



- California DOGGR Well
- City of Davis Well
- ▲ Golf Course Well
- ▲ Private Well

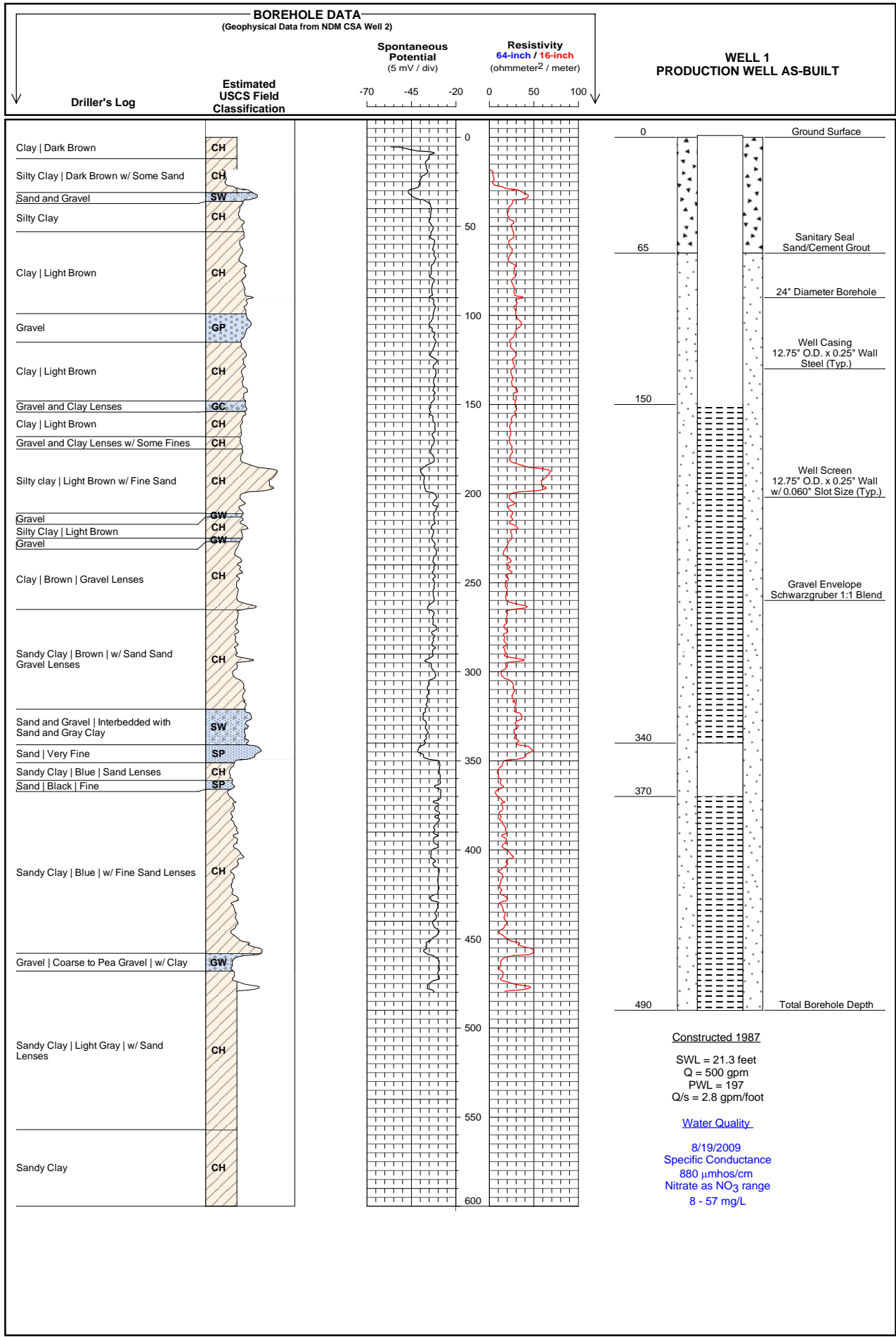
WELL LOCATION MAP  
 NORTH DAVIS MEADOWS CSA  
 FEBRUARY 2009

**Figure 1**

NOTES: ESRI Microsoft Virtual Earth



  
**WOOD RODGERS**  
 DEVELOPING INNOVATIVE DESIGN SOLUTIONS  
 3301 C Street, Bldg. 100-B    Tel: 916.341.7760  
 Sacramento, CA 95816        Fax: 916.341.7767



PROJECT NO.  
**8359.006**

FIGURE 2

AS-BUILT PLANS FOR  
**NORTH DAVIS MEADOWS  
COUNTY SERVICE AREA  
WELL 1**  
YOLO COUNTY, CA



DATE: **3/1/10 18:36**

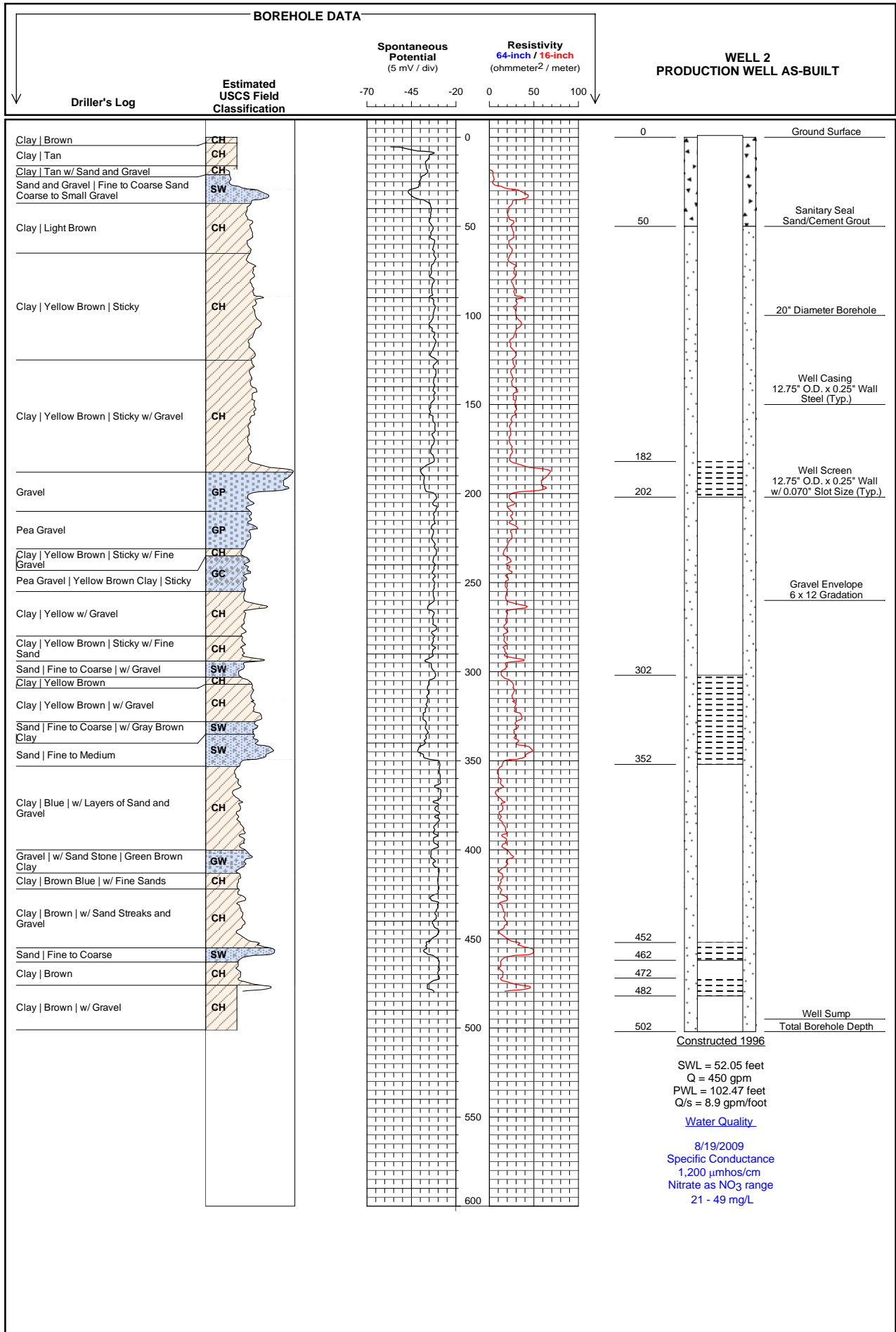
SCALE:

