SJOET Well Work Procedure

E. E. Elliott SWD 1 (Alias: 30-8 Water Disp.)

Version: eliotwd1.doc
Date: October 14, 1999
Budget: Servicing
Work Type: Eliminate TBG leak, Refrac Entrada

Objectives:

1. Locate and eliminate source of TBG leak
2. Refrac Entrada to bypass cement damage
3. Run TBG/Pkr, Run PIT, Place well back on

Pertinent Information:

Location:	1270'FNL x 580'FWL Sect 26-T30N-R09W	Horizon:	Morrison/Bluff/Entrada
County:	San Juan	API #:	30-045-27799
State:	New Mexico	Engr:	Kutas
Lease:	Federal: BLM SF-078139	Phone:	W-(281)366-5812
Well Flac:	704856		H -(281)693-3700
			P-(888)907-0916

Economic Information:

APC WI:	52%	Prod. Before Repair:	N/A
Estimated Cost:	$200,000	Anticipated Prod.:	N/A
Payout:	N/A		
Max Cost -12 Mo. P.O.			
PV15:			
Max Cost PV15:			

Note: **Economics will be run on all projects that have a payout exceeding ONE year.**

Formation Tops: (Formation tops)

Ojo Alamo:	1470'	Morrison	7416'
Fruitland:	2390'	Bluff	7916'
Pictured Cliffs:	2693'	Entrada	8194'
Dakota:	7025'	TD/PBD:	8530'/8445'

*(Estimated)

Bradenhead Test Information:

Test Date: 3/99 **Tubing:** **Casing:** **BH:** 0 psi

Time	BH	CSG	INT	CSG
5 min				
10 min				
15 min				

On Site Technologies, LTD.

Date: *23-Mar-99*

CLIENT: Conoco, Inc.
Work Order: 9903007
Project: Delhi Taylor #5

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS Soil** Batch ID: **8015DR2_S-3** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **3/11/99** Prep Date: **3/11/99**

Client ID: **9903007** Run ID: **GC-2_990311A** SeqNo: **12329**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C28	414.7	25	501.9	0	82.6%	59	126				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E.E. Elliott SWD 1
Orig. Comp. 1/91
TD = 8530'; PBD = 8445'

Current wellbore info: 7" CSA Surf-TD, 3 1/2" TSA 7442', 2 7/8" TSA @ 7473'; PSA 7442' (Baker Inverted Lockset); Perfs @ 7564-8414'; PBD@8445'
Current inj info: 23000 BW/Mo., TP= 1400+ psi, SICP=0-1400+ psi,

1. MIRUSU. Record TBG, GSC, and BH pressures.
2. RU HES snubbing unit. RU pump and pressure test CSG to 2500 psi. Discuss results with Mike Kutas. If CSG holds pressure, proceed to step 5.
3. If CSG does not hold pressure, release PKR and TOH, lay down, and inspect TBG and PKR assemblies
4. RU WL and set RBP at 7400' and pressure test CSG to 2500 psi for 30 minutes. If casing test fails, PU 2 7/8" work string; run TBG and PKR assembly and locate leak. Leak remediation will be determined based on the location and type of leak found.
5. RU SOFS and Frac Entrada down 7" CSG (see attached schedule)
6. RU HES CTU unit and c/o fill to PBD. RDCTU.
7. RU WL and set Baker Model "F" PKR assembly with latch assembly and plug in place at 7440'. TIH w/3 ½" injection TBG.
8. Circulate PKR fluid, sting into PKR and RUN PKR IT.
9. RU B&R and retrieve TBG plug. Turn well over to Operations.

Mike Kutas

Work - (281) 366-5812
Pager - (888) 907-0916
Home - (281) 693-3700
Fax - (281) 366-7143

Cost Breakdown:		
	Rig (15 days)	$ 39,000
	HES Snub Unit	$ 18,400
	HES CTU	$ 20,000
	SOCF Frac	$ 70,000
	Baker F Pkr	$ 9,300
	WL/SL	$ 6,200
	2 7/8" Work Str	$ 2,000
	Rental, Misc.	$ 10,000
	Cont. (15%)	$ 15,000
	TOTAL	$200,000

On Site Technologies, LTD.

Date: *23-Mar-99*

CLIENT: Conoco, Inc.
Work Order: 9903007
Project: Delhi Taylor #5

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **9903007-02AMS** Batch ID: **8015DR2_S-3** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **3/16/99** Prep Date: **3/11/99**

Client ID: **TDP** **9903007** Run ID: **GC-2_990311A** SeqNo: **12344**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C28	439.4	25	501.9	0	87.6%	63	126				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Dowell

Client : BPAmoco
Well : E.E. Elliot SWD #1
Formation : Entrada
District : FARMINGTON
Country : U.S.A.
Loadcase : Casing100mesh

Fluid Totals		
1000 gal	of	15% HCl
91000 gal	of	YF130
60000 gal	of	YF125
13641 gal	of	Slickwater

