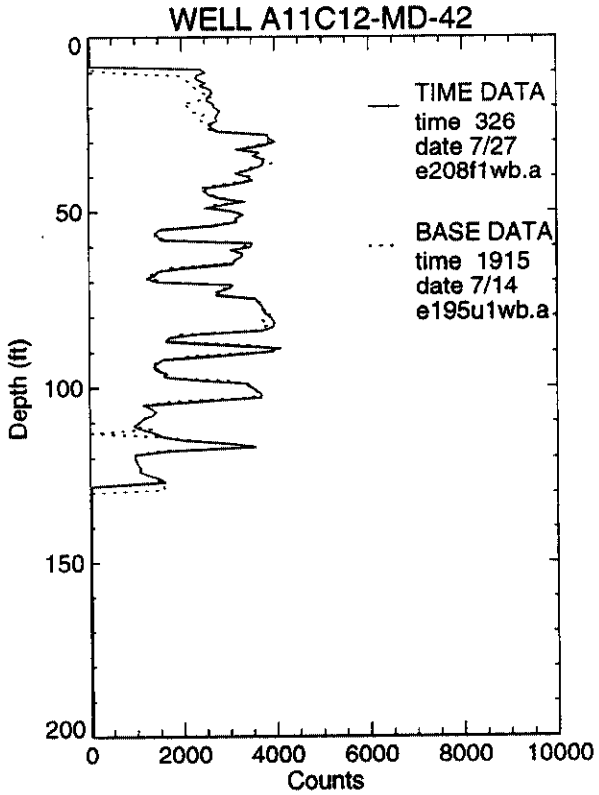
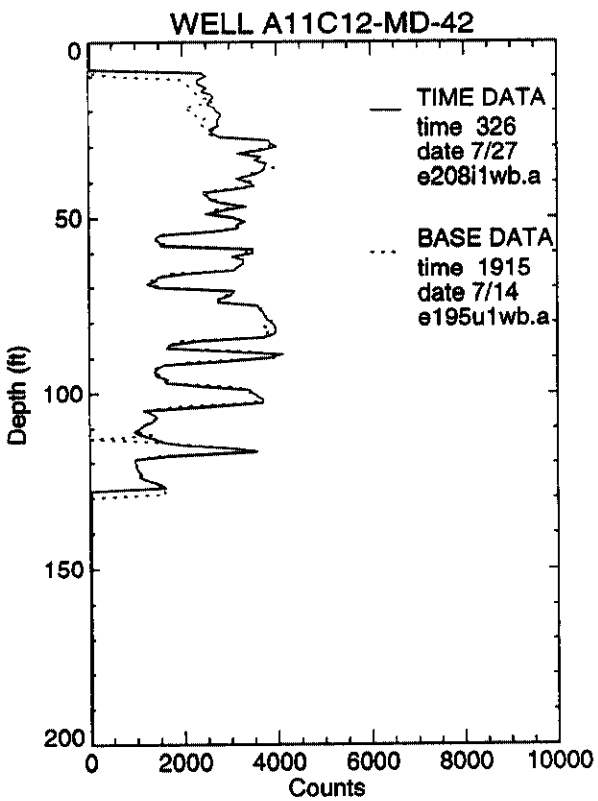
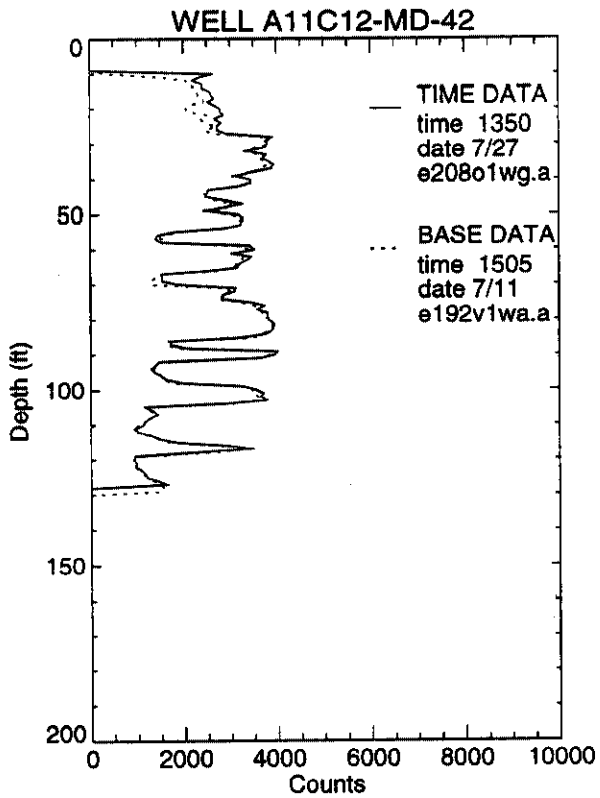
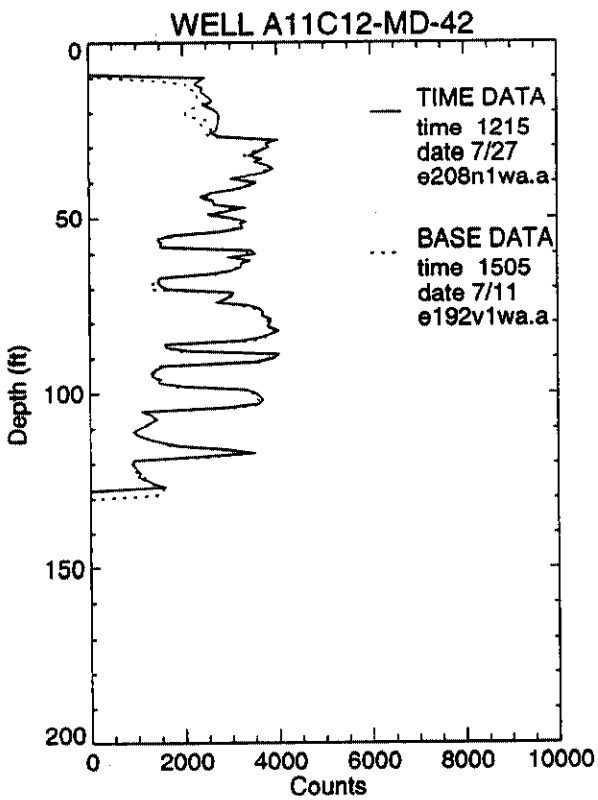
150
200
0
2000
4000
6000
8000
10000

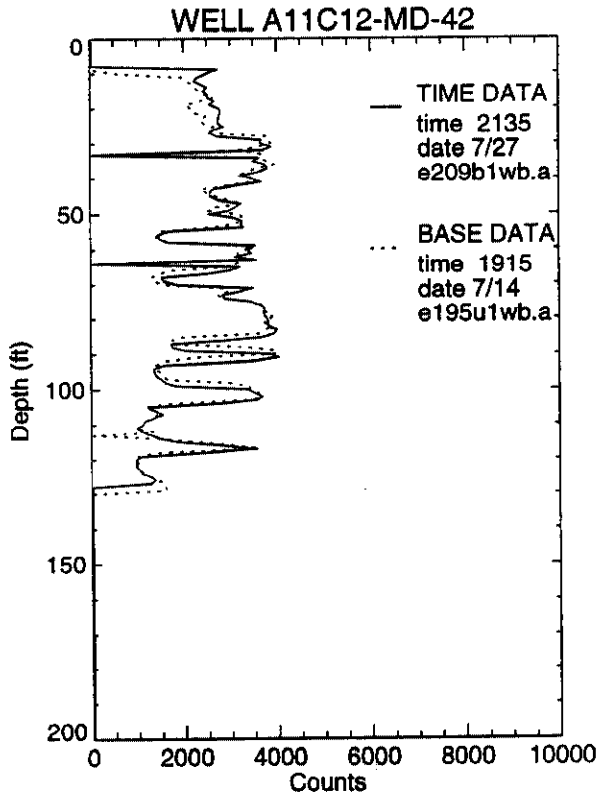

WELL A11C12-MD-42
TIME DATA
time 1825
date 7/26
e207x1wb.a
BASE DATA
time 1915
date 7/14
e195u1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 326
date 7/27
e208f1wb.a
BASE DATA
time 1915
date 7/14
e195u1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 326
date 7/27
e208i1wb.a
BASE DATA
time 1915
date 7/14
e195u1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 1350
date 7/27
e208o1wg.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 1215
date 7/27
e208n1wa.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 2135
date 7/27
e209b1wb.a
BASE DATA
time 1915
date 7/14
e195u1wb.a
Depth (ft)
Counts
0
50
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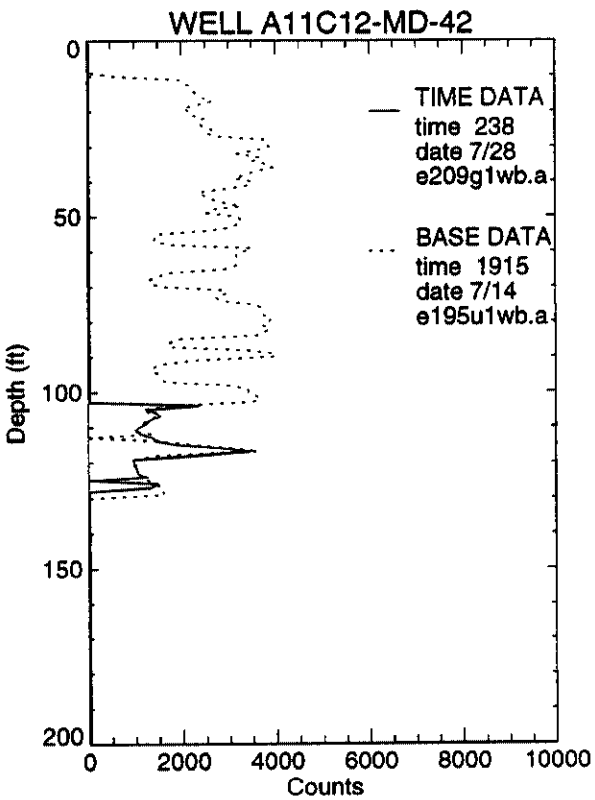
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 238
date 7/28
e209g1wb.a
BASE DATA
time 1915
date 7/14
e195u1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
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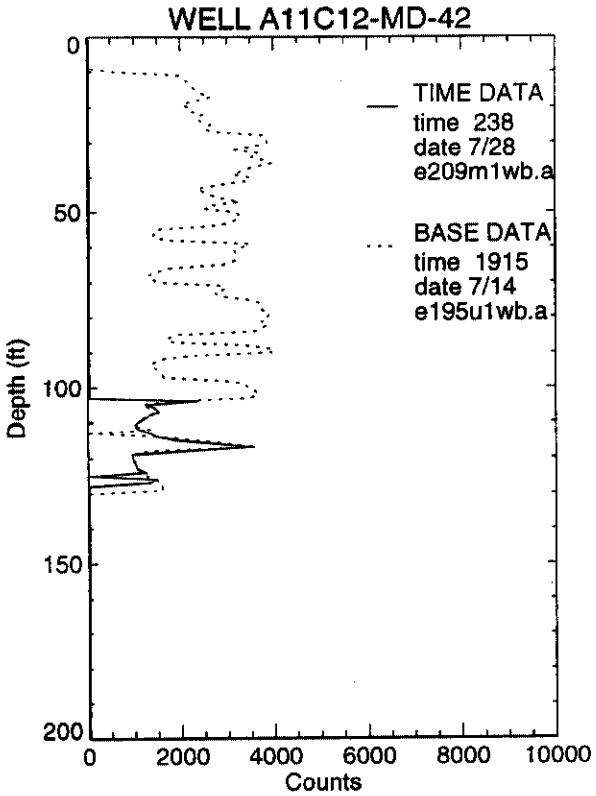
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 238
date 7/28
e209m1wb.a
BASE DATA
time 1915
date 7/14
e195u1wb.a
Depth (ft)
Counts
0
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100
150
200
0
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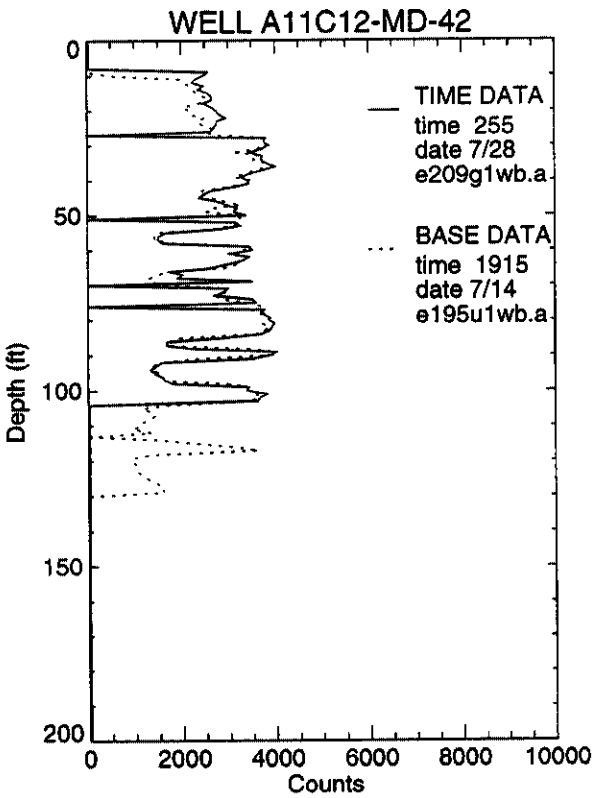
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 255
date 7/28
e209g1wb.a
BASE DATA
time 1915
date 7/14
e195u1wb.a
Depth (ft)
Counts
0
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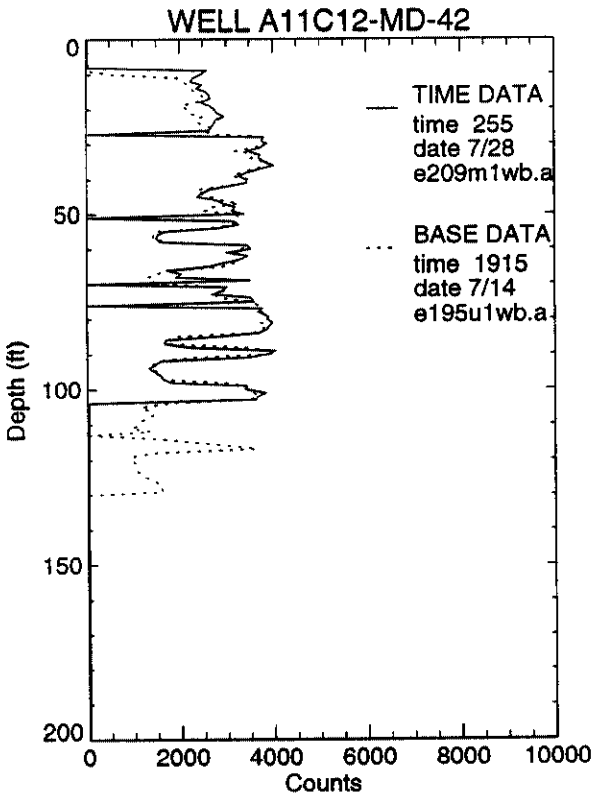
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 255
date 7/28
e209m1wb.a
BASE DATA
time 1915
date 7/14
e195u1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
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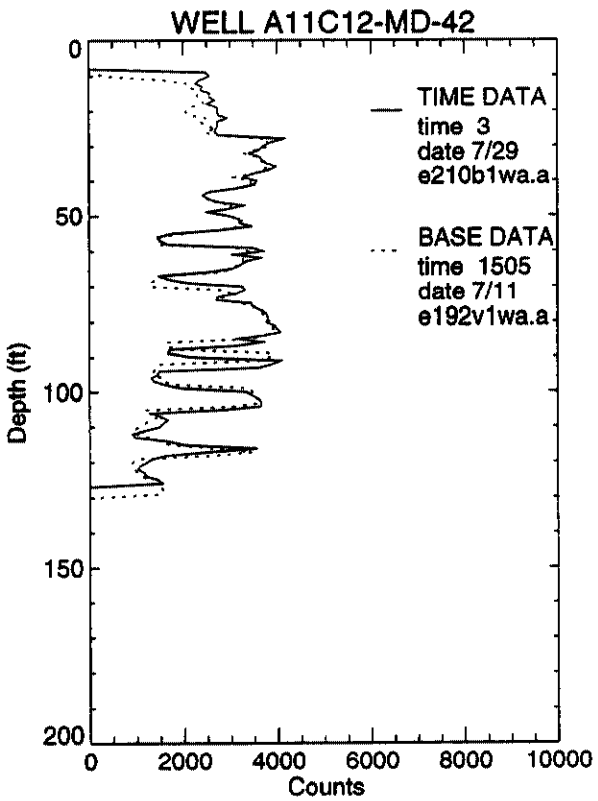
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 3
date 7/29
e210b1wa.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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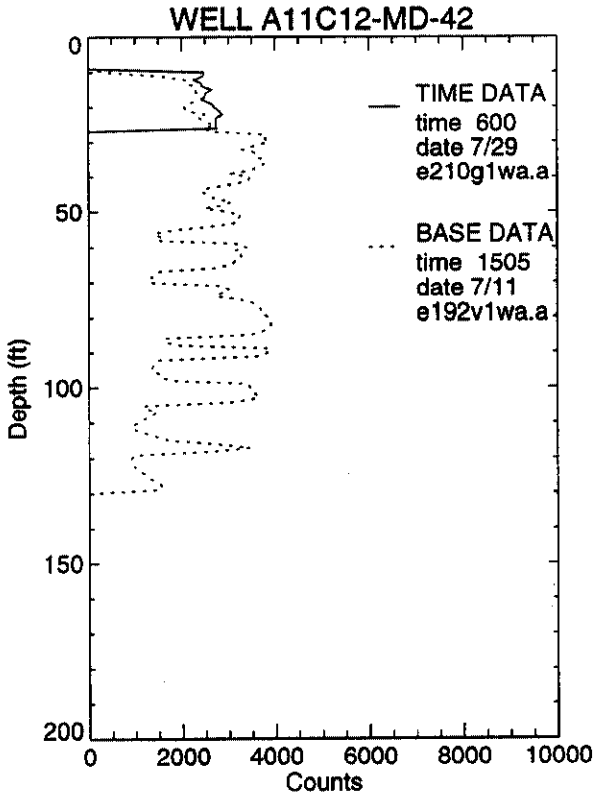
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 600
date 7/29
e210g1wa.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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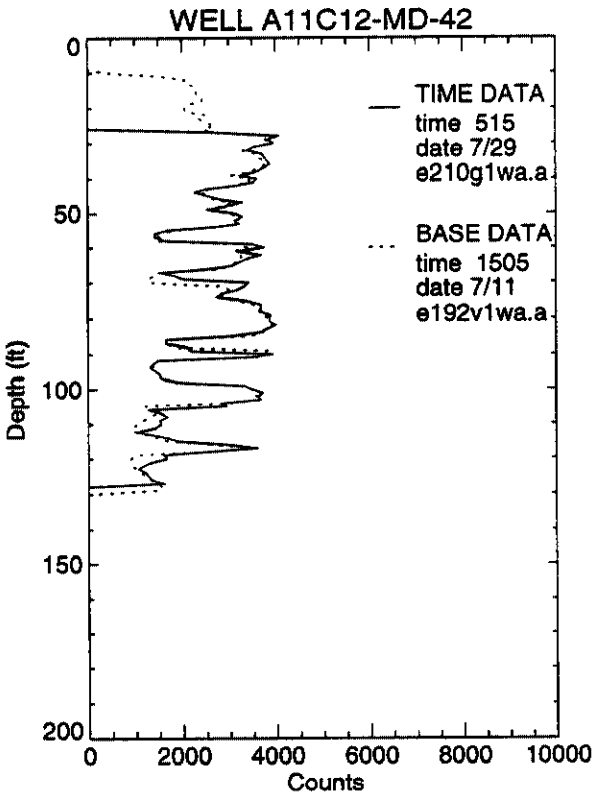
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 515
date 7/29
e210g1wa.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
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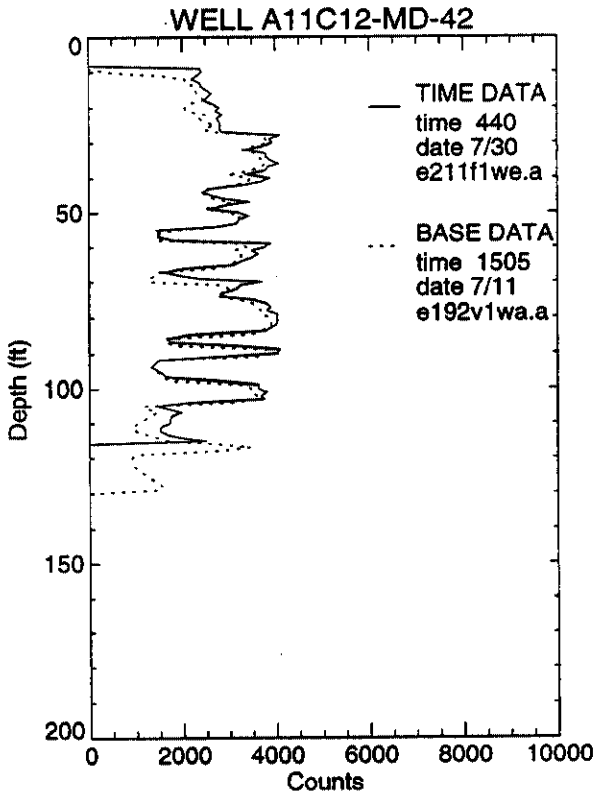
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 440
date 7/30
e211f1we.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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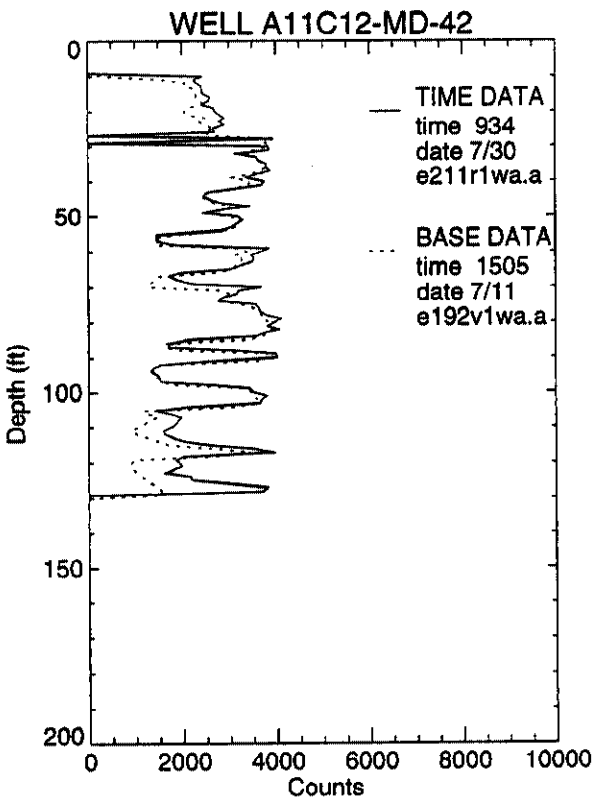
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 934
date 7/30
e211r1wa.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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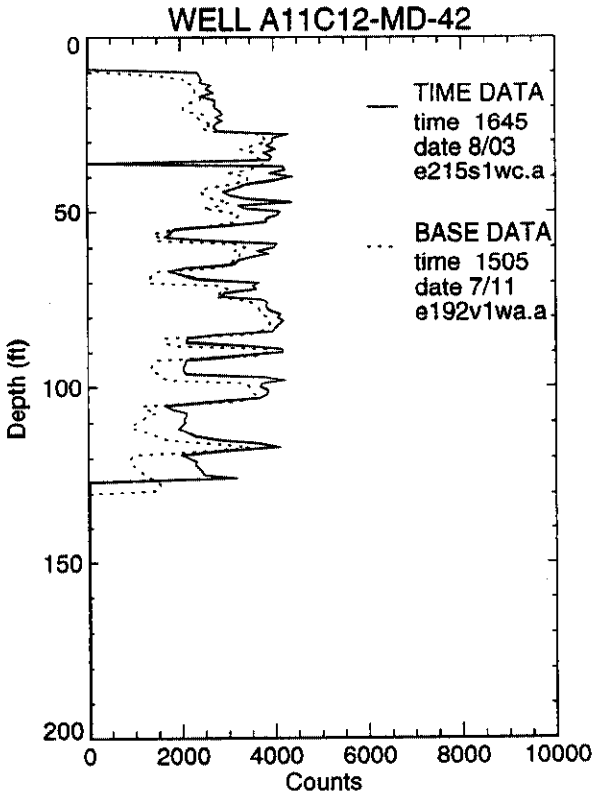
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 1645
date 8/03
e215s1wc.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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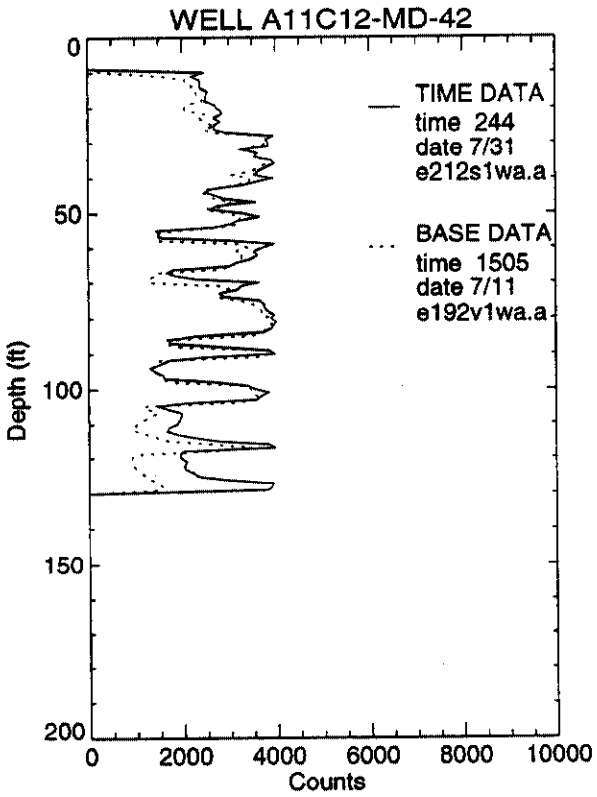
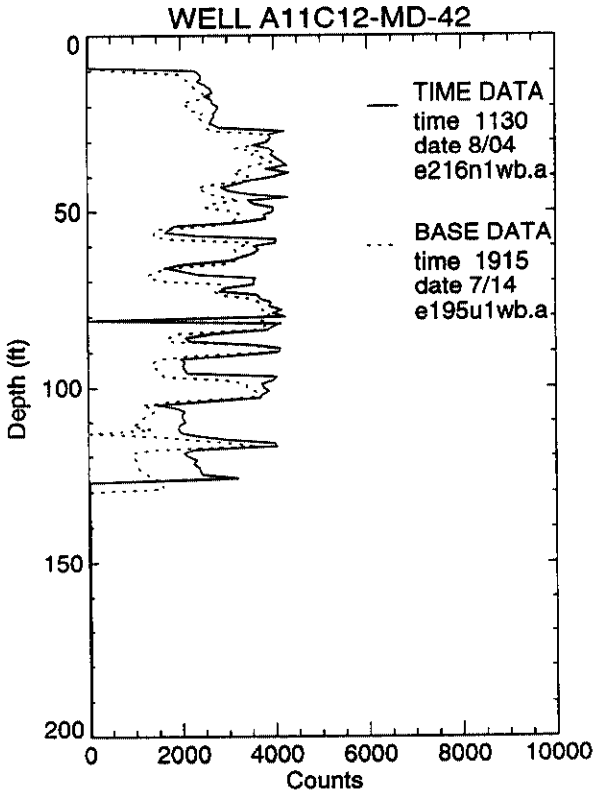
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 244
date 7/31
e212s1wa.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 1130
date 8/04
e216n1wb.a
BASE DATA
time 1915
date 7/14
e195u1wb.a
Depth (ft)
Counts
0
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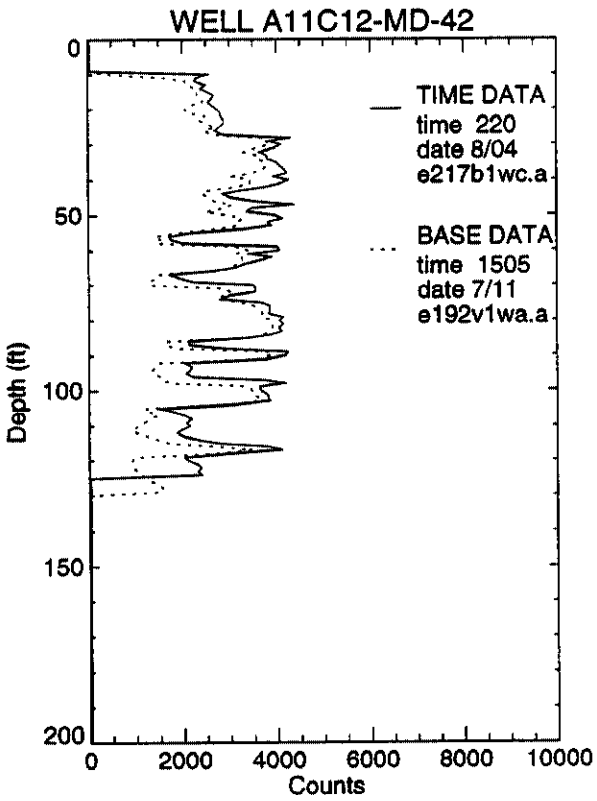
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 220
date 8/04
e217b1wc.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
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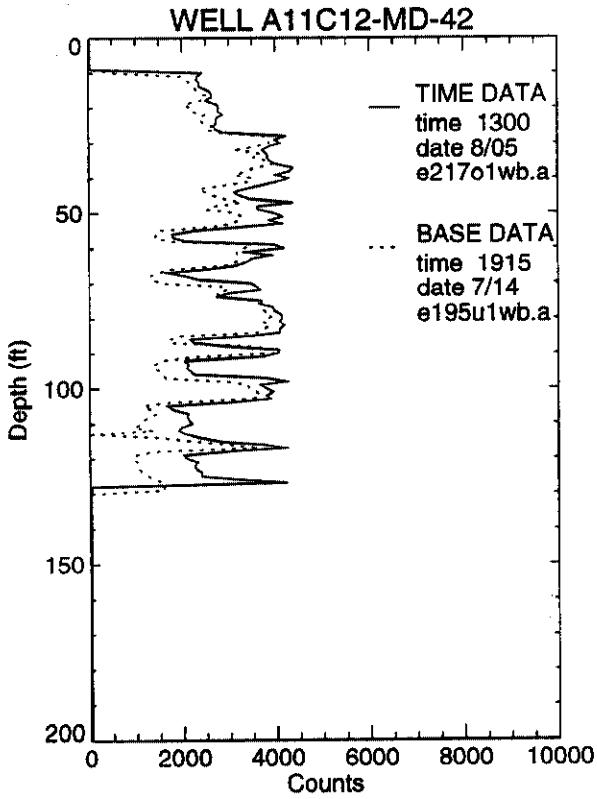
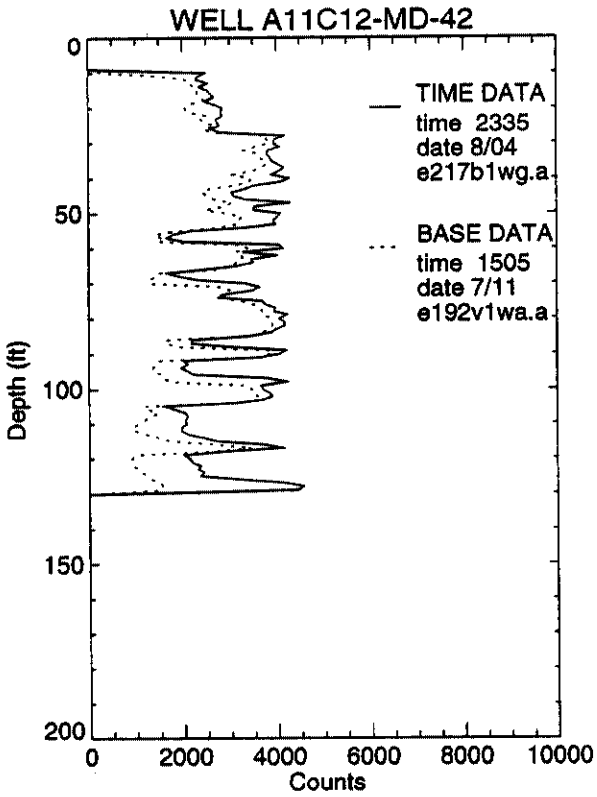
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 1300
date 8/05
e217o1wb.a
BASE DATA
time 1915
date 7/14
e195u1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C12-MD-42
TIME DATA
time 2335
date 8/04
e217b1wg.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
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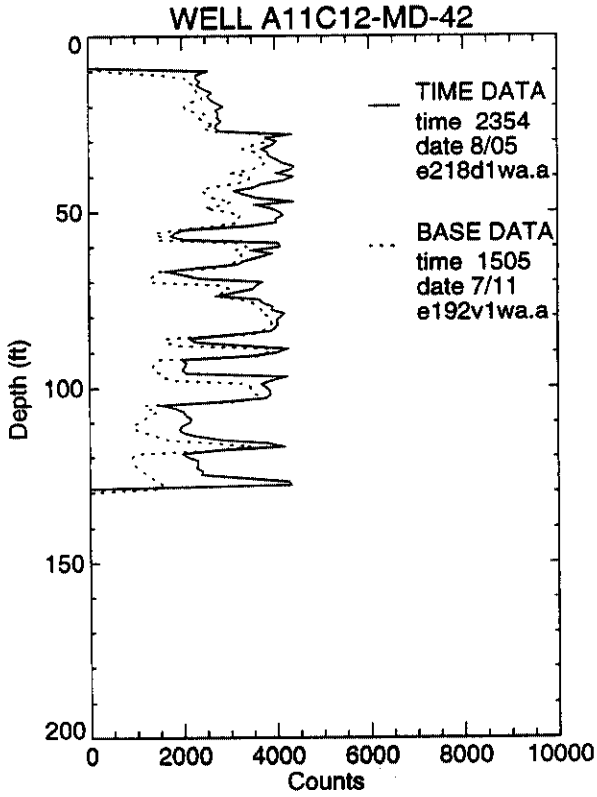
WELL A11C12-MD-42
TIME DATA
time 2354
date 8/05
e218d1wa.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
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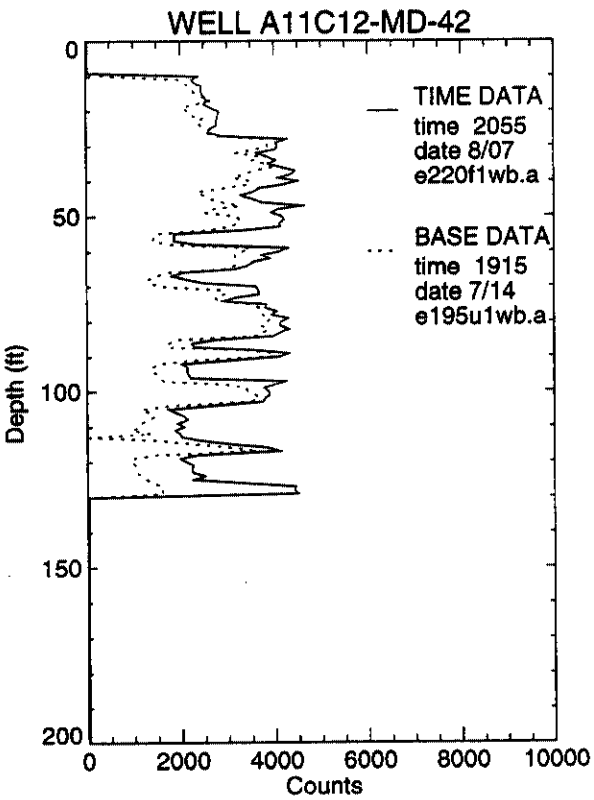
WELL A11C12-MD-42
TIME DATA
time 2055
date 8/07
e220f1wb.a
BASE DATA
time 1915
date 7/14
e195u1wb.a
Depth (ft)
Counts
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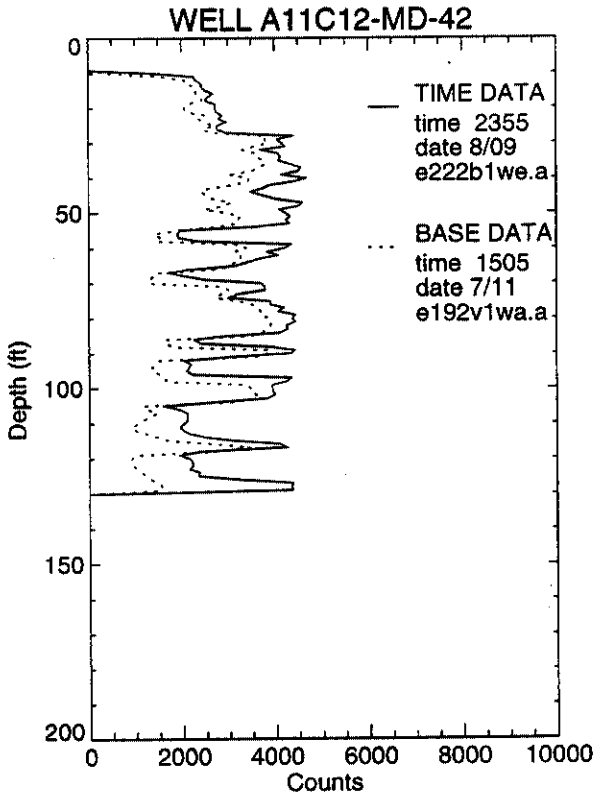
WELL A11C12-MD-42
TIME DATA
time 2355
date 8/09
e222b1we.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
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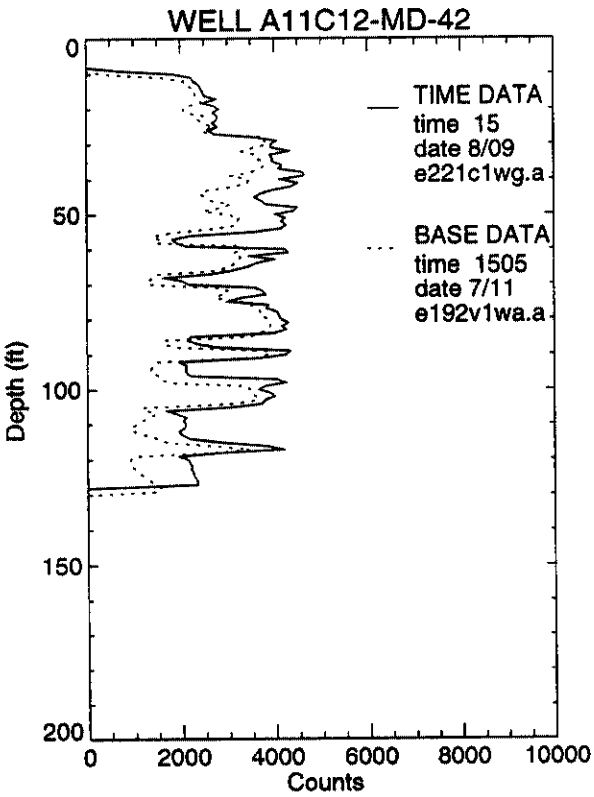
WELL A11C12-MD-42
TIME DATA
time 15
date 8/09
e221c1wg.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
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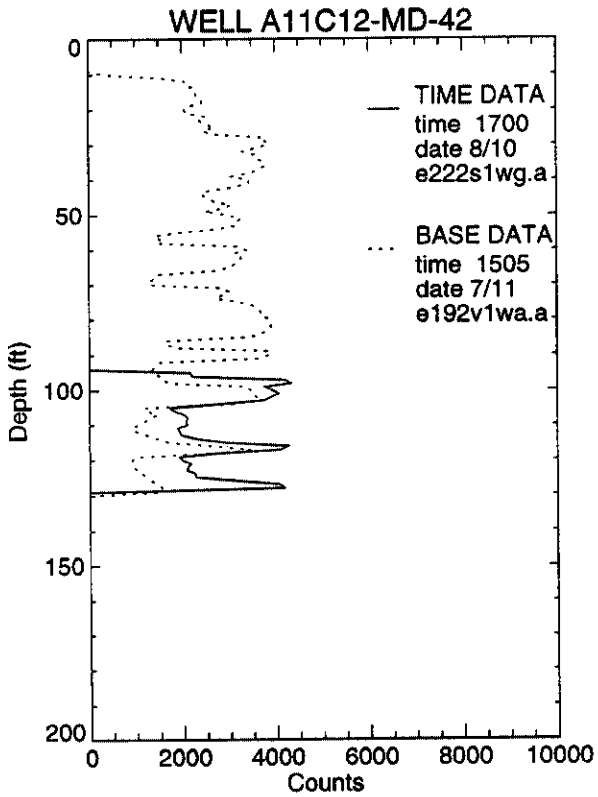
WELL A11C12-MD-42
TIME DATA
time 1700
date 8/10
e222s1wg.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
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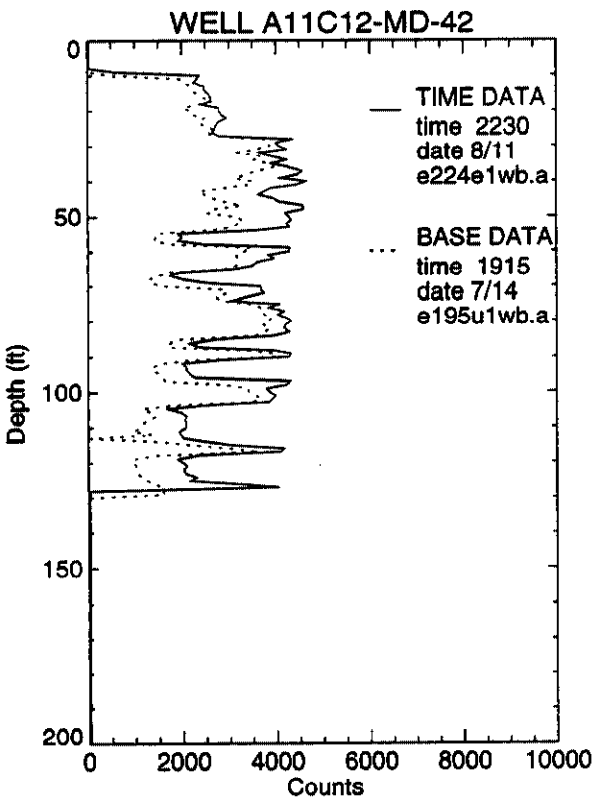
WELL A11C12-MD-42
TIME DATA
time 2230
date 8/11
e224e1wb.a
BASE DATA
time 1915
date 7/14
e195u1wb.a
Depth (ft)
Counts
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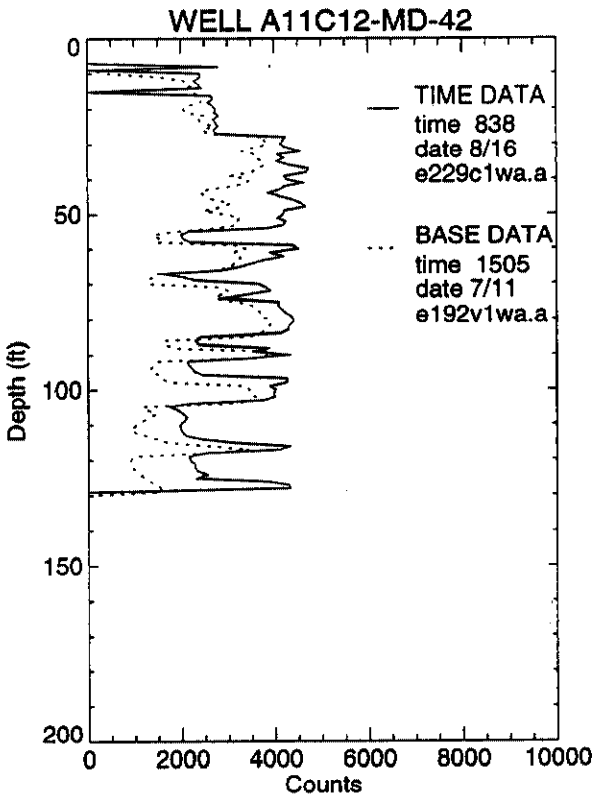
WELL A11C12-MD-42
TIME DATA
time 838
date 8/16
e229c1wa.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
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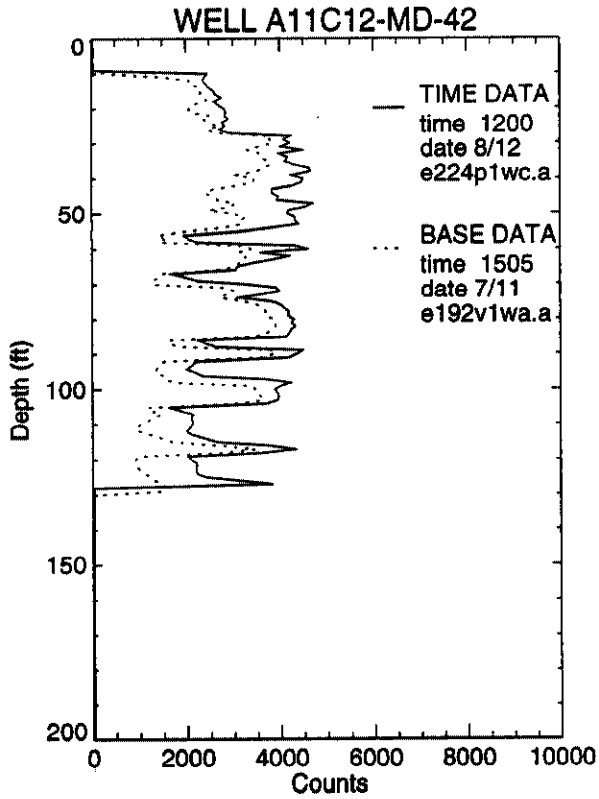
WELL A11C12-MD-42
TIME DATA
time 1200
date 8/12
e224p1wc.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
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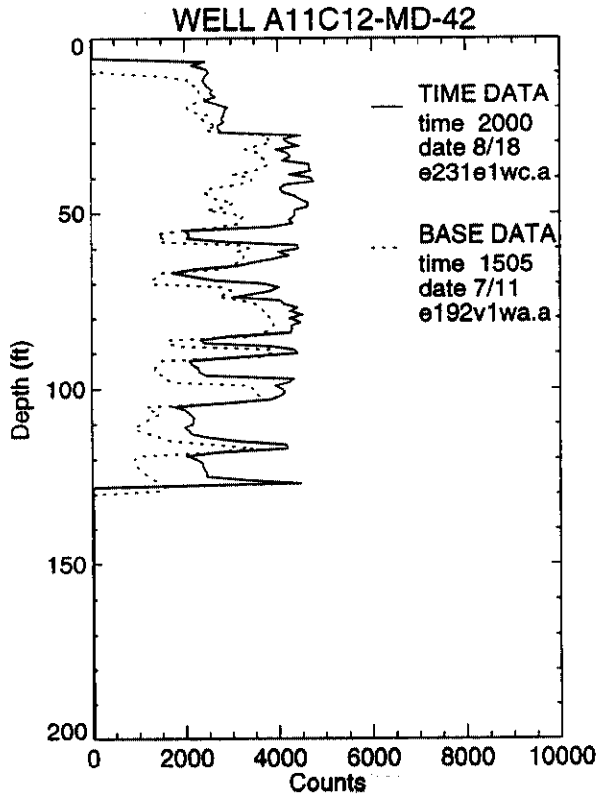
WELL A11C12-MD-42
TIME DATA
time 2000
date 8/18
e231e1wc.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
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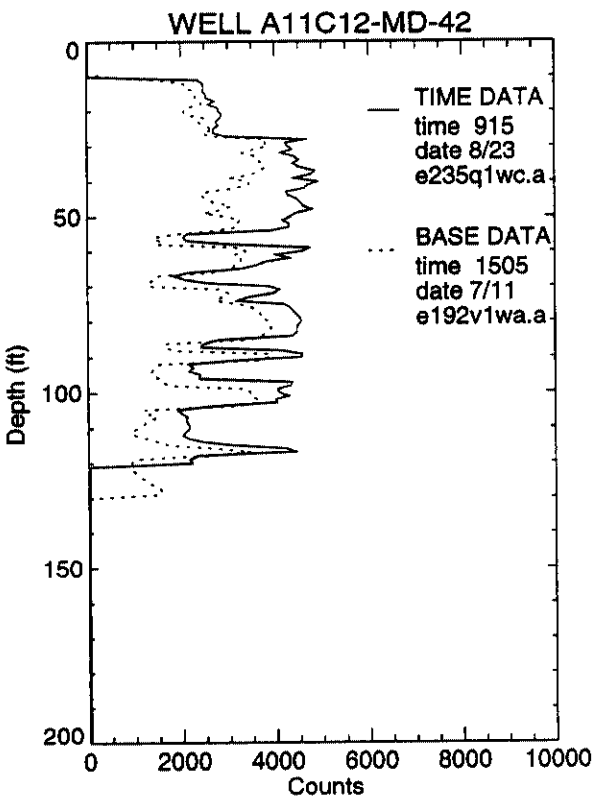
10000


WELL A11C12-MD-42
TIME DATA
time 915
date 8/23
e235q1wc.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
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150
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0
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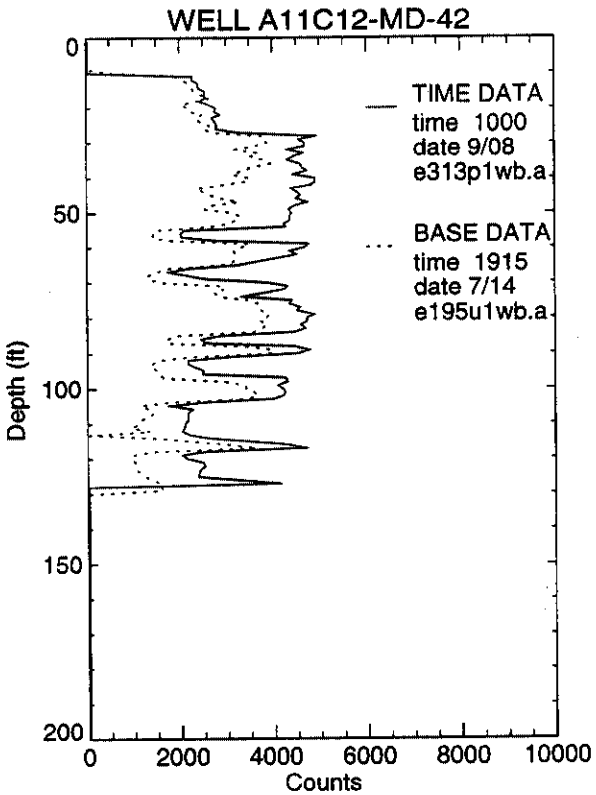
8000
10000


WELL A11C12-MD-42
TIME DATA
time 1000
date 9/08
e313p1wb.a
BASE DATA
time 1915
date 7/14
e195u1wb.a
Depth (ft)
Counts
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8000
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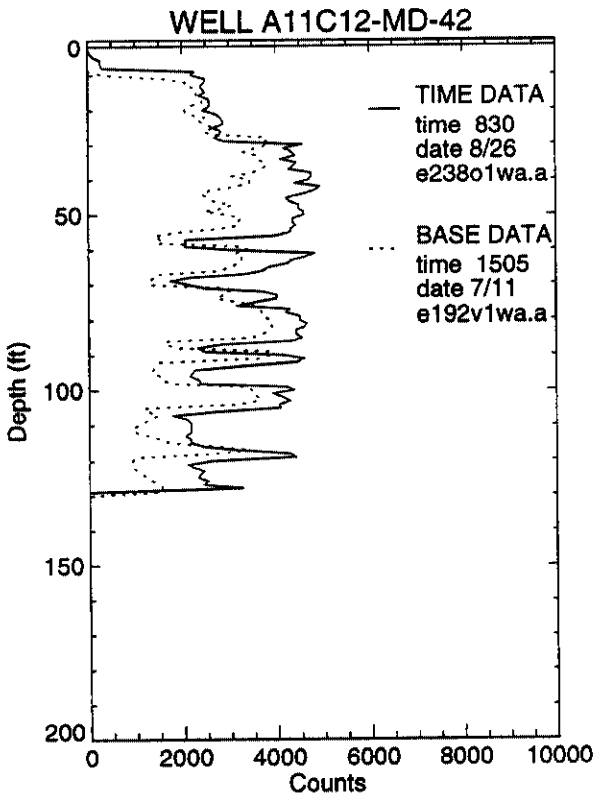
WELL A11C12-MD-42
TIME DATA
time 830
date 8/26
e238o1wa.a
BASE DATA
time 1505
date 7/11
e192v1wa.a
Depth (ft)
Counts
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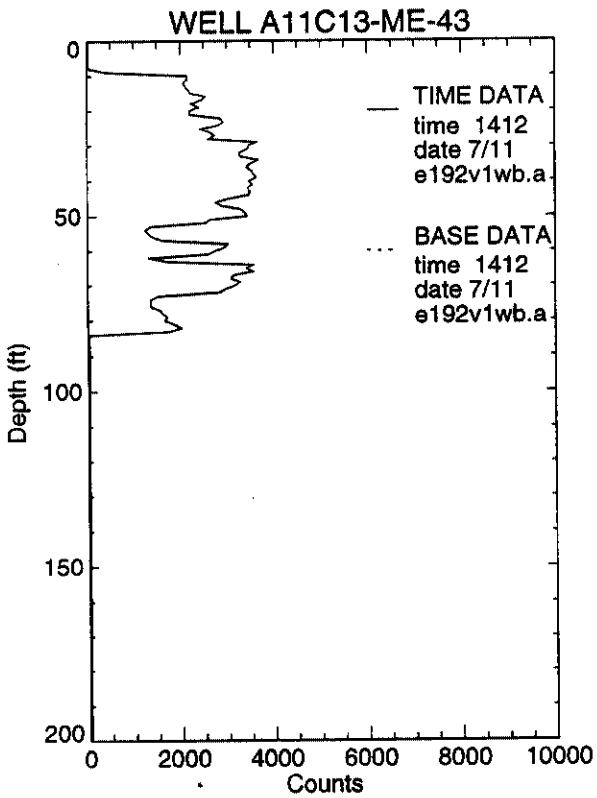
WELL A11C13-ME-43
TIME DATA
time 1412
date 7/11
e192v1wb.a
BASE DATA
time 1412
date 7/11
e192v1wb.a
Depth (ft)
Counts
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150
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0
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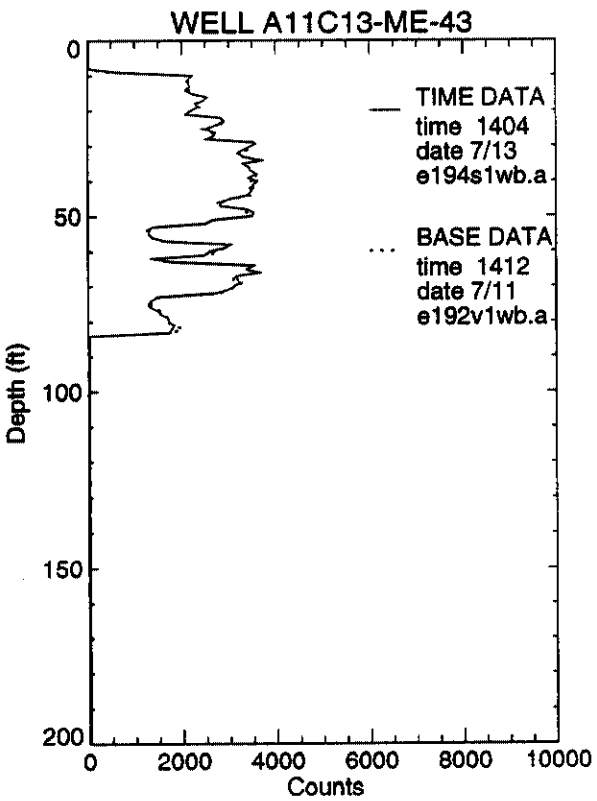
10000