DRAWN BY: **S.SPAETH**

DESIGNED BY: **LAYNE**

CHECKED BY: **L. ERNST**

J:\Jobs\8359.006 North Davis Meadows CSA\Strater			
NO.	DESCRIPTION	ENGR. BY INT.	DATE APPROVED



PROJECT NO.  
**8359.006**

FIGURE 3

AS-BUILT PLANS FOR  
**NORTH DAVIS MEADOWS  
COUNTY SERVICE AREA  
WELL 2**

YOLO COUNTY, CA



DATE: **3/1/10 18:37**

SCALE:

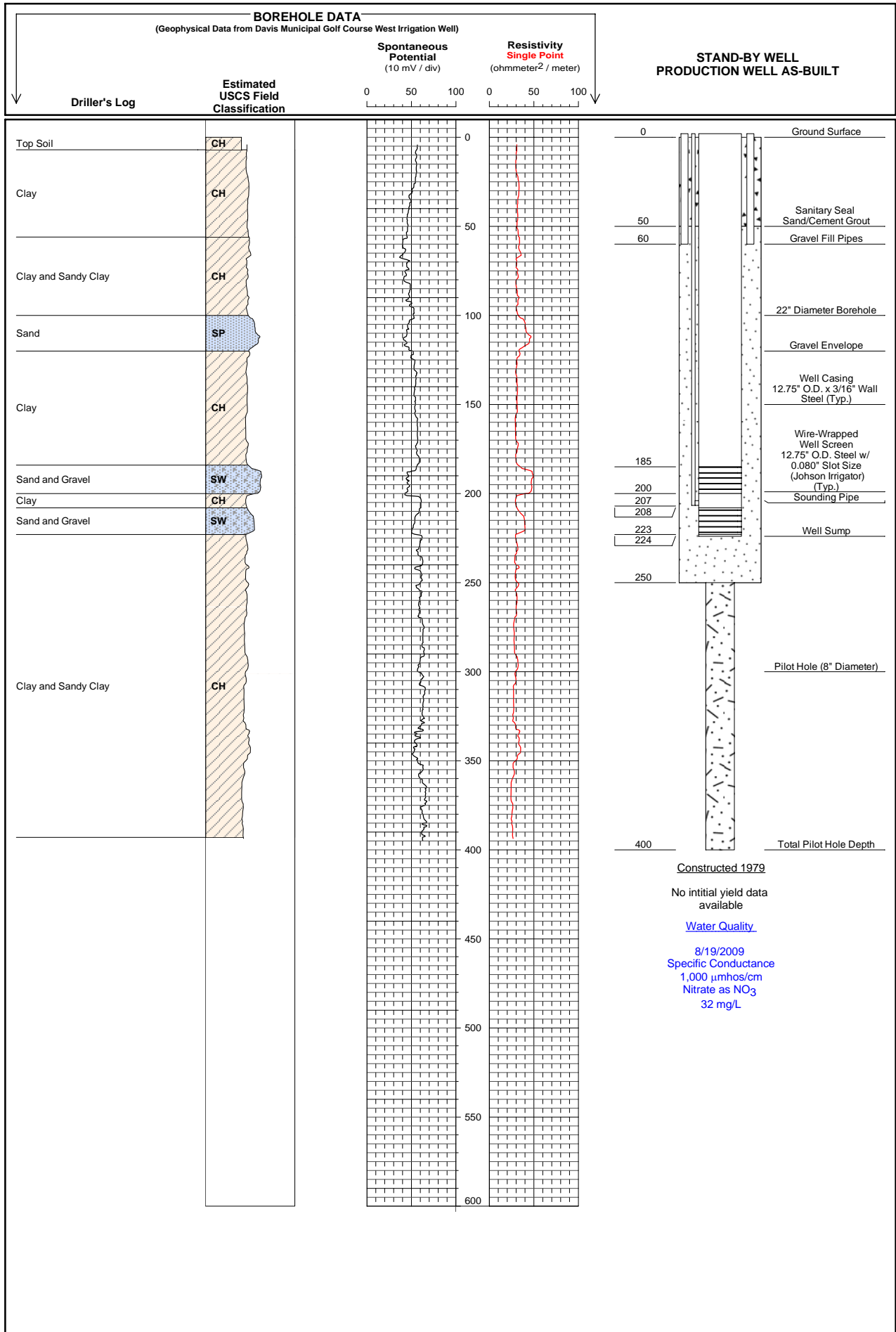
DRAWN BY: **S.SPAETH**

DESIGNED BY: **LAYNE**

CHECKED BY: **L. ERNST**

J:\Jobs\8359.006 North Davis Meadows CSA\Strater			
NO.	DESCRIPTION	ENGR. BY INIT	DATE APPROVED





