HOBBS OCD

AUG 17 2012

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OCD Hobbs

Form 3160-5
(September 2001)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No 1004-0135
Expires: January 31, 2004

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

5. Lease Serial No
LC-069048

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No

1. Type of Well
☑ Oil Well ☐ ☐ Gas Well ☐☐ Other

8. Well Name and No.
Elliott Federal#4

2 Name of Operator
SandRidge Expl. & Prod., LLC

9 API Well No
30-025-40487

3a Address
123 Robert S. Kerr Ave., Oklahoma City, OK 73102

3b Phone No. *(include area code)*
405-429-6518

10 Field and Pool, or Exploratory Area
Wantz; Abo

4 Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
1285' FSL & 580' FEL, Sec 9 T21S R38E

11 County or Parish, State
Lea Co., NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other **Completion proced. and possible cement squeeze**
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones Attach the Bond under which the work will be performed or provide the Bond No on file with BLM/BIA Required subsequent reports shall be filed within 30 days following completion of the involved operations If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection)

SandRidge Expl. & Prod., LLC respectfully requests to perform the attached procedure. The procedure includes monitoring 5 1/2"& 8 5/8" annulus during frac treatments and notes to squeeze if communication is observed during the frac which may occur due to cement not circulating to surface. Cement did not circulate on account of a severe hole "washout" up hole near the bottom of the 8 5/8" surface casing. SandRidge calculated more than adequate cement to normally circulate to surface but the "washout" allowed cement to only reach 410' inside the 8 5/8" surface casing which we believe should still provide hydraulic seal from normal well issues or the frac job.

Thank you for your consideration of our proposal.

Best Regards,

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVED
AUG 13 2012
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

14 I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
Spence Laird

Title **Regulatory Analyst**

Signature Spence Laird

Date **08/08/2012**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Edward G. Fernandez

Title PETROLEUM ENGINEER

Date AUG 20 2012

Office

APPROVED
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

Conditions of approval, if any, are attached Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U S C Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on page 2)

CONDITIONS OF APPROVAL

Sundry dated 8/8/2012

OPERATOR'S NAME:	SANDRIDGE EXPLORATION & PRODUCTION
LEASE NO.:	NMLC69048
WELL NAME & NO.:	4 ELLIOT FEDERAL
SURFACE HOLE FOOTAGE:	1285' FSL & 580' FEL
LOCATION:	Section 9, T.21 S., R.38 E., NMPM
COUNTY:	Lea County, New Mexico

1. **Surface disturbance beyond the existing pad must have prior approval.**

2. **Closed loop system required.**

3. **3000 (3M) BOP to be used. All blowout preventer (BOP) and related equipment (BOPE) shall comply with reasonable well control requirements. A two ram system with a blind ram and a pipe ram designed for the size of the work string shall be adequate. Tapered work strings will require an additional pipe ram. The manifold shall comply with Onshore Oil and Gas Order #2 Attachment I (2M Diagrams of Choke Manifold Equipment). The accumulator system shall have an immediately available power source to close the rams and retain 200 psi above pre-charge. The pre-charge test shall follow requirements in Onshore Order #2.**

4. **Hydrogen Sulfide has been reported in this section As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**

5. **The operator is required to TAG the FRAC stages with a tracer and run a tracer survey to ensure the injected Prop is not placed out of zone. Report results to BLM.**

6. **The operator shall set their Pop-off valve to be set to go off at 750 psi. If communication is encountered on the annulus during the FRAC treatment and the pop-off valve goes off shut down and the BLM shall be notified before proceeding. "Provide frac job documentation to BLM"**

7. **Subsequent sundry with well test and wellbore schematic required.**

8. **Work to be completed in 90 days.**

NOTE to Operator the Original APD was approved for the Wantz:Abo formation not the Drinkard. The operator does not have approval to commingle the Drinkard with the Abo.

The operator shall submit a sundry notice to the BLM to requesting approval to Down hole Commingle the Abo and Drinkard formations with a copy of the C-107A and test allocations; before putting well on production.

EGF 081312

Well name **Elliott Federal #4**

Field	McElvain
State, County	New Mexico,Lea
Location	Section 9 TWP 21S RNG 38E
TD	8,083'
PBTD	7 982'
TOC	TOC @ 410' by CBL 7/26/12
KB	3 578'
GL	3 565'
Wellhead	Larkin Head
Misc. info	5 5" x OH annular fluid — 10 20 ppg Drilling Fluid
	5 5" casing fluid — 2% KCL Water
	BHT — 114 °F at 7703'

Engineer in Charge Torrey Wetsel Office 405-429-6429, Cell 405-365-6529, twetsel@sandridgeenergy.com

CSG	OD	ID	Drift	GRADE	THD	WT/FT	TOP	BTM	# JTS	BIT SIZE	DEPTH	SXS	Burst	Collapse
Surface	8 625"	8 097"	7 972"	J-55	ST&C	24 00#	0'	1,640'	39	12 250"	0'	850	2,950	1 370
Prod	5 500"	4 892"	4 767"	L-80	LT&C	17 00#	0'	8 072'	195	7 875"	8075'	1400	7 740	6,290
Production Tubing	2 875"	2 441"	2 347"	J-55	8 RD	0 00#	0'	00'	0	-	-	-	7,260	7 680

80% of 5-1/2" casing burst 6,192 psig
80% of 2-7/8" tubing 5,808 psig
80% of 2-7/8" N-80 Workstring 8,453 psig

PURPOSE The purpose of this completion procedure is to complete and test the Lower and Upper Wichita Albany and Lower Clearfork in 4 Stages as detailed below All stages to be stimulated via 5-1/2" casing

LOG INFORMATION

OPEN HOLE LOGS Weatherford dated 18 JULY 2012
CASED HOLE LOGS **GRAY CBL-GR-CCL ran 26 July 2012**
CORRELATION **Correlation of CBL and open hole logs will have to be done on location NOTE.** Perforations were selected off of the open hole logs

STAGE 1. LOWER ABO (7440'-7450' & 7514'-7522' OA)

1 MIRU flow/swab testing tank and hard-line to the wellhead ND wellhead NU 10 000 psi dual frac valves

2 MIRU GRAY WL **Correlate to GR/CCL/CBL dated 26 July 2012** and PU & RIH with 5-1/2" Gauge Ring and Junk Basket to PBTD PU & RIH with Dump Bailer and spot 3 bbls 20% NEFE HCL from ~7522' to ~7400' PU and RIH with 3-3/8" TAG system - **OWEN HERO SDP-3375-411NT3 charges (25 gram, 0 42" entry hole)** Correlate to GR/CCL/CBL and perforate the Lower Abo as follows (with pump in sub valve(s) and 5-1/2" casing wing valves shut in)

STAGE 1

LOWER ABO

Top Perf	Base Perf	Phasing	Feet	SPF	Total holes
7 440'	7 450'	60°	10'	6	60
7 514'	7 522'	60°	8'	6	48
		Totals	18'		108 shots

3 PU & RIH with 3-3/8" X 6' "stick" GAS GUN solid propellant stimulation system Correlate to Gray Wireline CBL and stimulate the Lower Abo perforated interal from 7,514'-7,620' PU & RIH with 3-3/8" X 4' "stick" GAS GUN solid propellant stimulation system Correlate to Gray Wireline CBL and stimulate the Lower Abo perforated interal from 7,440'-7,446'

4 Add anti-emulsion chemicals supplied by Smart Chemical Services to frac tanks prior to loading acid MIRU stimulation service company Hold safety meeting and test frac stack and lines Initiate breakdown by pumping treated 10# Brine Water down casing Perform acid fracture stimulation treatment of the Lower Wichita Albany per the attached pumping schedule via 5-1/2" casing at **30 bpm up to a maximum STP = 6200 psig** Tag acid with Ir-132 Radioactive Tracer **Special Note** **Monitor the 5-1/2" x 8-5/8" annulus with electronic pressure gauge and set a Pop-Off valve to go off at 750 psi. If communication is encountered on annulus during frac treatment, shut-down and notify OKC Operations Engineer and BLM Carlsbad, NM Field Office before proceeding.**

Record ISIP 5 min 10 min, 15 min 20 min

5 Proceed to complete Stage 2

STAGE 2 UPPER ABO (7340'-7350' OA)

6 PU & RIH with a **CIBP and set at 7430 ft** PU & RIH with Dump Bailer and spot 3 bbls 20% NEFE HCL from ~7350' to ~7220' PU and RIH with 3-3/8" TAG system - **OWEN HERO SDP-3375-411NT3 charges (25 gram, 0 42" entry hole)** Correlate to GR/CCL/CBL and perforate the **Upper Abo** as follows (with pump in sub valve(s) and 5-1/2" casing wing valves shut in)

STAGE 2

UPPER ABO

Top Perf	Base Perf	Phasing	Feet	SPF	Total holes
7 340'	7 350'	60°	10'	6	60
		Totals	10'		60 shots

7 PU & RIH with 3-3/8" X 6' "stick" GAS GUN solid propellant stimulation system Correlate to Gray Wireline CBL and stimulate the Upper Abo perforated interal from 7,340'-7,346'

8 **Add anti-emulsion chemicals supplied by Smart Chemical Services to frac tanks prior to loading acid** MIRU stimulation service company Hold safety meeting and test frac stack and lines Initiate breakdown by pumping treated 10# Brine Water down casing Perform acid fracture stimulation treatment of the Wichita Albany per the attached pumping schedule via 5-1/2" casing at **25 bpm up to a maximum STP = 6200 psig** Tag acid with Sc-46 Radioactive Tracer **Special Note** **Monitor the 5-1/2" x 8-5/8" annulus with electronic pressure gauge and set a Pop-Off valve to go off at 750 psi. If communication is encountered on annulus during frac treatment and the Popp-Off valve goes off, Shut-Down and notify OKC Operations Engineer and BLM Carlsbad, NM Field Office before proceeding**

Record ISIP 5 min, 10 min, 15 min 20 min
Close frac valves and RD stimulation company

9 Remain SI at least 4 hours or overnight for acid to react Flow well down on 16/64" ck until well dies ND and release frac valves

BRIDGE PLUG DRILL OUT AND RA TRACER SURVEY

10 MI unload rack and talk 2-7/8" EUE 8rd 6 5 ppf N80 WS PU and RIH with new 4-3/4" mill & DC's on 2-7/8" WS & tag top of CIBP @ 7430' RU power swivel and reverse unit Establish circulation down annulus and up tubing If cannot reverse circulate RU Foam Unit to drill out CIBP at 7430' Clean out to PBTD at 7982' and circulate clean POH and LD WS and bit & DC's

SUBMIT RA TARCER TO BLM

11 MIRU Slickline Unit PU & RIH with the SPECTRA Log RA tracer survey and run post frac height log across the Lower and Upper Abo intervals from PBTD @ 7982 ft to ~7000 ft Submit RA Tracer log results to BLM Carlsbad NM Field Office for approval to proceed with production

