

APPENDIX B
MONITORING WELL RECORDS

808211: 9-12-89

SAMPLE INFORMATION

SOIL SAMPLING



SPLIT-SPOON SAMPLE
(PER ASTM D1586)



THIN-WALL TUBE SAMPLE
(PER ASTM D1587)



CUTTINGS COLLECTED

ROCK CORING INFORMATION

1	100
	78
NX	

CORE RUN NO. AND LIMITS

RECOVERY
RQD

CORE SIZE

USC = UNIFIED SOIL CLASSIFICATION
(ASTM D-2487)

"N" VALUE IS BLOWS PER 12 INCH PENETRATION UNLESS OTHERWISE SPECIFIED.

SAMPLE ODORS, WHERE APPROPRIATE

NO NO ODOR

MO MODERATE ODOR

WO WEAK ODOR

SO STRONG ODOR

GRAPHIC LOG



FILL



CLAY



SILT



SAND



GRAVEL



SHALE (*SH)



LIMESTONE (*LS)

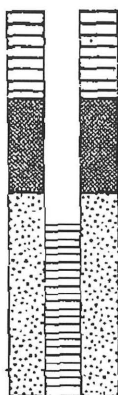


SILTSTONE (*SIS)



SANDSTONE (*SS)

WELL COMPLETION DETAIL



PORTLAND CEMENT/
SODIUM BENTONITE
GROUT

SODIUM BENTONITE
SEAL

SAND OR
GRAVEL BACKFILL

SCREENED INTERVAL

CAP

NOTE:

A BORING/WELL RECORD IS CONSIDERED REPRESENTATIVE OF SUBSURFACE CONDITIONS AT THE BORING/WELL LOCATION ON THE DATES SHOWN. IT IS NOT WARRANTED TO REPRESENT SUBSURFACE CONDITIONS AT OTHER LOCATIONS OR TIMES.

SUBSURFACE CONDITIONS SHOWN ON THESE RECORDS OR ON PROFILES DEVELOPED FROM THESE RECORDS ARE NOT WARRANTED. THEY ARE ESTIMATED BASED ON ACCEPTED SOIL ENGINEERING PRINCIPLES AND PRACTICES AND REASONABLE ENGINEERING JUDGEMENT.

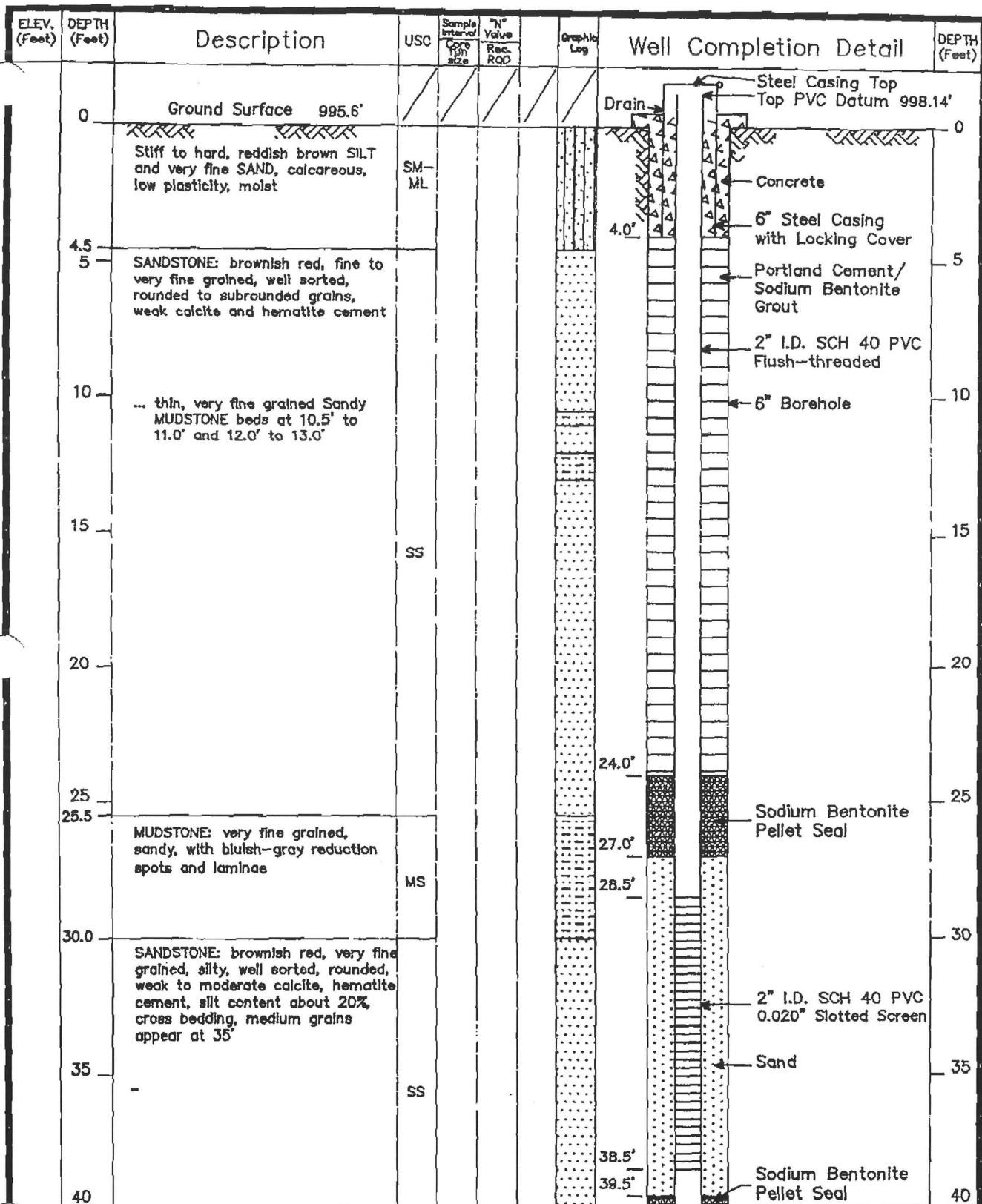


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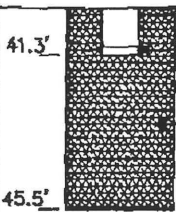
LEGEND FOR

MONITORING WELL RECORDS



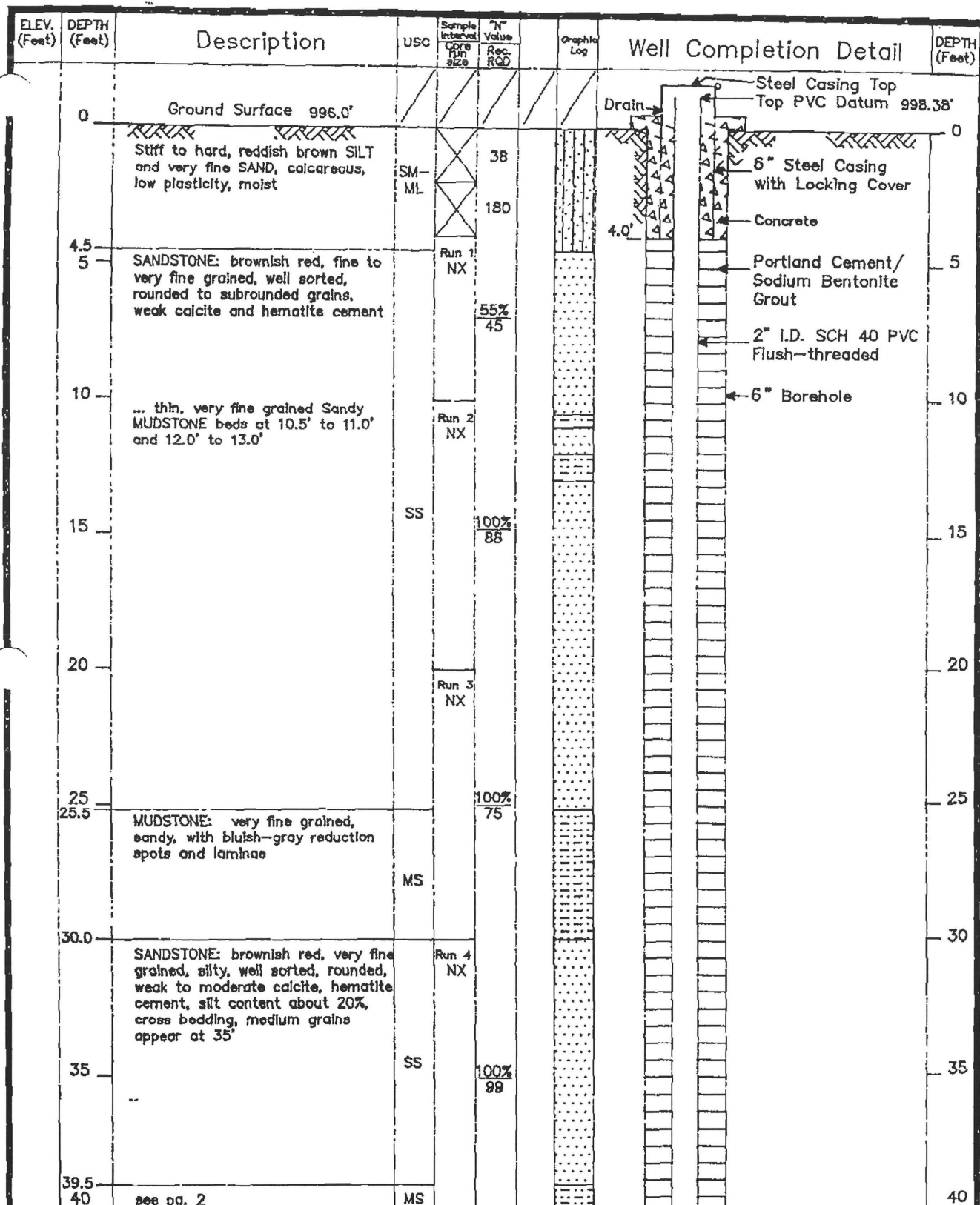
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Monitoring Well Record 1320
 Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
 Coordinates 11,266.69 N 11,755.70 E
 Drilled By KERR-MCGEE Drilling Method AIR ROTARY
 Logged By PFB Checked By SLW
 Installation Date January 20, 1989 Page 1 of 2

ELEV. (Feet)	DEPTH (Feet)	Description	USC	Sample Interval Core Pin Size	"N" Value Rec. ROD	Graphic Log	Well Completion Detail	DEPTH (Feet)
	40							40
	45	MUDSTONE: very fine grained, sandy, occasionally conglomeratic with lithic clasts, slightly calcareous, sand content variable, 15% - 50%. Contacts are bluish gray reduction zones	MS					45
	45.5	B.T. @ 45.5'						45.5
	50	NOTE: description taken from well 1321 which offsets this location 12' E-NE						50
	55							55
	60							60
	65							65
	70							70
	75							75
	80							80

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Monitoring Well Record 1320
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Monitoring Well Record 1321

Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 11,261.76 N 11,743.26 E
Drilled By KERR-MCGEE Drilling Method CORE
Logged By PFB Checked By SLW
Installation Date January 25, 1989

Page 1 of 4

ELEV. (Feet)	DEPTH (Feet)	Description	USC	Sample Interval Core Run Size	N ^o Value Rec. RQD	Graphic Log	Well Completion Detail	DEPTH (Feet)
	40	MUDSTONE: very fine grained, sandy, occasionally conglomeratic with lithic clasts, slightly calcareous, sand content variable, 15 - 50%. Contacts are bluish gray reduction zones	MS	Run 5 NX				40
	45				100% 100			45
	46.5	SANDSTONE: brownish red, very fine to fine grained, silty, grains sub-rounded, well sorted. Moderately cemented. Silt content variable, 5 - 30%						
	50	... very clean and porous 51' to 60'		Run 6 NX			Portland Cement/ Sodium Bentonite Grout	50
	55				96% 95			55
	60	... cross bedded 60' to 62.5'	SS	Run 7 NX			2" I.D. SCH 40 PVC Flush-threaded	60
	65	... becomes conglomeratic at 62.5' to 64.7' with mudstone clasts. Matrix 50% sand, 50% silt, irregular vuggy porosity with some vugs lined with calcite, gypsum. Patches of M _n O ₂ (?)			100% 100			65
	70	... becomes interbedded with mudstone at 70.5' to 71.5'		Run 8 NX				70
	71.5	MUDSTONE: very fine grained, sandy. Sand up to 30%, conglomeratic at 71.5' to 72.0'. Occasional reduction spots, sharp bottom contact.	MS		100% 92			75
	75							
	76.8	SANDSTONE: very fine to fine grained, silty, well sorted, rounded.	SS					
	79.5							
	80	see pg. 3	MS					80

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Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA

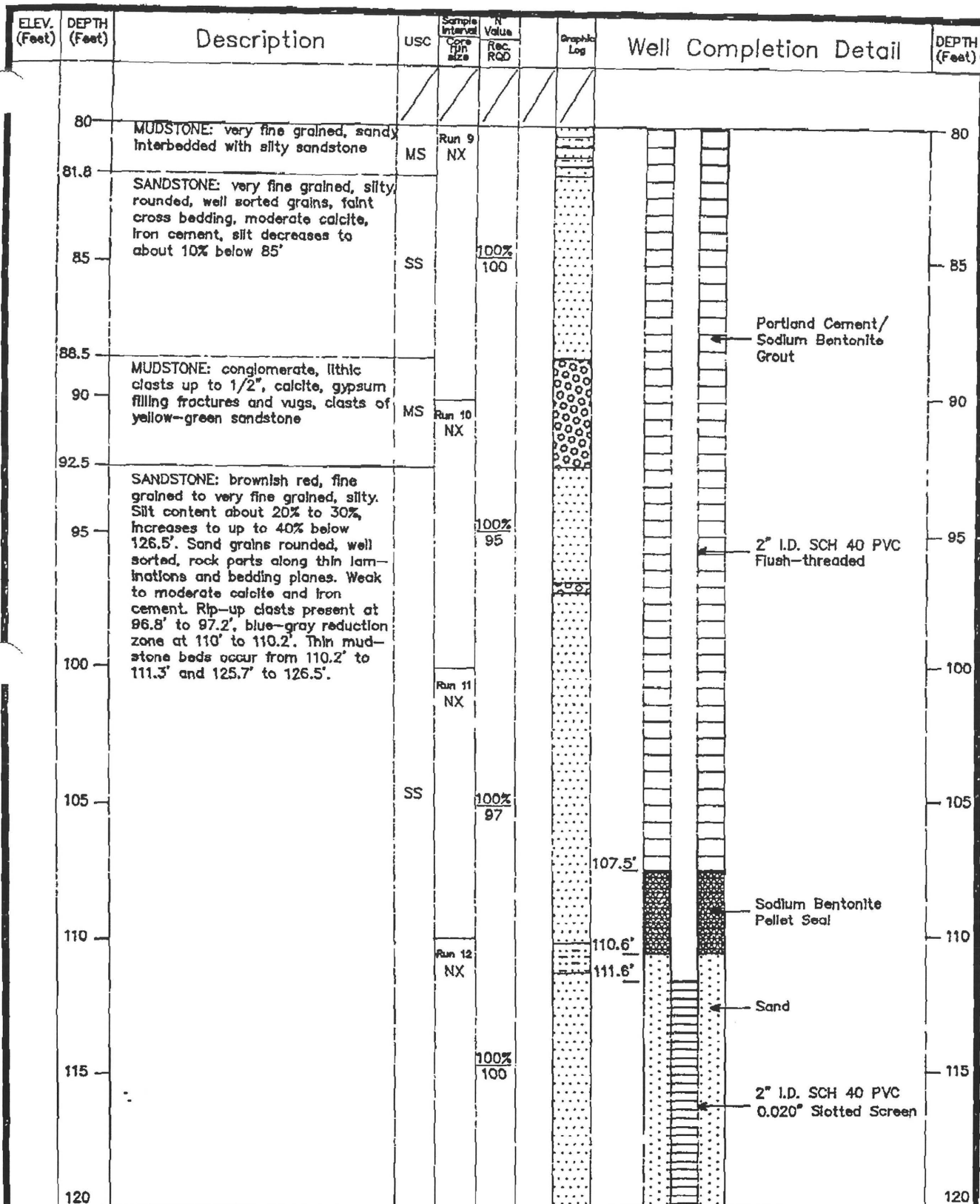
Coordinates 11,261.76 N 11,743.26 E

Drilled By KERR-MCGEE Drilling Method CORE

Logged By PFB Checked By SLW

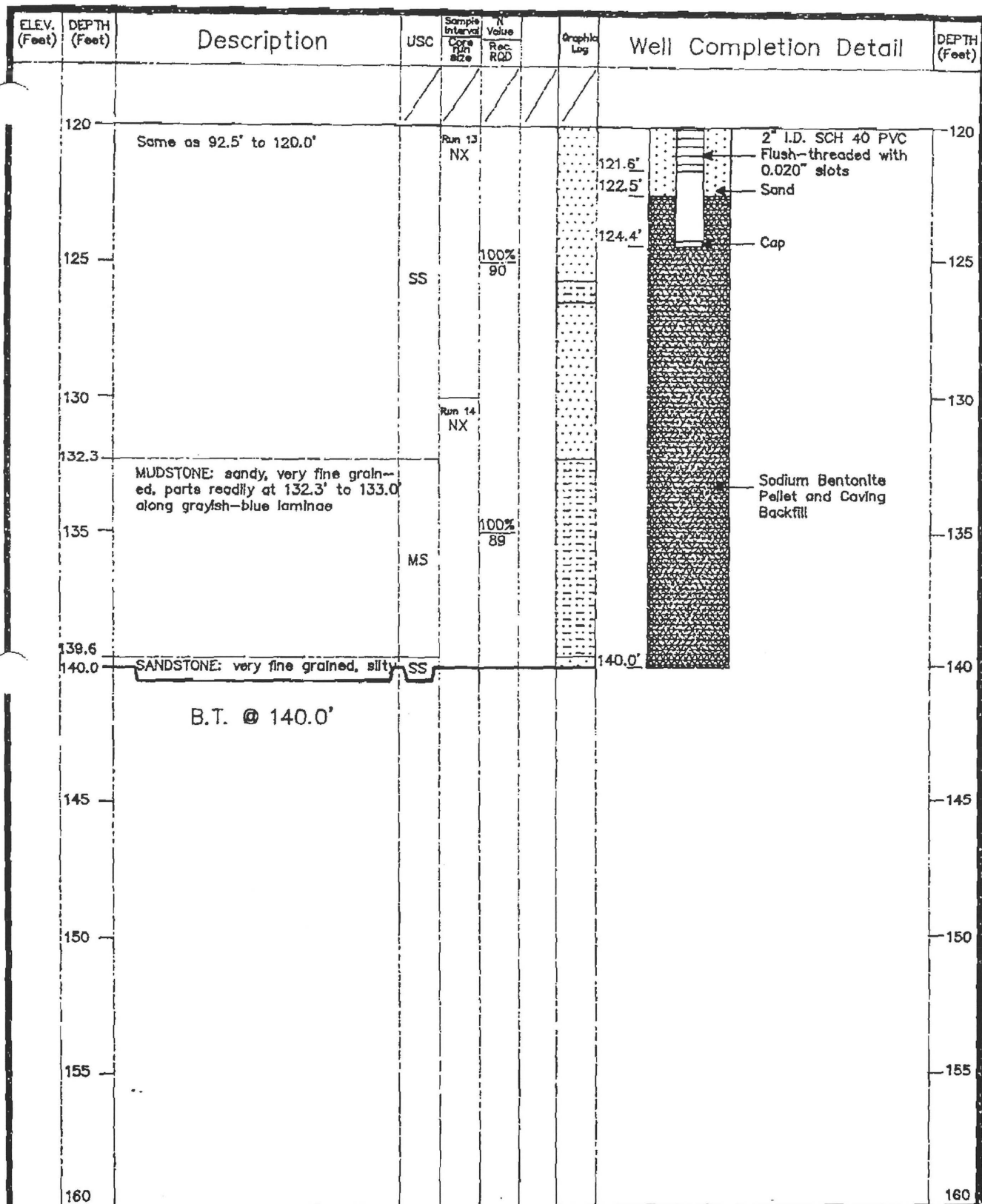
Installation Date January 25, 1988

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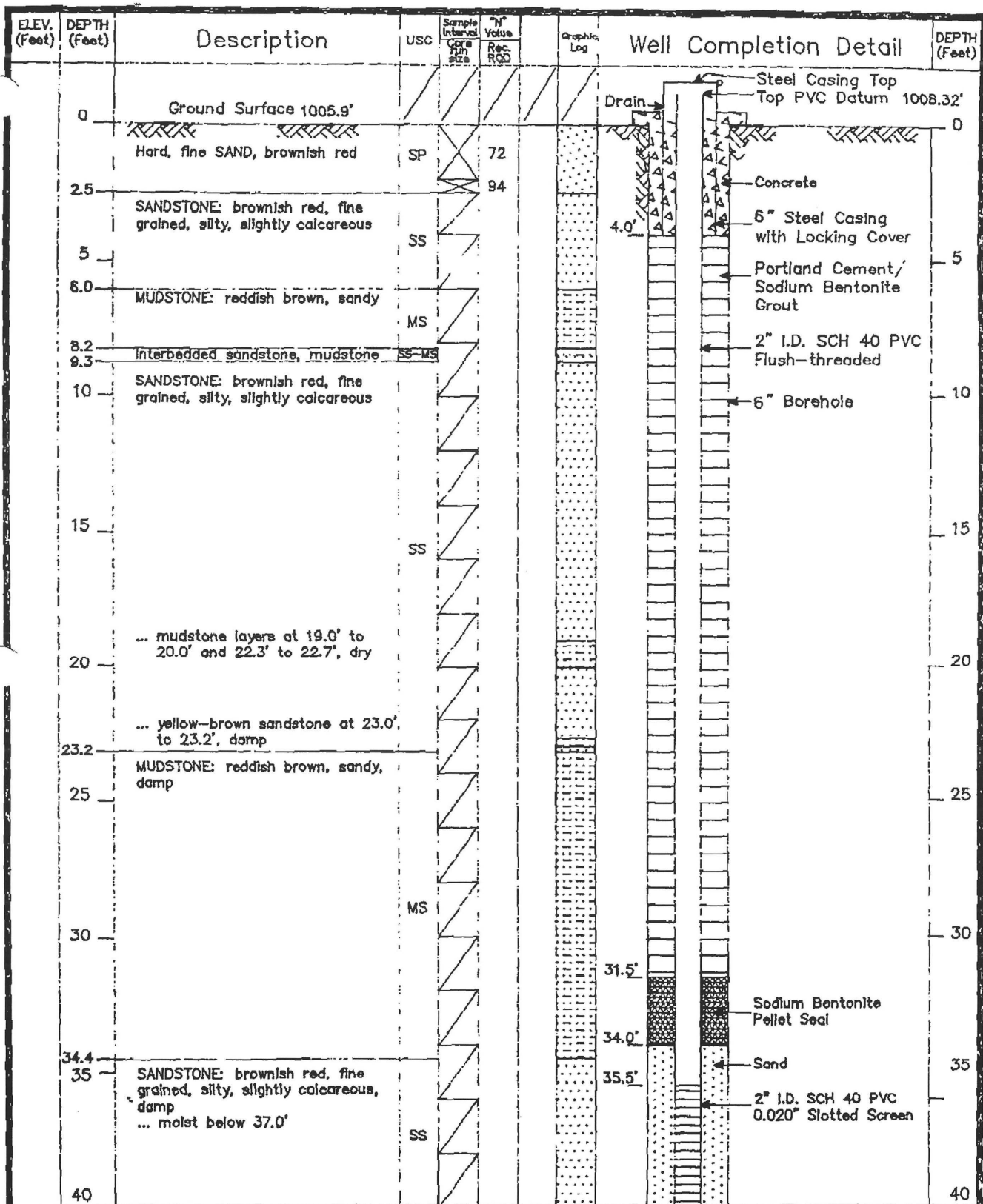
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Monitoring Well Record 1321
 Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
 Coordinates 11,261.76 N 11,743.26 E
 Drilled By KERR-MCGEE Drilling Method CORE
 Logged By PFB Checked By SLW
 Installation Date January 25, 1989 Page 3 of 4