PROJECT NO.  
**8359.006**

FIGURE 4

AS-BUILT PLANS FOR  
**NORTH DAVIS MEADOWS  
COUNTY SERVICE AREA  
STAND-BY WELL**

YOLO COUNTY, CA



DATE: **3/1/10 18:55**

SCALE:

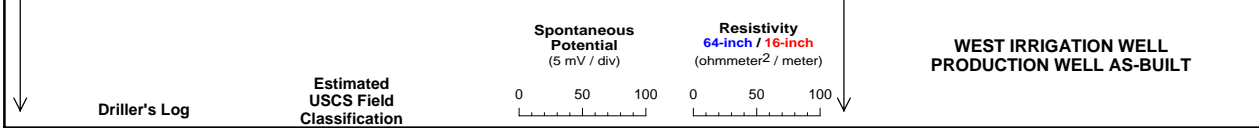
DRAWN BY: **S.SPAETH**

DESIGNED BY: **CITY of DAVIS**

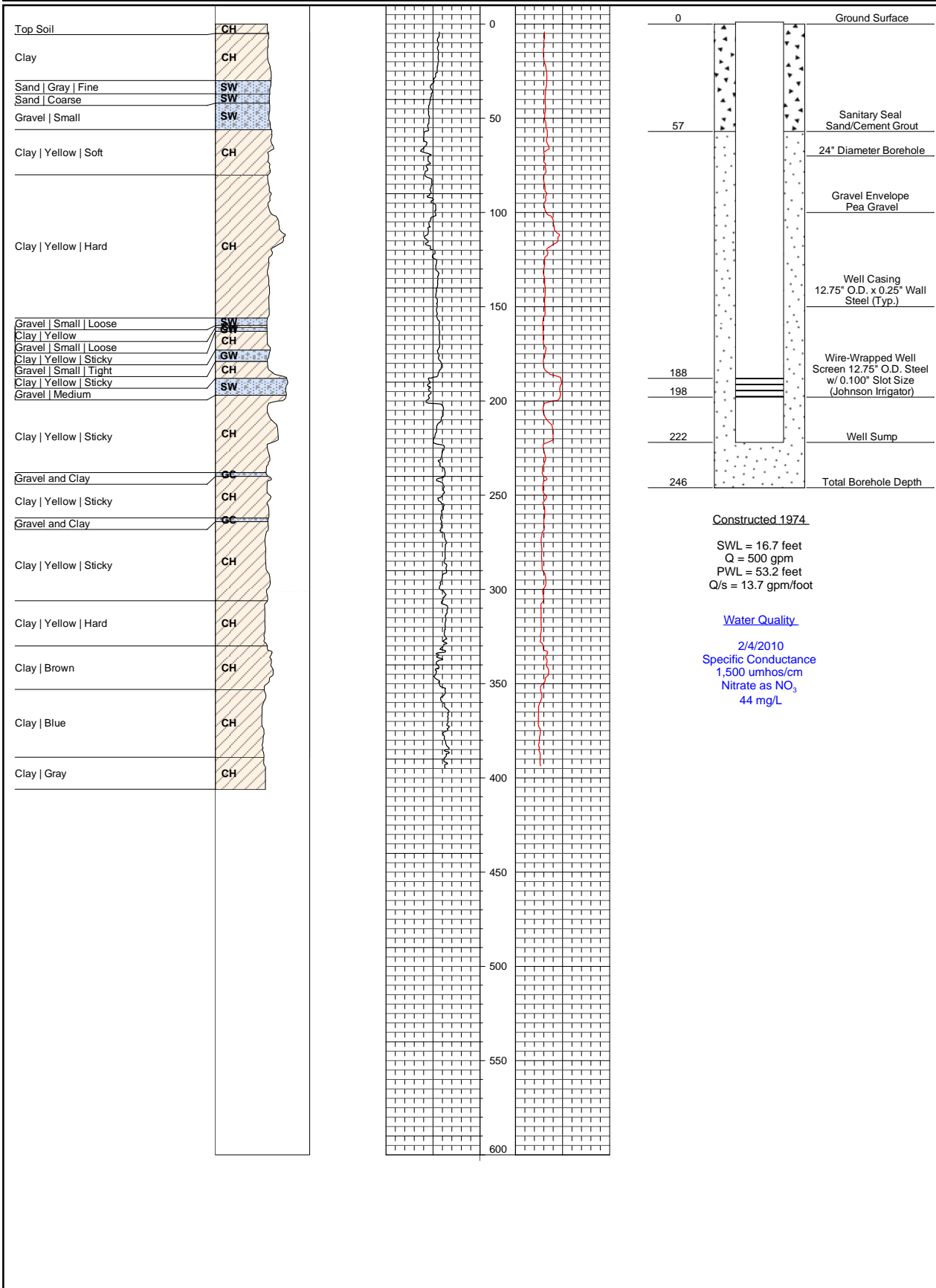
CHECKED BY: **L.ERNST**

J:\Jobs\8359.006 North Davis Meadows CSA\Strater			
NO.	DESCRIPTION	ENGR. BY INT.	DATE APPROVED