PUMP TEST LOWER AND UPPER ABO STAGE 1 AND 2

12 Put well on pump test to evaluate the production performance of the **Lower and Upper Abo Stage 1 and 2** intervals as follows MI rack & tailer new 2-7/8" EUE 8 rd J-55 6 5 ppf production tubing MU and TIH with production BHA (no bull plugged mud anchor will run pump with 10' dip tube inside casing) on tubing Want SN @ ~ 7572' and TAC @ ~ 7110' Note string details on report and in WellView ND stripping head and BOP, set TAC in 15,000# tension, NU 3K WH Flange land tubing with stripper rubber, tubing slips & bowl compression plate packing and hammer cap **RIH with rods string per attached XROD design DO NOT RUN ANY GUIDED RODS** Be sure to note in Well View and on the daily report the rod manufacturer and grade RU horse head RU KT load tubing and test pump to 500 psi with FW RDMO KT RD WSU and POP Report no less than 10 days of production in Well View ***NOTE Once all stimulation flow back water is recovered, obatin a formation water sample and submit to Tech Management for testing and analysis Have lab analysis results sent to OKC office Operations Engineer**

SUBMIT REQUEST TO COMMINGLE ABO AND DRINKARD TO BLM

13 Once adequate production data has been acquired on the Abo (approx 15 days) **Submit a sundry notice to BLM C-107A Request Downhole Commingle Abo and Drinkard intervals Once approval to Commingle Abo and Drinkard intervals has been received from BLM, proceed to STEP 14 to complete the Drinkard**

STAGE 3: DRINKARD (6785'-6795')

14 MIRU WSU POH with pump and rods SB same NU BOP's & stripper head Unset TAC and POH and SB production tubing

15 MIRU GRAY WL with full lubricator pump-in sub and pack off **PU and RIH with CIBP and set same at +/-7300'** RU KT and load casing with treated 2% KCL water and test casing and CBP to 3000 psi surface pressure PU & RIH with Dump Bailer and spot 3 bbls 20% NEFE HCL from ~6795' to ~6667' POOH with setting tool PU and RIH with 3-3/8" TAG system - **OWEN HERO SDP-3375-411NT3 charges (25 gram, 0.42" entry hole)** Correlate to Gray Wireline CBL and perforate the Drinkard as follows (with pump in sub valve(s) and 5-1/2" casing wing valves shut in)

STAGE 3 **DRINKARD**

Top Perf	Base Perf	Phasing	Feet	SPF	Total holes
6785'	6795'	60°	10'	6	60
		Totals	10'		60 shots

16 PU & RIH with **3-3/8" X 6' "stick" GAS GUN solid propellant stimulation system** Correllate to Gray Wireline CBL and stimulate the **Drinkard perforated interval 6785'-6791'**

17 **Add anti-emulsion chemicals supplied by Smart Chemical Services to frac tanks prior to loading acid** MIRU stimulation service company Hold safety meeting and pressure test frac stack and lines Initiate breakdown by pumping treated 10# Brine Water down casing Perform acid fracture stimulation of the **Drinkard** interval per the attached pumping schedule via 5-1/2" casing at **25 bpm up to a maximum STP = 6200 psig** **Tag acid with Sc-46 Radioactive Tracer Special Note: Monitor the 5-1/2" x 8-5/8" annulus with electronic pressure gauge and set a Pop-Off valve to go off at 750 psi. If communication is encountered on annulus during frac treatment, shut-down and notify OKC Operations Engineer and BLM Carlsbad, NM Field Office before proceeding**

Record ISIP 5 min 10 min 15 min 20 min
Close frac valves and RD stimulation company

See COA

18 Remain SI at least 4 hours or overnight for acid to react Flow well down on 16/64" ck until well dies ND and release frac valves

Provide Tracer Survey To BLM

BRIDGE PLUG DRILL OUT AND RA TRACER SURVEY

19 NU BOP NU stripper head PU and RIH with new 4-3/4" mill & DC's on 2-7/8" WS & tag CIBP @ 7300' RU power swivel and reverse unit Attempt to reverse circulate If cannot reverse circulate RU Foam Unit to drill out CIBP at 7300' Clean out to PBTD at 7982' and circulate clean POH and LD WS and bit & DC's

20 MIRU Slickline Unit PU & RIH with the SPECTRA Log RA tracer survey and run post frac height log across the Abo and Drinkard intervals from PBTD @ 7982 ft to ~6500 ft Submit RA Tracer log results to BLM Carlsbad NM Field Office for approval to proceed with production

COMMINGLE ABO AND DRINKARD

21 PU and TIH with production BHA **(no bull plugged mud anchor, will run pump with 10' dip tube inside casing)** on tubing Want SN @ 7572' and TAC @ 6585' Note string details on report and in WellView ND stripping head and BOP, set TAC in 15,000# tension NU 3K WH Flange land tubing with stripper rubber tubing slips & bowl compression plate packing and hammer cap RIH with rods string per attached XROD design Be sure to note in Well View and on the daily report the rod **manufacturer and grade** RU horse head RU KT load tubing and test pump to 500 psi with FW RDMO KT RD WSU and POP Report no less than 15 days of production in Well View

See COA

Well name	**Elliott Federal #4**	
Field	McElvain	
State County	New Mexico Lea	
Location	Section 9 TWP 21S RNG 38E	
TD	8 083'	
PBTD	7 982'	
TOC	TOC @ 410' by CBL 7/26/12	
KB	3 578'	
GL	3 565'	
Wellhead	Larkin Head	
Misc info	5 5" x OH annular fluid	10 20 ppg Drilling Fluid
	5 5" casing fluid	2% KCL Water
	BHT	114 °F at 7703'

SANDRIDGE
THE POWER OF US®

Engineer in Charge Torrey Wetsel Office: 405-429-6429, Cell 405-365-6529, twetsel@sandridgeenergy com

CSG	OD	ID	Drift	GRADE	THD	WT/FT	TOP	BTM	# JTS	BIT SZE	DEPTH	SXS	Burst	Collapse
Surface	8 625"	8 097"	7 972"	J-55	ST&C	24 00#	0'	1 640'	39	12 250"	0'	850	2 950	1 370
Prod	5 500"	4 892"	4 767"	L-80	LT&C	17 00#	0	8 072'	195	7 875"	8075'	1400	7 740	6 290
Production Tubing	2 875"	2 441"	2 347"	J-55	8 RD	6 50#	0'	00'	0	-	-	-	7 260	7 680

80% of 5-1/2" casing burst 6,192 psig
80% of 2-7/8" tubing 5,808 psig
80% of 2-7/8" N-80 Workstring 8 453 psig

PURPOSE The purpose of this completion procedure is to complete and test the Lower and Upper Wichita Albany and Lower Clearfork in 4 Stages as detailed below All stages to be stimulated via 5-1/2" casing

LOG INFORMATION
OPEN HOLE LOGS Weatherford dated 18 JULY 2012
CASED HOLE LOGS GRAY CBL-GR-CCL run 26 July 2012
CORRELATION Correlation of CBL and open hole logs will have to be done on location NOTE Perforations were selected off of the open hole logs

STAGE 1: LOWER ABO (7440'-7450' & 7514'-7522' OA)

1 MIRU flow/swab testing tank and hard-line to the wellhead ND wellhead NU 10,000 psi dual frac valves

2. MIRU GRAY WL Correlate to GR/CCL/CBL dated 26 July 2012 and PU & RIH with 5-1/2" Gauge Ring and Junk Basket to PBTD PU & RIH with Dump Bailer and spot 3 bbls 20% NEFE HCL from ~7522' to ~7400' PU and RIH with 3-3/8" TAG system - OWEN HERO SDP-3375-411NT3 charges (25 gram, 0 42" entry hole) Correlate to GR/CCL/CBL and perforate the Lower Abo as follows (with pump in sub valve(s) and 5-1/2" casing wing valves shut in)

STAGE 1

LOWER ABO

Top Perf	Base Perf	Phasing	Feet	SPF	Total holes
7 440'	7,450'	60°	10'	6	60
7 514'	7 522'	60°	8'	6	48
		Totals	18'		108 shots

3 PU & RIH with 3-3/8" X 6' "stick" GAS GUN solid propellant stimulation system Correlate to Gray Wireline CBL and stimulate the Lower Abo perforated interal from 7,514'-7,620' PU & RIH with 3-3/8" X 4' "stick" GAS GUN solid propellant stimulation system Correlate to Gray Wireline CBL and stimulate the Lower Abo perforated interal from 7,440'-7,446'

4 Add anti-emulsion chemicals supplied by Smart Chemical Services to frac tanks prior to loading acid. MIRU stimulation service company Hold safety meeting and test frac stack and lines Initiate breakdown by pumping treated 10# Brine Water down casing Perform acid fracture stimulation treatment of the Lower Wichita Albany per the attached pumping schedule via 5-1/2" casing at 30 bpm up to a maximum STP = 6200 psig. Special Note: Monitor the 5-1/2" x 8-5/8" annuli with electronic pressure gauges and Pop-Off valve during frac treatment. If communication is encountered on annulus during frac treatment, flush frac, Shut-Down and notify OKC Operations Engineer for cement squeeze procedure.

Record ISIP, 5 min, 10 min 15 min 20 min

5 Proceed to complete Stage 2

STAGE 2 UPPER ABO (7340'-7350' OA)

6 PU & RIH with a CIBP and set at 7430 ft PU & RIH with Dump Bailer and spot 3 bbls 20% NEFE HCL from ~7350' to ~7220' PU and RIH with 3-3/8" TAG system - OWEN HERO SDP-3375-411N13 charges (25 gram, 0 42" entry hole) Correlate to GR/CCL/CBL and perforate the Upper Abo as follows (with pump in sub valve(s) and 5-1/2" casing wing valves shut in)

STAGE 2

UPPER ABO

Top Perf	Base Perf	Phasing	Feet	SPF	Total holes
7 340'	7 350'	60°	10	6	60
		Totals	10'		60 shots

7. PU & RIH with 3-3/8" X 6' "stick" GAS GUN solid propellant stimulation system Correlate to Gray Wireline CBL and stimulate the Upper Abo perforated interal from 7,340'-7,346'

8 Add anti-emulsion chemicals supplied by Smart Chemical Services to frac tanks prior to loading acid MIRU stimulation service company Hold safety meeting and test frac stack and lines Initiate breakdown by pumping treated 10# Brine Water down casing Perform acid fracture stimulation treatment of the Wichita Albany per the attached pumping schedule via 5-1/2" casing at 25 bpm up to a maximum STP = 6200 psig Special Note: Monitor the 5-1/2" x 8-5/8" annuli with electronic pressure gauges and Pop-Off valve during frac treatment. If communication is encountered on annulus during frac treatment, flush frac, Shut-Down and notify OKC Operations Engineer for cement squeeze procedure.