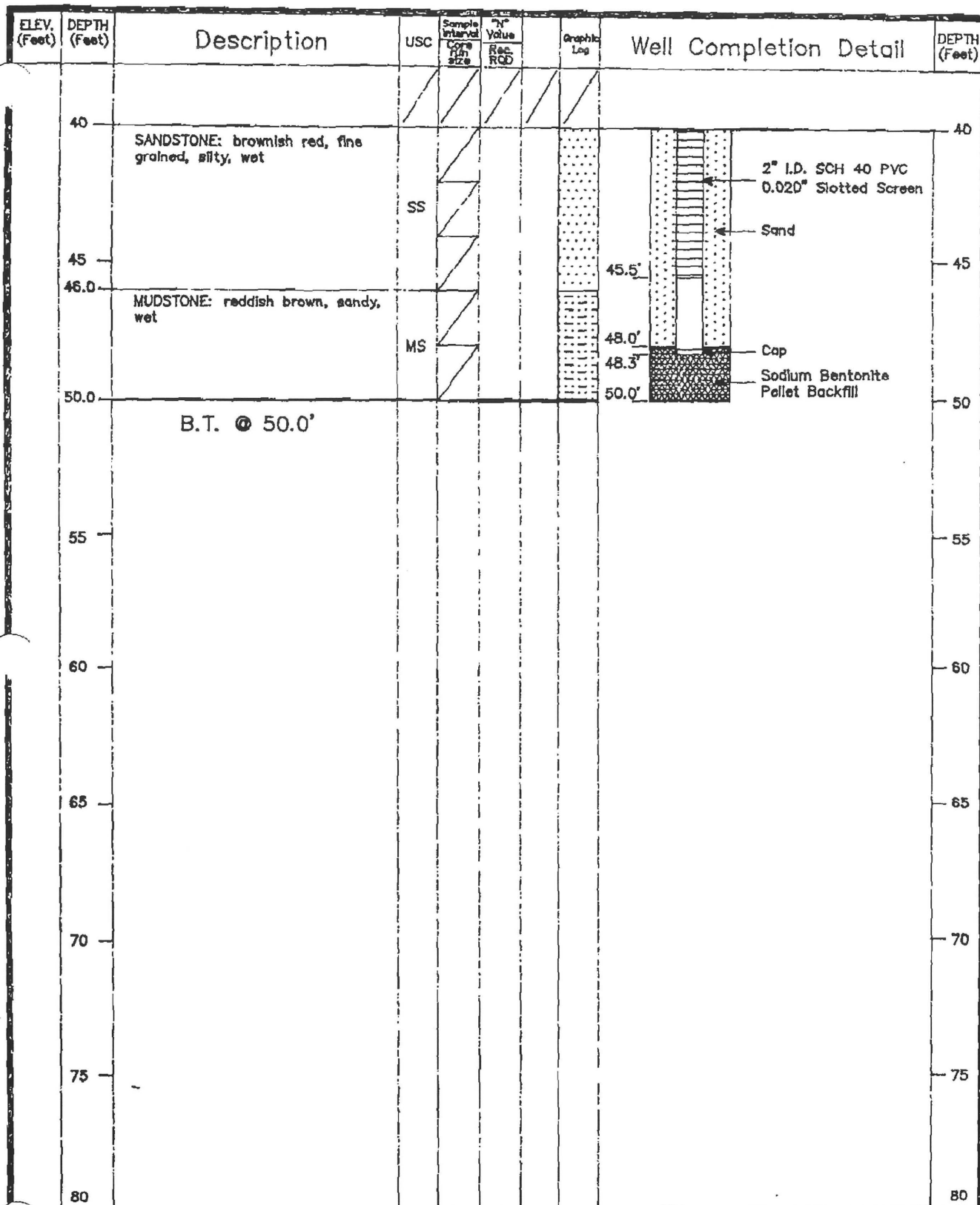
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Drilled By KERR-MCGEE Drilling Method CORE
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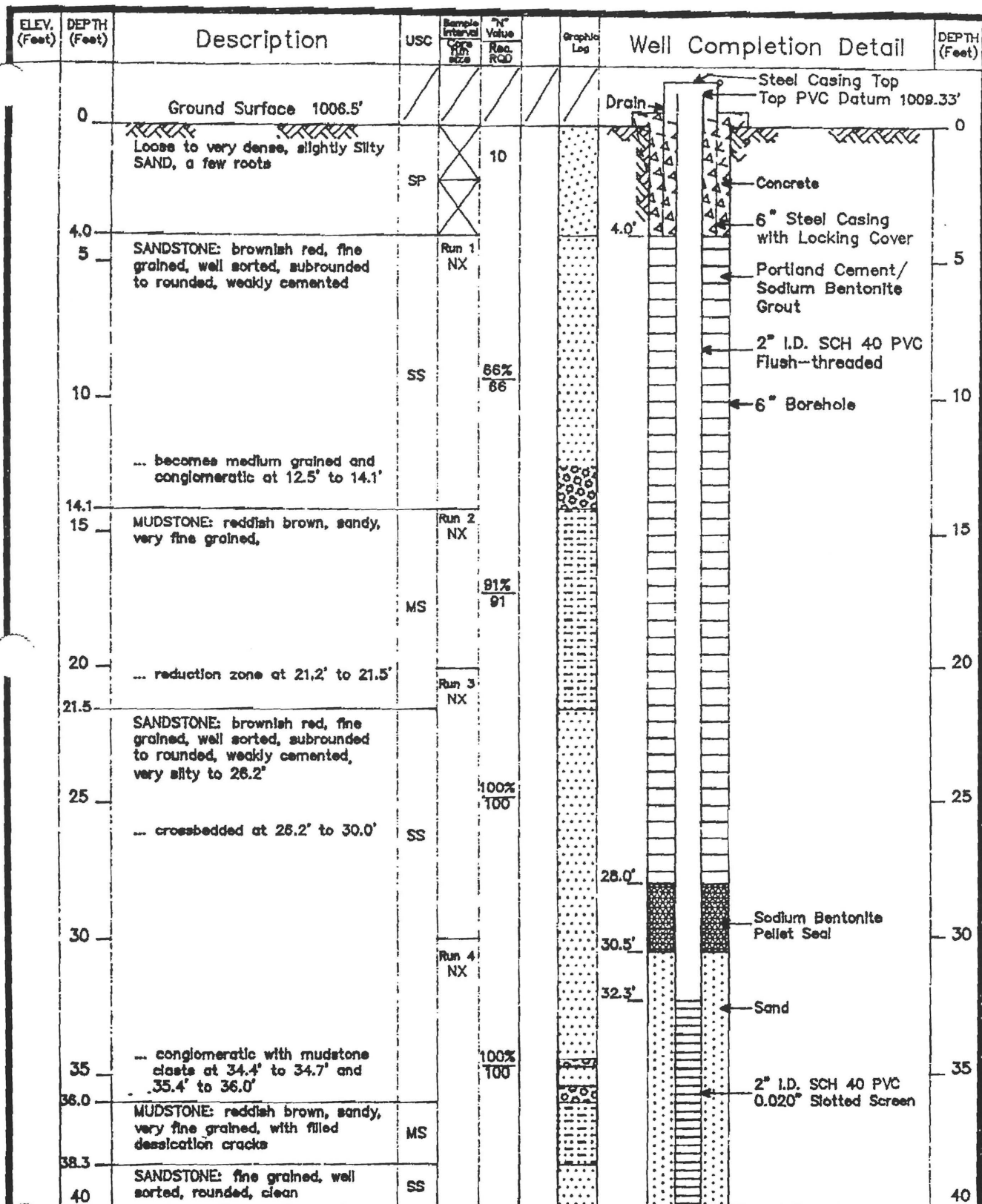
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Monitoring Well Record 1325
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 10,494.65 N 11,951.47 E
Drilled By KERR-MCGEE Drilling Method AIR ROTARY
Logged By PFB Checked By SLW
Installation Date February 9, 1989 Page 1 of 2



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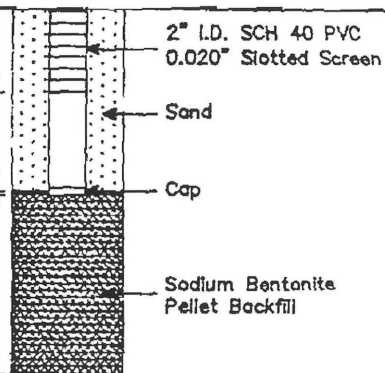
Monitoring Well Record 1325
 Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
 Coordinates 10,494.65 N 11,951.47 E
 Drilled By KERR-MCGEE Drilling Method AIR ROTARY
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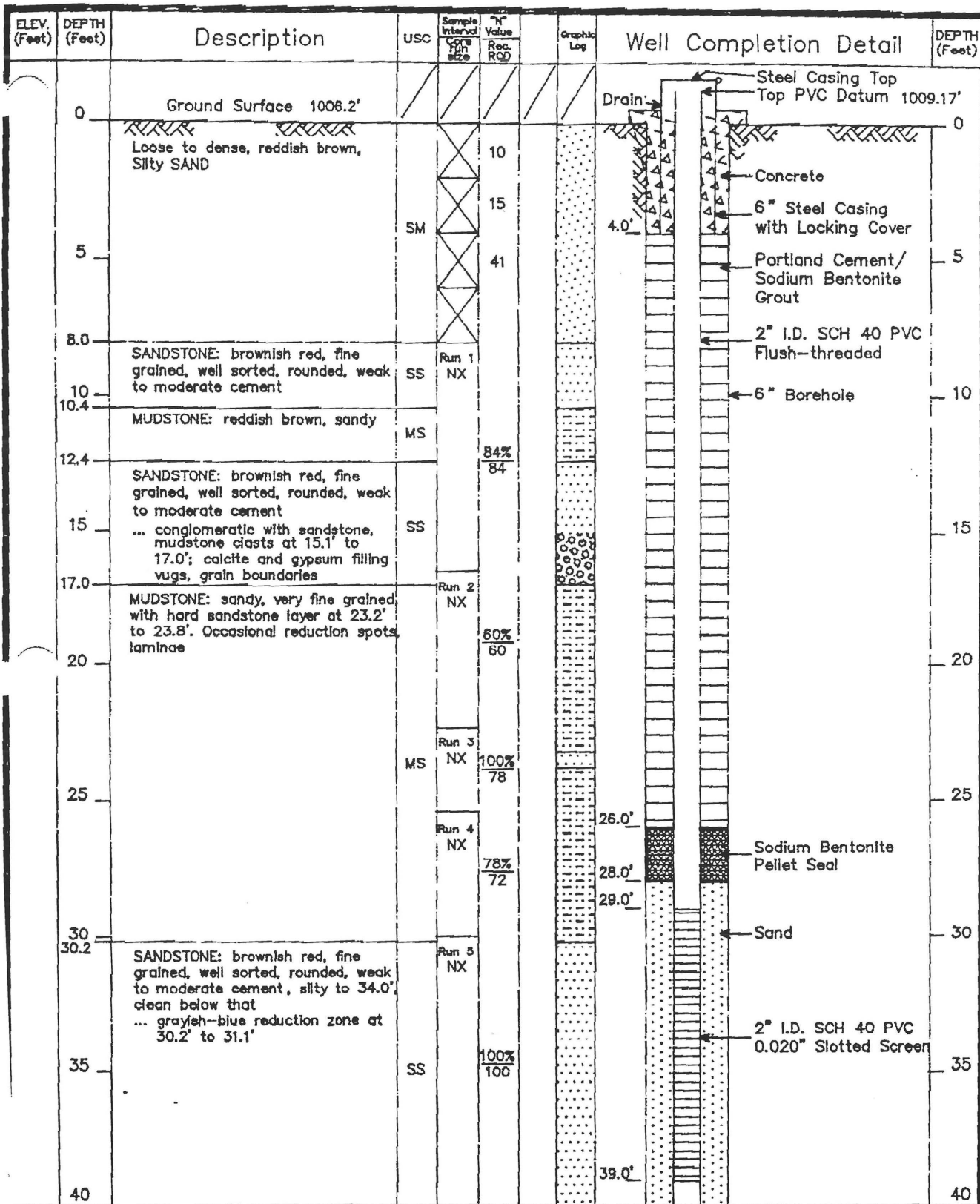
Monitoring Well Record 1326
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 10,112.93 N 10,719.85 E
Drilled By KERR-MCGEE Drilling Method CORE
Logged By PFB Checked By SLW
Installation Date February 16, 1989 Page 1 of 2

ELEV. (Feet)	DEPTH (Feet)	Description	USC	Sample Interval Core Run Size	Y Value Rec. RQD	Graphic Log	Well Completion Detail	DEPTH (Feet)
	40	MUDSTONE: sandy, very fine grained, with thin reduction laminae and spots	MS	Run 5 NX	100% 100			40
	45							45
	46.5	SANDSTONE: fine to very fine grained, silty	SS					46.5
	50.0							50.0
		B.T. @ 50.0'						
	55							55
	60							60
	65							65
	70							70
	75							75
	80							80



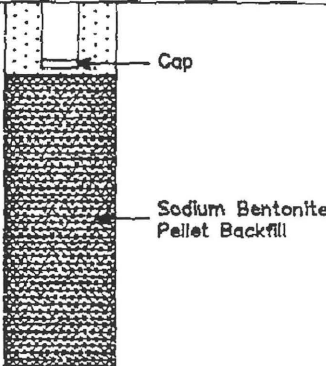
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Monitoring Well Record 1326
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 10,112.93 N 10,719.85 E
Drilled By KERR-MCGEE Drilling Method CORE
Logged By PFB Checked By SLW
Installation Date February 16, 1989 Page 2 of 2



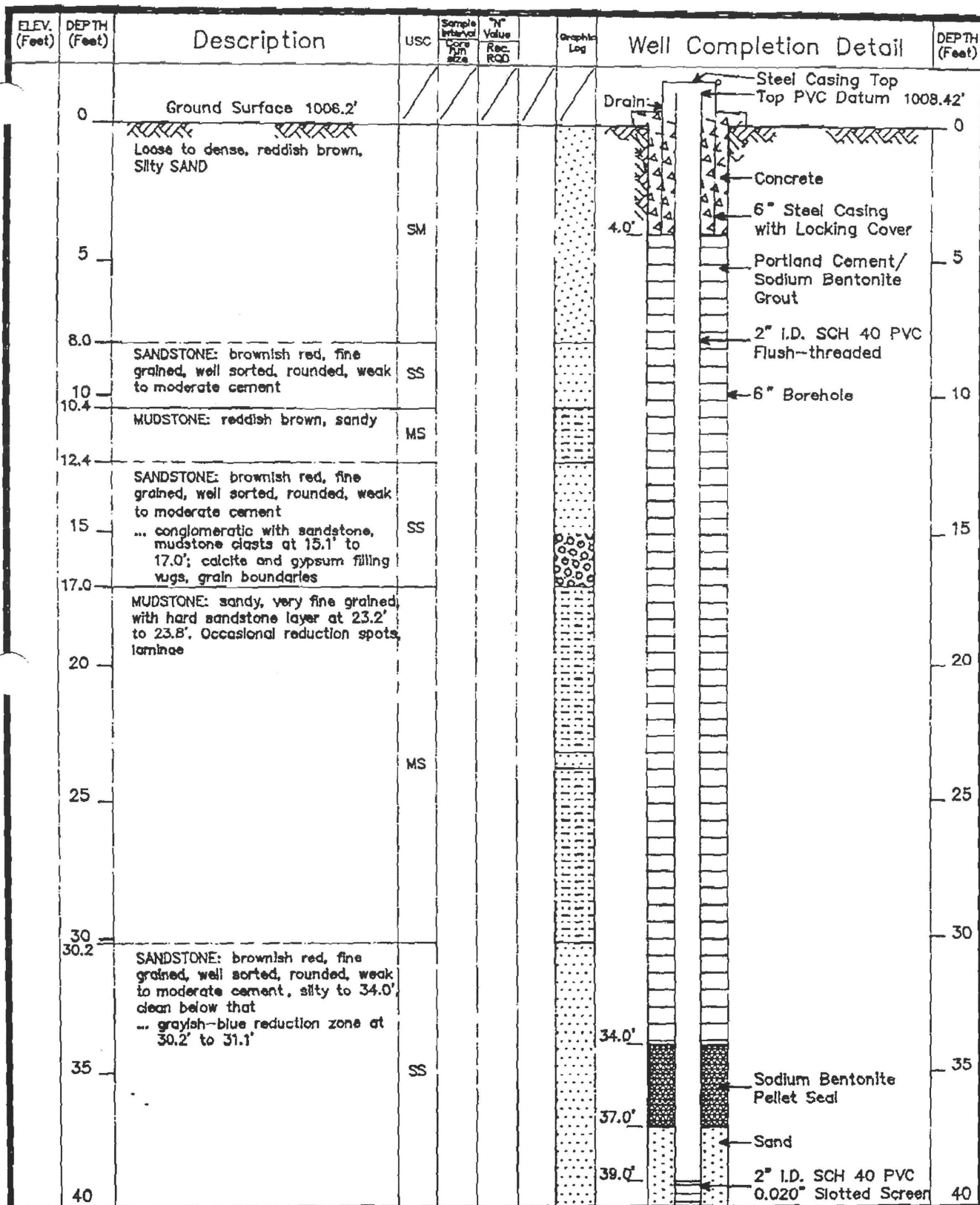
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Monitoring Well Record 1327 A
 Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
 Coordinates 10,103.73 N 10,100.10 E
 Drilled By KERR-MCGEE Drilling Method CORE
 Logged By PFB Checked By SLW
 Installation Date March 1, 1989