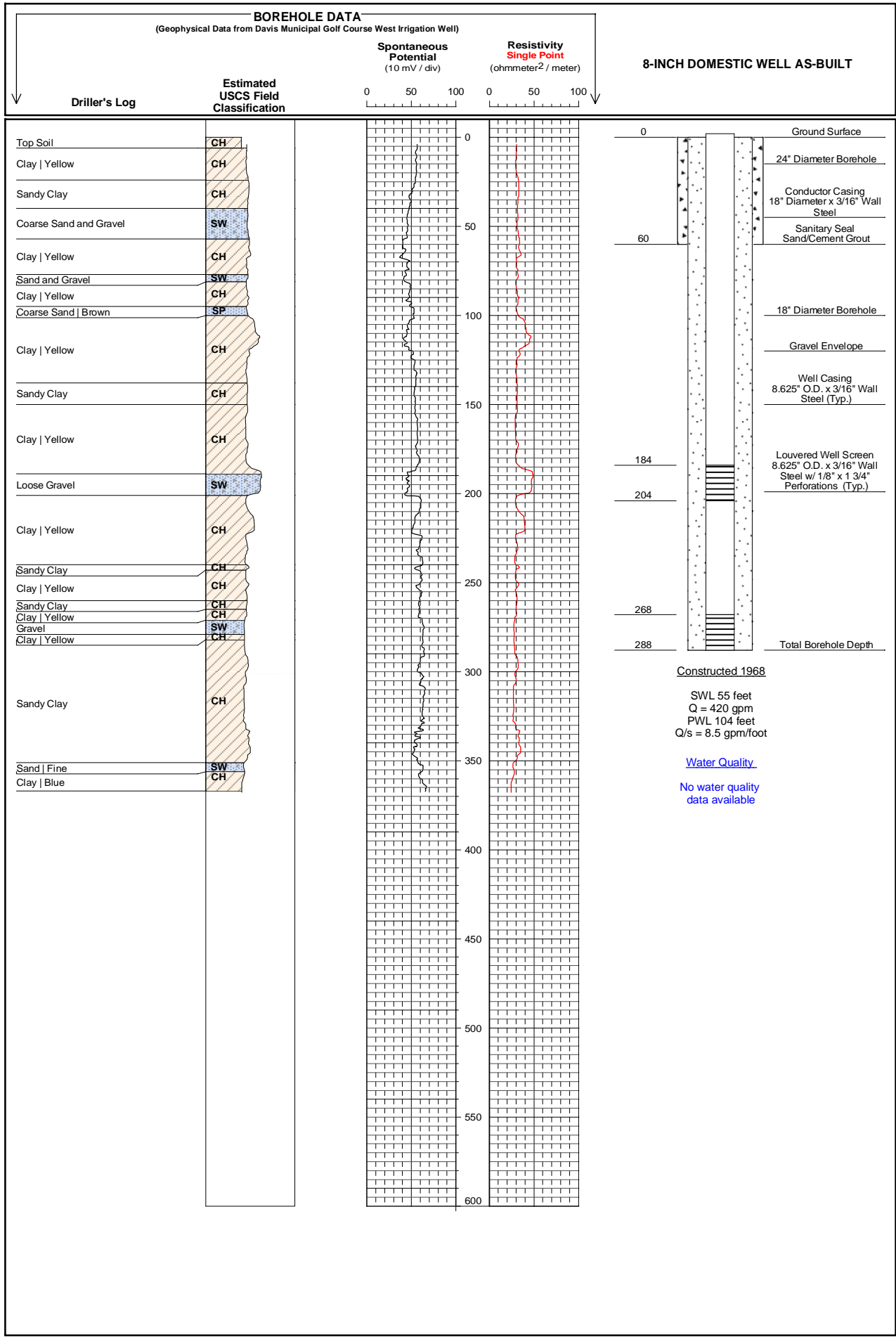
**BOREHOLE DATA**



**WEST IRRIGATION WELL  
PRODUCTION WELL AS-BUILT**

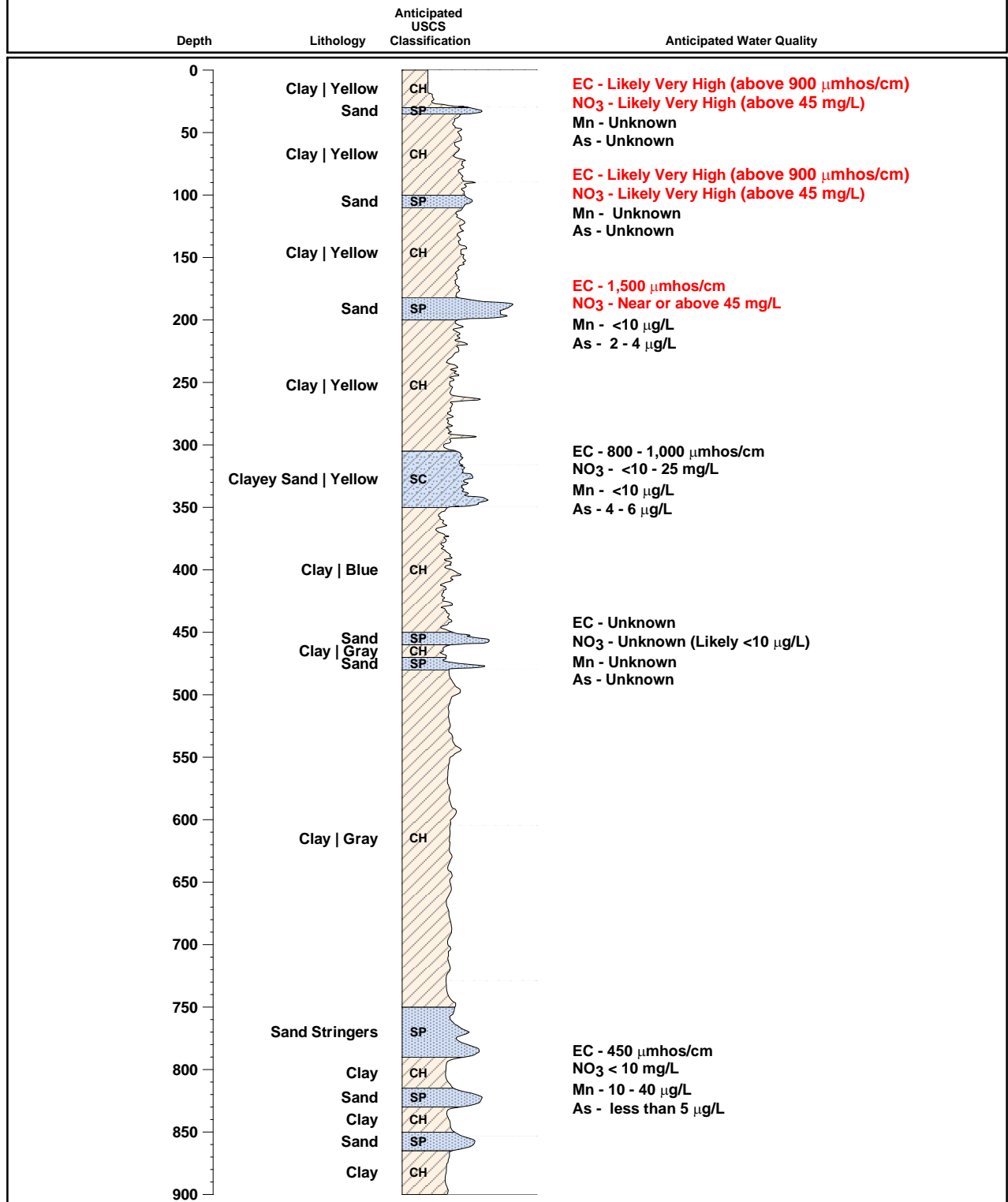


PROJECT NO. <b>8359.006</b>	AS-BUILT PLANS FOR <b>NORTH DAVIS MEADOWS COUNTY SERVICE AREA WEST IRRIGATION WELL</b> YOLO COUNTY, CA	 DEVELOPING INNOVATIVE DESIGN SOLUTIONS 3301 C Street, Suite 100-B Sacramento, CA 95816 Fax: 916.341.7767	DATE: <b>3/1/10 18:54</b>	J:\Jobs\8359.006 North Davis Meadows CSA\Strater			
FIGURE 5			SCALE:	DRAWN BY: <b>S.SPAETH</b>			
			DESIGNED BY: <b>E.E.LUHDORFF</b>	CHECKED BY: <b>L.ERNST</b>	NO.	DESCRIPTION	ENGR. BY INT.