Record ISIP 5 min, 10 min, 15 min 20 min
Close frac valves and RD stimulation company

9 Remain SI at least 4 hours or overnight for acid to react Flow well down on 16/64" ck until well dies ND and release frac valves

10 MI unload, rack and tally 2-7/8" EUE 8rd 6 5 ppt N80 WS PU and RIH with new 4-3/4" mill & DC's on 2-7/8" WS & tag top of CIBP @ 7430' RU power swivel and reverse unit Establish circulation down annulus and up tubing If cannot reverse circulate RU foam Unit to drill out CIBP at 7430' Clean out to PBTD at 7982' and circulate clean POH and LD WS and bit & DC's

PUMP TEST LOWER AND UPPER ABO STAGE 1 AND 2

11. Put well on pump test to evaluate the production performance of the Lower and Upper Abo Stage 1 and 2 intervals as follows MI rack & talley new 2-7/8" EUE 8 rd J-55 6 5 ppt production tubing MU and TIH with production BHA (no bull plugged mud anchor, will run pump with 10' dip tube inside casing) on tubing, Want SN @ ~ 7572' and TAC @ ~ 7140' Note string details on report and in WellView ND stripping head and BOP, set TAC in 15 000+ tension NU 3K WH flange land tubing with stripper rubber, tubing slips & bowl compression plate packing and hammer cap RIH with rods string per attached XROD design DO NOT RUN ANY GUIDED RODS Be sure to note in Well View and on the daily report the rod manufacturer and grade RU horse head RU KT, load tubing and test pump to 500 psi with FW RDMO KT RD WSU and POP Report no less than 10 days of production in Well View *NOTE. Once all stimulation flow back water is recovered, obtain a formation water sample and submit to Tech Management for testing and analysis Have lab analysis results sent to OKC office Operations Engineer

12 Once adequate production data has been acquired on the Abo (approx 15 days) proceed to Step 13

See COA
TAG FRAC W/ TRACER
* See COA
RUN FRAC TRACER SURVEY & PROVIDE TO BLM
* See COA

STAGE 3 DRINKARD (6785'-6795')

13 MIRU WSU POH with pump and rods SB same NU BOP's & stripper head Unset TAC and POH and SB production tubing

14 MIRU GRAY WL with *full lubricator, pump-in sub and pack off* PU and RIH with CIBP and set same at +/-7300' RU KT and load casing with treated 2% KCL water and test casing and CBP to 3000 psi surface pressure PU & RIH with Dump Bailer and spot 3 bbls. 20% NEFE HCL from ~6795' to - 6667' POOH with setting tool PU and RIH with 3-3/8" TAG system - OWEN HERO SDP-3375-411NT3 charges (25 gram, 0 42" entry hole). Correlate to Gray Wireline CBL and perforate the Drinkard as follows (with pump in sub valve(s) and 5-1/2" casing wing valves shut in)

STAGE 3

DRINKDARD

Top Perf	Base Perf	Phasing	Feet	SPF	Total holes
6 785'	6 795'	60°	10'	6	60
		Totals	10'		60 shots

15. *PU & RIH with 3-3/8" X 6' "stick" GAS GUN solid propellant stimulation system Correllate to Gray Wireline CBL and stimulate the Drinkard perforated interval 6785'-6791'*

16. Add anti-emulsion chemicals supplied by Smart Chemical Services to frac tanks prior to loading acid MIRU stimulation service company Hold safety meeting and pressure test frac stack and lines Initiate breakdown by pumping treated 10# Brine Water down casing Perform acid fracture stimulation of the Drinkard interval per the attached pumping schedule via 5-1/2" casing at 25 bpm up to a maximum STP = 6200 psig Special Note Monitor the 5-1/2" x 8-5/8" annulus with electronic pressure gauge and Pop-Off valve during frac treatment If communication is encountered on annulus during frac treatment flush frac, Shut-Down and notify OhC Operations Engineer for cement squeeze procedure

Record ISIP, 5 min 10 min, 15 min 20 min

Close frac valves and RD stimulation company

17 Remain SI at least 4 hours or overnight for acid to react Flow well down on 16/64" ck until well dies ND and release frac valves

BRIDGE PLUG DRILL OUT

18 NU BOP NU stripper head PU and RIH with new 4-3/4" mill & DC's on 2-7/8" WS & tag CIBP @ 7300' RU power swivel and reverse unit Attempt to reverse circulate If cannot reverse circulate RU Foam Unit to drill out CIBP at 7300' Clean out to PBTD at 7982' and circulate clean POH and LD WS and bit & DC's

COMMINGLE ABO AND DRINKARD

19. PU and TIH with production BHA (no bull plugged mud anchor- will run pump with 10' dip tube inside casing) on tubing Want SN @ 7572' and TAC @ 6585' Note string details on report and in WellView ND stripping head and BOP, set TAC in 15 000# tension NU 3K WH Flange land tubing with stripper rubber tubing slips & bowl compression plate packing and hammer cap RIH with rods string per attached XROD design Be sure to note in Well View and on the daily report the rod manufacturer and grade RU horse head RU KT, load tubing and test pump to 500 psi with FW RDMO KT RD WSU and BOP Report no less than 15 days of production in Well View

See COA

See COA

* See COA
Run Frac Tracer & Provide Tracer Survey To BLM

WELLBORE SCHEMATIC

CURRENT

GL 3565'
KB 3579'

TOC @ 410' CBL dated 7/26/12

1610

Perforated - Stage 2
6785'-6795' 6SPF

U Abo - Stage 2
7340'-7350' 6SPF

L Abo - Stage 1
7440'-7450' 6SPF

L Abo - Stage 1
7514'-7522' 6SPF

PBTD @ 7982'

TD @ 8083'

WELL NAME:	Elliott Federal #4	SPOT:	1,285' FSL/580' FEL	OPERATOR:	Sandridge Energy/	SPUD DATE:	07/08/12
API NO	30-025-40487	LOCATION	Section 9 TWP 21S RNG 38E	ZONE	Wichita Albany	RR DATE	07/19/12
WI	100.000000%	FIELD	McElvain	ELEVATION	3,565'	MICU	
RI	80.000000%	COUNTY	Lea	TD	8,083'	COMPL DATE	
Corp ID	130450	STATE	New Mexico	PBTD	7,982'	AFE NO	DC1575

PIPE RECORD / CEMENT & HOLE DATA

CSG	OD	GRADE	THD	WT/FT	TOP	BTM	# JTS	BIT SZE	DEPTH	SXS	TYPE	TOC
Conductor	14.000"	H-40	ST&C	48.00#	00	80'	1	NA	80'	NA	NA	Surface
										600	Lead: 12.9# 1.89yld, class C Poz	80
Surface	8.625"	J-55	ST&C	24.00#	00	1,610'	39	12.250"	1,640	250	Tail 13.7# 1.65yld Class C Poz	
Prod	5.500"	L-80	LT&C	17.00#	00	8,072'	195	7.875"	8,075'	600	Lead: 50:50 Class "H" 11.9 ppg 2.45 ft3/sk	TOC @ 410' by CBL
										800	Tail: 50:50 Class "H" 14.4 ppg 1.31 ft3/sk	ACT TOC

Well Tests

WELL HISTORY

DATE	WORK DETAIL	PROD RESULTS
07/08/12	SPUD	
07/10/12	RIH w/ 39 jts of 8-5/8", 24#, J-55 STC csg. Set @ 1640'. FC @ 1597'. Pump 20 bbl fresh water spacer & LEAD: cmt w/ 600sks (195bbl) of 12.9# 1.83yld Class C Poz. TAIL: 250sks (78bbl) of 13.7# 1.65yld Class C Poz. Disp w/ 102 bbl fresh.	
07/19/12	RIH w/ 195 jts of 5-1/2" 17# L-80 LTC csg. Set @ 8073'. Rig Release @ 19:00hr.	
07/20/12	LEAD: cmt w/ 600sks (262bbl) of 11.8 ppg 2.45 cf/sk 13.78 gn/sx 50:50 Poz Class H. TAIL: cmt w/ 800sks (187bbl) of 14.4 ppg 1.31 cf/sk 5.18 gn/sx 50:50 Poz Class H. N/D BOP, set slips w/ 125k & install tbg head. clean pits.	
07/26/12	Run Gray CBL-GR-CCL from PBTD 7982 ft to surface w/ 1,000 psi pressure. TOC @ 410 ft.	

Drilling Notations:

Stimulation Treatment

Date	Zone	Sand (klbs)	Fluid (bbls)	Total Fluid Type (Pad/Prepd/Frac/Flush)	Prop Type	AIR(bpm)/ AIP(psig)	Frac Grad/ ISIP

Frac Job Remarks (Screenouts or problems in Frac Job)

CIBP Record

Date	Depth	Type	Date Removed	Notes

Remarks

PERFORATION HISTORY

DATE	TOP	BTM	ZONE	SPF(count)/ Phasing	Status

Downhole Jewelry

Length	Depth	Description

TUBULAR GOODS PERFORMANCE

Material (Halliburton Handbook)	ID (in)	Drift (in)	Collapse* (psi)	Burst (psi)	Tensile* (Klbs)
8.625" J-55 ST&C 24#	8.097	7.972	1,370	2,950	244,000
5.5" L-80 LT&C 17#	4.892	4.767	6,290	7,740	348,000

* Safety Factor Not Included

REMARKS

Packer Detail

ENGINEER	Torrey Wetzel	
GEOLOGIST	Justin Lynch	
LANDMAN:	Chad Pinkerton	
PREPARED BY:	Matthew Brenska	
PREPARED DATE:	7/25/2012	UPDATED
UPDATED:		UPDATED
UPDATED		UPDATED

SandRidge ENERGY

Elliott Federal #4
LOWER ABO (7440'-7522')
Lea County, New Mexico
Stage #1

Frac down 5-1/2", L80, 17 0 #/ft Tbg (Burst 7,740 psi)

Stage	#	Fluid Type	Stage Clean Vol (Gals)	Stage Clean Vol (Bbls)	Cum Clean Vol (bbls)	Total Rate BPM	Stage Prop #'s	*Prop Total #"s*	*BH Conc PPG*	*Clean Fluid Stage Vol (bbls)*	*Clean Fluid Total Vol (bbls)*	*Cum Time Mins*
Spearhead	1	20% Slick NEFE HCl Acid + 10% Xylene	3,350	79.8	79 8	***35.0***	0	0	0	*79.8*	*79 8*	2 28
Gel Pad	2	20# Linear Guar Gel Pad	7,500	178 6	258.3	***35.0***	0	0	0	*178.6*	*258 3*	7.38
Gel Acid	3	20% Ultragel Acid	10,000	238 1	238.1	***35.0***	0	0	0	*238 1*	*317 9*	9.08
Gel Pad	4	20# Linear Guar Gel Pad	7,500	178.6	416.7	***35.0***	0	0	0	*178 6*	*496.4*	14.18
Diversion	5	20# Linear 10 PPG Brine with 1 0 PPA GRS (option)	2,500	59 5	476 2	***35.0***	0	0	0	*59.5*	*556.0*	15.88
Slick Acid	6	20% Slick NEFE HCl Acid + 10% Xylene	3,350	79 8	317.9	***35.0***	0	0	0	*79.8*	*635.7*	18 16
Gel Pad	7	20# Linear Guar Gel Pad	7,500	178.6	496 4	***35.0***	0	0	0	*178 6*	*814 3*	23 27
Gel Acid	8	20% Ultragel Acid	10,000	238 1	734 5	***35.0***	0	0	0	*238 1*	*1052.4*	30 07
Gel Pad	9	20# Linear Guar Gel Pad	7,500	178 6	913 1	***35 0***	0	0	0	*178 6*	*1231.0*	35.17
Slick Acid	10	20% Slick NEFE HCl Acid + 10% Xylene	3,350	79 8	992 9	***35.0***	0	0	0	*79.8*	*1310 7*	37 45
Flush	11	2% KCL water (to bottom perf @ 7522')	7,329	174 5	1167 4	***35.0***	0	0	0	*174 5*	*1485 2*	42 43
						TOTAL	0				*1485 2*	