WELL A11C13-ME-43
TIME DATA
time 1404
date 7/13
e194s1wb.a
BASE DATA
time 1412
date 7/11
e192v1wb.a
Depth (ft)
Counts
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0
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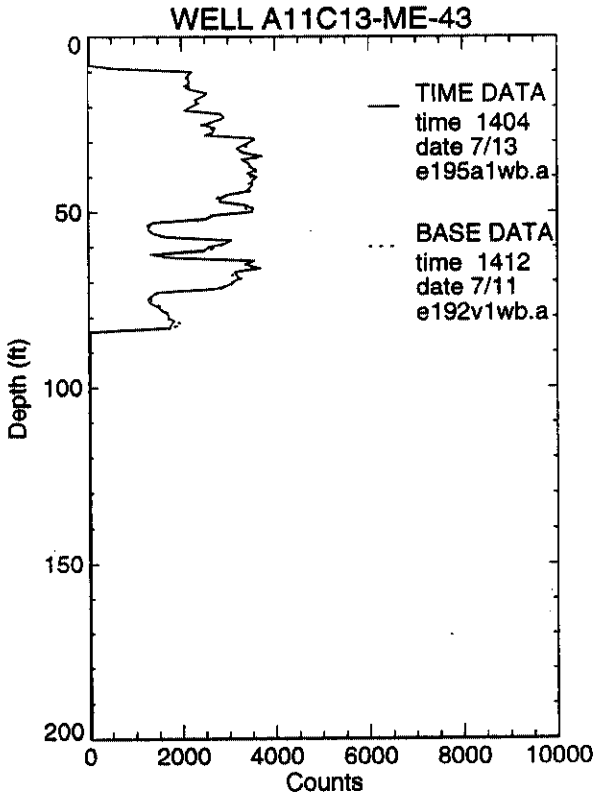
10000


WELL A11C13-ME-43
TIME DATA
time 1404
date 7/13
e195a1wb.a
BASE DATA
time 1412
date 7/11
e192v1wb.a
Depth (ft)
Counts
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150
200
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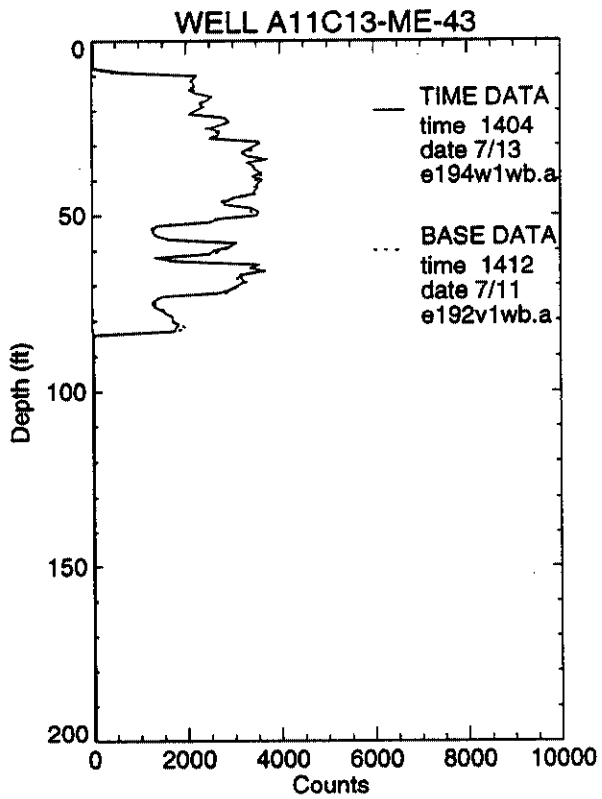
10000


WELL A11C13-ME-43
TIME DATA
time 1404
date 7/13
e194w1wb.a
BASE DATA
time 1412
date 7/11
e192v1wb.a
Depth (ft)
Counts
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100
150
200
0
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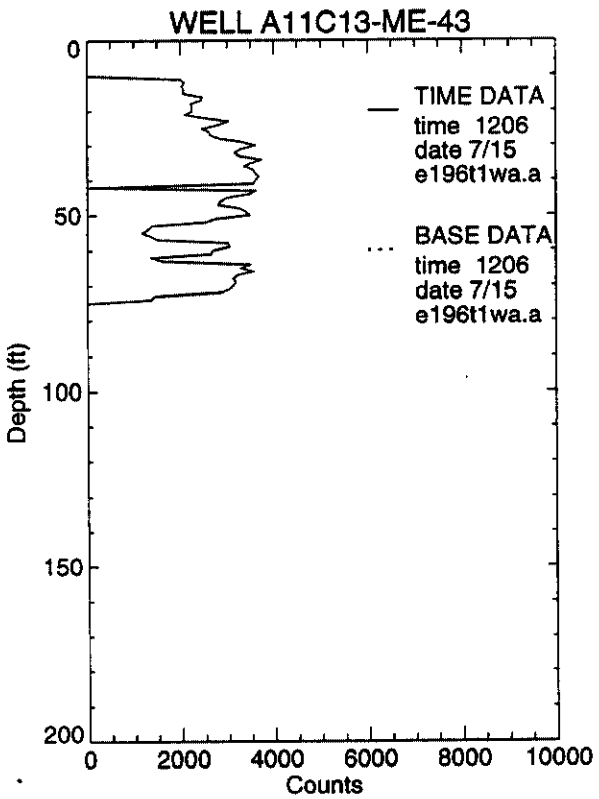
10000


WELL A11C13-ME-43
TIME DATA
time 1206
date 7/15
e196t1wa.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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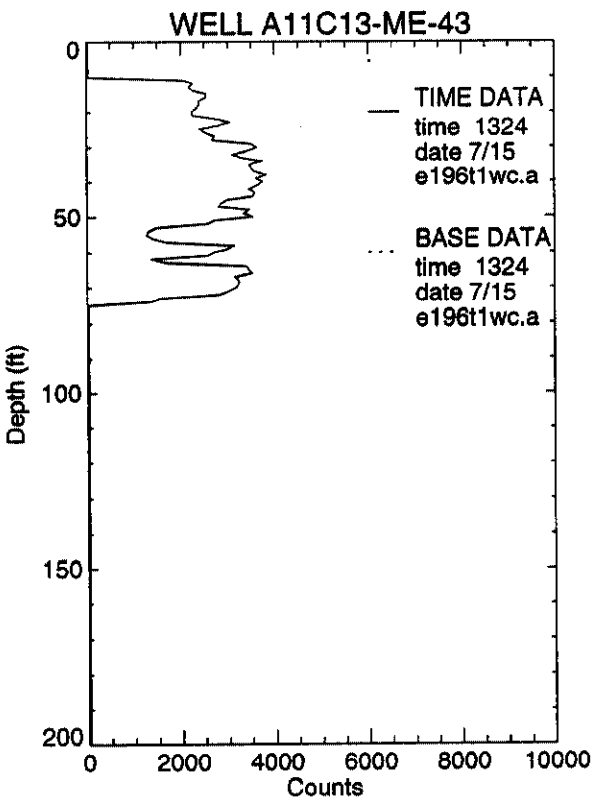
8000
10000


WELL A11C13-ME-43
TIME DATA
time 1324
date 7/15
e196t1wc.a
BASE DATA
time 1324
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
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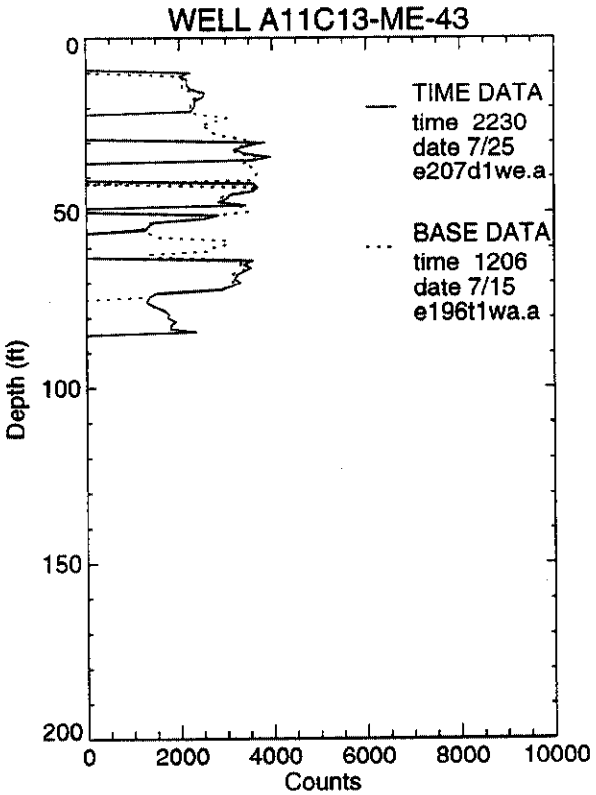
8000
10000


WELL A11C13-ME-43
TIME DATA
time 2230
date 7/25
e207d1we.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
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150
200
0
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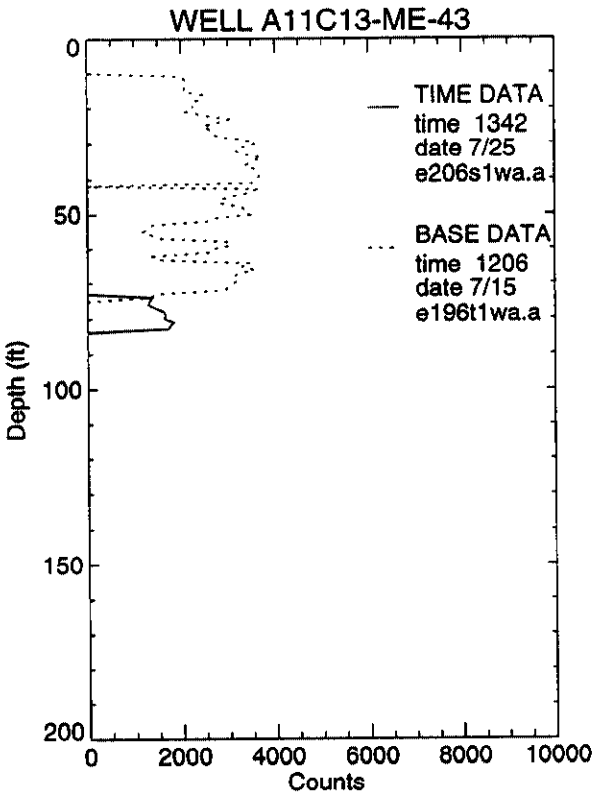
8000
10000


WELL A11C13-ME-43
TIME DATA
time 1342
date 7/25
e206s1wa.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
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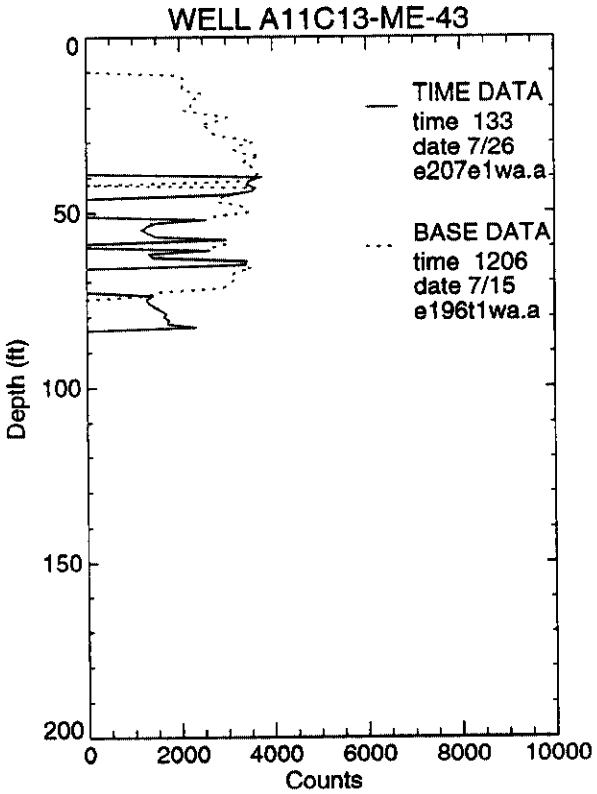
10000


WELL A11C13-ME-43
TIME DATA
time 133
date 7/26
e207e1wa.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
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200
0
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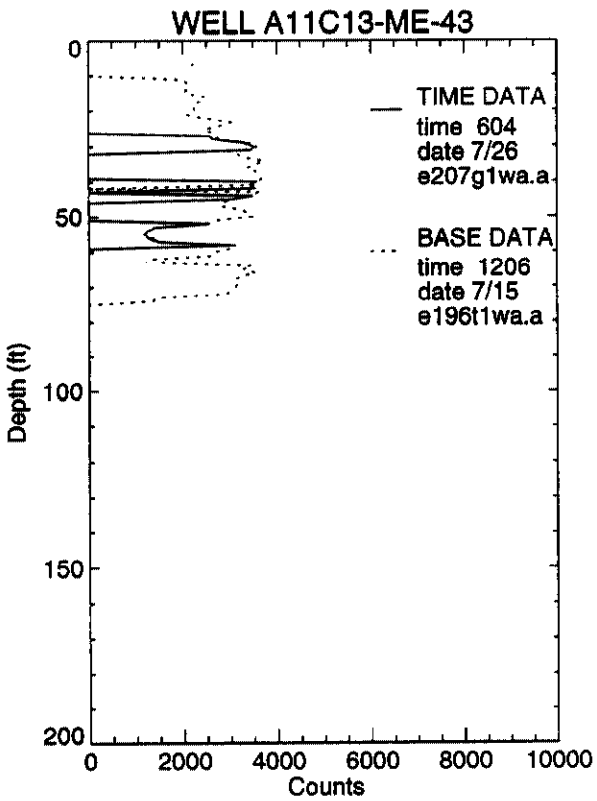
8000
10000


WELL A11C13-ME-43
TIME DATA
time 604
date 7/26
e207g1wa.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
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150
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0
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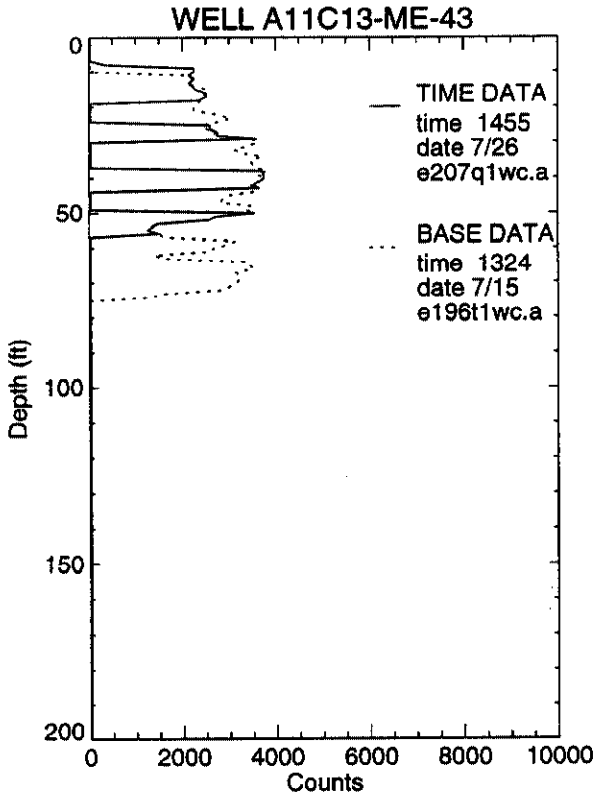
8000
10000


WELL A11C13-ME-43
TIME DATA
time 1455
date 7/26
e207q1wc.a
BASE DATA
time 1324
date 7/15
e196t1wc.a
Depth (ft)
Counts
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150
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0
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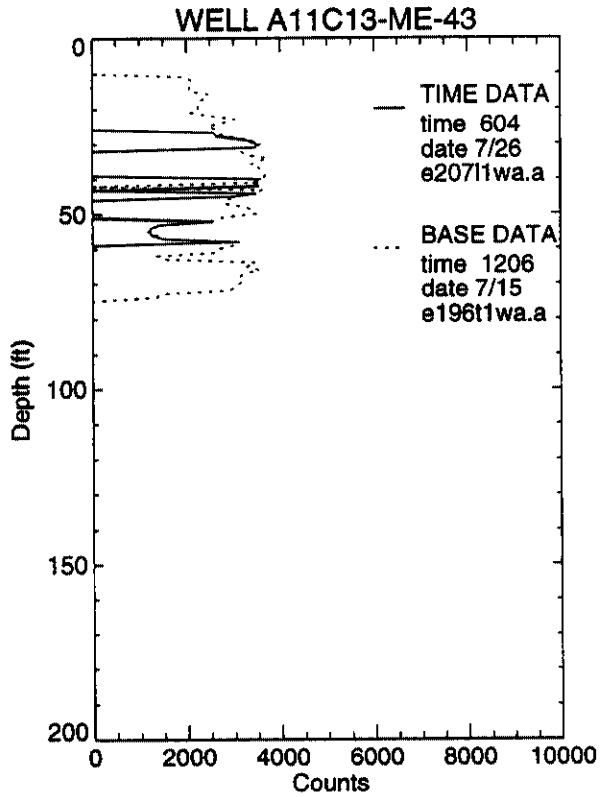
8000
10000


WELL A11C13-ME-43
TIME DATA
time 604
date 7/26
e207l1wa.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
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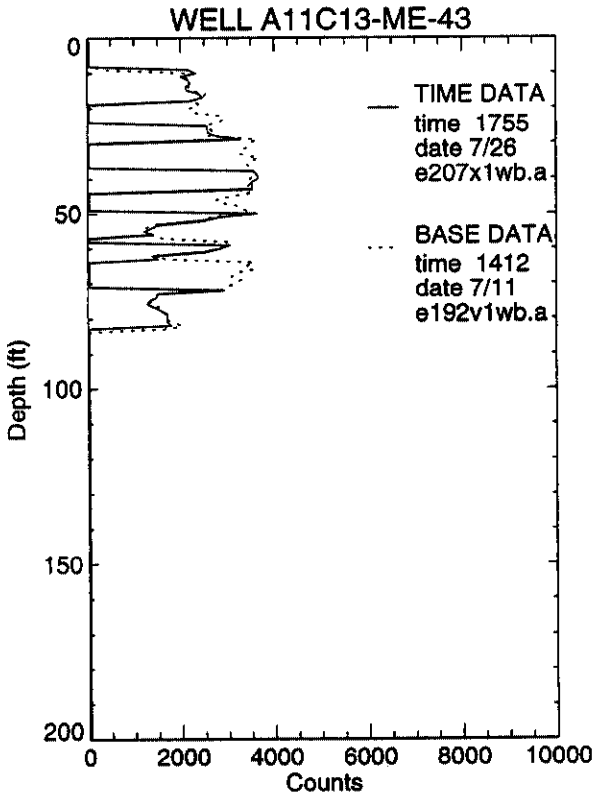
10000


WELL A11C13-ME-43
TIME DATA
time 1755
date 7/26
e207x1wb.a
BASE DATA
time 1412
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
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100
150
200
0
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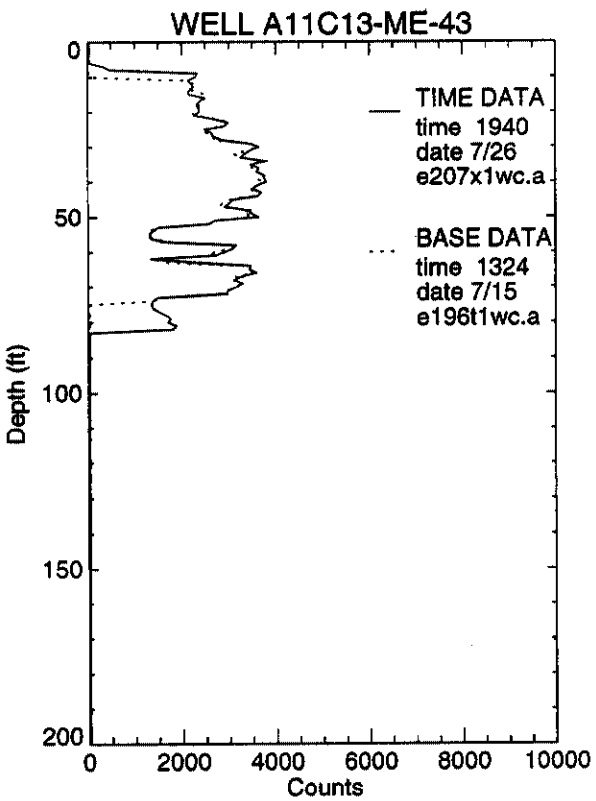
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 1940
date 7/26
e207x1wc.a
BASE DATA
time 1324
date 7/15
e196t1wc.a
Depth (ft)
Counts
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0
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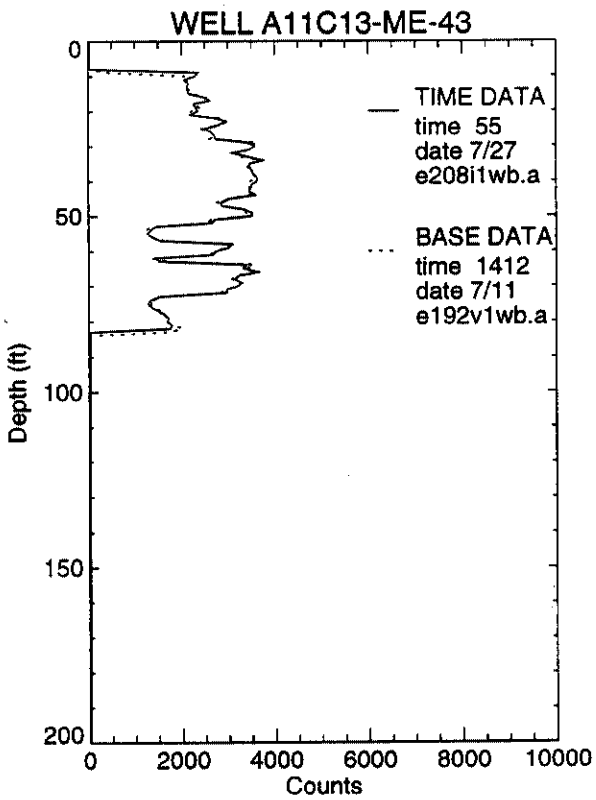
10000


WELL A11C13-ME-43
TIME DATA
time 55
date 7/27
e208i1wb.a
BASE DATA
time 1412
date 7/11
e192v1wb.a
Depth (ft)
Counts
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150
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0
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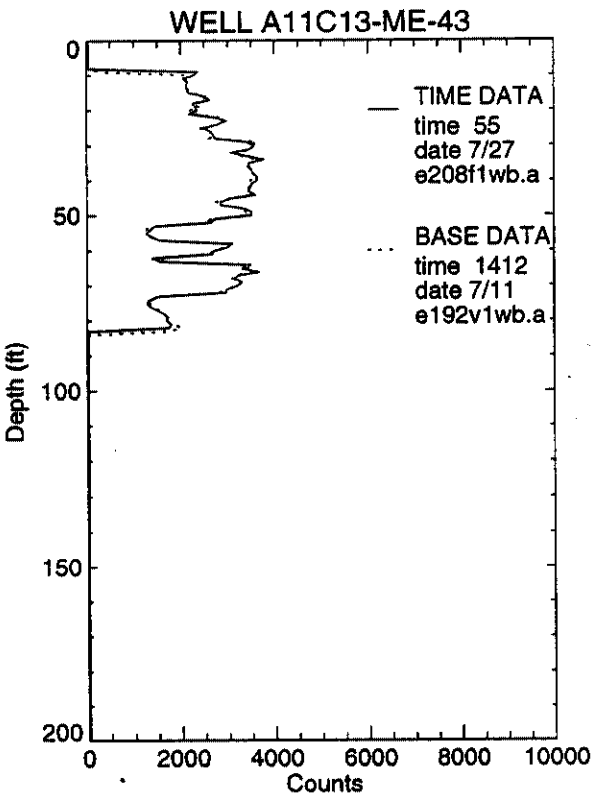
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 55
date 7/27
e208f1wb.a
BASE DATA
time 1412
date 7/11
e192v1wb.a
Depth (ft)
Counts
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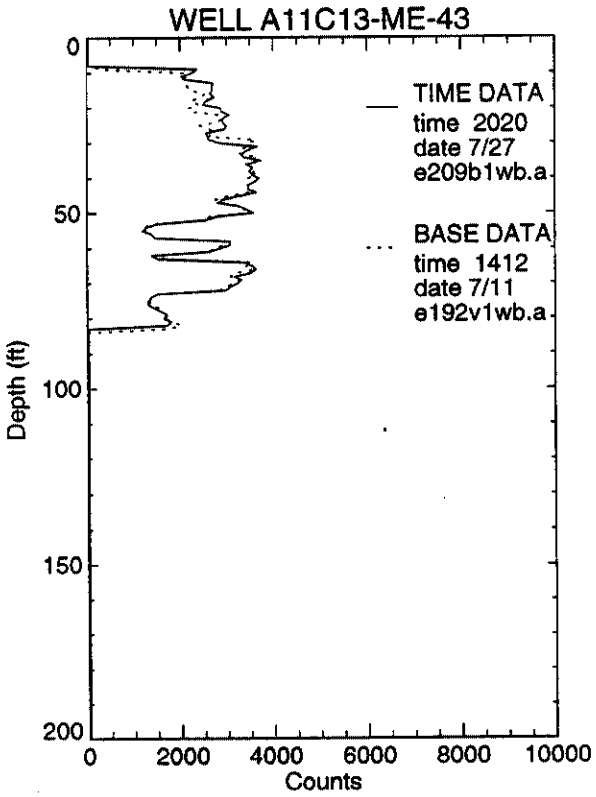
WELL A11C13-ME-43
TIME DATA
time 2020
date 7/27
e209b1wb.a
BASE DATA
time 1412
date 7/11
e192v1wb.a
Depth (ft)
Counts
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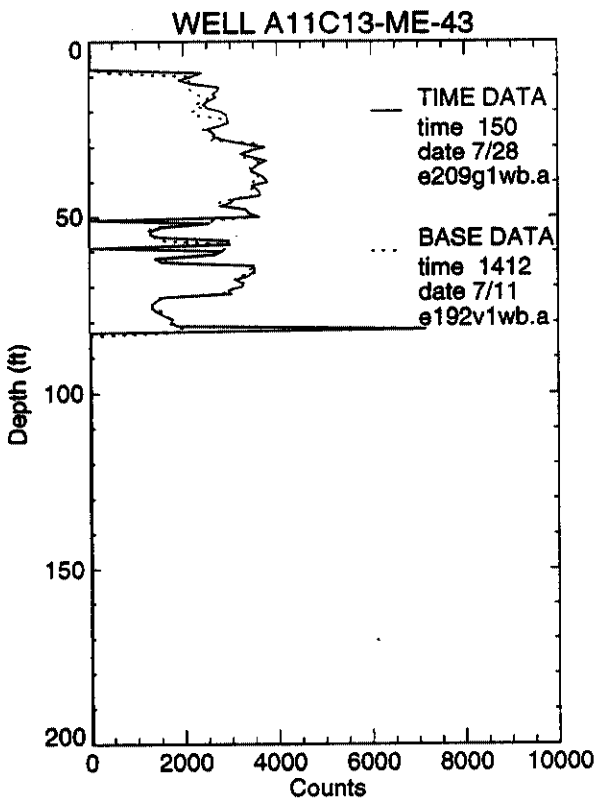
WELL A11C13-ME-43
TIME DATA
time 150
date 7/28
e209g1wb.a
BASE DATA
time 1412
date 7/11
e192v1wb.a
Depth (ft)
Counts
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150
200
0
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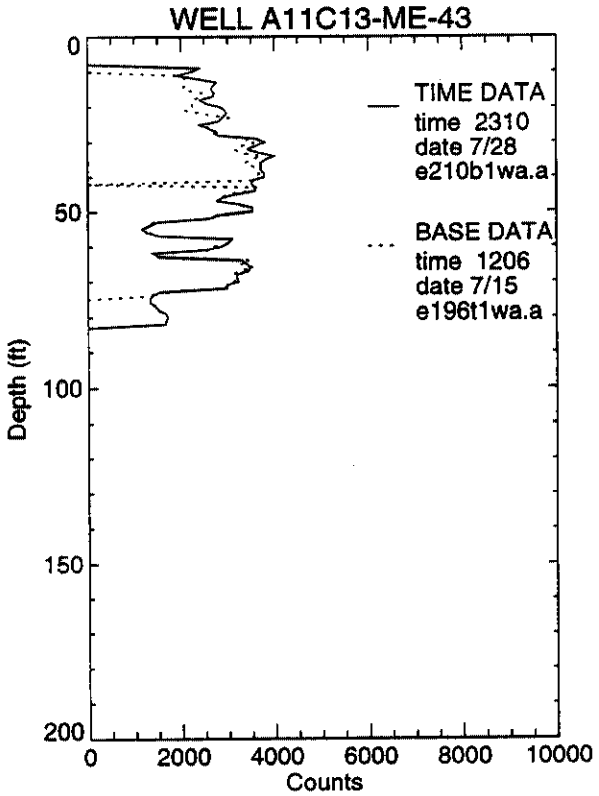
WELL A11C13-ME-43
TIME DATA
time 2310
date 7/28
e210b1wa.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
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150
200
0
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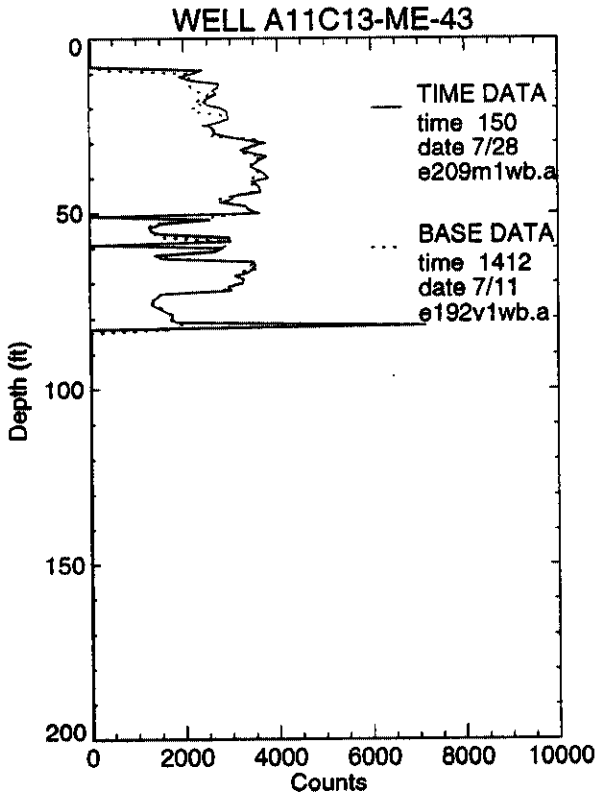
8000
10000


WELL A11C13-ME-43
TIME DATA
time 150
date 7/28
e209m1wb.a
BASE DATA
time 1412
date 7/11
e192v1wb.a
Depth (ft)
Counts
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100
150
200
0
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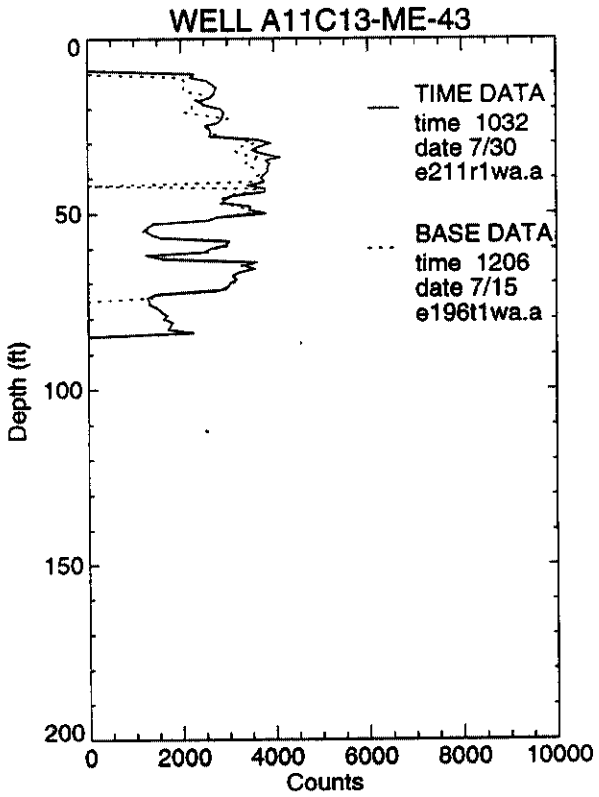
8000
10000