PROJECT NO. <b>8359.006</b>	AS-BUILT PLANS FOR <b>NORTH DAVIS MEADOWS COUNTY SERVICE AREA DAVIS GOLF COURSE 8-INCH DOMESTIC WELL</b> YOLO COUNTY, CA	 <small>DEVELOPING INNOVATIVE DESIGN SOLUTIONS 3301 C Street, Bldg. 100-B Sacramento, CA 95816 Fax: 916.341.7767</small>	DATE: <b>3/2/10 13:21</b> SCALE: V: <b>1" = 50'</b> DRAWN BY: <b>S.SPAETH</b> DESIGNED BY: <b>CITY OF DAVIS</b> CHECKED BY: <b>L.ERNST</b>	<small>J:\Jobs\8359.006 North Davis Meadows CSA\Strater</small> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">NO.</td> <td style="width: 30%;">DESCRIPTION</td> <td style="width: 10%;">ENGR. BY</td> <td style="width: 10%;">DATE</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DESCRIPTION	ENGR. BY	DATE												
NO.	DESCRIPTION	ENGR. BY	DATE																	

**NORTH DAVIS MEADOWS COUNTY SERVICE AREA  
CONCEPTUAL GEOLOGIC AND WATER QUALITY COLUMN**



**State of California DPH  
Maximum Contaminant Level (MCL)**

Constituent	MCL/Units
Specific Conductance (EC)	900 $\mu\text{mhos/cm}$
Nitrate (NO <sub>3</sub> )	45 mg/L
Manganese (Mn)	50 $\mu\text{g/L}$
Arsenic (As)	10 $\mu\text{g/L}$

# NDM II Nitrate

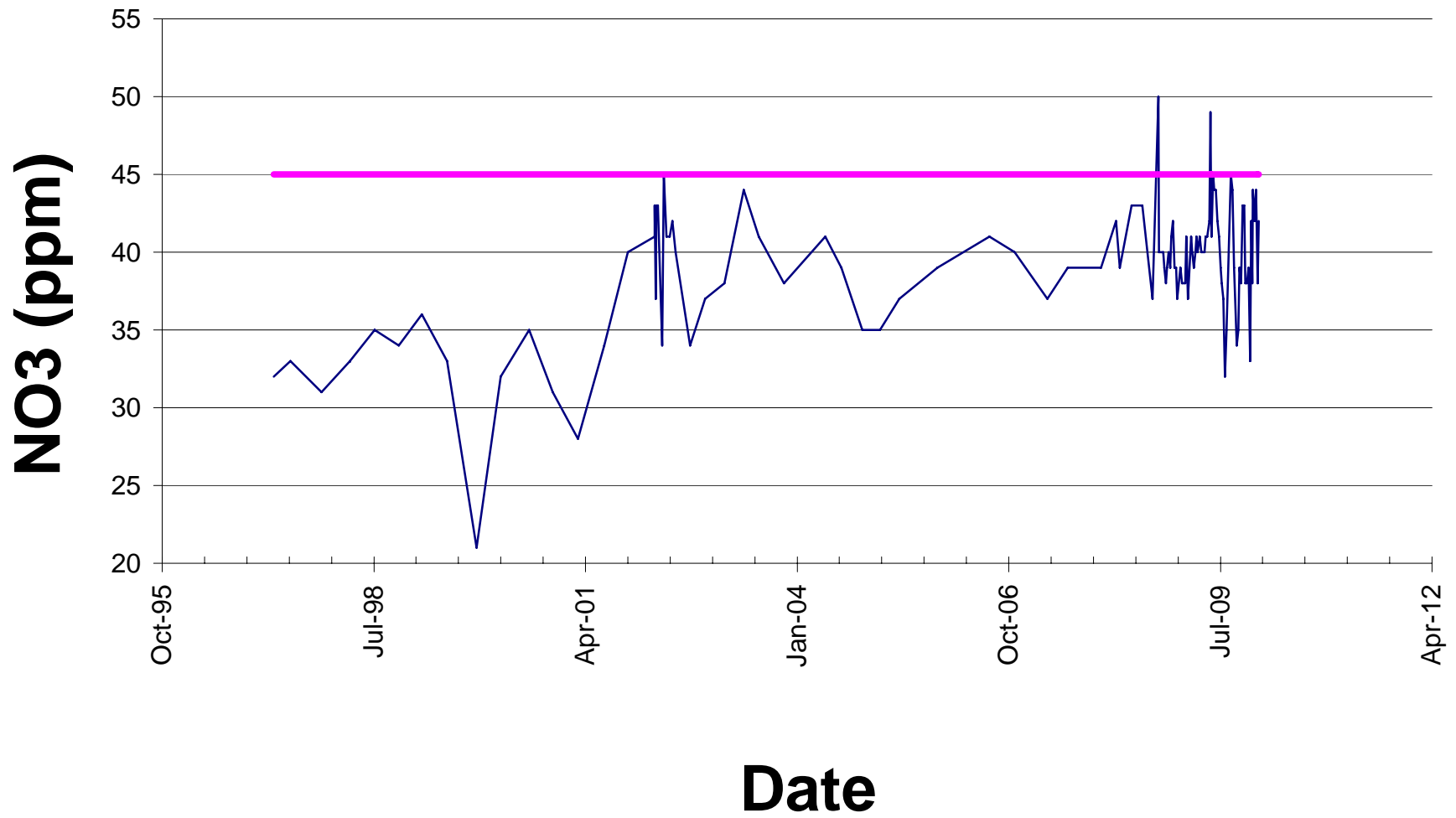


Figure 8



# NDM I Nitrate

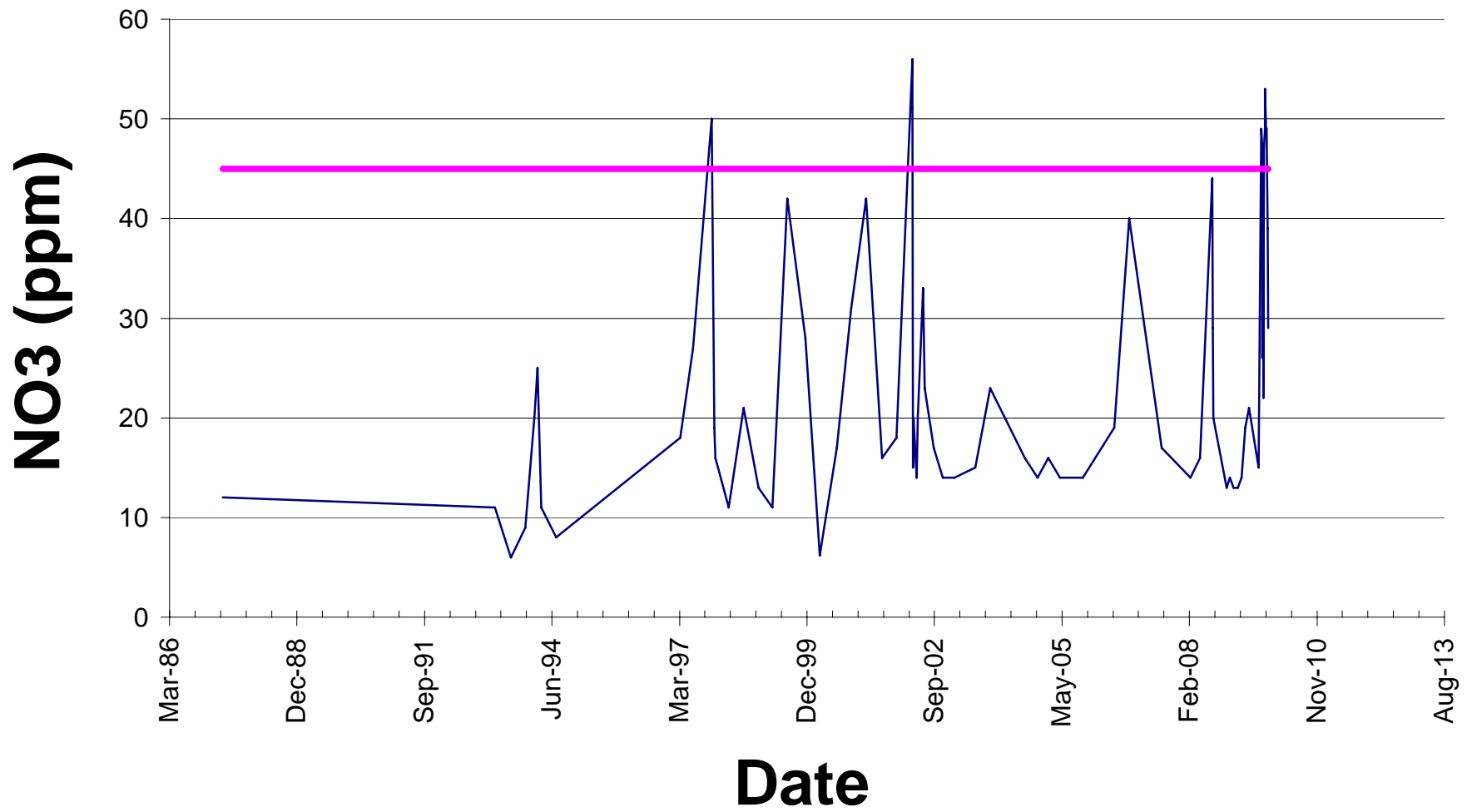
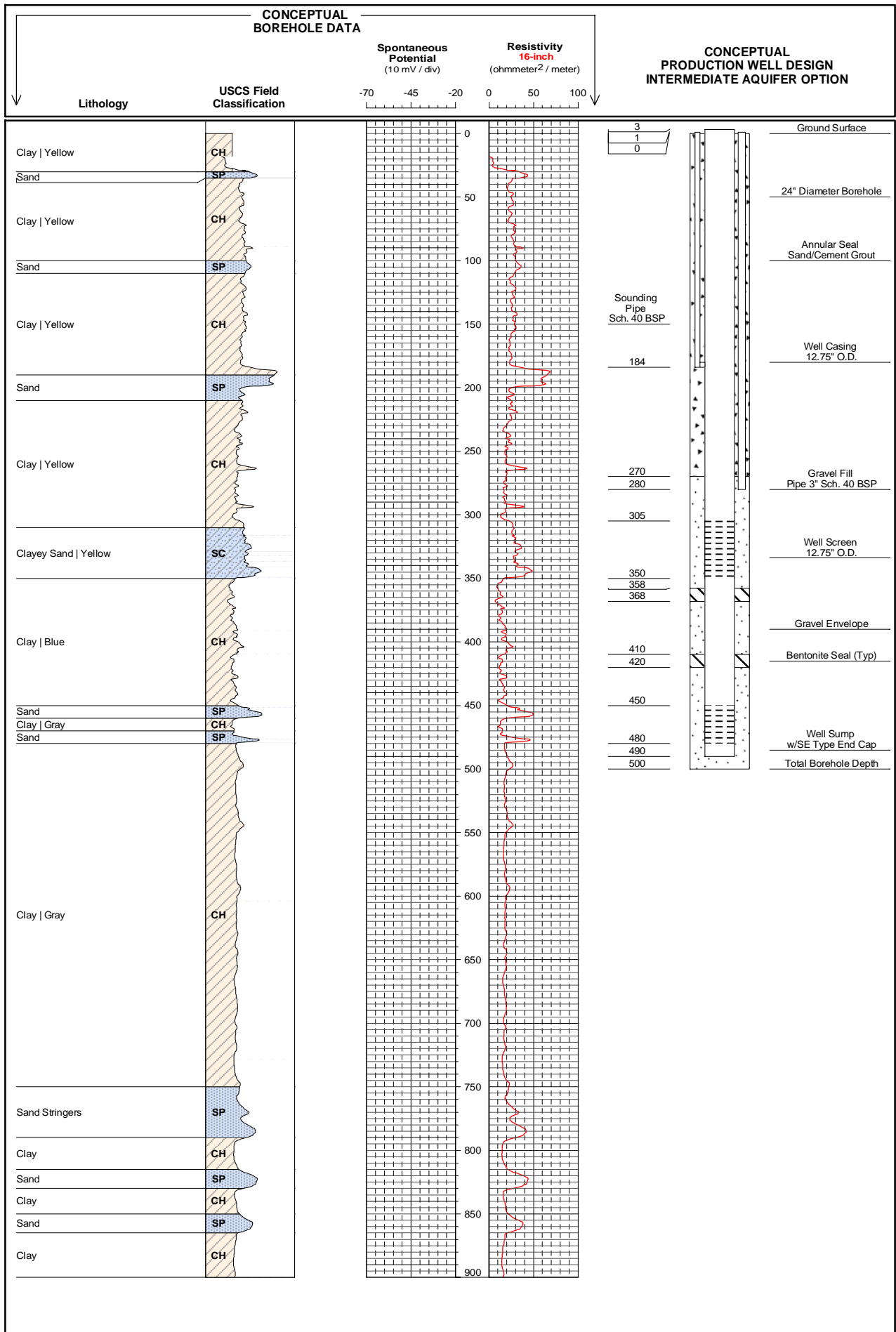
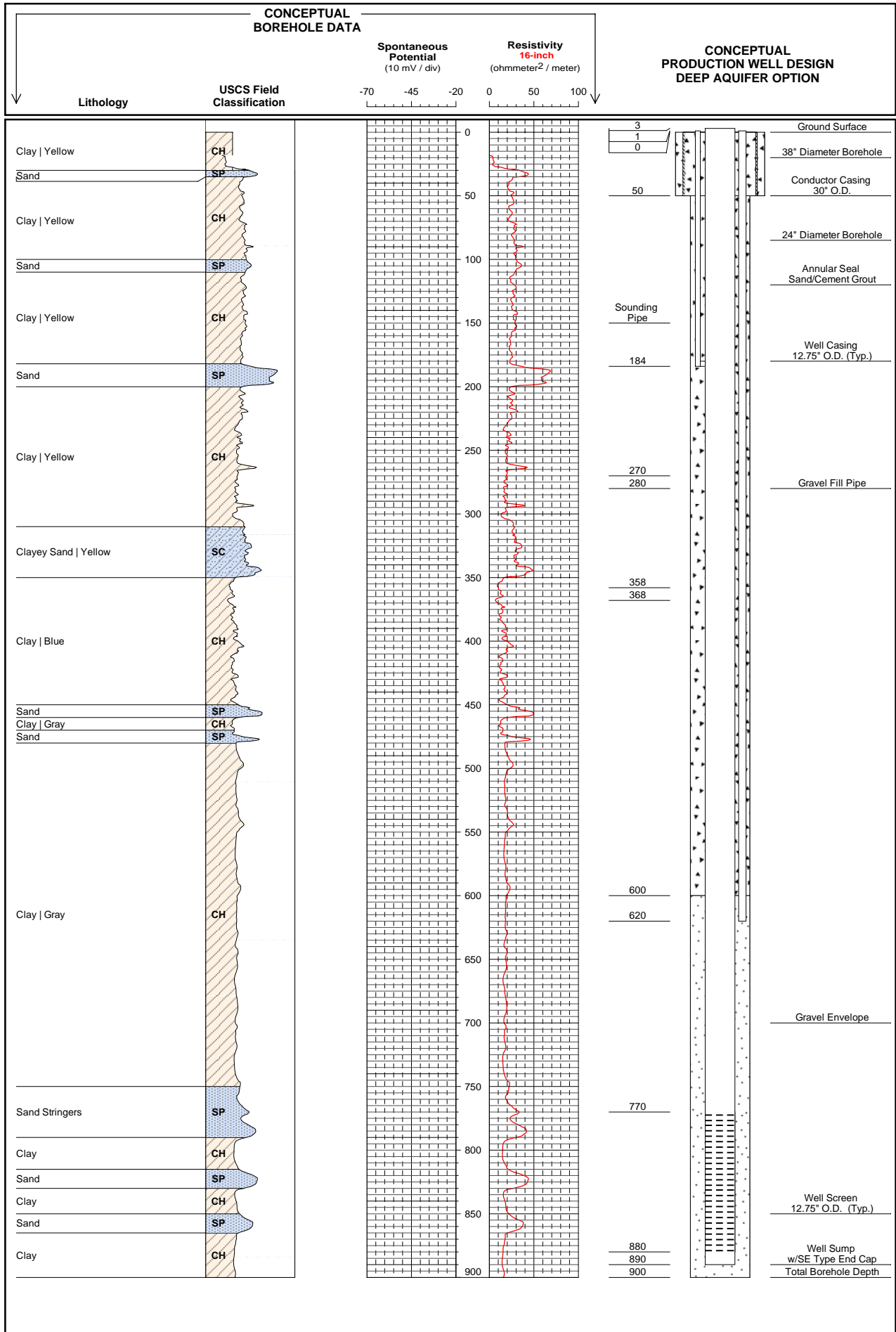


Figure 9



PROJECT NO. <b>8359.006</b>	PRODUCTION WELL DESIGN FOR <b>NORTH DAVIS MEADOWS</b> <b>CONCEPTUAL PRODUCTION WELL</b> <b>INTERMEDIATE AQUIFER OPTION</b>	 <small>DEVELOPING INNOVATIVE DESIGN SOLUTIONS          3301 C STREET, Bldg. 100-B    Fax: 916.341.7768          Sacramento, CA 95816    Fax: 916.341.7767</small>	DATE: <b>3/2/10 10:48</b> SCALE: DRAWN BY: <b>S.SPAETH</b> DESIGNED BY: <b>L.ERNST</b> CHECKED BY: <b>L.ERNST</b>	<small>J:\Jobs\8359_Davis_City of 8359.006 North Davis Meadows CSA\Strater</small> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>								
FIGURE 10	YOLO COUNTY, CA											
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PROJECT NO.  
**8359.006**

FIGURE 11

PRODUCTION WELL DESIGN FOR  
**NORTH DAVIS MEADOWS  
CONCEPTUAL PRODUCTION WELL  
DEEP AQUIFER OPTION**

YOLO COUNTY, CA



DATE: **3/2/10 10:36**

SCALE:

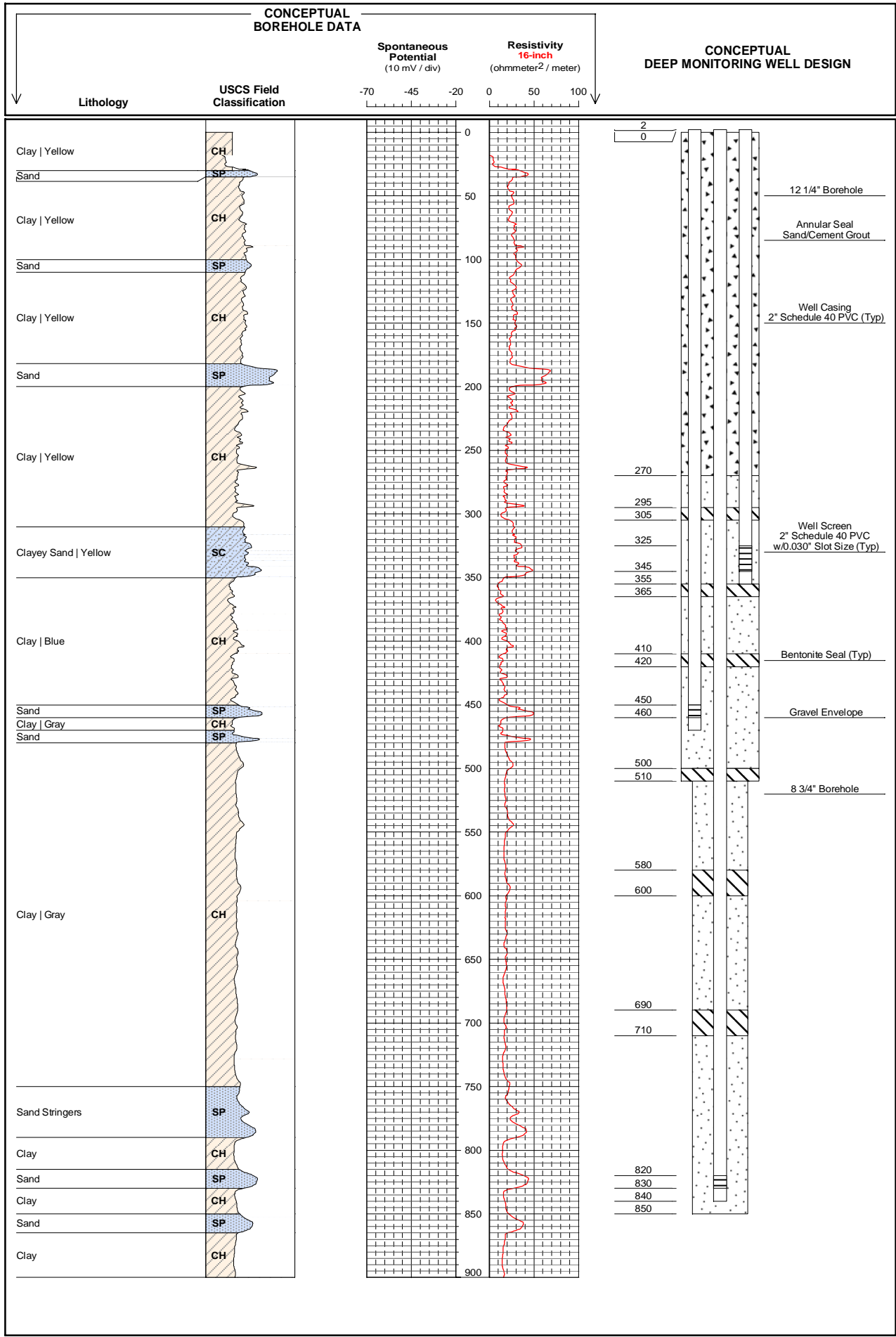
DRAWN BY: **S.SPAETH**

DESIGNED BY: **L.ERNST**

CHECKED BY: **L.ERNST**

J:\Jobs\8359\_Davis\_City of 8359.006 North Davis Meadows CSA\Strater

NO.	DESCRIPTION	ENGR. BY	DATE
		INT	APPROVED



PROJECT NO.  
**8359.006**

FIGURE 12

CONCEPTUAL MONITORING WELL DESIGN FOR  
**NORTH DAVIS MEADOWS DEEP MONITORING WELL**

YOLO COUNTY, CA



DATE: **3/2/10 10:44**

SCALE:

DRAWN BY: **B. DEMUCHA**

DESIGNED BY: **L. ERNST**

CHECKED BY:

J:\Jobs\8359\_Davis, City of\8359.006 North Davis Meadows CSA\Strater

NO.	DESCRIPTION	ENGR. BY	DATE

**ENGINEER'S ESTIMATE**

**North Davis Meadows  
Intermediate Aquifer Option**

Item No.	Description	Units	Unit Cost Estimate	Quantity	Extended Cost Estimate
1	Project Mobilization/Demobilization	LS	\$30,000	1	\$30,000
2	Test Hole Drilling	LF	\$30	500	\$15,000
3	Geophysical (E-Log)	EA	\$2,500	1	\$2,500
4	24-inch Borehole Drilling	LF	\$60	500	\$30,000
5	12.75-inch O.D. Steel Well Casing	LF	\$60	418	\$25,080
6	12.75-inch O.D. Well Screen	LF	\$200	75	\$15,000
7	2-inch Dia. Sound Tube Pipe, Sch 40 BSP	LF	\$10	185	\$1,850
8	3-inch Dia. Gravel Fill Pipe, Sch 40 BSP	LF	\$12	281	\$3,372
9	Gravel Envelope & Bentonite Seals	LF	\$55	230	\$12,650
10	Annular Seal	LF	\$40	270	\$10,800
11	Test Pump Installation	LS	\$8,000	1	\$8,000
12	Well Development	EA	\$12,000	1	\$12,000
13	Well and Aquifer Testing (Test Pumping)	HR	\$250	24	\$6,000
14	Plumbness & Alignment Test	EA	\$3,000	1	\$3,000
15	Site Cleanup and Records	LS	\$3,000	1	\$3,000
16	Well Disinfection	EA	\$1,000	1	\$1,000
17	Standby Time	HR	\$150	4	\$600
18	Pump Station	LS	\$250,000	1	\$250,000
19	Engineering	LS	\$90,000	1	\$90,000
					<b>\$519,852</b>



**ENGINEER'S ESTIMATE**

**North Davis Meadows  
Deep Aquifer Option**

Item No.	Description	Units	Unit Cost Estimate	Quantity	Extended Cost Estimate
1	Project Mobilization/Demobilization	LS	\$30,000	1	\$30,000
2	30-inch O.D. Conductor Casing and Sanitary Seal	LF	\$400	50	\$20,000
3	Test Hole Drilling	LF	\$30	850	\$25,500
4	Geophysical (E-Log)	EA	\$2,500	1	\$2,500
5	24-inch Borehole Drilling	LF	\$60	850	\$51,000
6	12.75-inch O.D. Steel Well Casing	LF	\$60	783	\$46,980
7	12.75-inch O.D. Well Screen	LF	\$200	110	\$22,000
8	2-inch Dia. Sound Tube Pipe, Sch 40 BSP	LF	\$10	185	\$1,850
9	3-inch Dia. Gravel Fill Pipe, Sch 40 BSP	LF	\$12	621	\$7,452
10	Gravel Envelope	LF	\$40	300	\$12,000
11	Annular Seal	LF	\$40	600	\$24,000
12	Test Pump Installation	LS	\$8,000	1	\$8,000
13	Well Development	EA	\$15,000	1	\$15,000
14	Well and Aquifer Testing (Test Pumping)	HR	\$250	24	\$6,000
15	Plumbness & Alignment Test	EA	\$3,000	1	\$3,000
16	Site Cleanup and Records	LS	\$3,000	1	\$3,000
17	Well Disinfection	EA	\$1,000	1	\$1,000
18	Standby Time	HR	\$150	4	\$600
19	Pump Station	LS	\$250,000	1	\$250,000
20	Engineering	LS	\$100,000	1	\$100,000
					<b>\$629,882</b>