Gals Acid/net pay ft	500
Gals. Acid/gross perf ft	250
Rate/perf	0 324
Rate/perf-ft	1.944

Max Pressure = 6,200 psi

HHP = 4700 (liquid side w/o backup)

Fluid Requirements

1 Heat acid to +/- 100 deg F prior to treatment.
2 All 2% KCL water & fresh water mixed with Smart Chemicals Biocide, Iron Chelating Agent, Corrosion Inhibitor, Emulsion Control
3 BHT = 111° F @ 8068 FT as per OH log.
4 Est f g = 0 9 psi/ft

Operational Considerations

5 Tanks Filled with 2% KCL water & Smart Chemicals Services anti-emulsion chemicals loaded in frac tanks prior to filling tanks

See COA
Tag Frac with Tracer

Elliott Federal #4
UPPER ABO (7340'-7350')
Lea County, New Mexico
Stage #2

Frac down 5-1/2", L80, 17.0 #/ft Tbg (Burst 7,740 psi)

Stage	#	Fluid Type	Stage Clean Vol (Gals)	Stage Clean Vol (Bbls)	Cum Clean Vol (bbls)	Total Rate BPM	Stage Prop #'s	*Prop Total #"s*	*BH Conc PPG*	*Clean Fluid Stage Vol (bbls)*	*Clean Fluid Total Vol (bbls)*	*Cum Time Mins*
Spearhead	1	20% Slick NEFE HCl Acid + 10% Xylene	2,500	59.5	59.5	***25.0***	0	0	0	*59 5*	*59 5*	2.38
Gel Pad	2	20# Linear Guar Gel Pad	4,500	107 1	166 7	***25.0***	0	0	0	*107 1*	*166 7*	6.67
Gel Acid	3	20% Ultragel Acid	5,000	119 0	119.0	***25.0***	0	0	0	*119 0*	*178 6*	7.14
Gel Pad	4	20# Linear Guar Gel Pad	4,500	107 1	226 2	***25.0***	0	0	0	*107.1*	*285 7*	11.43
Slick Acid	5	20% Slick NEFE HCl Acid + 10% Xylene	2,500	59 5	178 6	***25.0***	0	0	0	*59 5*	*345 2*	13 81
Gel Pad	6	20# Linear Guar Gel Pad	4,500	107 1	285 7	***25.0***	0	0	0	*107.1*	*452 4*	18.10
Gel Acid	7	20% Ultragel Acid	5,000	119 0	404 8	***25.0***	0	0	0	*119 0*	*571 4*	22 86
Gel Pad	8	20# Linear Guar Gel Pad	4,500	107 1	511.9	***25.0***	0	0	0	*107 1*	*678 6*	27 14
Slick Acid	9	20% Slick NEFE HCl Acid + 10% Xylene	2,500	59.5	571.4	***25.0***	0	0	0	*59.5*	*738 1*	29 52
Flush	10	2% KCL water (to bottom perf @ 7350')	7,162	170 5	742 0	***25.0***	0	0	0	*170 5*	*908.6*	36 34
						TOTAL	0				*908 6*	

Gals. Acid/net pay ft	875
Gals. Acid/gross perf ft	1750
Rate/perf	0 417
Rate/perf-ft	2.500

Max Pressure = 11,000 psi

HHP = 3400 (liquid side w/o backup)

Fluid Requirements

1 Heat acid to +/- 100 deg. F prior to treatment.
2 All 2% KCL water & fresh water mixed with Smart Chemicals Biocide, Iron Chelating Agent, Corrosion Inhibitor, Emulsion Control
3 BHT = 111° F @ 8068 FT as per OH log.
4. Est f.g. = 0 9 psi/ft

Operational Considerations

3 Tanks Filled with 2% KCL water & Smart Chemicals Services anti-emulsion chemicals loaded in frac tanks prior to filling tanks

Special Note: Monitor the 5-1/2" x 8-5/8" annulus with electronic pressure gauge and Pop-Off valve during frac treatment. If communication is encountered on annulus during frac treatment, flush frac, Shut-Down and notify OKC Operations Engineer for cement squeeze procedure.

BLM

See COA
Tag Frac
w/ Tracer

Elliott Federal #4
DRINKARD (6785'-6795')
Lea County, New Mexico
Stage #3

Frac down 5-1/2", L80, 17.0 #/ft Tbg. (Burst 7,740 psi)

Stage	#	Fluid Type	Stage Clean Vol (Gals)	Stage Clean Vol (Bbls)	Cum Clean Vol (bbls)	Total Rate BPM	Stage Prop #'s	*Prop Total #"s*	*BH Conc PPG*	*Clean Fluid Stage Vol (bbls)*	*Clean Fluid Total Vol (bbls)*	*Cum Time Mins*
Spearhead	1	20% Slick NEFE HCl Acid + 10% Xylene	2,500	59.5	59.5	***25.0***	0	0	0	*59.5*	*59 5*	2.38
Gel Pad	2	20# Linear Guar Gel Pad	4,500	107 1	166 7	***25.0***	0	0	0	*107.1*	*166 7*	6 67
Gel Acid	3	20% Ultragel Acid	5,000	119.0	119 0	***25.0***	0	0	0	*119.0*	*178.6*	7.14
Gel Pad	4	20# Linear Guar Gel Pad	4,500	107.1	226 2	***25.0***	0	0	0	*107.1*	*285 7*	11 43
Slick Acid	5	20% Slick NEFE HCl Acid + 10% Xylene	2,500	59.5	178 6	***25.0***	0	0	0	*59 5*	*345 2*	13.81
Gel Pad	6	20# Linear Guar Gel Pad	4,500	107 1	285 7	***25.0***	0	0	0	*107 1*	*452 4*	18 10
Gel Acid	7	20% Ultragel Acid	5,000	119 0	404 8	***25.0***	0	0	0	*119 0*	*571 4*	22 86
Gel Pad	8	20# Linear Guar Gel Pad	4,500	107.1	511 9	***25.0***	0	0	0	*107 1*	*678 6*	27 14
Slick Acid	9	20% Slick NEFE HCl Acid + 10% Xylene	2,500	59 5	571 4	***25.0***	0	0	0	*59 5*	*738.1*	29 52
Flush	10	2% KCL water (to bottom perf @ 6795')	6,621	157.6	729 1	***25.0***	0	0	0	*157 6*	*895 7*	35 83
						TOTAL	0				*895 7*	

Gals Acid/net pay ft	875
Gals Acid/gross perf ft	1750
Rate/perf	0 417
Rate/perf-ft	2 500

Max Pressure = 11,000 psi

HHP = 3400 (liquid side w/o backup)

Fluid Requirements

1. Heat acid to +/- 100 deg F prior to treatment
2. All 2% KCL water & fresh water mixed with Smart Chemicals Biocide, Iron Chelating Agent, Corrosion Inhibitor, Emulsion Control
3. BHT = 111° F @ 8068 FT as per OH log
4. Est f g = 0 9 psi/ft

Operational Considerations

3 Tanks Filled with 2% KCL water & Smart Chemicals Services anti-emulsion chemicals loaded in frac tanks prior to filling tanks

Special Note: Monitor the 5-1/2" x 8-5/8" annulus with electronic pressure gauge and Pop-Off valve during frac treatment. If communication is encountered on annulus during frac treatment, flush frac, Shut-Down and notify OKC Operations Engineer for cement squeeze procedure.

BLM

See COA
Tag Frac
w/ Tracer

RADIAL BOND LOG

Company SANDRIDGE
Well ELLIOT FEDERAL #4
Field MCELVAIN
County LEA
State NM

Location: API #: NA

	SEC	TWP	RGE	Elevation
Permanent Datum				3565'
Log Measured From		GL		
Drilling Measured From		KB		

Other Services

Elevation
K.B. 3579'
D.F. 3578'
G.L. 3565'

Date	7-26-2012
Run Number	ONE
Depth Driller	8093'
Depth Logger	7982'
Bottom Logged Interval	7980'
Top Log Interval	40'
Open Hole Size	NA
Type Fluid	WATER
Density / Viscosity	NA
Max. Recorded Temp	NA
Estimated Cement Top	410'
Time Well Ready	0600
Time Logger on Bottom	SEE LOG
Equipment Number	57
Location	HOBBS, NM
Recorded By	D.CANHAM
Witnessed By	LARRY PICKERING

Borehole Record

Run Number	Bit	From	To

Tubing Record

Size	Weight	From	To

Casing Record

	Size	Wgt/Ft	Top	Bottom
Surface String	8.625"	24#	SURFACE	1640'
Prct. String				
Production String	5.5"	17#	SURFACE	8072'
Liner				

<<< Fold Here >>>

Comments

CORRELATED 6' UPHOLE FROM WEATHERFORD DUAL LATERLOG/ SPECTRAL GAMMA RAY LOG
JULY 18, 2012

TOC 410'

MAIN PASS W/1000#

Database File	sandridge_elliotfederal#4 db
Dataset Pathname	pass14 2
Presentation Format:	5
Dataset Creation	Thu Jul 26 11:24 45 2012 by Calc SCH 120126
Charted by	Depth in Feet scaled 1 240

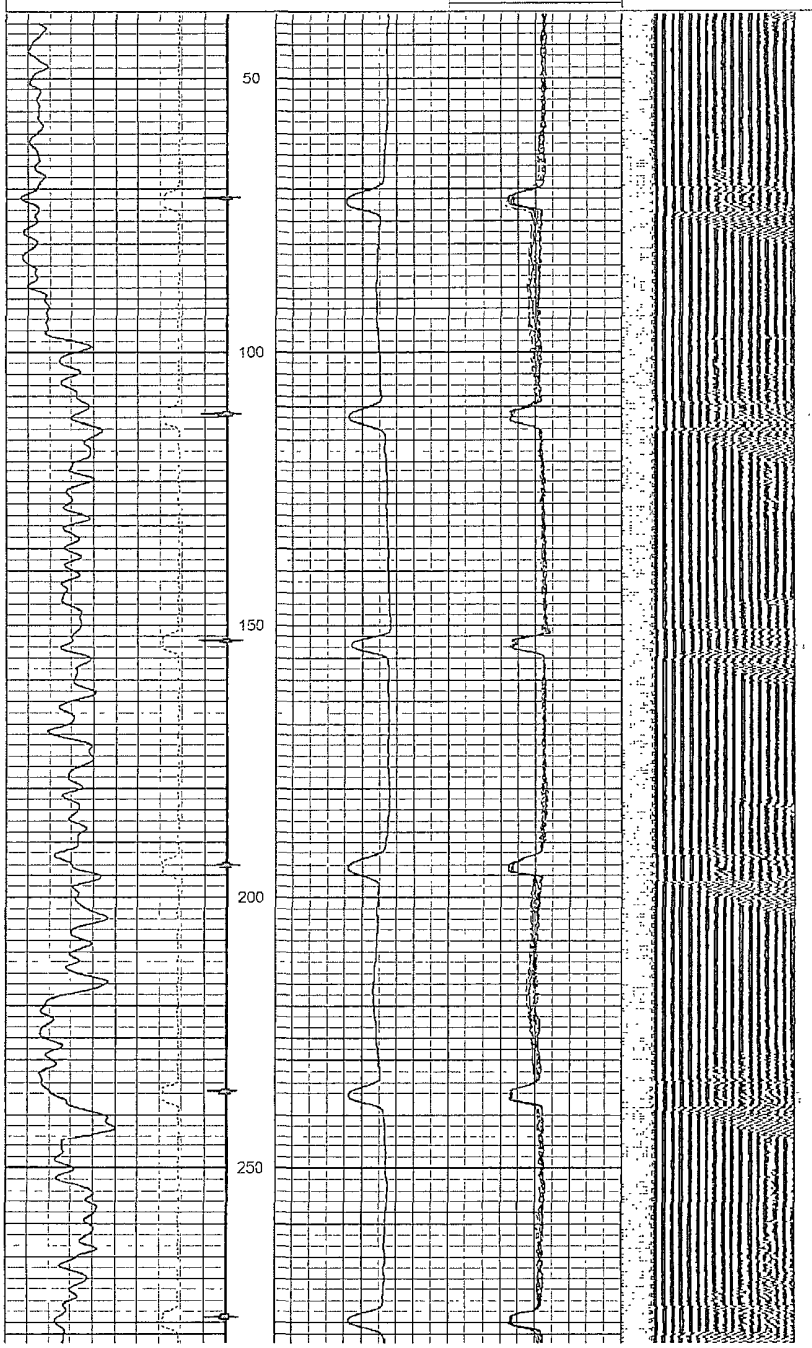
343	TT (usec)	243
120	CCL	-0 01
0	GR (GAPI)	150
0	LTEN (lb)	4000

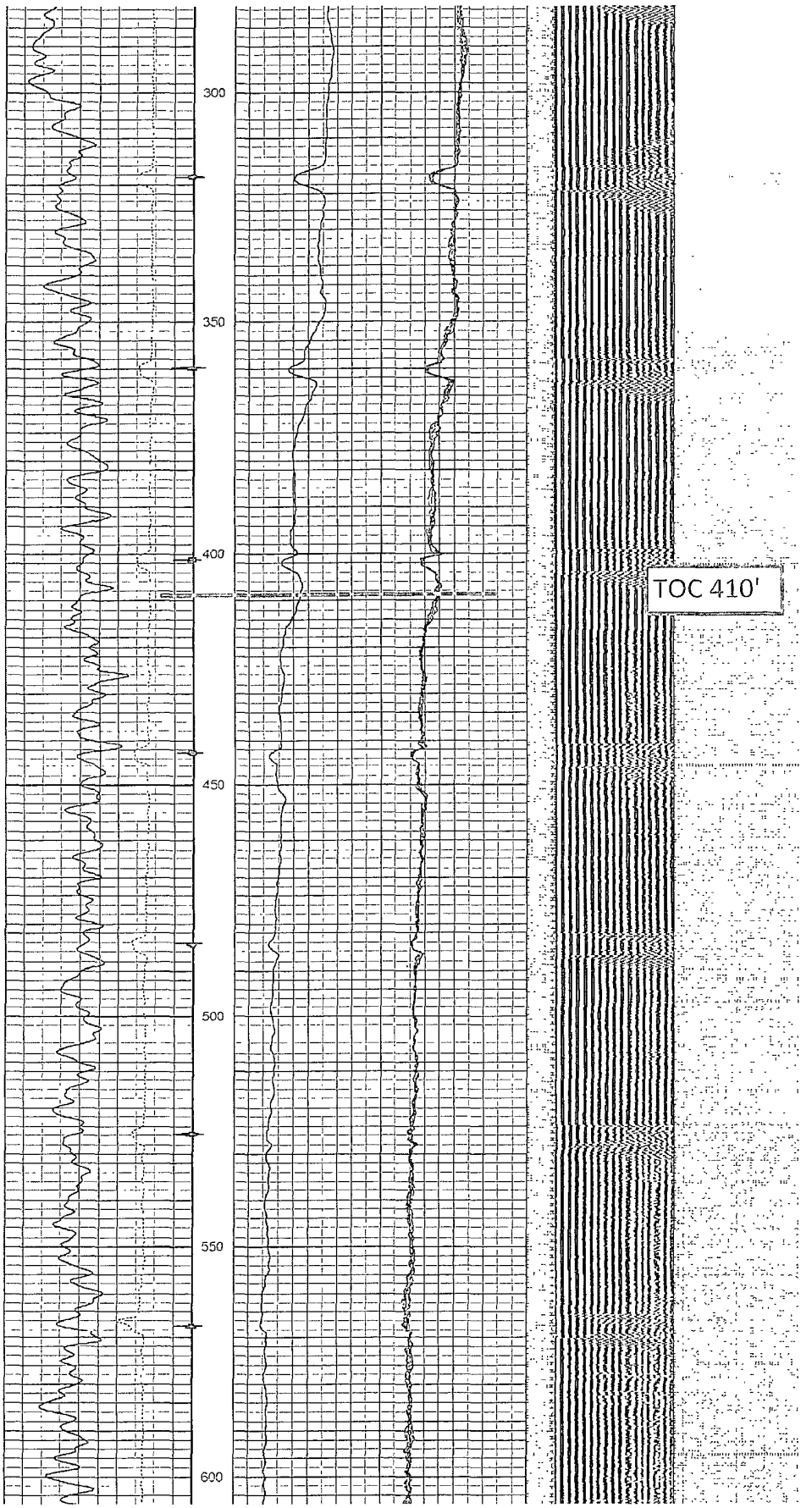
0	Amplitude (mV)	100
	Amplified Amplitude	
0	(mV)	10

-5	AMPS2	150
-5	AMPS3	150
-5	AMPS4	150
-5	AMPS5	150
-5	AMPS6	150
-5	AMPS7	150
-5	AMPS8	150
-5	AMPS1	150

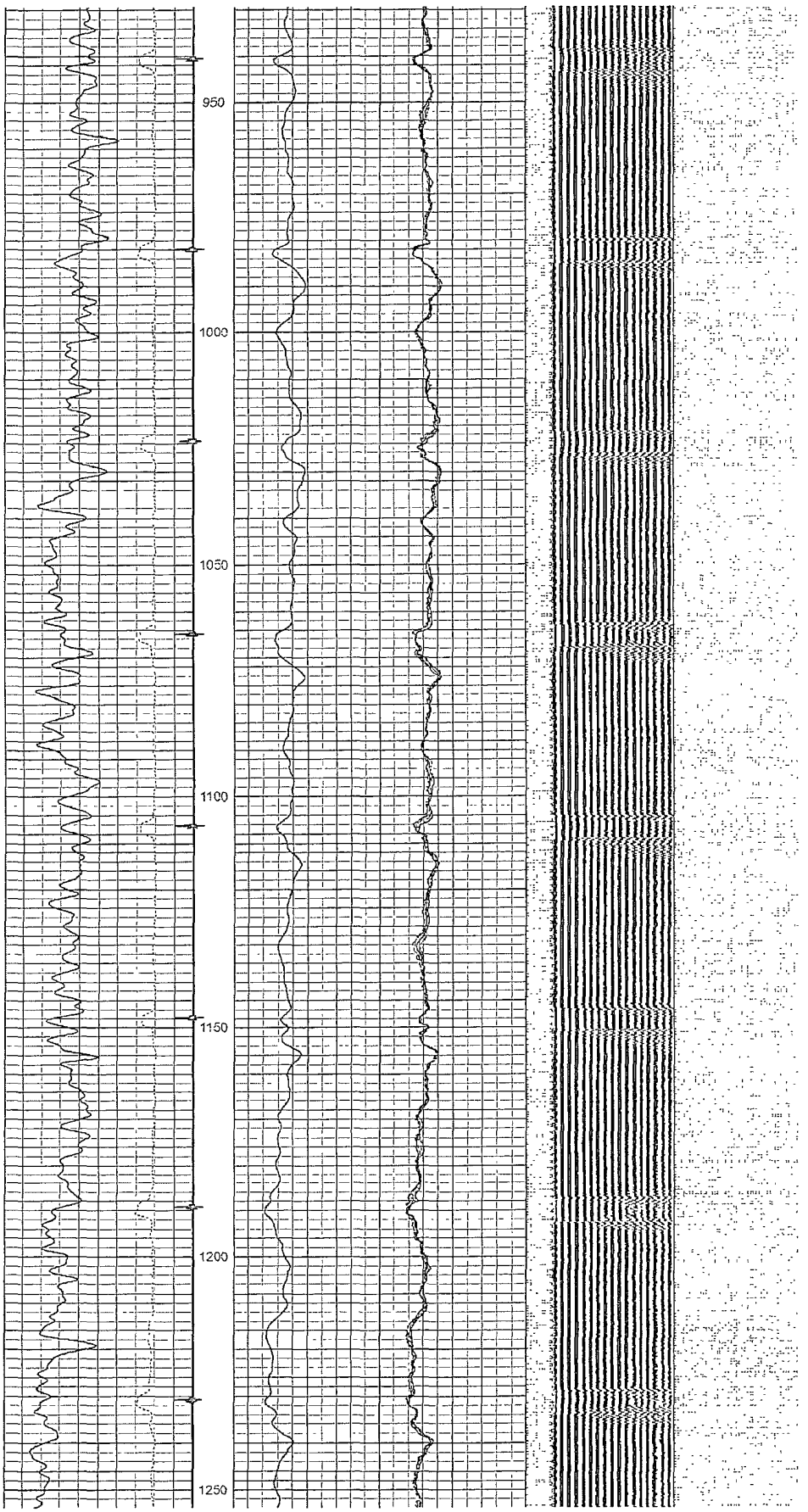
200	VDL	1200
	Free Pipe Gate	

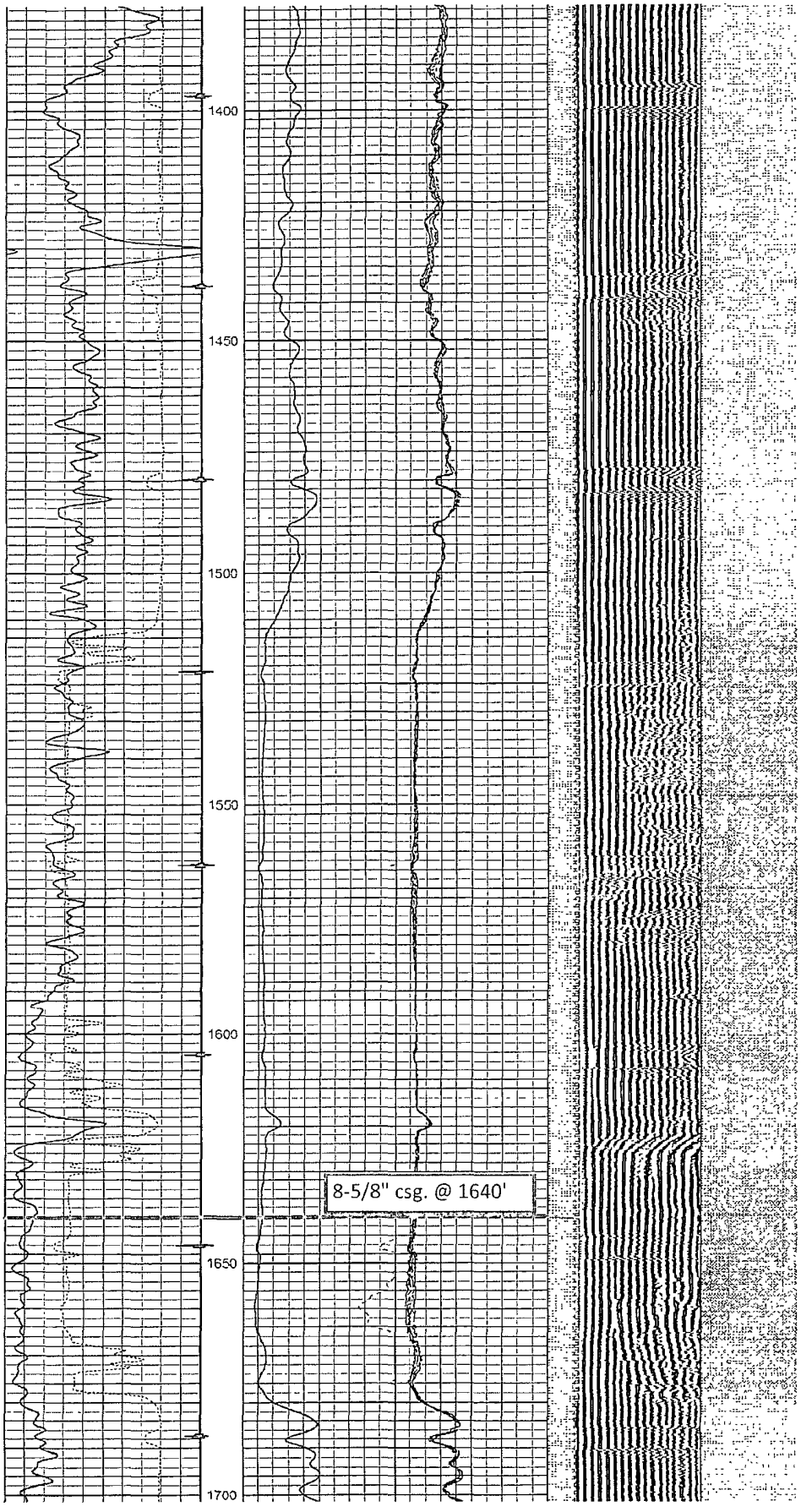
Cement Map




300
350
400
450
500
550
600
TOC 410'


900
850
800
750
700
650


950
1000
1050
1100
1150
1200
1250


1400
1450
1500
1550
1600
1650
1700
8-5/8" csg. @ 1640'

MAIN PASS W/1000#

Database File.	sandridge_elliotfederal#4.db
Dataset Pathname	pass14.2
Presentation Format	5
Dataset Creation	Thu Jul 26 11 24 45 2012 by Calc SCH 120126
Charted by	Depth in Feet scaled 1:240

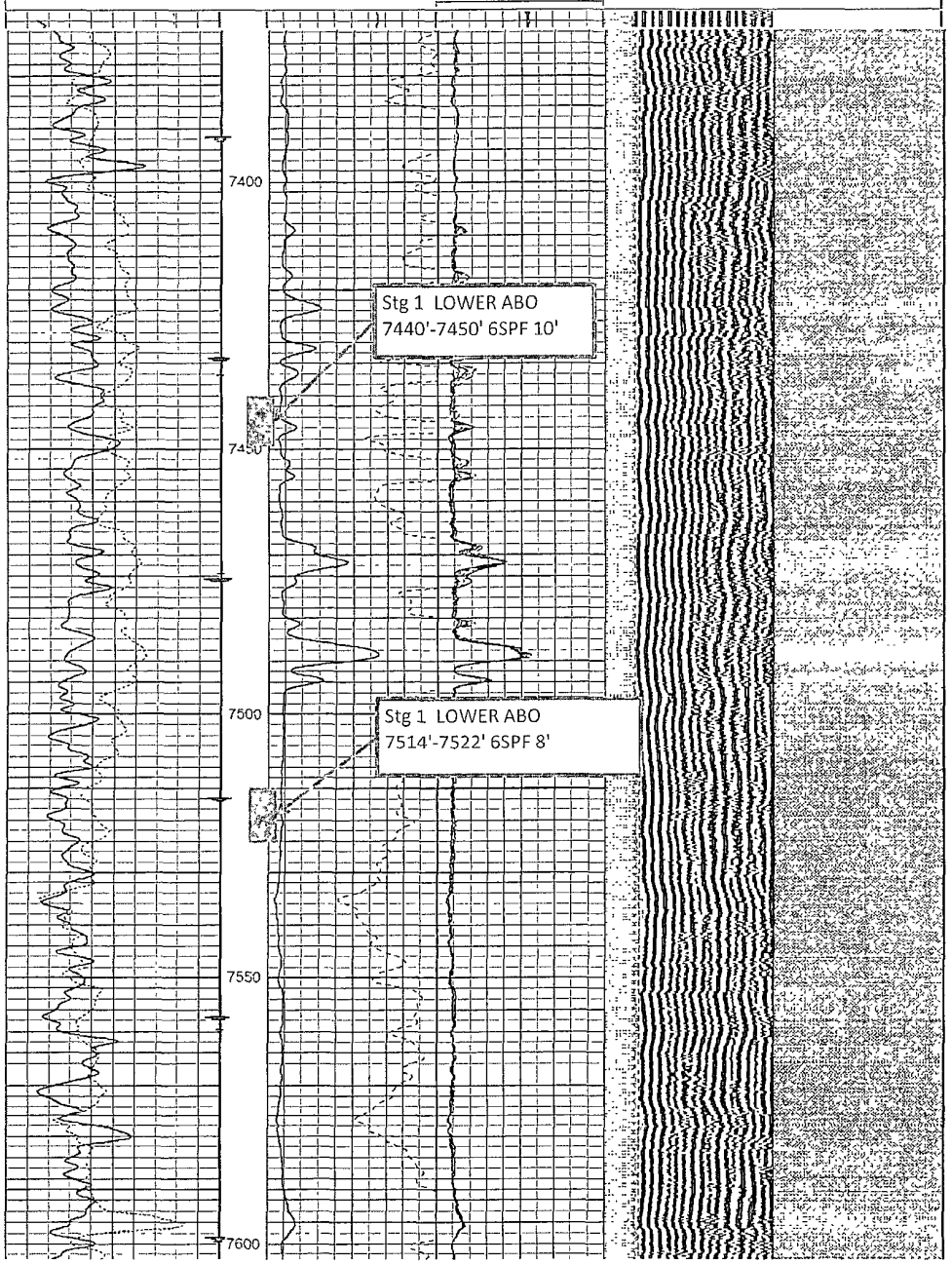
343	TT (usec)	243
120	CCL	-0 01
0	GR (GAPI)	150
0	LTEN (lb)	4000

0	Amplitude (mV)	100
	Amplified Amplitude	
0	(mV)	10

-5	AMPS2	150
-5	AMPS3	150
-5	AMPS4	150
-5	AMPS5	150
-5	AMPS6	150
-5	AMPS7	150
-5	AMPS8	150
-5	AMPS1	150

200	VDL	1200
	Free Pipe Gate	

	Cement Map	
1		80



MAIN PASS W/1000#

Database File.	sandridge_elliotfederal#4.db
Dataset Pathname.	pass14.2
Presentation Format	5
Dataset Creation.	Thu Jul 26 11:24:45 2012 by Calc SCH 120126
Charted by:	Depth in Feet scaled 1:240

343	TT (usec)	243
120	CCL	-0.01
0	GR (GAPI)	150
0	LTEN (lb)	4000

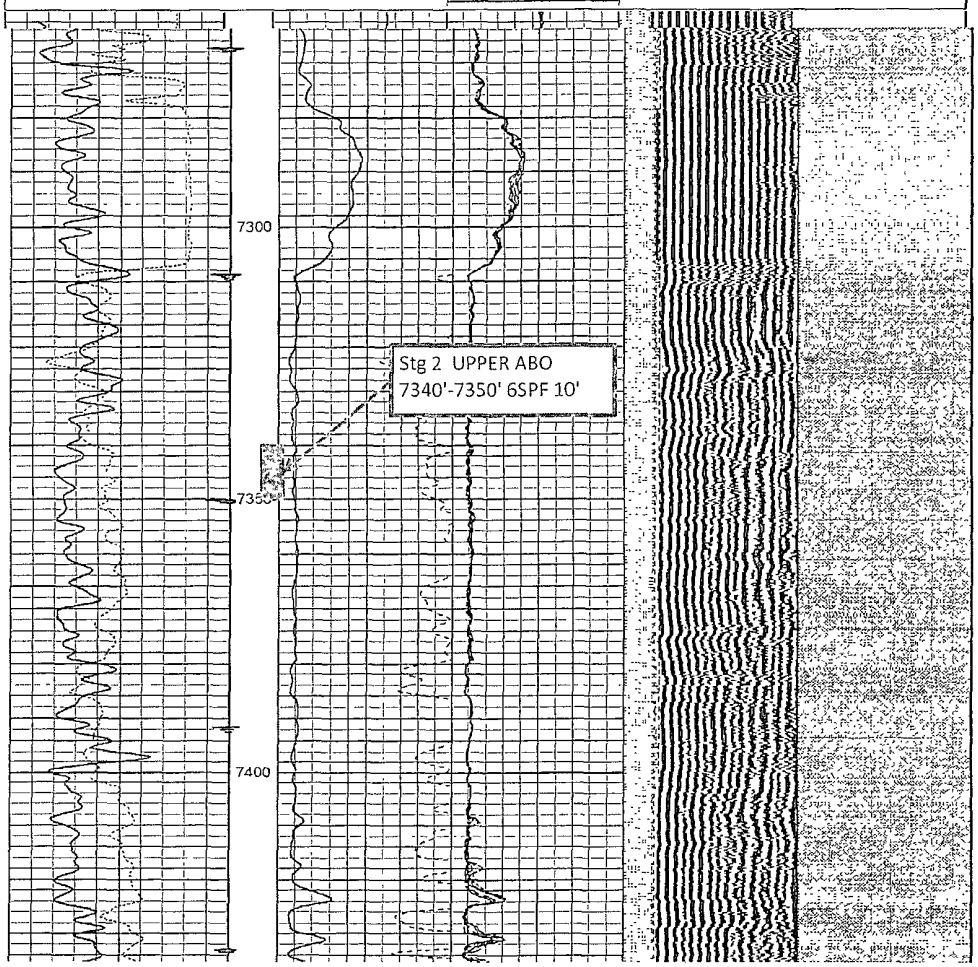
0	Amplitude (mV)	100
	Amplified Amplitude	
0	(mV)	10

-5	AMPS2	150
-5	AMPS3	150
-5	AMPS4	150
-5	AMPS5	150
-5	AMPS6	150
-5	AMPS7	150
-5	AMPS8	150
-5	AMPS1	150

200	VDL	1200
	Free Pipe Gate	

Cement Map

1 80



MAIN PASS W/1000#

Database File:	sandridge_elliotfederal#4.db
Dataset Pathname:	pass14 2
Presentation Format:	5
Dataset Creation:	Thu Jul 26 11:24:45 2012 by Calc SCH 120126
Charted by:	Depth in Feet scaled 1 240

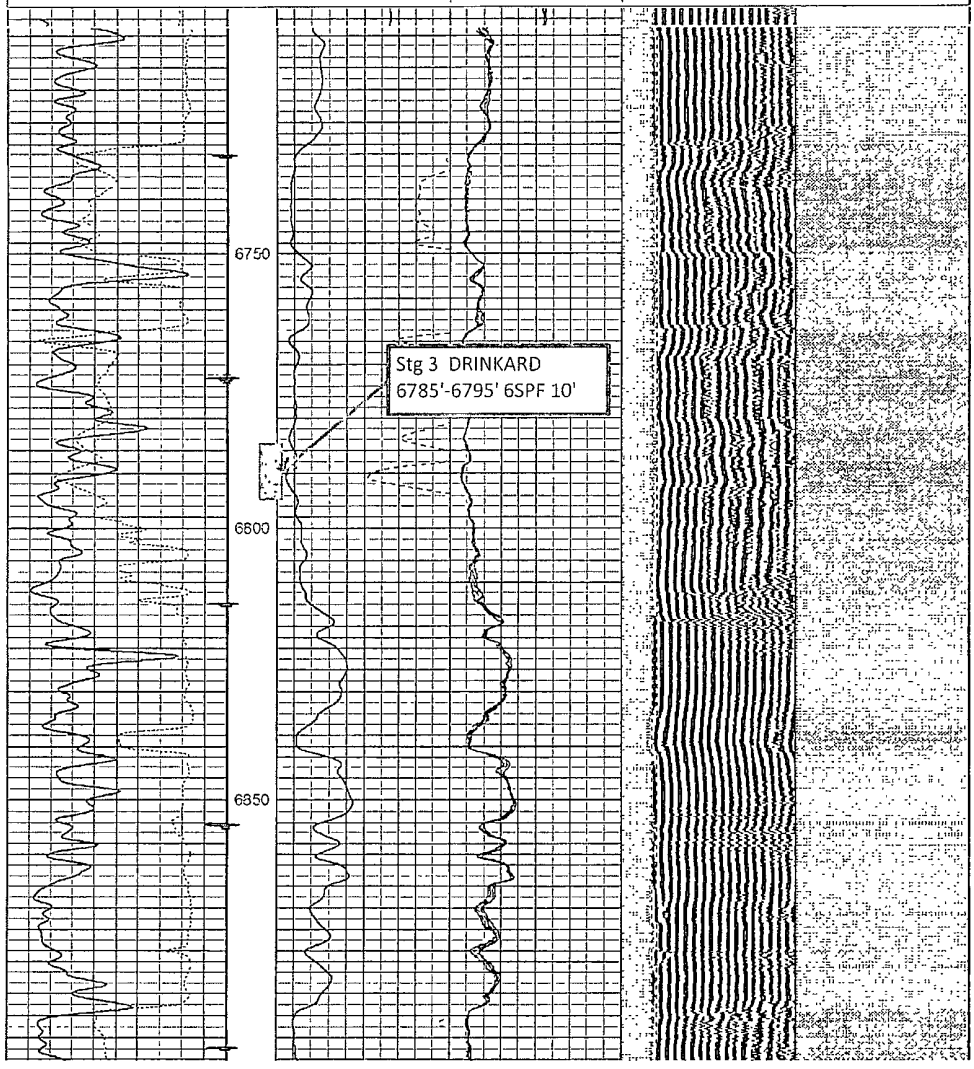
343	TT (usec)	243
120	CCL	-0 01
0	GR (GAPI)	150
0	LTEN (lb)	4000

0	Amplitude (mV)	100
	Amplified Amplitude	
0	(mV)	10

-5	AMPS2	150
-5	AMPS3	150
-5	AMPS4	150
-5	AMPS5	150
-5	AMPS6	150
-5	AMPS7	150
-5	AMPS8	150
-5	AMPS1	150

200	VDL	1200
	Free Pipe Gate	

	Cement Map	
1		80



Weatherford

COMPENSATED PHOTO DENSITY
COMPENSATED NEUTRON
SPECTRAL GAMMA RAY

COMPANY	SANDRIDGE EXPL. AND PROD., LLC
WELL	ELLIOTT FEDERAL #4
FIELD	MCELVAIN
PROVINCE/COUNTY	LEA
COUNTRY/STATE	U.S.A. / NEW MEXICO
LOCATION	

SEC	TWP	RGE	Other Services
			DUAL LATEROLOG MICRO LATEROLOG
API Number			COMPENSATED SONIC
Permit Number			

Permanent Datum GL, Elevation 3565 feet
Log Measured From KB
Drilling Measured From KB

Elevations:	feet
KB	3579.00
DF	3578.00
GL	3565.00

Date	18-JUL-2012			
Run Number	ONE			
Depth Driller	8083.00	feet		
Depth Logger	8068.00	feet		
First Reading	8025.00			
Last Reading	100.00			
Casing Driller	1640.00	feet		
Casing Logger	1634.00	feet		
Bit Size	7.875	inches		
Hole Fluid Type	BRINE			
Density / Viscosity	10.10 g/c3	36.00 sec/qt		
PH / Fluid Loss	9.50	6.00 ml/30Min		
Sample Source	FLOWLINE			
Rm @ Measured Temp	0.049 @ 80.0	ohm-m		
Rmf @ Measured Temp	0.036 @ 80.0	ohm-m		
Rmc @ Measured Temp	0.073 @ 80.0	ohm-m		
Source Rmf / Rmc	CALC	CALC		
Rm @ BHT	0.036 @111.0	ohm-m		
Time Since Circulation	6 HOURS			
Max Recorded Temp	111.00	deg F		
Equipment Name	COMPACT			
Equipment / Base	13270	ODESSA		
Recorded By	AHMED HAMADA			
Witnessed By	JUSTIN LYNCH		WILL MURLY	

BOREHOLE RECORD

Last Edited: 18-JUL-2012 10:17

Bit Size inches	Depth From feet	Depth To feet
12.250	0.00	1634.00
7.875	1634.00	8068.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
INTER	8.625	0.00	1634.00	24.00

REMARKS

TOOLS RAN , MSS, MMR, MLE, MUG, MPD, MDN, MLK, SGS, MCG, MBE

HARDWARE RAN MDN - DUAL ECCENTRALISER
MLE - TWO 0.5" STANDOFF'S
MSS- TWO 0.5" STANDOFFS

2.71 g/cm³ MATRIX USED TO CALCULATE POROSITY

ANNULAR VOLUME FIGURED USING 5.5" CASING

ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.

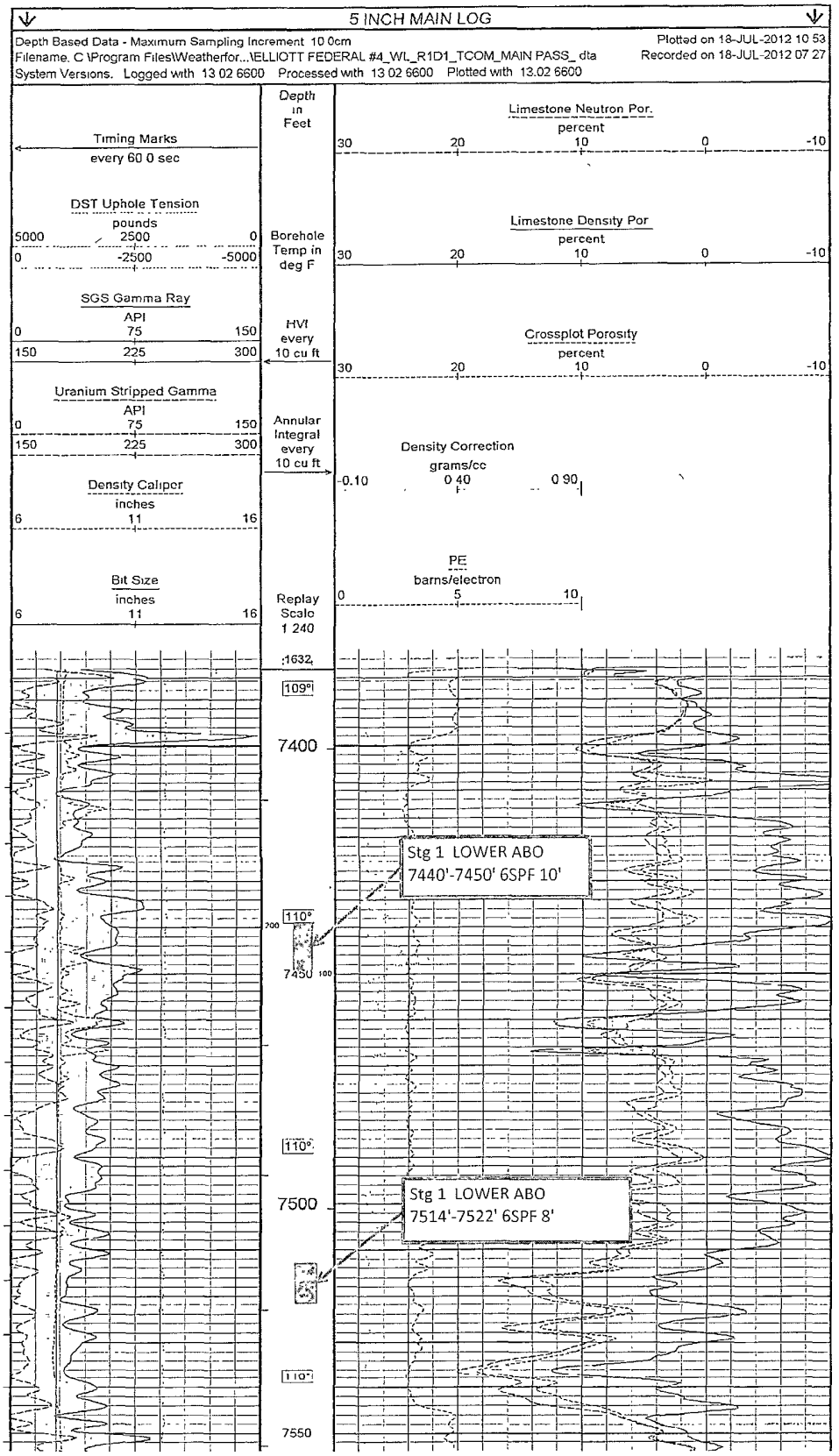
BOREHOLE SIZE AND RUGOSITY AFFECTING LOG QUALITY.