ELEV. (Feet)	DEPTH (Feet)	Description	USC	Sample Interval Core Run Size	N Value Rec RQD	Graphic Log	Well Completion Detail	DEPTH (Feet)
	40							40
	45	SANDSTONE: brownish red, fine grained, well sorted, subrounded to rounded, clean. Patchy yellow-green minerals appearing below 41.2'. Conglomeratic at 42.1' to 43.2' and 44.8' to 46.9' with lithic clasts, vug-like porosity, calcite and gypsum cementing clasts lining vugs. Crossbedded at 43.2' to 44.8' with abundant gypsum ... becomes silty below 46.9'	SS	Run 6 NX	100% 100			40
	50.0	B.T. @ 50.0'						50
	55							55
	60							60
	65							65
	70							70
	75							75
	80							80

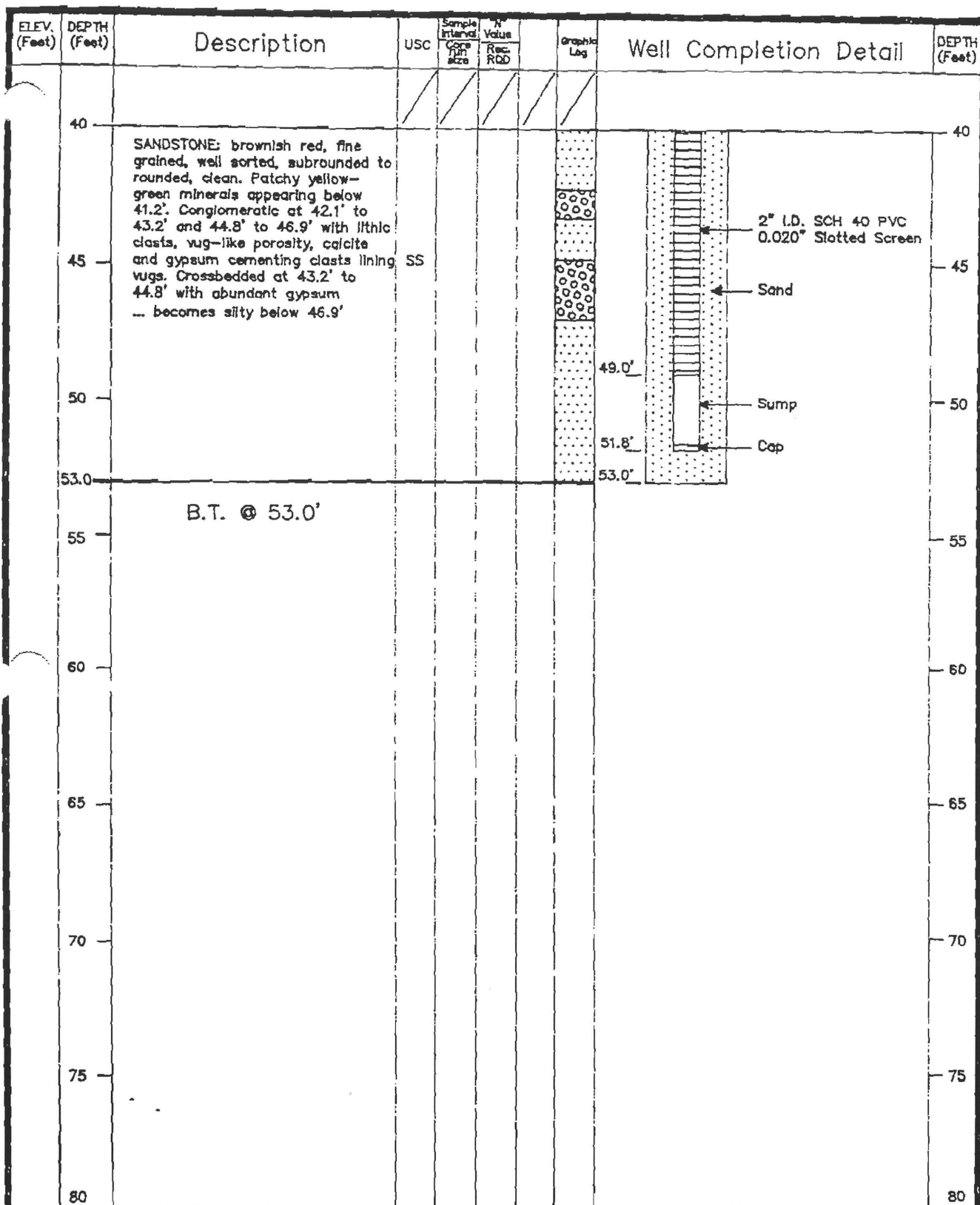
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Monitoring Well Record 1327A
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 10,103.73 N 10,100.10 E
Drilled By KERR-MCGEE Drilling Method CORE
Logged By PFB Checked By SLW
Installation Date March 1, 1989



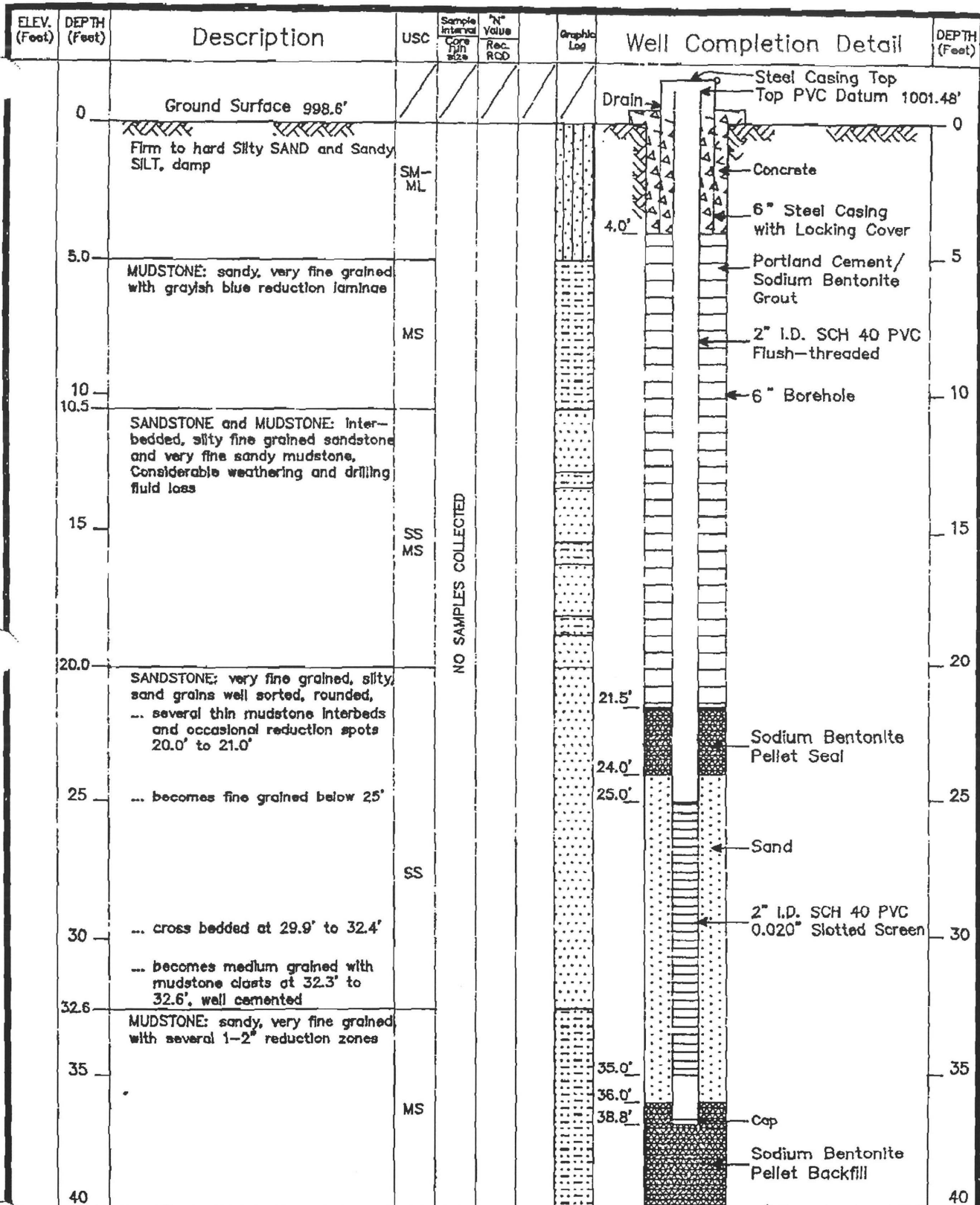
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Monitoring Well Record 1327 B
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 10,090.43 N 10,100.10 E
Drilled By KERR-MCGEE Drilling Method CORE
Logged By PFB Checked By SLW
Installation Date March 20, 1989



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Monitoring Well Record 1327 B
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 10,090.43 N 10,100.10 E
Drilled By KERR-MCGEE Drilling Method CORE
Logged By PFB Checked By SLW
Installation Date March 20, 1989 Page 2 of 2



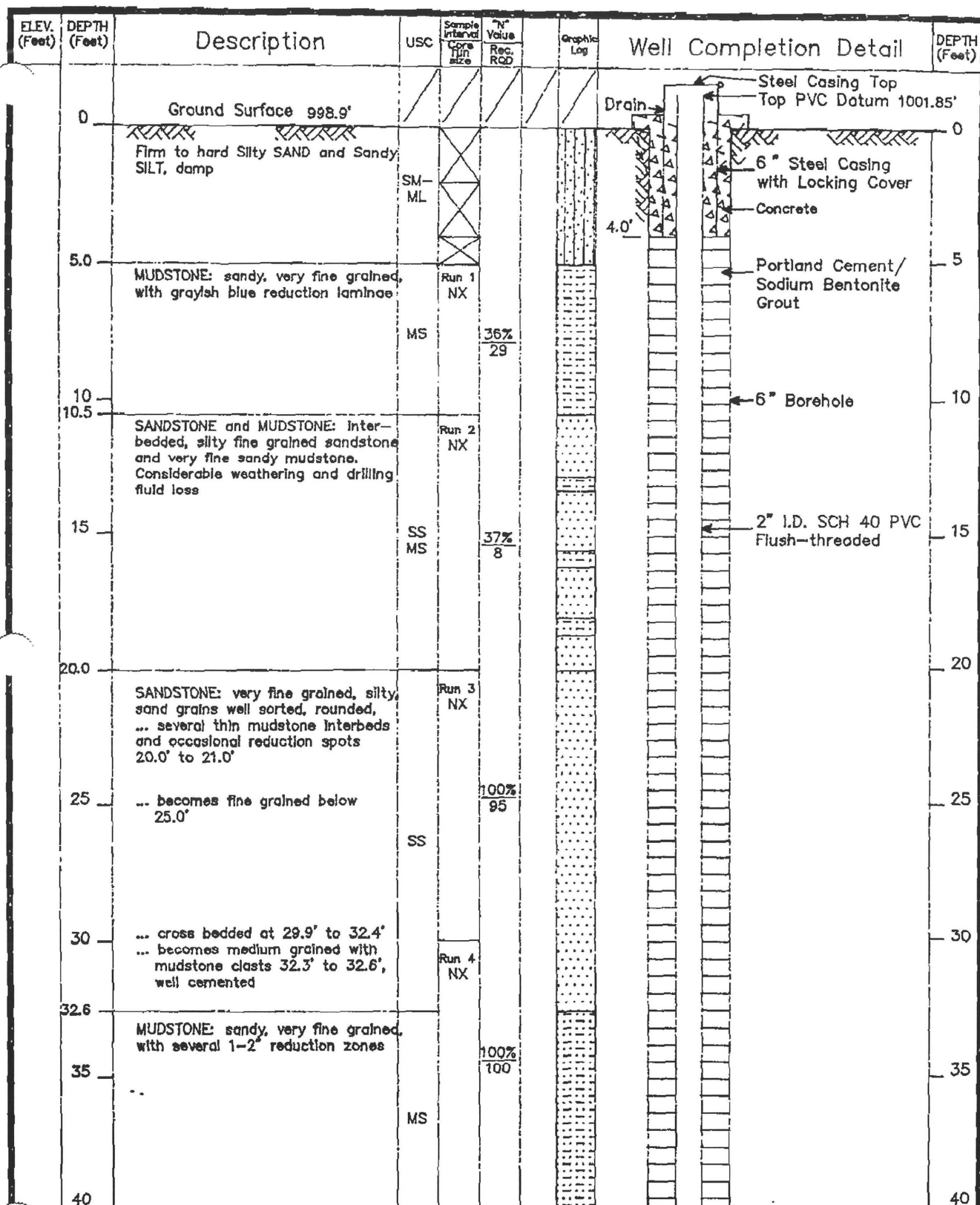
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Monitoring Well Record 1322
 Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
 Coordinates 10,386.13 N 10,238.93 E
 Drilled By KERR-MCGEE Drilling Method AIR ROTARY
 Logged By PFB Checked By SLW
 Installation Date January 26, 1989 Page 1 of 2

ELEV. (Feet)	DEPTH (Feet)	Description	USC	Sample Interval Core Run Size	N ^o Value Rec. RQD	Graphic Log	Well Completion Detail	DEPTH (Feet)
	40	Same as 32.6' to 40.0'	MS					40
	42.1	SANDSTONE: brownish red, fine grained with 30% to 40% silt content, grains well sorted, sub- rounded to rounded						
	45	... becomes clean below 46.5'	SS					45
	49.0	... thin mudstone interbeds at 48.2' to boring termination depth						49.0'
	50	B.T. @ 49.0'						50
	55	NOTE: descriptions are taken from Well 1323, which is located 14' West						55
	60							60
	65							65
	70							70
	75							75
	80							80

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Monitoring Well Record 1322
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 10,386.13 N 10,238.93 E
Drilled By KERR-MCGEE Drilling Method AIR ROTARY
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Installation Date January 26, 1989 Page 2 of 2