WELL A11C13-ME-43
TIME DATA
time 1032
date 7/30
e211r1wa.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
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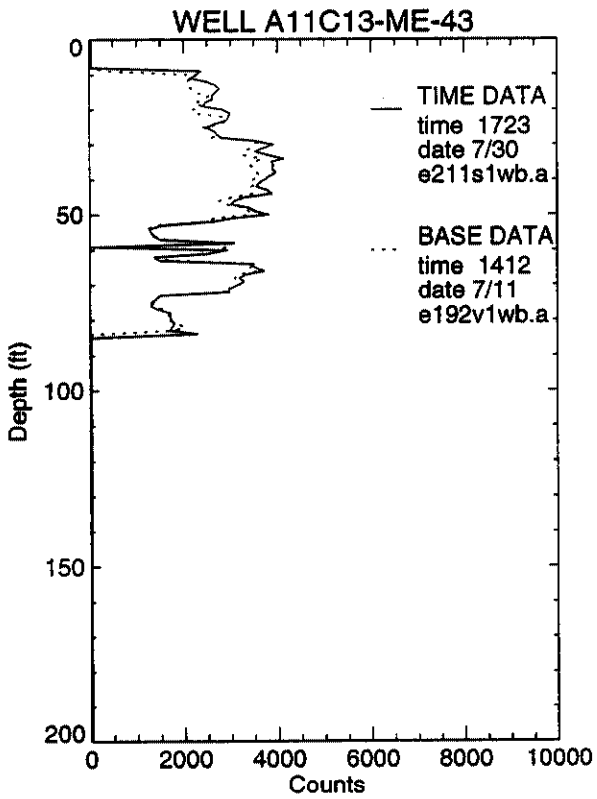
WELL A11C13-ME-43
TIME DATA
time 1723
date 7/30
e211s1wb.a
BASE DATA
time 1412
date 7/11
e192v1wb.a
Depth (ft)
Counts
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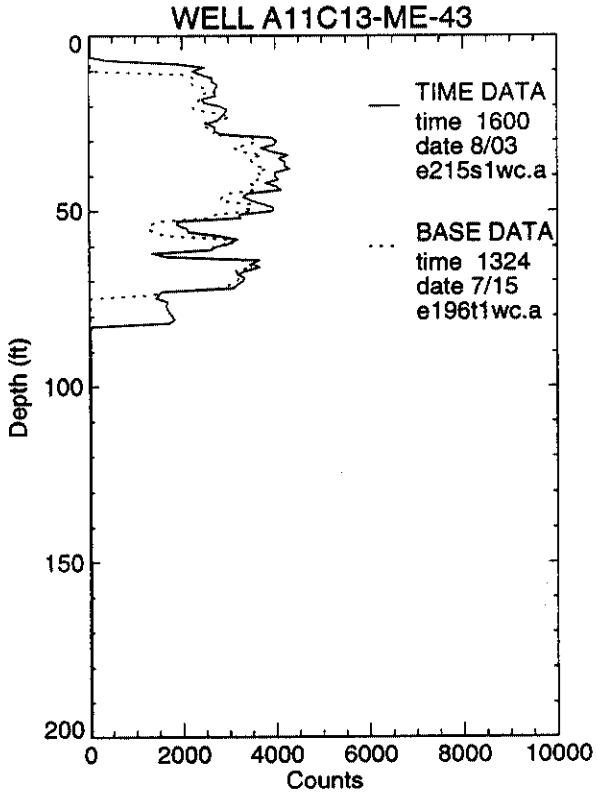
WELL A11C13-ME-43
TIME DATA
time 1600
date 8/03
e215s1wc.a
BASE DATA
time 1324
date 7/15
e196t1wc.a
Depth (ft)
Counts
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100
150
200
0
2000
4000
6000
8000
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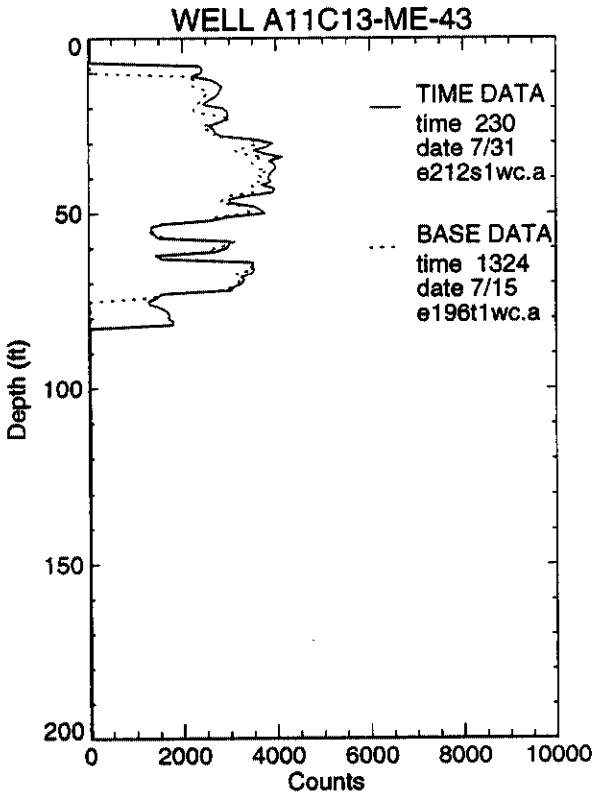
WELL A11C13-ME-43
TIME DATA
time 230
date 7/31
e212s1wc.a
BASE DATA
time 1324
date 7/15
e196t1wc.a
Depth (ft)
Counts
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150
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0
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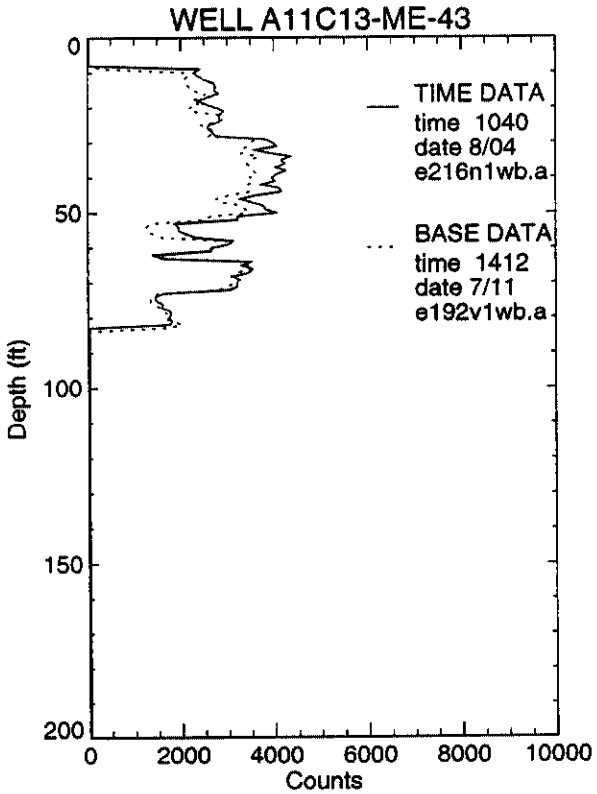
4000
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 1040
date 8/04
e216n1wb.a
BASE DATA
time 1412
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
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100
150
200
0
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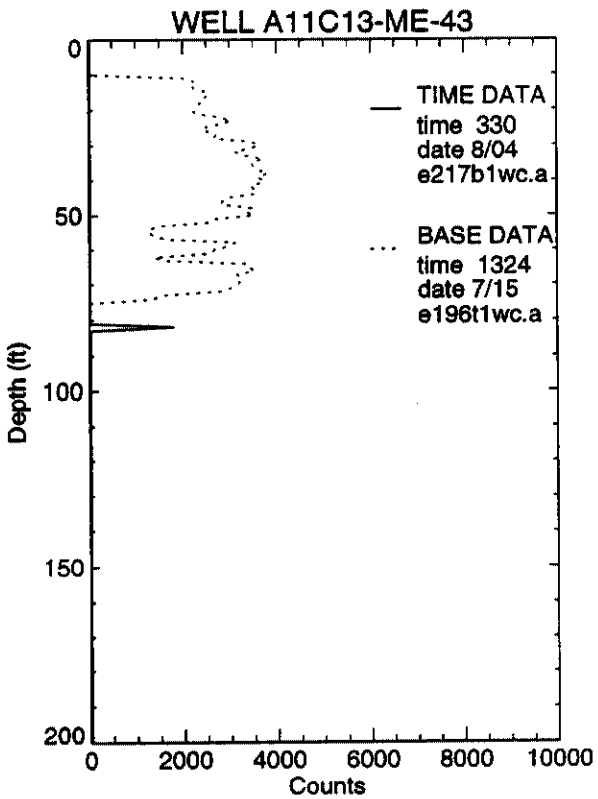
4000
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 330
date 8/04
e217b1wc.a
BASE DATA
time 1324
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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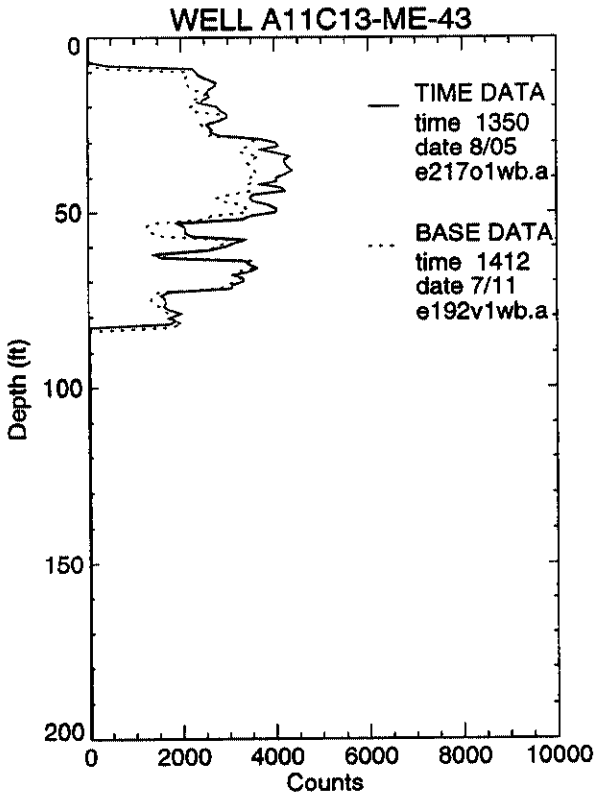
150
200
0
2000
4000
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 1350
date 8/05
e217o1wb.a
BASE DATA
time 1412
date 7/11
e192v1wb.a
Depth (ft)
Counts
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150
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0
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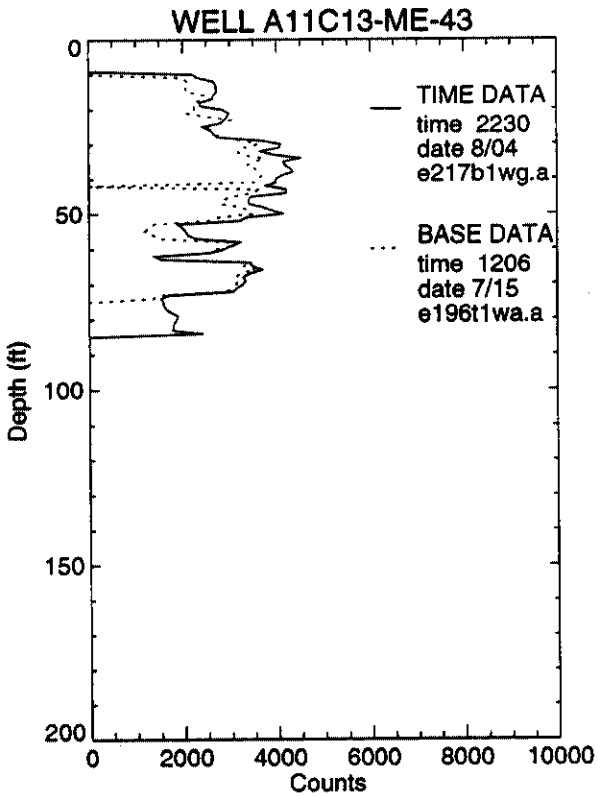
4000
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 2230
date 8/04
e217b1wg.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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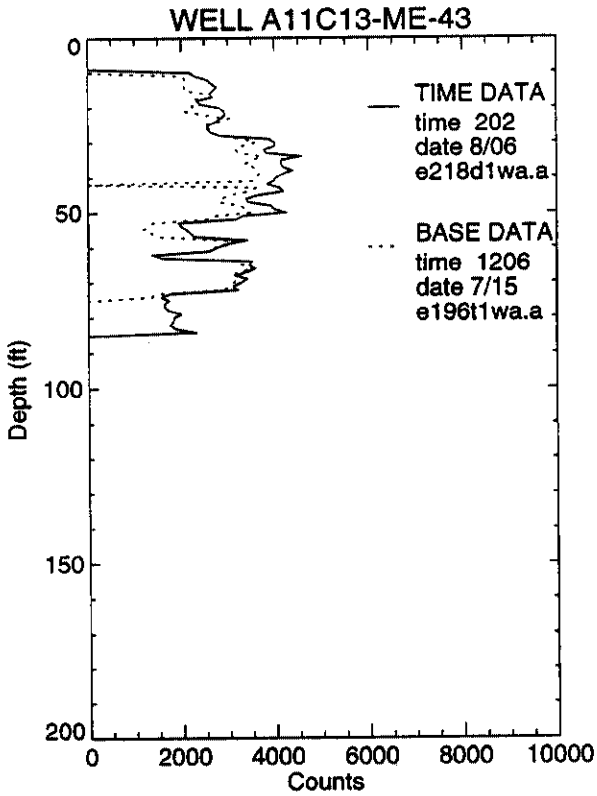
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 202
date 8/06
e218d1wa.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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150
200
0
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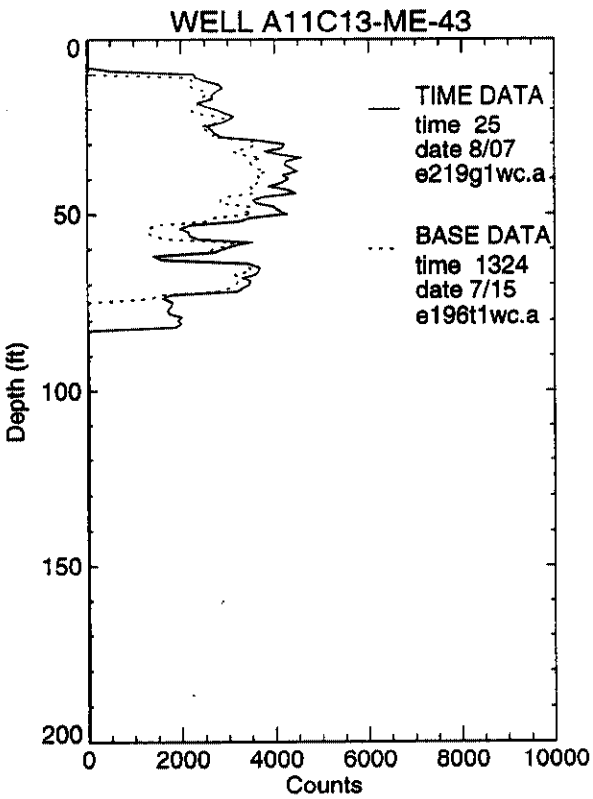
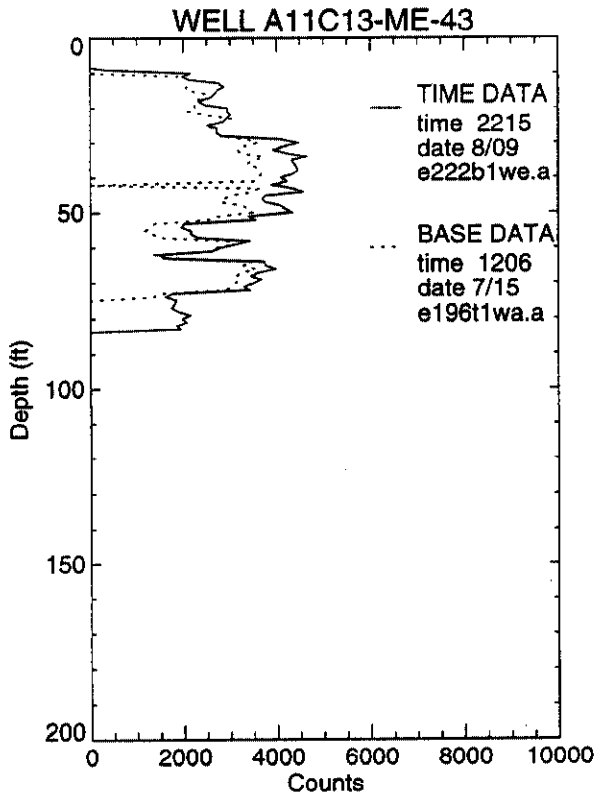
4000
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 25
date 8/07
e219g1wc.a
BASE DATA
time 1324
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 2215
date 8/09
e222b1we.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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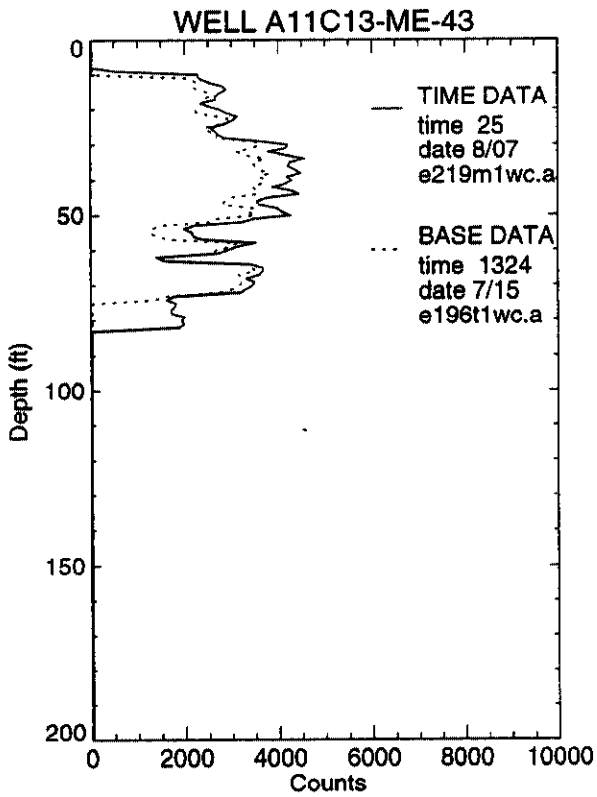
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 25
date 8/07
e219m1wc.a
BASE DATA
time 1324
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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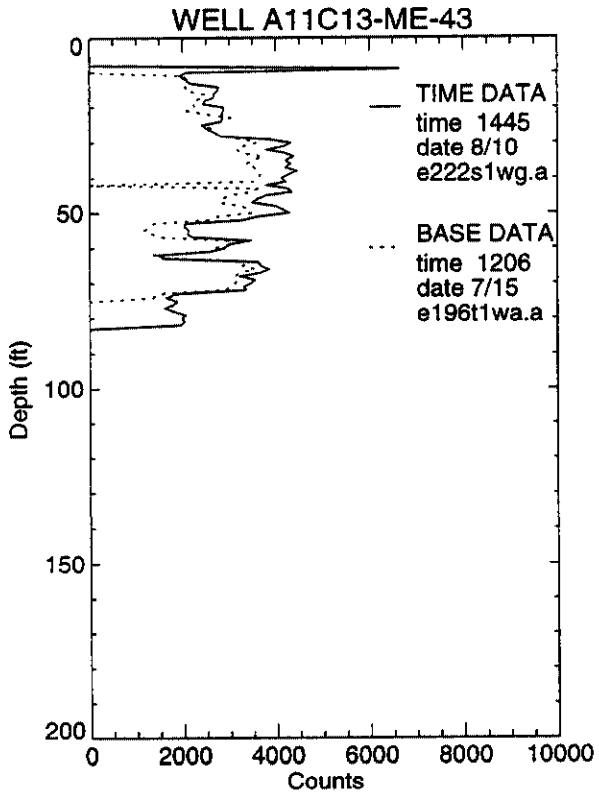
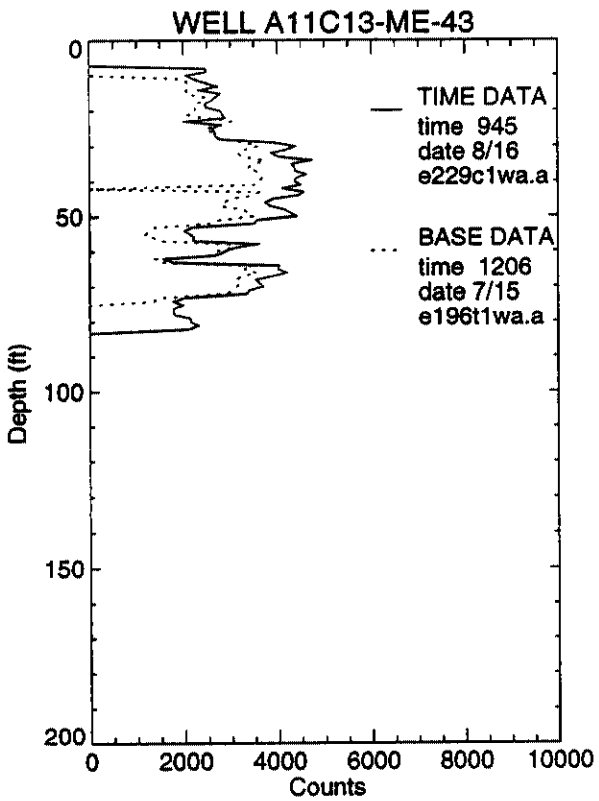
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 1445
date 8/10
e222s1wg.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 945
date 8/16
e229c1wa.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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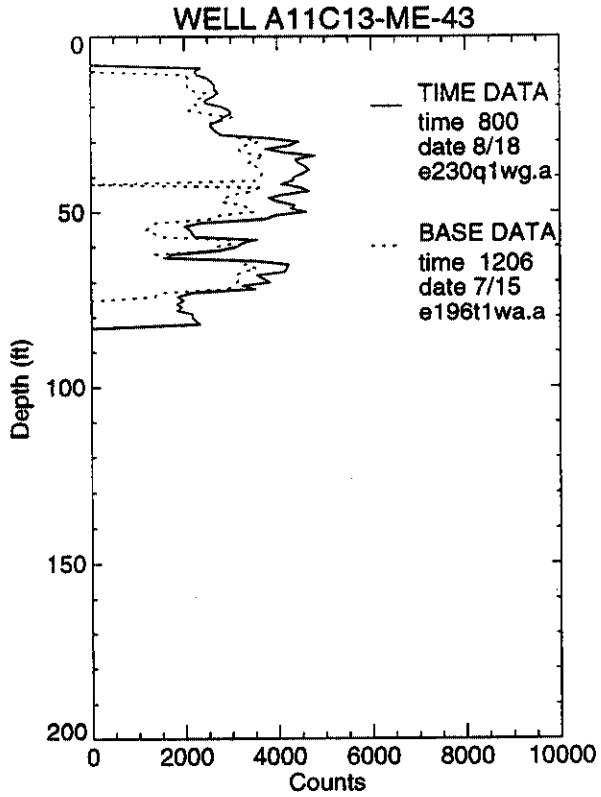
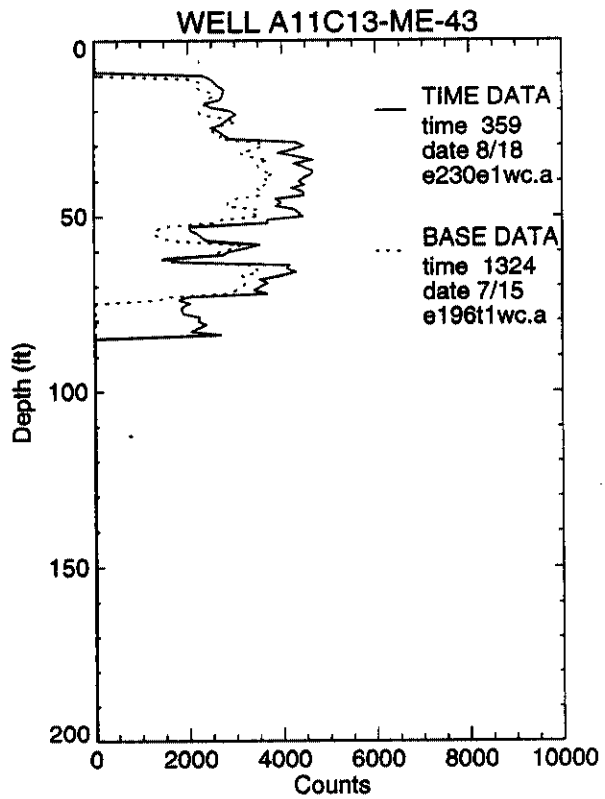
150
200
0
2000
4000
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 800
date 8/18
e230q1wg.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 359
date 8/18
e230e1wc.a
BASE DATA
time 1324
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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0
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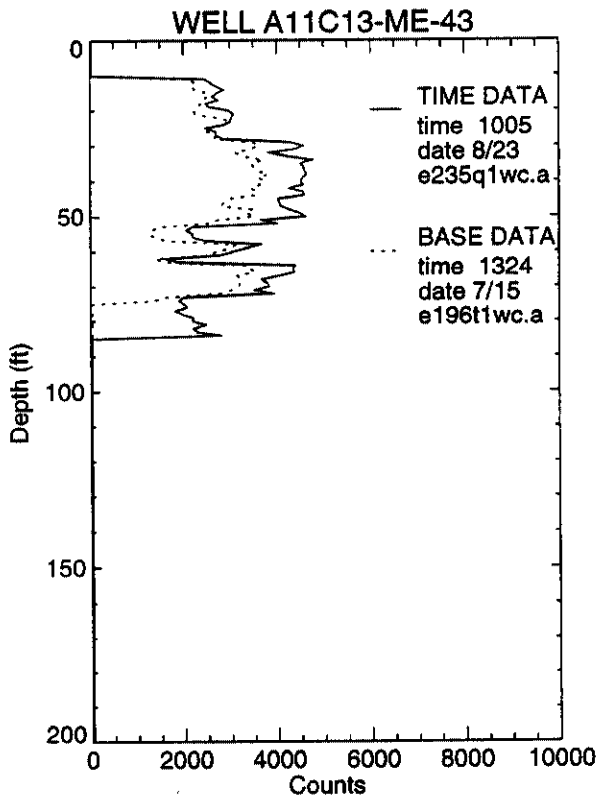
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 1005
date 8/23
e235q1wc.a
BASE DATA
time 1324
date 7/15
e196t1wc.a
Depth (ft)
Counts
0
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150
200
0
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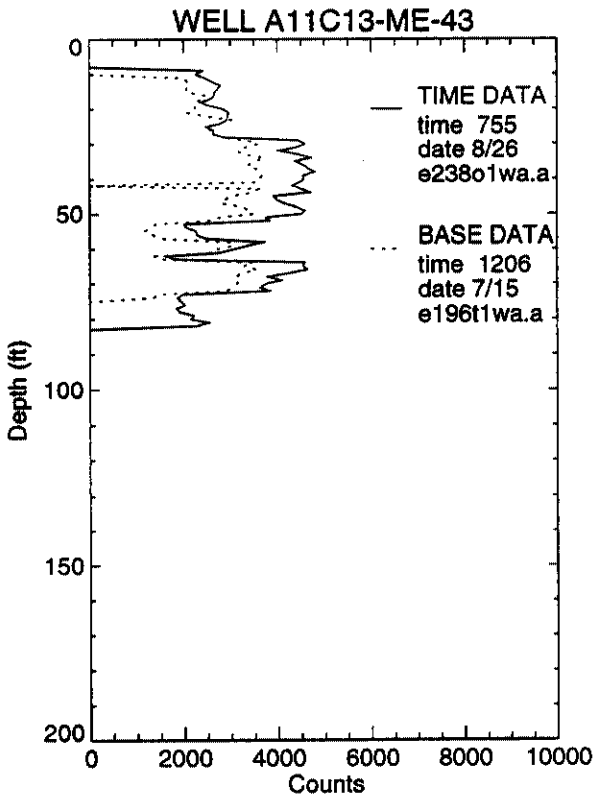
4000
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 755
date 8/26
e238o1wa.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
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150
200
0
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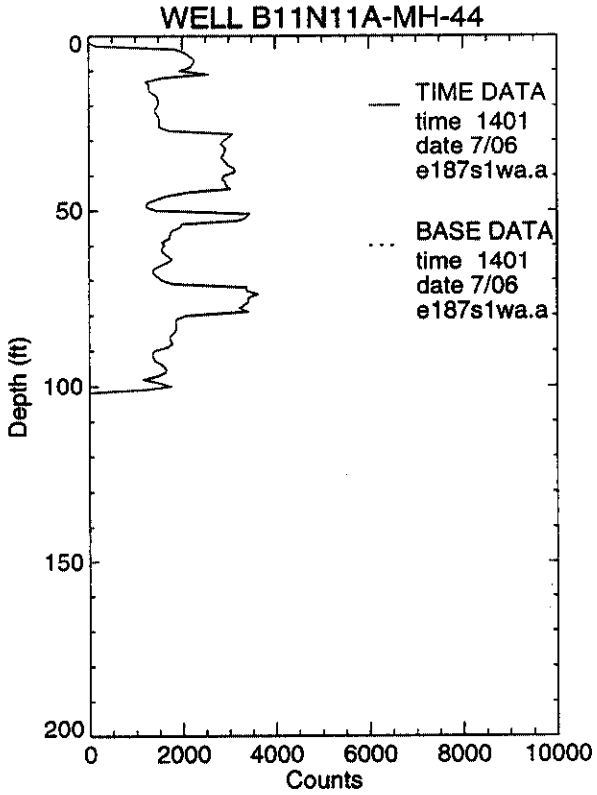
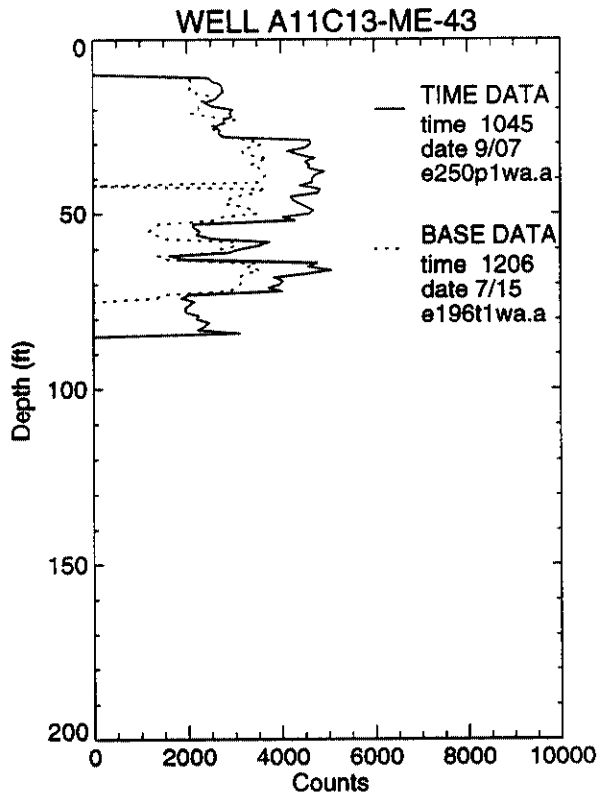
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1401
date 7/06
e187s1wa.a
BASE DATA
time 1401
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL A11C13-ME-43
TIME DATA
time 1045
date 9/07
e250p1wa.a
BASE DATA
time 1206
date 7/15
e196t1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
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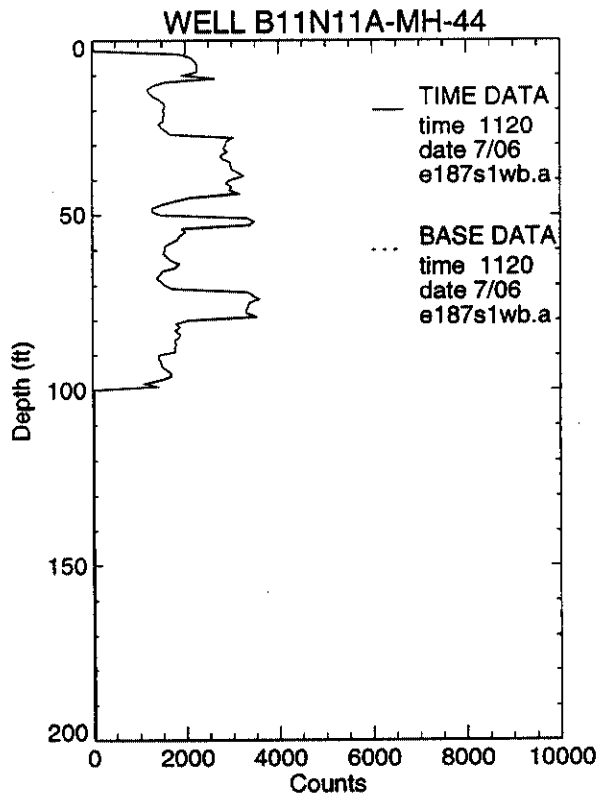
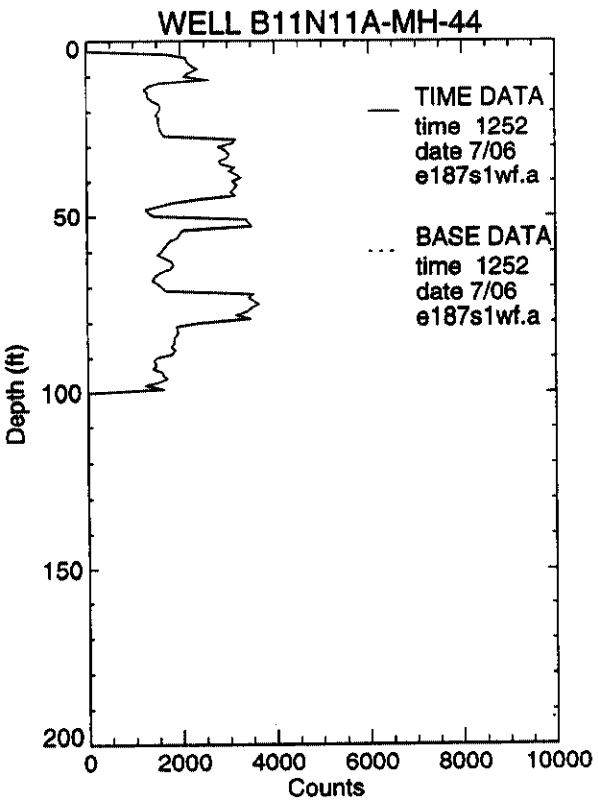
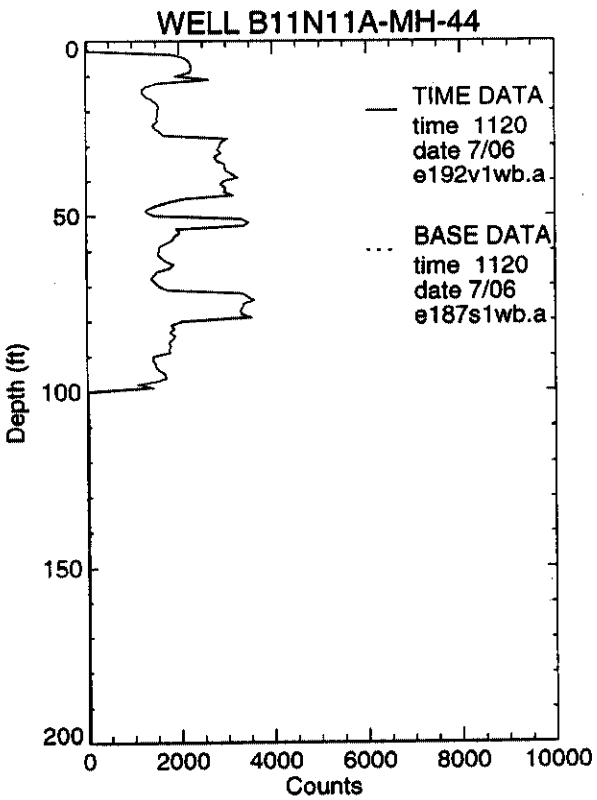
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1120
date 7/06
e187s1wb.a
BASE DATA
time 1120
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1252
date 7/06
e187s1wf.a
BASE DATA
time 1252
date 7/06
e187s1wf.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1120
date 7/06
e192v1wb.a
BASE DATA
time 1120
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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150
200
0
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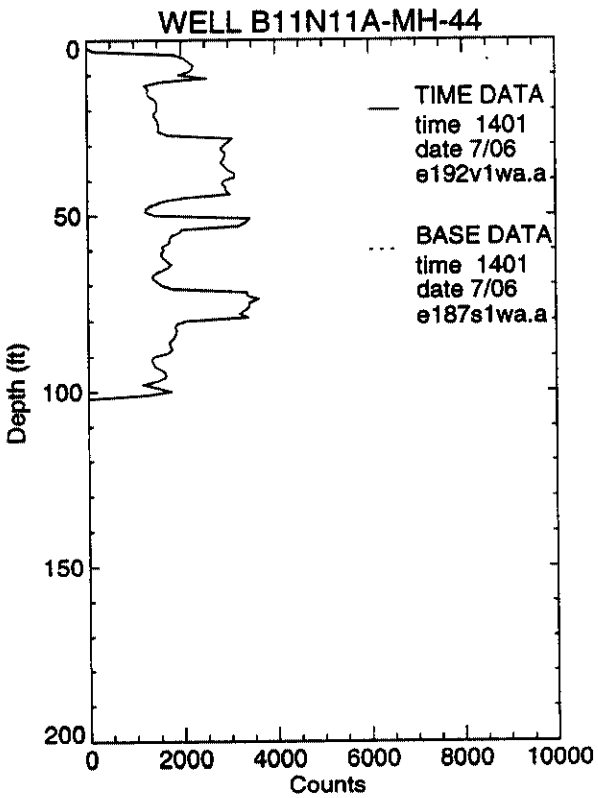
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1401
date 7/06
e192v1wa.a
BASE DATA
time 1401
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
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150
200
0
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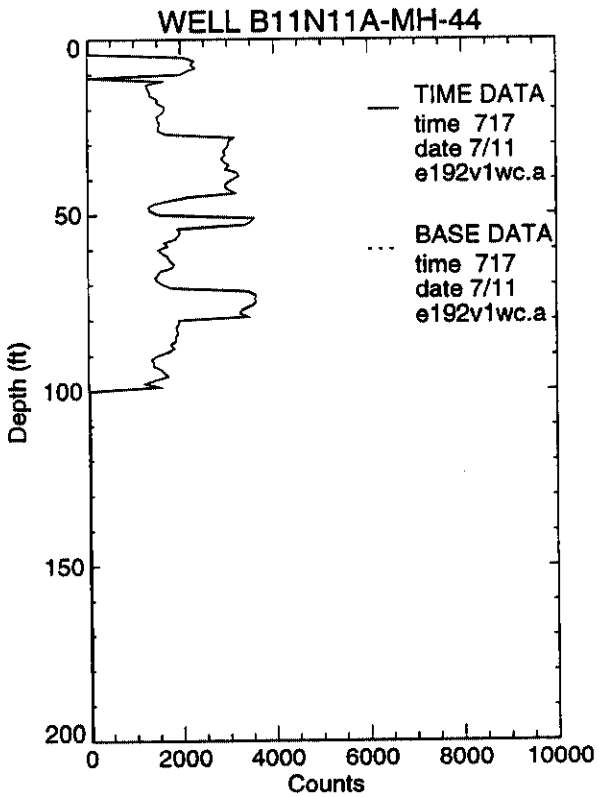
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 717
date 7/11
e192v1wc.a
BASE DATA
time 717
date 7/11
e192v1wc.a
Depth (ft)
Counts
0
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150
200
0
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4000
6000
8000
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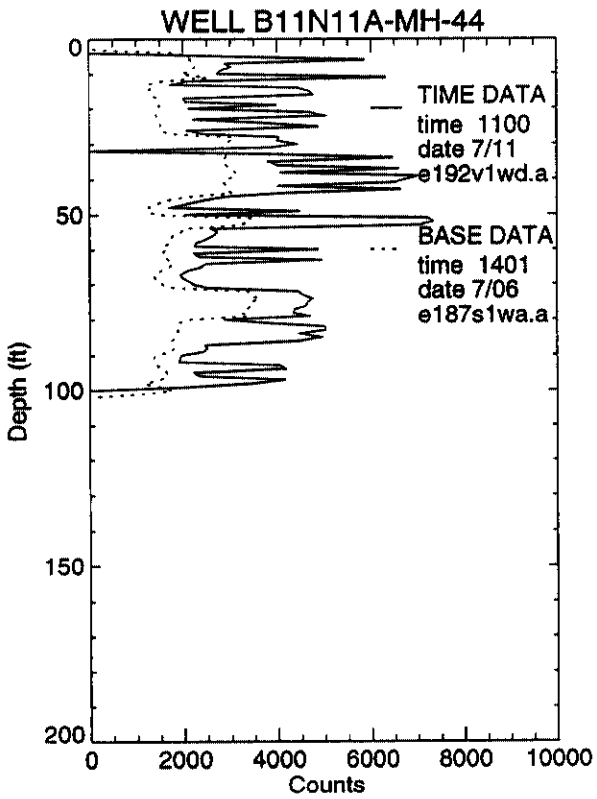
WELL B11N11A-MH-44
TIME DATA
time 1100
date 7/11
e192v1wd.a
BASE DATA
time 1401
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
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150
200
0
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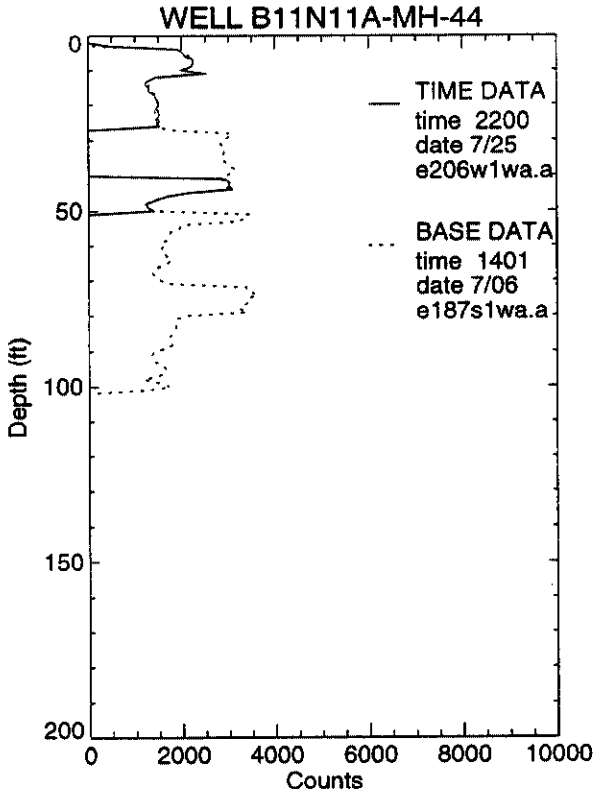
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 2200
date 7/25
e206w1wa.a
BASE DATA
time 1401
date 7/06
e187s1wa.a
Depth (ft)
Counts
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150
200
0
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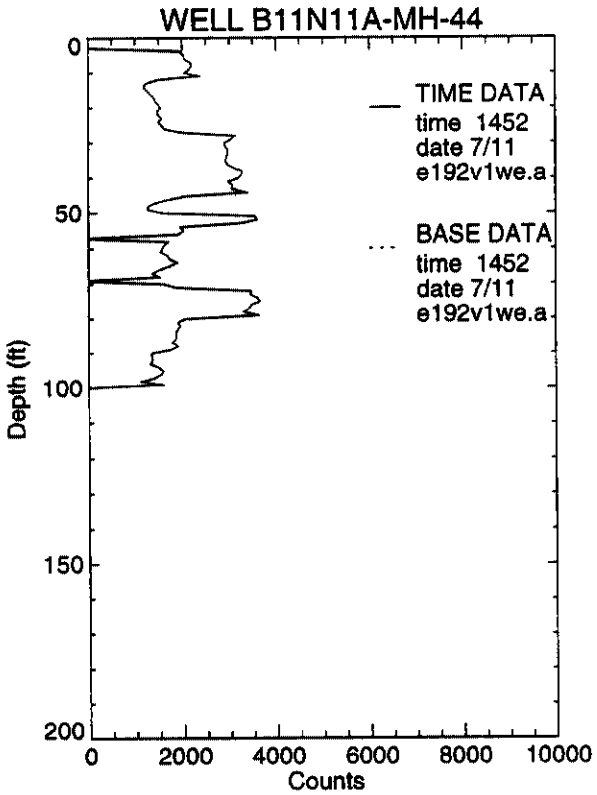
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1452
date 7/11
e192v1we.a
BASE DATA
time 1452
date 7/11
e192v1we.a
Depth (ft)
Counts
0
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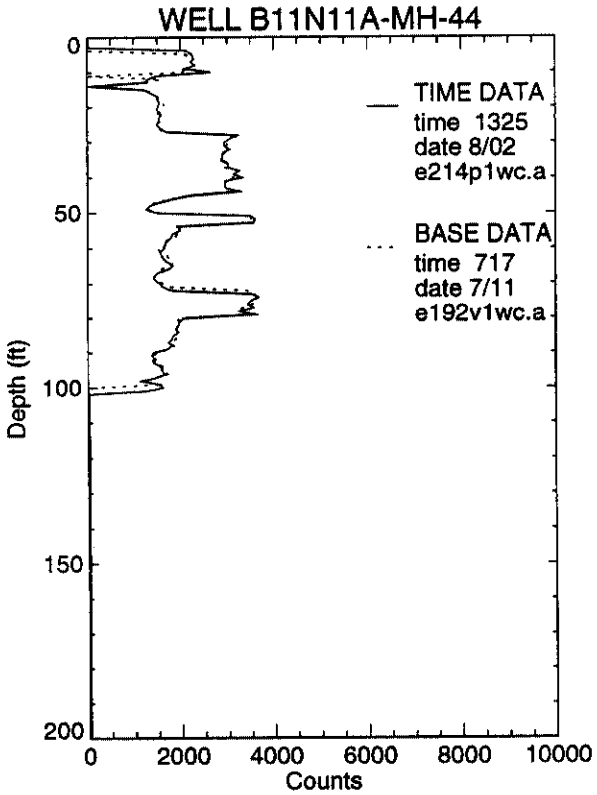
100
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1325
date 8/02
e214p1wc.a
BASE DATA
time 717
date 7/11
e192v1wc.a
Depth (ft)
Counts
0
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150
200
0
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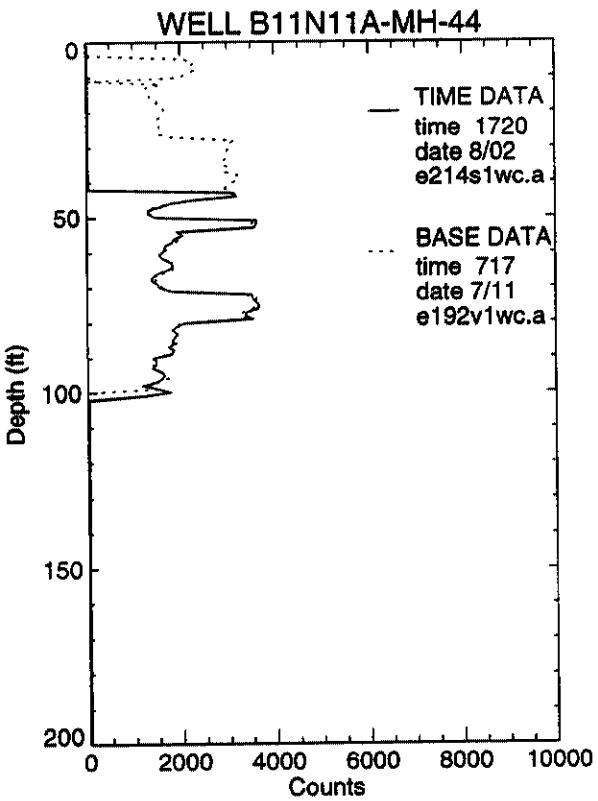
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1720
date 8/02
e214s1wc.a
BASE DATA
time 717
date 7/11
e192v1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
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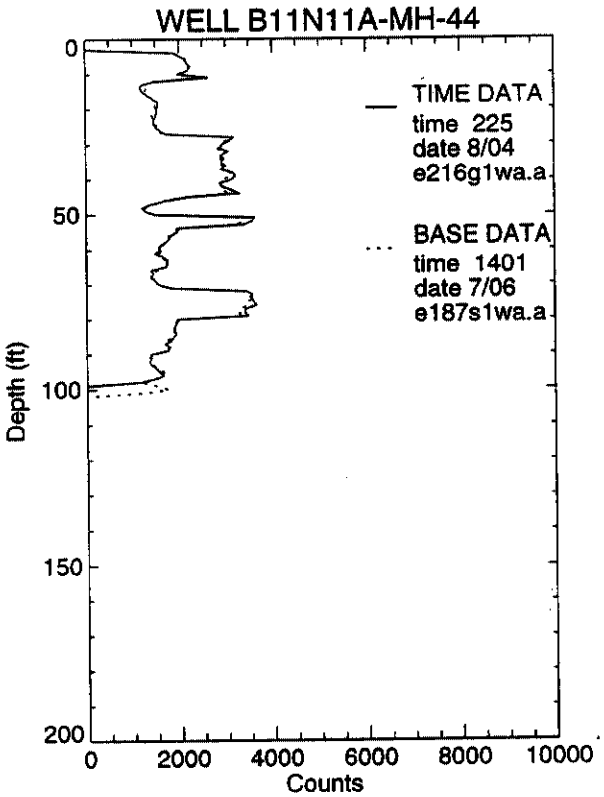
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 225
date 8/04
e216g1wa.a
BASE DATA
time 1401
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
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150
200
0
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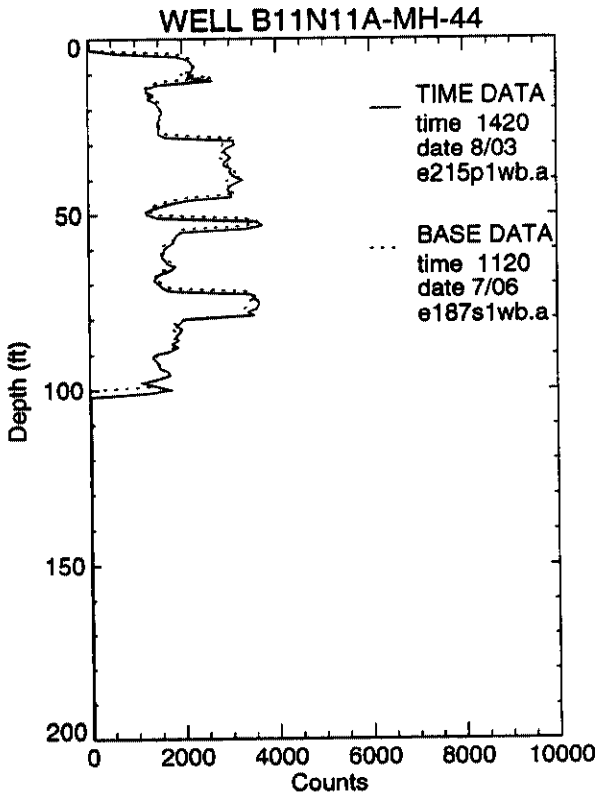
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1420
date 8/03
e215p1wb.a
BASE DATA
time 1120
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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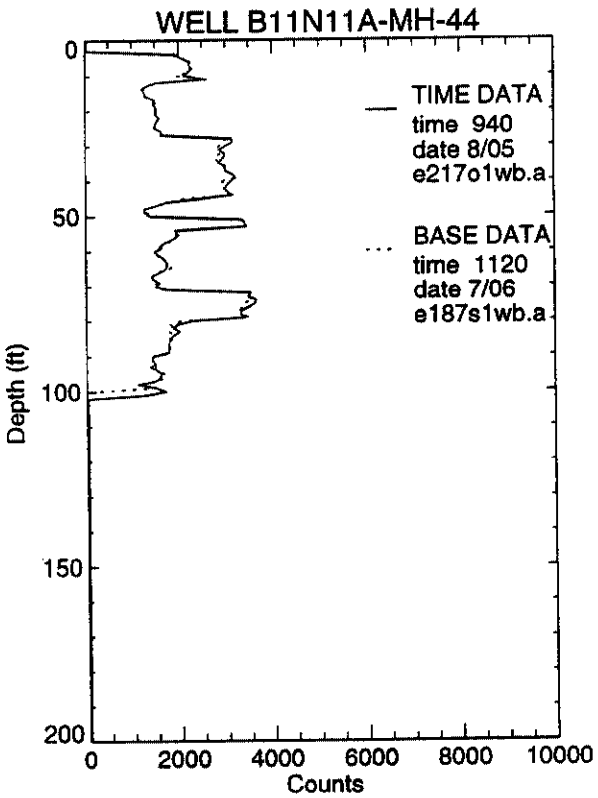
100
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 940
date 8/05
e217o1wb.a
BASE DATA
time 1120
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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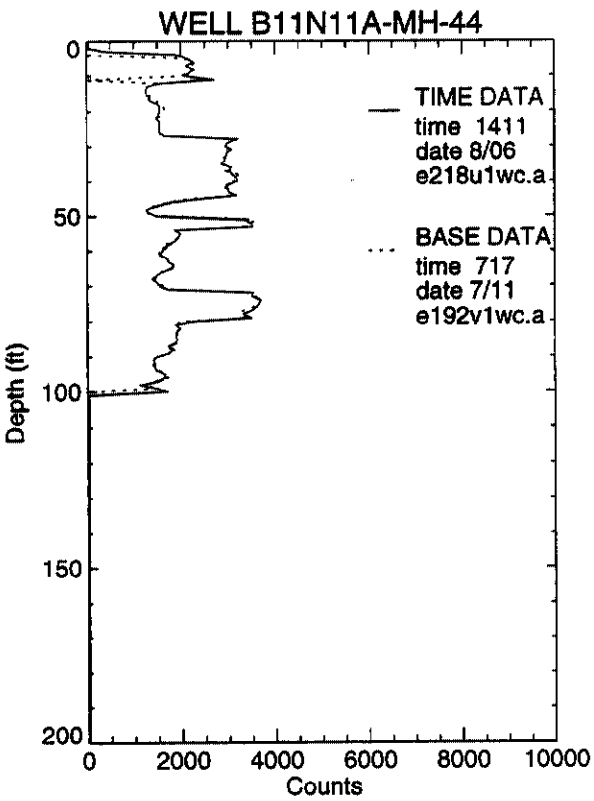
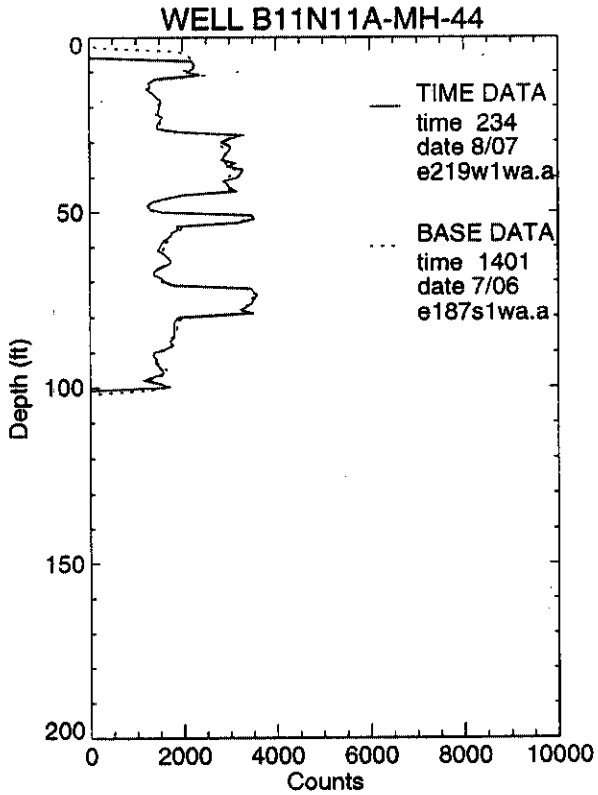
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1411
date 8/06
e218u1wc.a
BASE DATA
time 717
date 7/11
e192v1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 234
date 8/07
e219w1wa.a
BASE DATA
time 1401
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
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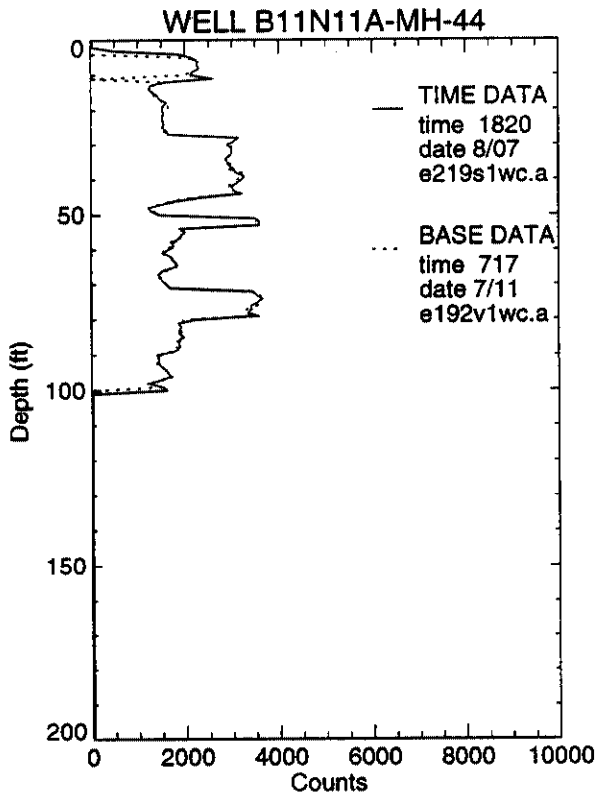
100
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1820
date 8/07
e219s1wc.a
BASE DATA
time 717
date 7/11
e192v1wc.a
Depth (ft)
Counts
0
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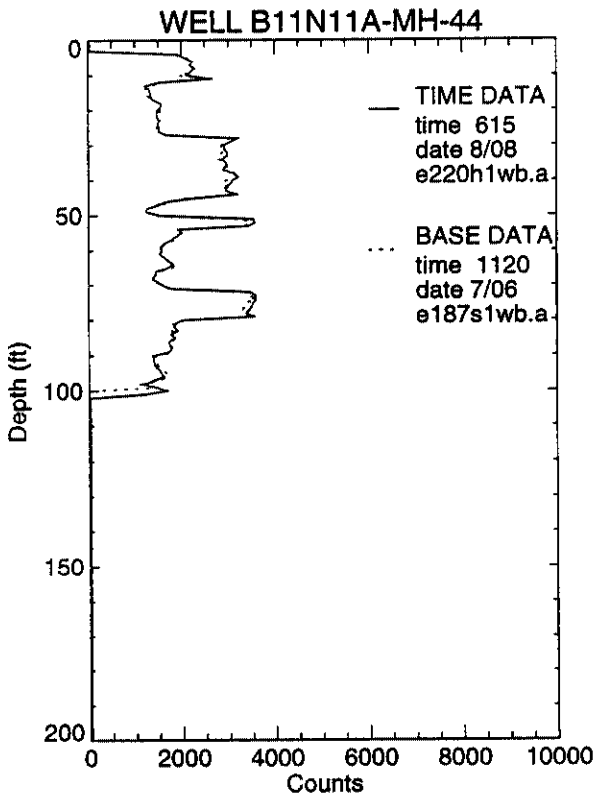
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 615
date 8/08
e220h1wb.a
BASE DATA
time 1120
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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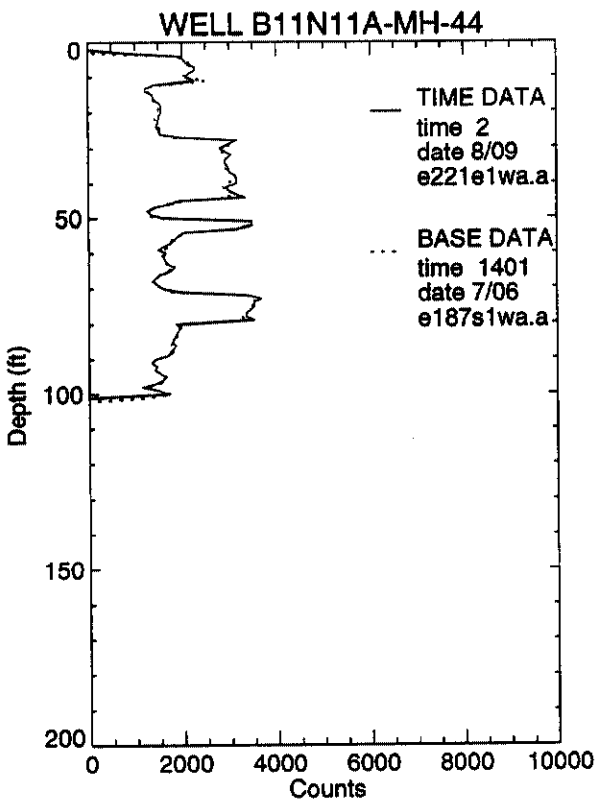
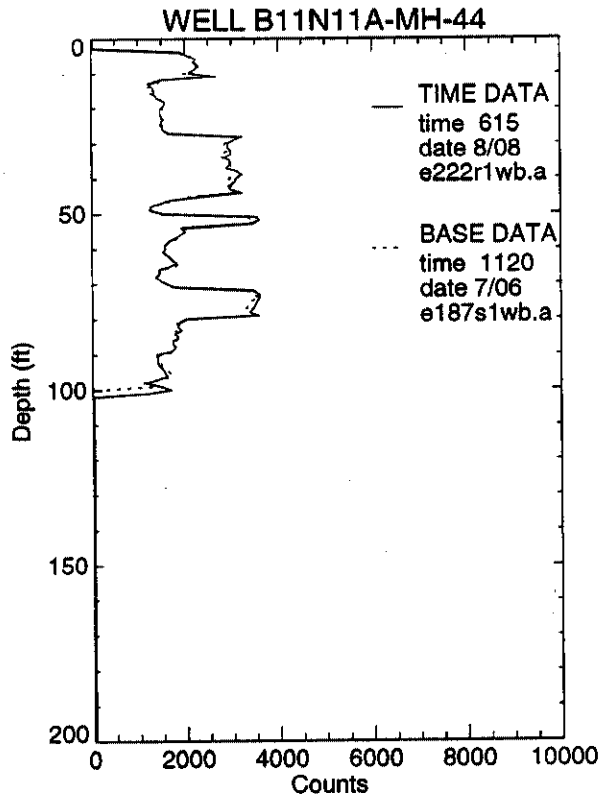
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 2
date 8/09
e221e1wa.a
BASE DATA
time 1401
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 615
date 8/08
e222r1wb.a
BASE DATA
time 1120
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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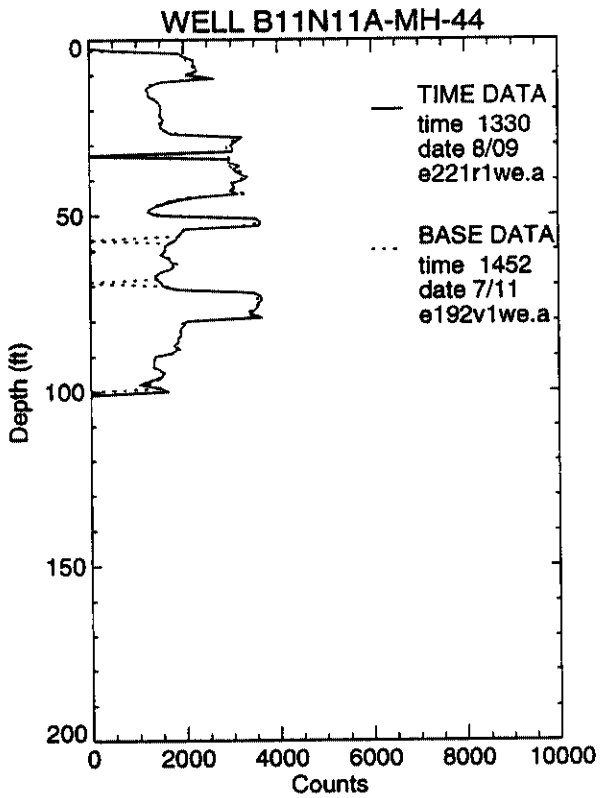
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1330
date 8/09
e221r1we.a
BASE DATA
time 1452
date 7/11
e192v1we.a
Depth (ft)
Counts
0
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150
200
0
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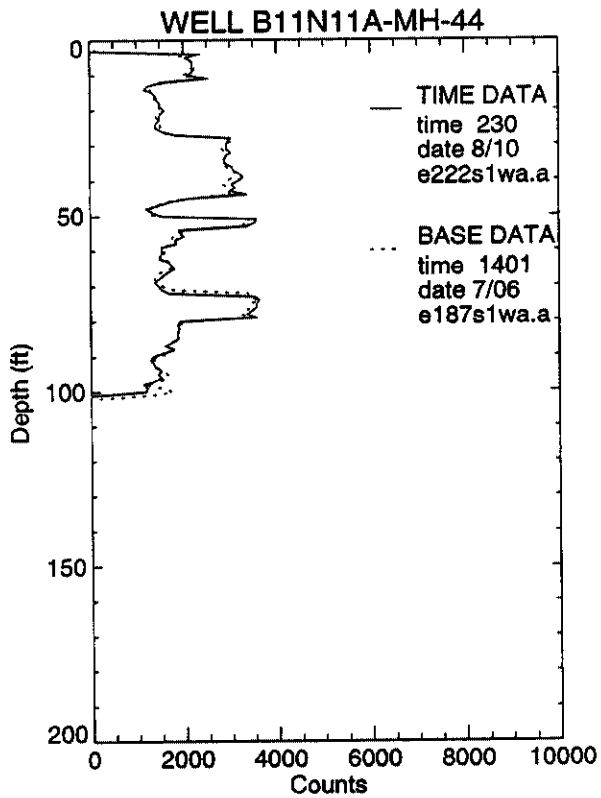
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 230
date 8/10
e222s1wa.a
BASE DATA
time 1401
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
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0
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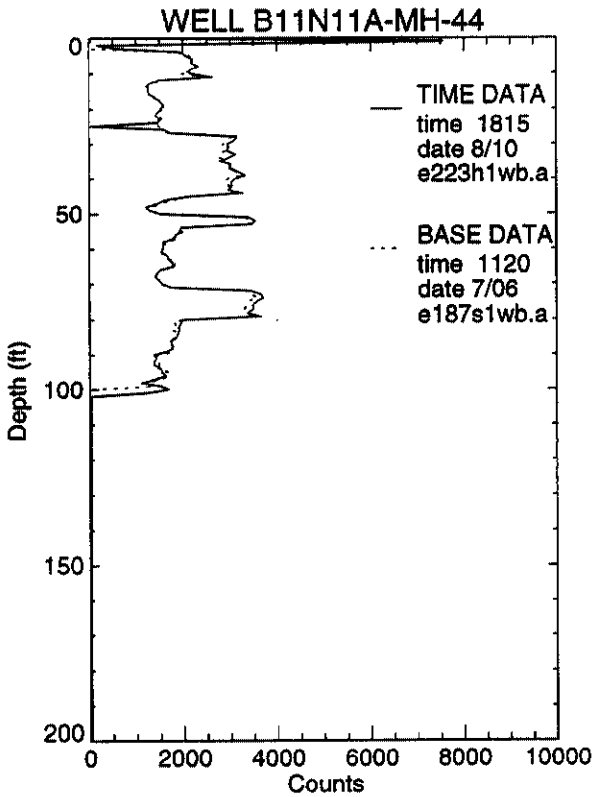
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1815
date 8/10
e223h1wb.a
BASE DATA
time 1120
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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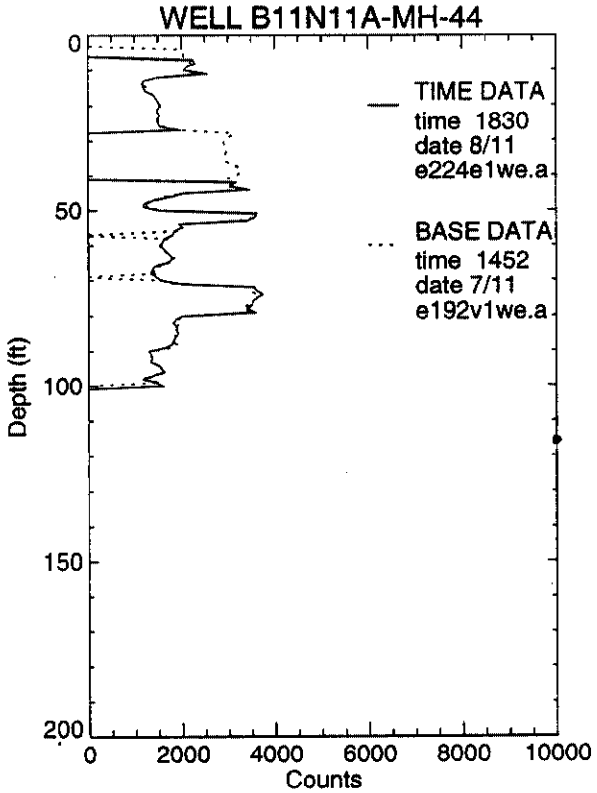
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1830
date 8/11
e224e1we.a
BASE DATA
time 1452
date 7/11
e192v1we.a
Depth (ft)
Counts
0
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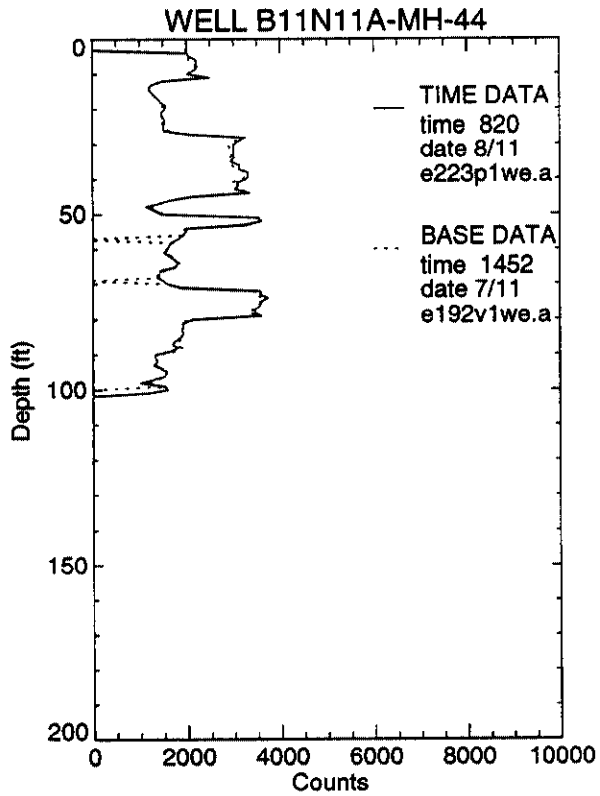
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 820
date 8/11
e223p1we.a
BASE DATA
time 1452
date 7/11
e192v1we.a
Depth (ft)
Counts
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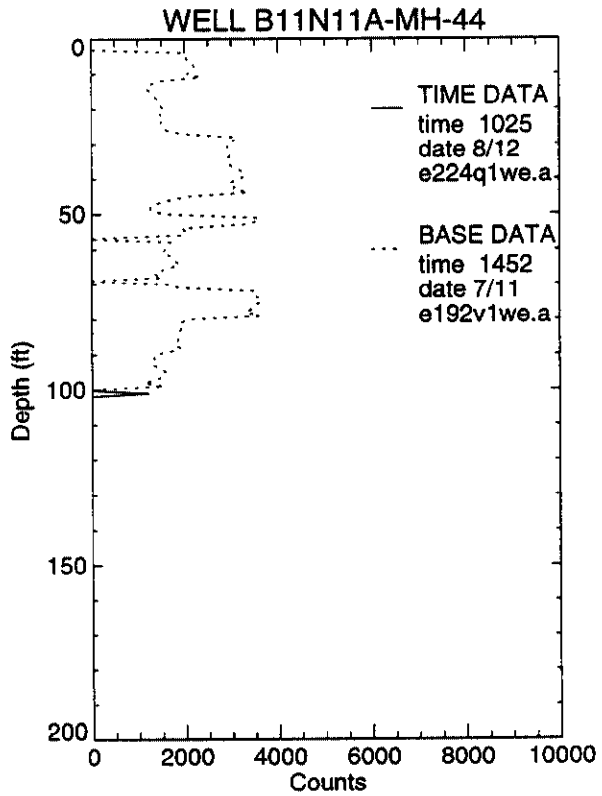
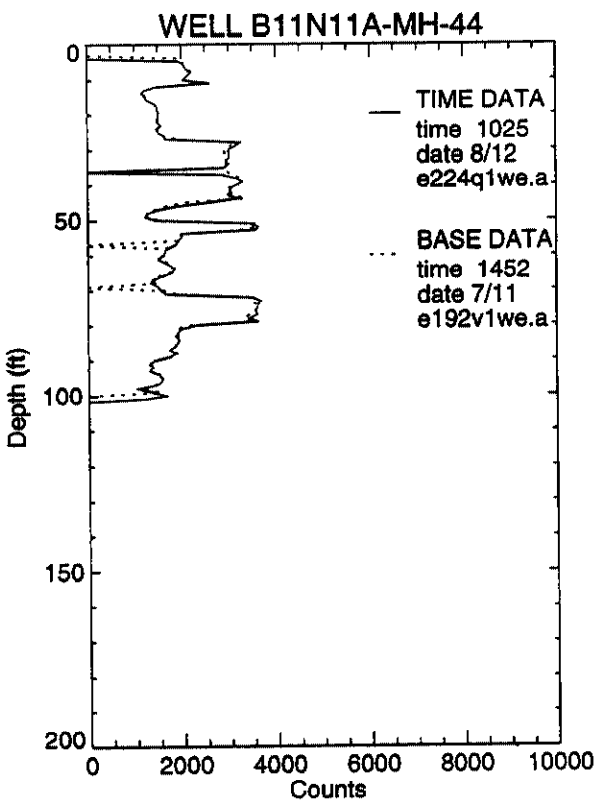
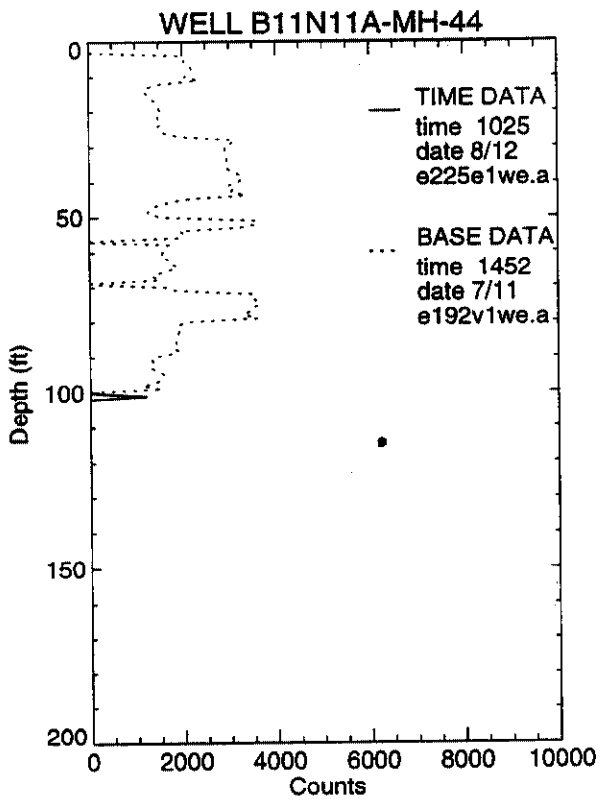
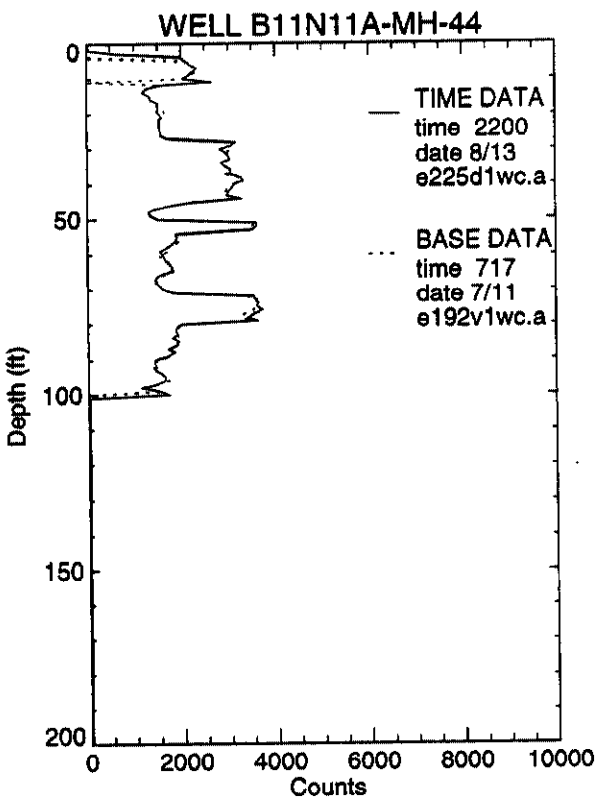
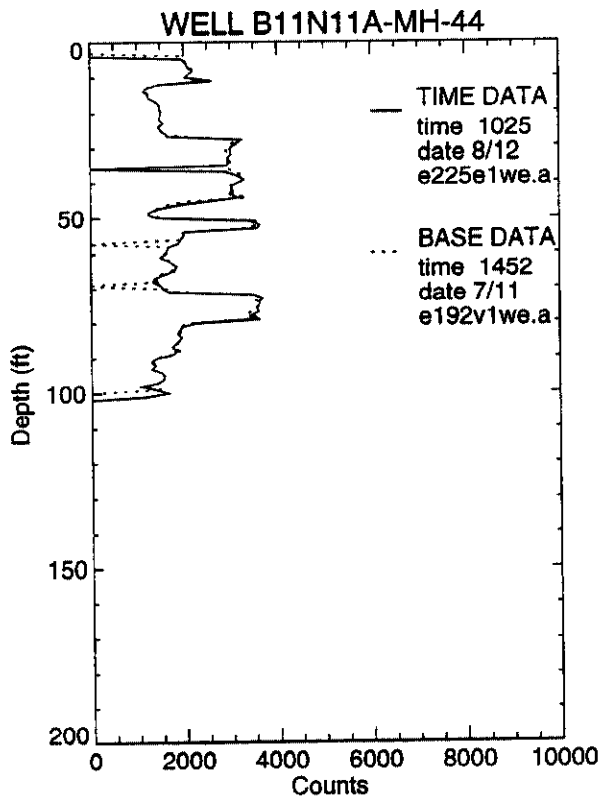
0
2000
4000
6000
8000
10000