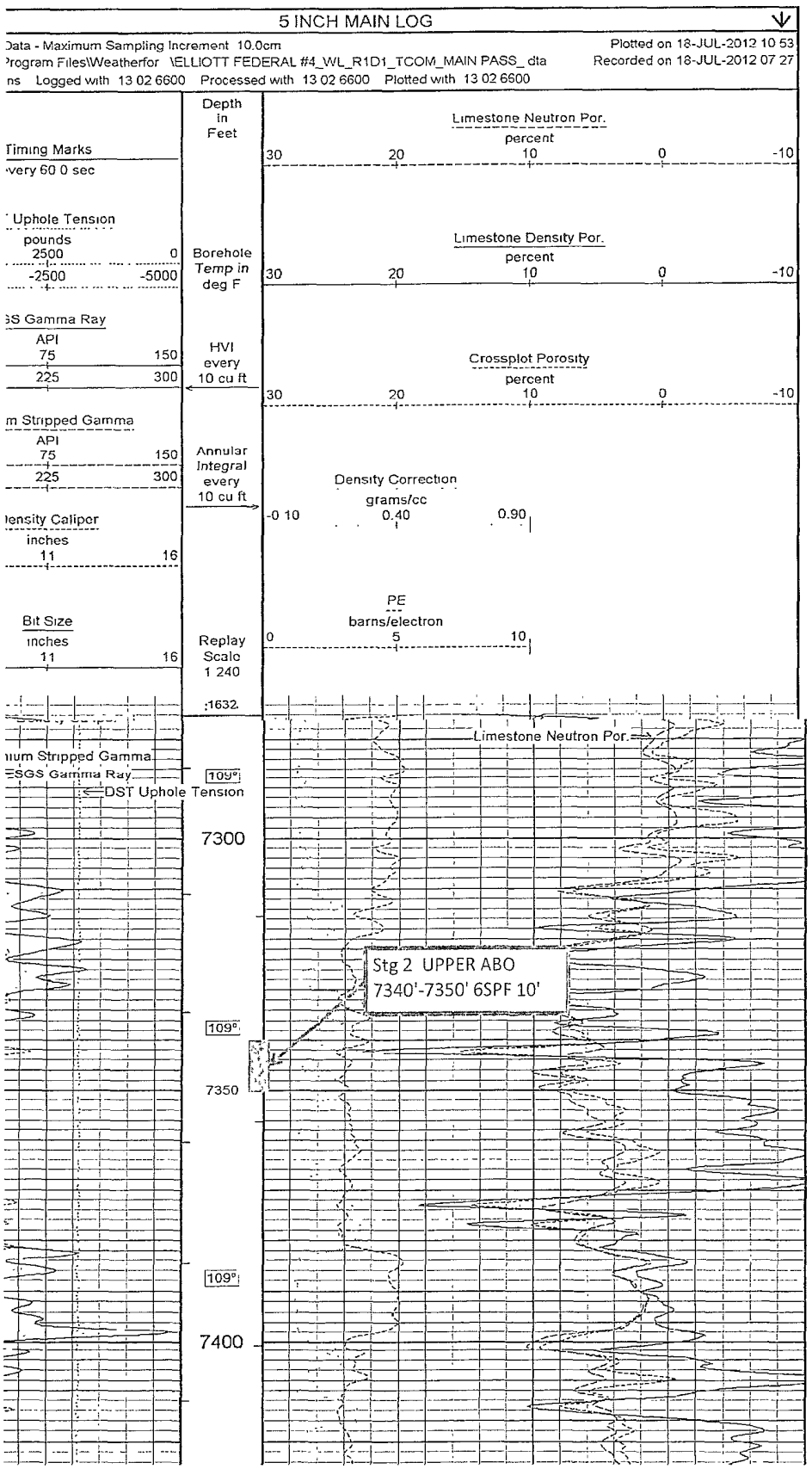
SERVICE ORDER #: 3536213

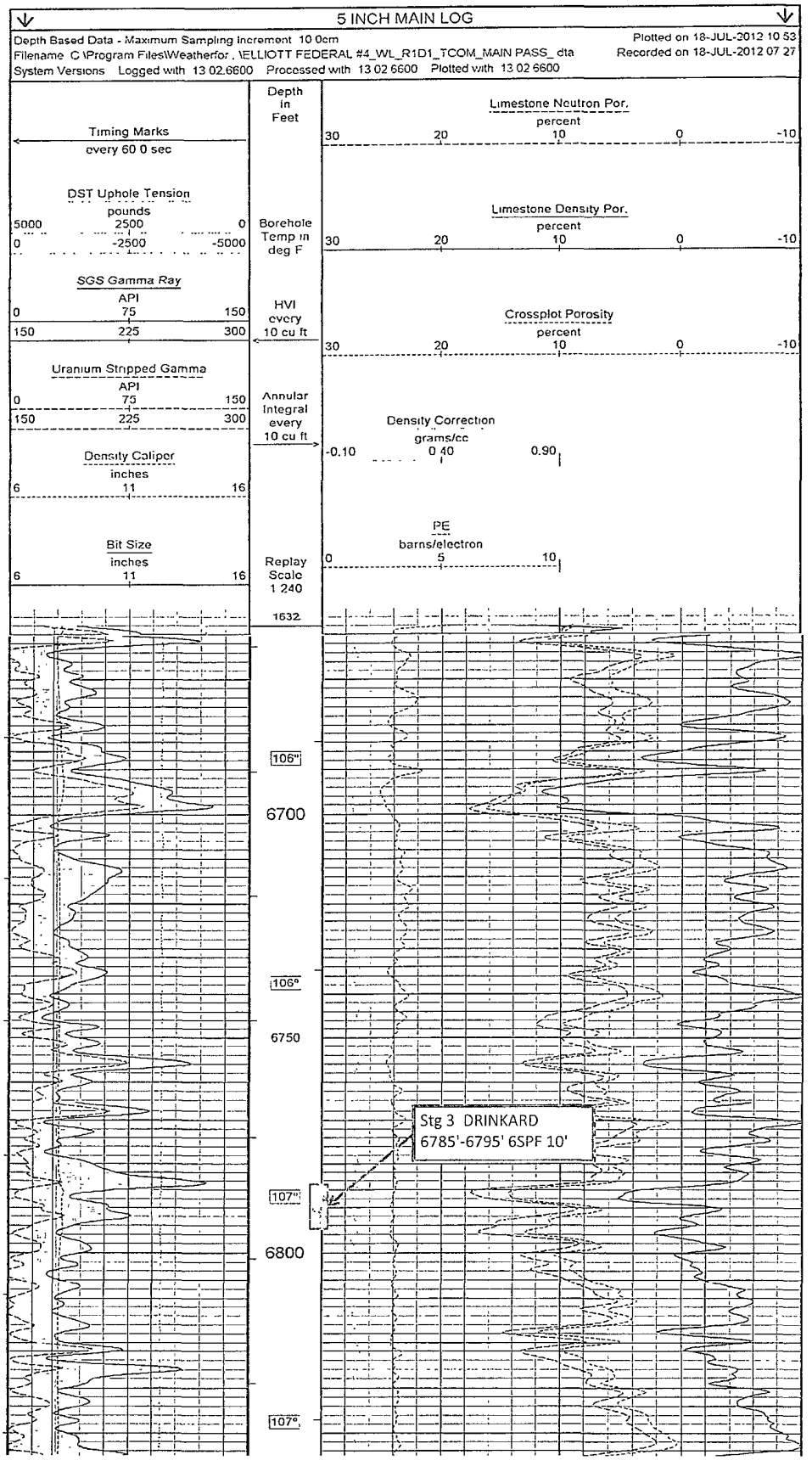
RIG-LARIAT-#17

ENGINEER AHMED HAMADA

OPERATORS JARED LOVELADY AND GERARDO ACOSTA


5 INCH MAIN LOG
Depth Based Data - Maximum Sampling Increment 10 0cm
Filename. C \Program Files\Weatherfor...\ELLIOTT FEDERAL #4_WL_R1D1_TCOM_MAIN PASS_ dta
System Versions. Logged with 13 02 6600 Processed with 13 02 6600 Plotted with 13.02 6600
Plotted on 18-JUL-2012 10 53
Recorded on 18-JUL-2012 07 27
Timing Marks
every 60 0 sec
DST Uphole Tension
pounds
5000 2500 0
0 -2500 -5000
SGS Gamma Ray
API
0 75 150
150 225 300
Uranium Stripped Gamma
API
0 75 150
150 225 300
Density Caliper
inches
6 11 16
Bit Size
inches
6 11 16
Depth in Feet
Borehole Temp in deg F
HVI every 10 cu ft
Annular Integral every 10 cu ft
Replay Scale 1 240
Limestone Neutron Por.
percent
30 20 10 0 -10
Limestone Density Por
percent
30 20 10 0 -10
Crossplot Porosity
percent
30 20 10 0 -10
Density Correction
grams/cc
-0.10 0 40 0 90
PE
barns/electron
0 5 10
1632
109°
7400
Stg 1 LOWER ABO
7440'-7450' 6SPF 10'
110°
7450
110°
7500
Stg 1 LOWER ABO
7514'-7522' 6SPF 8'
110°
7550


5 INCH MAIN LOG
Data - Maximum Sampling Increment 10.0cm
Program Files\Weatherfor \ELLIOTT FEDERAL #4_WL_R1D1_TCOM_MAIN PASS_ dta
ns Logged with 13 02 6600 Processed with 13 02 6600 Plotted with 13 02 6600
Plotted on 18-JUL-2012 10 53
Recorded on 18-JUL-2012 07 27
Depth in Feet
Timing Marks
very 60 0 sec
Uphole Tension
pounds
2500 0
-2500 -5000
Borehole Temp in deg F
SS Gamma Ray
API
75 150
225 300
HVI every 10 cu ft
m Stripped Gamma
API
75 150
225 300
Annular Integral every 10 cu ft
lensity Caliper
inches
11 16
Bit Size
inches
11 16
Replay Scale 1 240
Limestone Neutron Por.
percent
30 20 10 0 -10
Limestone Density Por.
percent
30 20 10 0 -10
Crossplot Porosity
percent
30 20 10 0 -10
Density Correction
grams/cc
-0 10 0.40 0.90
PE
barns/electron
0 5 10
1632
Limestone Neutron Por.
ium Stripped Gamma
SGS Gamma Ray
DST Uphole Tension
109°
7300
Stg 2 UPPER ABO
7340'-7350' 6SPF 10'
109°
7350
109°
7400


5 INCH MAIN LOG
Depth Based Data - Maximum Sampling Increment 10 0cm
Plotted on 18-JUL-2012 10 53
Filename C:\Program Files\Weatherfor. \ELLIOTT FEDERAL #4_WL_R1D1_TCOM_MAIN PASS_ dta
Recorded on 18-JUL-2012 07 27
System Versions Logged with 13 02.6600 Processed with 13 02 6600 Plotted with 13 02 6600
Timing Marks
every 60 0 sec
DST Uphole Tension
pounds
5000 2500 0
0 -2500 -5000
SGS Gamma Ray
API
0 75 150
150 225 300
Uranium Stripped Gamma
API
0 75 150
150 225 300
Density Caliper
inches
6 11 16
Bit Size
inches
6 11 16
Depth
In
Feet
Borehole
Temp in
deg F
HVI
every
10 cu ft
Annular
Integral
every
10 cu ft
Replay
Scale
1 240
1632
Limestone Neutron Por.
percent
30 20 10 0 -10
Limestone Density Por.
percent
30 20 10 0 -10
Crossplot Porosity
percent
30 20 10 0 -10
Density Correction
grams/cc
-0.10 0 40 0.90
PE
barns/electron
0 5 10
106"
6700
106°
6750
Stg 3 DRINKARD
6785'-6795' 6SPF 10'
107"
6800
107°