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Monitoring Well Record 1323

Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA

Coordinates 10,387.37 N 10,224.06 E

Drilled By KERR-MCGEE Drilling Method CORE

Logged By PFB

Checked By SLW

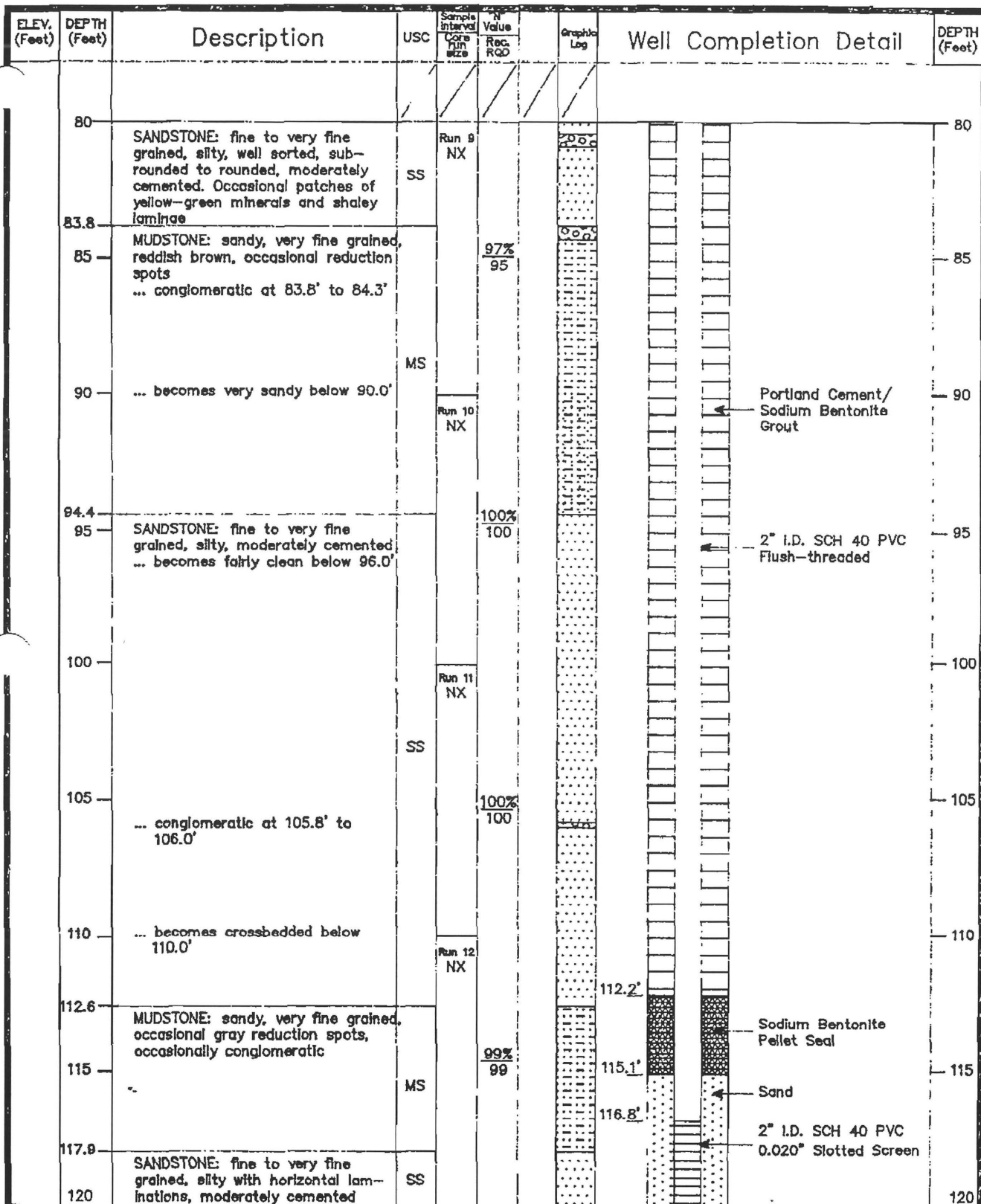
Installation Date February 14, 1989

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ELEV. (Feet)	DEPTH (Feet)	Description	USC	Sample Interval Core Run size	N Value Rec. RAD	Graphic Log	Well Completion Detail	DEPTH (Feet)
40		Same as 32.6' to 40.0'						40
	42.1	SANDSTONE: brownish red, fine grained with 30% to 40% silt content, grains well sorted, sub-rounded to rounded	MS	Run 5 NX				
	45	... becomes clean below 46.5'	SS		100% 100			45
	50	... thin mudstone interbeds 48.2' to 50.0'					Portland Cement/ Sodium Bentonite Grout	
	50.3	MUDSTONE: sandy, very fine grained with occasional reduction spots and sand clasts		Run 6 NX				50
	55		MS		100% 100			55
	57.9	SANDSTONE: fine grained, silty, well sorted, subrounded to rounded, weakly to moderately cemented, conglomeratic with sandstone, mudstone clasts and vug-like porosity 60.8' to 61.1'		Run 7 NX				60
	60	... sandstone becomes mostly clean below 61.1'	SS					
	65	... becomes crossbedded below 70.0' with occasional thin, shaley laminations			100% 100		2" I.D. SCH 40 PVC Flush-threaded	65
	70			Run 8 NX				70
	75	... thin mudstone bed at 75.5' to 76.6' with gray laminae			97% 97			75
	80							80

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Monitoring Well Record 1323
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 10,387.37 N 10,224.06 E
Drilled By KERR-MCGEE Drilling Method CORE
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Installation Date February 14, 1989 Page 2 of 4



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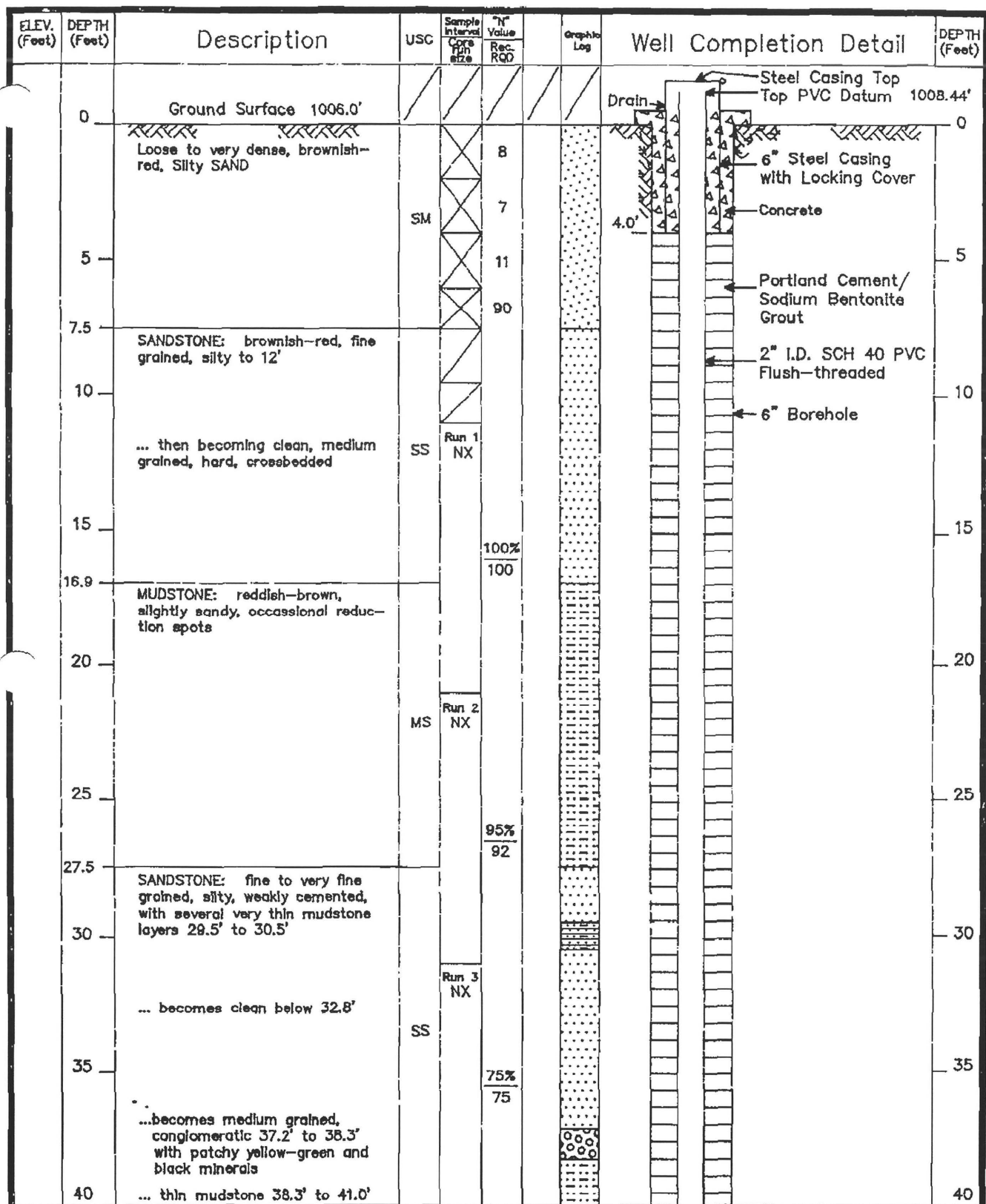
Monitoring Well Record 1323
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 10,387.37 N 10,224.06 E
Drilled By KERR-MCGEE Drilling Method CORE
Logged By PFB Checked By SLW
Installation Date February 14, 1989 Page 3 of 4

ELEV. (Feet)	DEPTH (Feet)	Description	USC	Sample Interval Core Run Size	% Value Rec. ROD	Graphic Log	Well Completion Detail	DEPTH (Feet)
120	120	SANDSTONE: fine to very fine grained, silty, brownish red, moderately cemented		Run 13 NX			2" I.D. SCH 40 PVC 0.020" Slotted Screen Sand 126.8' 129.0' 129.6' Cap Sodium Bentonite Pellet Seal 135.3'	120
125	125				93% 93			125
130	130	... silt content increases to about 50% at 130.0' to 131.5'	SS	Run 14 NX	100% 100			130
135	135.3	B.T. @ 135.3'						135
140	140							140
145	145							145
150	150							150
155	155							155
160	160							160

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Monitoring Well Record 1323

Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 10,387.37 N 10,224.06 E
Drilled By KERR-MCGEE Drilling Method CORE
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Installation Date February 14, 1989 Page 4 of 4



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Monitoring Well Record 1328
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 9830.36 N 10,411.70 E
Drilled By WINNEK, INC. Drilling Method CORE
Logged By PFB Checked By SLW
Installation Date March 9, 1989 Page 1 of 4

ELEV. (Feet)	DEPTH (Feet)	Description	USC	Sample Interval Core Run Size	Yr Value Rec. RQD	Graphic Log	Well Completion Detail	DEPTH (Feet)
	40							40
	41.0	Same as 27.5' to 40.0'	MS	Run 3 NX				
		SANDSTONE: Brownish-red, fine grained, well sorted, subrounded- rounded, silty to 42.4, then clean. Weakly cemented. Cross bedded to 53'		Run 4 NX				
	45	... Thin mudstone layers 44.3' to 44.4' and 46.8' to 47'			97% 97			45
			SS				Portland Cement/ Sodium Bentonite Grout	
	50			Run 5 NX				50
	55	... becomes hard, medium grained, slightly conglomeratic 56.4' to 57.7' with calcite, gypsum cement			75% 75		2" I.D. SCH 40 PVC Flush-threaded	55
	57.7	MUDSTONE: sandy, very fine to fine grained with reduction spots	MS					
	60							60
	61.0	SANDSTONE: brownish-red, fine grained, well sorted, rounded, moderately cemented, clean to slightly silty		Run 6 NX				
	65	... mudstone layer 65.1' to 67.0'			79% 79			65
	70		SS	Run 7 NX				70
	75				79% 79			75
	80							80

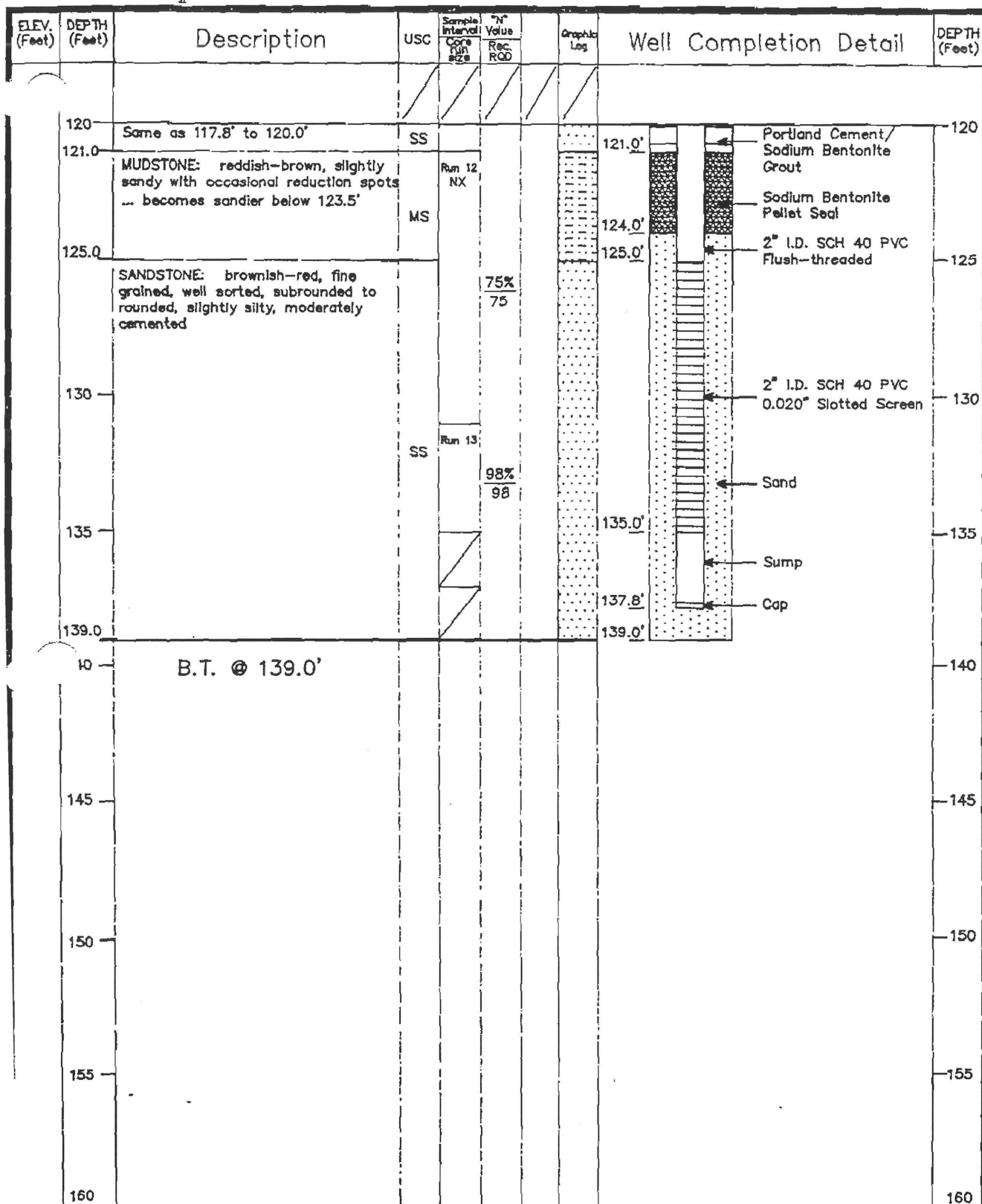
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Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 9830.36 N 10,411.70 E
Drilled By WINNEK, INC. Drilling Method CORE
Logged By PFB Checked By SLW
Installation Date March 9, 1989 Page 2 of 4

ELEV. (Feet)	DEPTH (Feet)	Description	USC	Sample Interval Core Top Size	"N" Value Rec. ROD	Graphic Log	Well Completion Detail	DEPTH (Feet)
	80	SANDSTONE: fine grained, well sorted, rounded, slightly silty ... becomes fine to medium grained 81' to 84.1', well sorted, subangular to subrounded, moderate to well cemented with calcite and gypsum, vug-like porosity, salt and pepper with dark minerals and bitumen	SS	Run 8 NX				80
	85				95%			85
	86.0	... becomes siltier, finer grained, more weakly cemented below 84.1'			95			
		MUDSTONE: reddish-brown, slightly sandy	MS					
	90							90
	91.0	SANDSTONE: fine grained, silty, well sorted, rounded		Run 9 NX				
	95	... Hard, well cemented layer 94.5' to 95.4' ... Mudstone layer 95.4' to 96.0'	SS		49%			95
					49			
	100							100
	103.4			Run 10 NX				
	105	MUDSTONE: reddish-brown, slightly sandy	MS		76%			105
					75		2" I.D. SCH 40 PVC Flush-threaded	
	107.7	SANDSTONE: brownish-red, fine grained, well sorted, rounded to subrounded, fairly clean.						
	110		SS					110
				Run 11 NX				
	115						Portland Cement/ Sodium Bentonite Grout	
	115.5	MUDSTONE: reddish-brown, slightly sandy	MS		90%			115
					90			
	117.8	SANDSTONE: brownish-red, fine grained, well sorted, rounded to subrounded, fairly clean.	SS					
	120							120

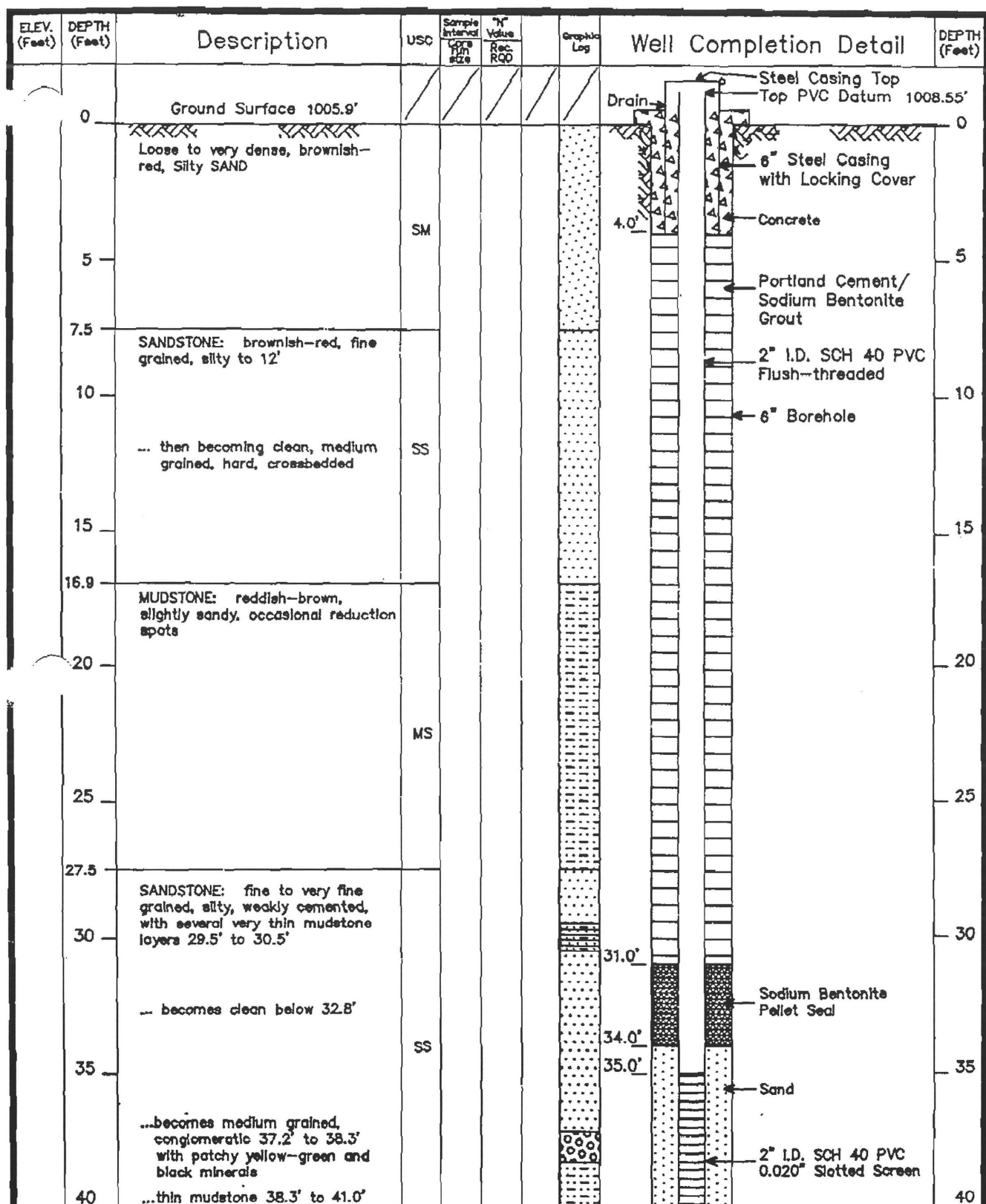
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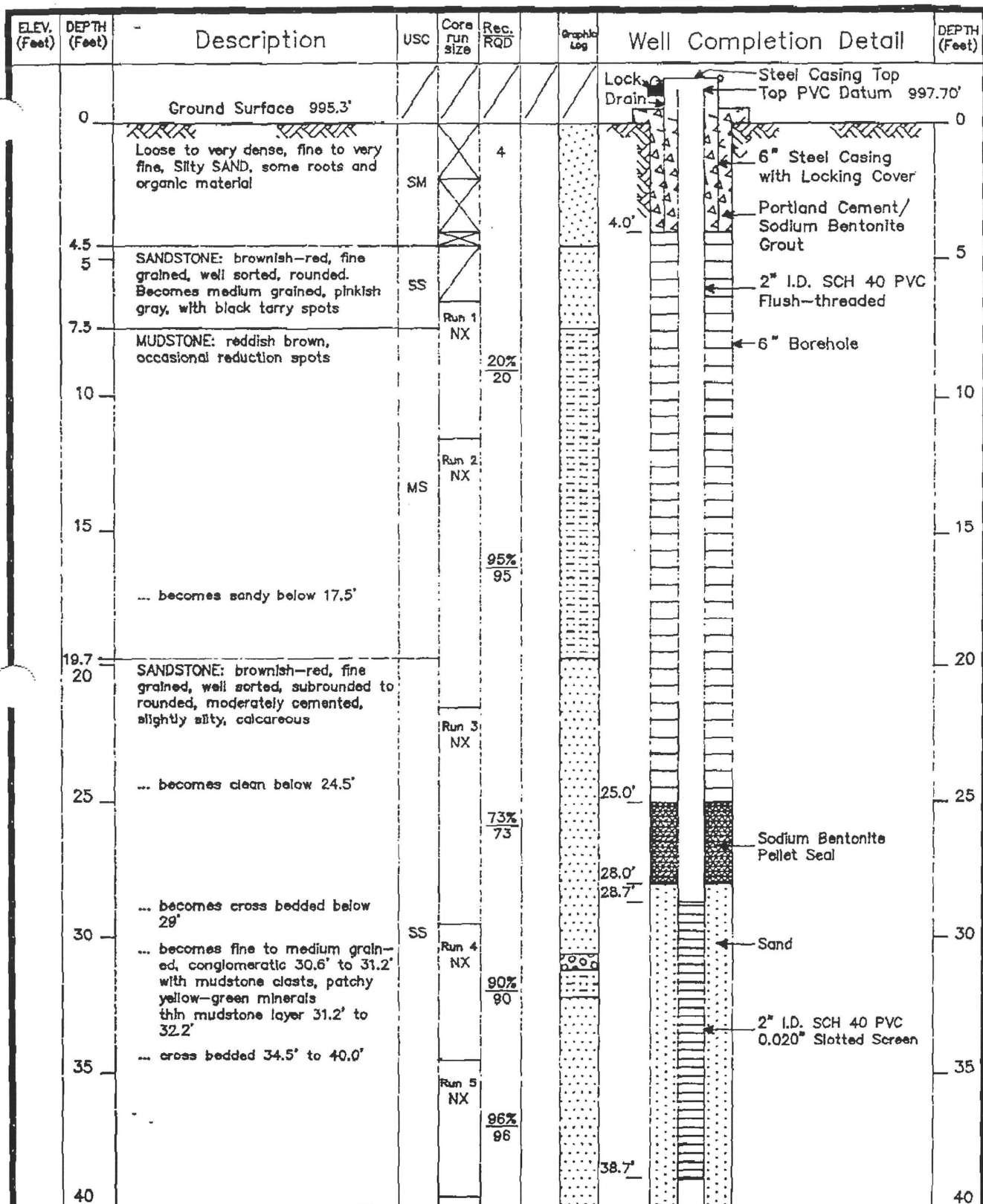
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Monitoring Well Record 1329
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 9835.39 N 10,405.36 E
Drilled By WINNEK, INC. Drilling Method WET ROTARY
Logged By PFB Checked By SLW
Installation Date March 10, 1989 Page 1 of 2

ELEV. (Feet)	DEPTH (Feet)	Description	USC	Sample Interval Core Pin Size	"H" Value Rec. ROD	Graphic Log	Well Completion Detail	DEPTH (Feet)
	40							40
	41.0	Same as 27.5' to 40.0'	MS					
	45	SANDSTONE: brownish-red, fine grained, well sorted, subrounded to rounded, silty to 42.4', then clean. Weakly cemented. Cross bedded to B.T. depth Thin mudstone layers 44.3' to 44.4' and 46.8' to 47'	SS				2" I.D. SCH 40 PVC 0.020" Slotted Screen Sand Cap	45
	48.0							48.0
	50	B.T. @ 48.0'						50
	55							55
	60	NOTE: Descriptions taken from Well 1328 located 8' NW of this location.						60
	65							65
	70							70
	75							75
	80							80

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Monitoring Well Record 1329
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 9835.39 N 10,405.36 E
Drilled By WINNEK, INC. Drilling Method WET ROTARY
Logged By PFB Checked By SLW
Installation Date March 10, 1989 Page 2 of 2