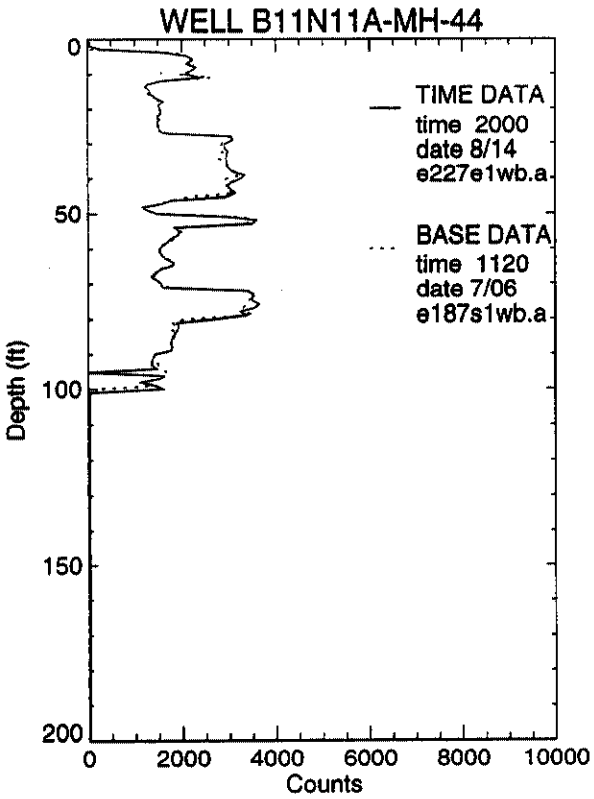

WELL B11N11A-MH-44
TIME DATA
time 1025
date 8/12
e224q1we.a
BASE DATA
time 1452
date 7/11
e192v1we.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

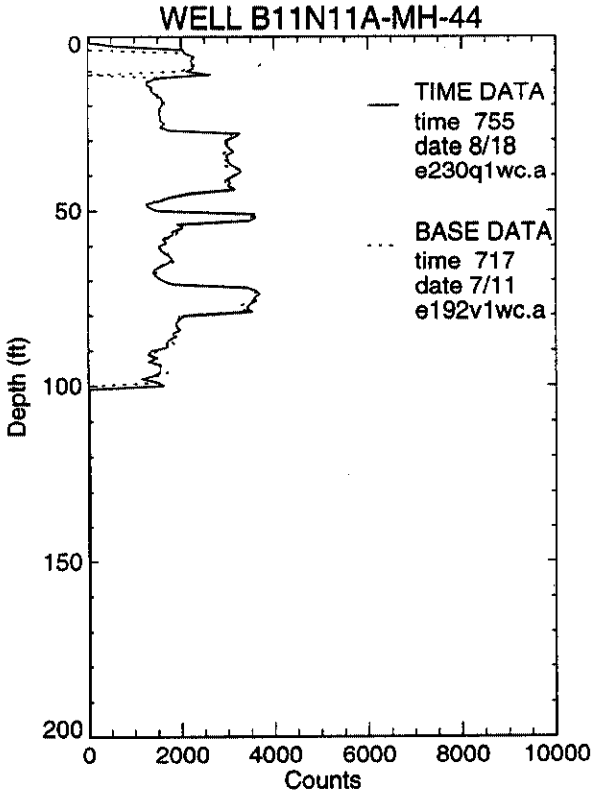

WELL B11N11A-MH-44
TIME DATA
time 1025
date 8/12
e224q1we.a
BASE DATA
time 1452
date 7/11
e192v1we.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

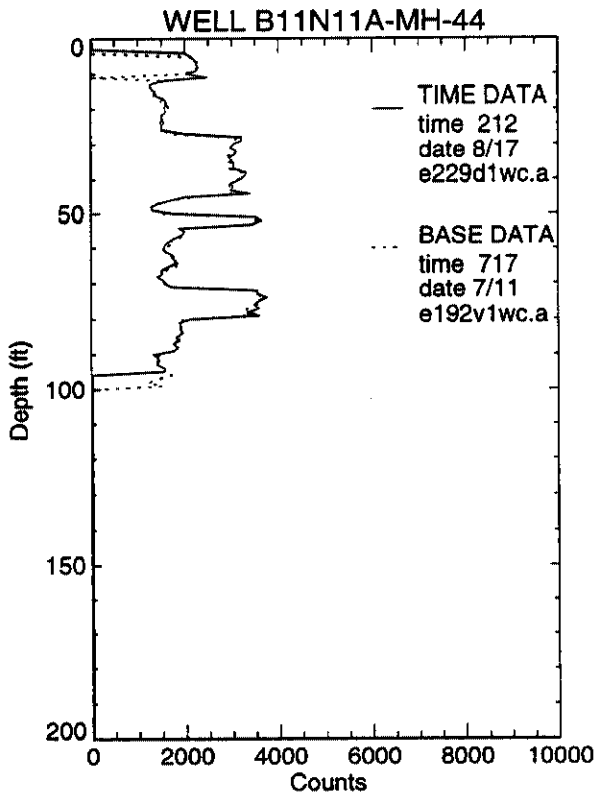

WELL B11N11A-MH-44
TIME DATA
time 1025
date 8/12
e225e1we.a
BASE DATA
time 1452
date 7/11
e192v1we.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

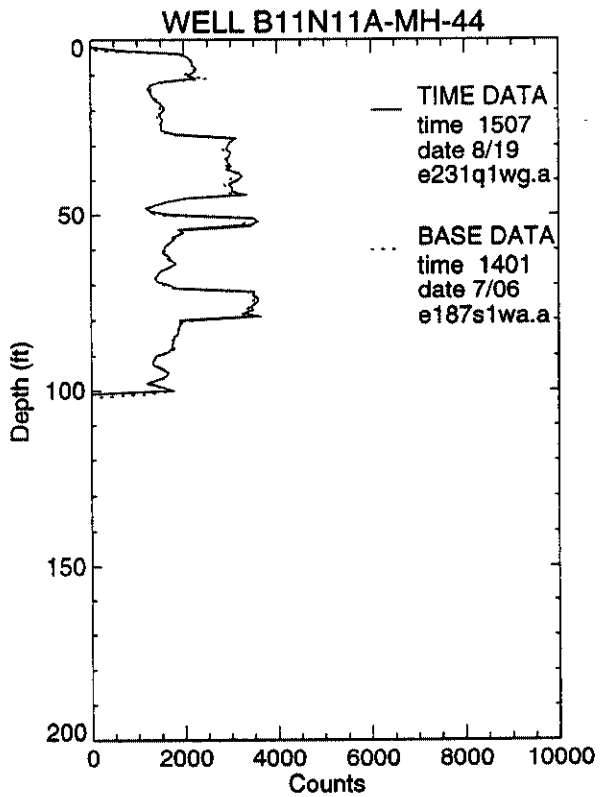

WELL B11N11A-MH-44
TIME DATA
time 2200
date 8/13
e225d1wc.a
BASE DATA
time 717
date 7/11
e192v1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

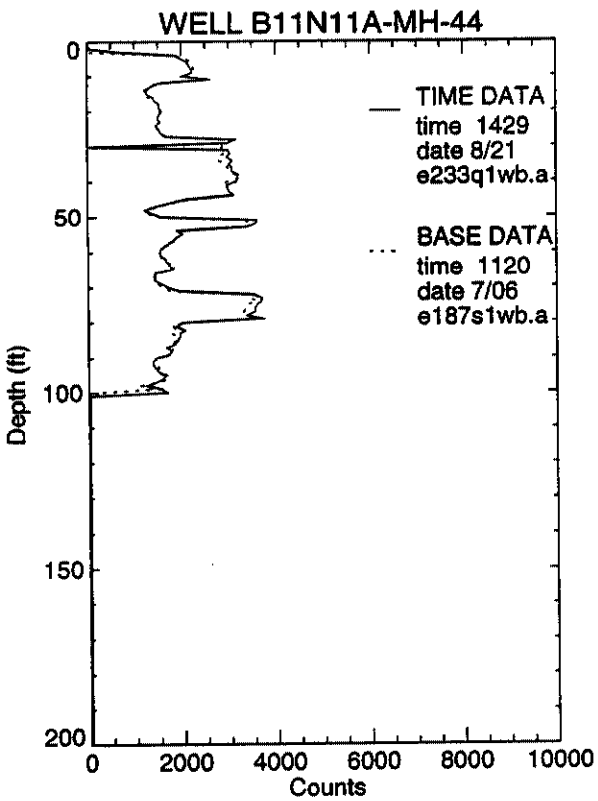

WELL B11N11A-MH-44
TIME DATA
time 1025
date 8/12
e225e1we.a
BASE DATA
time 1452
date 7/11
e192v1we.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

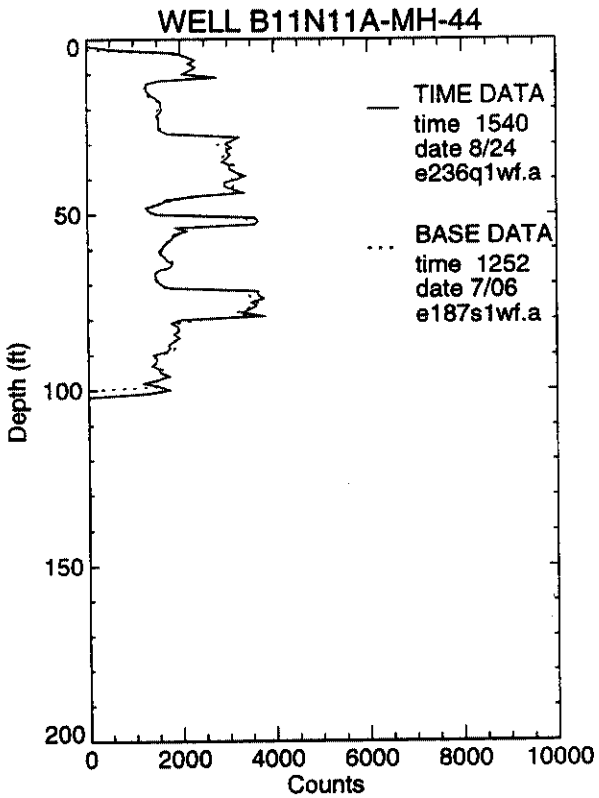

WELL B11N11A-MH-44
TIME DATA
time 2000
date 8/14
e227e1wb.a
BASE DATA
time 1120
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

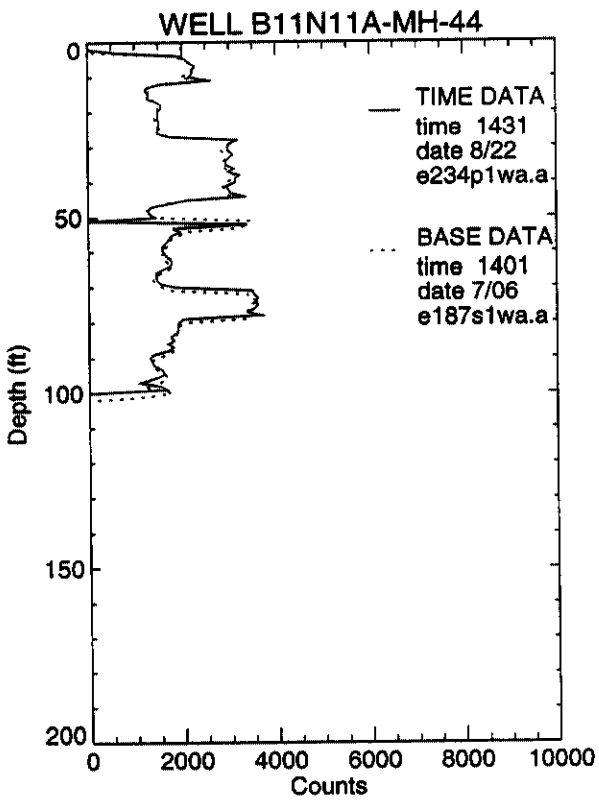

WELL B11N11A-MH-44
TIME DATA
time 755
date 8/18
e230q1wc.a
BASE DATA
time 717
date 7/11
e192v1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

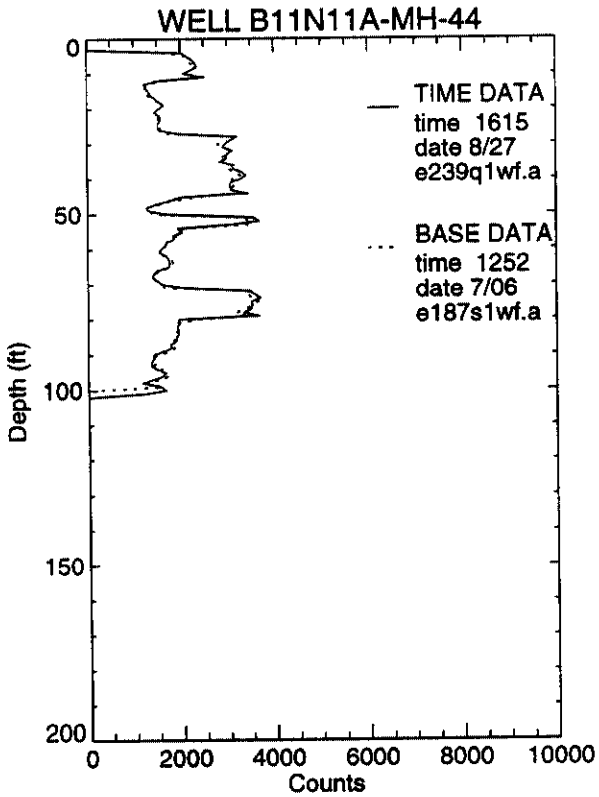

WELL B11N11A-MH-44
TIME DATA
time 212
date 8/17
e229d1wc.a
BASE DATA
time 717
date 7/11
e192v1wc.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1507
date 8/19
e231q1wg.a
BASE DATA
time 1401
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1429
date 8/21
e233q1wb.a
BASE DATA
time 1120
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1540
date 8/24
e236q1wf.a
BASE DATA
time 1252
date 7/06
e187s1wf.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1431
date 8/22
e234p1wa.a
BASE DATA
time 1401
date 7/06
e187s1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1615
date 8/27
e239q1wf.a
BASE DATA
time 1252
date 7/06
e187s1wf.a
Depth (ft)
Counts
0
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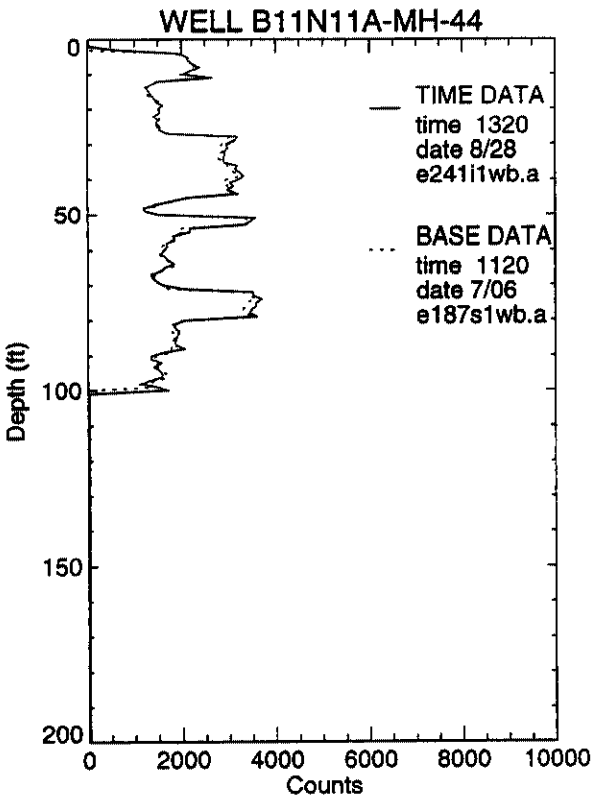
100
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1320
date 8/28
e241i1wb.a
BASE DATA
time 1120
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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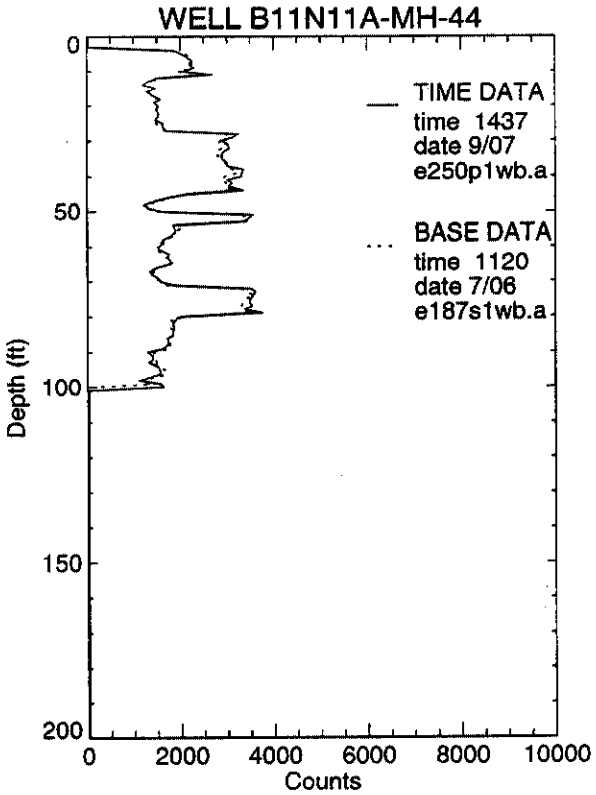
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1437
date 9/07
e250p1wb.a
BASE DATA
time 1120
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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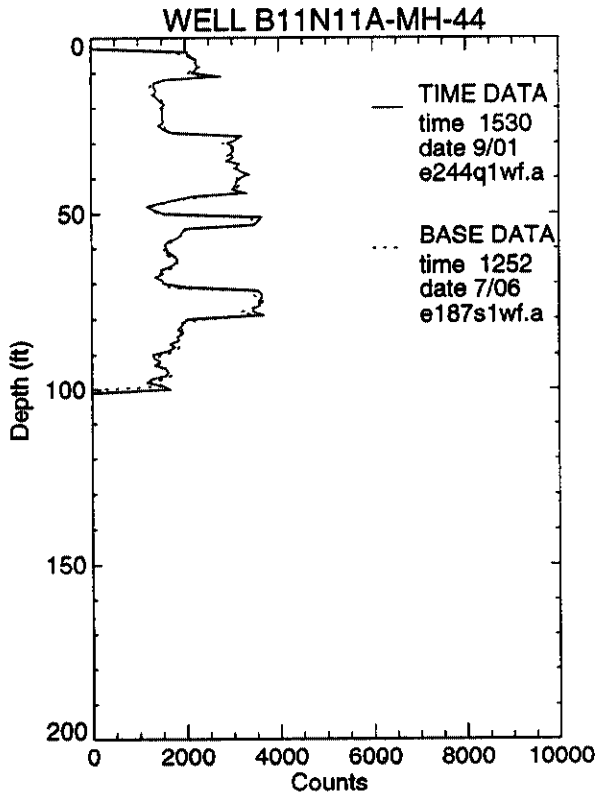
150
200
0
2000
4000
6000
8000
10000


WELL B11N11A-MH-44
TIME DATA
time 1530
date 9/01
e244q1wf.a
BASE DATA
time 1252
date 7/06
e187s1wf.a
Depth (ft)
Counts
0
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150
200
0
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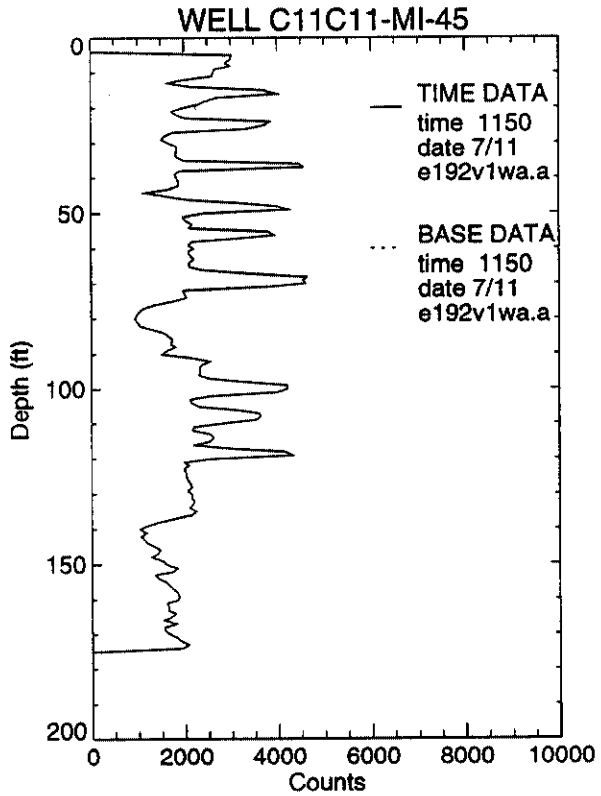
4000
6000
8000
10000


WELL C11C11-MI-45
TIME DATA
time 1150
date 7/11
e192v1wa.a
BASE DATA
time 1150
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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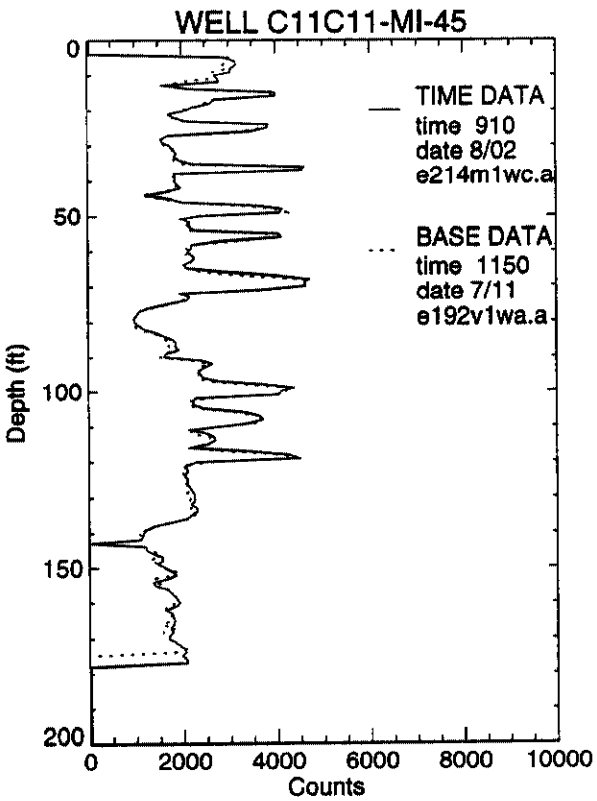
100
150
200
0
2000
4000
6000
8000
10000


WELL C11C11-MI-45
TIME DATA
time 910
date 8/02
e214m1wc.a
BASE DATA
time 1150
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
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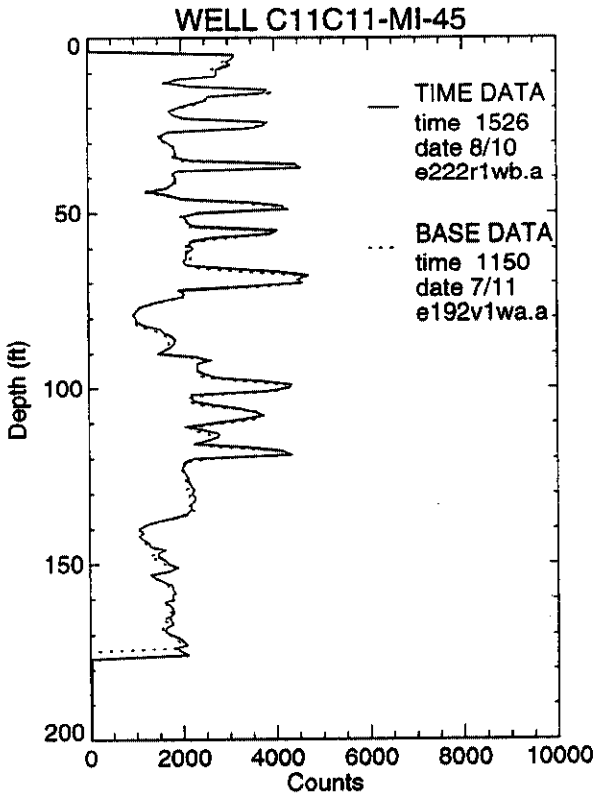
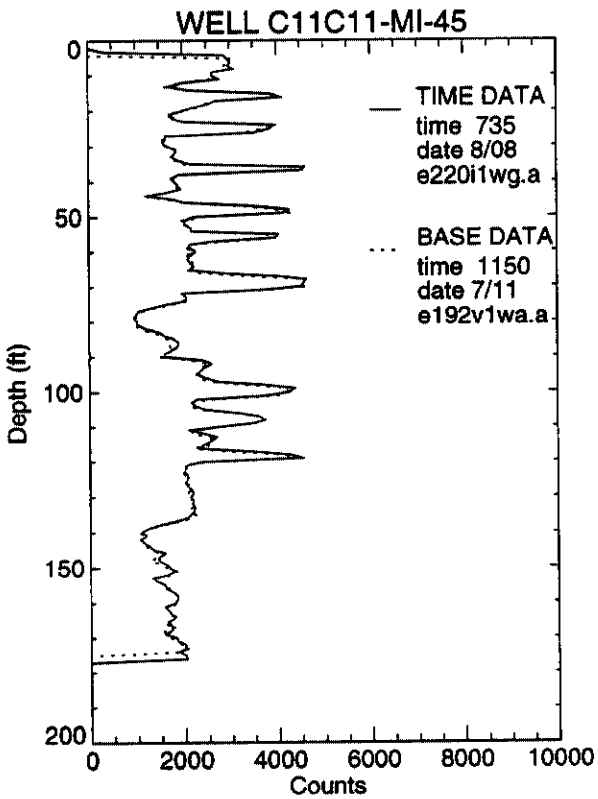
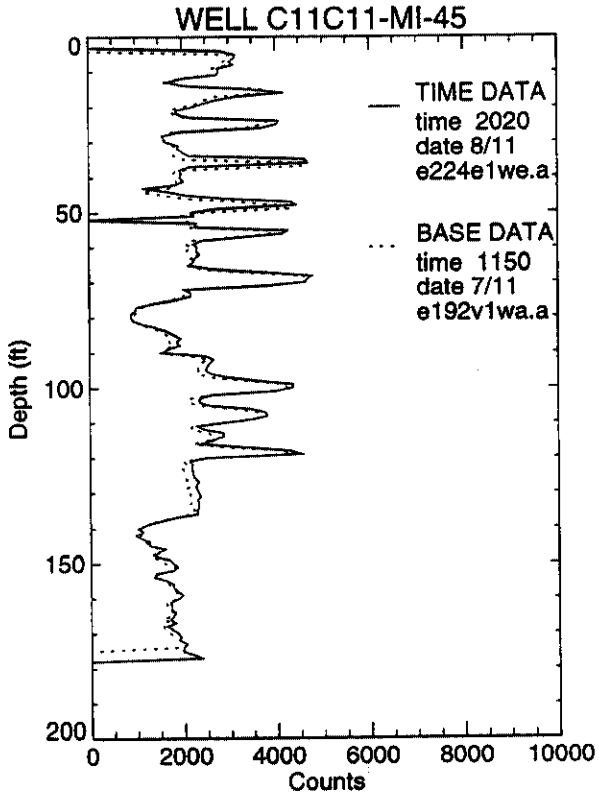
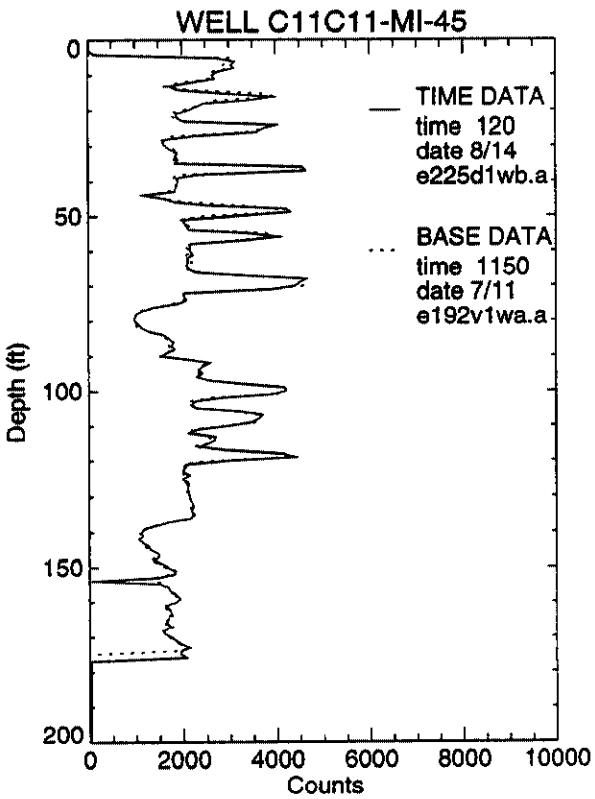
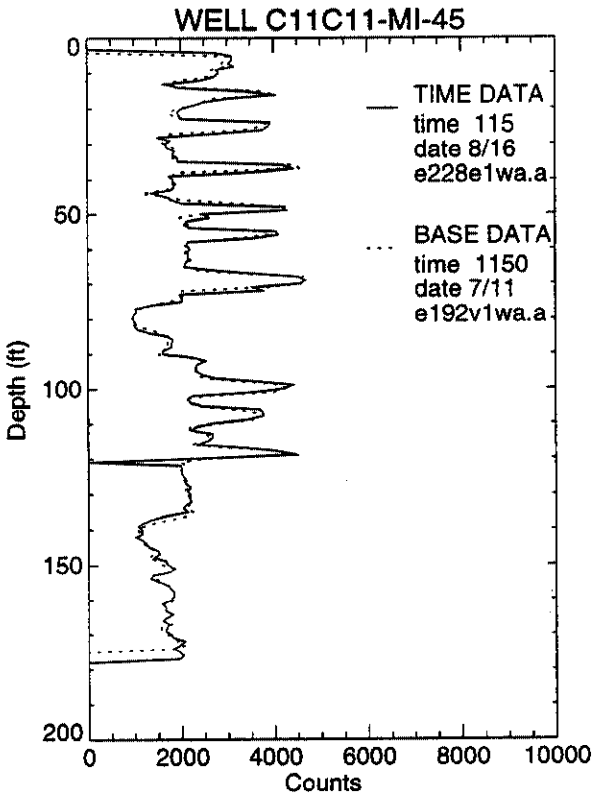
4000
6000
8000
10000


WELL C11C11-MI-45
TIME DATA
time 1526
date 8/10
e222r1wb.a
BASE DATA
time 1150
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL C11C11-MI-45
TIME DATA
time 735
date 8/08
e220i1wg.a
BASE DATA
time 1150
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL C11C11-MI-45
TIME DATA
time 2020
date 8/11
e224e1we.a
BASE DATA
time 1150
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL C11C11-MI-45
TIME DATA
time 120
date 8/14
e225d1wb.a
BASE DATA
time 1150
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL C11C11-MI-45
TIME DATA
time 115
date 8/16
e228e1wa.a
BASE DATA
time 1150
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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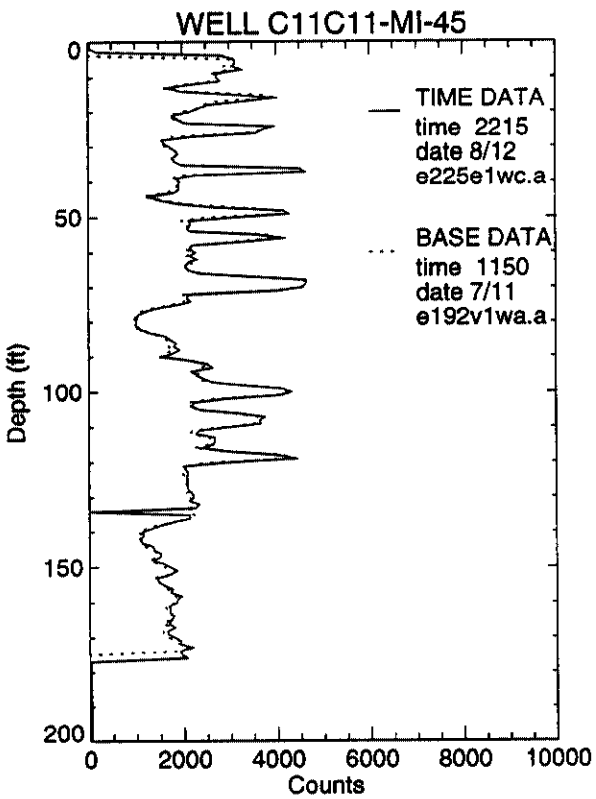
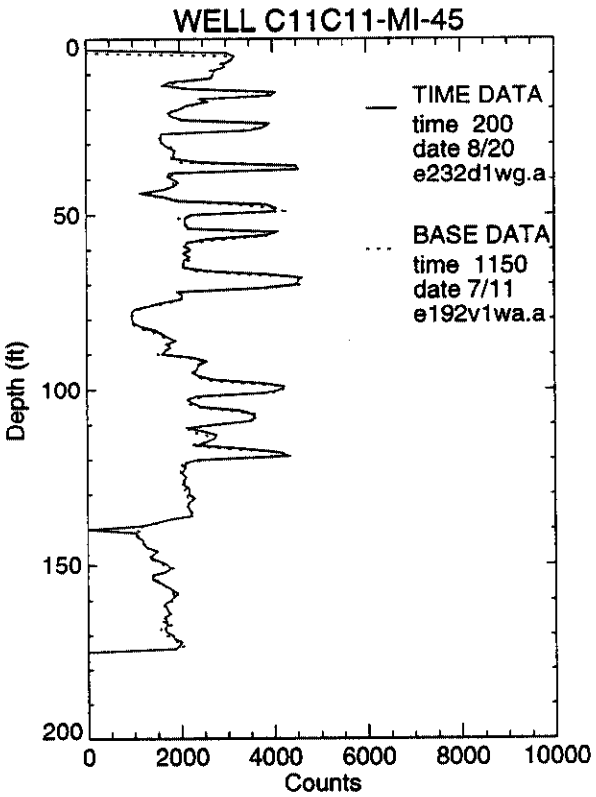
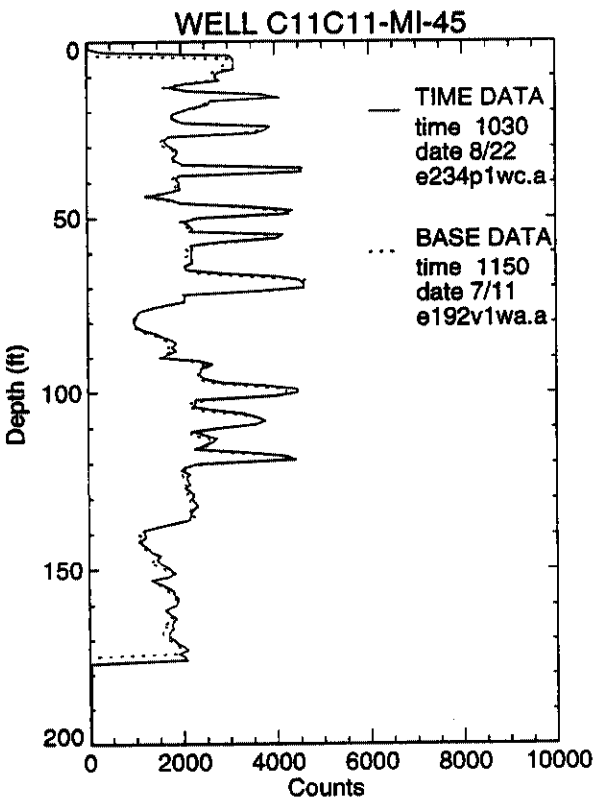
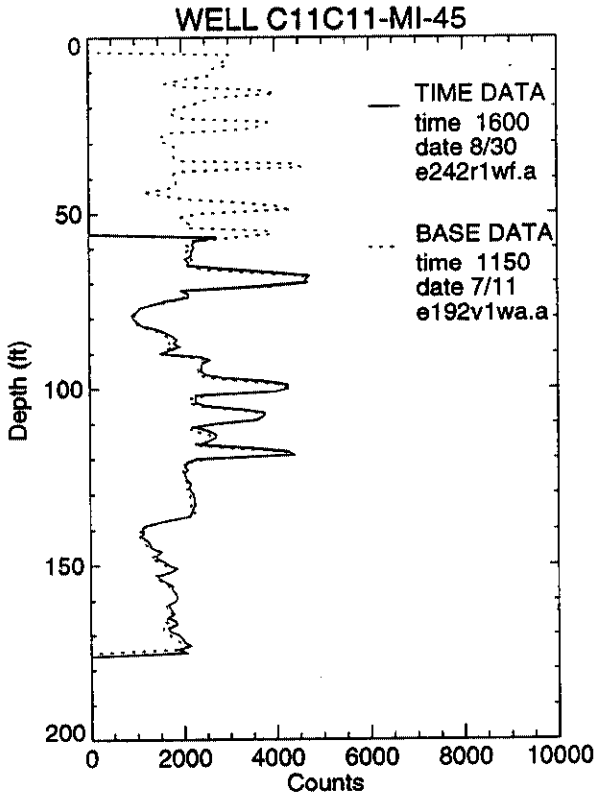
100
150
200
0
2000
4000
6000
8000
10000


WELL C11C11-MI-45
TIME DATA
time 2215
date 8/12
e225e1wc.a
BASE DATA
time 1150
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL C11C11-MI-45
TIME DATA
time 200
date 8/20
e232d1wg.a
BASE DATA
time 1150
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL C11C11-MI-45
TIME DATA
time 1030
date 8/22
e234p1wc.a
BASE DATA
time 1150
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL C11C11-MI-45
TIME DATA
time 1600
date 8/30
e242r1wf.a
BASE DATA
time 1150
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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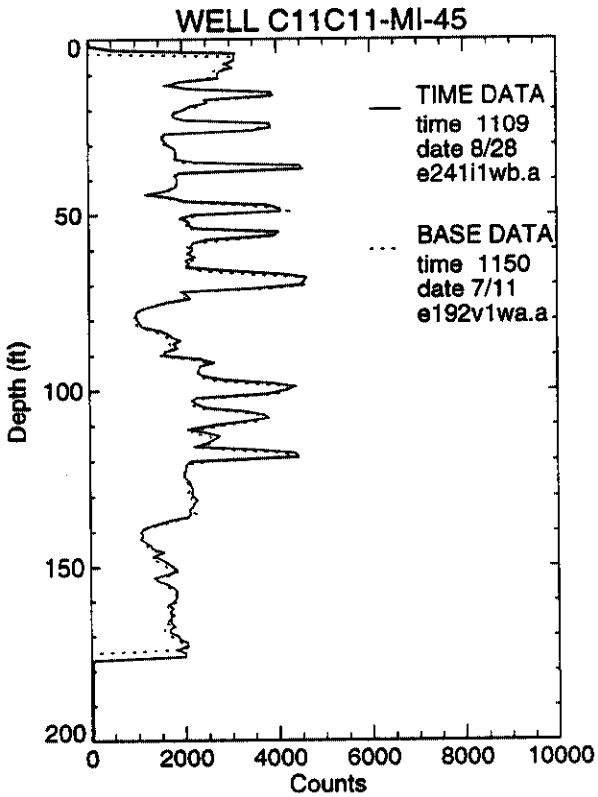
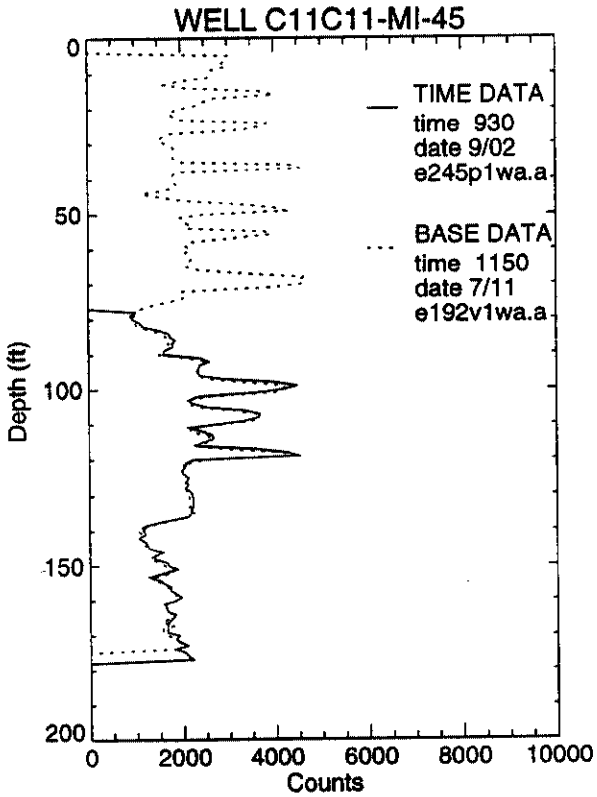
100
150
200
0
2000
4000
6000
8000
10000


WELL C11C11-MI-45
TIME DATA
time 1109
date 8/28
e241i1wb.a
BASE DATA
time 1150
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL C11C11-MI-45
TIME DATA
time 930
date 9/02
e245p1wa.a
BASE DATA
time 1150
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
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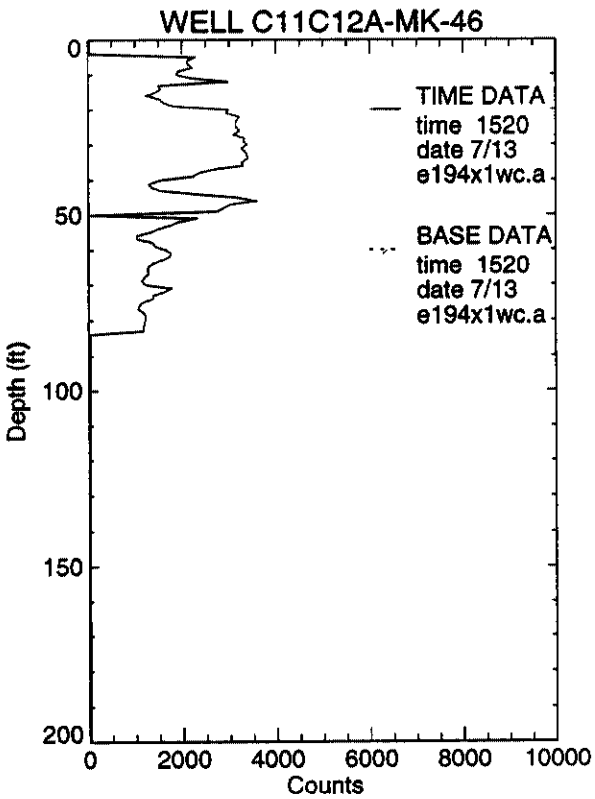
WELL C11C12A-MK-46
TIME DATA
time 1520
date 7/13
e194x1wc.a
BASE DATA
time 1520
date 7/13
e194x1wc.a
Depth (ft)
Counts
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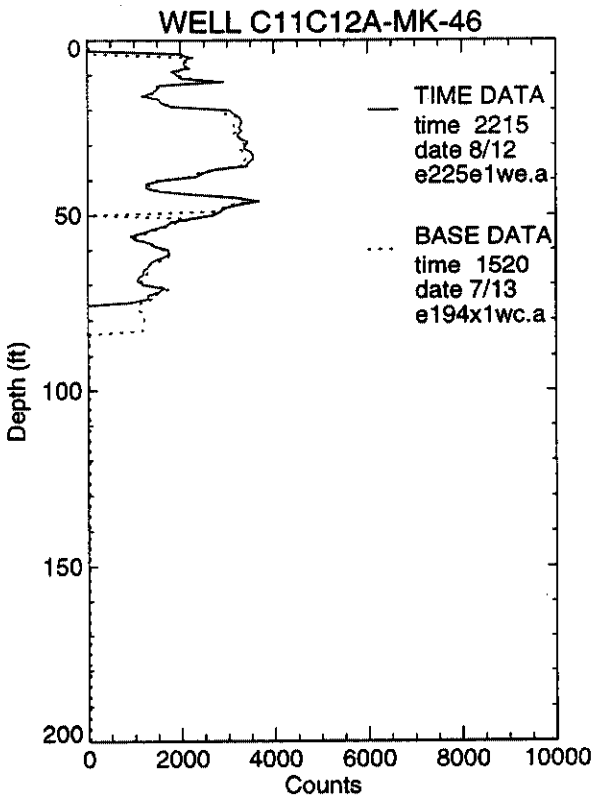
WELL C11C12A-MK-46
TIME DATA
time 2215
date 8/12
e225e1we.a
BASE DATA
time 1520
date 7/13
e194x1wc.a
Depth (ft)
Counts
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200
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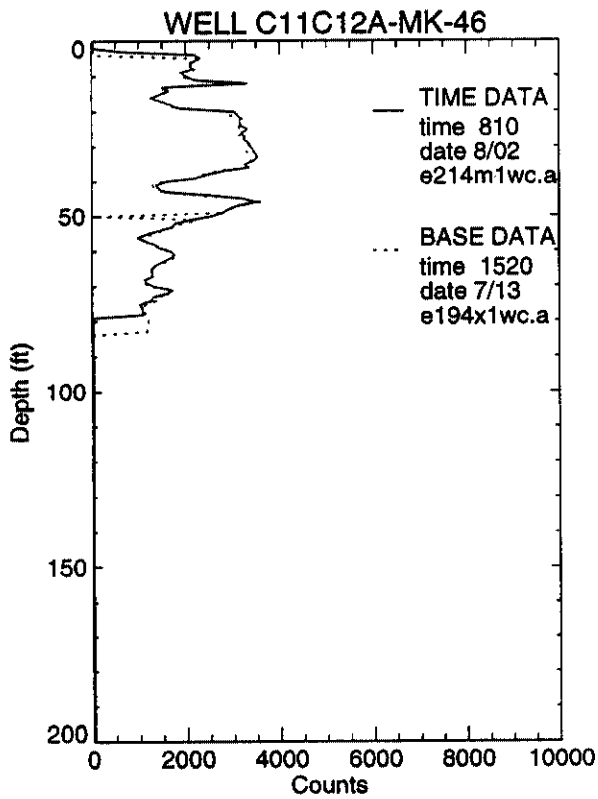
WELL C11C12A-MK-46
TIME DATA
time 810
date 8/02
e214m1wc.a
BASE DATA
time 1520
date 7/13
e194x1wc.a
Depth (ft)
Counts
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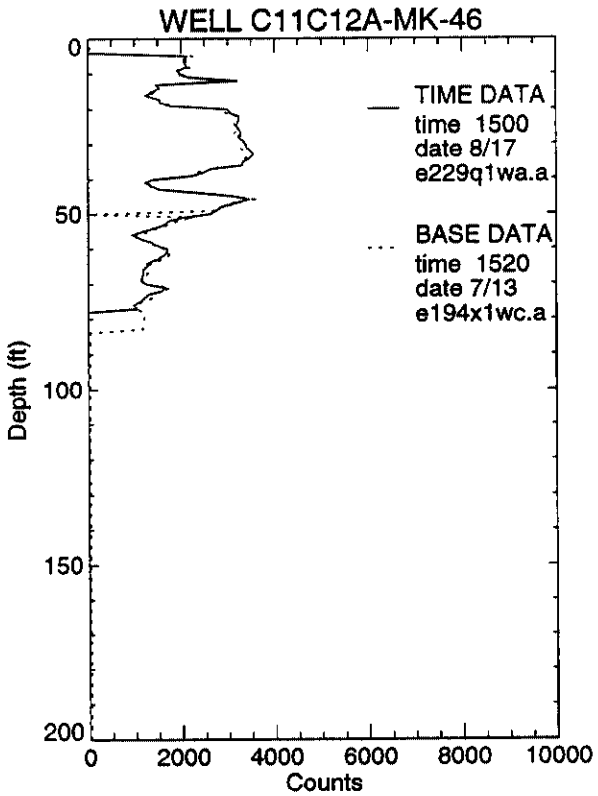
8000
10000