Proppant Totals		
250000 lb	of	20/40 Brady
10000 lb	of	40/70 mesh

Job Execution

Stage Name	Stage Fluid Volume (gal)	Cum. Fluid Volume (gal)	Stage Slurry Volume (bbl)	Cum. Slurry Volume (bbl)	Stage Prop (lb)	Cum. Prop. (lb)	Avg. Surface Pressure (psi)	Stage Time (min)	Cum. Time (min)
Acid	1000	1000	23.8	23.8	0	0	944	2.4	2.4
Pre-Pad	5000	6000	119.0	142.9	0	0	944	2.6	5.0
Pre-Pad	5000	11000	119.0	261.9	2500	2500	976	2.6	7.7
Pre-Pad	7500	18500	178.6	440.5	7500	10000	1017	4.0	11.6
Pad	52500	71000	1250.0	1690.5	0	0	1064	27.8	39.4
1.0 PPA	9000	80000	224.0	1914.5	9000	9000	885	5.0	44.4
2.0 PPA	12000	92000	311.6	2226.0	24000	33000	674	6.9	51.3
2.5 PPA	12000	104000	318.0	2544.0	30000	63000	564	7.1	58.4
3.0 PPA	12000	116000	324.5	2868.5	36000	99000	485	7.2	65.6
3.5 PPA	12000	128000	330.9	3199.4	42000	141000	381	7.4	73.0
4.0 PPA	11000	139000	309.3	3508.7	44000	185000	313	6.9	79.8
4.5 PPA	6000	145000	171.9	3680.6	27000	212000	251	3.8	83.8
5.0 PPA	3000	148000	87.6	3768.2	15000	227000	376	1.9	85.6
5.5 PPA	2000	150000	59.5	3827.7	11000	238000	707	1.3	86.9
6.0 PPA	2000	152000	60.5	3888.2	12000	250000	1014	1.3	88.3
Flush	13641	165641	324.8	4213.0	0	250000	1225	7.2	95.5

Section 3: Propped Fracture Simulation

The following are the results of the computer simulation of this Fracturing Proposal using a 2-D Perkins and Kern Fracture model.

Propped Fracture Half-Length ..... **371.6 ft**
EOJ Hyd Height at Well ..... **378.0 ft**
Average Propped Width ..... **0.101 in**
Average Gel Concentration ..... **607.0 lb/mgal**
Average Gel Fluid Retained Factor .. **0.30**
Average Conductivity ..... **222 md.ft**
Average Fcd **0.0**
Net Pressure ..... **297 psi**
Efficiency **0.407**

On Site Technologies, LTD.

Date: *29-Jan-99*

CLIENT: Conoco, Inc.
Work Order: 9901019
Project: Conoco Delhi Taylor D-1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV1 DRO_98120** Batch ID: **GC-2_990127** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **1/27/99** Prep Date:
Client ID: **9901019** Run ID: **GC-2_990127A** SeqNo: **10483**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C28	484.7	25	501.9	0	96.6%	85	115				

Sample ID: **CCV2 DRO_98120** Batch ID: **GC-2_990127** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **1/27/99** Prep Date:
Client ID: **9901019** Run ID: **GC-2_990127A** SeqNo: **10507**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C28	515.8	25	501.9	0	102.8%	85	115				

Sample ID: **CCV3 DRO_98120** Batch ID: **GC-2_990127** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **1/28/99** Prep Date:
Client ID: **9901019** Run ID: **GC-2_990127A** SeqNo: **10508**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C28	507.4	25	501.9	0	101.1%	85	115				

Sample ID: **CCV4 DRO_98120** Batch ID: **GC-2_990127** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **1/28/99** Prep Date:
Client ID: **9901019** Run ID: **GC-2_990127A** SeqNo: **10509**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C28	537.4	25	501.9	0	107.1%	85	115				

Sample ID: **CCV5 DRO_98120** Batch ID: **GC-2_990127** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **1/28/99** Prep Date:
Client ID: **9901019** Run ID: **GC-2_990127A** SeqNo: **10510**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C28	486	25	501.9	0	96.8%	85	115				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Form 31... (June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

5. Lease Designation and Serial No.: SF-078139

6. If Indian, Allottee or Tribe Name:

7. If Unit or CA, Agreement Designation:

1. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.: E. E. Elliott SWD

2. Name of Operator: AMOCO PRODUCTION COMPANY — Attention: MARY CORLEY

9. API Well No.: 30-045-27799

3. Address and Telephone No.: P.O. BOX 3092 HOUSTON, TX 77253 — 281-366-4491

10. Field and Pool, or Exploratory Area: Morrison/Bluff/Entrada

4. Location of Well (Footage, Sec., T., R., M., or Survey Description): 1270' FNL 580' FWL Sec. 26 T 30N R 9W UNIT D

11. County or Parish, State: SAN JUAN NEW ME

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

TYPE OF SUBMISSION	TYPE OF ACTION
☐ Notice of Intent	☐ Abandonment ☐ Recompletion ☐ Plugging Back ☐ Casing Repair ☐ Altering Casing ☒ Other Perforate/Acidize
☒ Subsequent Report	☐ Change of Plans ☐ New Construction ☐ Non-Routine Fracturing ☐ Water Shut-Off ☐ Conversion to Injection ☐ Dispose Water
☐ Final Abandonment Notice	