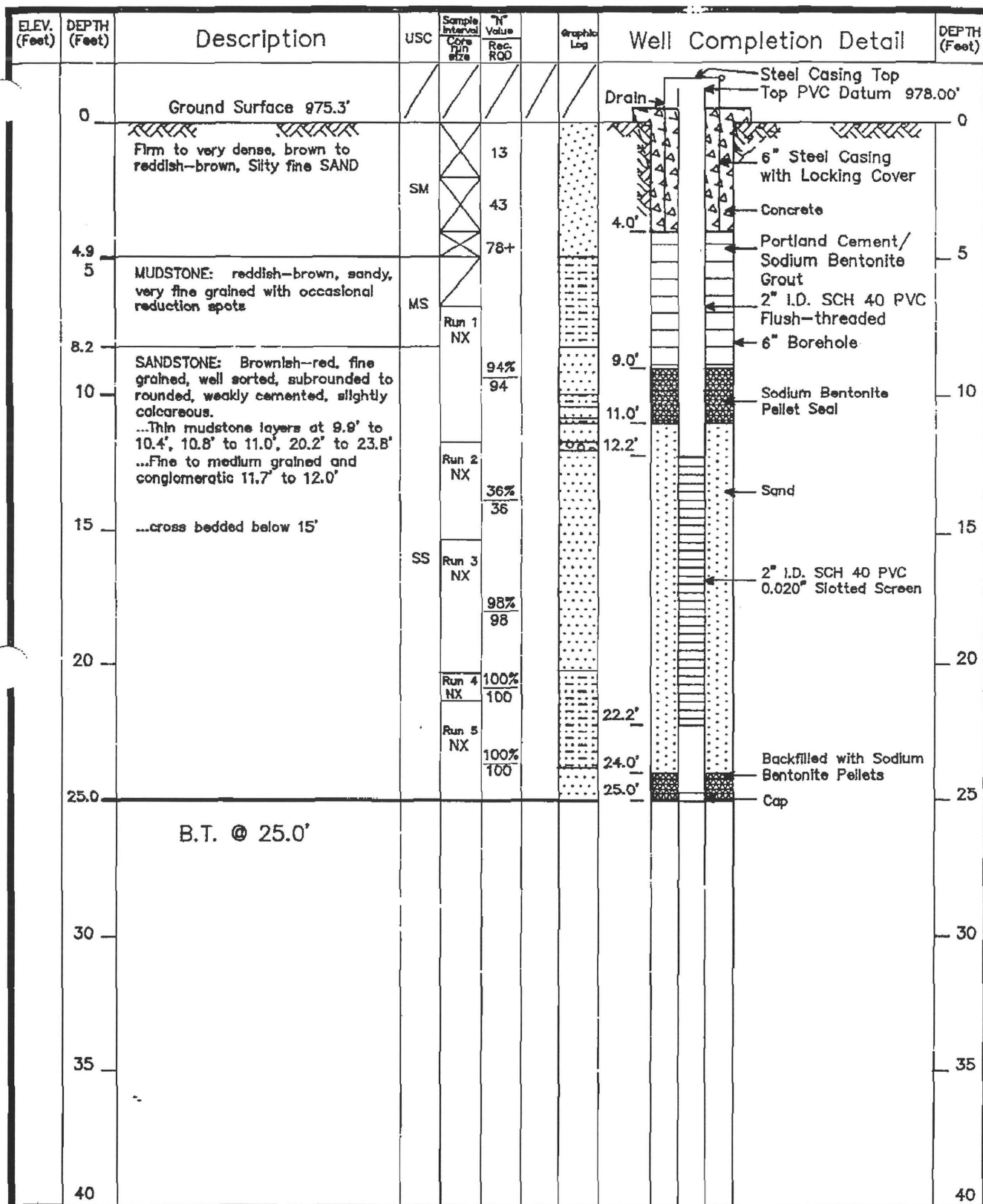
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Monitoring Well Record 1330
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 9657.06 N 10,231.32 E
Drilled By WINNEK, INC. Drilling Method CORE
Logged By PFB Checked By SLW
Installation Date March 10, 1989 Page 1 of 2

ELEV. (Feet)	DEPTH (Feet)	Description	USC	Core run size	Rec. ROD	Graphic Log	Well Completion Detail	DEPTH (Feet)
	40							40
	44.5	SANDSTONE: fine grained, well sorted, subrounded, weakly to moderately cemented. Thin mudstone layer 40.7' to 40.9'	SS	Run 5 NX	76% 78		41.5' — Cap 44.5' — Sand	44.5
	45	B.T. @ 44.5'						45
	50							50
	55							55
	60							60
	65							65
	70							70
	75							75
	80							80

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Monitoring Well Record 1330
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 9657.06 N 10,231.32 E
Drilled By WINNEK, INC. Drilling Method CORE
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Monitoring Well Record 1331
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 10,751.13 N 10,202.71 E
Drilled By WINNEK, INC. Drilling Method CORE
Logged By PFB Checked By SLW
Installation Date March 11, 1989

ELEV. (Feet)	DEPTH (Feet)	Description	USC	Sample Interval Core Size	"N" Value Rec. RQD	Graphic Log	Well Completion Detail	DEPTH (Feet)
	0	Ground Surface 987.1'					Drain	
		Firm to very dense, reddish-brown, Silty fine SAND grading to Sandy SILT	SM- ML		14		Steel Casing Top Top PVC Datum 989.54'	0
	5				50		6" Steel Casing with Locking Cover	
	5.5	SANDSTONE: fine to very fine grained, well sorted, subrounded, silty, weakly cemented	SS	Run 1 NX			Concrete	5
	7.4	MUDSTONE: reddish-brown, sandy, very fine grained	MS		76% 76		Portland Cement/ Sodium Bentonite Grout	
	10						2" I.D. SCH 40 PVC Flush-threaded	10
	11.5	SANDSTONE: brownish-red, fine grained, well sorted, subrounded to rounded, slightly silty		Run 2 NX	80% 80		6" Borehole	
	15							15
		... becomes clean, cross bedded below 17.0'		Run 3 NX	70% 70			20
	20		SS	Run 4 NX	70% 70			25
	25	... becomes fine to medium grained, conglomeratic 26.2' to 28.1' with sandstone and mudstone clasts, calcite and gypsum cement		Run 5 NX	79% 79			30
	30	... thin mudstone layers 28.1' to 28.6', 28.9' to 29.3', 29.7' to 30.0', 30.2' to 30.6'						
	31.7	MUDSTONE: reddish-brown, sandy, very fine grained	MS	Run 6 NX	90% 90			35
	35							
	37.0	SANDSTONE: fine to very fine grained, silty	SS					
		... becomes conglomeratic 38.6 to 39.1, bluish-gray						
	39.1	MUDSTONE: reddish-brown, sandy, very fine grained	MS					40
	40							

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Monitoring Well Record 1332

Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA

Coordinates 10,686.36 N 10,457.35 E

Drilled By WINNEK, INC. Drilling Method CORE

Logged By PFB

Checked By SLW

Installation Date March 13, 1989

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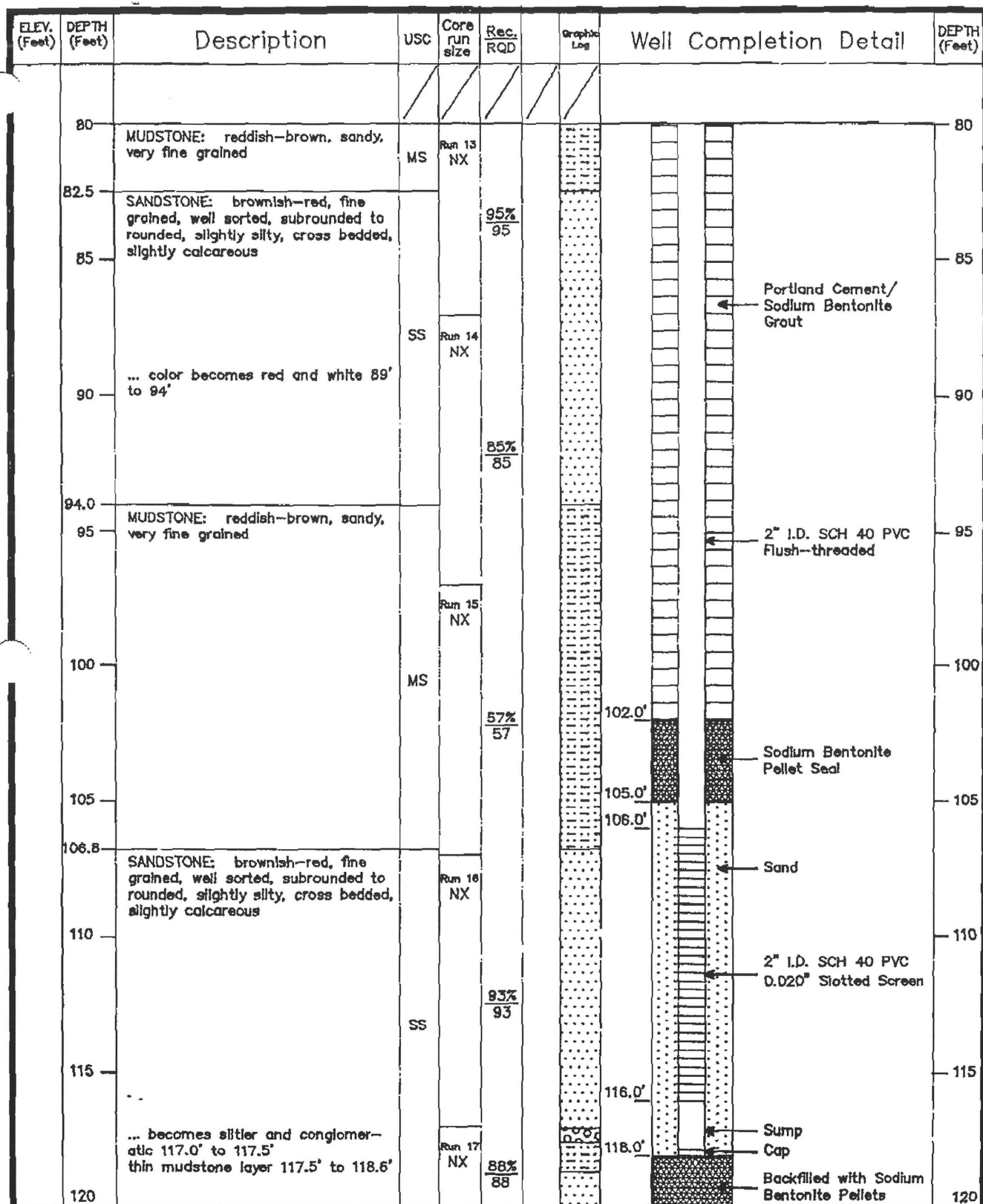
ELEV. (Feet)	DEPTH (Feet)	Description	USC	Core run size	Rec. RQD	Graphic Log	Well Completion Detail	DEPTH (Feet)
	40	MUDSTONE: reddish-brown, sandy, very fine grained, weakly cemented. Reduction zone 44.0' to 44.4'	MS	Run 7 NX				40
	44.4				64%			
	45	SANDSTONE: brownish-red, fine grained, well sorted, subrounded to rounded, weak to moderate cement, slightly calcareous, silty, occasional cross bedded intervals		Run 8 NX	64			45
	50				44%			50
					44			
	55			Run 9 NX	50%			55
					50			
			SS	Run 10 NX				
	60				100%			60
					100			
	65	... conglomeratic with sandstone, mudstone clasts, patchy yellow- green minerals and vug-like porosity 63.5' to 64.1', 65.8' to 66.8', 68.4' to 69.0'		Run 11 NX	100%			65
					100			
				Run 12 NX				
	69.7				96%			70
	70	MUDSTONE: reddish-brown, sandy, very fine grained, weakly cemented.			96			
	75	--						75
				Run 13 NX				
	80	... mudstone conglomerate 77.8' to 78.6'						80

Portland Cement/
Sodium Bentonite
Grout

2" I.D. SCH 40 PYC
Flush-threaded

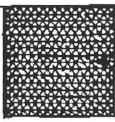
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Monitoring Well Record 1332
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 10,686.36 N 10,457.35 E
Drilled By WINNEK, INC. Drilling Method CORE
Logged By PFB Checked By SLW
Installation Date March 13, 1989



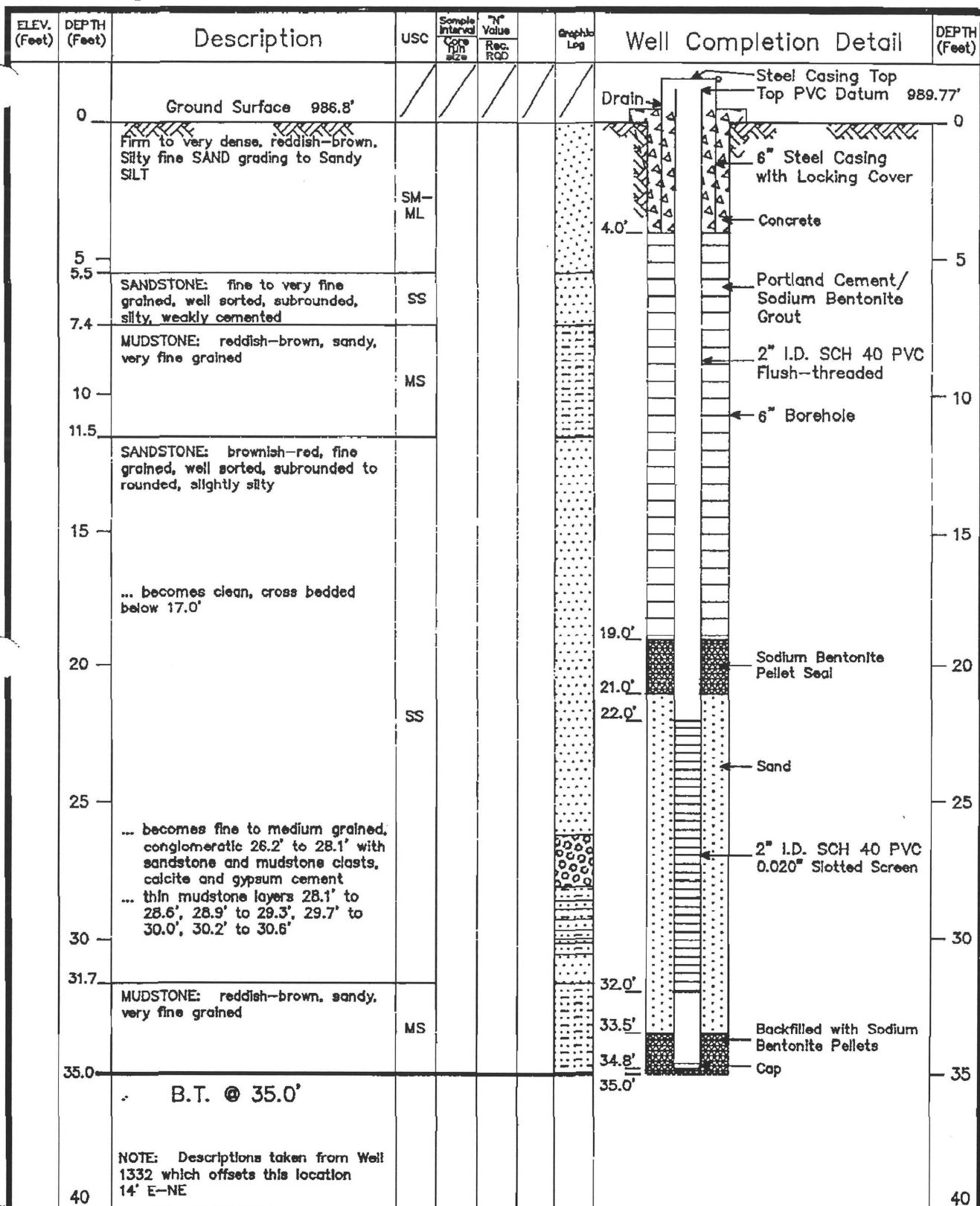
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Monitoring Well Record 1332
 Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
 Coordinates 10,686.36 N 10,457.35 E
 Drilled By WINNEK, INC. Drilling Method CORE
 Logged By PFB Checked By SLW
 Installation Date March 13, 1989 Page 3 of 4

ELEV. (Feet)	DEPTH (Feet)	Description	USC	Sample Interval Core Top Size	7" Value Rec. RQD	Graphic Log	Well Completion Detail	DEPTH (Feet)
	120							120
	121.0	Same as 106.8' to 120.0'	SS	Run 17	88%			121.0
	123.0	MUDSTONE: sandy, very fine grain- ed	MS		88		123.0'  Sodium Bentonite Pellet Backfill	123.0
	125	B.T. @ 123.0'						125
	130							130
	135							135
	140							140
	145							145
	150							150
	155							155
	160							160

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Monitoring Well Record 1332
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 10,686.35 N 10,457.35 E
Drilled By WINNEK, INC. Drilling Method CORE
Logged By PFB Checked By SLW
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Monitoring Well Record 1333

Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA

Coordinates 10,662.97 N 10,442.73 E

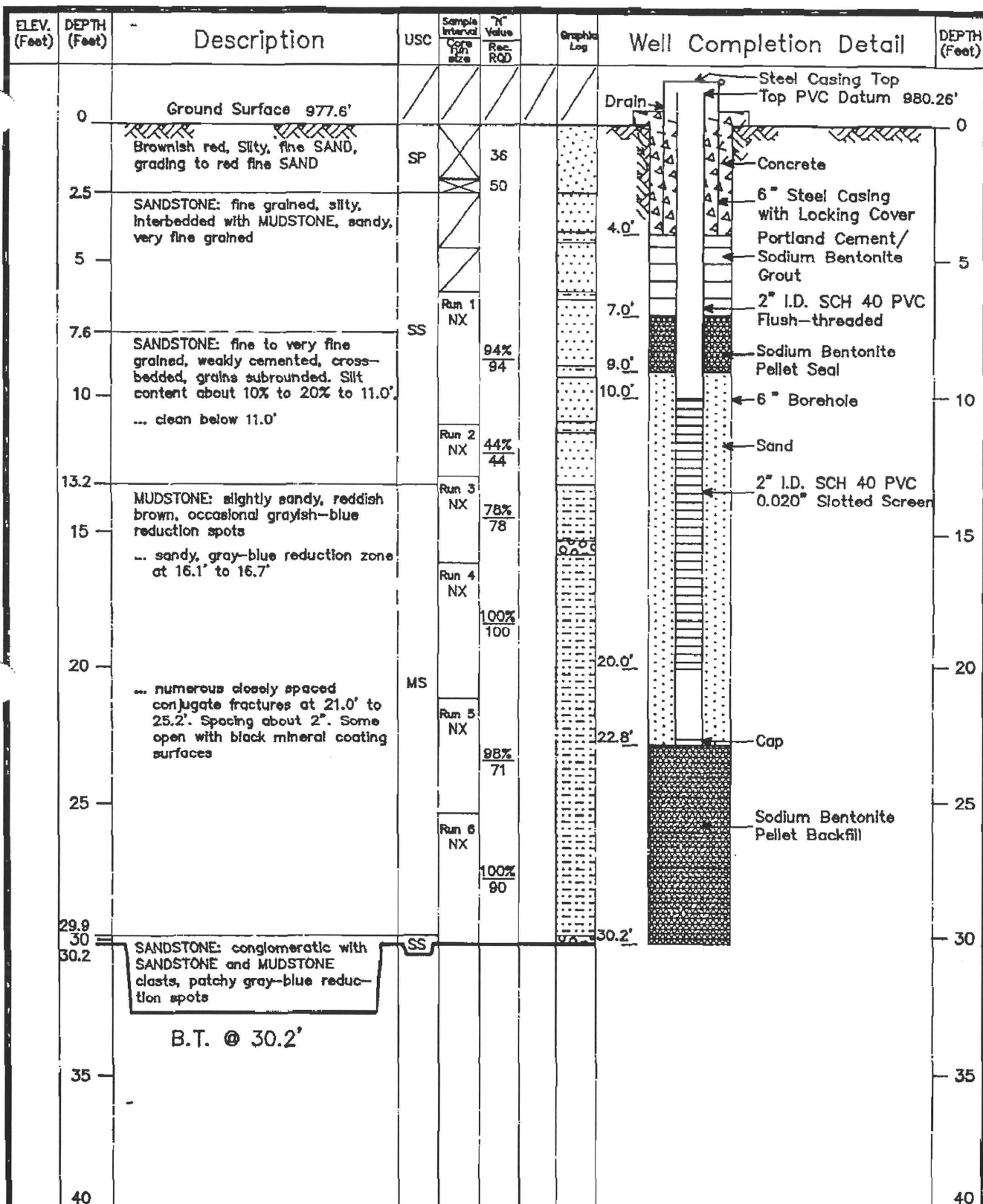
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Monitoring Well Record 1334

Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA

Coordinates 10,688.14 N 10,776.31 E

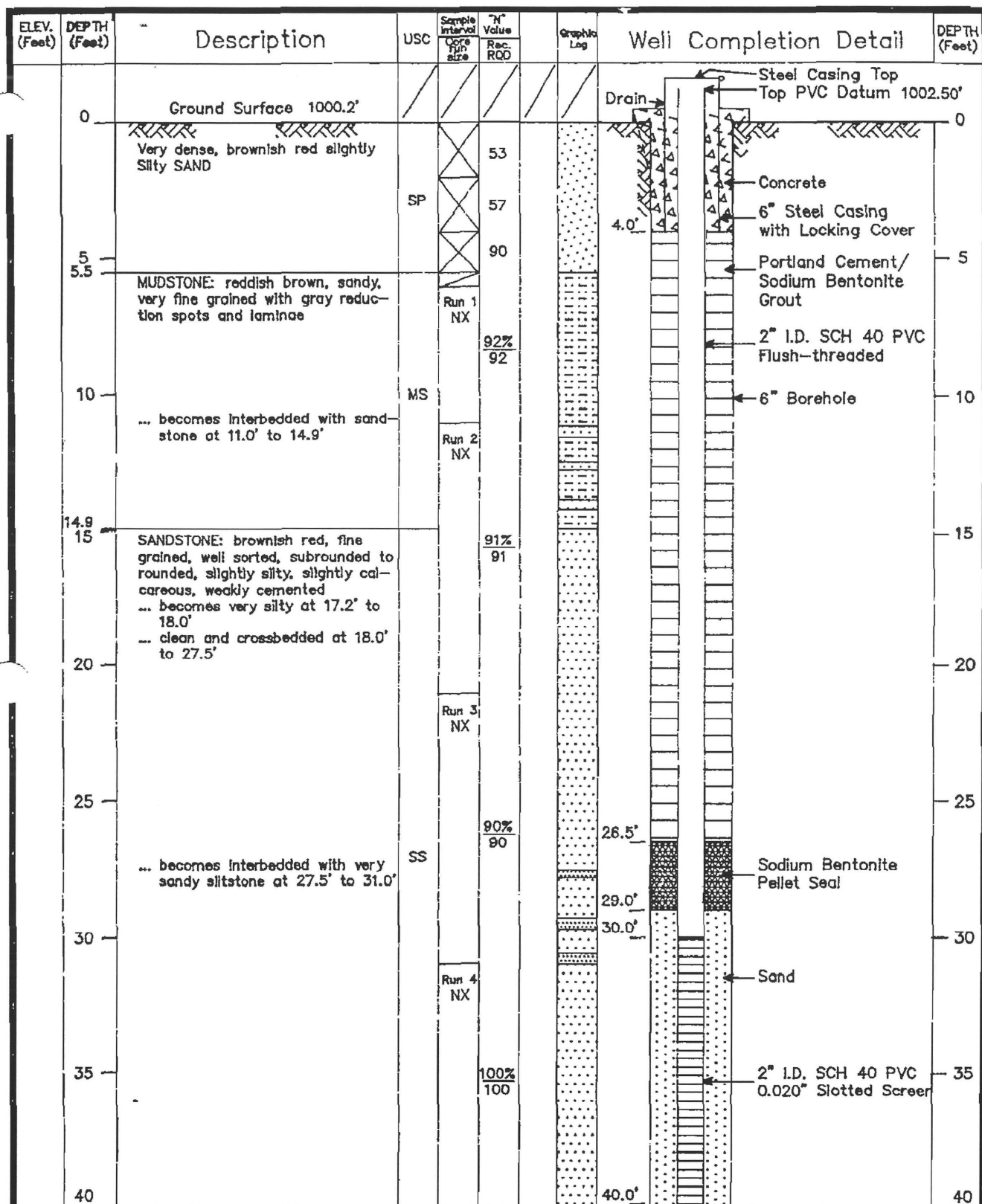
Drilled By WINNEK, INC. Drilling Method CORE

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Installation Date March 12, 1989

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Monitoring Well Record 1335

Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA

Coordinates 10,944.05 N 11,758.09 E

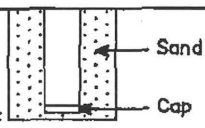
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Checked By SLW

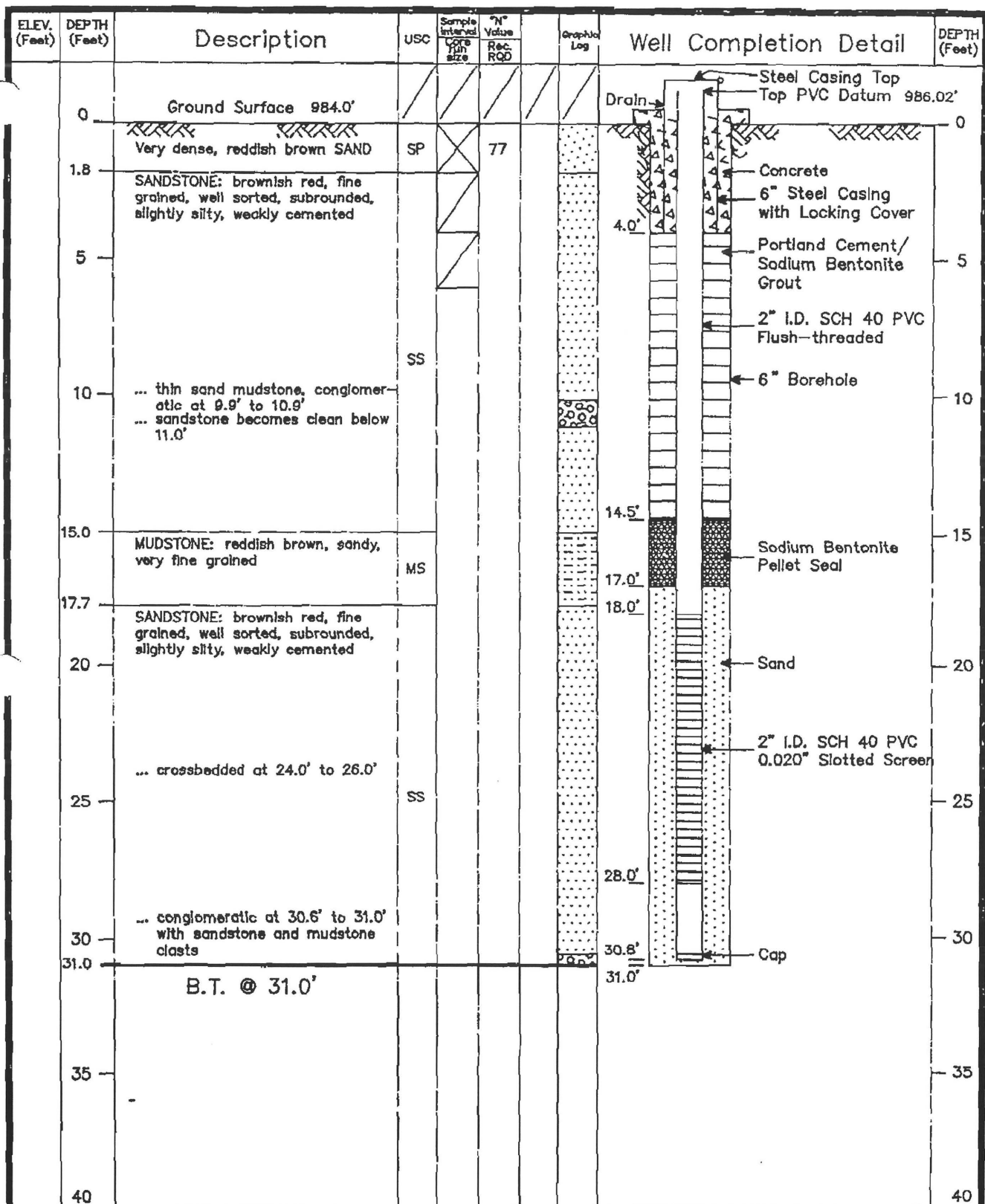
Installation Date March 13, 1989

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ELEV. (Feet)	DEPTH (Feet)	Description	USC	Sample Interval Core Size	"N" Value Rec. RQD	Graphic Log	Well Completion Detail	DEPTH (Feet)
	40							40
	43.0	SANDSTONE: fine to medium grain- ed, well sorted, subrounded to rounded, crossbedded, weakly cemented	SS	Run 4 NX	100% 100			40
	45	B.T. @ 43.0'						45
	50							50
	55							55
	60							60
	65							65
	70							70
	75							75
	80							80

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Monitoring Well Record 1335
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 10,944.05 N 11,758.09 E
Drilled By WINNEK, INC. Drilling Method CORE
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Monitoring Well Record 1336 A
Location CIMARRON FACILITY, LOGAN COUNTY, OKLAHOMA
Coordinates 11,738.39 N 11,722.31 E
Drilled By WINNEK, INC. Drilling Method CORE
Logged By PFB Checked By SLW
Installation Date March 14, 1989 Page 1 of 1