WELL C11C12A-MK-46
TIME DATA
time 1500
date 8/17
e229q1wa.a
BASE DATA
time 1520
date 7/13
e194x1wc.a
Depth (ft)
Counts
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150
200
0
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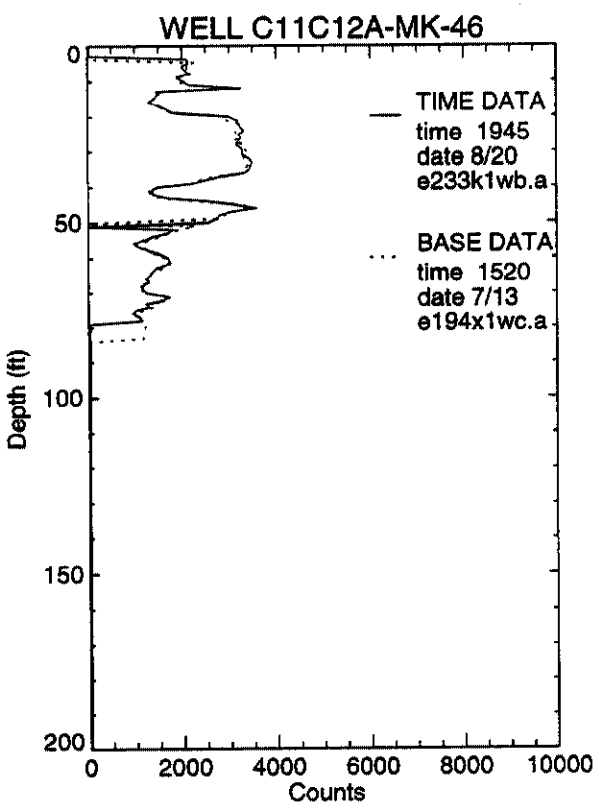
4000
6000
8000
10000


WELL C11C12A-MK-46
TIME DATA
time 1945
date 8/20
e233k1wb.a
BASE DATA
time 1520
date 7/13
e194x1wc.a
Depth (ft)
Counts
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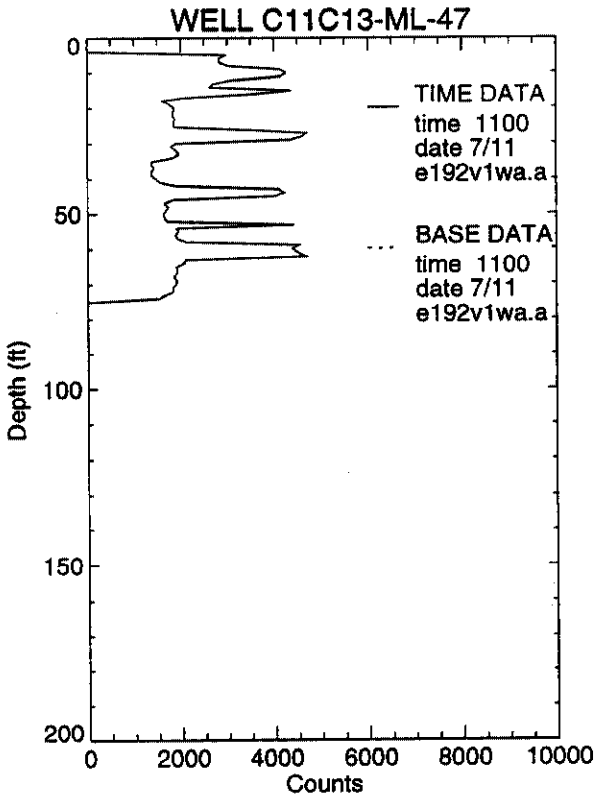
8000
10000


WELL C11C13-ML-47
TIME DATA
time 1100
date 7/11
e192v1wa.a
BASE DATA
time 1100
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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0
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8000
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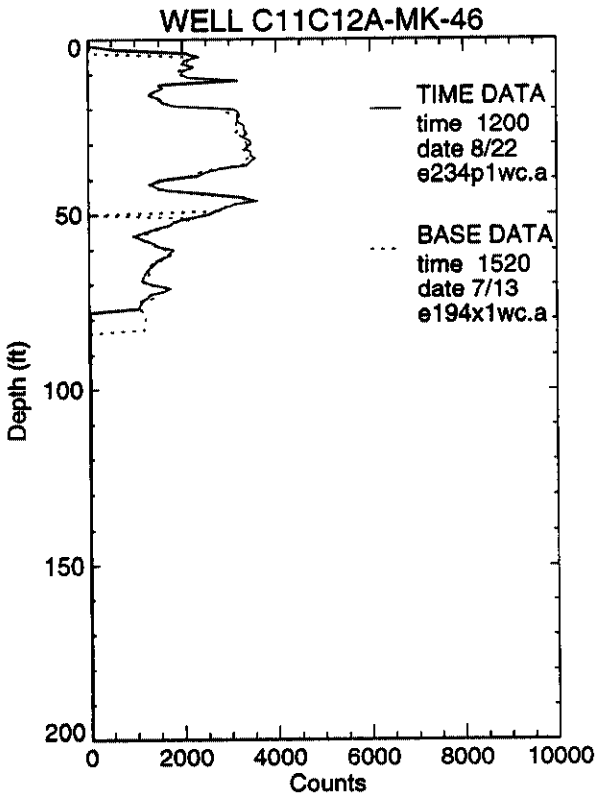
WELL C11C12A-MK-46
TIME DATA
time 1200
date 8/22
e234p1wc.a
BASE DATA
time 1520
date 7/13
e194x1wc.a
Depth (ft)
Counts
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8000
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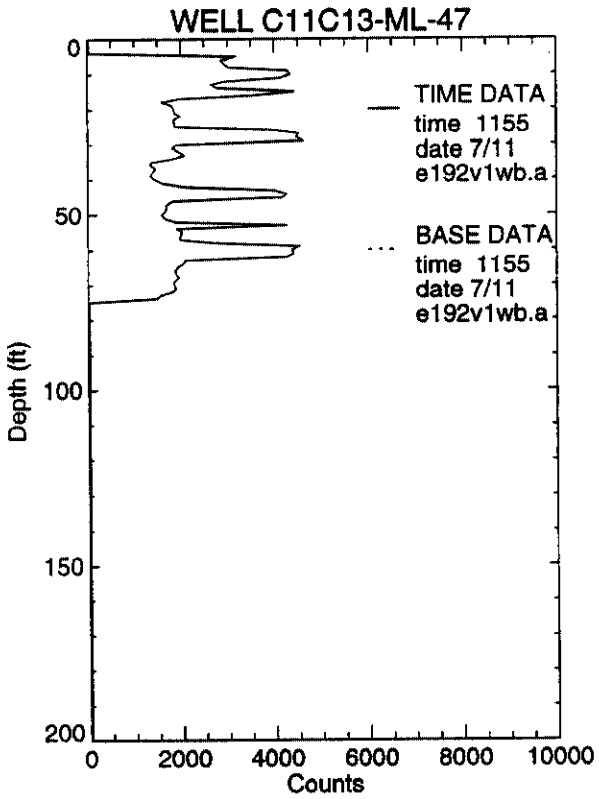
WELL C11C13-ML-47
TIME DATA
time 1155
date 7/11
e192v1wb.a
BASE DATA
time 1155
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
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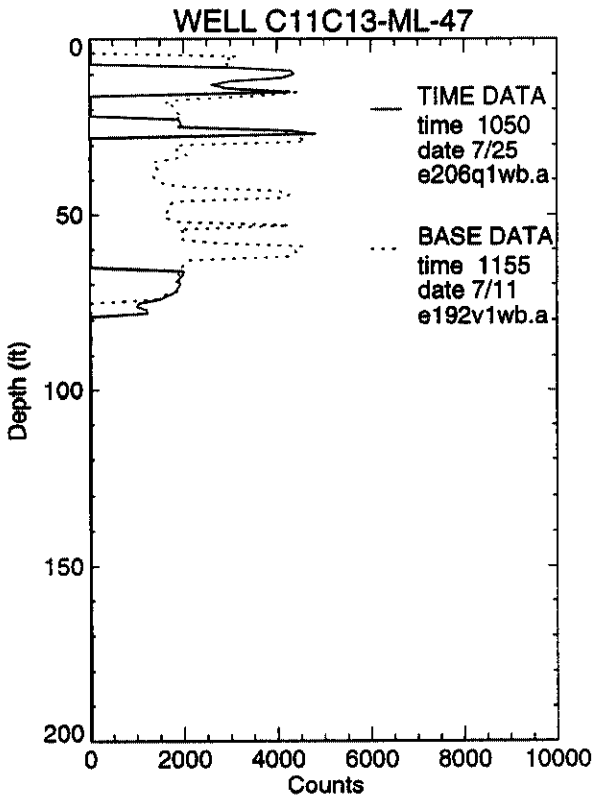
4000
6000
8000
10000


WELL C11C13-ML-47
TIME DATA
time 1050
date 7/25
e206q1wb.a
BASE DATA
time 1155
date 7/11
e192v1wb.a
Depth (ft)
Counts
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150
200
0
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4000
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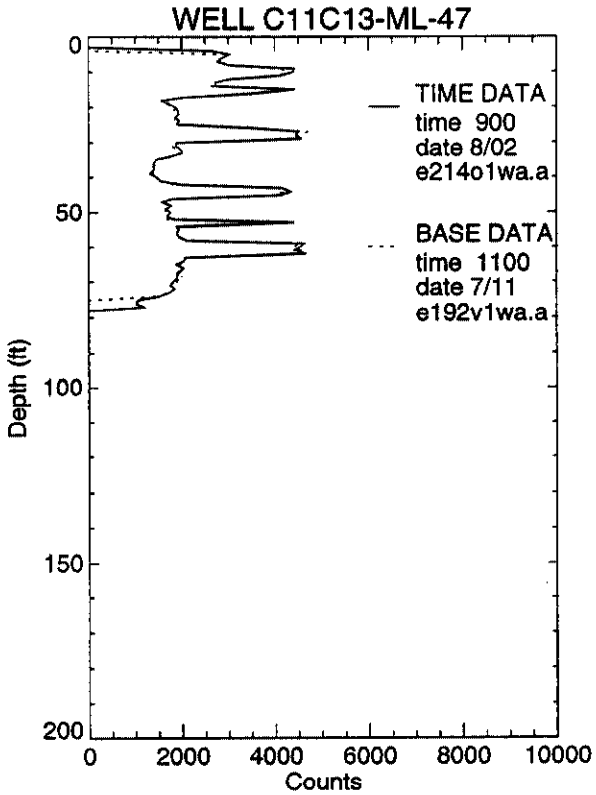
8000
10000


WELL C11C13-ML-47
TIME DATA
time 900
date 8/02
e214o1wa.a
BASE DATA
time 1100
date 7/11
e192v1wa.a
Depth (ft)
Counts
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150
200
0
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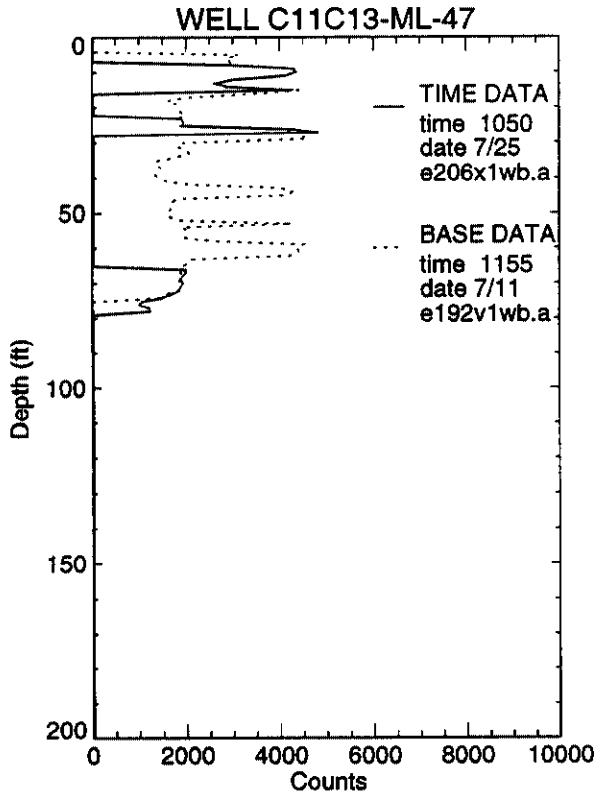
4000
6000
8000
10000


WELL C11C13-ML-47
TIME DATA
time 1050
date 7/25
e206x1wb.a
BASE DATA
time 1155
date 7/11
e192v1wb.a
Depth (ft)
Counts
0
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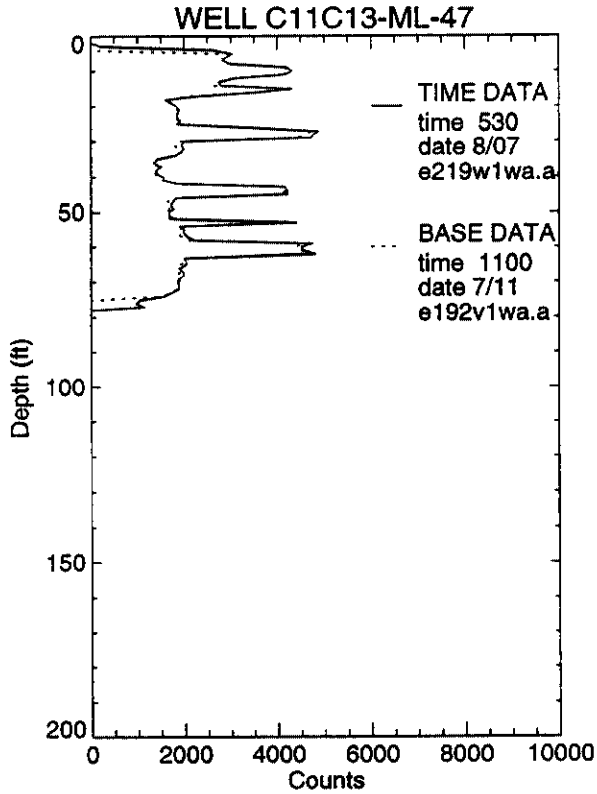
100
150
200
0
2000
4000
6000
8000
10000


WELL C11C13-ML-47
TIME DATA
time 530
date 8/07
e219w1wa.a
BASE DATA
time 1100
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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150
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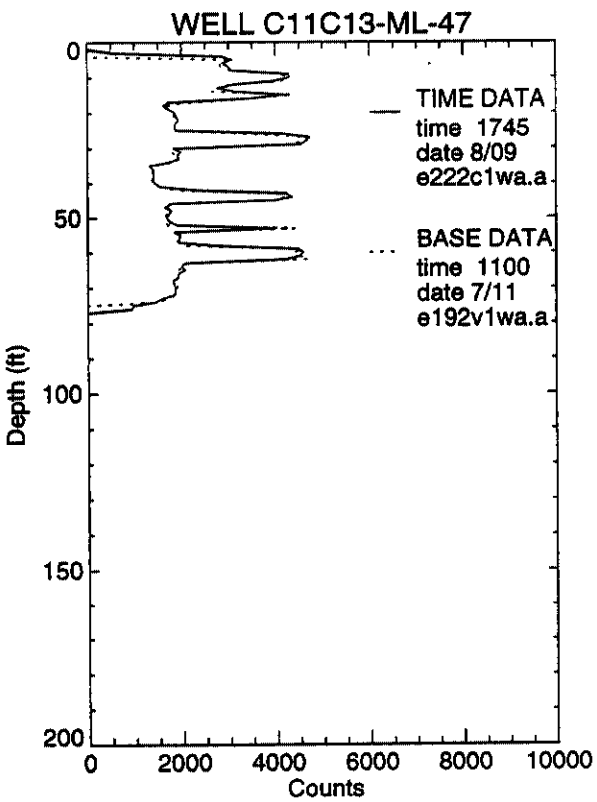
0
2000
4000
6000
8000
10000


WELL C11C13-ML-47
TIME DATA
time 1745
date 8/09
e222c1wa.a
BASE DATA
time 1100
date 7/11
e192v1wa.a
Depth (ft)
Counts
0
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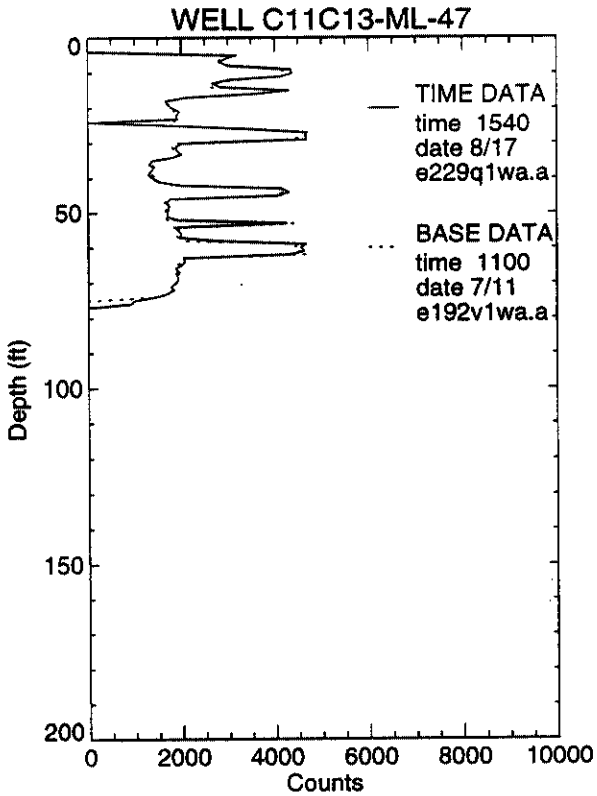
10000


WELL C11C13-ML-47
TIME DATA
time 1540
date 8/17
e229q1wa.a
BASE DATA
time 1100
date 7/11
e192v1wa.a
Depth (ft)
Counts
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0
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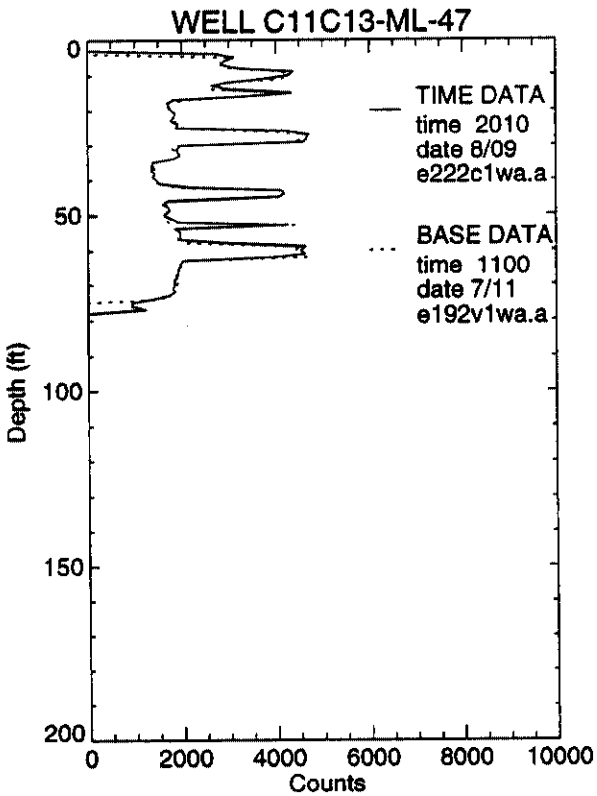
6000
8000
10000


WELL C11C13-ML-47
TIME DATA
time 2010
date 8/09
e222c1wa.a
BASE DATA
time 1100
date 7/11
e192v1wa.a
Depth (ft)
Counts
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150
200
0
2000
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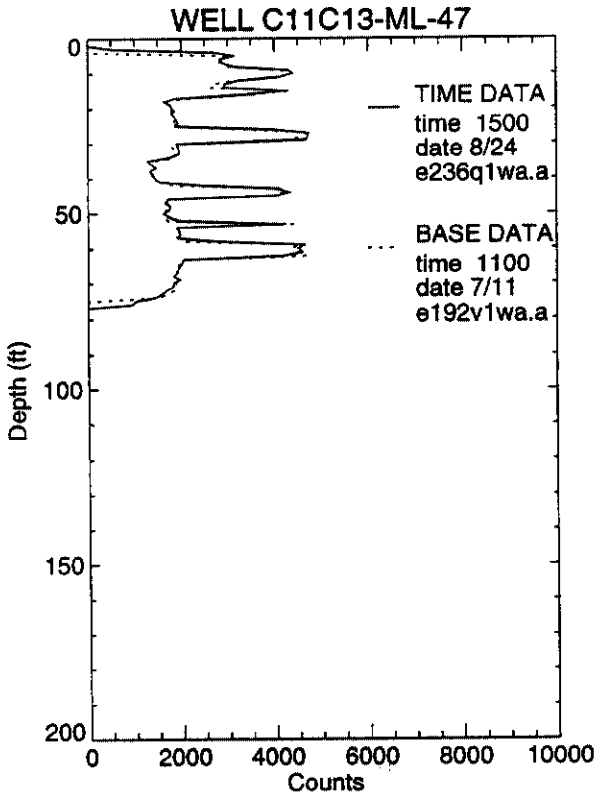
6000
8000
10000


WELL C11C13-ML-47
TIME DATA
time 1500
date 8/24
e236q1wa.a
BASE DATA
time 1100
date 7/11
e192v1wa.a
Depth (ft)
Counts
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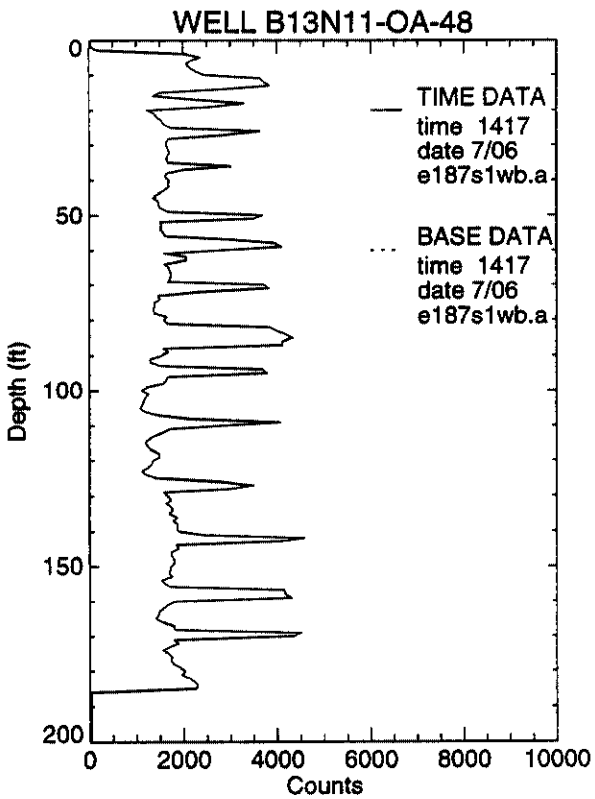
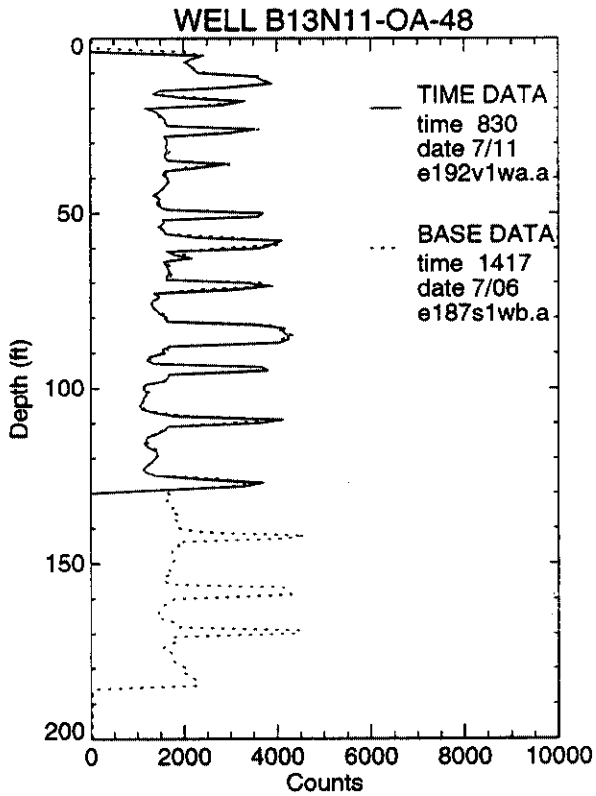
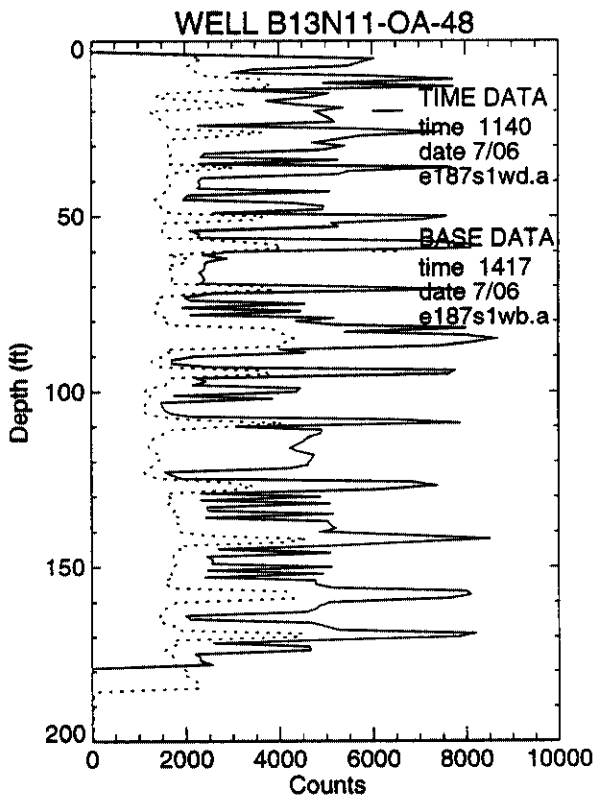
150
200
0
2000
4000
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 1417
date 7/06
e187s1wb.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 830
date 7/11
e192v1wa.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 1140
date 7/06
e187s1wd.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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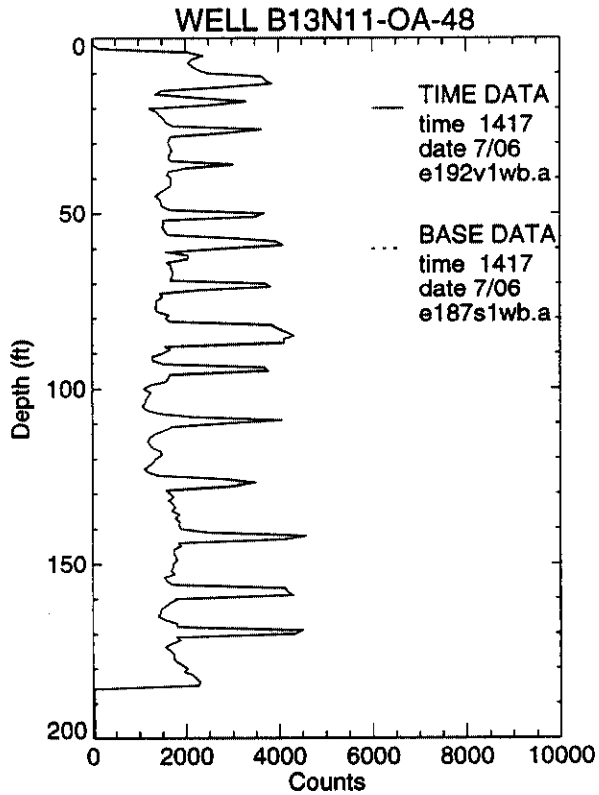
150
200
0
2000
4000
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 1417
date 7/06
e192v1wb.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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150
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0
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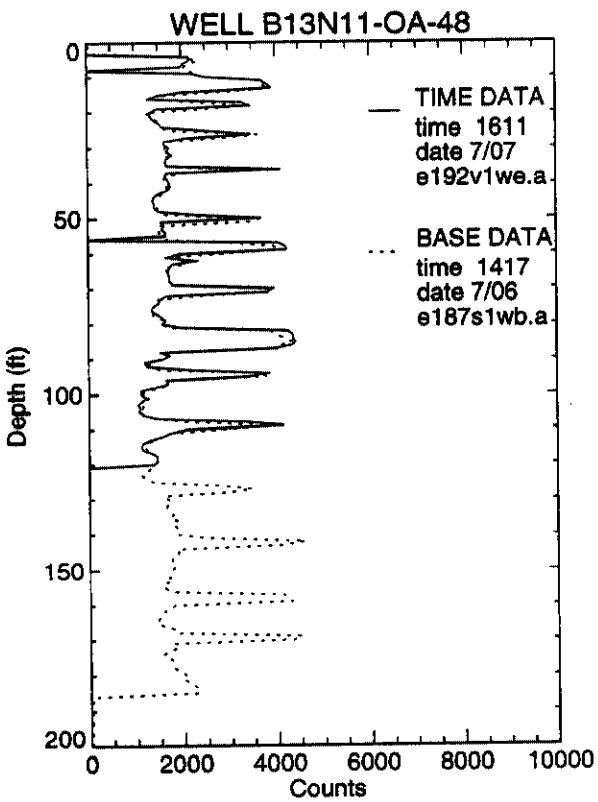
8000
10000


WELL B13N11-OA-48
TIME DATA
time 1611
date 7/07
e192v1we.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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150
200
0
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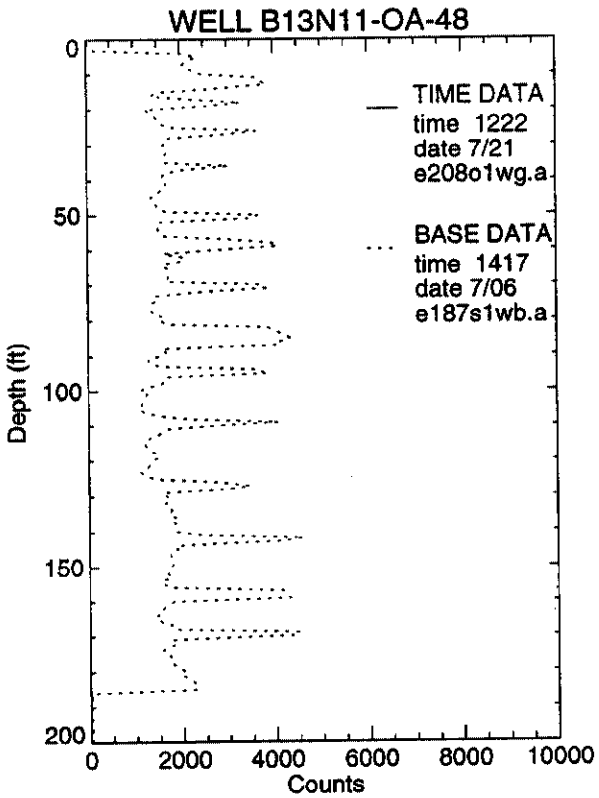
4000
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 1222
date 7/21
e208o1wg.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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0
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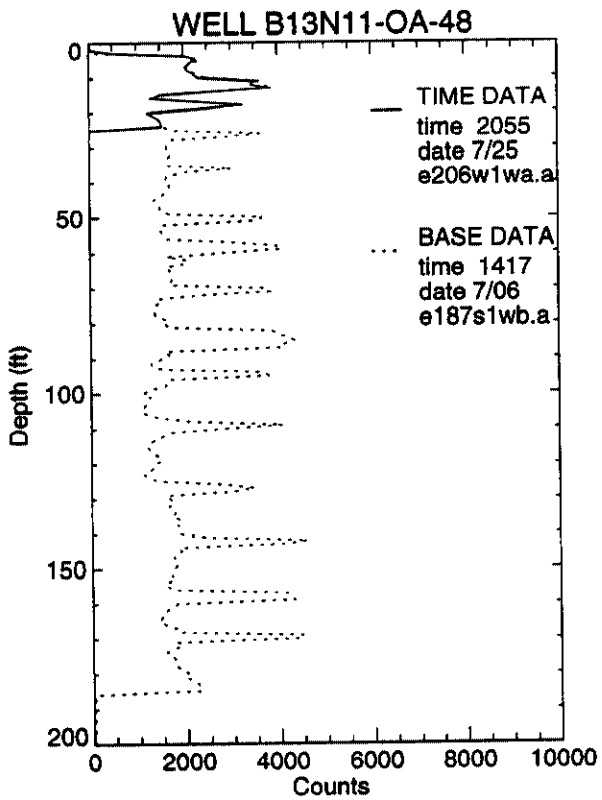
8000
10000


WELL B13N11-OA-48
TIME DATA
time 2055
date 7/25
e206w1wa.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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150
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0
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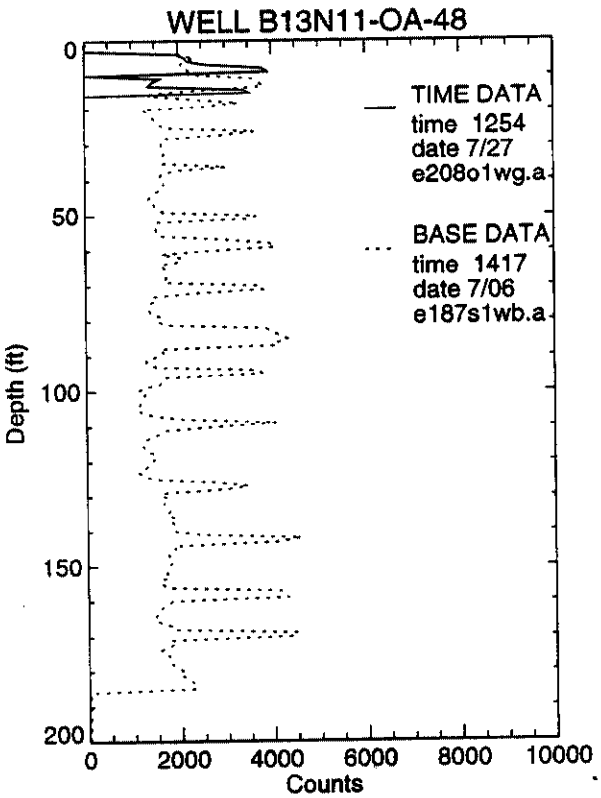
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 1254
date 7/27
e208o1wg.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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150
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0
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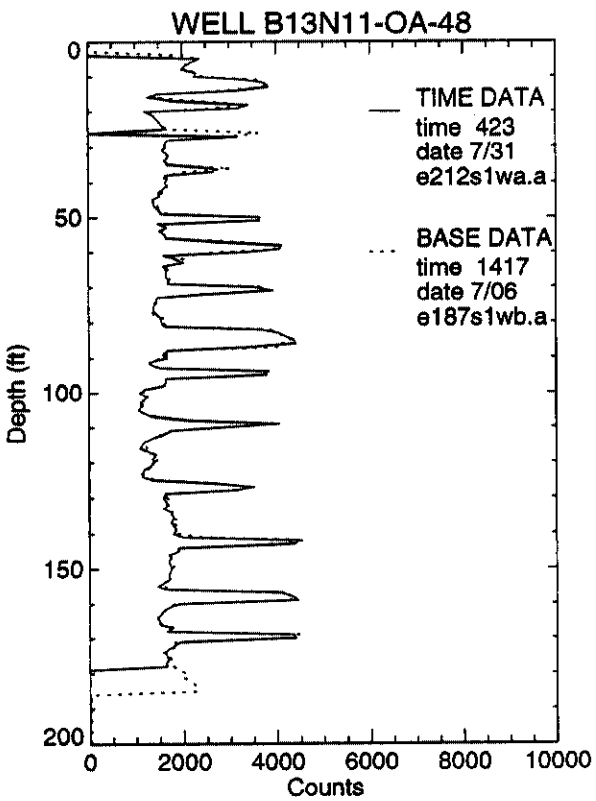
8000
10000


WELL B13N11-OA-48
TIME DATA
time 423
date 7/31
e212s1wa.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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0
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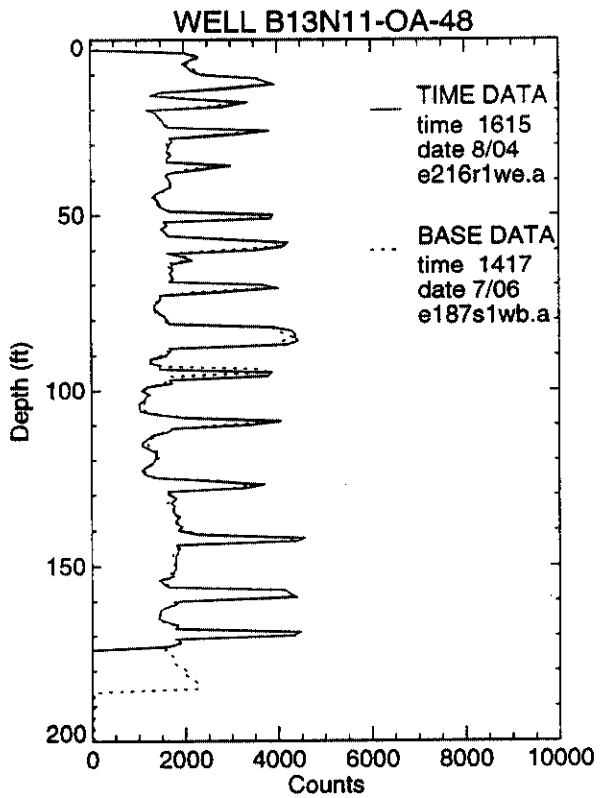
8000
10000


WELL B13N11-OA-48
TIME DATA
time 1615
date 8/04
e216r1we.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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0
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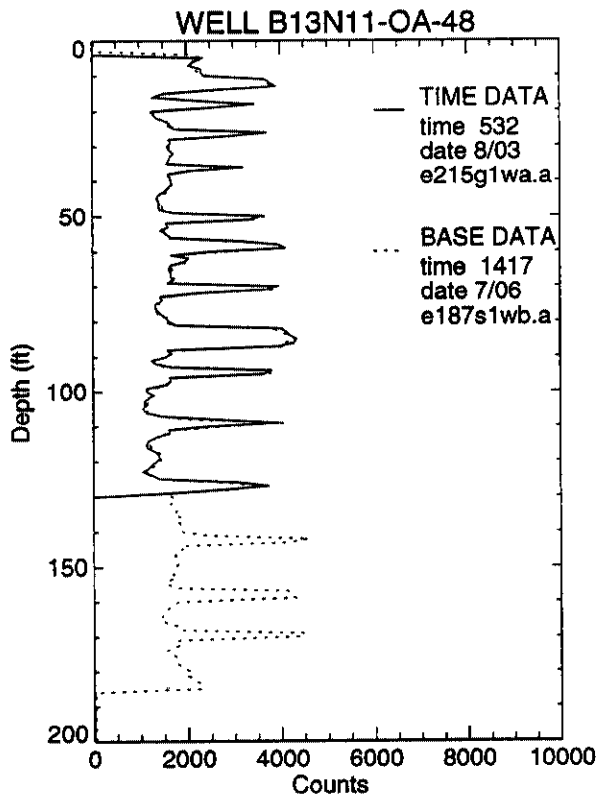
8000
10000


WELL B13N11-OA-48
TIME DATA
time 532
date 8/03
e215g1wa.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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200
0
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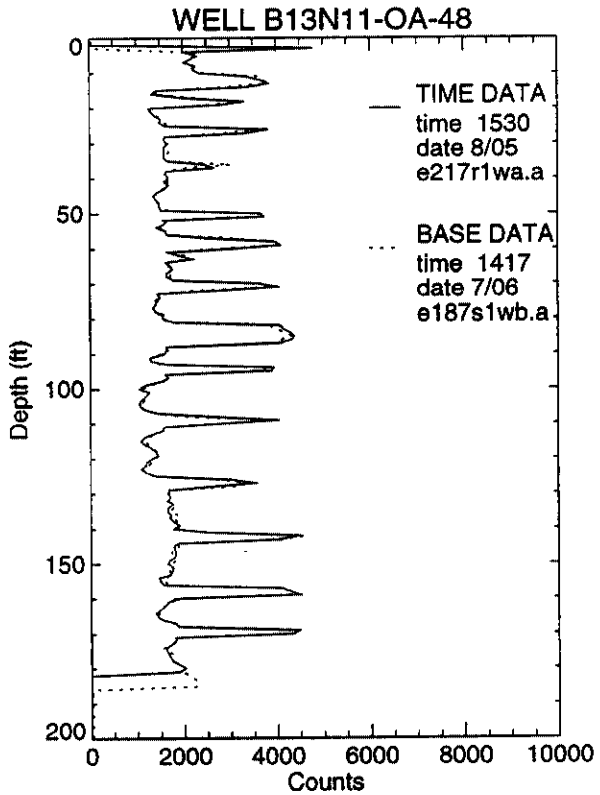
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 1530
date 8/05
e217r1wa.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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0
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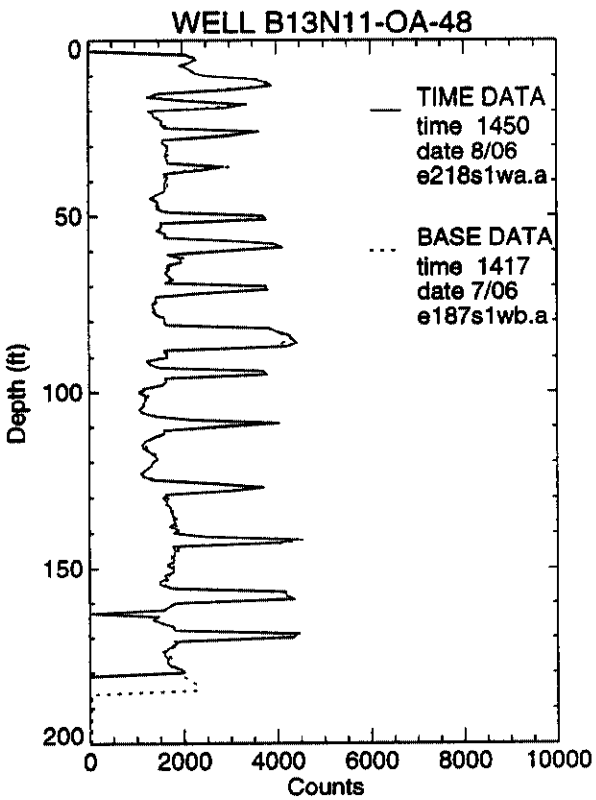
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 1450
date 8/06
e218s1wa.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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150
200
0
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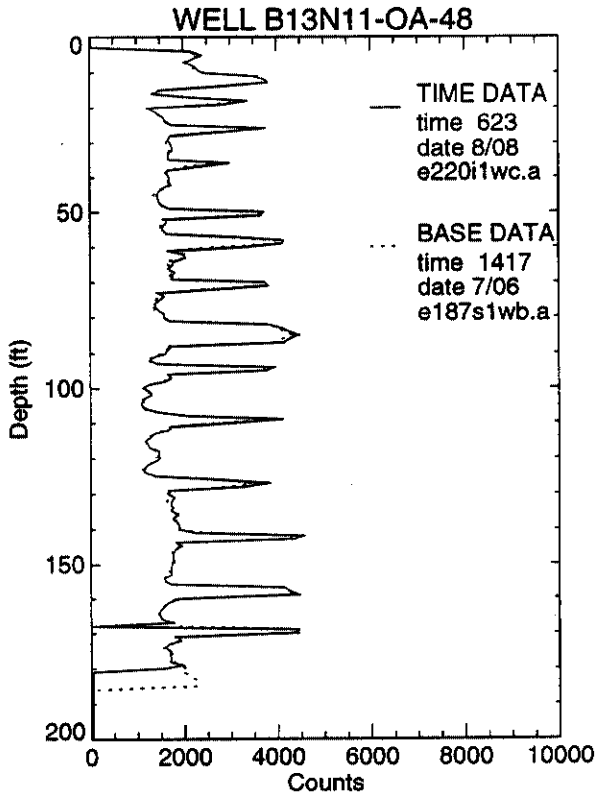
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 623
date 8/08
e220i1wc.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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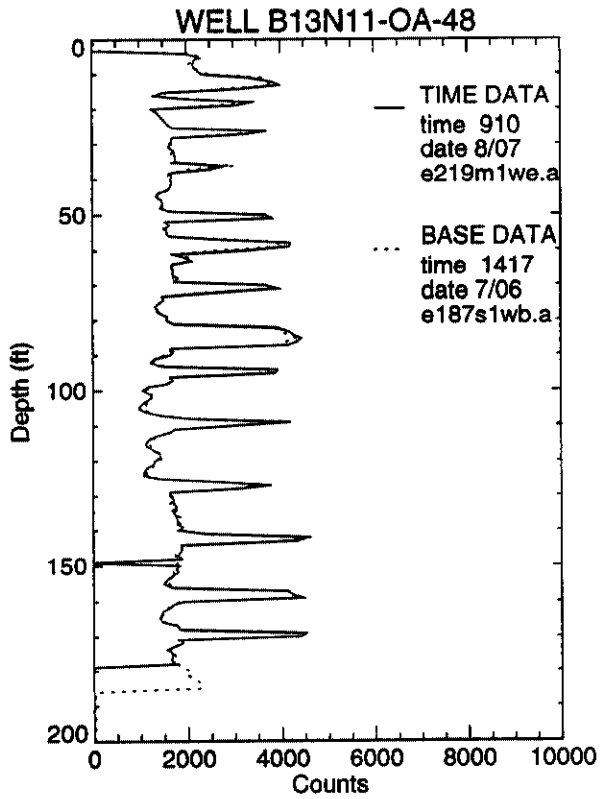
10000


WELL B13N11-OA-48
TIME DATA
time 910
date 8/07
e219m1we.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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200
0
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4000
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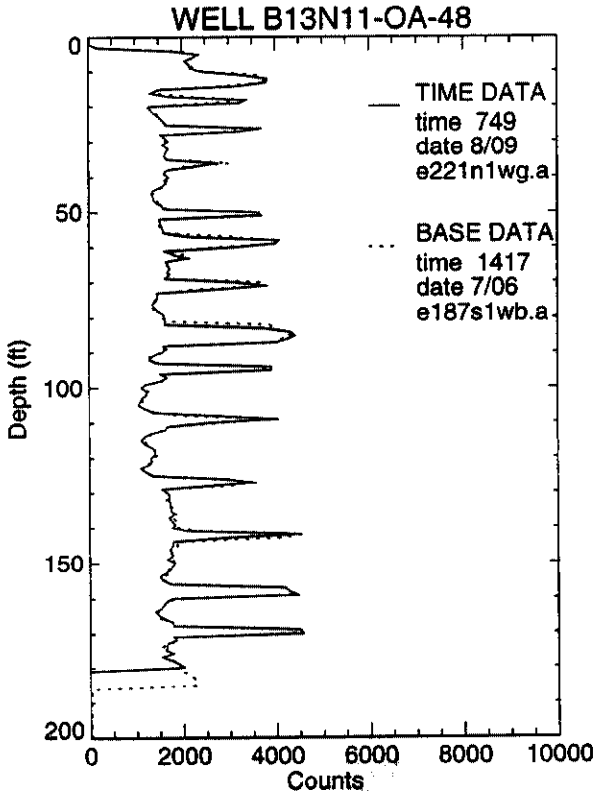
8000
10000


WELL B13N11-OA-48
TIME DATA
time 749
date 8/09
e221n1wg.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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0
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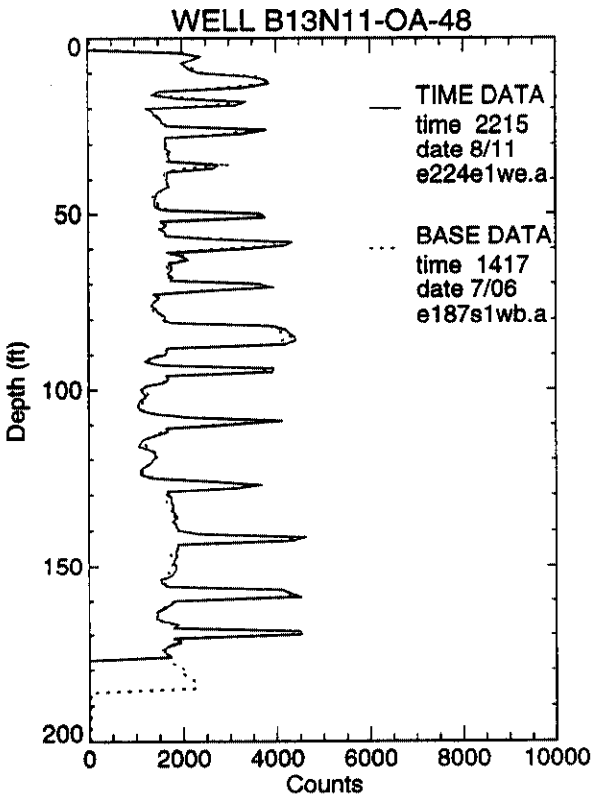
8000
10000


WELL B13N11-OA-48
TIME DATA
time 2215
date 8/11
e224e1we.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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200
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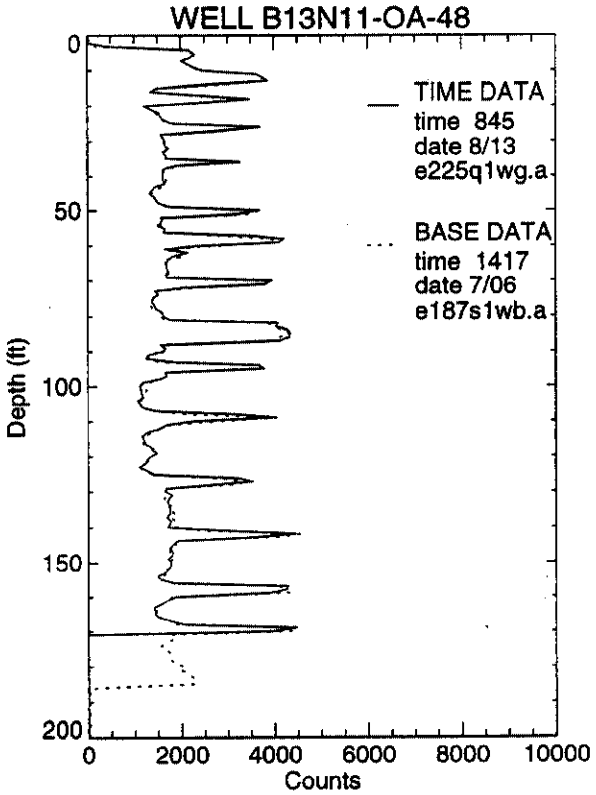
WELL B13N11-OA-48
TIME DATA
time 845
date 8/13
e225q1wg.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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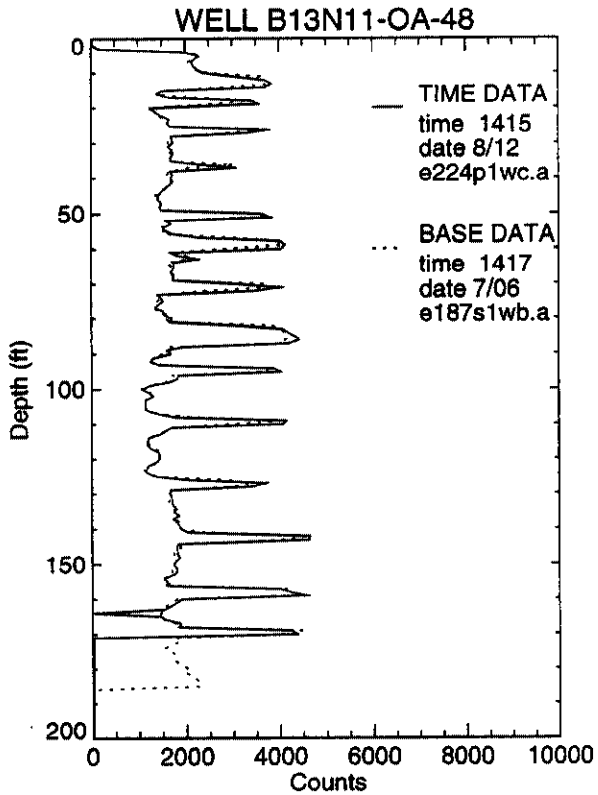
WELL B13N11-OA-48
TIME DATA
time 1415
date 8/12
e224p1wc.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
50
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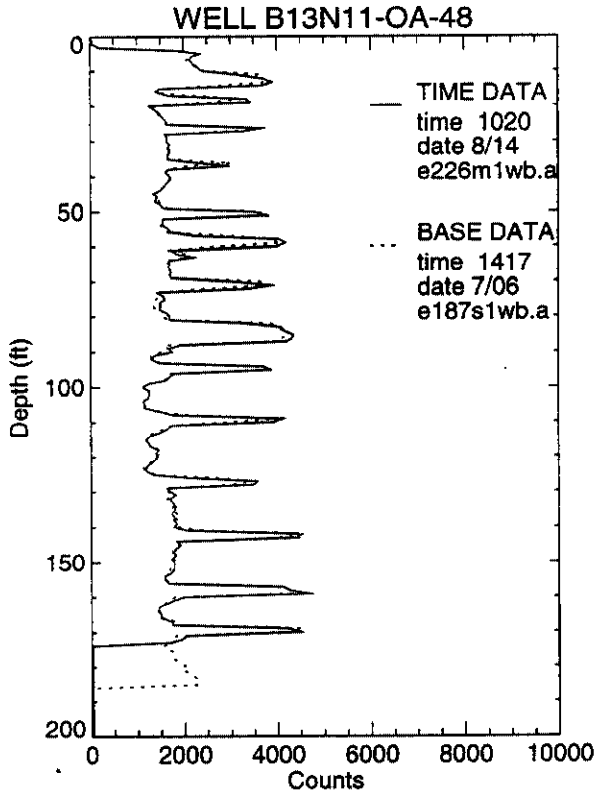
WELL B13N11-OA-48
TIME DATA
time 1020
date 8/14
e226m1wb.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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150
200
0
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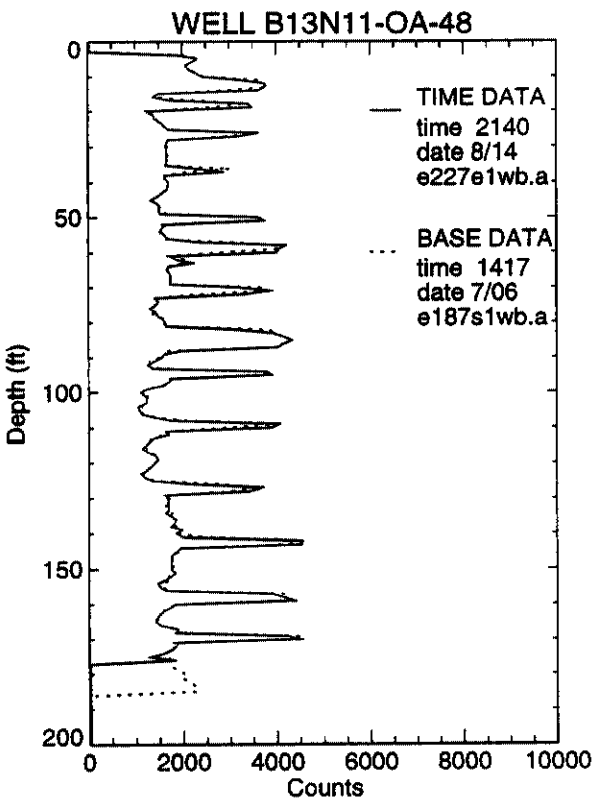
4000
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 2140
date 8/14
e227e1wb.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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0
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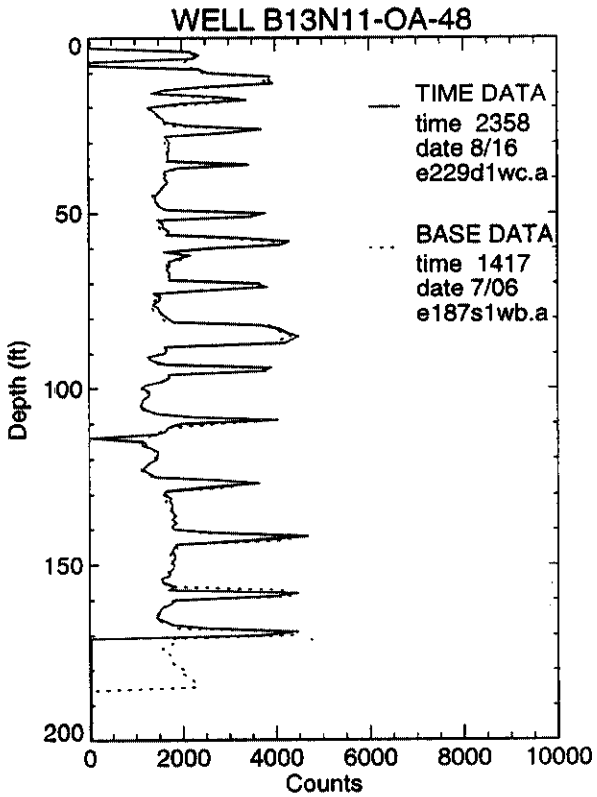
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 2358
date 8/16
e229d1wc.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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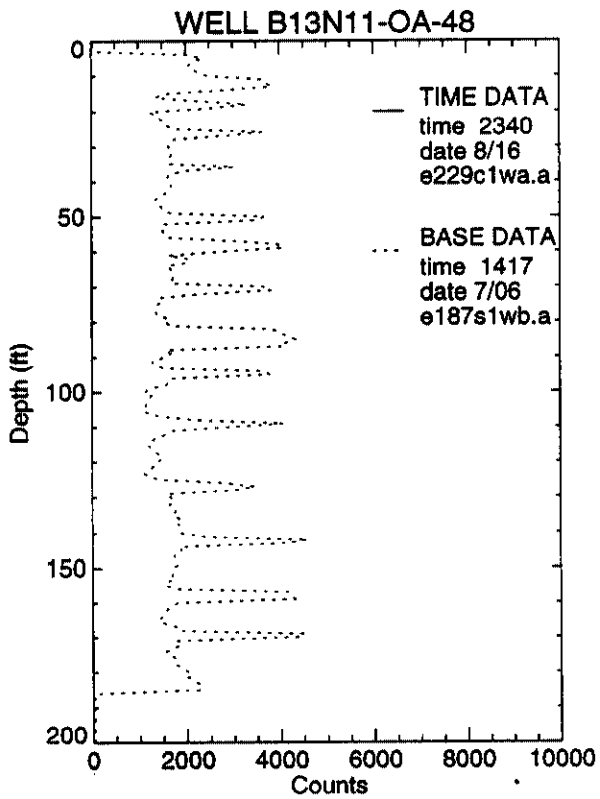
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 2340
date 8/16
e229c1wa.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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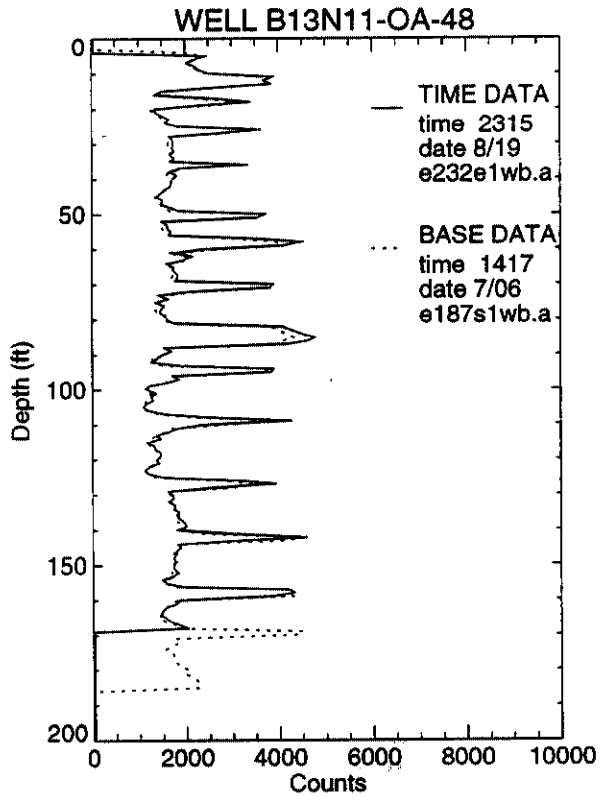
8000
10000


WELL B13N11-OA-48
TIME DATA
time 2315
date 8/19
e232e1wb.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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150
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0
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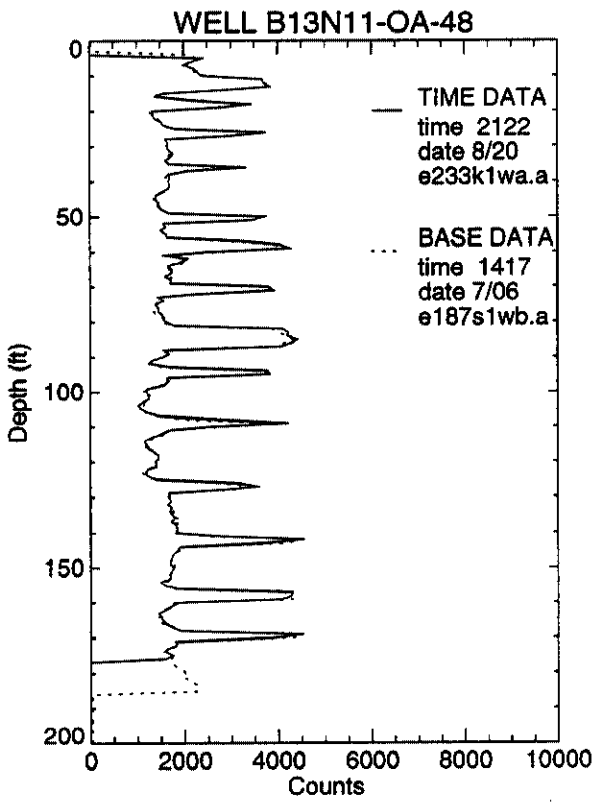
4000
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 2122
date 8/20
e233k1wa.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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150
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0
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8000
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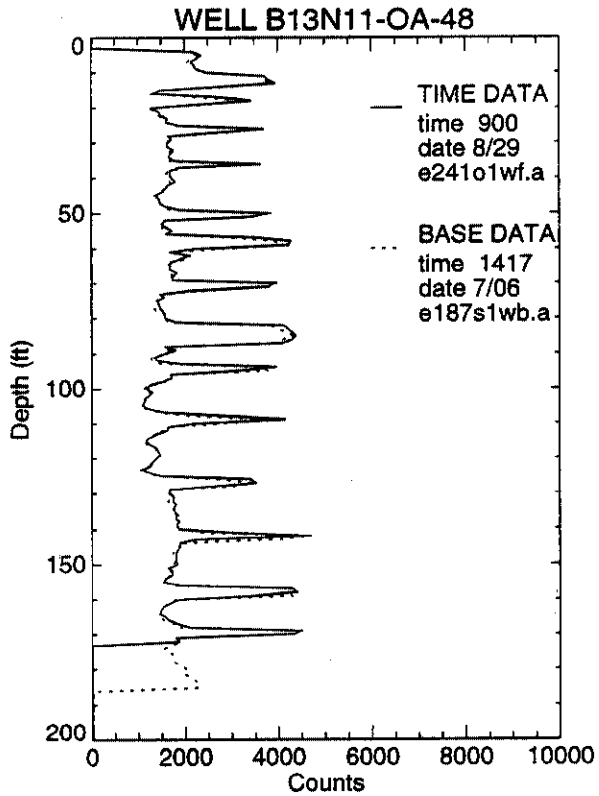
WELL B13N11-OA-48
TIME DATA
time 900
date 8/29
e241o1wf.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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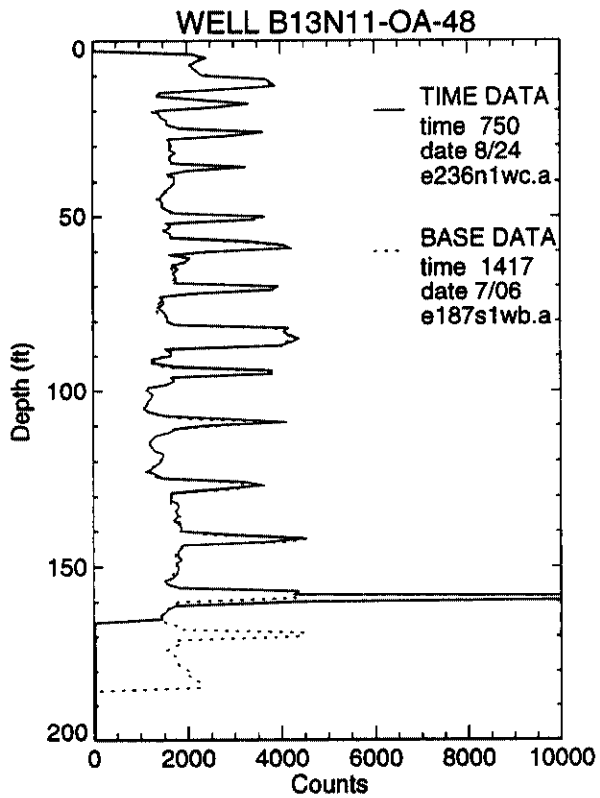
150
200
0
2000
4000
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 750
date 8/24
e236n1wc.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
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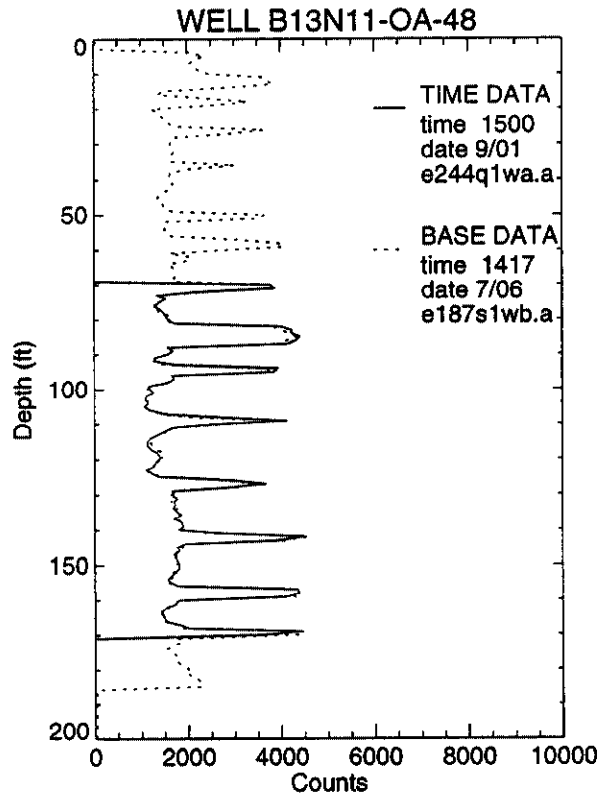
200
0
2000
4000
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 1500
date 9/01
e244q1wa.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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100
150
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0
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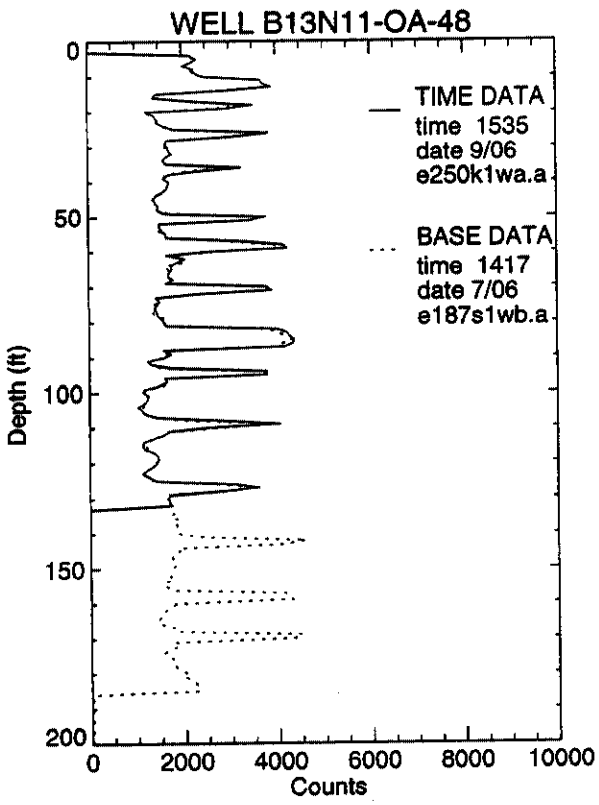
4000
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 1535
date 9/06
e250k1wa.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
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100
150
200
0
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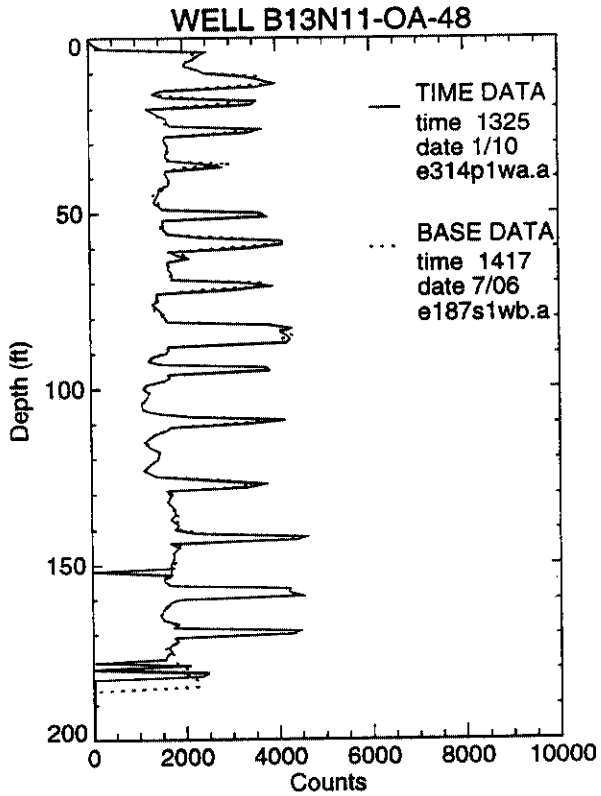
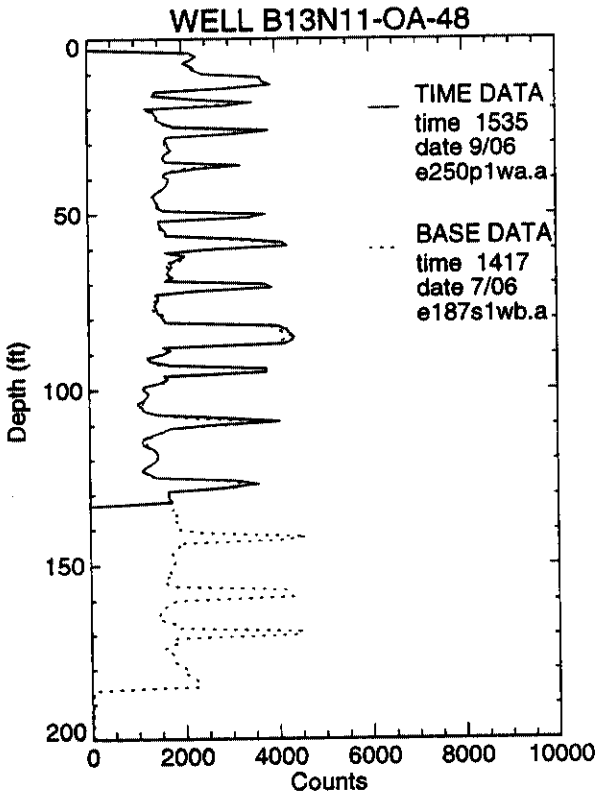
4000
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 1325
date 1/10
e314p1wa.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B13N11-OA-48
TIME DATA
time 1535
date 9/06
e250p1wa.a
BASE DATA
time 1417
date 7/06
e187s1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
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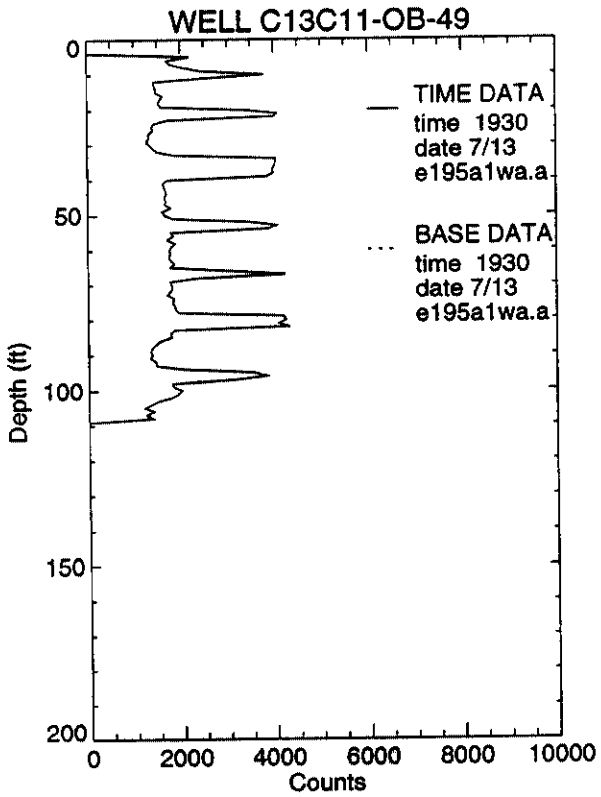
4000
6000
8000
10000


WELL C13C11-OB-49
TIME DATA
time 1930
date 7/13
e195a1wa.a
BASE DATA
time 1930
date 7/13
e195a1wa.a
Depth (ft)
Counts
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150
200
0
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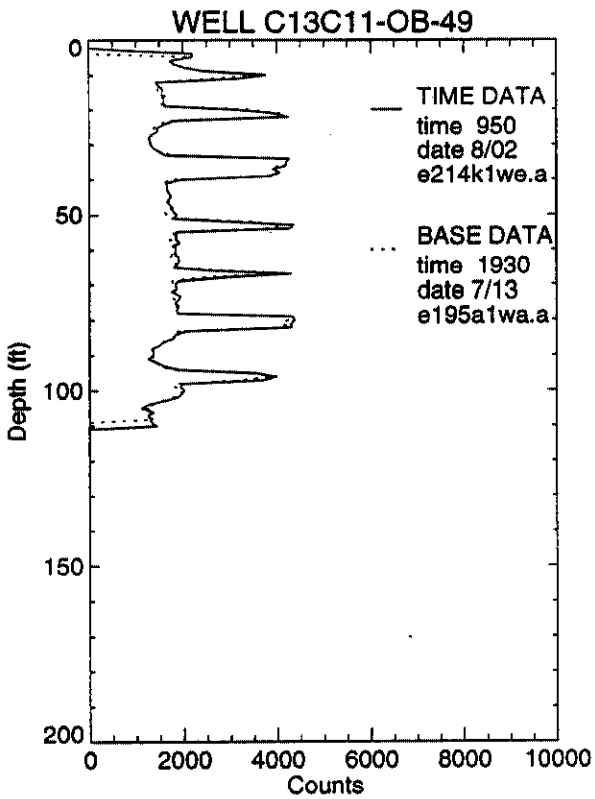
8000
10000


WELL C13C11-OB-49
TIME DATA
time 950
date 8/02
e214k1we.a
BASE DATA
time 1930
date 7/13
e195a1wa.a
Depth (ft)
Counts
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150
200
0
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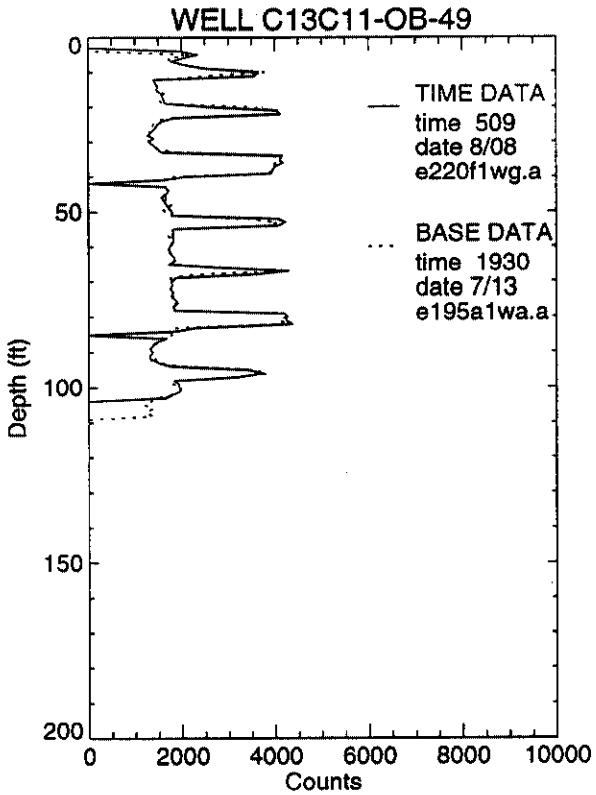
4000
6000
8000
10000


WELL C13C11-OB-49
TIME DATA
time 509
date 8/08
e220f1wg.a
BASE DATA
time 1930
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
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0
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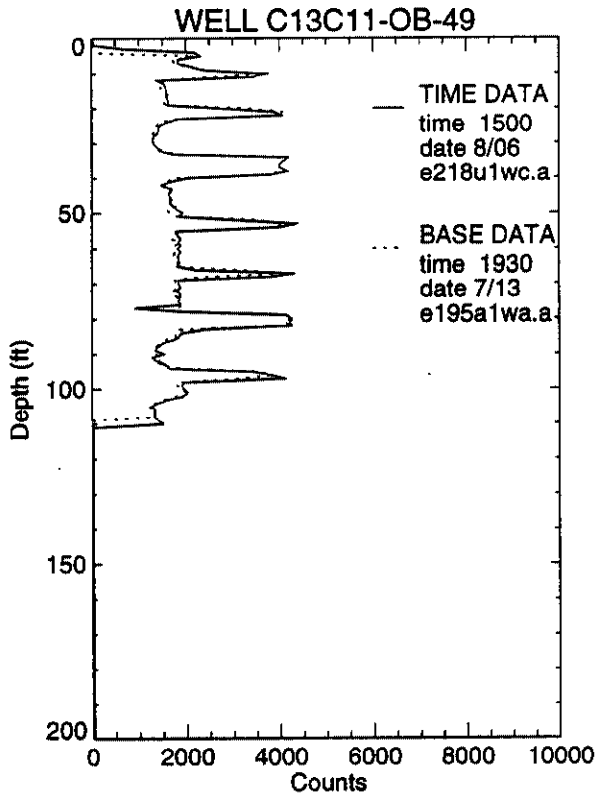
8000
10000


WELL C13C11-OB-49
TIME DATA
time 1500
date 8/06
e218u1wc.a
BASE DATA
time 1930
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
50
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150
200
0
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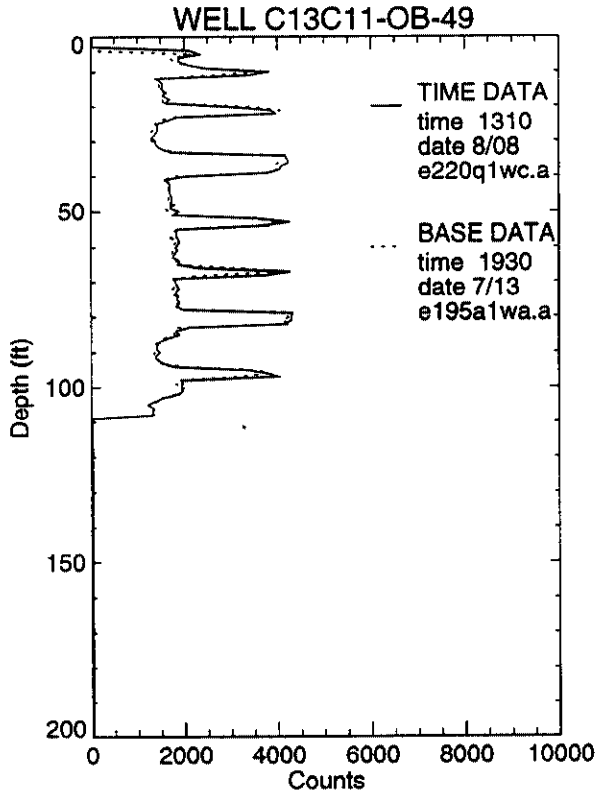
4000
6000
8000
10000


WELL C13C11-OB-49
TIME DATA
time 1310
date 8/08
e220q1wc.a
BASE DATA
time 1930
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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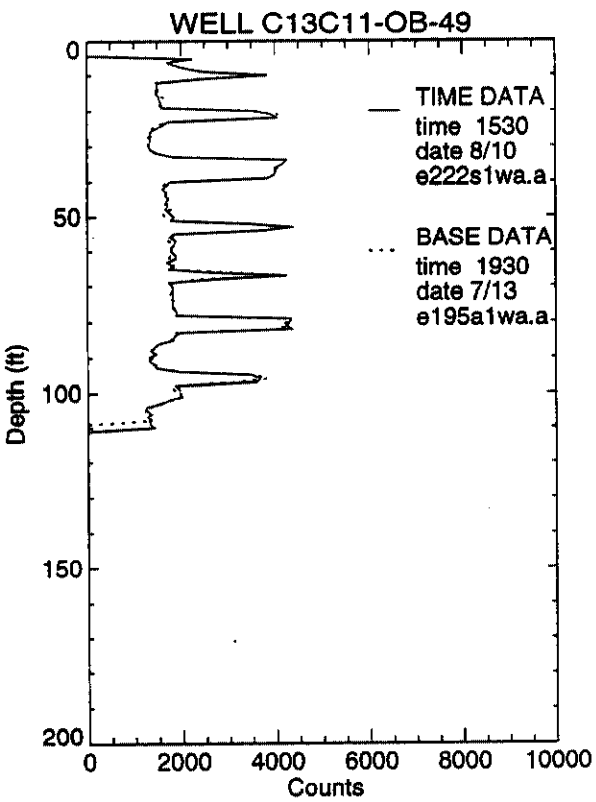
4000
6000
8000
10000


WELL C13C11-OB-49
TIME DATA
time 1530
date 8/10
e222s1wa.a
BASE DATA
time 1930
date 7/13
e195a1wa.a
Depth (ft)
Counts
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150
200
0
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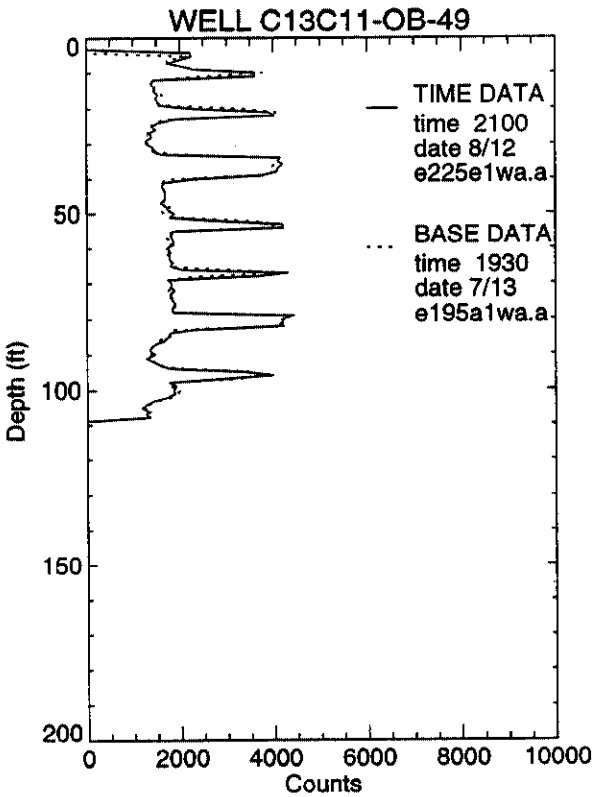
6000
8000
10000


WELL C13C11-OB-49
TIME DATA
time 2100
date 8/12
e225e1wa.a
BASE DATA
time 1930
date 7/13
e195a1wa.a
Depth (ft)
Counts
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150
200
0
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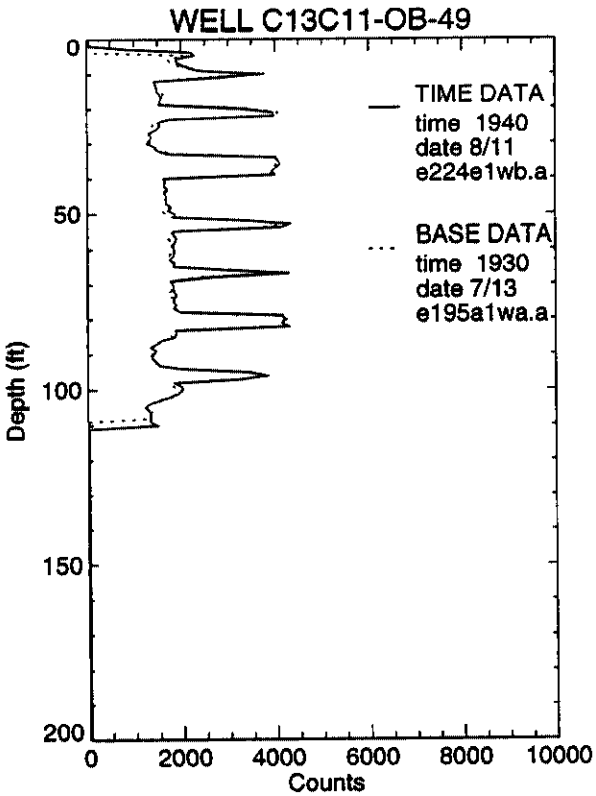
4000
6000
8000
10000


WELL C13C11-OB-49
TIME DATA
time 1940
date 8/11
e224e1wb.a
BASE DATA
time 1930
date 7/13
e195a1wa.a
Depth (ft)
Counts
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150
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0
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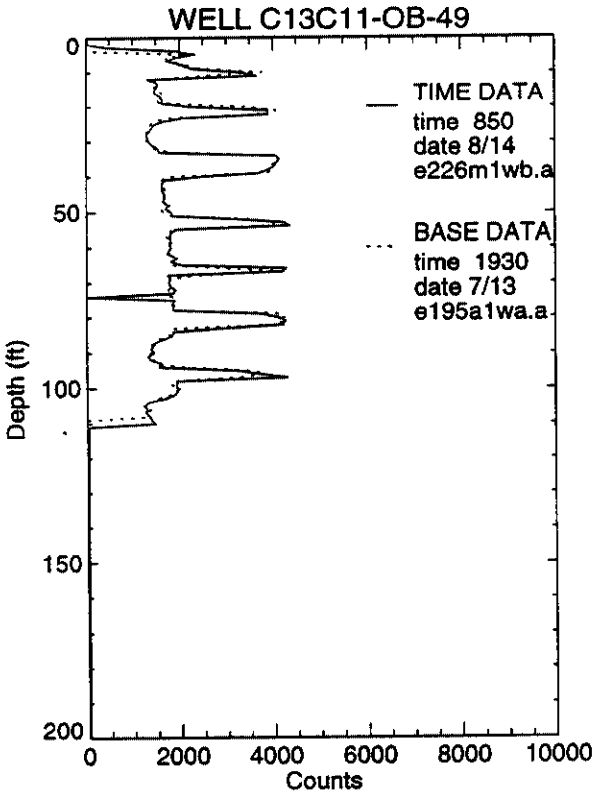
6000
8000
10000


WELL C13C11-OB-49
TIME DATA
time 850
date 8/14
e226m1wb.a
BASE DATA
time 1930
date 7/13
e195a1wa.a
Depth (ft)
Counts
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150
200
0
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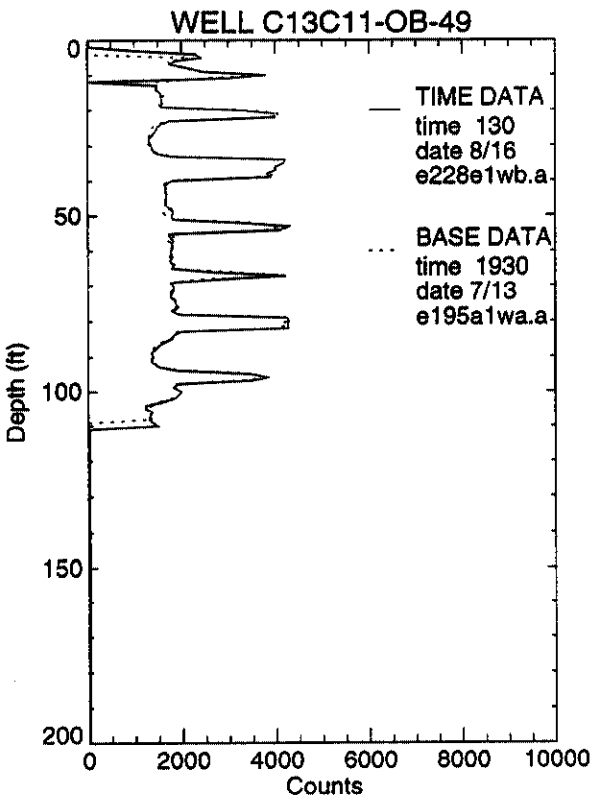
4000
6000
8000
10000


WELL C13C11-OB-49
TIME DATA
time 130
date 8/16
e228e1wb.a
BASE DATA
time 1930
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
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150
200
0
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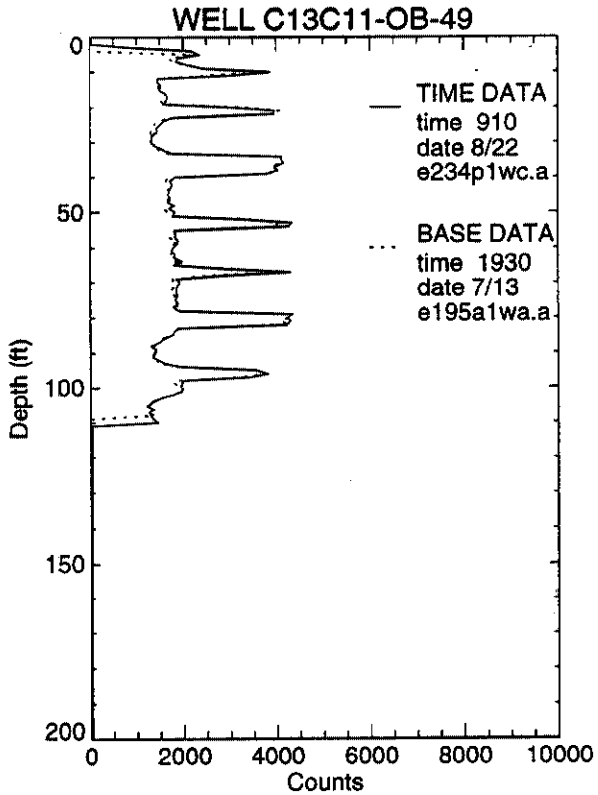
4000
6000
8000
10000


WELL C13C11-OB-49
TIME DATA
time 910
date 8/22
e234p1wc.a
BASE DATA
time 1930
date 7/13
e195a1wa.a
Depth (ft)
Counts
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150
200
0
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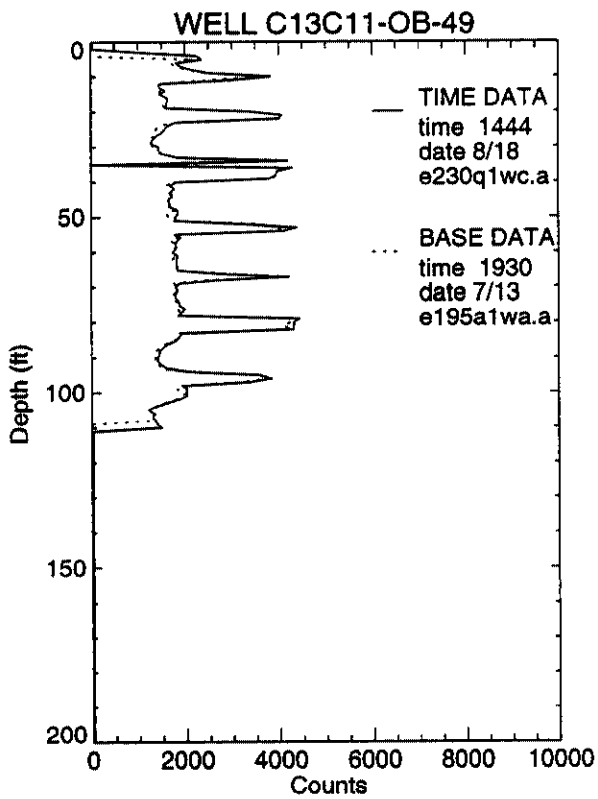
6000
8000
10000


WELL C13C11-OB-49
TIME DATA
time 1444
date 8/18
e230q1wc.a
BASE DATA
time 1930
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
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150
200
0
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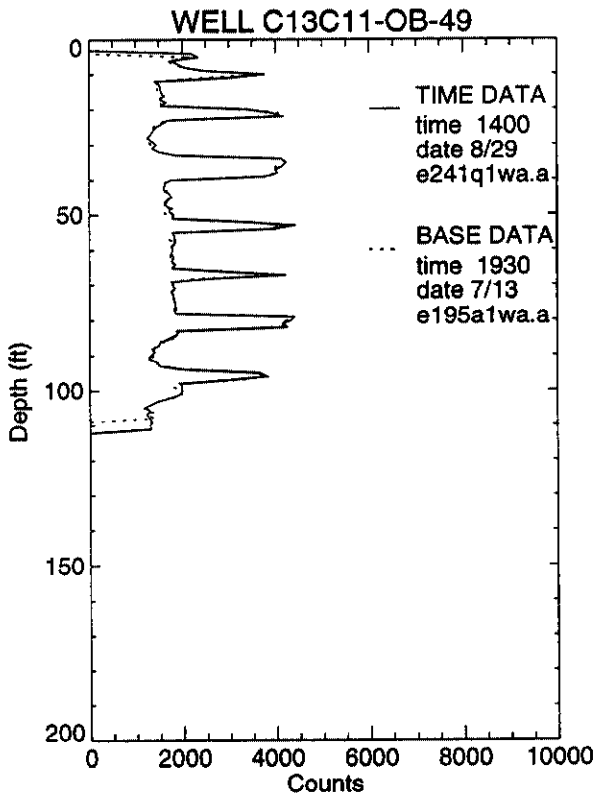
4000
6000
8000
10000


WELL C13C11-OB-49
TIME DATA
time 1400
date 8/29
e241q1wa.a
BASE DATA
time 1930
date 7/13
e195a1wa.a
Depth (ft)
Counts
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150
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0
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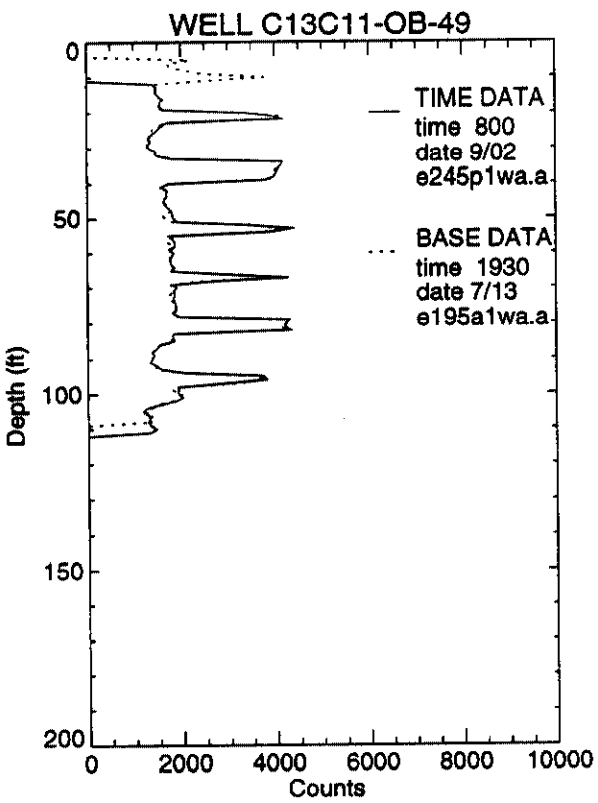
4000
6000
8000
10000


WELL C13C11-OB-49
TIME DATA
time 800
date 9/02
e245p1wa.a
BASE DATA
time 1930
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
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150
200
0
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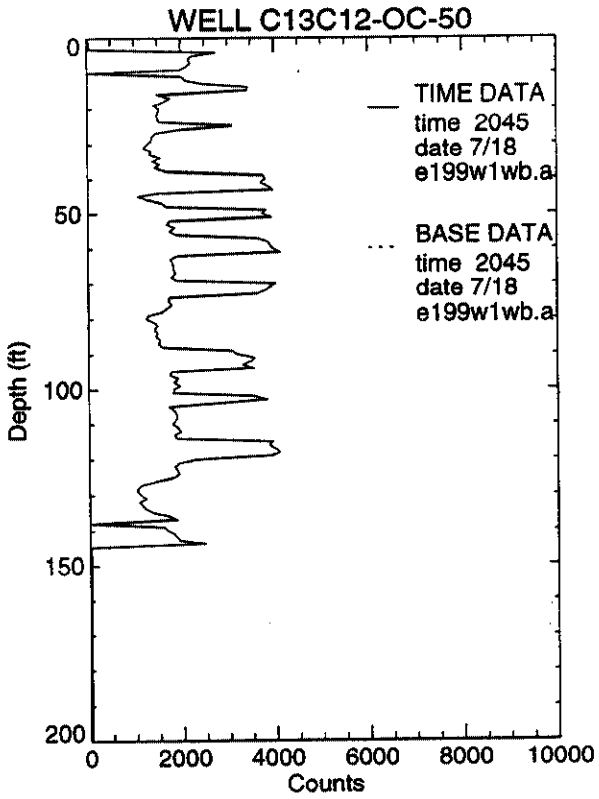
4000
6000
8000
10000


WELL C13C12-OC-50
TIME DATA
time 2045
date 7/18
e199w1wb.a
BASE DATA
time 2045
date 7/18
e199w1wb.a
Depth (ft)
Counts
0
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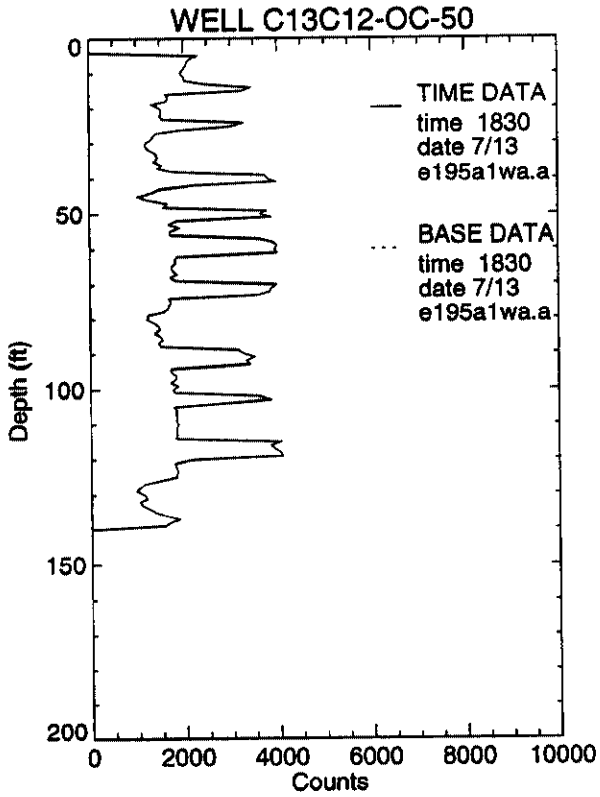
150
200
0
2000
4000
6000
8000
10000


WELL C13C12-OC-50
TIME DATA
time 1830
date 7/13
e195a1wa.a
BASE DATA
time 1830
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
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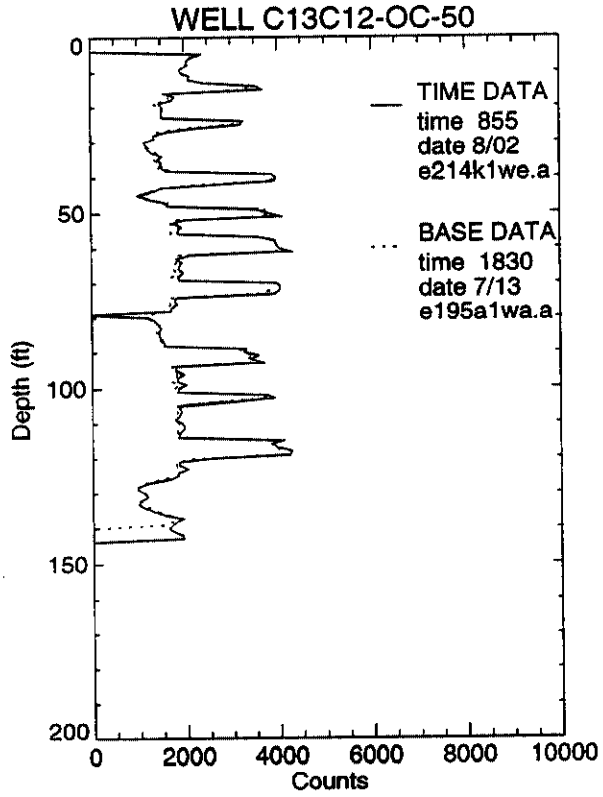
150
200
0
2000
4000
6000
8000
10000


WELL C13C12-OC-50
TIME DATA
time 855
date 8/02
e214k1we.a
BASE DATA
time 1830
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
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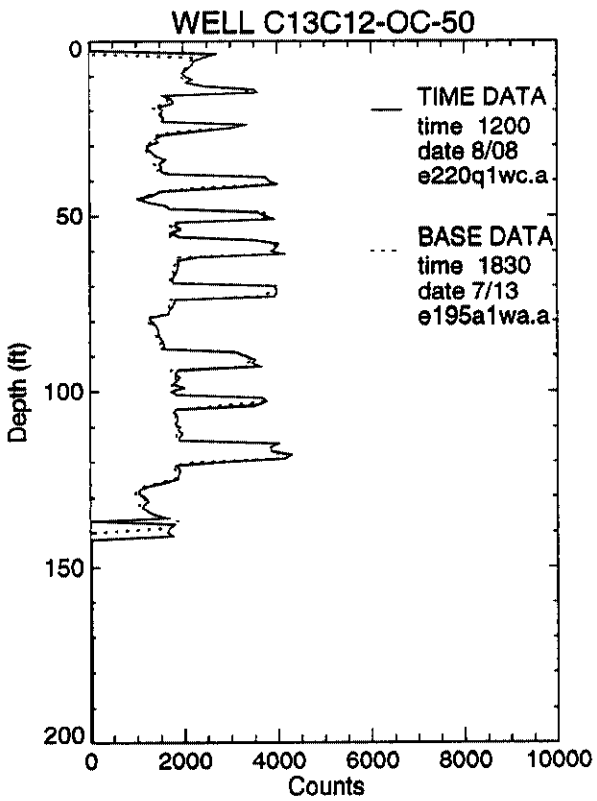
100
150
200
0
2000
4000
6000
8000
10000


WELL C13C12-OC-50
TIME DATA
time 1200
date 8/08
e220q1wc.a
BASE DATA
time 1830
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
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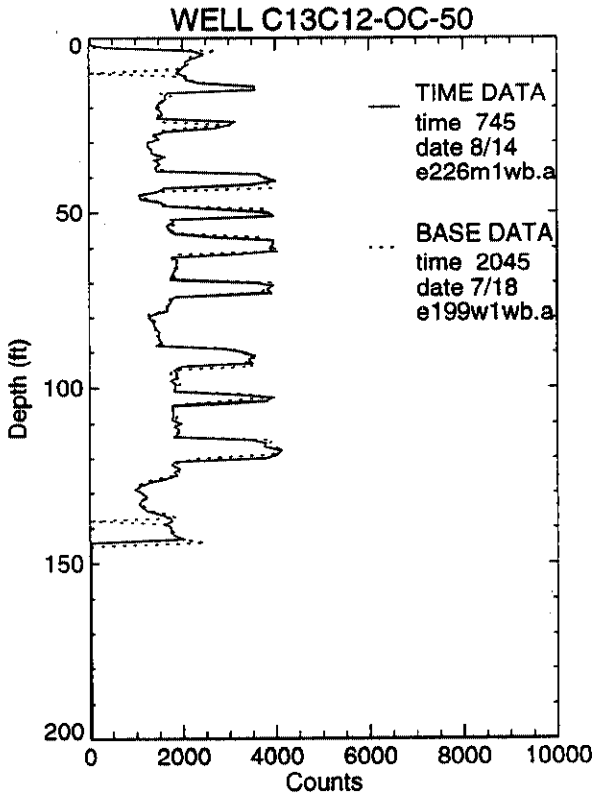
150
200
0
2000
4000
6000
8000
10000


WELL C13C12-OC-50
TIME DATA
time 745
date 8/14
e226m1wb.a
BASE DATA
time 2045
date 7/18
e199w1wb.a
Depth (ft)
Counts
0
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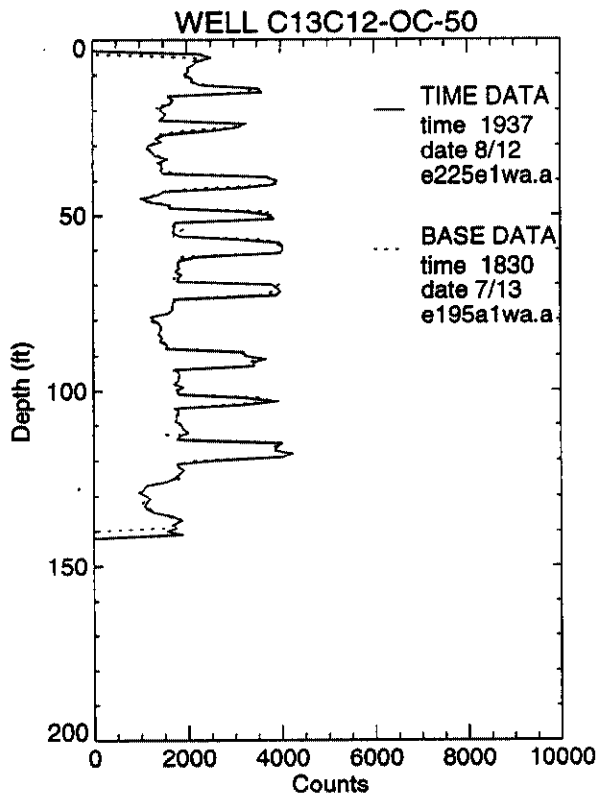
100
150
200
0
2000
4000
6000
8000
10000


WELL C13C12-OC-50
TIME DATA
time 1937
date 8/12
e225e1wa.a
BASE DATA
time 1830
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
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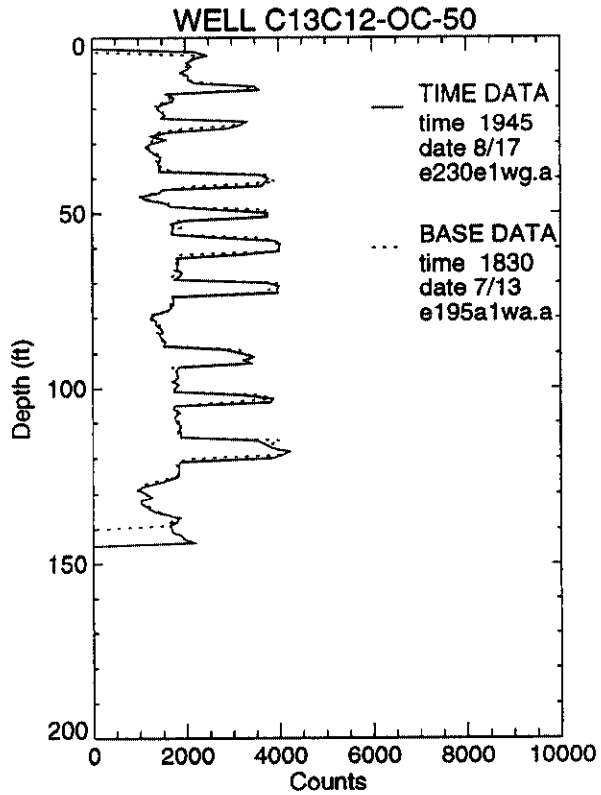
100
150
200
0
2000
4000
6000
8000
10000


WELL C13C12-OC-50
TIME DATA
time 1945
date 8/17
e230e1wg.a
BASE DATA
time 1830
date 7/13
e195a1wa.a
Depth (ft)
Counts
0
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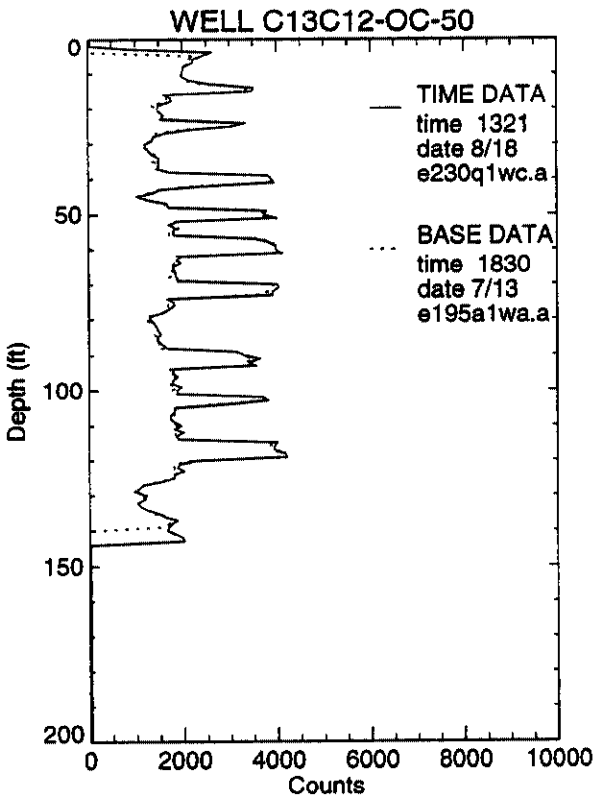
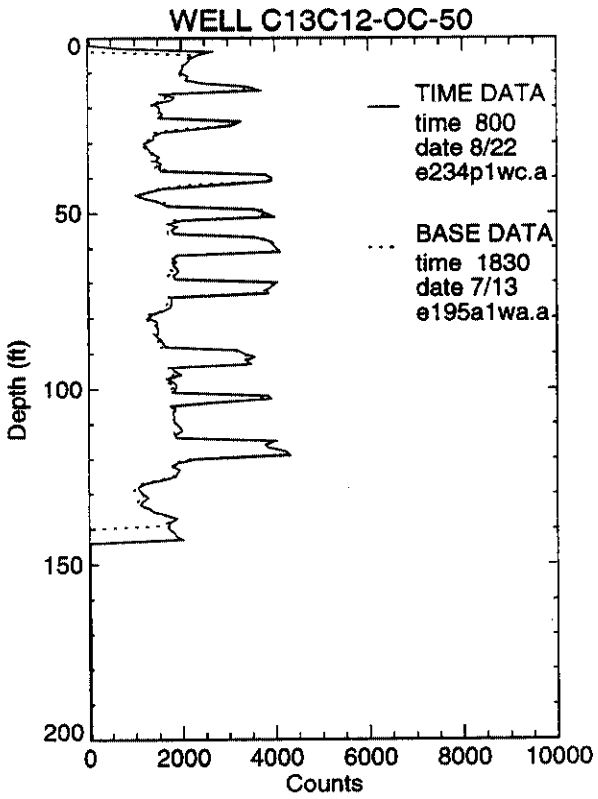
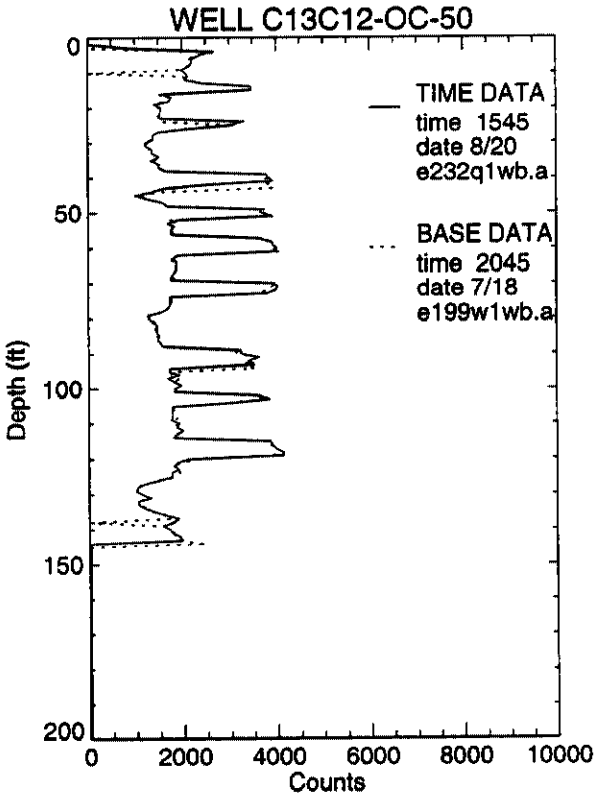
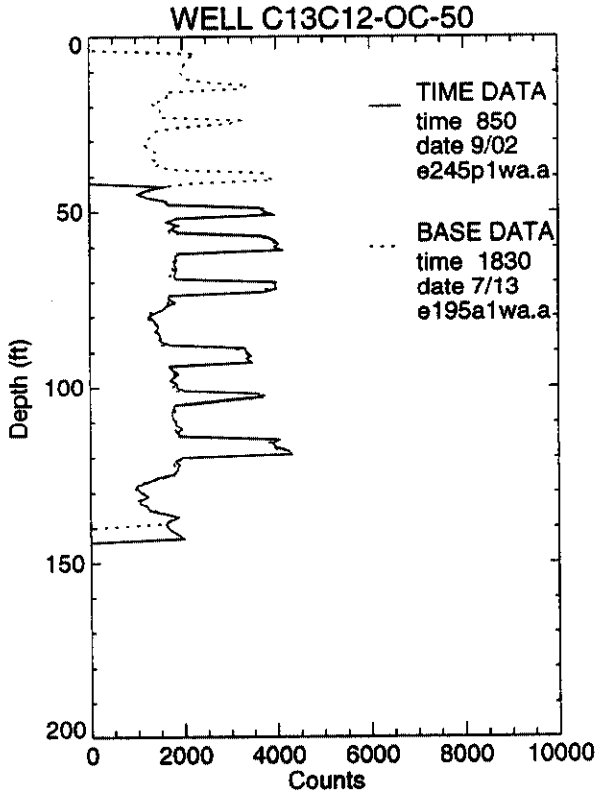
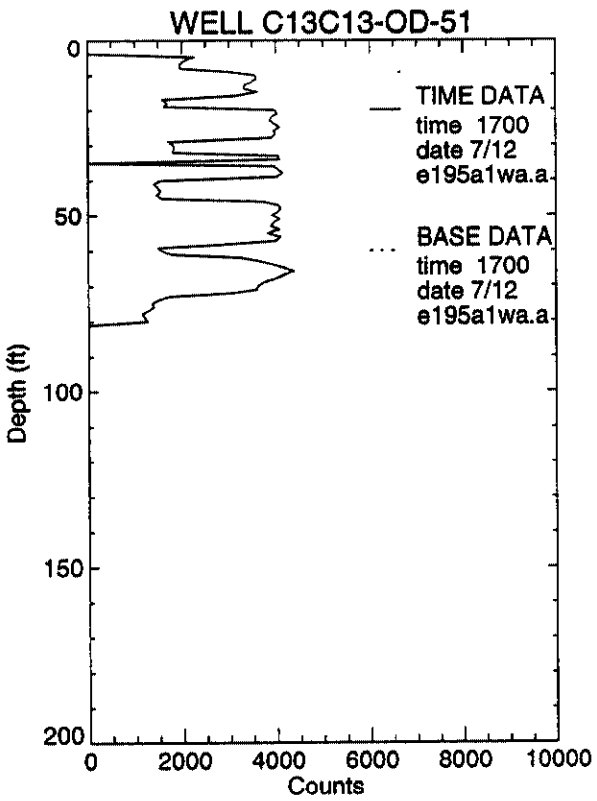
150
200
0
2000
4000
6000
8000
10000

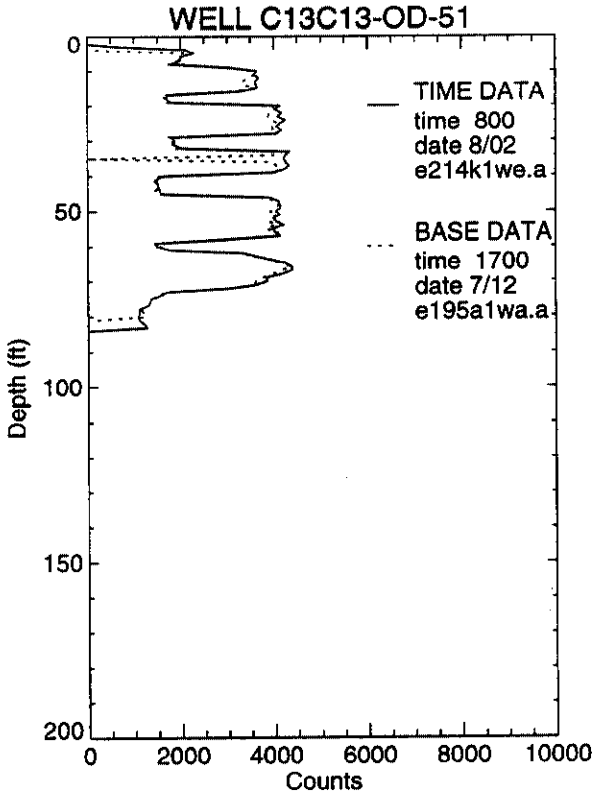

WELL C13C12-OC-50
TIME DATA
time 1321
date 8/18
e230q1wc.a
BASE DATA
time 1830
date 7/13
e195a1wa.a
Depth (ft)
Counts


WELL C13C12-OC-50
TIME DATA
time 800
date 8/22
e234p1wc.a
BASE DATA
time 1830
date 7/13
e195a1wa.a
Depth (ft)
Counts


WELL C13C12-OC-50
TIME DATA
time 1545
date 8/20
e232q1wb.a
BASE DATA
time 2045
date 7/18
e199w1wb.a
Depth (ft)
Counts


WELL C13C12-OC-50
TIME DATA
time 850
date 9/02
e245p1wa.a
BASE DATA
time 1830
date 7/13
e195a1wa.a
Depth (ft)
Counts


WELL C13C13-OD-51
TIME DATA
time 1700
date 7/12
e195a1wa.a
BASE DATA
time 1700
date 7/12
e195a1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL C13C13-OD-51
TIME DATA
time 800
date 8/02
e214k1we.a
BASE DATA
time 1700
date 7/12
e195a1wa.a
Depth (ft)
Counts
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150
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0
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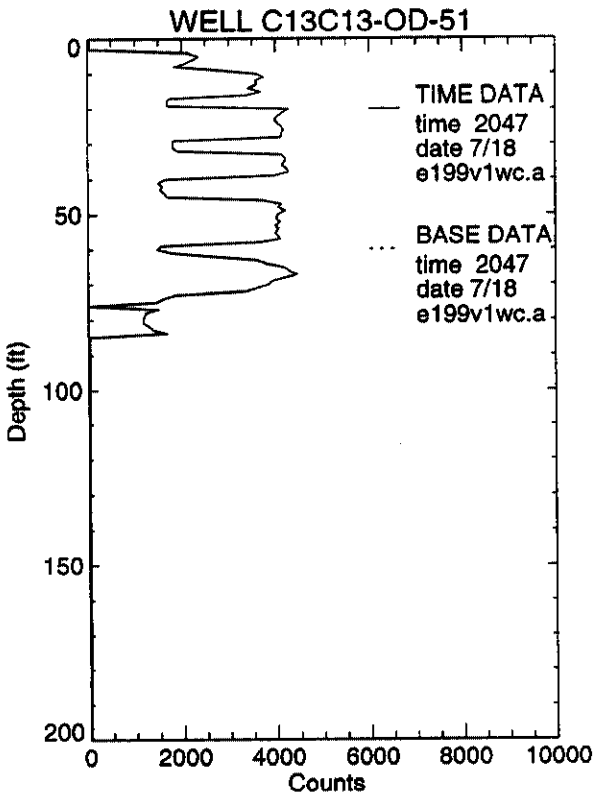
4000
6000
8000
10000


WELL C13C13-OD-51
TIME DATA
time 2047
date 7/18
e199v1wc.a
BASE DATA
time 2047
date 7/18
e199v1wc.a
Depth (ft)
Counts
0
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100
150
200
0
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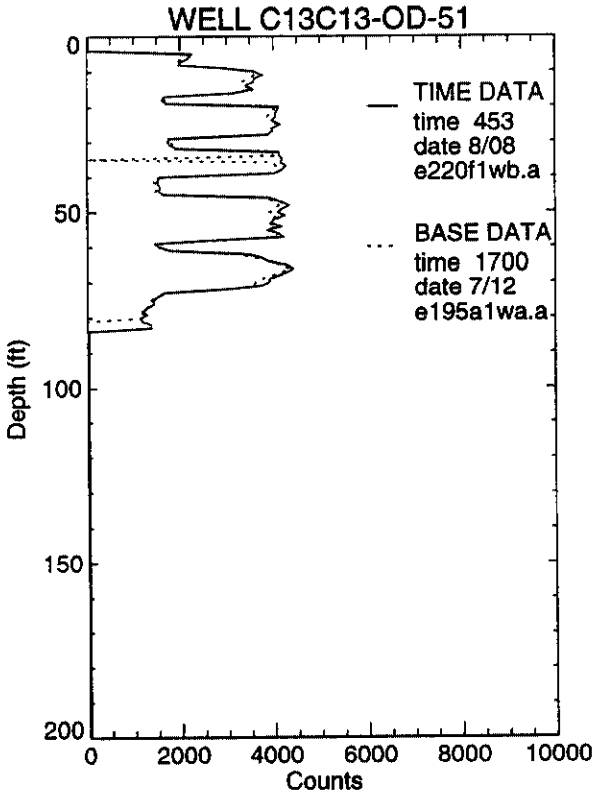
4000
6000
8000
10000


WELL C13C13-OD-51
TIME DATA
time 453
date 8/08
e220f1wb.a
BASE DATA
time 1700
date 7/12
e195a1wa.a
Depth (ft)
Counts
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150
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0
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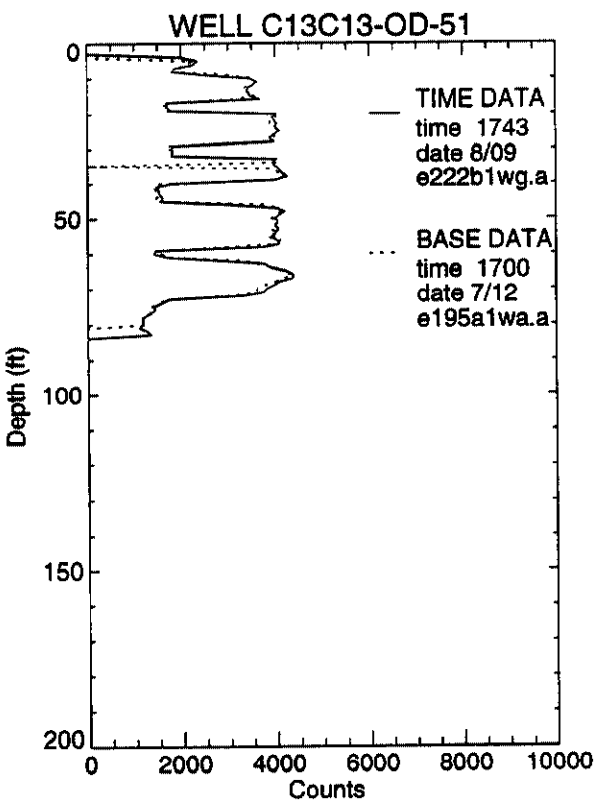
4000
6000
8000
10000


WELL C13C13-OD-51
TIME DATA
time 1743
date 8/09
e222b1wg.a
BASE DATA
time 1700
date 7/12
e195a1wa.a
Depth (ft)
Counts
0
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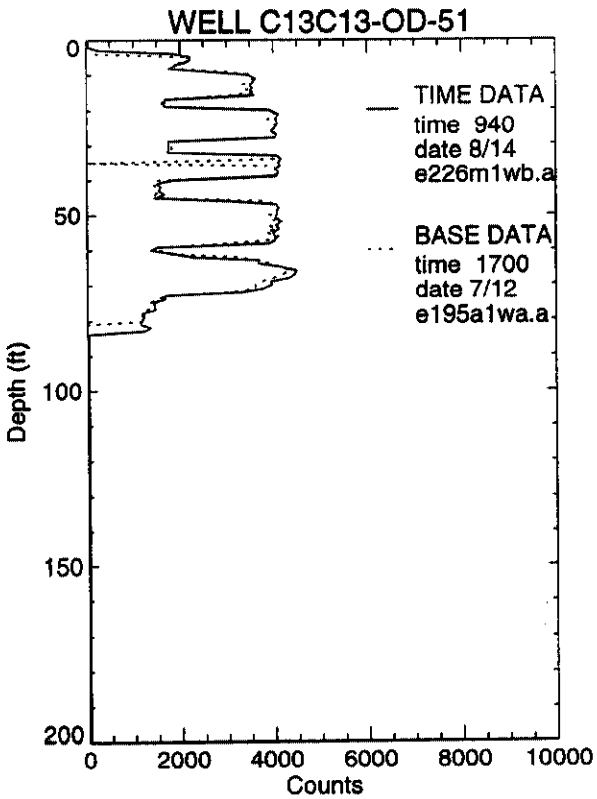
150
200
0
2000
4000
6000
8000
10000


WELL C13C13-OD-51
TIME DATA
time 940
date 8/14
e226m1wb.a
BASE DATA
time 1700
date 7/12
e195a1wa.a
Depth (ft)
Counts
0
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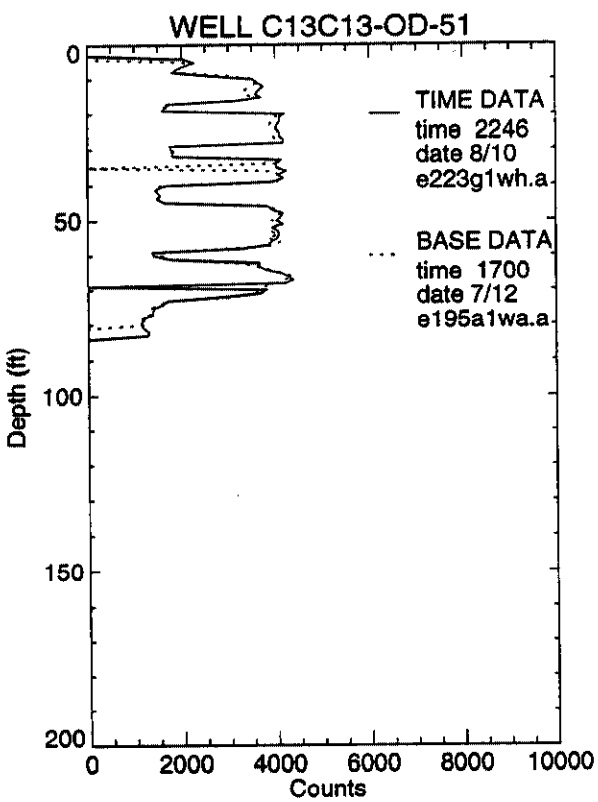
100
150
200
0
2000
4000
6000
8000
10000


WELL C13C13-OD-51
TIME DATA
time 2246
date 8/10
e223g1wh.a
BASE DATA
time 1700
date 7/12
e195a1wa.a
Depth (ft)
Counts
0
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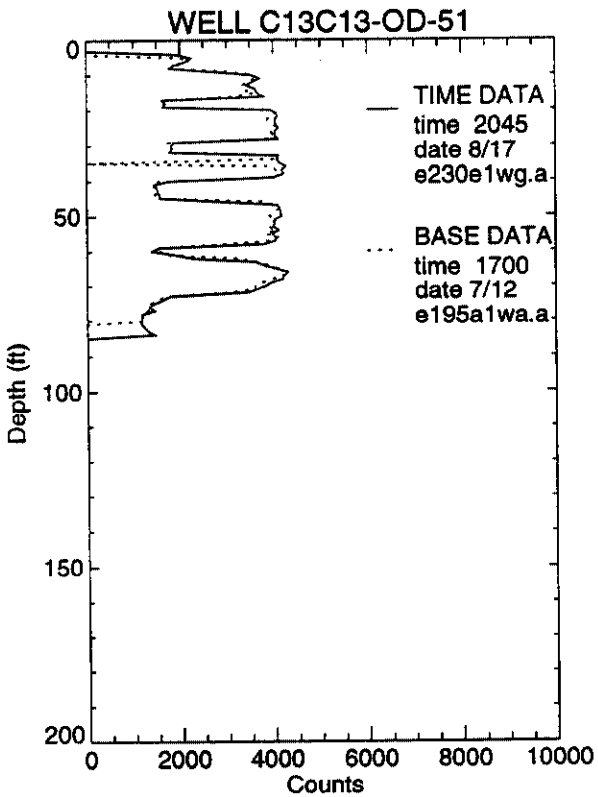
100
150
200
0
2000
4000
6000
8000
10000


WELL C13C13-OD-51
TIME DATA
time 2045
date 8/17
e230e1wg.a
BASE DATA
time 1700
date 7/12
e195a1wa.a
Depth (ft)
Counts
0
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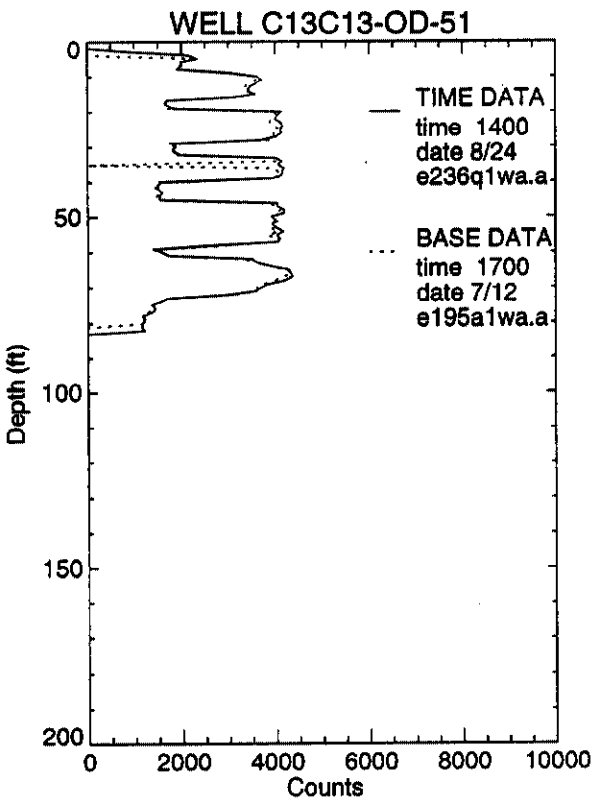
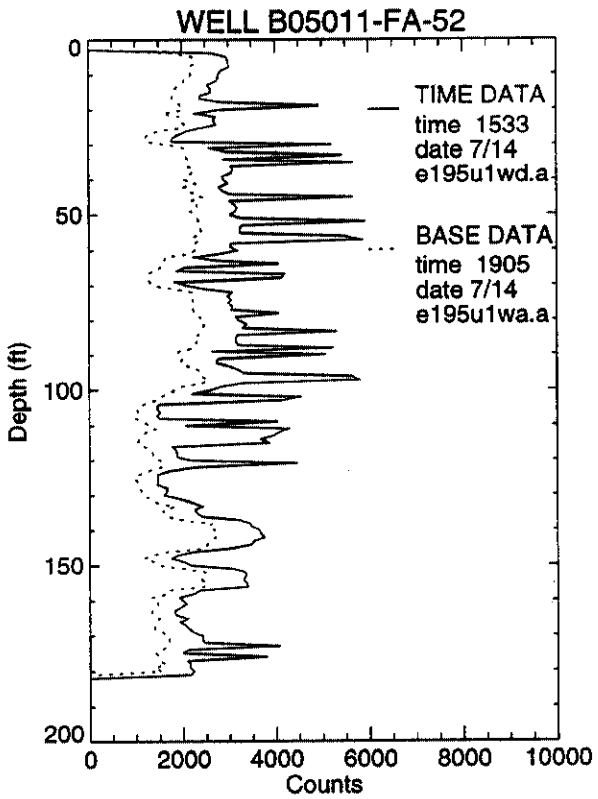
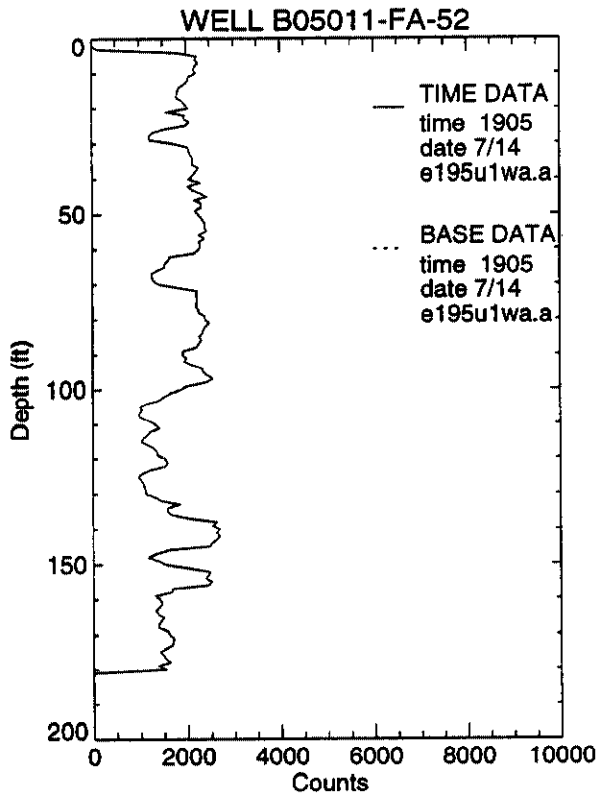
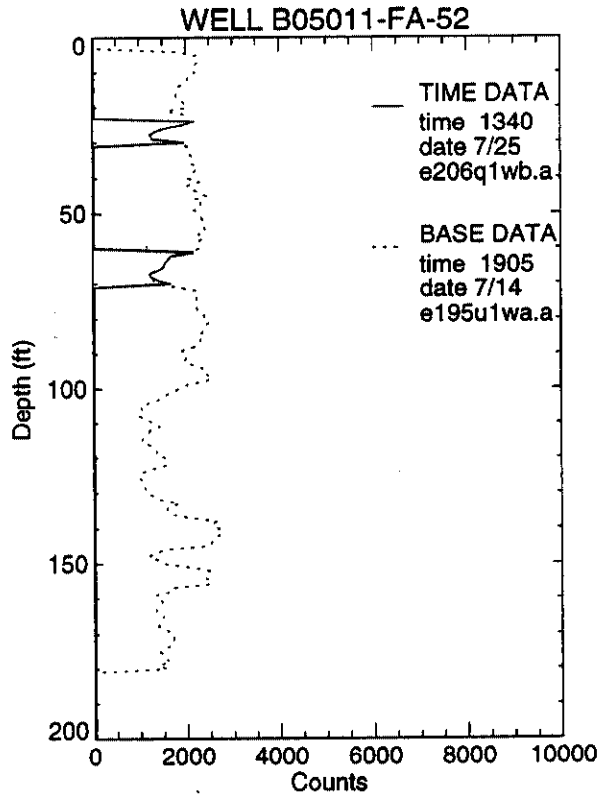
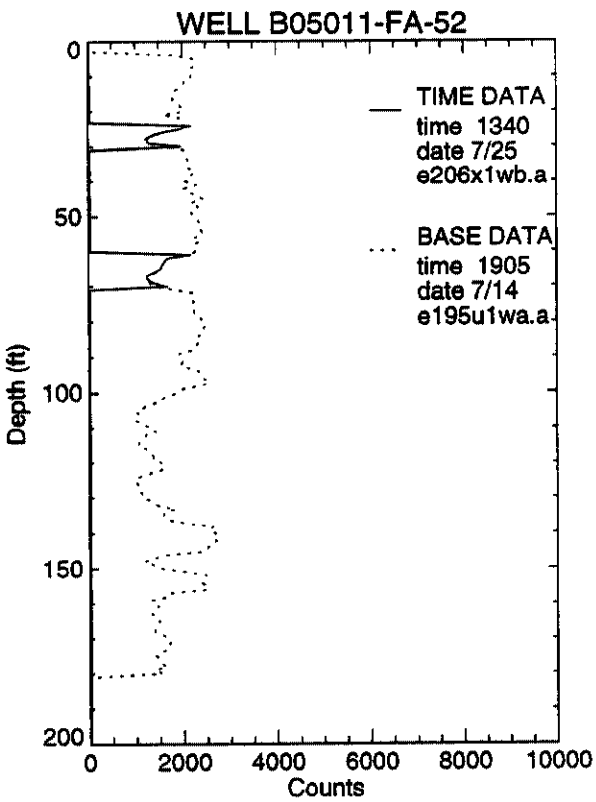
100
150
200
0
2000
4000
6000
8000
10000

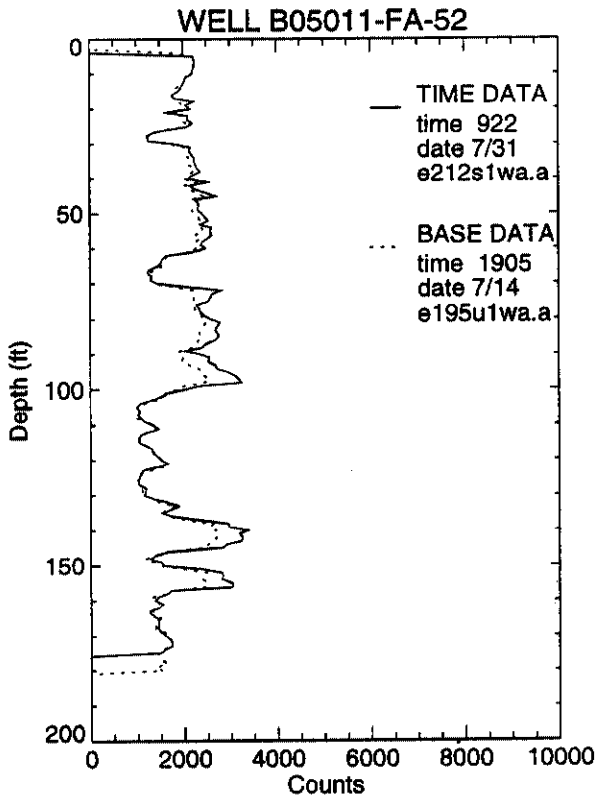

WELL C13C13-OD-51
TIME DATA
time 1400
date 8/24
e236q1wa.a
BASE DATA
time 1700
date 7/12
e195a1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

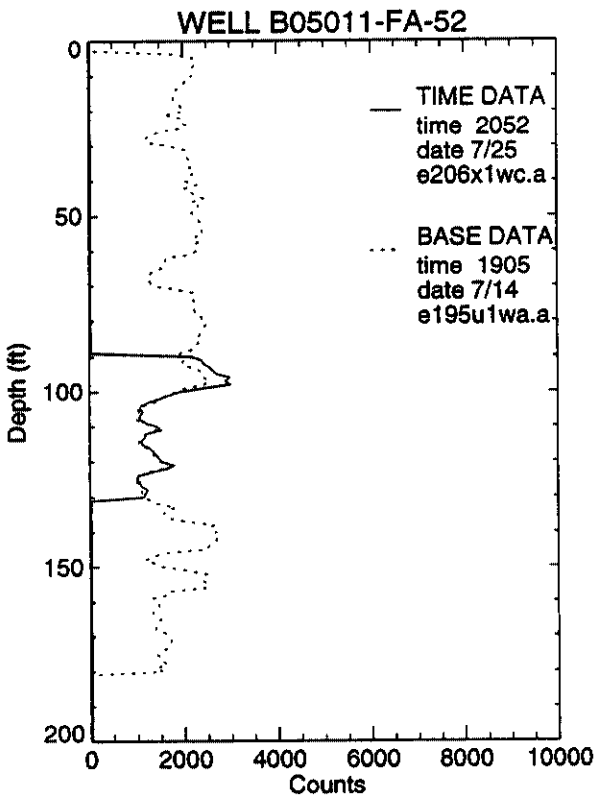

WELL B05011-FA-52
TIME DATA
time 1533
date 7/14
e195u1wd.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

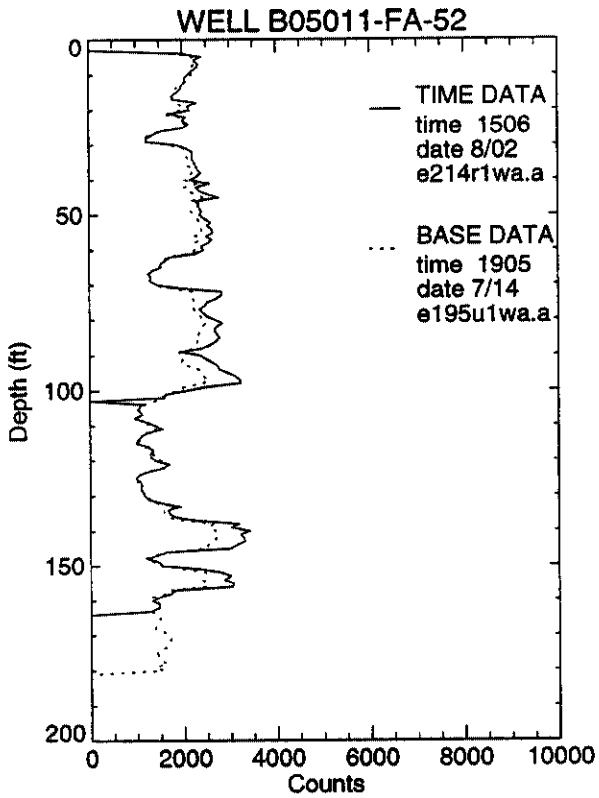

WELL B05011-FA-52
TIME DATA
time 1905
date 7/14
e195u1wa.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

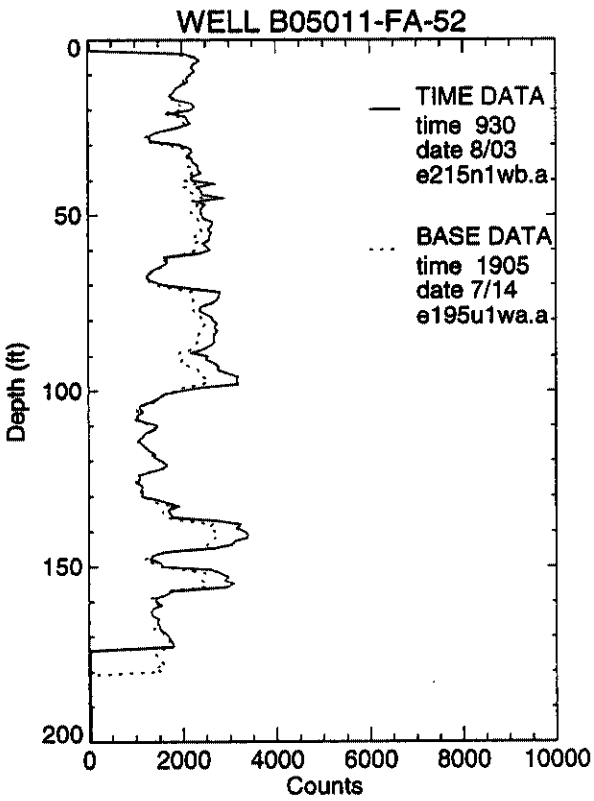

WELL B05011-FA-52
TIME DATA
time 1340
date 7/25
e206q1wb.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

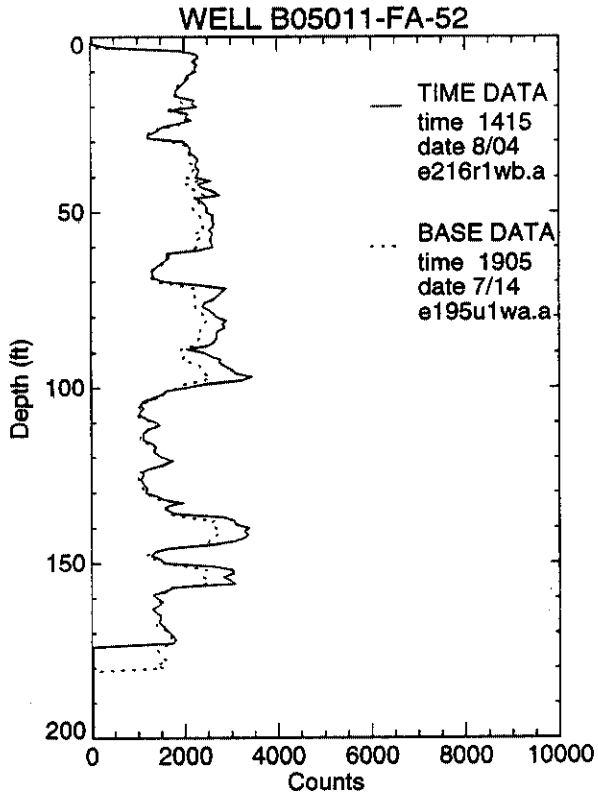

WELL B05011-FA-52
TIME DATA
time 1340
date 7/25
e206x1wb.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

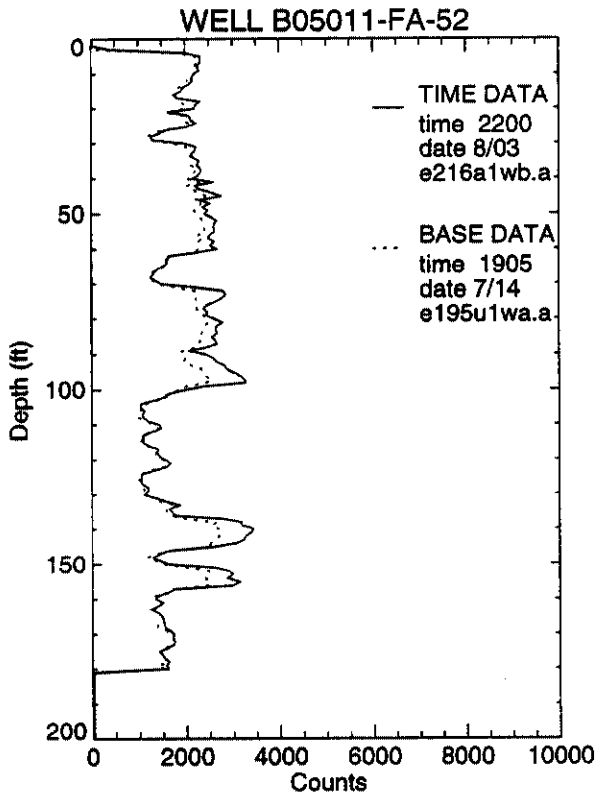

WELL B05011-FA-52
TIME DATA
time 922
date 7/31
e212s1wa.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 2052
date 7/25
e206x1wc.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 1506
date 8/02
e214r1wa.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 930
date 8/03
e215n1wb.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 1415
date 8/04
e216r1wb.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 2200
date 8/03
e216a1wb.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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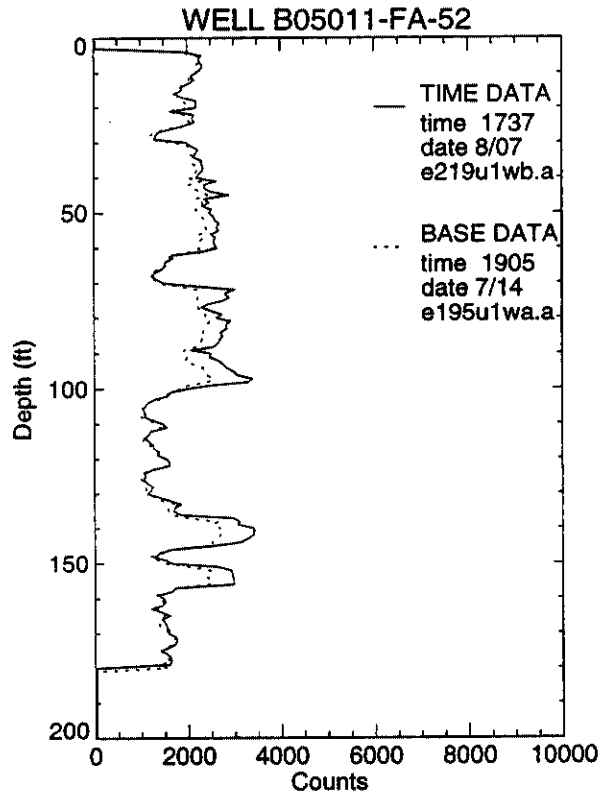
100
150
200
0
2000
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 1737
date 8/07
e219u1wb.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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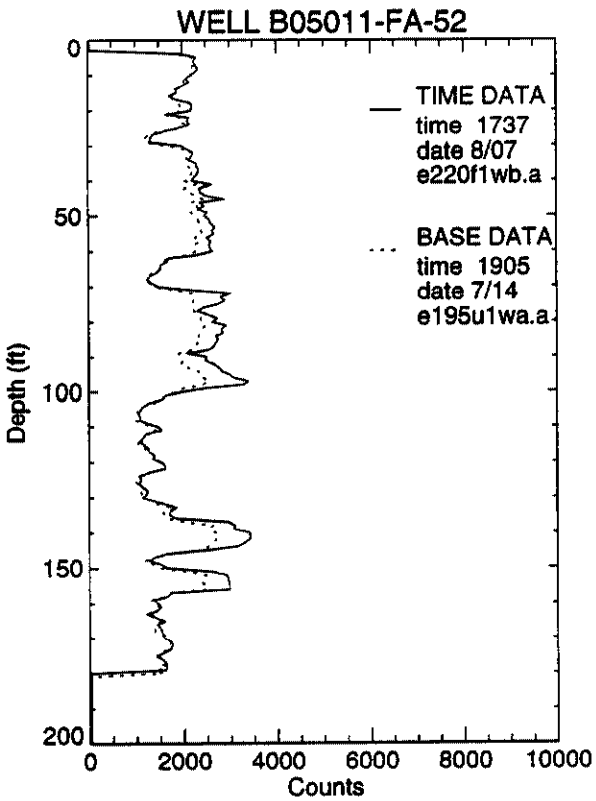
100
150
200
0
2000
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 1737
date 8/07
e220f1wb.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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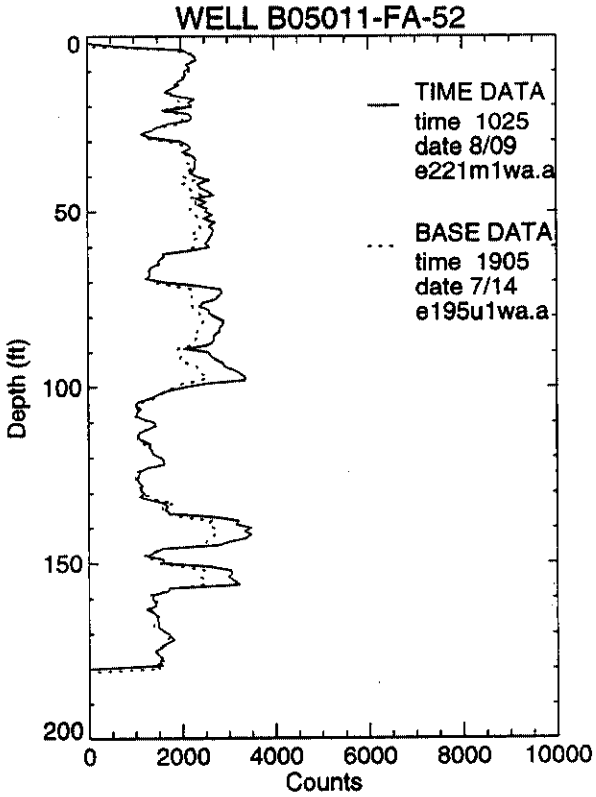
100
150
200
0
2000
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 1025
date 8/09
e221m1wa.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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150
200
0
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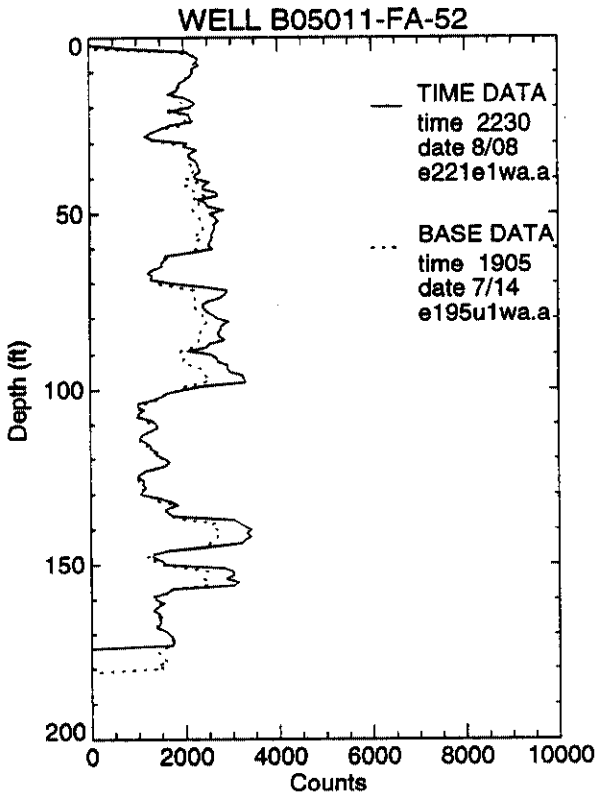
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 2230
date 8/08
e221e1wa.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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150
200
0
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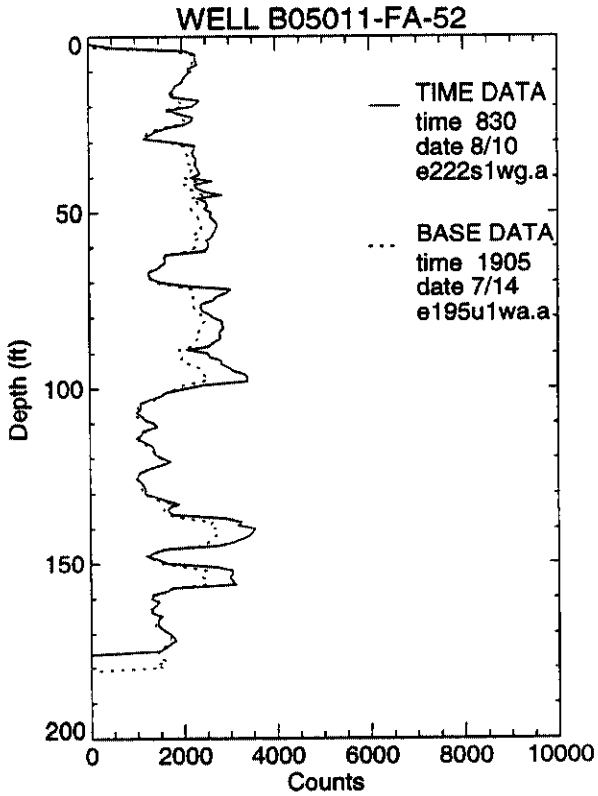
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 830
date 8/10
e222s1wg.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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150
200
0
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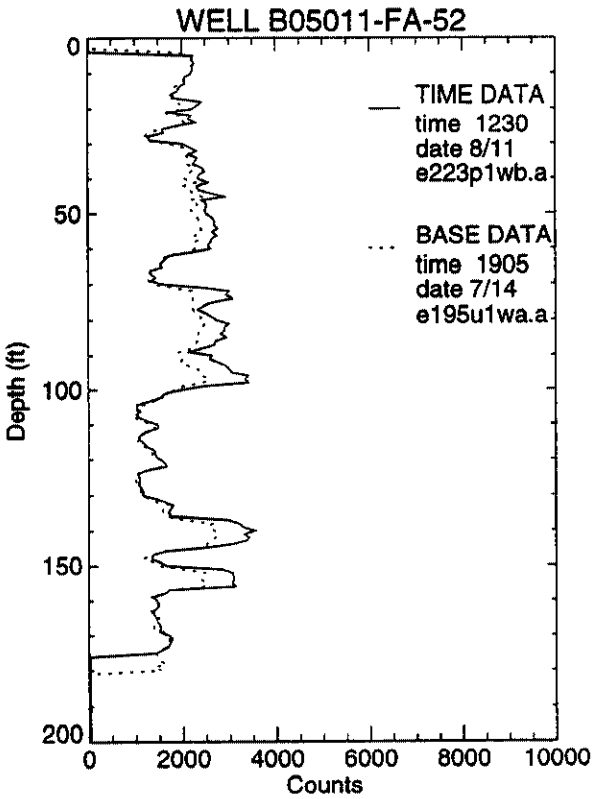
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 1230
date 8/11
e223p1wb.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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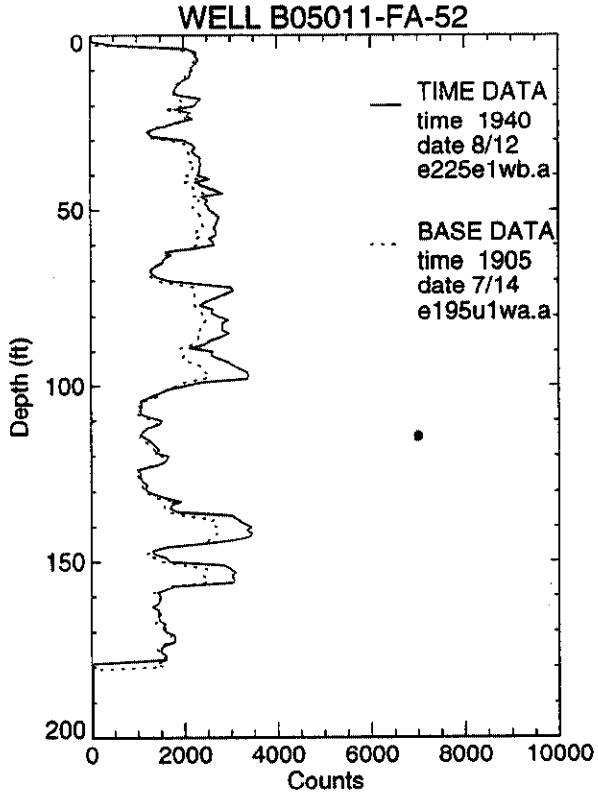
100
150
200
0
2000
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 1940
date 8/12
e225e1wb.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
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150
200
0
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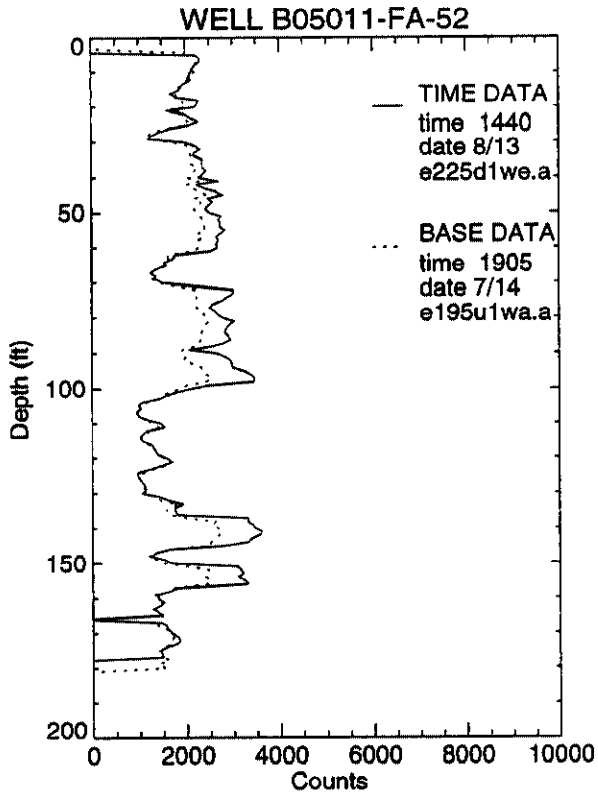
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 1440
date 8/13
e225d1we.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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150
200
0
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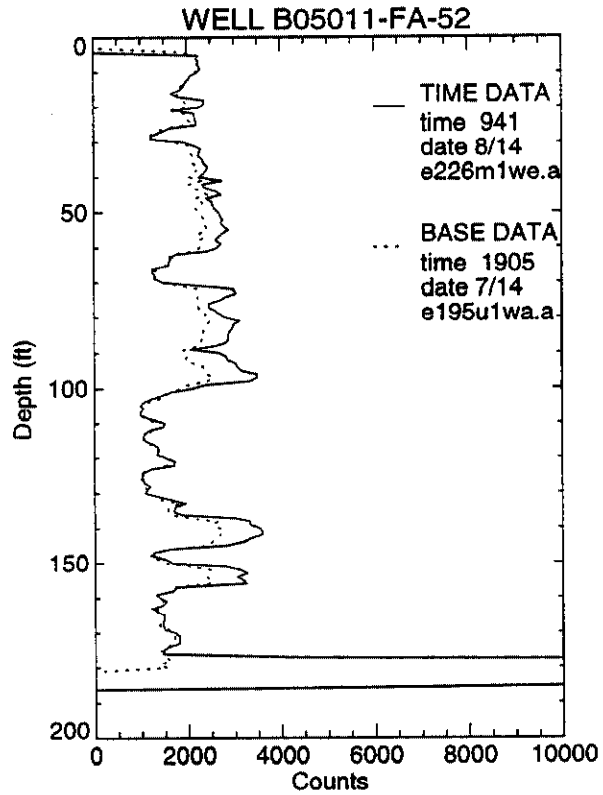
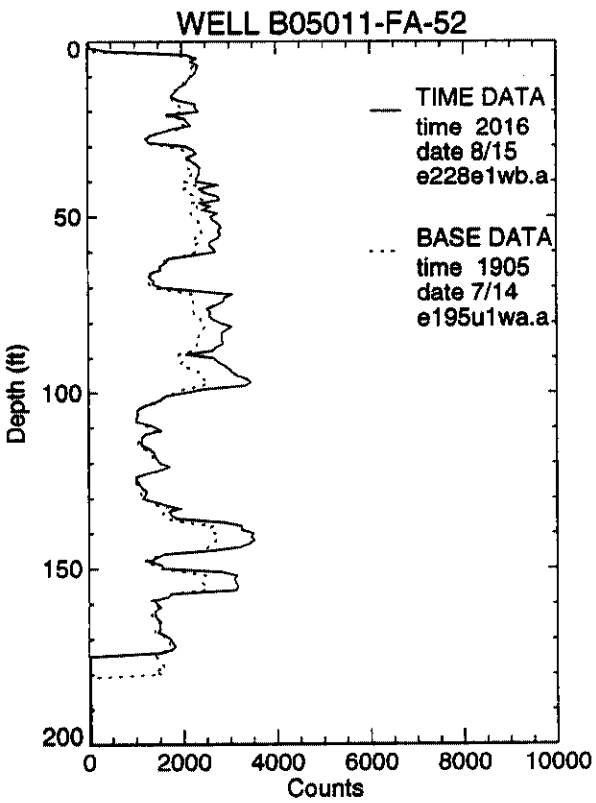
8000
10000


WELL B05011-FA-52
TIME DATA
time 941
date 8/14
e226m1we.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 2016
date 8/15
e228e1wb.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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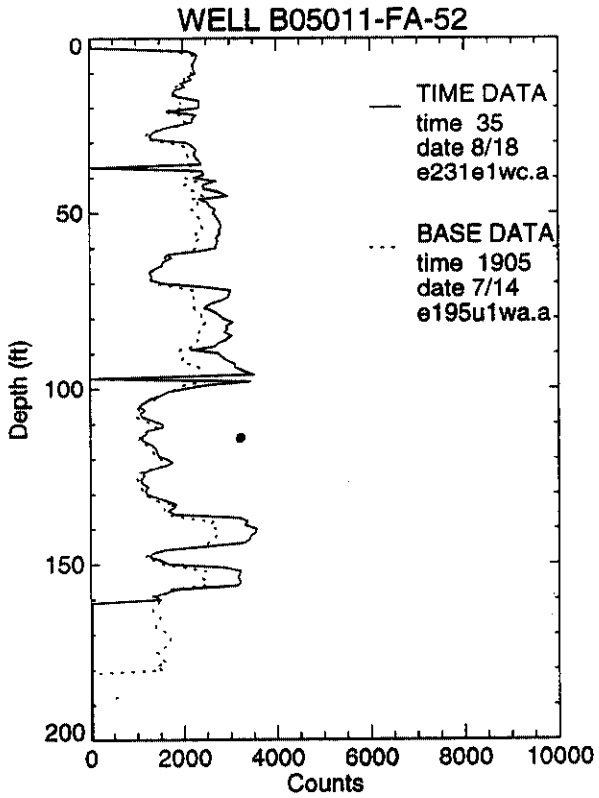
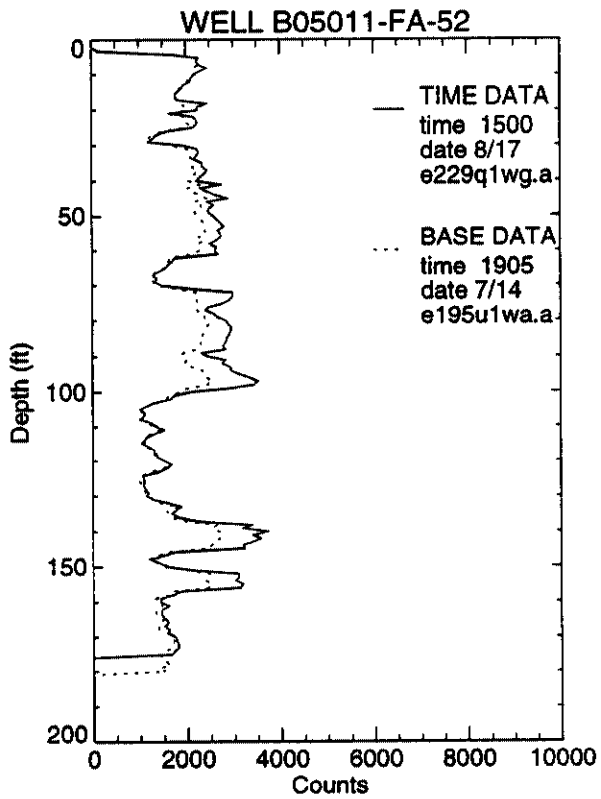
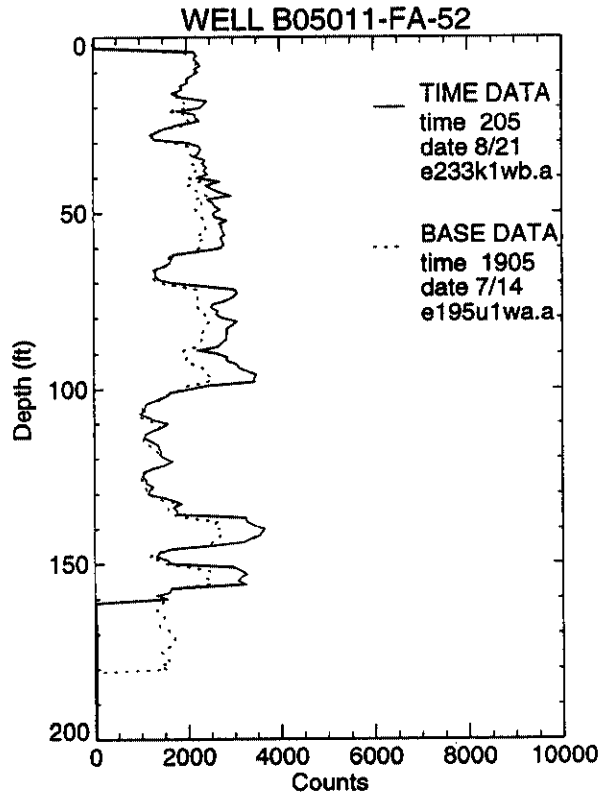
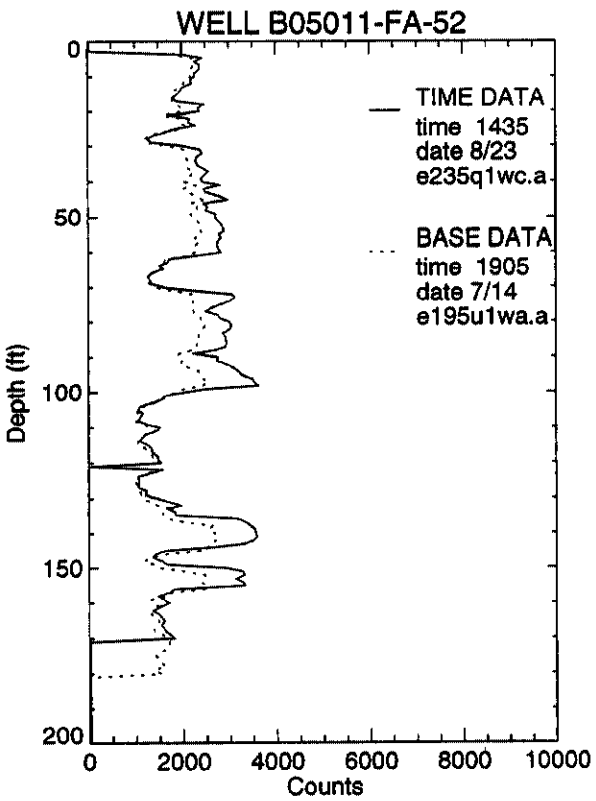
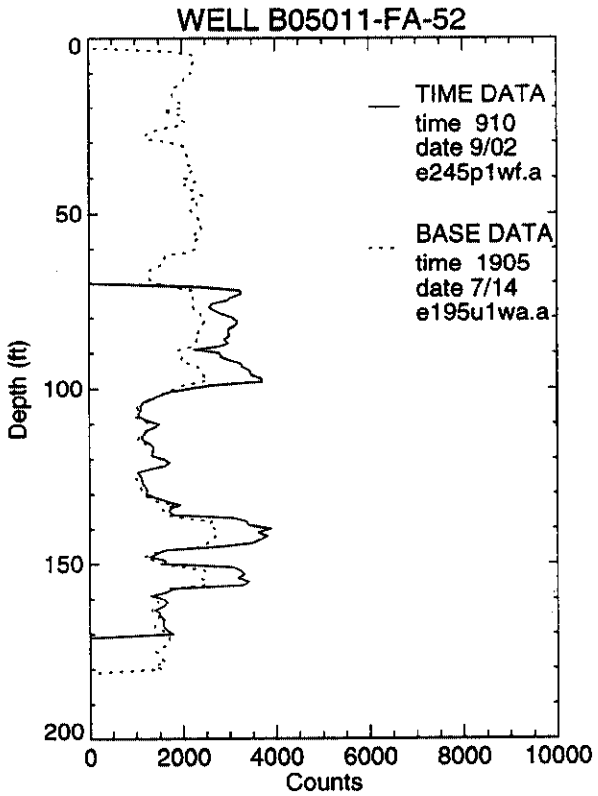
100
150
200
0
2000
4000
6000
8000
10000

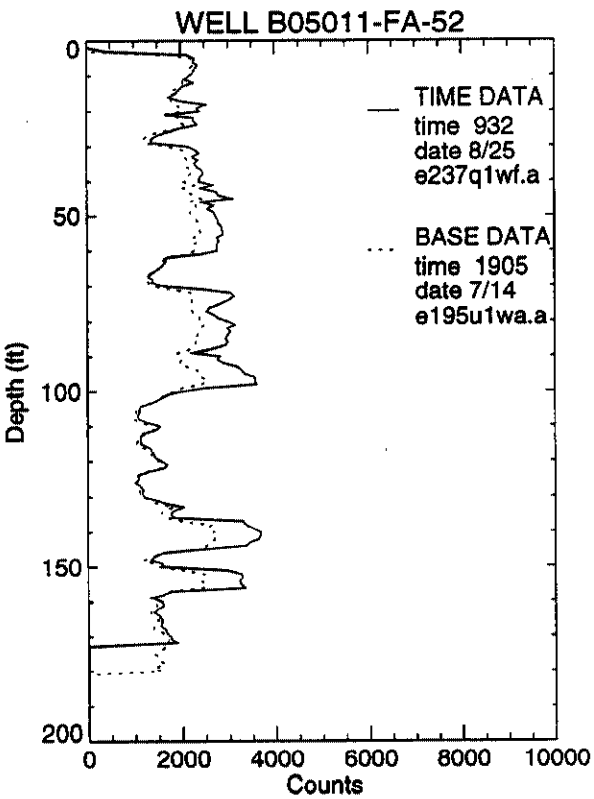

WELL B05011-FA-52
TIME DATA
time 35
date 8/18
e231e1wc.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

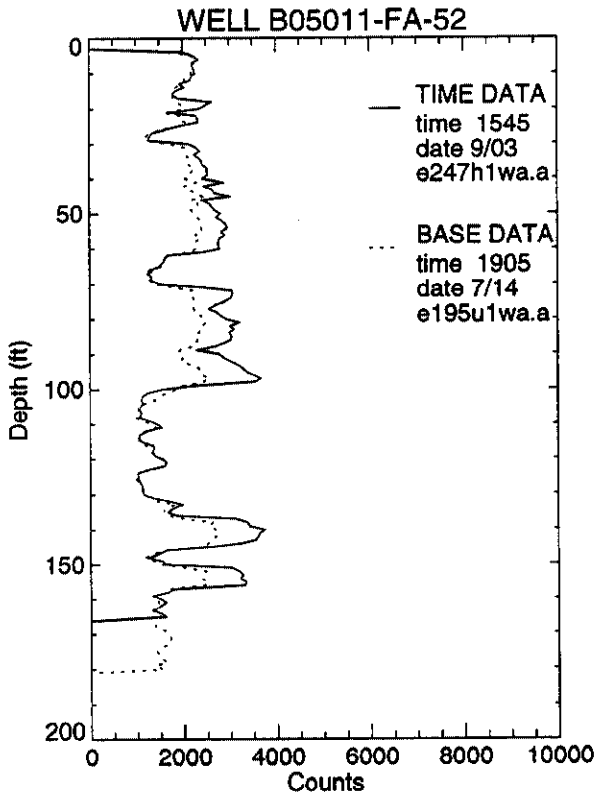

WELL B05011-FA-52
TIME DATA
time 1500
date 8/17
e229q1wg.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 205
date 8/21
e233k1wb.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 1435
date 8/23
e235q1wc.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 910
date 9/02
e245p1wf.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 932
date 8/25
e237q1wf.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B05011-FA-52
TIME DATA
time 1545
date 9/03
e247h1wa.a
BASE DATA
time 1905
date 7/14
e195u1wa.a
Depth (ft)
Counts
0
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150
200
0
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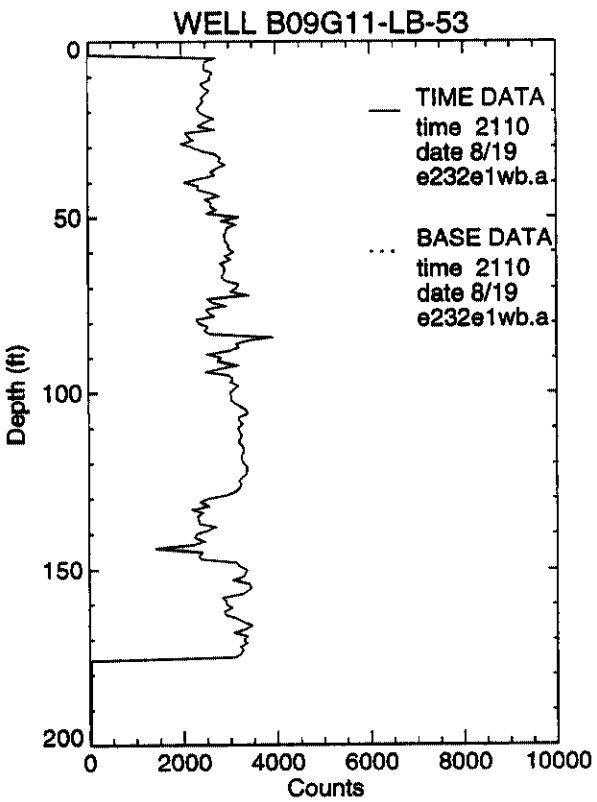
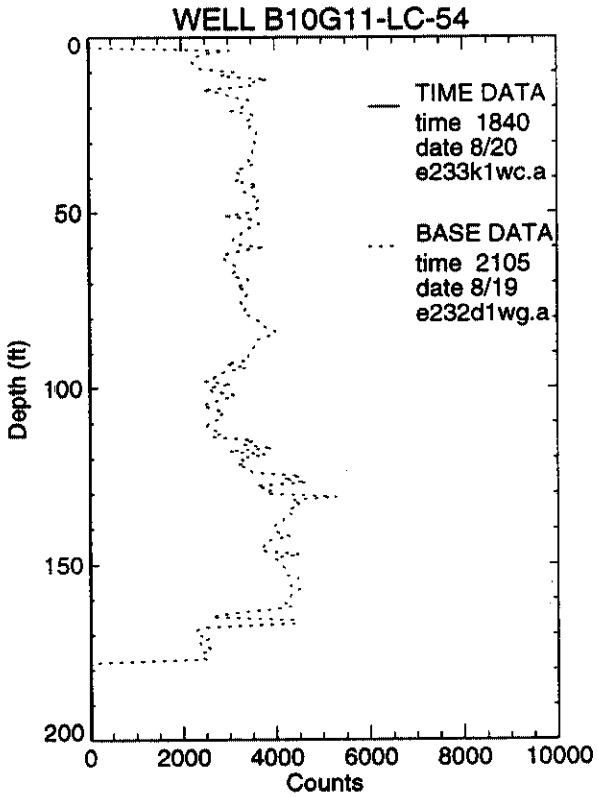
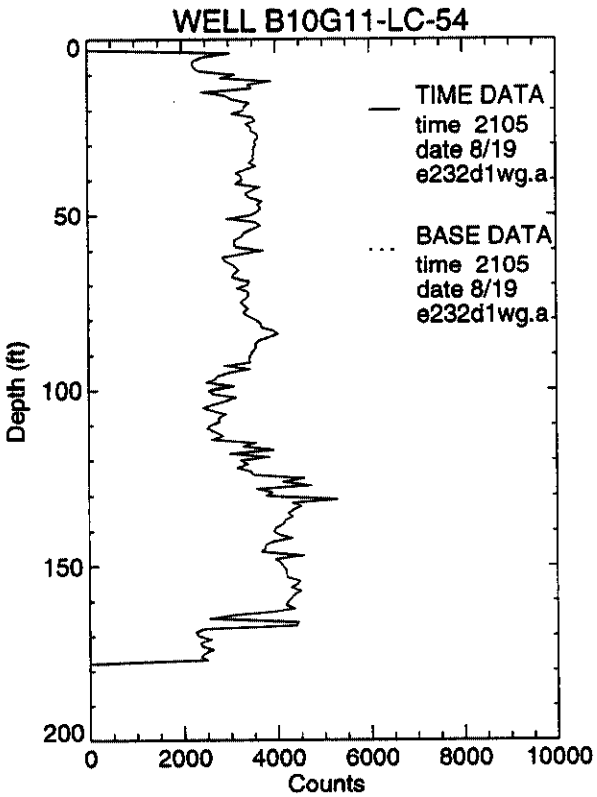
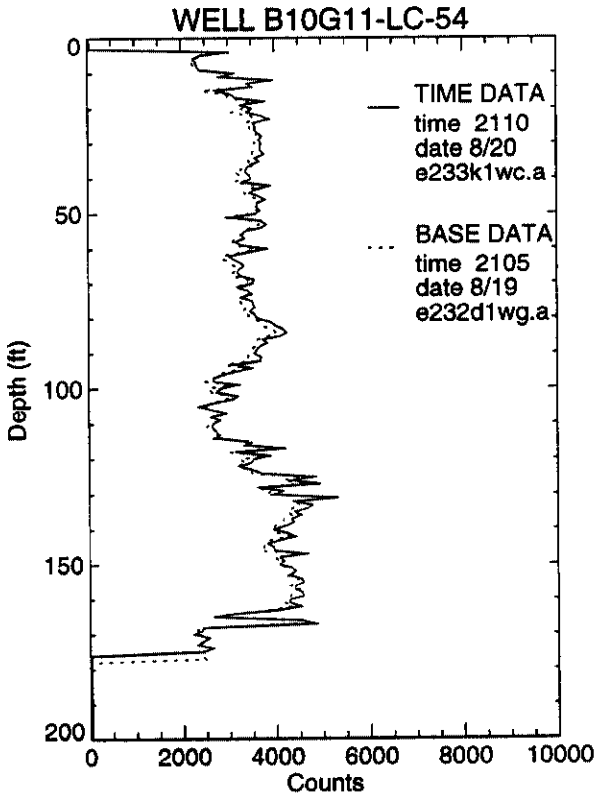
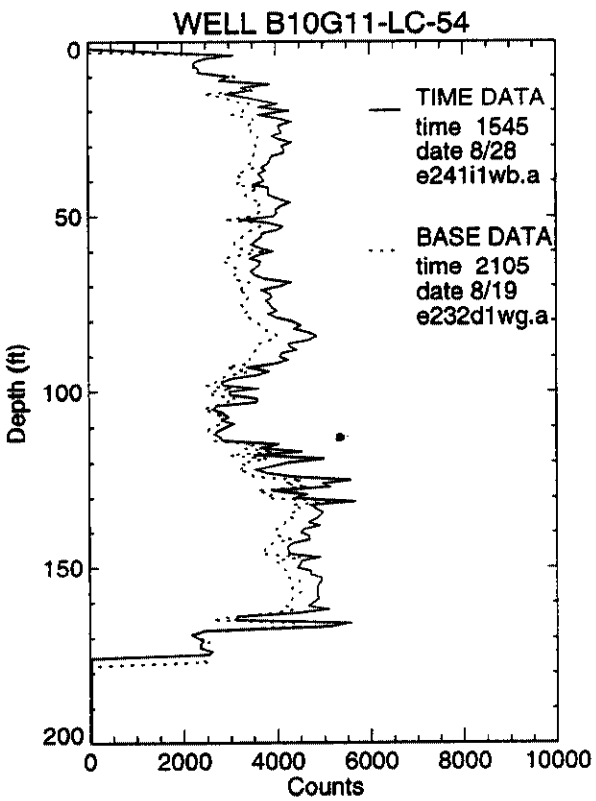
4000
6000
8000
10000

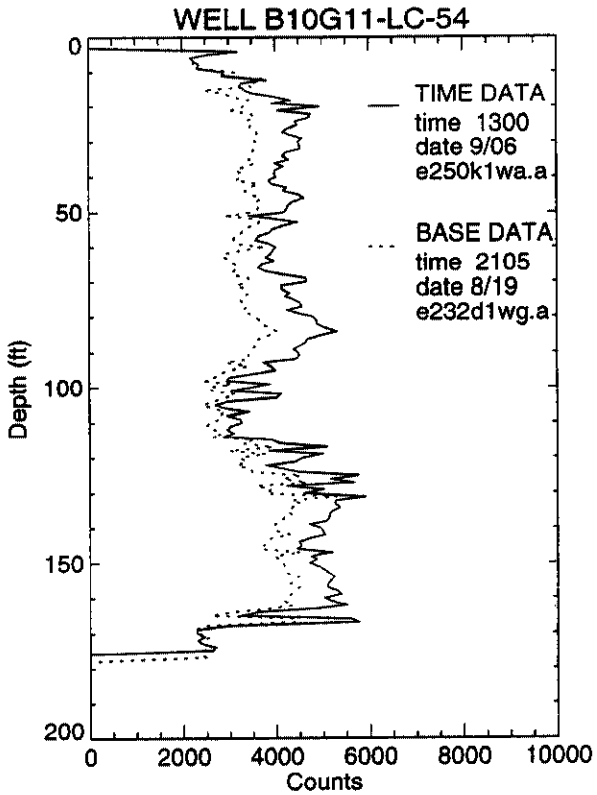

WELL B09G11-LB-53
TIME DATA
time 2110
date 8/19
e232e1wb.a
BASE DATA
time 2110
date 8/19
e232e1wb.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

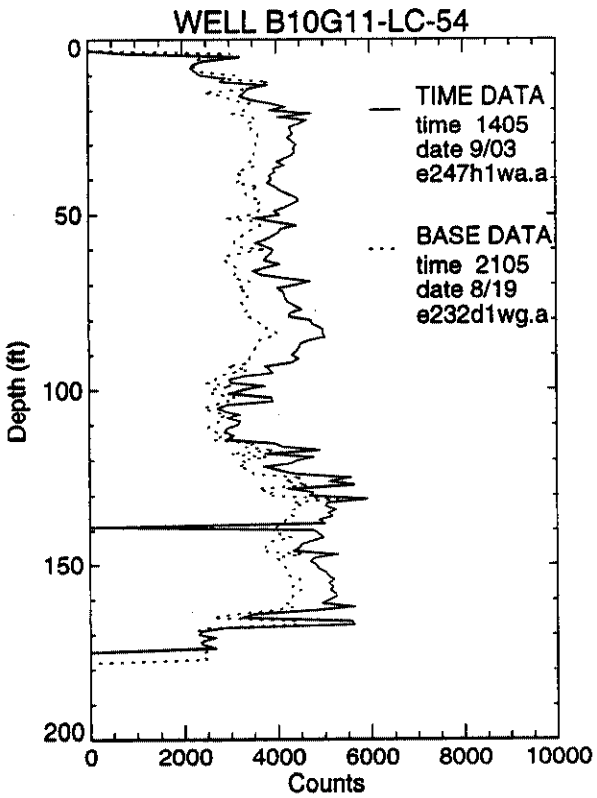

WELL B10G11-LC-54
TIME DATA
time 1840
date 8/20
e233k1wc.a
BASE DATA
time 2105
date 8/19
e232d1wg.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

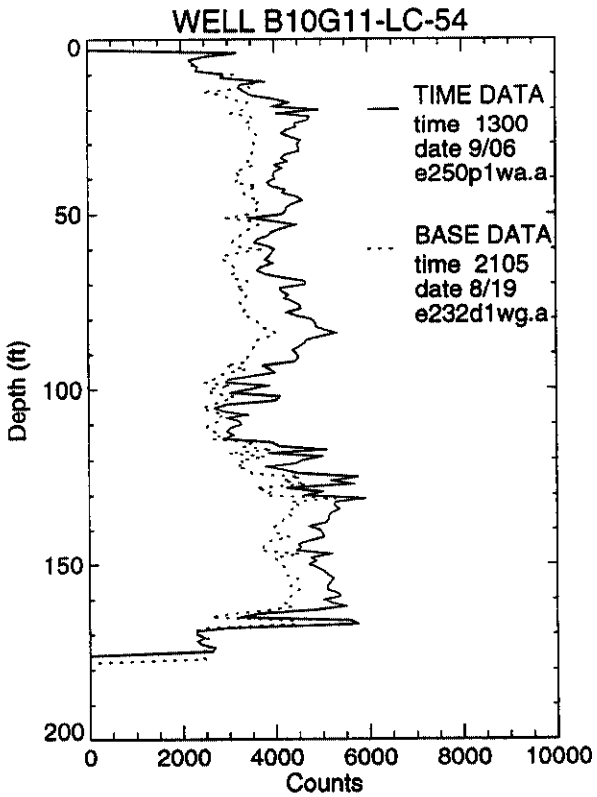

WELL B10G11-LC-54
TIME DATA
time 2105
date 8/19
e232d1wg.a
BASE DATA
time 2105
date 8/19
e232d1wg.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

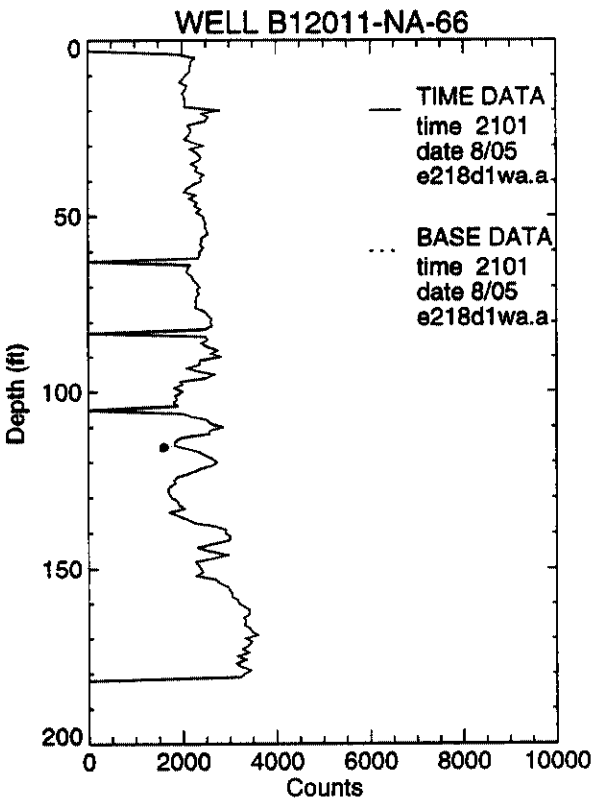

WELL B10G11-LC-54
TIME DATA
time 2110
date 8/20
e233k1wc.a
BASE DATA
time 2105
date 8/19
e232d1wg.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

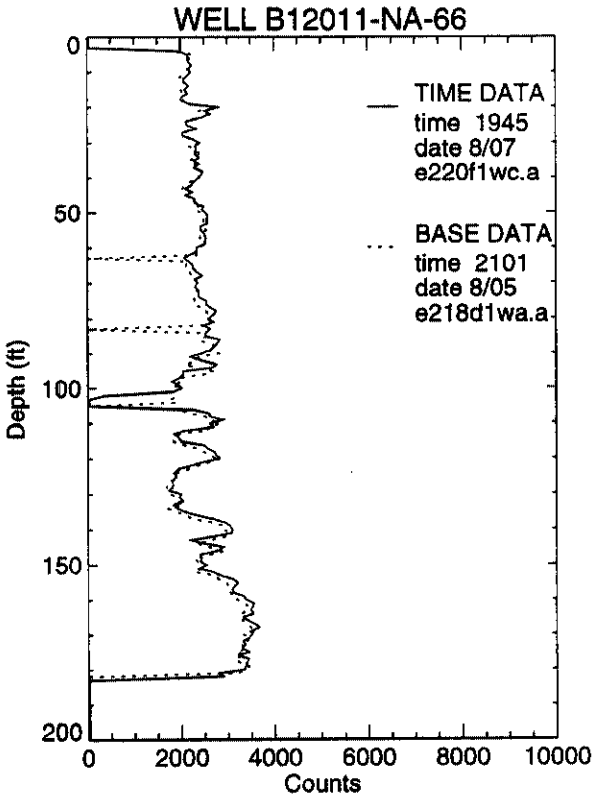

WELL B10G11-LC-54
TIME DATA
time 1545
date 8/28
e241i1wb.a
BASE DATA
time 2105
date 8/19
e232d1wg.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

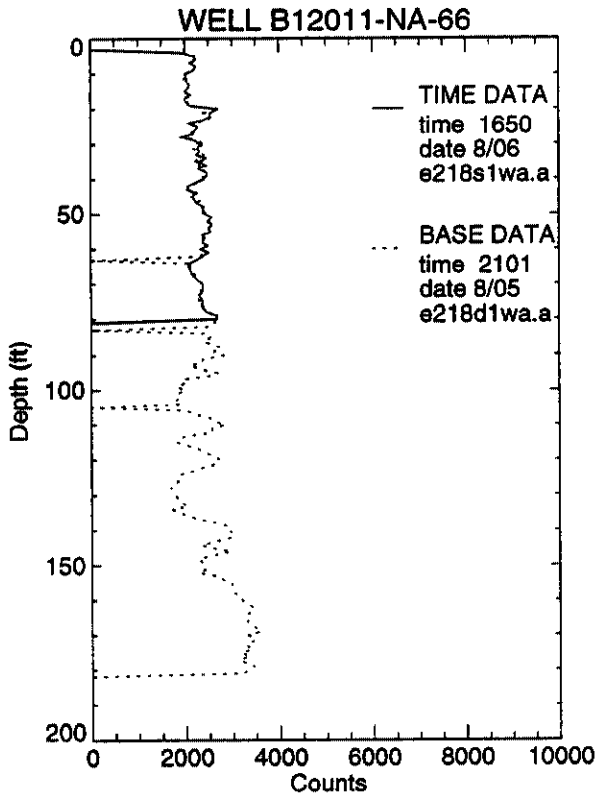

WELL B10G11-LC-54
TIME DATA
time 1300
date 9/06
e250k1wa.a
BASE DATA
time 2105
date 8/19
e232d1wg.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

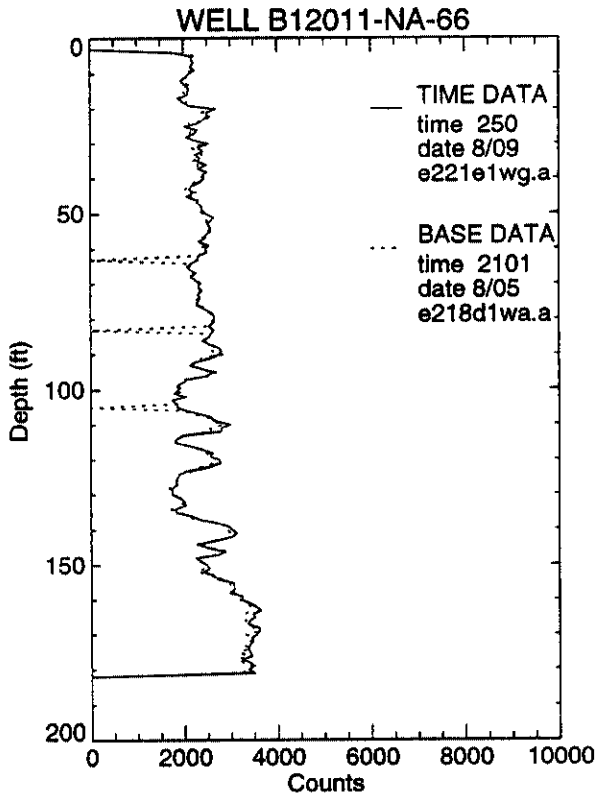

WELL B10G11-LC-54
TIME DATA
time 1405
date 9/03
e247h1wa.a
BASE DATA
time 2105
date 8/19
e232d1wg.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

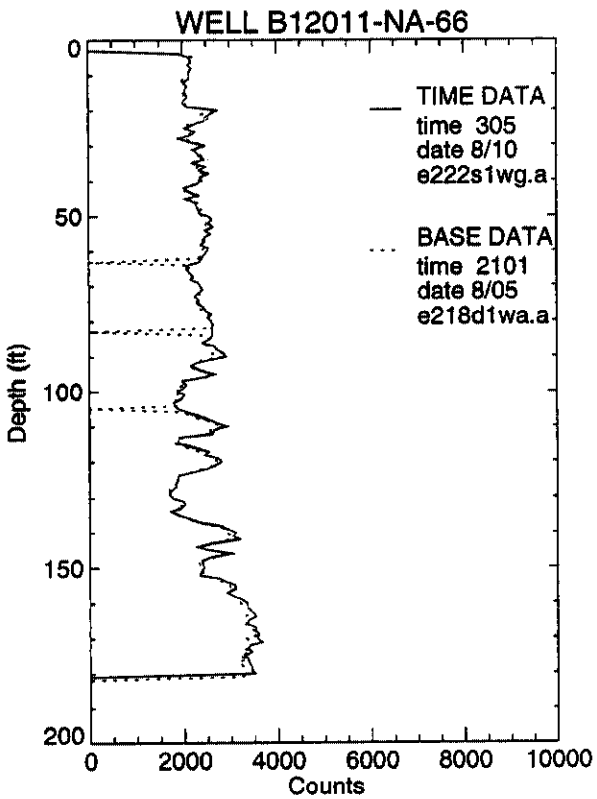

WELL B10G11-LC-54
TIME DATA
time 1300
date 9/06
e250p1wa.a
BASE DATA
time 2105
date 8/19
e232d1wg.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

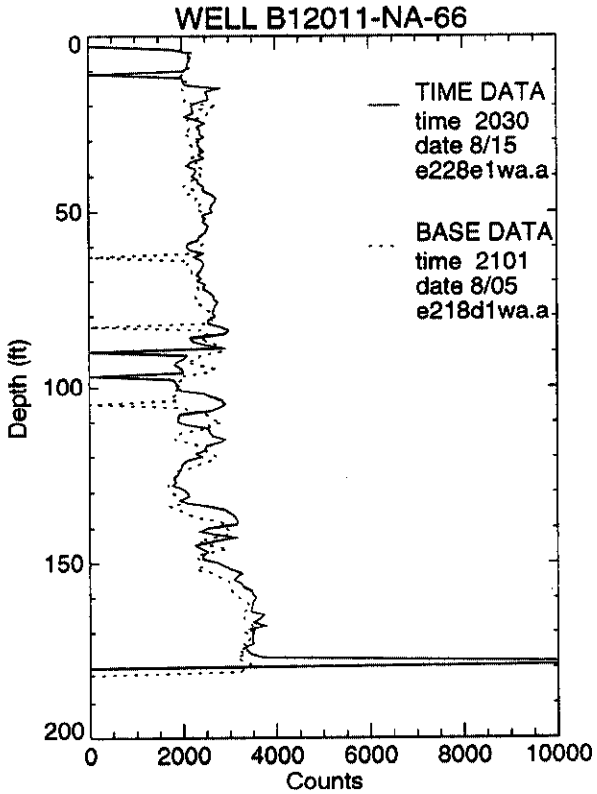

WELL B12011-NA-66
TIME DATA
time 2101
date 8/05
e218d1wa.a
BASE DATA
time 2101
date 8/05
e218d1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

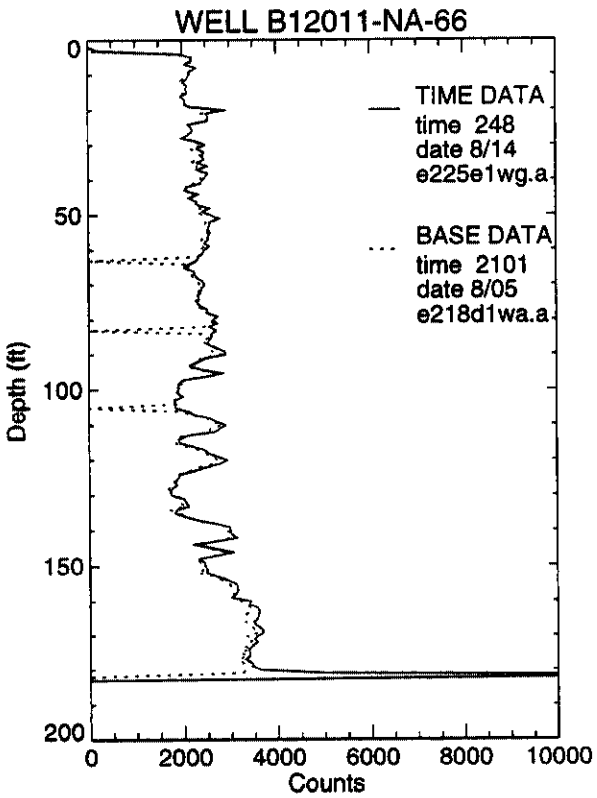

WELL B12011-NA-66
TIME DATA
time 1945
date 8/07
e220f1wc.a
BASE DATA
time 2101
date 8/05
e218d1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000

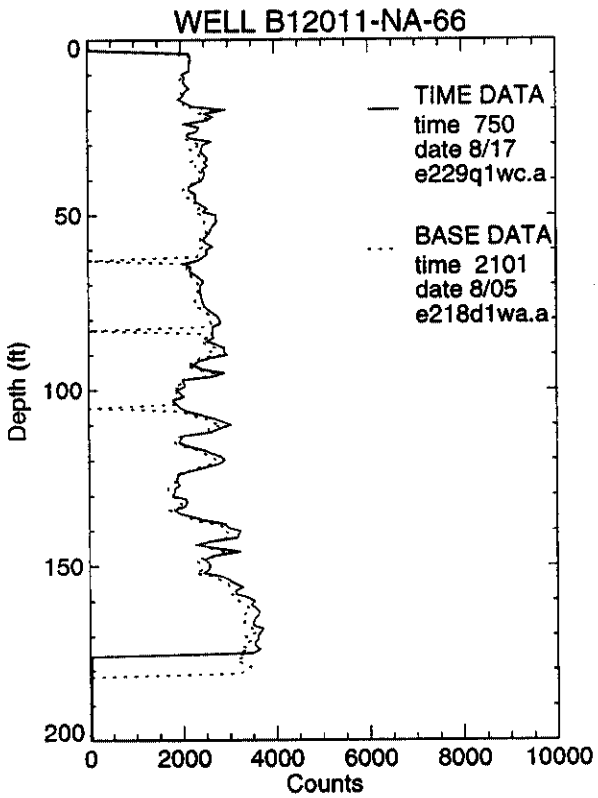

WELL B12011-NA-66
TIME DATA
time 1650
date 8/06
e218s1wa.a
BASE DATA
time 2101
date 8/05
e218d1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B12011-NA-66
TIME DATA
time 250
date 8/09
e221e1wg.a
BASE DATA
time 2101
date 8/05
e218d1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B12011-NA-66
TIME DATA
time 305
date 8/10
e222s1wg.a
BASE DATA
time 2101
date 8/05
e218d1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B12011-NA-66
TIME DATA
time 2030
date 8/15
e228e1wa.a
BASE DATA
time 2101
date 8/05
e218d1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B12011-NA-66
TIME DATA
time 248
date 8/14
e225e1wg.a
BASE DATA
time 2101
date 8/05
e218d1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B12011-NA-66
TIME DATA
time 750
date 8/17
e229q1wc.a
BASE DATA
time 2101
date 8/05
e218d1wa.a
Depth (ft)
Counts
0
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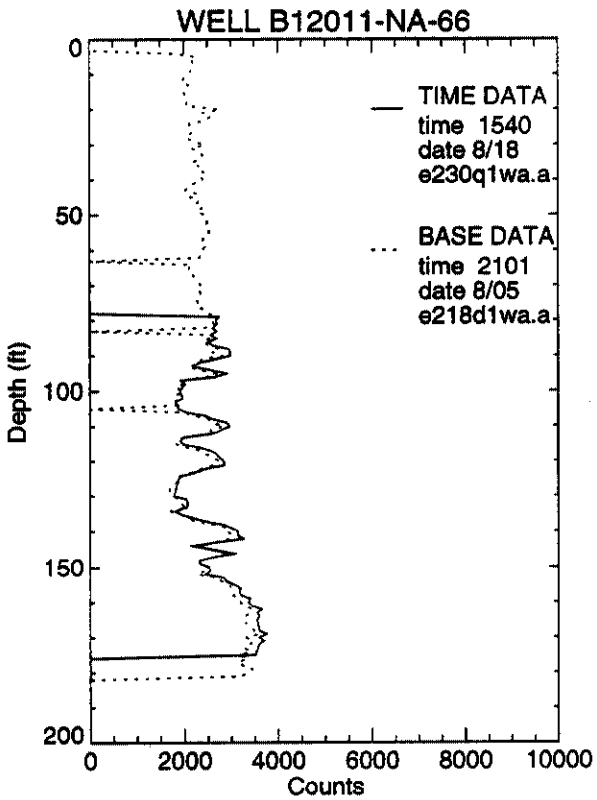
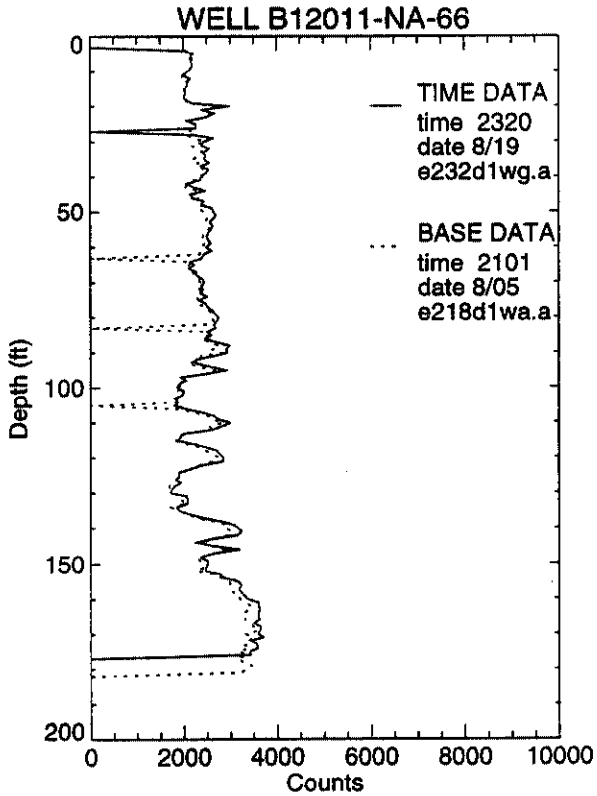
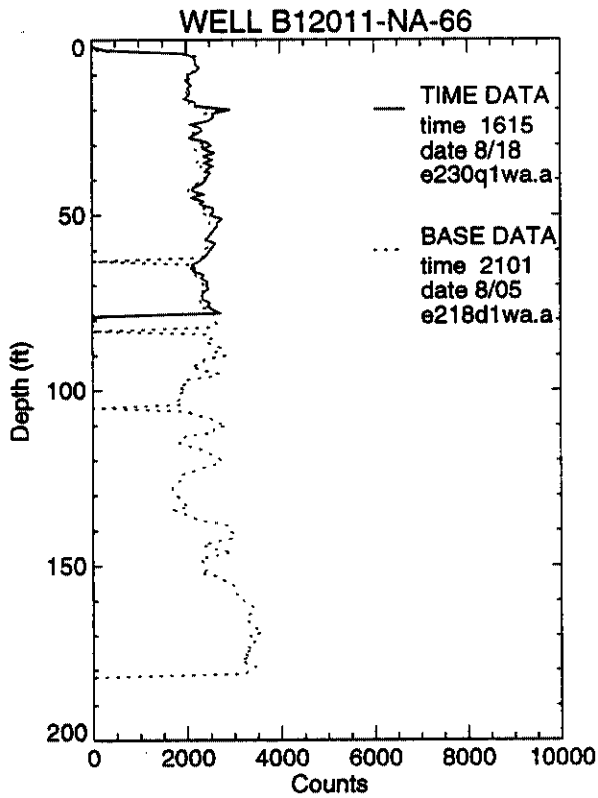
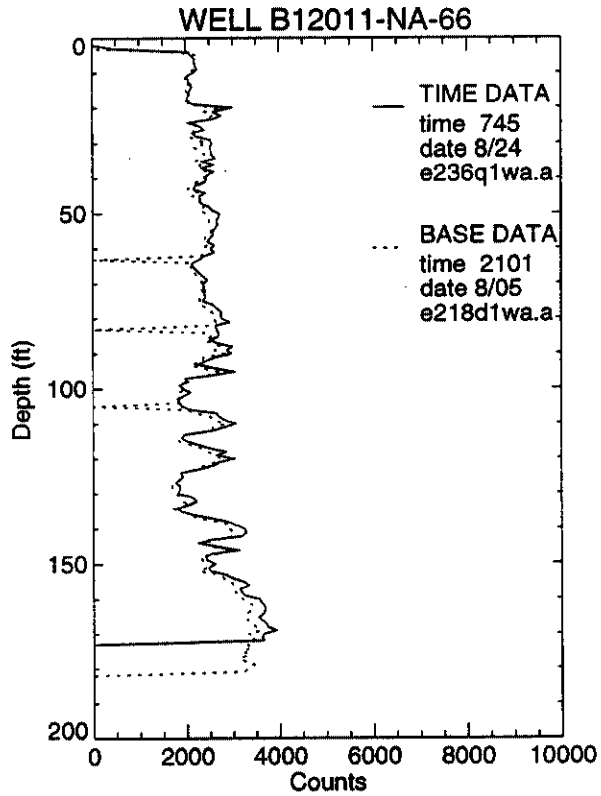
150
200
0
2000
4000
6000
8000
10000


WELL B12011-NA-66
TIME DATA
time 1540
date 8/18
e230q1wa.a
BASE DATA
time 2101
date 8/05
e218d1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B12011-NA-66
TIME DATA
time 2320
date 8/19
e232d1wg.a
BASE DATA
time 2101
date 8/05
e218d1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B12011-NA-66
TIME DATA
time 1615
date 8/18
e230q1wa.a
BASE DATA
time 2101
date 8/05
e218d1wa.a
Depth (ft)
Counts
0
50
100
150
200
0
2000
4000
6000
8000
10000


WELL B12011-NA-66
TIME DATA
time 745
date 8/24
e236q1wa.a
BASE DATA
time 2101
date 8/05
e218d1wa.a
Depth (ft)
Counts
0
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100
150
200
0
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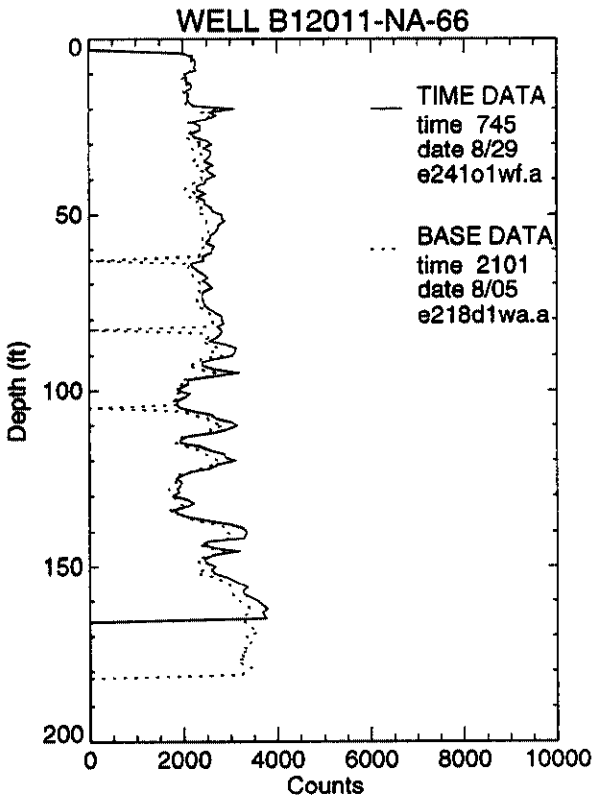
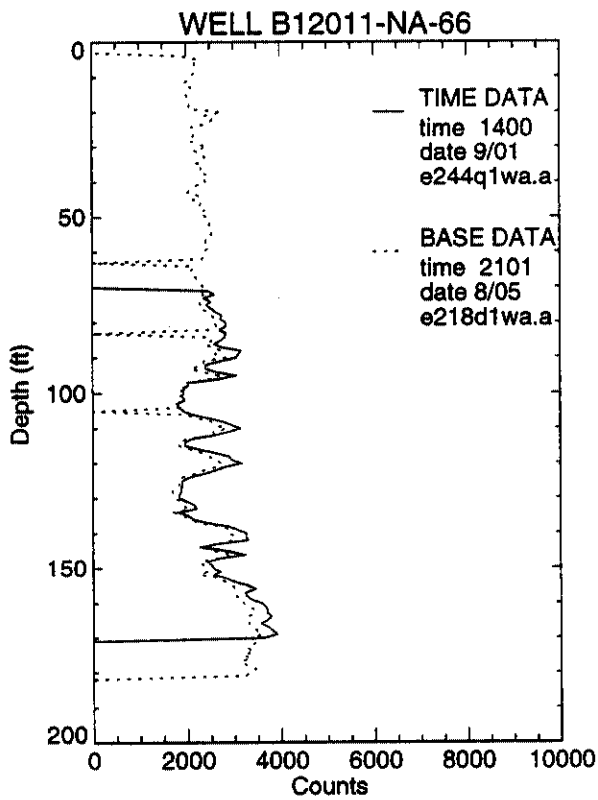
4000
6000
8000
10000


WELL B12011-NA-66
TIME DATA
time 745
date 8/29
e241o1wf.a
BASE DATA
time 2101
date 8/05
e218d1wa.a
Depth (ft)
0
50
100
150
200
0
2000
4000
6000
8000
10000
Counts


WELL B12011-NA-66
TIME DATA
time 1400
date 9/01
e244q1wa.a
BASE DATA
time 2101
date 8/05
e218d1wa.a
Depth (ft)
0
50
100
150
200
0
2000
4000
6000
8000
10000
Counts