(Note: Report results of multiple completions on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

3/1/99 MIRUSU. Pump 2500 GALS. xylene down TBG, followed by 65 BBLS WTR. Let set 24 hrs. Flow back xylene & WTR to tanks. Ran 2.74" guage ring to 7458' test. ok. SDFN Try to blow down, could not, fish leaking plug w/wireline, SDFN. Run junk basket, could not get past 3007', came out of hole. Flow well back to tank. Run & set CIBP @ 7442'. SDFN. NDWH, NUBOP, Circulate PKR fluid out. TOH w 3 1/2" TBG, change out tongs, resumed TOH w/ TBG. SDFN. Change out lock pens on wellhead picked up 2 7/8" TBG work string. TIH to 7300'. SDFN. RU snubbing unit, circ well, latch onto PKR & unseat. swab WTR out of 2 7/8" work string. TOH W/TBG & PKR. SDFN. Snub in hole w/bit & scraper, tag fill @ 7475'. SDFN.

TBG plug would not hold. Fish leaking TBG plug. Ran 2nd TBG plug - would not hold. Pump 16 BBLS WTR to clean up TBG. SDFN. RU wireline, set CIBP @ 7470' in 2 7/8" work string, swab work string, snub out of hole w/scraper & bit. Snub in hole w/b bit snub, string float, F nipple. Tag scale @ 7475'. RU power swivel C/O to 8323'. SDFN. TIH, C/O to 8445', PBTD, swab TBG work string. TOH. RD snubbing unit, RU wireline, run CSG inspection log from 8445' to surface.

CONTINUED ON ATTACHMENT

14. I hereby certify that the foregoing is true and correct

Signed ... Title Senior Business Analyst Date 05-10-1999

(This space for Federal or State office use)

Approved by ... Title ... Date ...
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

* See Instructions on Reverse

On Site Technologies, LTD.

Date: *29-Jan-99*

CLIENT: Conoco, Inc.
Work Order: 9901019
Project: Conoco Delhi Taylor D-1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS SOIL** Batch ID: **GC-2_990127** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **1/27/99** Prep Date: **1/27/99**

Client ID: **9901019** Run ID: **GC-2_990127A** SeqNo: **10484**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C28	517.3	25	501.9	0	103.1%	59	126				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E.-E. ELLIOT SWD # 1
SUNDRY SUBSEQUENT REPORT
4/10/99

3/16/99 RU & began perforating as follows;
7564' - 7584', 4 JSPF, .450 inch diameter, total 80 shots fired;
7593' - 7608' 4 JSPF, .450 inch diameter, total 60 shots fired;
7616' - 7652' 4 JSPF, .450 inch diameter, total 144 shots fired;
7658' - 7668 4 JSPF, .450 inch diameter, total 40 shots fired';
7684' - 7724' 4 JSPF, .450 inch diameter, total 160 shots fired;
7730' - 7764', 4 JSPF, .450 inch diameter, total 136 shots fired;
7924' - 7958', 4 JSPF, .450 inch diameter, total 136 shots fired;
7968' - 8048', 4 JSPF, .450 inch diameter, total 320 shots fire;
8202' - 8250', 4 JSPF, .450 inch diameter, total 192 shots fired;
8280' - 8310', 4 JSPF, .450 inch diameter, total 120 shots fired ;&
8330' - 8418', 4 JSPF, .450 inch diameter, total 352 shots fired.

3/19/99 RU single BOP. RU snubbing unit, TIH snubbing w/straddle PKR & 2 7/8" workstring. Break perfs by pumping 7 1/2% FE HCl, using straddle PKR for intervals. Flowed back 300 BBLS spent acid & WTR after breakdown of formation. Swab 2 7/8" work string back. TOH snubbing w/straddle PKR.

CSG pressure 1400#. Changed out pipe rams, snub in hole w/ 3 1/2" production TBG & PKR, bottom assembly. Landed TBG @ 7473', PKR @ 7460'. RD snubbing unit. SDFN.

NDBOP, NUWH & run MIT. MIT, witnessed by NMOCD's Bruce Martin. Pressured up to 405#, held for 60 ,minutes.

RU slickline, using bailer to bail scale. Tagged fill @ 7442'. Made one bailer run, tagged fill @ 7438'. Made 2nd bailer run, tagged fill @ 7432'. SDFN

RU coiled TBG unit w/retrieving tool, C/O to TBG plug @ 7460', circ scale, neutralize acid, latch onto TBG plug. TOH w/coiled TBG & TBG plug, flowed back well through TBG.

3/29/99 RDMOSU. Well returned to service.

On Site Technologies, LTD.

Date: *29-Jan-99*

CLIENT: Conoco, Inc.
Work Order: 9901019
Project: Conoco Delhi Taylor D-1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **9901013-02AMS** Batch ID: **GC-2_990127** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **1/29/99** Prep Date: **1/29/99**

Client ID: **9901019** Run ID: **GC-2_990127A** SeqNo: **10505**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C28	549.4	25	501.9	0	109.5%	63	126				

Qualifiers:

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S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank