Form 3160-5 (June 2019)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 202

(suite 2019)	DEF	'ARTMENT OF THE I	NTERIOR			EX	pires: October 31, 2021	
	BUR	EAU OF LAND MANA	AGEMENT			5. Lease Serial No.	NMNM77055	
_		IOTICES AND REPO				6. If Indian, Allottee	or Tribe Name	
		form for proposals to Use Form 3160-3 (Al						
	SUBMIT IN	TRIPLICATE - Other instru	ıctions on page	2		7. If Unit of CA/Agre	eement, Name and/or No).
1. Type of Well		_				Wall Name and No.	<u> </u>	
Oil W	ell Gas V	Vell Other				o. Well Ivallie and Ive	PAKSE 3 SOUTH F	ED COM/212H
2. Name of Operator	EARTHSTONE	OPERATING LLC				9. API Well No. 3002	2552263	
3a. Address 300 N N	MARIENFIELD S	STREET SUITE 1000, MIC	3b. Phone No. (432) 695-422		le)	10. Field and Pool or SALT LAKE/BON		
4. Location of Well (I	_	R.,M., or Survey Description)				11. Country or Parish LEA/NM	n, State	
	12. CHE	CK THE APPROPRIATE BO	OX(ES) TO IND	ICATE NATUR	E OF NOTIO	CE, REPORT OR OT	HER DATA	
TYPE OF SUE	BMISSION			TY	TPE OF ACT	ΓΙΟΝ		
Notice of Inter	nt	Acidize	Deepe	en	Produ	uction (Start/Resume)	Water Shut-Off	f
Trouce of Inter	10	Alter Casing	Hydra	ulic Fracturing	Recla	amation	Well Integrity	
Subsequent Re	eport	Casing Repair		Construction		mplete	Other	
Final Abandon	ANT A	Change Plans Convert to Injection	Plug a	and Abandon		oorarily Abandon		
		operation: Clearly state all per	<u> </u>			r Disposal		
is ready for final in APD CHANGE WELL NUMBE FROM: PAKS TO: PAKSE 3	inspection.) E SUNDRY TO I ER CHANGE E 3 SOUTH FEI SOUTH FED C			, including reclar	nation, have	e been completed and	the operator has detenning	ned that the site
JENNIFER ELROD	0 0	,	nted/Typed)	Senior Re	egulatory A	nalyst		
Signature (Elec	tronic Submissio	on)		Date		02/16/2	2024	
		THE SPACE	FOR FEDE	RAL OR ST	TATE OF	ICE USE		
Approved by								
Candy Vigil / Ph: (575) 234-5982 /	Approved		Title			02/20/ Date	/2024
certify that the applica	ant holds legal or e	hed. Approval of this notice dequitable title to those rights induct operations thereon.			ARLSBAD			
Title 18 U.S.C Section	n 1001 and Title 4	3 U.S.C Section 1212, make	it a crime for any	y person knowing	gly and will	fully to make to any d	lepartment or agency of	the United States

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 State any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

(Form 3160-5, page 2)

Additional Information

Location of Well

0. SHL: NENW / 264 FNL / 2008 FWL / TWSP: 20S / RANGE: 32E / SECTION: 24 / LAT: 32.5652003 / LONG: -103.7218255 (TVD: 0 feet, MD: 0 feet)
PPP: NENW / 100 FNL / 2310 FWL / TWSP: 20S / RANGE: 32E / SECTION: 24 / LAT: 32.5656512 / LONG: -103.7208462 (TVD: 9780 feet, MD: 9872 feet)
PPP: SENW / 1323 FNL / 2309 FWL / TWSP: 20S / RANGE: 32E / SECTION: 24 / LAT: 32.5622901 / LONG: -103.7208439 (TVD: 9886 feet, MD: 11095 feet)
PPP: NESW / 2646 FNL / 2307 FWL / TWSP: 20S / RANGE: 32E / SECTION: 24 / LAT: 32.5586542 / LONG: -103.7208414 (TVD: 9897 feet, MD: 12418 feet)
PPP: NENW / 0 FNL / 2305 FWL / TWSP: 20S / RANGE: 32E / SECTION: 25 / LAT: 32.5513814 / LONG: -103.7208365 (TVD: 9923 feet, MD: 15058 feet)
BHL: SENW / 2630 FNL / 2310 FWL / TWSP: 20S / RANGE: 32E / SECTION: 36 / LAT: 32.5296489 / LONG: -103.7208217 (TVD: 9997 feet, MD: 22828 feet)

Form 3160-5 (June 2019)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 202

5	Lease	Serial	Nο	
٥.	Lease	Scriai	110.	NINANIN

BURI	EAU OF LAND MANAGEMENT		5. Lease Serial No.	MNM77055
Do not use this f	IOTICES AND REPORTS ON Worm for proposals to drill or to Use Form 3160-3 (APD) for suc	o re-enter an	6. If Indian, Allottee	or Tribe Name
SUBMIT IN T	TRIPLICATE - Other instructions on pag	ue 2	7. If Unit of CA/Agree	eement, Name and/or No.
1. Type of Well Oil Well Gas W	/ell Other		8. Well Name and No	PAKSE 3 SOUTH FED COM/322H
2. Name of Operator EARTHSTONE			9. API Well No. 3002	PARSE 3 SOUTH FED COW/322H
	STREET SUITE 1000, MIC 3b. Phone No.	(include area code)	10. Field and Pool or	
300 N MARIENFIELD S	(432) 695-422		SALT LAKE/BONI	
4. Location of Well (Footage, Sec., T.,R SEC 24/T20S/R32E/NMP	a.,M., or Survey Description)		11. Country or Parish LEA/NM	State
12. CHE	CK THE APPROPRIATE BOX(ES) TO INI	DICATE NATURE OF NO	TICE, REPORT OR OT	HER DATA
TYPE OF SUBMISSION		TYPE OF A	CTION	
Notice of Intent	Acidize Deep Alter Casing Hydr		oduction (Start/Resume)	Water Shut-Off Well Integrity
Subsequent Report			complete mporarily Abandon	Other
Final Abandonment Notice	Convert to Injection Plug	Back W	ater Disposal	
	ED TO REVISE CASING DESIGN			
14. I hereby certify that the foregoing is JENNIFER ELROD / Ph: (940) 452	true and correct. Name (Printed/Typed) -6214	Senior Regulatory	/ Analyst	
Signature (Electronic Submission	on)	Date	02/20/2	2024
	THE SPACE FOR FEDI	ERAL OR STATE C	FICE USE	
Approved by		5		20/20/25
CHRISTOPHER WALLS / Ph: (575	5) 234-2234 / Approved	Petroleum E Title		02/22/2024 Date
	ned. Approval of this notice does not warran equitable title to those rights in the subject leduct operations thereon.		D	
	3 U.S.C Section 1212, make it a crime for ar		rillfully to make to any d	epartment or agency of the United States

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District I 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 District II 811 S. First St., Artesia, NM 88210

Phone: (575) 748-1283 Fax: (575) 748-9720 <u>District IIII</u> 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462 State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

X AMENDED REPORT
WELL NUMBER

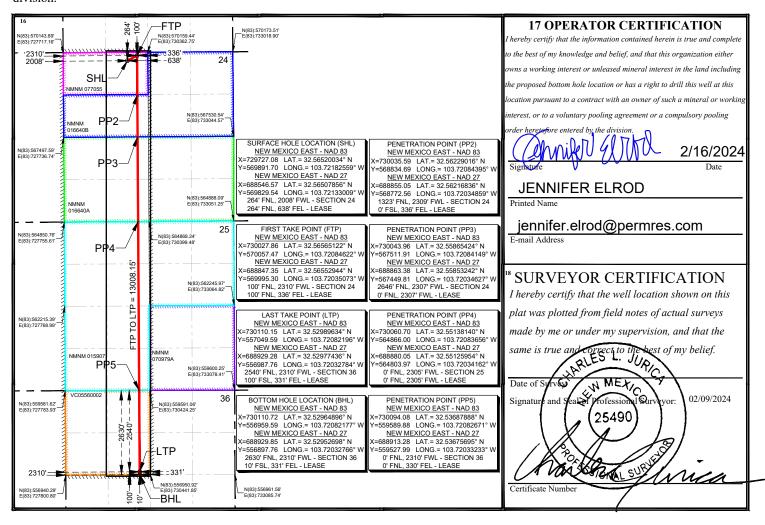
WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Numbe 30-025-52263	I	2 Pool Code 53560					
4 Property Code 335023		5 Property Name PAKSE 3 SOUTH FED COM					
7 OGRID No. 331165			perator Name NE OPERATING LLC	9 Elevation 3540.20'			

¹⁰ Surface Location

					Surface	Location			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
С	24	20-S	32-E		264'	NORTH	2008'	WEST	LEA
			11 Во	ttom Ho	le Location I	f Different Fro	m Surface		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	36	20-S	32-E		2630'	NORTH	2310'	WEST	LEA
12 Dedicated Acre	s 13 Joint o	or Infill 14 (Consolidation	Code 15 O	rder No.				
400									

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.





U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Sundry Print Reports
02/26/2024

Well Name: PAKSE 3 SOUTH FED Well Location: T20S / R32E / SEC 24 / County or Parish/State:

COM NENW /

Well Number: 212H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM77055 Unit or CA Name: Unit or CA Number:

US Well Number: 3002552263 Well Status: Approved Application for Operator: EARTHSTONE

Permit to Drill OPERATING LLC

Notice of Intent

Sundry ID: 2775510

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 02/16/2024 Time Sundry Submitted: 01:10

Date proposed operation will begin: 03/16/2024

Procedure Description: APD CHANGE SUNDRY TO REVISE WELL NUMBER WELL NUMBER CHANGE FROM:

PAKSE 3 SOUTH FED COM 212H TO: PAKSE 3 SOUTH FED COM 322H

NOI Attachments

Procedure Description

 $Pakse_3_South_Fed_Com__322H_APD_CHANGE_BLM_ATTACHMENTS_20240216130916.pdf$

Page 1 of 2

well Name: PAKSE 3 SOUTH FED

COM

Well Location: T20S / R32E / SEC 24 /

NENW /

County or Parish/State:

Page 9 of

Well Number: 212H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM77055

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002552263

Well Status: Approved Application for Permit to Drill

Operator: EARTHSTONE

OPERATING LLC

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: JENNIFER ELROD Signed on: FEB 16, 2024 01:10 PM

Name: EARTHSTONE OPERATING LLC

Title: Senior Regulatory Analyst

Street Address: 300 N MARIENFIELD STREET SUITE 1000

City: MIDLAND State: TX

Phone: (940) 452-6214

Email address: JENNIFER.ELROD@PERMIANRES.COM

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: Candy Vigil BLM POC Title: LIE

BLM POC Phone: 5752345982 BLM POC Email Address: cvigil@blm.gov

Disposition: Approved **Disposition Date:** 02/20/2024

Signature: Cody Layton Assistant Field Manager

Page 2 of 2



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT Sundry Print Repor

Well Name: PAKSE 3 SOUTH FED

COM

Well Location: T20S / R32E / SEC 24 /

NENW /

Well Number: 212H

Type of Well: OIL WELL

County or Parish/State:

Allottee or Tribe Name:

Lease Number: NMNM77055

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002552263

Well Status: Approved Application for

Permit to Drill

Operator: EARTHSTONE

OPERATING LLC

Notice of Intent

Sundry ID: 2775915

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 02/20/2024

Time Sundry Submitted: 01:21

Date proposed operation will begin: 03/16/2024

Procedure Description: APD CHANGE SUNDRY FILED TO REVISE CASING DESIGN

NOI Attachments

Procedure Description

Pakse_3_South_Fed_Com__322H_APD_CHANGE_BLM_ATTACHMENTS2_20240220132048.pdf

Conditions of Approval

Additional

Sec24_T20SR32E_PAKSE_3_SOUTH_FED_COM_Lea_NMNM77055_EARTHSTONE_OPERATING_LLC_2_20_2024 _JS_20240221103922.pdf

Authorized

PAKSE_3_SOUTH_FED_COM_322H_COAs_20240222092647.pdf

Page 1 of 2

well Name: PAKSE3 SOUTH FED

COM

Well Location: T20S / R32E / SEC 24 /

NENW /

4 / County or Parish/State:

Page 11 of

Well Number: 212H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM77055

Unit or CA Name:

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Operator: EARTHSTONE

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Operator Electronic Signature: JENNIFER ELROD Signed on: FEB 20, 2024 01:20 PM

Name: EARTHSTONE OPERATING LLC

Title: Senior Regulatory Analyst

Street Address: 300 N MARIENFIELD STREET SUITE 1000

City: MIDLAND State: TX

Phone: (940) 452-6214

Email address: JENNIFER.ELROD@PERMIANRES.COM

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234 BLM POC Email Address: cwalls@blm.gov

Disposition: Approved **Disposition Date:** 02/22/2024

Signature: Chris Walls

Page 2 of 2

Sec24-T20SR32E_PAKSE 3 SOUTH FED COM_Lea_NMNM77055_EARTHSTONE OPERATING LLC_2-20-2024_JS

PAKSE 3 SOUTH FED COM

13 3/8	sur	face csg in a	17 1/2	inch hole.		<u>Design I</u>	actors			Surface		
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	54.50		J 55	BTC	12.73	1.86	1.5	1,230	5	2.60	3.36	67,035
"B"				BTC				0				0
1	w/8.4#/	g mud, 30min Sfc Csg Test p	sig: 1,374	Tail Cmt	does not	circ to sfc.	Totals:	1,230			_	67,035
Comparison of	Proposed to M	inimum Required Cemer	t Volumes_									
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
17 1/2	0.6946	920	1233	854	44	9.50	1048	2M				1.56

10 3/4	cas	ing inside the	13 3/8			Design	Factors -			Int 1		
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	45.50		J 55	BTC	4.49	1.15	1.37	3,500	2	2.47	1.99	159,250
"B"								0				0
í	w/8.4	#/g mud, 30min Sfc Csg Test p	osig: 979				Totals:	3,500				159,250
		The cement v	olume(s) are intend	ed to achieve a top of	0	ft from su	ırface or a	1230				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
12 1/4	0.1882	460	795	719	10	10.00	1447	2M				0.25
D V Tool(s):							sum of sx	Σ CuFt				Σ%excess
t by stage %:		#VALUE!	#VALUE!				460	795				10
Class 'H' tail cm	nt yld > 1.20											
					Does not me	et CFO cemen	t excess					

8 5/8	cas	ing inside the	10 3/4			Design Fac	ctors		_	Int 2		
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	32.00		P 110	mo-fxl	5.94	1.65	1.69	5,290	4	2.93	2.97	169,280
"B"								0				0
	w/8.4‡	t/g mud, 30min Sfc Csg Test p	sig: 1,500				Totals:	5,290				169,280
		The cement vo	olume(s) are intend	ded to achieve a top of	0	ft from su	rface or a	3500				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
9 7/8	0.1261	410	705	696	1	9.50	3305	5M				0.63
Class 'C' tail cm	nt yld > 1.35											
			[Does not meet CFO ceme	ent excess							

5 1/2	casir	g inside the	8 5/8	_		Design I	-actors			Prod 1		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	20.00		P 110	geoconn	1.15	1.73	2.39	11,352	2	4.15	3.36	227,040
"B"	20.00		P 110	geoconn	∞	1.94	2.39	12,669	2	4.15	3.36	253,380
	w/8.4#/ _{	g mud, 30min Sfc Csg Test	psig: 2,428				Totals:	24,021				480,420
		The cement	volume(s) are intend	ded to achieve a top of	5090	ft from su	rface or a	200				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
7 7/8	0.1733	2310	4418	3281	35	10.00						0.91
Class 'H' tail cn	nt yld > 1.20		Capitan Reef es	st top XXXX.								

Carlsbad Field Office 2/20/2024

NEW MEXICO

(SP) LEA
PASKE PROJECT
PAKSE 3 SOUTH FED COM 322H

OWB PWP0

Anticollision Report

13 February, 2024

Anticollision Report

Company: **NEW MEXICO**

Project: (SP) LEA Reference Site: PASKE PROJECT

Site Error: 0.0 usft

Reference Well: PAKSE 3 SOUTH FED COM 322H

Well Error: 0.0 usft Reference Wellbore OWB Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method: Output errors are at

Database:

Offset TVD Reference:

Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft

KB @ 3570.2usft Grid

Minimum Curvature

2.00 sigma Compass Offset Datum

Reference PWP0

Filter type: NO GLOBAL FILTER: Using user defined selection & filtering criteria

Interpolation Method: Stations Depth Range:

Unlimited

Error Model: Scan Method:

Error Surface:

Casing Method:

ISCWSA

Maximum centre distance of 800.0usft Results Limited by:

Survey (Wellbore)

2.00 **Sigma** Warning Levels Evaluated at:

Closest Approach 3D

Pedal Curve Not applied

Survey Tool Program Date 2/13/2024

From

То (usft) (usft)

Tool Name

Description

0.0 23,860.0 PWP0 (OWB) **MWD** OWSG_Rev2_ MWD - Standard

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Dista Between Centres (usft)	nce Between Ellipses (usft)	Separation Factor	Warning
PASKE PROJECT						
PAKSE 3 SOUTH FED COM 112H - OWB - PWP0	2,000.0	2,000.1	60.0	45.9	4.248 C	C
PAKSE 3 SOUTH FED COM 112H - OWB - PWP0	2,004.4	2,004.6	60.0	45.8	4.239 E	S
PAKSE 3 SOUTH FED COM 112H - OWB - PWP0	2,100.0	2,100.5	61.1	46.3	4.118 S	F
PAKSE 3 SOUTH FED COM 113H - OWB - PWP0	1,966.6	1,966.7	30.0	16.1	2.161 C	C
PAKSE 3 SOUTH FED COM 113H - OWB - PWP0	2,100.0	2,099.1	30.3	15.5	2.044 E	S
PAKSE 3 SOUTH FED COM 113H - OWB - PWP0	2,200.0	2,198.0	31.3	15.8	2.018 S	F
PAKSE 3 SOUTH FED COM 222H - OWB - PWP0	2,000.0	1,999.8	30.0	15.9	2.124 C	C, ES
PAKSE 3 SOUTH FED COM 222H - OWB - PWP0	9,400.0	9,398.3	116.0	48.5	1.718 S	F
PAKSE 3 SOUTH FED COM 432H - OWB - PWP0	1,966.6	1,966.7	90.0	76.1	6.482 C	C
PAKSE 3 SOUTH FED COM 432H - OWB - PWP0	2,000.0	2,000.0	90.0	75.9	6.372 E	S
PAKSE 3 SOUTH FED COM 432H - OWB - PWP0	2,100.0	2,097.2	93.0	78.2	6.276 S	F

rvey Prog Refer		MWD Off s	201	Com: 1	lajor Axis		Offset Wellb	oro Contro	Diet	Rule Assig	gned:		Offset Well Error:	0.0 usf
	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.1	0.1	0.0	0.0	-90.33	-0.3	-60.0	60.0					
100.0	100.0	100.1	100.1	0.3	0.3	-90.33	-0.3	-60.0	60.0	59.5	0.50	119.489		
200.0	200.0	200.1	200.1	0.6	0.6	-90.33	-0.3	-60.0	60.0	58.8	1.22	49.218		
300.0	300.0	300.1	300.1	1.0	1.0	-90.33	-0.3	-60.0	60.0	58.1	1.94	30.992		
400.0	400.0	400.1	400.1	1.3	1.3	-90.33	-0.3	-60.0	60.0	57.3	2.65	22.616		
500.0	500.0	500.1	500.1	1.7	1.7	-90.33	-0.3	-60.0	60.0	56.6	3.37	17.805		
600.0	600.0	600.1	600.1	2.0	2.0	-90.33	-0.3	-60.0	60.0	55.9	4.09	14.681		
700.0	700.0	700.1	700.1	2.4	2.4	-90.33	-0.3	-60.0	60.0	55.2	4.80	12.490		
800.0	800.0	800.1	800.1	2.8	2.8	-90.33	-0.3	-60.0	60.0	54.5	5.52	10.868		
900.0	900.0	900.1	900.1	3.1	3.1	-90.33	-0.3	-60.0	60.0	53.8	6.24	9.619		
1,000.0	1,000.0	1,000.1	1,000.1	3.5	3.5	-90.33	-0.3	-60.0	60.0	53.0	6.95	8.627		
1,100.0	1,100.0	1,100.1	1,100.1	3.8	3.8	-90.33	-0.3	-60.0	60.0	52.3	7.67	7.821		
1,200.0	1,200.0	1,200.1	1,200.1	4.2	4.2	-90.33	-0.3	-60.0	60.0	51.6	8.39	7.153		
1,300.0	1,300.0	1,300.1	1,300.1	4.6	4.6	-90.33	-0.3	-60.0	60.0	50.9	9.11	6.590		
1,400.0	1,400.0	1,400.1	1,400.1	4.9	4.9	-90.33	-0.3	-60.0	60.0	50.2	9.82	6.109		
1,500.0	1,500.0	1,500.1	1,500.1	5.3	5.3	-90.33	-0.3	-60.0	60.0	49.5	10.54	5.693		

Anticollision Report

Company: **NEW MEXICO**

Project: (SP) LEA Reference Site: PASKE PROJECT

Site Error: 0.0 usft

Reference Well: PAKSE 3 SOUTH FED COM 322H

Well Error: 0.0 usft Reference Wellbore OWB Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: **Survey Calculation Method:**

Output errors are at Database:

Offset TVD Reference:

Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft

Grid

Minimum Curvature

Mary	Offset Do	esign: ^{P/}	ASKE PRO	JECT -	PAKSE 3	SOUTH F	ED COM	112H - OWB -	PWP0					Offset Site Error:	0.0 usft
					Cami I	Anion Avio		Office A Mallh	C t	Dia		gned:		Offset Well Error:	0.0 usft
	Measured		Measured	Vertical	Reference					Between	Between			Warning	
					(usft)	(usft)							Factor		
1,800					5.6			-0.3	-60.0			11.26	5.330		
1,900	1,700.0	1,700.0	1,700.1	1,700.1	6.0	6.0	-90.33	-0.3	-60.0	60.0	48.0	11.97	5.011		
2,000 2,000 2,000 2,000 2,000 7,1	1,800.0	1,800.0	1,800.1	1,800.1	6.3	6.3	-90.33	-0.3	-60.0	60.0	47.3	12.69	4.728		
2,000 2,000 2,000 2,000 2,000 2,000 2,000 48.8 14.16 4.238 ES	1,900.0	1,900.0	1,900.1	1,900.1		6.7	-90.33	-0.3	-60.0	60.0	46.6	13.41	4.475		
2,100.0 2,100.5 2,100.5 7,4 7,4 -143.99 1,4 50.7 61.1 46.3 14.84 4.118 SF 2,200.0 2,290.6 2,200.6 2,200.6 2,300.0 2,300.5 2,300.5 2,300.2 61.5 61.5 1,300.6 14.7 67.2 7.0 2.53 16.5 4.144 4.18 5.230.0 2,341 2,330.0 2,341 2,330.0 2,349.1 2,330.0 2,349.1 2,330.0 2,349.1 2,330.0 2,349.1 2,330.0 2,349.8 63. 63. -138.6 52.2 65.6 76.2 61.3 16.6 4.45 6.10 6.2 6															
2,000 2,198	2,004.4	2,004.4	2,004.6	2,004.6	7.1	7.1	-144.67	-0.3	-60.0	60.0	45.8	14.16	4.239 ES		
2,500 0 2,596.5 2,500.7 2,500.2 8.1 8.1 8.1 8.199.68 14.7 5-72 70.2 \$3.9 16.25 4.316 2,500.0 2,506.8 2,600.4 2,506.8 8.3 8.3 1.191.1 190 5-50.4 7.40 57.4 6.74 4.6 7.4 6.74 4.6 7.4 6.74 6.74	2,100.0	2,100.0	2,100.5	2,100.5	7.4	7.4	-143.99	1.4	-59.7	61.1	46.3	14.84	4.118 SF		
2,390.0 2,349.1 2,306.8 2,349.9 8.3 8.3 139.11 19.0 5-64 74.0 67.4 16.0 4.460	2,200.0	2,199.8	2,200.8	2,200.6	7.8	7.8	-142.08	6.6	-58.7	64.4	48.9	15.55	4.144		
2,400.0 2,398.8 2,400.4 2,399.5 8.5 8.5 413,885 23.2 6-5.6 78.2 61.3 16.97 4.810 2,500.0 2,498.0 2,500.0 2,498.8 8.8 8.9 -138.05 40.3 -52.4 95.0 76.6 18.40 5.106 2,700.0 2,596.5 2,599.3 2,697.3 9.6 9.6 -137.75 48.9 -9.08 103.4 84.3 19.12 5.410 2,900.0 2,786.5 2,789.0 7.868.6 103.3 137.28 68.9 -47.8 120.3 99.7 25.76 2,900.0 2,986.0 2,886.6 2,285.1 10.3 10.3 13.73.28 68.9 -47.8 120.3 99.7 25.75 5.846 3,000.0 2,980.3 2,902.0 3,180.3 3,111.1 11.0 -195.92 83.0 -44.4 197.1 11.0 21.0 -195.92 83.0 -44.4 197.1 11.0 22.7 6.900															
2,500.0															
2,800.0 2,897.3 2,899.7 2,899.0 9.2 9.2 138.05 40.3 -92.4 95.0 76.6 18.40 5.165 2,700.0 2,896.8 2,899.3 2,799.0 2,796.6 10.0 9.9 -137.50 57.4 -49.2 111.8 92.0 19.84 5.838 3,000.0 2,984.3 2,986.8 10.3 10.3 -137.28 65.9 -47.6 120.3 99.7 20.57 5.848 3,000.0 3,094.3 3,091.1 11.0 -136.67 91.5 -42.8 145.7 115.0 -136.7 13.0 -44.4 137.1 115.0 22.0 222.3 3,300.3 31.93.3 3,308.3 3,393.3 3,308.3 3,393.3 3,308.3 3,921.1 12.0 11.1 11.0 -136.67 10.0 4.44 137.1 115.0 22.0 3,292.3 3,292.9 3,293.3 3,300.3 3,893.3 3,800.3 3,803.3 3,940.3 3,800.3 3,800.3 3,800.3 3,800	2,400.0	2,398.8	2,400.4	2,399.5	8.5	8.5	-138.85	23.2	-55.6	78.2	61.3	16.97	4.610		
27000 2,686 2,689 2,697 2,786 0.0 99 -137.50 49.9 -90.8 103.4 84.3 191.2 5,410	2,500.0	2,498.0	2,500.0	2,498.8	8.8	8.9	-138.41	31.8	-54.0	86.6	68.9	17.68	4.899		
2,000 2,795,8 2,799,0 2,796,6 10,0 9.9 -137,50 57.4 -49.2 111,8 92.0 19.84 5,638	2,600.0	2,597.3	2,599.7	2,598.0	9.2	9.2	-138.05	40.3	-52.4	95.0	76.6	18.40	5.165		
2,900 2,895 2,896 2,895 2,896 2,895 10.3 10.3 10.3 19.72 28 4.6 120.3 99.7 20.57 5,846 3,0000 2,994.3 2,995.1 10.7 10.7 -130.90 3,993.5 3,197.5 3,193.6 11.1 11.0 -136.92 83.0 -44.4 137.1 115.0 22.03 6,292.2 3,292.9 3,292.9 3,292.9 3,292.9 3,292.9 11.8 118.6 118.0 -136.92 10.8 118.0	2,700.0	2,696.5	2,699.3	2,697.3	9.6	9.6	-137.75	48.9	-50.8	103.4	84.3	19.12	5.410		
3,000.0 2,994.3 2,998.2 2,995.1 10.7 10.7 13.7 13.7 13.7 8 74.5 46.0 128.7 107.4 21.30 6,040 3,100.0 3,093.5 3,097.9 3,094.3 11.1 11.0 -136.92 83.0 -44.4 137.1 115.0 22.03 6,222 3,200.0 3,129.2 3,197.2 3,292.9 11.8 11.8 -136.64 100.1 -41.2 153.9 130.4 23.50 6.548 3,400.0 3,391.3 3,396.8 3,392.1 12.2 12.1 -138.52 108.6 -30.6 162.3 138.1 24.24 6.696 3,400.0 3,490.6 3,496.5 3,491.4 12.6 12.5 -136.51 108.6 -30.6 162.3 138.1 24.24 6.696 3,500.0 3,698.8 3,598.1 3,590.7 13.0 12.9 -136.31 125.7 -36.4 179.2 153.4 25.72 6.986 3,300.0 3,789.4 3,799.2 13.8 13.6 -138.14 14.7 -38.0 170.8 14.1 25.72 6.986 3,300.0 3,788.3 3,798.4 3,789.2 13.8 13.6 -138.14 14.27 -33.2 196.0 168.8 27.21 7.204 3,900.0 3,887.5 3,888.5 14.2 14.0 -136.07 151.3 -31.6 204.4 176.5 27.96 7.313 4,000.0 4,086.1 4,093.5 4,086.6 14.9 14.7 -137.36 162.9 -29.4 221.6 192.2 29.42 7.531 4,200.0 4,185.3 4,182.4 4,185.4 15.3 15.1 13.3 162.8 -29.2 240.0 29.2 38.84 7.783 4,400.0 4,383.8 4,390.9 4,383.9 16.1 15.8 -142.82 163.8 -29.2 240.0 29.2 38.84 7.783 4,400.0 4,284.6 4,221.7 4,224.7 15.7 15.4 -141.06 163.8 -29.2 240.0 29.2 38.84 7.783 4,400.0 4,881.1 4,490.2 4,483.2 16.5 61.5 145.94 163.8 -29.2 240.0 29.2 38.84 7.783 4,500.0 4,582.4 4,589.4 4,582.5 16.9 16.5 -142.84 163.8 -29.2 29.5 29.5 30.13 7.654 4,500.0 4,580.0 4,580.0 4,580.3 50.78 18.5 17.7 17.7 17.2 -148.64 163.8 -29.2 29.5 29.5 30.13 7.654 4,500.0 4,580.0 4,580.0 4,580.3 50.78 50.78 50.8 50.78 50.8 50.78 50.8 50.78 50.8 50.78 50.8 50.78 50.8 50.78 50.8 50.78 50.8 50.78 50.8 50.78 50.8 50.78 50.8 50.78 50.8 50.78 50.8 50.8 50															
3,000, 3,093,5 3,097,9 3,094,3 11,1 11,0 -136,92 83,0 -44,4 137,1 115,0 22,03 6,222 3,000, 3,292,8 3,193,5 3,193,6 11,5 11,4 -136,77 91,5 -12,8 11,5 12,7 2,77 6,300 3,000, 3,292,0 3,297,2 3,292,9 11,8 11,8 -136,64 100,1 -41,2 15,3 9 130,4 23,50 6,548 3,400,0 3,391,3 3,306,8 3,392,1 12,2 12,1 -136,52 108,6 -39,6 162,3 138,1 24,24 6,696 3,400,6 3,400,6 3,400,6 3,400,5 3,491,4 12,6 12,5 -136,41 117,1 -38,0 17,0 8 145,8 24,98 6,835 3,000,0 3,889,8 3,506,1 3,500,7 13,0 12,9 -136,31 125,7 -36,4 170,2 153,4 25,72 6,605 3,000,0 3,889,8 3,506,1 3,500,7 13,0 12,9 -136,31 125,7 -36,4 170,2 153,4 25,72 6,965 3,000,0 3,889,8 3,506,1 3,500,7 13,0 12,9 -136,31 125,7 -36,4 170,2 153,4 25,72 6,965 3,000,0 3,889,8 3,506,1 3,500,7 13,0 12,9 -136,31 125,7 -36,4 170,2 153,4 25,72 6,965 3,000,0 3,887,8 3,805,0 3,888,5 14,2 14,0 -136,07 151,3 -31,6 204,4 176,5 27,96 7,313 4,000,0 3,887,8 3,805,0 3,888,5 14,2 14,0 -136,07 151,3 -31,6 204,4 176,5 27,96 7,313 4,000,0 4,086,1 4,093,5 4,086,6 14,9 14,7 -137,36 162,9 -29,4 221,6 192,2 224,2 7,531 4,200,0 4,086,1 4,124,4 1,854,4 153, 15,1 -138,17 163,8 -29,2 230,8 20,5 30,13 7,654 4,400,0 4,264,6 4,231,7 4,264,7 15,7 154, 141,0 168,8 -29,2 240,0 20,5 30,13 7,654 4,400,0 4,264,6 4,231,7 4,264,7 15,7 154, 141,0 168,8 -29,2 240,0 20,5 30,13 7,654 4,400,0 4,883,4 4,882,5 16,9 16,5 16,1 144,44 163,8 -29,2 240,0 20,5 30,13 7,654 4,400,0 4,881,4 4,882,5 16,9 16,5 16,1 144,44 163,8 -29,2 240,0 20,5 30,13 7,654 4,400,0 4,881,4 4,882,5 16,9 16,5 16,1 144,44 163,8 -29,2 240,0 20,5 30,13 7,654 4,400,0 4,881,4 4,882,5 16,9 16,5 16,1 144,44 163,8 -29,2 240,0 33,67 8,306 4,500,0 4,890,9 4,833,9 16,1 15,8 14,7 14,7 14,7 14,7 14,7 14,7 14,7 14,7	2,900.0	2,895.0	2,898.6	2,895.8	10.3	10.3	-137.28	65.9	-47.6	120.3	99.7	20.57	5.846		
3,200.0 3,192.8 3,197.5 3,193.6 11.5 11.4 -136.77 91.5 -42.8 145.5 122.7 22.77 6,390. 3,300.0 3,292.0 3,297.2 3,297.9 11.8 11.8 -136.64 100.1 -41.2 153.9 130.4 2.55.0 6,548 3,400.0 3,391.3 3,396.8 3,392.1 12.2 12.1 -136.52 108.6 -39.6 162.3 138.1 24.24 6,696 3,500.0 3,496.6 3,496.5 3,491.4 12.6 12.5 -136.41 117.1 -38.0 170.8 145.6 24.98 6,635 3,700.0 3,598.8 3,596.1 3,590.7 13.0 12.9 -136.31 12.5 -3.0 4.1 12.5 12.5 136.41 117.1 12.5 12.5 136.41 117.1 12.5 12.5 136.41 12.5 12.5 136.4 12.5 12.5 136.4 139.2 153.4 25.7 136.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13	3,000.0	2,994.3	2,998.2	2,995.1	10.7	10.7	-137.08	74.5	-46.0	128.7	107.4	21.30	6.040		
3,200.0 3,292.0 3,297.2 3,292.9 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11	3,100.0	3,093.5	3,097.9	3,094.3	11.1	11.0	-136.92	83.0	-44.4	137.1	115.0	22.03	6.222		
3,400.0 3,391.3 3,396.8 3,392.1 12.2 12.1 136.52 108.6 -39.6 162.3 138.1 24.24 6.698 3,500.0 3,490.6 3,496.5 3,491.4 12.6 12.5 136.41 117.1 -36.0 170.8 145.8 24.98 6.835 3,700.0 3,689.8 3,696.1 3,590.7 13.0 12.9 138.3 1 125.7 -36.4 179.2 153.4 24.9 6.695 3,700.0 3,689.1 3,605.8 3,689.9 13.4 13.3 136.23 134.2 -34.8 187.6 161.1 26.47 7.088 3,800.0 3,883.3 3,754.4 3,785.2 13.8 13.6 -136.14 142.7 -34.8 187.6 161.1 26.47 7.088 3,900.0 3,887.6 3,885.0 3,888.5 14.2 14.0 -136.07 151.3 -31.6 204.4 176.5 27.96 7.313 4,000.0 3,888.8 3,994.4 3,997.5 14.6 14.4 136.29 158.8 -30.2 212.9 184.2 28.70 7.419 4,100.0 4,086.1 4,093.5 4,086.6 14.9 14.7 -137.36 162.9 -29.4 221.6 192.2 29.42 7.531 4,200.0 4,185.3 4,192.4 4,185.4 15.3 151. 1-39.17 163.8 -29.2 230.6 200.5 30.13 7.654 4,200.0 4,284.6 4,291.7 4,284.7 15.7 15.4 141.06 163.8 -29.2 240.0 209.2 30.84 7.783 4,400.0 4,383.8 4,309.0 4,383.9 16.1 158142.8 163.8 -29.2 259.5 227.2 32.25 8.045 4,500.0 4,883.1 4,490.2 4,483.2 16.5 16.1 -144.44 163.8 -29.2 259.5 227.2 32.25 8.045 4,500.0 4,883.1 4,490.2 4,483.2 16.5 16.1 -144.44 163.8 -29.2 259.5 227.2 32.25 8.045 4,500.0 4,780.9 4,787.9 4,781.0 17.7 17.2 148.64 163.8 -29.2 259.5 227.2 32.25 8.045 4,600.0 4,780.9 4,787.9 4,781.0 17.7 17.2 148.64 163.8 -29.2 259.5 227.2 32.5 8.045 5,000.0 4,780.9 4,787.9 4,781.0 17.7 17.2 148.64 163.8 -29.2 259.5 257.7 34.38 8.398 4,600.0 4,780.9 4,787.9 4,781.0 17.7 17.2 148.64 163.8 -29.2 230.5 20.5 35.08 8.566 5,000.0 5,778.2 5,023.3 5,016.3 18.6 18.0 151.37 163.8 -29.2 331.1 275.4 35.79 8.693 5,007.1 5,016.2 5,023.3 5,016.3 18.6 18.0 151.37 163.8 -29.2 331.1 275.4 35.79 8.693 5,000.0 5,778.2 5,885.3 5,778.3 20.0 19.3 -89.95 163.8 -29.2 334.1 294.7 33.3 8.494 5,000.0 5,778.2 5,865.3 5,778.3 20.0 19.3 -89.95 163.8 -29.2 334.1 294.7 33.3 8.494 5,000.0 5,778.2 5,865.3 5,778.3 21.3 20.7 9.89.5 163.8 -29.2 334.1 294.7 33.3 8.494 5,000.0 5,778.2 5,865.3 5,778.3 21.3 20.7 9.89.5 163.8 -29.2 334.1 294.7 33.3 40.74 8,000.0 5,778.2 5,865.3 5,778.3 21.3 20.7 9.89.5 163.8 -29.2 334.1 2	3,200.0	3,192.8	3,197.5	3,193.6	11.5	11.4	-136.77	91.5	-42.8	145.5	122.7	22.77	6.390		
3,500.0 3,490.6 3,496.5 3,491.4 12.6 12.5 -136.41 117.1 -38.0 170.8 145.8 24.98 6.835 3,500.0 3,589.8 3,589.1 3,596.1 13.90.7 13.0 12.9 -136.31 125.7 -36.4 179.2 153.4 25.72 6.965 3,700.0 3,689.1 3,689.1 3,893.9 13.4 13.3 -136.23 134.2 -34.8 187.6 161.1 26.47 7.088 3,500.0 3,788.3 3,795.4 3,789.2 13.8 13.6 -136.14 142.7 -33.2 196.0 168.8 27.21 7.204 3,500.0 3,887.6 3,895.0 3,888.5 14.2 14.0 -136.07 151.3 -31.6 204.4 176.5 27.96 7.313 4,000.0 3,986.8 3,994.4 3,987.5 14.6 14.4 -136.29 158.8 -30.2 212.9 184.2 28.70 7.419 4,000.0 4,086.1 4,093.5 4,086.6 14.9 14.7 -137.36 162.9 -284 221.6 192.2 29.42 7.531 4,200.0 4,185.3 4,192.4 4,185.4 15.3 15.1 139.17 163.8 -29.2 230.6 200.5 30.13 7.664 4,200.0 4,284.6 4,291.7 4,284.7 15.7 15.4 141.06 163.8 -29.2 240.0 200.2 30.84 7.783 4,400.0 4,383.8 4,390.9 4,383.9 16.1 15.8 142.82 163.8 -29.2 249.6 218.1 31.54 7.914 4,500.0 4,485.1 4,490.2 4,483.2 16.5 16.9 16.5 -145.94 163.8 -29.2 259.5 227.2 23.22 58.045 4,000.0 4,882.4 4,589.4 4,589.5 16.9 16.5 -145.94 163.8 -29.2 259.5 227.2 32.25 8.045 4,000.0 4,881.6 4,688.7 4,681.7 17.3 16.8 147.34 163.8 -29.2 290.1 255.7 34.38 8.438 4,900.0 4,880.1 4,887.2 4,880.2 18.1 17.5 -149.84 163.8 -29.2 290.1 255.7 34.38 8.438 4,900.0 4,880.1 4,887.2 4,880.2 18.1 17.5 -149.84 163.8 -29.2 290.1 255.7 34.38 8.438 4,900.0 4,880.1 4,887.2 4,880.2 18.1 17.5 -149.84 163.8 -29.2 290.1 255.7 34.8 8.438 4,900.0 4,800.1 4,807.2 4,880.2 18.1 17.5 -149.84 163.8 -29.2 331.1 275.4 35.79 8.693 5,007.1 5,016.2 5,023.3 5,016.3 18.6 18.0 151.37 163.8 -29.2 334.1 295.5 38.54 8.669 5,000.0 5,778.2 5,085.3 5,783.3 20.0 19.3 98.95 163.8 -29.2 334.1 295.5 38.54 8.669 5,000.0 5,778.2 5,585.3 5,783.3 20.0 19.3 98.95 163.8 -29.2 334.1 295.5 38.54 8.669 5,000.0 5,778.2 5,585.3 5,783.3 20.0 19.3 98.95 163.8 -29.2 334.1 294.0 40.0 48.344 5,500.0 5,778.2 5,585.3 5,783.3 20.0 19.3 98.95 163.8 -29.2 334.1 294.0 40.0 48.344 5,700.0 5,778.2 5,585.3 5,783.3 21.7 21.1 98.95 163.8 -29.2 334.1 294.0 40.0 48.344 5,700.0 5,778.2 5,585.3 5,783.3 21.7 21.1 98.95 163.8 -29.2 334.1 294.0	3,300.0	3,292.0	3,297.2	3,292.9	11.8	11.8	-136.64	100.1	-41.2	153.9	130.4	23.50	6.548		
3,800.0 3,889.8 3,598.1 3,596.1 3,590.7 13.0 12.9 1-36.31 125.7 -36.4 179.2 153.4 25.72 6,965 3,700.0 3,688.1 36.89.1 3,895.8 3,689.9 13.4 13.3 13.6 136.23 134.2 -34.8 187.6 161.1 26.47 7,088 3,700.0 3,785.3 3,785.4 3,789.2 13.8 13.6 136.14 142.7 -33.2 196.0 168.8 27.21 7.204 3,900.0 3,887.6 3,895.0 3,887.5 14.2 14.0 136.07 151.3 -31.6 204.4 176.5 27.96 7,313 14.00.0 3,986.8 3,994.4 3,987.5 14.6 14.4 136.29 158.8 -30.2 212.9 184.2 28.70 7,419 1,400.0 4,086.1 4,093.5 4,086.6 14.9 14.7 137.36 162.9 -29.4 221.6 192.2 29.42 7,531 14.0 1,000.0 4,185.3 4,192.4 1,185.4 15.3 15.1 139.17 163.8 2-9.2 240.0 200.5 30.13 7,664 1,400.0 4,288.8 4,390.9 4,383.9 16.1 15.8 142.2 163.8 2-9.2 240.0 209.2 30.84 7,783 1,400.0 4,383.8 4,390.9 4,383.9 16.1 15.8 142.2 163.8 2-9.2 249.6 218.1 315.4 7,914 1,400.0 4,883.8 4,390.9 4,383.9 16.1 15.8 142.2 163.8 2-9.2 249.6 218.1 315.4 7,914 1,400.0 4,883.8 4,390.9 4,383.9 16.1 16.8 144.4 163.8 2-9.2 29.9 29.2 30.8 4 7,783 1,400.0 4,883.8 4,380.9 4,780.9 4,780.9 4,780.9 4,881.9 4,800.0 4,780.9 4	3,400.0	3,391.3	3,396.8	3,392.1	12.2	12.1	-136.52	108.6	-39.6	162.3	138.1	24.24	6.696		
3,700 3,889.1 3,899.8 3,889.9 13.4 13.3 -136.23 134.2 3-48.8 187.6 161.1 26.47 7.088 3,800 3,788.3 3,784 4,789.2 13.8 13.6 -136.14 14.27 3-32.1 196.0 168.8 27.21 7.204 3,900.0 3,887.6 3,895.0 3,888.5 14.2 14.0 -136.07 151.3 -31.6 204.4 176.5 27.96 7.313 14.000.0 3,887.6 3,895.0 3,888.5 14.2 14.0 -136.07 151.3 -31.6 204.4 176.5 27.96 7.313 14.000.0 4,086.1 4,093.5 4,086.6 14.9 14.7 -137.36 162.9 -29.4 221.6 192.2 29.42 7.531 14.6 14.0 14.4 11.0 14.0 14.0 14.0 14.0 14.0	3,500.0	3,490.6	3,496.5	3,491.4	12.6	12.5	-136.41	117.1	-38.0	170.8	145.8	24.98	6.835		
3,800.0 3,788.3 3,795.4 3,789.2 13.8 13.6 -136.14 142.7 -33.2 196.0 188.8 27.21 7.204 3,900.0 3,887.6 3,895.0 3,888.5 14.2 14.0 -136.07 151.3 -31.6 204.4 176.5 27.96 7.313 4,000.0 3,986.8 3,994.4 3,987.5 14.6 14.4 -136.29 158.8 -30.2 212.9 184.2 28.70 7.419 4,000.0 4,086.1 4,093.5 4,086.6 14.9 14.7 -137.36 162.9 -29.4 221.6 192.2 29.42 7.531 4,200.0 4,185.3 4,192.4 4,185.4 15.3 15.1 -139.17 163.8 -29.2 230.6 200.5 30.13 7.654 4,200.0 4,286.4 2,491.7 4,284.7 15.7 15.4 -141.06 163.8 -29.2 240.0 209.2 30.84 7.783 4,400.0 4,383.8 4,390.9 4,383.9 16.1 15.8 -142.82 163.8 -29.2 249.6 218.1 31.54 7.914 4,500.0 4,483.1 4,490.2 4,483.2 16.5 16.1 -144.44 163.8 -29.2 259.5 227.2 32.25 8.045 4,500.0 4,882.4 4,589.4 4,589.4 4,582.5 16.9 16.5 -145.94 163.8 -29.2 259.5 227.2 32.25 8.045 4,800.0 4,780.9 4,787.9 4,781.0 17.7 17.2 -148.64 163.8 -29.2 279.7 246.0 33.67 8.308 4,800.0 4,780.9 4,787.9 4,781.0 17.7 17.2 -148.64 163.8 -29.2 290.1 255.7 34.38 8.438 4,900.0 4,890.1 4,887.2 4,880.2 18.1 17.5 -149.84 163.8 -29.2 30.5 255.5 35.08 8.566 5,000.0 4,979.4 4,986.5 4,979.5 18.5 17.9 -150.97 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 -151.37 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 -151.37 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 -151.37 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 -151.37 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 -151.37 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 -151.37 163.8 -29.2 311.2 275.4 35.79 8.693 5,000.0 5,078.7 5,085.8 5,078.8 18.9 18.2 -152.02 163.8 -29.2 334.1 295.5 35.64 8.693 5,000.0 5,078.2 5,855.3 5,783.3 20.0 19.3 -98.95 163.8 -29.2 334.1 295.5 35.54 8.694 5,000.0 5,778.2 5,855.3 5,778.3 20.0 20.0 -98.95 163.8 -29.2 334.1 294.0 40.0 48.344 5,600.0 5,778.2 5,855.3 5,778.3 21.0 20.4 -98.95 163.8 -29.2 334.1 294.0 40.0 48.344 5,600.0 5,778.2 5,855.3 5,778.3 21.0 20.4 -98.95 163.8 -29.2 34.	3,600.0	3,589.8	3,596.1	3,590.7	13.0	12.9	-136.31	125.7	-36.4	179.2	153.4	25.72	6.965		
3,900.0 3,887.6 3,895.0 3,888.5 14.2 14.0 -136.07 151.3 -31.6 204.4 176.5 27.96 7.313 4,000.0 3,986.8 3,994.4 3,987.5 14.6 14.4 -136.29 158.8 -30.2 212.9 184.2 28.70 7.419 4,100.0 4,086.1 4,093.5 4,086.6 14.9 14.7 -137.36 162.9 -29.4 221.6 192.2 29.42 7.531 4,200.0 4,185.3 4,192.4 4,185.4 15.3 15.1 -139.17 163.8 -29.2 230.6 200.5 30.13 7.664 4,300.0 4,284.6 4,291.7 4,284.7 15.7 15.4 -141.06 163.8 -29.2 240.0 209.2 30.84 7.783 4,400.0 4,383.8 4,390.9 4,383.9 16.1 15.8 -142.82 163.8 -29.2 249.6 218.1 31.54 7.914 4,500.0 4,483.1 4,490.2 4,483.2 16.5 16.1 -144.44 163.8 -29.2 249.6 218.1 31.54 7.914 4,500.0 4,882.4 4,589.4 4,582.5 16.9 16.5 -145.94 163.8 -29.2 269.5 236.5 32.96 8.177 4,700.0 4,681.6 4,688.7 4,681.7 17.3 16.8 -147.34 163.8 -29.2 279.7 246.0 33.67 8.308 4,800.0 4,880.1 4,887.2 4,880.2 18.1 17.5 -148.84 163.8 -29.2 290.1 255.7 34.38 8.438 4,900.0 4,880.1 4,887.2 4,880.2 18.1 17.5 -148.84 163.8 -29.2 300.5 265.5 35.08 8.566 5,000.0 4,979.4 4,986.5 4,979.5 18.5 17.9 -150.97 163.8 -29.2 30.5 265.5 35.08 8.566 5,000.0 5,778.2 5,785.3 5,778.3 20.8 19.9 19.3 -96.95 163.8 -29.2 332.1 225.4 38.79 8.693 5,387.1 5,365.4 5,372.4 5,365.5 19.9 19.3 -96.95 163.8 -29.2 334.1 295.5 34.1 284.4 36.3 8.494 5,500.0 5,778.2 5,885.3 5,778.3 20.6 20.0 -98.95 163.8 -29.2 34.1 295.5 34.1 295.6 41.45 8.694 5,500.0 5,778.2 5,885.3 5,778.3 21.3 20.7 -96.95 163.8 -29.2 34.1 295.5 34.1 295.6 41.45 8.694 5,500.0 5,778.2 5,885.3 5,778.3 21.0 20.4 -98.95 163.8 -29.2 34.1 295.5 34.1 295.6 41.45 8.694 5,500.0 5,778.2 5,885.3 5,778.3 21.0 20.4 -98.95 163.8 -29.2 34.1 295.5 34.1 295.6 41.45 8.694 5,500.0 5,778.2 5,885.3 5,778.3 21.0 20.4 -98.95 163.8 -29.2 34.1 295.5 34.1 295.6 41.45 8.694 5,500.0 5,778.2 5,885.3 5,878.3 20.0 20.4 -98.95 163.8 -29.2 34.1 295.5 34.1 295.6 41.45 8.694 5,500.0 5,778.2 5,885.3 5,778.3 21.0 20.4 -98.95 163.8 -29.2 34.1 295.5 34.1 295.5 34.5 4.694 5,500.0 5,778.2 5,885.3 5,778.3 21.0 20.4 -98.95 163.8 -29.2 34.1 295.5 34.1 295.5 34.5 4.694 5,500.0 5,778.2 5,885.3 5,878.3 20.0 20.4 -98.95 163.8 -29.2 34.1 295	3,700.0	3,689.1	3,695.8	3,689.9	13.4	13.3	-136.23	134.2	-34.8	187.6	161.1	26.47	7.088		
4,000 0 3,986.8 3,994.4 3,987.5 14.6 14.4 136.29 158.8 -30.2 212.9 184.2 28.70 7.419 4,100 0 4,086.1 4,093.5 4,086.6 14.9 14.7 -137.36 162.9 -29.4 221.6 192.2 29.42 7.531 4,200 0 4,185.3 4,192.4 4,185.4 15.3 15.1 -199.17 163.8 -29.2 230.6 200.5 30.13 7.654 4,300.0 4,284.6 4,217 4,284.7 15.7 15.4 141.06 163.8 -29.2 240.0 209.2 30.84 7.783 4,400 0 4,383.8 4,390.9 4,383.9 16.1 15.8 142.82 163.8 -29.2 240.0 209.2 30.84 7.783 4,400 0 4,381.4 4,490.2 4,483.2 16.5 16.1 144.44 163.8 -29.2 249.6 218.1 31.54 7.914 4,500 0 4,481.4 4,490.2 4,483.2 16.5 16.1 144.44 163.8 -29.2 259.5 227.2 32.25 8.045 4,600 0 4,582.4 4,589.4 4,582.5 16.9 16.5 -147.34 163.8 -29.2 259.5 227.2 32.25 8.045 4,700 0 4,681.6 4,688.7 4,681.7 17.3 16.8 -147.34 163.8 -29.2 279.7 246.0 33.67 8.308 4,800 0 4,780.9 4,787.9 4,781.0 17.7 17.2 148.64 163.8 -29.2 290.1 255.7 34.38 8.438 4,900 0 4,880.1 4,887.2 4,880.2 18.1 17.5 -148.64 163.8 -29.2 290.1 255.7 34.38 8.438 4,900 0 4,974 4,986.5 4,979.5 18.5 17.9 150.97 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 151.37 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 151.37 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 151.37 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 151.37 163.8 -29.2 315.1 279.1 36.06 8.740 5,000 5,078.7 5,085.8 5,078.8 18.9 18.2 152.02 163.8 -29.2 315.1 279.1 36.06 8.740 5,000 5,078.7 5,085.8 5,078.8 18.9 18.2 152.02 163.8 -29.2 334.1 295.5 38.54 8.669 5,000 5,782.5 5,853 5,783.3 20.6 20.0 498.95 163.8 -29.2 334.1 294.7 39.33 8.494 5,600 5,578.2 5,865.3 5,783.3 20.6 20.0 498.95 163.8 -29.2 334.1 294.7 39.33 8.494 5,600 5,778.2 5,785.3 5,778.3 21.3 20.7 48.95 163.8 -29.2 334.1 294.7 39.33 8.494 5,600 5,778.2 5,785.3 5,778.3 21.3 20.7 4.89.95 163.8 -29.2 334.1 294.0 40.04 8.344 5,600 5,778.2 5,785.3 5,778.3 21.3 20.7 4.89.95 163.8 -29.2 334.1 294.0 40.04 8.344 5,600 5,778.2 5,785.3 5,778.3 21.3 20.7 4.89.95 163.8 -29.2 334.1 291.9 42.15 7.546	3,800.0	3,788.3	3,795.4	3,789.2	13.8	13.6	-136.14	142.7	-33.2	196.0	168.8	27.21	7.204		
4,100.0 4,086.1 4,093.5 4,086.6 14.9 14.7 -137.36 162.9 -29.4 221.6 192.2 29.42 7.531 4,200.0 4,185.3 4,192.4 4,185.4 15.3 15.1 -139.17 163.8 -29.2 230.6 20.5 30.13 7.654 4,300.0 4,284.6 4,291.7 4,284.7 15.7 15.4 -141.06 163.8 -29.2 240.0 209.2 30.84 7.783 4,400.0 4,383.8 4,390.9 4,383.9 16.1 15.8 -142.82 163.8 -29.2 249.6 218.1 31.54 7.914 4,500.0 4,483.1 4,490.2 4,483.2 16.5 16.1 -144.44 163.8 -29.2 259.5 227.2 32.25 8.045 4,600.0 4,582.4 4,589.4 4,582.5 16.9 16.5 -145.94 163.8 -29.2 269.5 236.5 32.96 8.177 4,700.0 4,881.6 4,681.7 17.3 16.8 -147.34 163.8 -29.2 279.7 246.0 33.67 8.308 4,800.0 4,780.9 4,787.9 4,781.0 17.7 17.2 148.64 163.8 -29.2 29.2 299.5 325.5 32.96 8.177 4,900.0 4,880.1 4,887.2 4,880.2 18.1 17.5 -149.84 163.8 -29.2 290.1 255.7 34.38 8.438 4,900.0 4,891.4 4,986.5 4,979.5 18.5 17.9 -150.97 163.8 -29.2 300.5 265.5 35.08 8.566 5,000.0 4,979.4 4,986.5 5,078.8 18.9 18.2 151.37 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 151.37 163.8 -29.2 311.2 275.4 35.79 8.693 5,000.0 5,078.7 5,085.8 5,078.8 18.9 18.2 152.02 163.8 -29.2 311.2 275.4 35.79 8.693 5,300.0 5,778.2 5,285.3 5,278.3 19.6 18.9 18.2 152.02 163.8 -29.2 328.6 291.4 37.21 8.831 5,000.0 5,778.2 5,865.3 5,778.3 20.3 19.7 -98.95 163.8 -29.2 334.1 295.5 38.54 8.699 5,400.0 5,578.2 5,865.3 5,778.3 21.3 20.7 -98.95 163.8 -29.2 34.1 295.5 38.54 8.69 5,500.0 5,778.2 5,865.3 5,778.3 21.3 20.7 -98.95 163.8 -29.2 34.1 292.6 41.45 8.060 5,500.0 5,778.2 5,865.3 5,778.3 21.3 20.7 -98.95 163.8 -29.2 34.1 292.6 41.45 8.060 5,500.0 5,778.2 5,865.3 5,778.3 21.3 20.7 -98.95 163.8 -29.2 34.1 291.9 42.15 7,925 6,000.0 6,778.2 6,865.3 6,778.3 22.0 21498.95 163.8 -29.2 334.1 291.9 42.15 7,925 6,000.0 6,778.2 6,865.3 6,778.3 22.0 21498.95 163.8 -29.2 334.1 291.9 42.15 7,925 6,000.0 6,778.2 6,865.3 6,778.3 22.0 21498.95 163.8 -29.2 334.1 291.9 42.15 7,925 6,000.0 6,778.2 6,865.3 6,778.3 22.0 21498.95 163.8 -29.2 334.1 291.9 42.15 7,925 6,000.0 6,778.2 6,865.3 6,778.3 22.0 21498.95 163.8 -29.2 334.1 291.9 42.15 7,925	3,900.0	3,887.6	3,895.0	3,888.5	14.2	14.0	-136.07	151.3	-31.6	204.4	176.5	27.96	7.313		
4,200.0 4,185.3 4,192.4 4,185.4 15.3 15.1 -139.17 163.8 -29.2 230.6 200.5 30.13 7.654 4,300.0 4,284.6 4,291.7 4,284.7 15.7 15.4 -141.06 163.8 -29.2 240.0 209.2 30.84 7.783 4,400.0 4,383.8 4,390.9 4,383.9 16.1 15.8 -142.82 163.8 -29.2 240.6 218.1 31.54 7.914 4,500.0 4,483.1 4,490.2 4,483.2 16.5 16.1 -144.44 163.8 -29.2 259.5 227.2 32.25 8.045 4,600.0 4,582.4 4,589.4 4,582.5 16.9 16.5 -145.94 163.8 -29.2 269.5 236.5 32.96 8.177 4,700.0 4,681.6 4,688.7 4,881.7 17.3 16.8 -147.34 163.8 -29.2 279.7 246.0 33.67 8.308 4,800.0 4,780.9 4,787.9 4,781.0 17.7 17.2 -148.64 163.8 -29.2 290.1 255.7 34.38 8.438 4,900.0 4,881.6 4,688.7 4,880.2 18.1 17.5 -149.84 163.8 -29.2 300.5 265.5 35.08 8.566 5,000.0 4,979.4 4,986.5 4,979.5 18.5 17.9 -150.97 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 -151.37 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 -151.37 163.8 -29.2 315.1 279.1 36.06 8.740 5,100.0 5,178.4 5,185.4 5,178.5 19.3 18.6 -152.76 163.8 -29.2 312.3 284.8 36.50 8.801 5,200.0 5,178.4 5,185.4 5,178.5 19.3 18.6 -152.76 163.8 -29.2 32.3 32.9 295.0 37.92 8.778 5,387.1 5,365.4 5,372.4 5,365.5 19.9 19.3 -98.95 163.8 -29.2 334.1 295.5 38.54 8.669 5,400.0 5,478.2 5,865.3 5,478.3 20.3 19.6 18.9 -153.18 163.8 -29.2 334.1 295.5 38.54 8.669 5,500.0 5,478.2 5,865.3 5,578.3 20.6 20.0 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 5,500.0 5,578.2 5,865.3 5,578.3 20.6 20.0 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 5,500.0 5,578.2 5,865.3 5,578.3 21.0 20.4 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 5,500.0 5,578.2 5,865.3 5,578.3 21.0 20.4 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 5,500.0 5,578.2 5,865.3 5,578.3 21.0 20.4 -98.95 163.8 -29.2 334.1 294.0 40.04 8.344 5,700.0 5,578.2 5,865.3 5,578.3 21.0 20.4 -98.95 163.8 -29.2 334.1 294.0 40.04 8.344 5,700.0 5,578.2 5,865.3 5,578.3 21.0 20.4 -98.95 163.8 -29.2 334.1 294.0 40.04 8.344 5,700.0 5,578.2 5,865.3 5,578.3 21.0 20.4 -98.95 163.8 -29.2 334.1 290.5 43.57 7.668 6,000.0 5,578.2 5,865.3 5,578.3 21.0 20.4 -98.95 163.8 -29.2 334.	4,000.0	3,986.8	3,994.4	3,987.5	14.6	14.4	-136.29	158.8	-30.2	212.9	184.2	28.70	7.419		
4,300.0	4,100.0	4,086.1	4,093.5	4,086.6	14.9	14.7	-137.36	162.9	-29.4	221.6	192.2	29.42	7.531		
4,400.0 4,383.8 4,390.9 4,383.9 16.1 15.8 -142.82 163.8 -29.2 249.6 218.1 31.54 7.914 4,500.0 4,483.1 4,490.2 4,483.2 16.5 16.1 -144.44 163.8 -29.2 259.5 227.2 32.25 8.045 4,600.0 4,582.4 4,589.4 4,582.5 16.9 16.5 -145.94 163.8 -29.2 269.5 236.5 32.96 8.177 4,700.0 4,681.6 4,688.7 4,681.7 17.3 16.8 -147.34 163.8 -29.2 279.7 246.0 33.67 8.308 4,800.0 4,780.9 4,787.9 4,781.0 17.7 17.2 -148.64 163.8 -29.2 290.1 255.7 34.38 8.438 4,900.0 4,880.1 4,887.2 4,880.2 18.1 17.5 -149.84 163.8 -29.2 300.5 265.5 35.08 8.566 5,000.0 4,979.4 4,986.5 4,979.5 18.5 17.9 -150.97 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 -151.37 163.8 -29.2 315.1 279.1 36.06 8.740 5,100.0 5,078.7 5,085.8 5,078.8 18.9 18.2 -152.02 163.8 -29.2 315.1 279.1 36.06 8.740 5,200.0 5,178.4 5,185.4 5,178.5 19.3 18.6 -152.76 163.8 -29.2 32.8 291.4 37.21 8.831 5,300.0 5,278.2 5,285.3 5,278.3 19.6 18.9 -153.18 163.8 -29.2 334.1 295.5 38.54 8.669 5,400.0 5,378.2 5,385.3 5,378.3 20.0 19.3 -98.95 163.8 -29.2 334.1 295.5 38.54 8.669 5,400.0 5,478.2 5,485.3 5,578.3 20.6 20.0 -98.95 163.8 -29.2 334.1 294.0 40.04 8.344 5,700.0 5,678.2 5,885.3 5,678.3 21.0 20.4 -98.95 163.8 -29.2 334.1 291.0 40.04 8.344 5,700.0 5,778.2 5,885.3 5,778.3 20.6 20.0 -98.95 163.8 -29.2 334.1 291.0 40.04 8.344 5,700.0 5,678.2 5,885.3 5,878.3 21.0 20.4 -98.95 163.8 -29.2 334.1 291.0 40.04 8.344 5,700.0 5,678.2 5,885.3 5,878.3 21.0 20.4 -98.95 163.8 -29.2 334.1 291.0 40.04 8.344 5,700.0 5,678.2 5,885.3 5,878.3 21.0 20.4 -98.95 163.8 -29.2 334.1 291.0 40.04 8.344 5,700.0 5,678.2 5,885.3 5,878.3 21.0 20.4 -98.95 163.8 -29.2 334.1 291.0 40.04 8.344 5,700.0 5,678.2 5,885.3 5,878.3 21.7 21.1 -98.95 163.8 -29.2 334.1 291.0 40.04 8.344 5,700.0 5,678.2 5,885.3 5,878.3 21.7 21.1 -98.95 163.8 -29.2 334.1 291.0 40.04 8.344 5,700.0 5,678.2 5,885.3 5,878.3 21.7 21.1 -98.95 163.8 -29.2 334.1 290.5 43.57 7.668 6,000.0 5,978.2 6,885.3 5,878.3 22.0 21.4 -98.95 163.8 -29.2 334.1 290.5 43.57 7.668 6,000.0 6,078.2 6,085.3 6,078.3 22.4 21.8 -98.95 163.8 -29	4,200.0	4,185.3	4,192.4	4,185.4	15.3	15.1	-139.17	163.8	-29.2	230.6	200.5	30.13	7.654		
4,500.0 4,483.1 4,490.2 4,483.2 16.5 16.1 -144.44 163.8 -29.2 259.5 227.2 32.25 8.045 4,600.0 4,582.4 4,589.4 4,582.5 16.9 16.5 -145.94 163.8 -29.2 269.5 236.5 32.96 8.177 4,700.0 4,681.6 4,688.7 4,681.7 17.3 16.8 -147.34 163.8 -29.2 279.7 246.0 33.67 8.308 4,800.0 4,780.9 4,787.9 4,781.0 17.7 17.2 -148.64 163.8 -29.2 290.1 255.7 34.38 8.438 4,900.0 4,880.1 4,887.2 4,880.2 18.1 17.5 -149.84 163.8 -29.2 300.5 265.5 35.08 8.566 1,000.0 4,979.4 4,986.5 4,979.5 18.5 17.9 -150.97 163.8 -29.2 311.2 275.4 35.79 8.693 1,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 -151.37 163.8 -29.2 311.2 275.4 35.79 8.693 1,000.0 5,078.7 5,085.8 5,078.8 18.9 18.2 -152.02 163.8 -29.2 321.3 284.8 36.50 8.801 1,000.0 5,078.7 5,085.8 5,078.8 18.9 18.2 -152.02 163.8 -29.2 321.3 284.8 36.50 8.801 1,000.0 5,078.2 5,285.3 5,278.3 19.6 18.9 -153.18 163.8 -29.2 322.3 332.9 295.0 37.92 8.778 1,000.0 5,378.2 5,385.3 5,378.3 20.0 19.3 -98.95 163.8 -29.2 334.1 295.5 38.54 8.699 1,000.0 5,578.2 5,385.3 5,578.3 20.0 19.3 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 1,000.0 5,078.2 5,885.3 5,783.3 20.6 20.0 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 1,000.0 5,078.2 5,885.3 5,783.3 20.6 20.0 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 1,000.0 5,078.2 5,885.3 5,783.3 20.6 20.0 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 1,000.0 5,078.2 5,885.3 5,783.3 20.6 20.0 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 1,000.0 5,078.2 5,885.3 5,783.3 20.0 19.3 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 1,000.0 5,078.2 5,885.3 5,783.3 20.0 20.4 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 1,000.0 5,078.2 5,885.3 5,783.3 21.0 20.4 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 1,000.0 5,078.2 5,885.3 5,783.3 21.0 20.4 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 1,000.0 5,078.2 5,885.3 5,783.3 21.0 20.4 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 1,000.0 5,078.2 5,885.3 5,783.3 21.0 20.4 -98.95 163.8 -29.2 334.1 294.7 39.33 40.74 8.200 1,000.0 5,078.2 5,885.3 5,878.3 21.7 21.1 -98.95 163.8 -29.2 334.1 294.0 40.04 8.344 1,000.0 5,078.2 5,885.3 5,878.3 21.0 20.4 1,000.0 5,078.2 5,885.3 5,8	4,300.0	4,284.6	4,291.7	4,284.7	15.7	15.4	-141.06	163.8	-29.2	240.0	209.2	30.84	7.783		
4,600.0 4,582.4 4,589.4 4,582.5 16.9 16.5 -145.94 163.8 -29.2 269.5 236.5 32.96 8.177 4,700.0 4,681.6 4,688.7 4,681.7 17.3 16.8 -147.34 163.8 -29.2 279.7 246.0 33.67 8.308 4,800.0 4,780.9 4,787.9 4,781.0 17.7 17.2 -148.64 163.8 -29.2 290.1 255.7 34.38 8.438 4,900.0 4,880.1 4,887.2 4,880.2 18.1 17.5 -149.84 163.8 -29.2 300.5 265.5 35.08 8.566 16.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	4,400.0	4,383.8	4,390.9	4,383.9	16.1	15.8	-142.82	163.8	-29.2	249.6	218.1	31.54	7.914		
4,600.0 4,582.4 4,589.4 4,582.5 16.9 16.5 -145.94 163.8 -29.2 269.5 236.5 32.96 8.177 4,700.0 4,681.6 4,688.7 4,681.7 17.3 16.8 -147.34 163.8 -29.2 279.7 246.0 33.67 8.308 4,800.0 4,780.9 4,787.9 4,781.0 17.7 17.2 -148.64 163.8 -29.2 290.1 255.7 34.38 8.438 4,900.0 4,880.1 4,887.2 4,880.2 18.1 17.5 -149.84 163.8 -29.2 300.5 265.5 35.08 8.566 16.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	4.500.0	4.483.1	4.490.2	4.483.2	16.5	16.1	-144.44	163.8	-29.2	259.5	227.2	32.25	8.045		
4,700.0 4,681.6 4,688.7 4,681.7 17.3 16.8 -147.34 163.8 -29.2 279.7 246.0 33.67 8.308 4,800.0 4,780.9 4,787.9 4,781.0 17.7 17.2 -148.64 163.8 -29.2 290.1 255.7 34.38 8.438 4,900.0 4,880.1 4,887.2 4,880.2 18.1 17.5 -149.84 163.8 -29.2 300.5 265.5 35.08 8.566 5,000.0 4,979.4 4,986.5 4,979.5 18.5 17.9 -150.97 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 -151.37 163.8 -29.2 315.1 279.1 36.06 8.740 5,200.0 5,178.4 5,185.4 5,178.5 19.3 18.6 -152.76 163.8 -29.2 328.6 291.4 37.21 8.831 5,387.1 5,365.4 5,372.4 5,365.5 19.9 19.3 -98.95 163.8 -29.2 334.1 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>															
4,900.0 4,880.1 4,887.2 4,880.2 18.1 17.5 -149.84 163.8 -29.2 300.5 265.5 35.08 8.566 5,000.0 4,979.4 4,986.5 4,979.5 18.5 17.9 -150.97 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 -151.37 163.8 -29.2 315.1 279.1 36.06 8.740 5,100.0 5,078.7 5,085.8 5,078.8 18.9 18.2 -152.02 163.8 -29.2 321.3 284.8 36.50 8.801 5,200.0 5,178.4 5,185.4 5,176.5 19.3 18.6 -152.76 163.8 -29.2 328.6 291.4 37.21 8.831 5,300.0 5,278.2 5,285.3 5,278.3 19.6 18.9 -153.18 163.8 -29.2 334.1 295.5 38.54 8.669 5,387.1 5,365.3 5,378.3 20.0 19.3 -98.95 163.8 -29.2 334.1 295.5	4,700.0	4,681.6	4,688.7	4,681.7	17.3	16.8	-147.34	163.8	-29.2	279.7	246.0	33.67	8.308		
5,000.0 4,979.4 4,986.5 4,979.5 18.5 17.9 -150.97 163.8 -29.2 311.2 275.4 35.79 8.693 5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 -151.37 163.8 -29.2 315.1 279.1 36.06 8.740 5,100.0 5,078.7 5,088.8 5,078.8 18.9 18.2 -152.02 163.8 -29.2 321.3 284.8 36.50 8.801 5,200.0 5,178.4 5,185.4 5,178.5 19.3 18.6 -152.76 163.8 -29.2 328.6 291.4 37.21 8.831 5,300.0 5,278.2 5,285.3 5,278.3 19.6 18.9 -153.18 163.8 -29.2 332.9 295.0 37.92 8.778 5,387.1 5,365.4 5,372.4 5,365.5 19.9 19.3 -98.95 163.8 -29.2 334.1 295.5 38.54 8.669 5,400.0 5,378.2 5,385.3 5,378.3 20.0 19.3 -98.95 163.8 -29.2 334.1 <td< td=""><td>4,800.0</td><td>4,780.9</td><td>4,787.9</td><td>4,781.0</td><td>17.7</td><td>17.2</td><td>-148.64</td><td>163.8</td><td>-29.2</td><td>290.1</td><td>255.7</td><td>34.38</td><td>8.438</td><td></td><td></td></td<>	4,800.0	4,780.9	4,787.9	4,781.0	17.7	17.2	-148.64	163.8	-29.2	290.1	255.7	34.38	8.438		
5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 -151.37 163.8 -29.2 315.1 279.1 36.06 8.740 5,100.0 5,078.7 5,085.8 5,078.8 18.9 18.2 -152.02 163.8 -29.2 321.3 284.8 36.50 8.801 5,200.0 5,178.4 5,185.4 5,178.5 19.3 18.6 -152.76 163.8 -29.2 328.6 291.4 37.21 8.831 5,300.0 5,278.2 5,285.3 5,278.3 19.6 18.9 -153.18 163.8 -29.2 332.9 295.0 37.92 8.778 5,387.1 5,365.4 5,372.4 5,365.5 19.9 19.3 -98.95 163.8 -29.2 334.1 295.5 38.54 8.669 5,400.0 5,378.2 5,385.3 5,378.3 20.0 19.3 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 5,600.0 5,678.2 5,585.3 5,578.3 20.6 20.0 -98.95 163.8 -29.2 334.1	4,900.0	4,880.1	4,887.2	4,880.2	18.1	17.5	-149.84	163.8	-29.2	300.5	265.5	35.08	8.566		
5,037.1 5,016.2 5,023.3 5,016.3 18.6 18.0 -151.37 163.8 -29.2 315.1 279.1 36.06 8.740 5,100.0 5,078.7 5,085.8 5,078.8 18.9 18.2 -152.02 163.8 -29.2 321.3 284.8 36.50 8.801 5,200.0 5,178.4 5,185.4 5,178.5 19.3 18.6 -152.76 163.8 -29.2 328.6 291.4 37.21 8.831 5,300.0 5,278.2 5,285.3 5,278.3 19.6 18.9 -153.18 163.8 -29.2 332.9 295.0 37.92 8.778 5,387.1 5,365.4 5,372.4 5,365.5 19.9 19.3 -98.95 163.8 -29.2 334.1 295.5 38.54 8.669 5,400.0 5,378.2 5,385.3 5,378.3 20.0 19.3 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 5,600.0 5,678.2 5,585.3 5,578.3 20.6 20.0 -98.95 163.8 -29.2 334.1	5,000.0	4,979.4	4,986.5	4,979.5	18.5	17.9	-150.97	163.8	-29.2	311.2	275.4	35.79	8.693		
5,100.0 5,078.7 5,085.8 5,078.8 18.9 18.2 -152.02 163.8 -29.2 321.3 284.8 36.50 8.801 5,200.0 5,178.4 5,185.4 5,178.5 19.3 18.6 -152.76 163.8 -29.2 328.6 291.4 37.21 8.831 5,300.0 5,278.2 5,285.3 5,278.3 19.6 18.9 -153.18 163.8 -29.2 332.9 295.0 37.92 8.778 5,387.1 5,365.4 5,372.4 5,365.5 19.9 19.3 -98.95 163.8 -29.2 334.1 295.5 38.54 8.669 5,400.0 5,378.2 5,385.3 5,378.3 20.0 19.3 -98.95 163.8 -29.2 334.1 295.5 38.63 8.648 5,500.0 5,478.2 5,485.3 5,478.3 20.3 19.7 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 5,600.0 5,578.2 5,585.3 5,578.3 20.6 20.0 -98.95 163.8 -29.2 334.1 2															
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5,400.0 5,378.2 5,385.3 5,378.3 20.0 19.3 -98.95 163.8 -29.2 334.1 295.4 38.63 8.648 5,500.0 5,478.2 5,485.3 5,478.3 20.3 19.7 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 5,600.0 5,578.2 5,585.3 5,578.3 20.6 20.0 -98.95 163.8 -29.2 334.1 294.0 40.04 8.344 5,700.0 5,678.2 5,685.3 5,678.3 21.0 20.4 -98.95 163.8 -29.2 334.1 293.3 40.74 8.200 5,800.0 5,778.2 5,785.3 5,778.3 21.3 20.7 -98.95 163.8 -29.2 334.1 292.6 41.45 8.060 5,900.0 5,878.2 5,885.3 5,878.3 21.7 21.1 -98.95 163.8 -29.2 334.1 291.9 42.15 7.925 6,000.0 5,978.2 5,985.3 5,978.3 22.0 21.4 -98.95 163.8 -29.2 334.1 291.	5,300.0	5,278.2	5,285.3	5,278.3	19.6	18.9	-153.18	163.8	-29.2	332.9	295.0	37.92	8.778		
5,500.0 5,478.2 5,485.3 5,478.3 20.3 19.7 -98.95 163.8 -29.2 334.1 294.7 39.33 8.494 5,600.0 5,578.2 5,585.3 5,578.3 20.6 20.0 -98.95 163.8 -29.2 334.1 294.0 40.04 8.344 5,700.0 5,678.2 5,685.3 5,678.3 21.0 20.4 -98.95 163.8 -29.2 334.1 293.3 40.74 8.200 5,800.0 5,778.2 5,785.3 5,778.3 21.3 20.7 -98.95 163.8 -29.2 334.1 292.6 41.45 8.060 5,900.0 5,878.2 5,885.3 5,878.3 21.7 21.1 -98.95 163.8 -29.2 334.1 291.9 42.15 7.925 6,000.0 5,978.2 5,985.3 5,978.3 22.0 21.4 -98.95 163.8 -29.2 334.1 291.9 42.15 7.925 6,000.0 6,078.2 6,085.3 6,078.3 22.4 21.8 -98.95 163.8 -29.2 334.1 290.	5,387.1	5,365.4	5,372.4	5,365.5	19.9	19.3	-98.95	163.8	-29.2	334.1	295.5	38.54	8.669		
5,600.0 5,578.2 5,585.3 5,578.3 20.6 20.0 -98.95 163.8 -29.2 334.1 294.0 40.04 8.344 5,700.0 5,678.2 5,685.3 5,678.3 21.0 20.4 -98.95 163.8 -29.2 334.1 293.3 40.74 8.200 5,800.0 5,778.2 5,785.3 5,778.3 21.3 20.7 -98.95 163.8 -29.2 334.1 292.6 41.45 8.060 5,900.0 5,878.2 5,885.3 5,878.3 21.7 21.1 -98.95 163.8 -29.2 334.1 291.9 42.15 7.925 6,000.0 5,978.2 5,985.3 5,978.3 22.0 21.4 -98.95 163.8 -29.2 334.1 291.9 42.15 7.925 6,100.0 6,078.2 6,085.3 6,078.3 22.4 21.8 -98.95 163.8 -29.2 334.1 290.5 43.57 7.668 6,200.0 6,178.2 6,185.3 6,178.3 22.7 22.1 -98.95 163.8 -29.2 334.1 289.	5,400.0	5,378.2	5,385.3	5,378.3	20.0	19.3	-98.95	163.8	-29.2	334.1	295.4	38.63	8.648		
5,700.0 5,678.2 5,685.3 5,678.3 21.0 20.4 -98.95 163.8 -29.2 334.1 293.3 40.74 8.200 5,800.0 5,778.2 5,785.3 5,778.3 21.3 20.7 -98.95 163.8 -29.2 334.1 292.6 41.45 8.060 5,900.0 5,878.2 5,885.3 5,878.3 21.7 21.1 -98.95 163.8 -29.2 334.1 291.9 42.15 7.925 6,000.0 5,978.2 5,985.3 5,978.3 22.0 21.4 -98.95 163.8 -29.2 334.1 291.2 42.86 7.795 6,100.0 6,078.2 6,085.3 6,078.3 22.4 21.8 -98.95 163.8 -29.2 334.1 290.5 43.57 7.668 6,200.0 6,178.2 6,185.3 6,178.3 22.7 22.1 -98.95 163.8 -29.2 334.1 289.8 44.27 7.546	5,500.0	5,478.2	5,485.3	5,478.3	20.3	19.7	-98.95	163.8	-29.2	334.1	294.7	39.33	8.494		
5,800.0 5,778.2 5,785.3 5,778.3 21.3 20.7 -98.95 163.8 -29.2 334.1 292.6 41.45 8.060 5,900.0 5,878.2 5,885.3 5,878.3 21.7 21.1 -98.95 163.8 -29.2 334.1 291.9 42.15 7.925 6,000.0 5,978.2 5,985.3 5,978.3 22.0 21.4 -98.95 163.8 -29.2 334.1 291.2 42.86 7.795 6,100.0 6,078.2 6,085.3 6,078.3 22.4 21.8 -98.95 163.8 -29.2 334.1 290.5 43.57 7.668 6,200.0 6,178.2 6,185.3 6,178.3 22.7 22.1 -98.95 163.8 -29.2 334.1 289.8 44.27 7.546	5,600.0	5,578.2	5,585.3	5,578.3	20.6	20.0	-98.95	163.8	-29.2	334.1	294.0	40.04	8.344		
5,900.0 5,878.2 5,885.3 5,878.3 21.7 21.1 -98.95 163.8 -29.2 334.1 291.9 42.15 7,925 6,000.0 5,978.2 5,985.3 5,978.3 22.0 21.4 -98.95 163.8 -29.2 334.1 291.2 42.86 7.795 6,100.0 6,078.2 6,085.3 6,078.3 22.4 21.8 -98.95 163.8 -29.2 334.1 290.5 43.57 7.668 6,200.0 6,178.2 6,185.3 6,178.3 22.7 22.1 -98.95 163.8 -29.2 334.1 289.8 44.27 7.546	5,700.0	5,678.2	5,685.3	5,678.3	21.0	20.4	-98.95	163.8	-29.2	334.1	293.3	40.74	8.200		
5,900.0 5,878.2 5,885.3 5,878.3 21.7 21.1 -98.95 163.8 -29.2 334.1 291.9 42.15 7,925 6,000.0 5,978.2 5,985.3 5,978.3 22.0 21.4 -98.95 163.8 -29.2 334.1 291.2 42.86 7.795 6,100.0 6,078.2 6,085.3 6,078.3 22.4 21.8 -98.95 163.8 -29.2 334.1 290.5 43.57 7.668 6,200.0 6,178.2 6,185.3 6,178.3 22.7 22.1 -98.95 163.8 -29.2 334.1 289.8 44.27 7.546	5,800.0	5,778.2	5,785.3	5,778.3	21.3	20.7	-98.95	163.8	-29.2	334.1	292.6	41.45	8.060		
6,000.0 5,978.2 5,985.3 5,978.3 22.0 21.4 -98.95 163.8 -29.2 334.1 291.2 42.86 7.795 6,100.0 6,078.2 6,085.3 6,078.3 22.4 21.8 -98.95 163.8 -29.2 334.1 290.5 43.57 7.668 6,200.0 6,178.2 6,185.3 6,178.3 22.7 22.1 -98.95 163.8 -29.2 334.1 289.8 44.27 7.546															
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6,300.0 6,278.2 6,285.3 6,278.3 23.0 22.5 -98.95 163.8 -29.2 334.1 289.1 44.98 7.427															
	6,300.0	6,278.2	6,285.3	6,278.3	23.0	22.5	-98.95	163.8	-29.2	334.1	289.1	44.98	7.427		

Anticollision Report

Company: **NEW MEXICO**

Project: (SP) LEA Reference Site: PASKE PROJECT

Site Error: 0.0 usft

Reference Well: PAKSE 3 SOUTH FED COM 322H

Well Error: 0.0 usft Reference Wellbore OWB Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: **Survey Calculation Method:**

Output errors are at Database:

Offset TVD Reference:

2.00 sigma

Compass Offset Datum

Grid

KB @ 3570.2usft

KB @ 3570.2usft

Minimum Curvature

Well PAKSE 3 SOUTH FED COM 322H

B		MWD								Dode Ac.			Off4 W-II F	0.0
	rence	Off	set		Major Axis		Offset Wellb	ore Centre		Rule Assignance	-		Offset Well Error:	0.0 u
leasured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
6,400.0	6,378.2	6,385.3	6,378.3	23.4	22.9	-98.95	163.8	-29.2	334.1	288.4	45.69	7.312		
6,500.0	6,478.2	6,485.3	6,478.3	23.7	23.2	-98.95	163.8	-29.2	334.1	287.7	46.40	7.200		
6,600.0	6,578.2	6,585.3	6,578.3	24.1	23.6	-98.95	163.8	-29.2	334.1	287.0	47.10	7.092		
6,700.0	6,678.2	6,685.3	6,678.3	24.4	23.9	-98.95	163.8	-29.2	334.1	286.3	47.81	6.987		
6,800.0	6,778.2	6,785.3	6,778.3	24.8	24.3	-98.95	163.8	-29.2	334.1	285.5	48.52	6.885		
6,900.0	6,878.2	6,885.3	6,878.3	25.1	24.6	-98.95	163.8	-29.2	334.1	284.8	49.23	6.786		
7,000.0	6,978.2	6,985.3	6,978.3	25.5	25.0	-98.95	163.8	-29.2	334.1	284.1	49.94	6.690		
7,100.0	7,078.2	7,085.3	7,078.3	25.8	25.4	-98.95	163.8	-29.2	334.1	283.4	50.65	6.596		
7,200.0	7,178.2	7,185.3	7,178.3	26.2	25.7	-98.95	163.8	-29.2	334.1	282.7	51.36	6.505		
7,300.0	7,278.2	7,285.3	7,278.3	26.5	26.1	-98.95	163.8	-29.2	334.1	282.0	52.07	6.416		
7,400.0	7,378.2	7,385.3	7,378.3	26.9	26.4	-98.95	163.8	-29.2	334.1	281.3	52.78	6.330		
7,500.0	7,478.2	7,485.3	7,478.3	27.2	26.8	-98.95	163.8	-29.2	334.1	280.6	53.49	6.246		
7,600.0	7,578.2	7,585.3	7,578.3	27.6	27.1	-98.95	163.8	-29.2	334.1	279.9	54.20	6.164		
7,700.0	7,678.2	7,685.3	7,678.3	27.9	27.5	-98.95	163.8	-29.2	334.1	279.2	54.91	6.084		
7,800.0	7,778.2	7,785.3	7,778.3	28.3	27.8	-98.95	163.8	-29.2	334.1	278.4	55.62	6.006		
7,900.0	7,878.2	7,885.3	7,878.3	28.6	28.2	-98.95	163.8	-29.2	334.1	277.7	56.33	5.931		
8,000.0	7,978.2	7,985.3	7,978.3	29.0	28.6	-98.95	163.8	-29.2	334.1	277.0	57.04	5.857		
8,100.0	8,078.2	8,085.3	8,078.3	29.3	28.9	-98.95	163.8	-29.2	334.1	276.3	57.75	5.785		
8,200.0	8,178.2	8,185.3	8,178.3	29.7	29.3	-98.95	163.8	-29.2	334.1	275.6	58.46	5.714		
8,300.0	8,278.2	8,285.3	8,278.3	30.0	29.6	-98.95	163.8	-29.2	334.1	274.9	59.17	5.646		
8,400.0	8,378.2	8,385.3	8,378.3	30.4	30.0	-98.95	163.8	-29.2	334.1	274.2	59.88	5.578		
8,410.4	8,388.6	8,395.7	8,388.7	30.4	30.0	-98.95	163.8	-29.2	334.1	274.1	59.96	5.572		
8,500.0	8,478.2	8,483.8	8,476.8	30.7	30.3	-98.99	163.6	-29.2	334.1	273.5	60.58	5.515		
8,600.0	8,578.2	8,572.7	8,564.9	31.1	30.6	-100.83	152.7	-29.1	336.2	275.1	61.12	5.500		
8,700.0	8,678.2	8,655.0	8,643.4	31.4	30.8	-104.87	128.3	-29.0	343.0	281.6	61.40	5.586		
8,800.0	8,778.2	8,725.0	8,706.0	31.8	31.0	-109.81	97.1	-28.8	357.7	296.6	61.05	5.859		
8,900.0	8,878.2	8,788.3	8,758.1	32.1	31.2	-115.13	61.3	-28.6	383.1	323.1	60.00	6.386		
9,000.0	8,978.2	8,839.2	8,796.4	32.5	31.3	-119.75	27.7	-28.4	420.5	362.4	58.07	7.242		
9,100.0	9,078.2	8,881.4	8,825.2	32.8	31.4	-123.64	-3.1	-28.2	469.3	413.6	55.64	8.434		
9,200.0	9,178.2	8,916.3	8,846.9	33.2	31.4	-126.83	-30.4	-28.0	527.8	474.7	53.08	9.943		
9,300.0	9,278.2	8,950.0	8,865.9	33.5	31.5	-129.83	-58.2	-27.8	594.3	543.4	50.86	11.685		
9,400.0	9,378.2	8,975.0	8,878.7	33.9	31.6	-131.98	-79.7	-27.7	666.9	618.2	48.74	13.685		
9,500.0	9,478.2	8,990.8	8,886.3	34.2	31.6	-133.30	-93.6	-27.6	744.4	697.6	46.75	15.924		

Anticollision Report

Company: **NEW MEXICO**

Project: (SP) LEA Reference Site: PASKE PROJECT

Site Error: 0.0 usft

Reference Well: PAKSE 3 SOUTH FED COM 322H

Well Error: 0.0 usft Reference Wellbore OWB Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: **Survey Calculation Method:**

Output errors are at

Database:

Offset TVD Reference:

Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft

Grid

Minimum Curvature

		MM								Dula Assi			Office Mall Firm	0.0
urvey Prog Refer	ence	MWD Off:			Major Axis		Offset Wellb	ore Centre	Dist	Rule Assig	-		Offset Well Error:	0.0 us
leasured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.1	0.1	0.0	0.0	89.66	0.2	30.0	30.0					
100.0	100.0	100.1	100.1	0.3	0.3	89.66	0.2	30.0	30.0	29.5	0.50	59.736		
200.0	200.0	200.1	200.1	0.6	0.6	89.66	0.2	30.0	30.0	28.8	1.22	24.608		
300.0	300.0	300.1	300.1	1.0	1.0	89.66	0.2	30.0	30.0	28.1	1.94	15.495		
400.0	400.0	400.1	400.1	1.3	1.3	89.66	0.2	30.0	30.0	27.3	2.65	11.308		
500.0	500.0	500.1	500.1	1.7	1.7	89.66	0.2	30.0	30.0	26.6	3.37	8.902		
600.0	600.0	600.1	600.1	2.0	2.0	89.66	0.2	30.0	30.0	25.9	4.09	7.341		
700.0	700.0	700.1	700.1	2.4	2.4	89.66	0.2	30.0	30.0	25.2	4.80	6.245		
800.0	800.0	800.1	800.1	2.8	2.8	89.66	0.2	30.0	30.0	24.5	5.52	5.434		
900.0	900.0	900.1	900.1	3.1	3.1	89.66	0.2	30.0	30.0	23.8	6.24	4.810		
1,000.0	1,000.0	1,000.1	1,000.1	3.5	3.5	89.66	0.2	30.0	30.0	23.0	6.95	4.314		
1,100.0	1,100.0	1,100.1	1,100.1	3.8	3.8	89.66	0.2	30.0	30.0	22.3	7.67	3.911		
1,200.0	1,200.0	1,200.1	1,200.1	4.2	4.2	89.66	0.2	30.0	30.0	21.6	8.39	3.576		
1,300.0	1,300.0	1,300.1	1,300.1	4.6	4.6	89.66	0.2	30.0	30.0	20.9	9.11	3.295		
1,400.0	1,400.0	1,400.1	1,400.1	4.9	4.9	89.66	0.2	30.0	30.0	20.2	9.82	3.054		
1,500.0	1,500.0	1,500.1	1,500.1	5.3	5.3	89.66	0.2	30.0	30.0	19.5	10.54	2.847		
1,600.0	1,600.0	1,600.1	1,600.1	5.6	5.6	89.66	0.2	30.0	30.0	18.7	11.26	2.665		
1,700.0	1,700.0	1,700.1	1,700.1	6.0	6.0	89.66	0.2	30.0	30.0	18.0	11.97	2.506		
1,800.0	1,800.0	1,800.1	1,800.1	6.3	6.3	89.66	0.2	30.0	30.0	17.3	12.69	2.364		
1,900.0	1,900.0	1,900.1	1,900.1	6.7	6.7	89.66	0.2	30.0	30.0	16.6	13.41	2.238		
1,966.6	1,966.6	1,966.7	1,966.7	6.9	6.9	89.66	0.2	30.0	30.0	16.1	13.88	2.161 CC		
2,000.0	2,000.0	2,000.0	2,000.0	7.1	7.1	89.66	0.2	30.0	30.0	15.9	14.12	2.124		
2,100.0	2,100.0	2,099.1	2,099.1	7.4	7.4	36.65	0.5	31.7	30.3	15.5	14.82	2.044 ES		
2,200.0	2,199.8	2,198.0	2,197.9	7.8	7.8	40.50	1.4	36.7	31.3	15.8	15.49	2.018 SF		
2,300.0	2,299.5	2,296.9	2,296.4	8.1	8.1	46.37	2.9	45.1	33.1	17.0	16.15	2.052		
2,350.0	2,349.1	2,346.3	2,345.4	8.3	8.3	49.80	3.8	50.6	34.5	18.1	16.48	2.096		
2,400.0	2,398.8	2,395.7	2,394.4	8.5	8.4	52.90	5.0	56.9	36.6	19.7	16.81	2.175		
2,500.0	2,498.0	2,494.2	2,491.8	8.8	8.8	56.31	7.6	71.9	43.0	25.6	17.46	2.465		
2,600.0	2,597.3	2,592.4	2,588.2	9.2	9.2	56.77	10.9	90.1	52.5	34.4	18.10	2.902		
2,700.0	2,696.5	2,691.6	2,685.3	9.6	9.6	56.16	14.5	110.4	63.7	44.9	18.81	3.387		
2,800.0	2,795.8	2,791.0	2,782.5	10.0	9.9	55.73	18.1	130.7	74.9	55.4	19.53	3.835		
2,900.0	2,895.0	2,890.4	2,879.7	10.3	10.4	55.42	21.7	151.1	86.1	65.8	20.26	4.250		
3,000.0	2,994.3	2,989.7	2,976.9	10.7	10.8	55.17	25.3	171.4	97.3	76.3	20.99	4.635		
3,100.0	3,093.5	3,089.1	3,074.1	11.1	11.2	54.98	28.9	191.8	108.5	86.7	21.72	4.993		
3,200.0	3,192.8	3,188.5	3,171.3	11.5	11.6	54.82	32.6	212.1	119.7	97.2	22.47	5.327		
3,300.0	3,292.0	3,287.9	3,268.5	11.8	12.0	54.69	36.2	232.4	130.9	107.6	23.21	5.638		
3,400.0	3,391.3	3,387.2	3,365.6	12.2	12.4	54.58	39.8	252.8	142.1	118.1	23.96	5.929		
3,500.0	3,490.6	3,486.6	3,462.8	12.6	12.9	54.48	43.4	273.1	153.2	128.5	24.71	6.202		
3,600.0	3,589.8	3,586.0	3,560.0	13.0	13.3	54.40	47.0	293.5	164.4	139.0	25.46	6.458		
3,700.0	3,689.1	3,685.3	3,657.2	13.4	13.8	54.33	50.6	313.8	175.6	149.4	26.22	6.699		
3,800.0	3,788.3	3,784.7	3,754.4	13.8	14.2	54.27	54.3	334.1	186.8	159.9	26.98	6.926		
3,900.0	3,887.6	3,884.1	3,851.6	14.2	14.7	54.21	57.9	354.5	198.0	170.3	27.74	7.139		
4,000.0	3,986.8	3,983.5	3,948.8	14.6	15.1	54.16	61.5	374.8	209.2	180.7	28.50	7.139		
4,100.0	4,086.1	4,082.8	4,046.0	14.9	15.6	54.12	65.1	395.2	220.4	191.2	29.26	7.532		
4,200.0	4,185.3	4,182.2	4,143.2	15.3	16.0	54.08	68.7	415.5	231.6	201.6	30.03	7.712		
4,300.0	4,284.6	4,281.6	4,240.4	15.7	16.5	54.04	72.3	435.9	242.8	212.0	30.80	7.884		
4,400.0	4,383.8	4,380.9	4,337.6	16.1	16.9	54.01	76.0	456.2	254.0	222.4	31.57	8.046		
4,400.0	4,383.8	4,380.9	4,337.6	16.1	16.9	53.98	76.0 79.6	456.2 476.5	254.0 265.2	232.9	31.57	8.046 8.201		
4,600.0	4,582.4	4,579.7	4,532.0	16.9	17.4	53.95	83.2	496.9	276.4	243.3	33.11	8.348		
4,700.0	4,681.6	4,679.1	4,629.2	17.3	18.3	53.93	86.8	517.2	287.6	253.7	33.88	8.488		
4,800.0	4,780.9	4,778.4	4,726.4	17.7	18.8	53.90	90.4	537.6	298.8	264.1	34.66	8.621		

Anticollision Report

Company: **NEW MEXICO**

Project: (SP) LEA Reference Site: PASKE PROJECT

Site Error: 0.0 usft

Reference Well: PAKSE 3 SOUTH FED COM 322H

Well Error: 0.0 usft Reference Wellbore OWB Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method: Output errors are at

Database:

Offset TVD Reference:

Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft

Grid

Minimum Curvature

Offset D	esign: ^{PA}	SKE PRO	JECT -	PAKSE 3 S	SOUTH	ED COM	113H - OWB -	- PWP0					Offset Site Error:	0.0 usft
Survey Pro	gram: 0- rence	MWD Off	not.	Com! 8	Major Axis		Offset Wellbo	oro Contro	Dia	Rule Assi	gned:		Offset Well Error:	0.0 usft
Measured Depth (usft)		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,000.0	4,979.4	4,977.2	4,920.8	18.5	19.7	53.86	97.7	578.2	321.2	285.0	36.21	8.870		
5,037.1	5,016.2	5,014.1	4,956.9	18.6	19.9	53.85	99.0	585.8	325.3	288.8	36.50	8.914		
5,100.0	5,078.7	5,076.5	5,018.0	18.9	20.2	53.86	101.3	598.6	332.8	295.8	36.98	8.999		
5,200.0	5,178.4	5,175.5	5,114.9	19.3	20.6	53.54	104.9	618.8	346.3	308.6	37.72	9.181		
5,300.0	5,278.2	5,274.1	5,211.3	19.6	21.1	52.84	108.5	639.0	361.9	323.5	38.43	9.419		
5,387.1	5,365.4	5,359.6	5,294.9	19.9	21.5	106.33	111.6	656.5	377.4	338.3	39.02	9.671		
5,400.0	5,378.2	5,372.2	5,307.2	20.0	21.6	106.15	112.0	659.1	379.8	340.7	39.11	9.711		
5,500.0	5,478.2	5,470.0	5,402.9	20.3	22.0	104.84	115.6	679.1	398.6	358.8	39.77	10.021		
5,600.0	5,578.2	5,567.8	5,498.6	20.6	22.5	103.64	119.1	699.1	417.6	377.2	40.45	10.325		
5,700.0	5,678.2	5,665.6	5,594.2	21.0	22.9	102.54	122.7	719.2	436.8	395.7	41.13	10.621		
5,800.0	5,778.2	5,763.4	5,689.9	21.3	23.4	101.54	126.3	739.2	456.1	414.3	41.81	10.909		
5,900.0	5,878.2	5,861.2	5,785.6	21.7	23.9	100.62	129.8	759.2	475.6	433.1	42.50	11.191		
6,000.0	5,978.2	5,959.0	5,881.3	22.0	24.3	99.77	133.4	779.2	495.1	451.9	43.18	11.465		
6,100.0	6,078.2	6,056.9	5,976.9	22.4	24.8	98.99	136.9	799.3	514.8	470.9	43.88	11.732		
6,200.0	6,178.2	6,154.7	6,072.6	22.7	25.3	98.26	140.5	819.3	534.5	489.9	44.57	11.992		
6,300.0	6,278.2	6,252.5	6,168.3	23.0	25.7	97.59	144.1	839.3	554.3	509.0	45.27	12.245		
6,400.0	6,378.2	6,350.3	6,264.0	23.4	26.2	96.96	147.6	859.3	574.2	528.2	45.97	12.491		
6,500.0	6,478.2	6,448.1	6,359.7	23.7	26.7	96.37	151.2	879.4	594.1	547.5	46.67	12.731		
6,600.0	6,578.2	6,545.9	6,455.3	24.1	27.1	95.82	154.7	899.4	614.1	566.8	47.37	12.964		
6,700.0	6,678.2	6,643.8	6,551.0	24.4	27.6	95.31	158.3	919.4	634.2	586.1	48.08	13.191		
6,800.0	6,778.2	6,766.8	6,671.8	24.8	28.2	94.76	162.4	942.4	652.6	603.6	49.02	13.312		
6,900.0	6,878.2	6,894.1	6,797.7	25.1	28.7	94.34	165.7	960.8	666.8	616.9	49.93	13.355		
7,000.0	6,978.2	7,022.9	6,925.8	25.5	29.2	94.07	168.0	973.8	676.7	626.0	50.76	13.333		
7,100.0	7,078.2	7,152.5	7,055.3	25.8	29.7	93.91	169.3	981.1	682.3	630.8	51.50	13.248		
7,200.0	7,178.2	7,275.6	7,178.3	26.2	30.1	93.88	169.6	982.8	683.6	631.4	52.17	13.103		
7,300.0	7,278.2	7,375.6	7,278.3	26.5	30.4	93.88	169.6	982.8	683.6	630.7	52.86	12.933		
7,400.0	7,378.2	7,475.6	7,378.3	26.9	30.7	93.88	169.6	982.8	683.6	630.1	53.54	12.767		
7,500.0	7,478.2	7,575.6	7,478.3	27.2	31.0	93.88	169.6	982.8	683.6	629.4	54.23	12.606		
7,600.0	7,578.2	7,675.6	7,578.3	27.6	31.3	93.88	169.6	982.8	683.6	628.7	54.92	12.448		
7,700.0	7,678.2	7,775.6	7,678.3	27.9	31.6	93.88	169.6	982.8	683.6	628.0	55.60	12.294		
7,800.0	7,778.2	7,875.6	7,778.3	28.3	31.9	93.88	169.6	982.8	683.6	627.3	56.29	12.143		
7,900.0	7,878.2	7,975.6	7,878.3	28.6	32.2	93.88	169.6	982.8	683.6	626.6	56.98	11.997		
8,000.0	7,978.2	8,075.6	7,978.3	29.0	32.5	93.88	169.6	982.8	683.6	625.9	57.67	11.853		
8,100.0	8,078.2	8,175.6	8,078.3	29.3	32.8	93.88	169.6	982.8	683.6	625.2	58.36	11.713		
8,200.0	8,178.2	8,275.6	8,178.3	29.7	33.1	93.88	169.6	982.8	683.6	624.5	59.06	11.576		
8,300.0	8,278.2	8,375.6	8,278.3	30.0	33.4	93.88	169.6	982.8	683.6	623.8	59.75	11.441		
8,400.0	8,378.2	8,475.6	8,378.3	30.4	33.7	93.88	169.6	982.8	683.6	623.2	60.44	11.310		
8,500.0	8,478.2	8,575.6	8,478.3	30.7	34.1	93.88	169.6	982.8	683.6	622.5	61.13	11.182		
8,600.0	8,578.2	8,668.5	8,571.0	31.1	34.3	94.23	165.3	982.8	684.0	622.1	61.83	11.062		
8,700.0	8,678.2	8,754.3	8,654.6	31.4	34.6	95.81	146.4	982.9	686.1	623.6	62.54	10.971		
8,800.0	8,778.2	8,831.2	8,725.5	31.8	34.7	98.25	116.9	983.1	691.5	628.3	63.19	10.943		
8,900.0	8,878.2	8,900.0	8,784.2	32.1	34.9	101.16	81.2	983.3	702.0	638.3	63.69	11.023		
9,000.0	8,978.2	8,950.0	8,823.4	32.5	35.0	103.64	50.1	983.5	719.4	655.6	63.78	11.279		
9,100.0	9,078.2	9,000.0	8,859.1	32.8	35.0	106.37	15.2	983.7	744.8	681.2	63.54	11.721		
9,200.0	9,178.2	9,036.6	8,882.8	33.2	35.1	108.50	-12.7	983.9	778.6	715.8	62.79	12.400		

Anticollision Report

Company: **NEW MEXICO**

Project: (SP) LEA Reference Site: PASKE PROJECT

Site Error: 0.0 usft

Reference Well: PAKSE 3 SOUTH FED COM 322H

Well Error: 0.0 usft Reference Wellbore OWB Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: **Survey Calculation Method:**

Output errors are at Database:

Offset TVD Reference:

Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft

Grid

Minimum Curvature

urvey Progr								PWP0					Offset Site Error:	0.0 usf
Refere	ence	MWD Off		Semi M	Major Axis		Offset Wellbo	re Centre		Rule Assig			Offset Well Error:	0.0 usf
Measured \ Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	i actor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.32	-0.2	-30.0	30.0					
100.0	100.0	99.8	99.8	0.3	0.3	-90.32	-0.2	-30.0	30.0	29.5	0.50	59.702		
200.0	200.0	199.8	199.8	0.6	0.6	-90.32	-0.2	-30.0	30.0	28.8	1.22	24.606		
300.0	300.0	299.8	299.8	1.0	1.0	-90.32	-0.2	-30.0	30.0	28.1	1.94	15.495		
400.0	400.0	399.8	399.8	1.3	1.3	-90.32	-0.2	-30.0	30.0	27.3	2.65	11.308		
500.0	500.0	499.8	499.8	1.7	1.7	-90.32	-0.2	-30.0	30.0	26.6	3.37	8.902		
600.0	600.0	599.8	599.8	2.0	2.0	-90.32	-0.2	-30.0	30.0	25.9	4.09	7.340		
700.0	700.0	699.8	699.8	2.4	2.4	-90.32	-0.2	-30.0	30.0	25.2	4.80	6.245		
800.0	800.0	799.8	799.8	2.8	2.8	-90.32	-0.2	-30.0	30.0	24.5	5.52	5.434		
900.0	900.0	899.8	899.8	3.1	3.1	-90.32	-0.2	-30.0	30.0	23.8	6.24	4.809		
1,000.0	1,000.0	999.8	999.8	3.5	3.5	-90.32	-0.2	-30.0	30.0	23.0	6.95	4.314		
1,100.0	1,100.0	1,099.8	1,099.8	3.8	3.8	-90.32	-0.2	-30.0	30.0	22.3	7.67	3.911		
1,200.0	1,200.0	1,199.8	1,199.8	4.2	4.2	-90.32	-0.2	-30.0	30.0	21.6	8.39	3.576		
1,300.0	1,300.0	1,299.8	1,299.8	4.6	4.6	-90.32	-0.2	-30.0	30.0	20.9	9.11	3.295		
1,400.0	1,400.0	1,399.8	1,399.8	4.9	4.9	-90.32	-0.2	-30.0	30.0	20.2	9.82	3.054		
1,500.0	1,500.0	1,499.8	1,499.8	5.3	5.3	-90.32	-0.2	-30.0	30.0	19.5	10.54	2.846		
1,600.0	1,600.0	1,599.8	1,599.8	5.6	5.6	-90.32	-0.2	-30.0	30.0	18.7	11.26	2.665		
1,700.0	1,700.0	1,699.8	1,699.8	6.0	6.0	-90.32	-0.2	-30.0	30.0	18.0	11.97	2.506		
1,800.0	1,800.0	1,799.8	1,799.8	6.3	6.3	-90.32	-0.2	-30.0	30.0	17.3	12.69	2.364		
1,900.0	1,900.0	1,899.8	1,899.8	6.7	6.7	-90.32	-0.2	-30.0	30.0	16.6	13.41	2.238		
2,000.0	2,000.0	1,999.8	1,999.8	7.1	7.1	-90.32	-0.2	-30.0	30.0	15.9	14.12	2.124 CC	, ES	
2,100.0	2,100.0	2,099.8	2,099.8	7.4	7.4	-146.49	-0.2	-30.0	31.4	16.6	14.84	2.119		
2,200.0	2,199.8	2,199.6	2,199.6	7.8	7.8	-151.06	-0.2	-30.0	35.9	20.4	15.55	2.311		
2,300.0	2,299.5	2,299.3	2,299.3	8.1	8.1	-156.52	-0.2	-30.0	43.8	27.5	16.25	2.692		
2,350.0	2,349.1	2,348.9	2,348.9	8.3	8.3	-159.12	-0.2	-30.0	49.0	32.4	16.61	2.950		
2,400.0	2,398.8	2,398.6	2,398.6	8.5	8.5	-161.39	-0.2	-30.0	54.7	37.8	16.96	3.227		
2,500.0	2,498.0	2,497.8	2,497.8	8.8	8.8	-164.75	-0.2	-30.0	66.4	48.7	17.67	3.759		
2,600.0	2,597.3	2,597.1	2,597.1	9.2	9.2	-167.10	-0.2	-30.0	78.2	59.9	18.38	4.258		
2,700.0	2,696.5	2,696.3	2,696.3	9.6	9.6	-168.82	-0.2	-30.0	90.2	71.1	19.08	4.725		
2,800.0	2,795.8	2,795.6	2,795.6	10.0	9.9	-170.15	-0.2	-30.0	102.2	82.4	19.79	5.161		
2,900.0	2,895.0	2,894.8	2,894.8	10.3	10.3	-171.20	-0.2	-30.0	114.2	93.7	20.50	5.569		
3,000.0	2,994.3	2,994.1	2,994.1	10.7	10.6	-172.04	-0.2	-30.0	126.2	105.0	21.22	5.950		
3,100.0	3,093.5	3,097.9	3,097.9	11.1	11.0	-172.91	0.3	-28.4	136.8	114.8	21.94	6.234		
3,200.0	3,192.8	3,202.7	3,202.5	11.5	11.4	-173.99	1.9	-23.1	143.8	121.1	22.63	6.352		
3,300.0	3,292.0	3,307.8	3,307.2	11.8	11.7	-175.32	4.6	-14.2	147.3	124.0	23.31	6.317		
3,400.0	3,391.3	3,409.8	3,408.5	12.2	12.1	-176.86	8.1	-2.6	147.9	123.9	24.00	6.163		
3,500.0	3,490.6	3,509.7	3,507.6	12.6	12.4	-178.39	11.6	9.1	148.4	123.7	24.72	6.005		
3,600.0	3,589.8	3,609.6	3,606.8	13.0	12.8	-179.91	15.2	20.7	149.0	123.6	25.43	5.859		
3,700.0	3,689.1	3,709.5	3,706.0	13.4	13.2	178.59	18.7	32.4	149.7	123.6	26.15	5.725		
3,800.0	3,788.3	3,809.5	3,805.2	13.8	13.5	177.10	22.2	44.0	150.5	123.6	26.87	5.601		
3,900.0	3,887.6	3,909.4	3,904.3	14.2	13.9	175.62	25.7	55.7	151.4	123.8	27.59	5.486		
4,000.0	3,986.8	4,009.3	4,003.5	14.6	14.3	174.17	29.3	67.4	152.4	124.1	28.32	5.381		
4,100.0	4,086.1	4,109.2	4,102.7	14.9	14.6	172.73	32.8	79.0	153.5	124.4	29.05	5.283		
4,200.0	4,185.3	4,209.1	4,201.9	15.3	15.0	171.32	36.3	90.7	154.7	124.9	29.78	5.193		
4,300.0	4,284.6	4,309.1	4,301.1	15.7	15.4	169.92	39.8	102.3	156.0	125.4	30.52	5.110		
4,400.0	4,383.8	4,409.0	4,400.2	16.1	15.8	168.55	43.4	114.0	157.3	126.1	31.26	5.033		
4,500.0	4,483.1	4,508.9	4,499.4	16.5	16.1	167.21	46.9	125.6	158.8	126.8	32.00	4.962		
4,600.0	4,582.4	4,608.8	4,598.6	16.9	16.5	165.89	50.4	137.3	160.3	127.6	32.75	4.896		
4,700.0	4,681.6	4,708.8	4,697.8	17.3	16.9	164.60	53.9	148.9	162.0	128.5	33.49	4.836		
4,800.0	4,780.9	4,808.7	4,796.9	17.7	17.3	163.33	57.5	160.6	163.7	129.4	34.24	4.780		
4,900.0	4,880.1	4,908.6	4,896.1	18.1	17.7	162.09	61.0	172.3	165.5	130.5	35.00	4.728		
5,000.0	4,979.4	5,008.5	4,995.3	18.5	18.0	160.88	64.5	183.9	167.3	131.6	35.75	4.680		

Anticollision Report

Company: **NEW MEXICO**

Project: (SP) LEA PASKE PROJECT Reference Site:

Site Error: 0.0 usft

Reference Well: PAKSE 3 SOUTH FED COM 322H

Well Error: 0.0 usft Reference Wellbore OWB Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method: Output errors are at

Database:

Offset TVD Reference:

Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft

Grid

Minimum Curvature

			MEGI -	PANSE 3	SOUTH	-ED COM	222H - OWB	- PVVPU					Offset Site Error:	0.0 usft
urvey Prog Refer	ence	-MWD Off		Semi N	Major Axis		Offset Wellb	ore Centre		Rule Assig			Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,037.1	5,016.2	5,045.6	5,032.1	18.6	18.2	160.43	65.8	188.2	168.0	132.0	36.04	4.663		
5,100.0	5,078.7	5,108.4	5,094.5	18.9	18.4	159.61	68.0	195.6	168.6	132.1	36.51	4.618		
5,200.0	5,178.4	5,208.3	5,193.6	19.3	18.8	157.94	71.5	207.2	167.0	129.7	37.28	4.479		
5,300.0	5,278.2	5,308.0	5,292.5	19.6	19.2	155.73	75.1	218.8	162.3	124.2	38.05	4.265		
5,387.1	5,365.4	5,394.6	5,378.5	19.9	19.5	-152.45	78.1	229.0	155.9	117.1	38.73	4.025		
5,400.0	5,378.2	5,407.4	5,391.2	20.0	19.6	-152.86	78.6	230.4	154.8	115.9	38.83	3.986		
5,500.0	5,478.2	5,506.6	5,489.7	20.3	20.0	-156.28	82.1	242.0	146.5	106.9	39.62	3.699		
5,600.0	5,578.2	5,605.9	5,588.2	20.6	20.4	-160.09	85.6	253.6	138.9	98.5	40.42	3.436		
5,700.0	5,678.2	5,705.1	5,686.7	21.0	20.7	-164.31	89.1	265.2	131.9	90.7	41.24	3.199		
5,800.0	5,778.2	5,804.4	5,785.2	21.3	21.1	-168.97	92.6	276.8	125.8	83.7	42.06	2.990		
5,900.0	5,878.2	5,902.5	5,882.7	21.7	21.5	-173.66	95.8	287.5	120.8	78.0	42.87	2.818		
6,000.0	5,978.2	6,000.7	5,980.6	22.0	21.9	-177.24	98.1	295.1	117.9	74.2	43.64	2.700		
6,100.0	6,078.2	6,099.3	6,079.1	22.4	22.2	-179.39	99.5	299.6	116.4	72.0	44.38	2.622		
6,200.0	6,178.2	6,198.3	6,178.0	22.7	22.6	-180.00	99.8	300.8	116.0	70.9	45.07	2.573		
6,300.0	6,278.2	6,298.3	6,278.0	23.0	22.9	-180.00	99.8	300.8	116.0	70.2	45.76	2.534		
6,400.0	6,378.2	6,398.3	6,378.0	23.4	23.3	-180.00	99.8	300.8	116.0	69.5	46.46	2.496		
6,500.0	6,478.2	6,498.3	6,478.0	23.7	23.6	-180.00	99.8	300.8	116.0	68.8	47.15	2.459		
6,600.0	6,578.2	6,598.3	6,578.0	24.1	24.0	-180.00	99.8	300.8	116.0	68.1	47.85	2.424		
6,700.0	6,678.2	6,698.3	6,678.0	24.4	24.3	-180.00	99.8	300.8	116.0	67.4	48.54	2.389		
6,800.0	6,778.2	6,798.3	6,778.0	24.8	24.7	-180.00	99.8	300.8	116.0	66.7	49.24	2.355		
6,900.0	6,878.2	6,898.3	6,878.0	25.1	25.0	-180.00	99.8	300.8	116.0	66.0	49.94	2.322		
7,000.0	6,978.2	6,998.3	6,978.0	25.5	25.3	-180.00	99.8	300.8	116.0	65.3	50.64	2.290		
7,100.0	7,078.2	7,098.3	7,078.0	25.8	25.7	-180.00	99.8	300.8	116.0	64.6	51.33	2.259		
7,200.0	7,178.2	7,198.3	7,178.0	26.2	26.0	-180.00	99.8	300.8	116.0	63.9	52.03	2.229		
7,300.0	7,278.2	7,298.3	7,278.0	26.5	26.4	-180.00	99.8	300.8	116.0	63.2	52.73	2.199		
7,400.0	7,378.2	7,398.3	7,378.0	26.9	26.7	-180.00	99.8	300.8	116.0	62.5	53.43	2.170		
7,500.0	7,478.2	7,498.3	7,478.0	27.2	27.1	-180.00	99.8	300.8	116.0	61.8	54.13	2.142		
7,600.0	7,578.2	7,598.3	7,578.0	27.6	27.4	-180.00	99.8	300.8	116.0	61.1	54.83	2.115		
7,700.0	7,678.2	7,698.3	7,678.0	27.9	27.8	-180.00	99.8	300.8	116.0	60.4	55.53	2.088		
7,800.0	7,778.2	7,798.3	7,778.0	28.3	28.1	-180.00	99.8	300.8	116.0	59.7	56.23	2.062		
7,900.0	7,878.2	7,898.3	7,878.0	28.6	28.5	-180.00	99.8	300.8	116.0	59.0	56.94	2.037		
8,000.0	7,978.2	7,998.3	7,978.0	29.0	28.8	-180.00	99.8	300.8	116.0	58.3	57.64	2.012		
8,100.0	8,078.2	8,098.3	8,078.0	29.3	29.2	-180.00	99.8	300.8	116.0	57.6	58.34	1.988		
8,200.0	8,178.2	8,198.3	8,178.0	29.7	29.5	-180.00	99.8	300.8	116.0	56.9	59.04	1.964		
8,300.0	8,278.2	8,298.3	8,278.0	30.0	29.9	-180.00	99.8	300.8	116.0	56.2	59.75	1.941		
8,400.0	8,378.2	8,398.3	8,378.0	30.4	30.2	-180.00	99.8	300.8	116.0	55.5	60.45	1.918		
8,500.0	8,478.2	8,498.3	8,478.0	30.7	30.6	-180.00	99.8	300.8	116.0	54.8	61.15	1.896		
8,600.0	8,578.2	8,598.3	8,578.0	31.1	30.9	-180.00	99.8	300.8	116.0	54.1	61.86	1.875		
8,700.0	8,678.2	8,698.3	8,678.0	31.4	31.3	-180.00	99.8	300.8	116.0	53.4	62.56	1.854		
8,800.0	8,778.2	8,798.3	8,778.0	31.8	31.6	-180.00	99.8	300.8	116.0	52.7	63.27	1.833		
8,900.0	8,878.2	8,898.3	8,878.0	32.1	32.0	-180.00	99.8	300.8	116.0	52.0	63.97	1.813		
9,000.0	8,978.2	8,998.3	8,978.0	32.5	32.3	-180.00	99.8	300.8	116.0	51.3	64.68	1.793		
9,100.0	9,078.2	9,098.3	9,078.0	32.8	32.7	-180.00	99.8	300.8	116.0	50.6	65.38	1.774		
9,200.0	9,178.2	9,198.3	9,178.0	33.2	33.1	-180.00	99.8	300.8	116.0	49.9	66.09	1.755		
9,300.0	9,278.2	9,298.3	9,278.0	33.5	33.4	-180.00	99.8	300.8	116.0	49.2	66.79	1.736		
9,400.0	9,378.2	9,398.3	9,378.0	33.9	33.8	-180.00	99.8	300.8	116.0	48.5	67.50	1.718 SF		
9,500.0	9,478.2	9,480.0	9,459.5	34.2	34.0	179.98	94.4	300.8	122.8	55.4	67.41	1.822		
9,600.0	9,578.2	9,556.1	9,533.5	34.6	34.3	179.94	77.0	300.9	145.8	79.8	66.04	2.208		
9,700.0	9,678.2	9,625.0	9,597.3	34.9	34.4	179.89	51.3	301.1	183.3	119.5	63.78	2.873		
9,800.0	9,778.2	9,685.7	9,650.0	35.3	34.6	179.85	21.2	301.3	232.9	171.8	61.17	3.808		
9,900.0	9,878.2	9,737.6	9,691.7	35.6	34.7	179.82	-9.6	301.5	292.5	233.9	58.51	4.998		
10,000.0	9,978.2	9,781.6	9,724.3	36.0	34.8	179.80	-39.2	301.7	359.7	303.7	56.06	6.417		

Anticollision Report

Company: NEW MEXICO Project: (SP) LEA

Project: (SP) LEA
Reference Site: PASKE PROJECT

Site Error: 0.0 usft

Reference Well: PAKSE 3 SOUTH FED COM 322H

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Output errors are at Database:

Offset TVD Reference:

Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft

Grid

Minimum Curvature

Offset De	esign: ^{PA}	SKE PRO	JECT -	PAKSE 3 S	SOUTH F	ED COM 2	222H - OWB	- PWP0					Offset Site Error:	0.0 usft
Survey Prog Refer Measured		MWD Offs Measured	set Vertical	Semi M Reference	lajor Axis Offset	Highside	Offset Wellb	ore Centre	Dis Between	Rule Assig tance Between	ned: Minimum	Separation	Offset Well Error: Warning	0.0 usft
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)		warning	
10,100.0	10,078.2	9,818.8	9,749.6	36.3	34.9	179.79	-66.4	301.8	433.0	379.1	53.91	8.033		
10,200.0	10,178.2	9,850.0	9,769.2	36.7	34.9	179.77	-90.7	302.0	511.0	459.0	52.06	9.815		
10,300.0	10,278.2	9,875.0	9,783.7	37.1	35.0	179.76	-111.1	302.1	592.7	542.2	50.45	11.748		
10,400.0	10,378.2	9,900.0	9,797.1	37.4	35.0	179.76	-132.2	302.3	677.2	627.9	49.34	13.725		
10,439.3	10,417.5	9,908.2	9,801.2	37.5	35.0	179.75	-139.2	302.3	711.1	662.2	48.93	14.533		
10,450.0	10,428.2	9,910.3	9,802.3	37.6	35.0	0.11	-141.1	302.3	720.3	671.5	48.82	14.756		
10,475.0	10,453.2	9,915.6	9,804.9	37.7	35.0	0.10	-145.7	302.3	741.5	692.9	48.54	15.274		
10,500.0	10,478.1	9,925.0	9,809.3	37.7	35.0	0.09	-154.0	302.4	762.1	713.7	48.43	15.737		
10,525.0	10,502.8	9,925.0	9,809.3	37.8	35.0	0.09	-154.0	302.4	782.1	734.2	47.88	16.333		

Anticollision Report

Company: NEW MEXICO

Project: (SP) LEA
Reference Site: PASKE PROJECT

Site Error: 0.0 usft

Reference Well: PAKSE 3 SOUTH FED COM 322H

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:

North Reference:
Survey Calculation Method:

Output errors are at Database:

Offset TVD Reference:

Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft

Grid

Minimum Curvature

			JE01 2	. / !! (OL 0 (2001111	LD OOM	432H - OWB	7 771 0					Offset Site Error:	0.0 us
urvey Prog Refer	ence	-MWD Off	set	Semi M	Major Axis	Higheide	Offset Wellb	ore Centre		Rule Assignance		Congretion	Offset Well Error:	0.0 us
leasured Depth (usft)	Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.1	0.1	0.0	0.0	-90.34	-0.5	-90.0	90.0	, ,	. ,			
100.0	100.0	100.1	100.1	0.3	0.3	-90.34	-0.5	-90.0	90.0	89.5	0.50	179.182		
200.0	200.0	200.1	200.1	0.6	0.6	-90.34	-0.5	-90.0	90.0	88.8	1.22	73.818		
300.0	300.0	300.1	300.1	1.0	1.0	-90.34	-0.5	-90.0	90.0	88.1	1.94	46.484		
400.0	400.0	400.1	400.1	1.3	1.3	-90.34	-0.5	-90.0	90.0	87.3	2.65	33.923		
500.0	500.0	500.1	500.1	1.7	1.7	-90.34	-0.5	-90.0	90.0	86.6	3.37	26.706		
600.0	600.0	600.1	600.1	2.0	2.0	-90.34	-0.5	-90.0	90.0	85.9	4.09	22.021		
700.0	700.0	700.1	700.1	2.4	2.4	-90.34	-0.5	-90.0	90.0	85.2	4.80	18.735		
0.008	800.0	800.1	800.1	2.8	2.8	-90.34	-0.5	-90.0	90.0	84.5	5.52	16.302		
900.0	900.0	900.1	900.1	3.1	3.1	-90.34	-0.5	-90.0	90.0	83.8	6.24	14.428		
1,000.0	1,000.0	1,000.1	1,000.1	3.5	3.5	-90.34	-0.5	-90.0	90.0	83.0	6.95	12.941		
1,100.0	1,100.0	1,100.1	1,100.1	3.8	3.8	-90.34	-0.5	-90.0	90.0	82.3	7.67	11.732		
1,200.0	1,200.0	1,200.1	1,200.1	4.2	4.2	-90.34	-0.5	-90.0	90.0	81.6	8.39	10.729		
1,300.0	1,300.0	1,300.1	1,300.1	4.6	4.6	-90.34	-0.5	-90.0	90.0	80.9	9.11	9.884		
1,400.0 1,500.0	1,400.0 1,500.0	1,400.1 1,500.1	1,400.1 1,500.1	4.9 5.3	4.9 5.3	-90.34 -90.34	-0.5 -0.5	-90.0 -90.0	90.0 90.0	80.2 79.5	9.82 10.54	9.163 8.539		
1,600.0	1,600.0	1,600.1	1,600.1	5.6	5.6	-90.34	-0.5	-90.0	90.0	78.7	11.26	7.996		
1,700.0	1,700.0	1,700.1	1,700.1	6.0	6.0	-90.34	-0.5	-90.0	90.0	78.0	11.97	7.517		
1,800.0	1,800.0	1,800.1	1,800.1	6.3	6.3	-90.34	-0.5	-90.0	90.0	77.3	12.69	7.092		
1,900.0	1,900.0	1,900.1	1,900.1	6.7	6.7	-90.34	-0.5	-90.0	90.0	76.6	13.41	6.713		
1,966.6	1,966.6	1,966.7	1,966.7	6.9	6.9	-90.34	-0.5	-90.0	90.0	76.1	13.88	6.482 CC		
2,000.0	2,000.0	2,000.0	2,000.0	7.1	7.1	-90.34	-0.5	-90.0	90.0	75.9	14.12	6.372 ES		
2,100.0	2,100.0	2,097.2	2,097.2	7.4	7.4	-144.85	0.1	-91.5	93.0	78.2	14.82	6.276 SF		
2,200.0	2,199.8	2,193.8	2,193.6	7.8	7.7	-145.29	2.0	-96.0	101.9	86.4	15.49	6.582		
2,300.0	2,299.5	2,289.4	2,288.9	8.1	8.1	-145.85	5.2	-103.4	116.8	100.6	16.14	7.235		
2,350.0	2,349.1	2,336.6	2,335.8	8.3	8.2	-146.14	7.2	-108.2	126.4	109.9	16.46	7.677		
2,400.0	2,398.8	2,383.5	2,382.3	8.5	8.4	-146.44	9.4	-113.6	137.1	120.3	16.77	8.171		
2,500.0	2,498.0	2,476.3	2,474.1	8.8	8.8	-146.54	14.9	-126.4	160.6	143.2	17.39	9.236		
2,600.0	2,597.3	2,571.8	2,568.1	9.2	9.1	-146.31	21.3	-141.6	186.2	168.1	18.05	10.313		
2,700.0	2,696.5	2,668.4	2,663.3	9.6	9.5	-146.13	27.8	-157.0	211.9	193.1	18.74	11.304		
2,800.0	2,795.8	2,765.1	2,758.5	10.0	9.8	-145.98	34.3	-172.5	237.6	218.1	19.44	12.221		
2,900.0	2,895.0	2,861.7	2,853.7	10.3	10.2	-145.87	40.9	-187.9	263.3	243.1	20.14	13.073		
3,000.0	2,994.3	2,958.3	2,948.8	10.7	10.6	-145.77	47.4	-203.4	288.9	268.1	20.84	13.866		
3,100.0	3,093.5	3,055.0	3,044.0	11.1	11.0	-145.69	53.9	-218.9	314.6	293.1	21.54	14.605		
3,200.0	3,192.8	3,151.6	3,139.2	11.5	11.4	-145.62	60.5	-234.3	340.3	318.1	22.25	15.295		
3,300.0	3,292.0	3,248.3	3,234.4	11.8	11.8	-145.56	67.0	-249.8	366.0	343.1	22.96	15.941		
3,400.0	3,391.3	3,344.9	3,329.5	12.2	12.2	-145.51	73.5	-265.2	391.7	368.0	23.67	16.547		
3,500.0	3,490.6	3,441.6	3,424.7	12.6	12.6	-145.46	80.1	-280.7	417.4	393.0	24.39	17.115		
3,600.0	3,589.8	3,538.2	3,519.9	13.0	13.0	-145.43	86.6	-296.1	443.1	418.0	25.10	17.651		
3,700.0	3,689.1	3,634.8	3,615.1	13.4	13.4	-145.39	93.1	-311.6	468.8	443.0	25.82	18.155		
3,800.0	3,788.3	3,731.5	3,710.2	13.8	13.8	-145.36	99.7	-327.1	494.5	467.9	26.54	18.631		
3,900.0	3,887.6	3,828.1	3,805.4	14.2	14.2	-145.33	106.2	-342.5	520.2	492.9	27.26	19.080		
4,000.0	3,986.8	3,924.8	3,900.6	14.6	14.6	-145.30	112.7	-358.0	545.8	517.9	27.98	19.506		
4,100.0	4,086.1	4,021.4	3,995.8	14.9	15.0	-145.28	119.3	-373.4	571.5	542.8	28.71	19.909		
4,200.0	4,185.3	4,118.1	4,090.9	15.3	15.4	-145.26	125.8	-388.9	597.2	567.8	29.43	20.292		
4,300.0	4,284.6	4,214.7	4,186.1	15.7	15.8	-145.24	132.3	-404.4	622.9	592.8	30.16	20.655		
4,400.0	4,383.8	4,311.4	4,281.3	16.1	16.3	-145.22	138.9	-419.8	648.6	617.7	30.88	21.001		
4,500.0	4,483.1	4,408.0	4,376.5	16.5	16.7	-145.20	145.4	-435.3	674.3	642.7	31.61	21.330		
4,600.0	4,582.4	4,504.6	4,471.6	16.9	17.1	-145.19	151.9	-450.7	700.0	667.7	32.34	21.644		
4,700.0	4,681.6	4,601.3	4,566.8	17.3	17.5	-145.17	158.5	-466.2	725.7	692.6	33.07	21.943		
4,800.0	4,780.9	4,697.9	4,662.0	17.7	17.9	-145.16	165.0	-481.6	751.4	717.6	33.80	22.229		
4,900.0	4,880.1	4,794.6	4,757.2	18.1	18.4	-145.15	171.5	-497.1	777.1	742.5	34.53	22.502		

Anticollision Report

Company: NEW MEXICO
Project: (SP) LEA
Peterspace Site: DASKE PROJECT

Reference Site: PASKE PROJECT

Site Error: 0.0 usft

Reference Well: PAKSE 3 SOUTH FED COM 322H

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

North Reference: Survey Calculation Method:

Output errors are at

Database: Offset TVD Reference: Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft

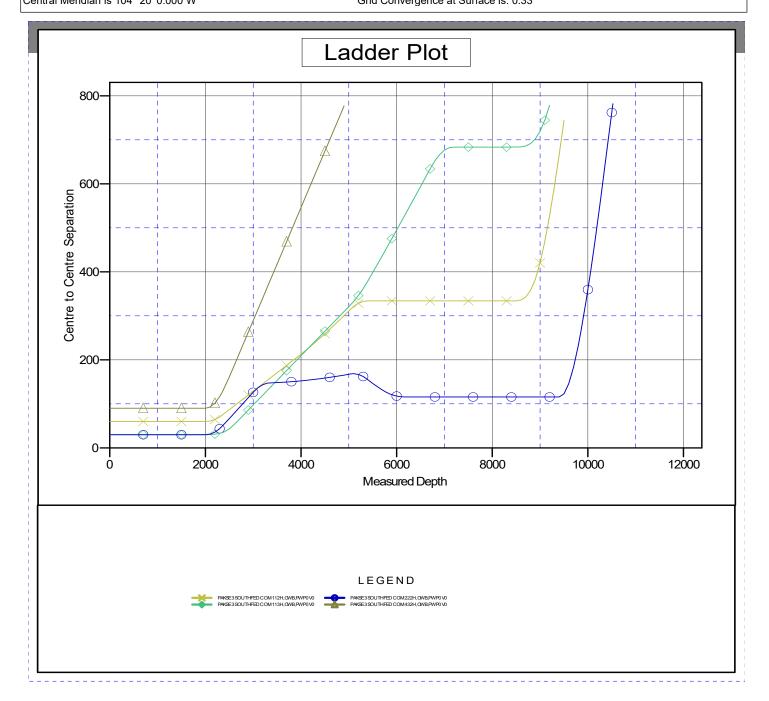
Grid

Minimum Curvature

2.00 sigma Compass Offset Datum

Reference Depths are relative to KB @ 3570.2usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: PAKSE 3 SOUTH FED COM 322H Coordinate System is US State Plane 1983, New Mexico Eastern Zone Grid Convergence at Surface is: 0.33°



Anticollision Report

Company: NEW MEXICO
Project: (SP) LEA
Reference Site: PASKE PROJECT

Site Error: 0.0 usft

Reference Well: PAKSE 3 SOUTH FED COM 322H

Well Error: 0.0 usft
Reference Wellbore OWB
Reference Design: PWP0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

North Reference: Survey Calculation Method: Output errors are at

Database: Offset TVD Reference: Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft

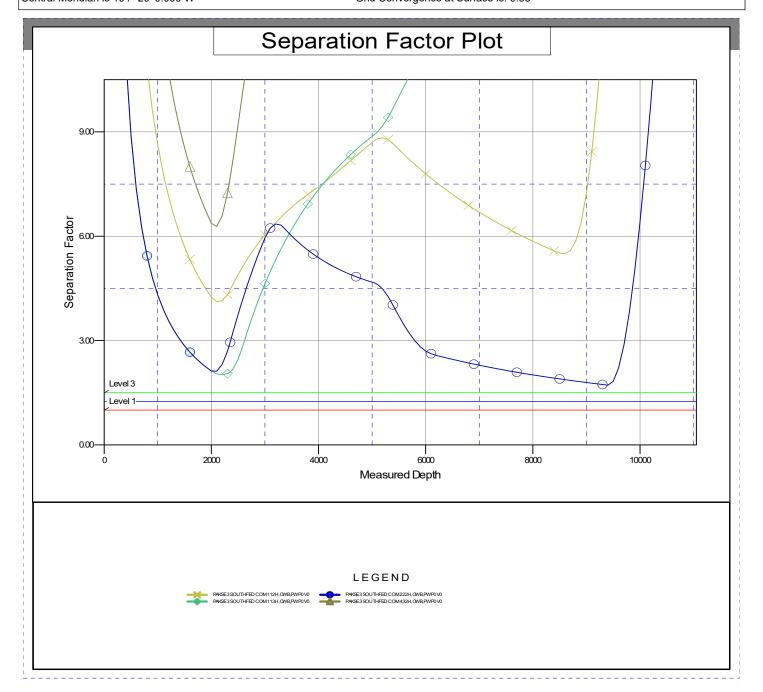
Grid

Minimum Curvature

2.00 sigma Compass Offset Datum

Reference Depths are relative to KB @ 3570.2usft Offset Depths are relative to Offset Datum Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: PAKSE 3 SOUTH FED COM 322H Coordinate System is US State Plane 1983, New Mexico Eastern Zone Grid Convergence at Surface is: 0.33°



NEW MEXICO

(SP) LEA
PASKE PROJECT
PAKSE 3 SOUTH FED COM 322H

OWB

Plan: PWP0

Standard Planning Report - Geographic

13 February, 2024

Planning Report - Geographic

Database: Compass
Company: NEW MEXICO
Project: (SP) LEA
Site: PASKE PROJECT

Well: PAKSE 3 SOUTH FED COM 322H

Wellbore: OWB Design: PWP0 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft

Grid Minimum Curvature

Project (SP) LEA

Map System: Geo Datum:

Map Zone:

US State Plane 1983 North American Datum 1983 New Mexico Eastern Zone System Datum:

Mean Sea Level

Site PASKE PROJECT

 Site Position:
 Northing:
 569,891.35 usft
 Latitude:
 32° 33′ 54.721 N

 From:
 Map
 Easting:
 729,667.08 usft
 Longitude:
 103° 43′ 19.273 W

Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 "

Well PAKSE 3 SOUTH FED COM 322H

 Well Position
 +N/-S
 0.0 usft
 Northing:
 569,891.70 usft
 Latitude:
 32° 33′ 54.721 N

 +E/-W
 0.0 usft
 Easting:
 729,727.08 usft
 Longitude:
 103° 43′ 18.572 W

Position Uncertainty

0.0 usft Wellhead Elevation: usft Ground Level: 3,540.2 usft 3,540.2 usft

Grid Convergence: 0.33 °

Wellbore OWB

Magnetics Model Name Sample Date Declination Dip Angle Field Strength
(°) (°) (nT)

IGRF200510 12/31/2009 7.84 60.53 48,981.67480835

Design PWP0

Audit Notes:

Version:Phase:PROTOTYPETie On Depth:0.0

 Vertical Section:
 Depth From (TVD) (usft)
 +N/-S (usft)
 +E/-W (usft)
 Direction (°)

 0.0
 0.0
 0.0
 178.30

Plan Survey Tool Program Date 2/13/2024

Depth From Depth To

(usft) (usft) Survey (Wellbore) Tool Name Remarks

1 0.0 23,860.0 PWP0 (OWB) MWD

OWSG Rev2 MWD - Star

Plan Section	ıs									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,350.0	7.00	54.34	2,349.1	12.4	17.4	2.00	2.00	0.00	54.34	
5,037.1	7.00	54.34	5,016.2	203.4	283.4	0.00	0.00	0.00	0.00	
5,387.1	0.00	0.00	5,365.4	215.8	300.8	2.00	-2.00	0.00	180.00	
10,439.3	0.00	0.00	10,417.5	215.8	300.8	0.00	0.00	0.00	0.00	
11,189.3	90.00	179.64	10,895.0	-261.7	303.8	12.00	12.00	23.95	179.64	
23,860.0	90.00	179.64	10,895.0	-12,932.1	383.6	0.00	0.00	0.00	0.00 B	HL-PAKSE 3 S F(

Planning Report - Geographic

Database: Compass
Company: NEW MEXICO
Project: (SP) LEA
Site: PASKE PROJECT

Well: PAKSE 3 SOUTH FED COM 322H

Wellbore: OWB Design: PWP0 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft

Grid

esigii.	FVVF								
Planned Surv	еу								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	569,891.70	729,727.08	32° 33' 54.721 N	103° 43' 18.572 V
100.0		0.00	100.0	0.0	0.0	569,891.70	729,727.08	32° 33' 54.721 N	103° 43' 18.572 V
200.0	0.00	0.00	200.0	0.0	0.0	569,891.70	729,727.08	32° 33' 54.721 N	103° 43' 18.572 V
300.0	0.00	0.00	300.0	0.0	0.0	569,891.70	729,727.08	32° 33' 54.721 N	103° 43' 18.572 V
400.0	0.00	0.00	400.0	0.0	0.0	569,891.70	729,727.08	32° 33' 54.721 N	103° 43' 18.572 V
500.0		0.00	500.0	0.0	0.0	569,891.70	729,727.08	32° 33′ 54.721 N	103° 43' 18.572 V
600.0		0.00	600.0	0.0	0.0	569,891.70	729,727.08	32° 33' 54.721 N	103° 43' 18.572 V
700.0		0.00	700.0	0.0	0.0	569,891.70	729,727.08	32° 33' 54.721 N	103° 43' 18.572 V
800.0	0.00	0.00	0.008	0.0	0.0	569,891.70	729,727.08	32° 33' 54.721 N	103° 43' 18.572 V
900.0		0.00	900.0	0.0	0.0	569,891.70	729,727.08	32° 33' 54.721 N	103° 43' 18.572 V
1,000.0	0.00	0.00	1,000.0	0.0	0.0	569,891.70	729,727.08	32° 33' 54.721 N	103° 43' 18.572 V
1,100.0		0.00	1,100.0	0.0	0.0	569,891.70	729,727.08	32° 33' 54.721 N	103° 43' 18.572 V
1,200.0		0.00	1,200.0	0.0	0.0	569,891.70	729,727.08	32° 33' 54.721 N	103° 43' 18.572 V
1,300.0	0.00	0.00	1,300.0	0.0	0.0	569,891.70	729,727.08	32° 33' 54.721 N	103° 43' 18.572 V
1,400.0	0.00	0.00	1,400.0	0.0	0.0	569,891.70	729,727.08	32° 33′ 54.721 N	103° 43' 18.572 V
1,500.0	0.00	0.00	1,500.0	0.0	0.0	569,891.70	729,727.08	32° 33' 54.721 N	103° 43' 18.572 V
1,600.0	0.00	0.00	1,600.0	0.0	0.0	569,891.70	729,727.08	32° 33′ 54.721 N	103° 43' 18.572 V
1,700.0	0.00	0.00	1,700.0	0.0	0.0	569,891.70	729,727.08	32° 33′ 54.721 N	103° 43' 18.572 V
1,800.0	0.00	0.00	1,800.0	0.0	0.0	569,891.70	729,727.08	32° 33' 54.721 N	103° 43' 18.572 V
1,900.0	0.00	0.00	1,900.0	0.0	0.0	569,891.70	729,727.08	32° 33′ 54.721 N	103° 43' 18.572 V
2,000.0	0.00	0.00	2,000.0	0.0	0.0	569,891.70	729,727.08	32° 33′ 54.721 N	103° 43' 18.572 V
Start B	uild 2.00								
2,100.0	2.00	54.34	2,100.0	1.0	1.4	569,892.72	729,728.49	32° 33' 54.731 N	103° 43' 18.555 V
2,200.0	4.00	54.34	2,199.8	4.1	5.7	569,895.77	729,732.75	32° 33' 54.761 N	103° 43' 18.506 V
2,300.0	6.00	54.34	2,299.5	9.1	12.8	569,900.85	729,739.83	32° 33′ 54.811 N	103° 43' 18.422 V
2,350.0	7.00	54.34	2,349.1	12.4	17.4	569,904.15	729,744.43	32° 33′ 54.843 N	103° 43' 18.369 V
Start 26	87.1 hold a	t 2350.0 MD	l						
2,400.0	7.00	54.34	2,398.8	16.0	22.3	569,907.70	729,749.38	32° 33′ 54.878 N	103° 43' 18.310 V
2,500.0	7.00	54.34	2,498.0	23.1	32.2	569,914.81	729,759.28	32° 33′ 54.948 N	103° 43' 18.194 V
2,600.0	7.00	54.34	2,597.3	30.2	42.1	569,921.91	729,769.18	32° 33′ 55.018 N	103° 43' 18.078 V
2,700.0		54.34	2,696.5	37.3	52.0	569,929.02	729,779.08	32° 33' 55.087 N	103° 43' 17.962 V
2,800.0	7.00	54.34	2,795.8	44.4	61.9	569,936.12	729,788.99	32° 33' 55.157 N	103° 43' 17.846 V
2,900.0		54.34	2,895.0	51.5	71.8	569,943.22	729,798.89	32° 33' 55.227 N	103° 43' 17.730 V
3,000.0	7.00	54.34	2,994.3	58.6	81.7	569,950.33	729,808.79	32° 33′ 55.297 N	103° 43' 17.613 V
3,100.0		54.34	3,093.5	65.7	91.6	569,957.43	729,818.69	32° 33′ 55.366 N	103° 43' 17.497 V
3,200.0	7.00	54.34	3,192.8	72.8	101.5	569,964.54	729,828.59	32° 33' 55.436 N	103° 43' 17.381 V
3,300.0	7.00	54.34	3,292.0	79.9	111.4	569,971.64	729,838.50	32° 33' 55.506 N	103° 43' 17.265 V
3,400.0	7.00	54.34	3,391.3	87.0	121.3	569,978.75	729,848.40	32° 33' 55.576 N	103° 43′ 17.149 V
3,500.0	7.00	54.34	3,490.6	94.1	131.2	569,985.85	729,858.30	32° 33′ 55.645 N	103° 43′ 17.032 V
3,600.0		54.34	3,589.8	101.3	141.1	569,992.96	729,868.20	32° 33' 55.715 N	103° 43′ 16.916 V
3,700.0		54.34	3,689.1	108.4	151.0	570,000.06	729,878.10	32° 33' 55.785 N	103° 43' 16.800 V
3,800.0		54.34	3,788.3	115.5	160.9	570,007.16	729,888.01	32° 33′ 55.855 N	103° 43' 16.684 V
3,900.0		54.34	3,887.6	122.6	170.8	570,014.27	729,897.91	32° 33' 55.924 N	103° 43' 16.568 V
4,000.0		54.34	3,986.8	129.7	180.7	570,021.37	729,907.81	32° 33' 55.994 N	103° 43' 16.452 V
4,100.0		54.34	4,086.1	136.8	190.6	570,028.48	729,917.71	32° 33' 56.064 N	103° 43' 16.335 V
4,200.0		54.34	4,185.3	143.9	200.5	570,035.58	729,927.61	32° 33' 56.133 N	103° 43' 16.219 V
4,300.0		54.34	4,284.6	151.0	210.4	570,042.69	729,937.52	32° 33' 56.203 N	103° 43' 16.103 V
4,400.0		54.34	4,383.8	158.1	220.3	570,049.79	729,947.42	32° 33' 56.273 N	103° 43' 15.987 V
4,500.0		54.34	4,483.1	165.2	230.2	570,056.89	729,957.32	32° 33′ 56.343 N	103° 43' 15.871 V
4,600.0	7.00	54.34	4,582.4	172.3	240.1	570,064.00	729,967.22	32° 33' 56.412 N	103° 43' 15.754 V
4,700.0		54.34	4,681.6	179.4	250.0	570,071.10	729,977.12	32° 33' 56.482 N	103° 43' 15.638 V
4,800.0		54.34	4,780.9	186.5	259.9	570,078.21	729,987.03	32° 33' 56.552 N	103° 43' 15.522 V
4,900.0		54.34	4,880.1	193.6	269.9	570,085.31	729,996.93	32° 33' 56.622 N	103° 43' 15.406 W
5,000.0	7.00	54.34	4,979.4	200.7	279.8	570,092.42	730,006.83	32° 33′ 56.691 N	103° 43' 15.290 W

Planning Report - Geographic

Database: Compass
Company: NEW MEXICO
Project: (SP) LEA
Site: PASKE PROJECT

Well: PAKSE 3 SOUTH FED COM 322H

Wellbore: OWB Design: PWP0 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft

Grid

Design.	FVVF								
Planned Surv	ey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,037.1	7.00	54.34	5,016.2	203.4	283.4	570,095.05	730,010.51	32° 33' 56.717 N	103° 43' 15.247 W
Start D	rop -2.00								
5,100.0 5,200.0 5,300.0 5,387.1	3.74	54.34 54.34 54.34 0.00	5,078.7 5,178.4 5,278.2 5,365.4	207.4 212.2 215.0 215.8	289.1 295.8 299.7 300.8	570,099.12 570,103.94 570,106.73 570,107.50	730,016.17 730,022.89 730,026.78 730,027.86	32° 33' 56.757 N 32° 33' 56.804 N 32° 33' 56.832 N 32° 33' 56.839 N	103° 43' 15.180 W 103° 43' 15.101 W 103° 43' 15.056 W 103° 43' 15.043 W
Start 50)52.1 hold a								
5tart 5t 5,400.0 5,500.0 5,600.0 5,700.0 5,800.0 5,900.0 6,000.0 6,100.0 6,200.0 6,300.0 6,400.0 6,500.0 6,600.0 6,700.0 7,000.0 7,100.0 7,200.0 7,300.0 7,400.0 7,500.0 7,600.0 7,700.0 7,800.0 7,900.0 7,900.0 7,900.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	\$387.1 MD 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	5,378.2 5,478.2 5,578.2 5,678.2 5,878.2 5,978.2 6,078.2 6,178.2 6,278.2 6,478.2 6,578.2 6,678.2 6,778.2 7,078.2 7,178.2 7,278.2 7,278.2 7,278.2 7,478.2 7,578.2 7,678.2 7,778.2 7,778.2 7,878.2 7,878.2 7,978.2	215.8 215.8	300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8	570,107.50 570,107.50	730,027.86 730,027.86	32° 33′ 56.839 N 32° 33′ 56.839 N	103° 43' 15.043 W
8,100.0 8,200.0 8,300.0 8,400.0 8,500.0 8,600.0 8,700.0 9,900.0 9,100.0 9,200.0 9,300.0 9,400.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	8,078.2 8,178.2 8,278.2 8,378.2 8,478.2 8,578.2 8,678.2 8,778.2 8,978.2 9,078.2 9,178.2 9,278.2	215.8 215.8 215.8 215.8 215.8 215.8 215.8 215.8 215.8 215.8 215.8 215.8 215.8	300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8 300.8	570,107.50 570,107.50 570,107.50 570,107.50 570,107.50 570,107.50 570,107.50 570,107.50 570,107.50 570,107.50 570,107.50 570,107.50 570,107.50	730,027.86 730,027.86 730,027.86 730,027.86 730,027.86 730,027.86 730,027.86 730,027.86 730,027.86 730,027.86 730,027.86	32° 33' 56.839 N 32° 33' 56.839 N	103° 43' 15.043 W 103° 43' 15.043 W
9,500.0 9,600.0 9,700.0 9,800.0 9,900.0	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	9,478.2 9,578.2 9,678.2 9,778.2 9,878.2 9,978.2	215.8 215.8 215.8 215.8 215.8 215.8	300.8 300.8 300.8 300.8 300.8 300.8	570,107.50 570,107.50 570,107.50 570,107.50 570,107.50 570,107.50	730,027.86 730,027.86 730,027.86 730,027.86 730,027.86 730,027.86	32° 33' 56.839 N 32° 33' 56.839 N	103° 43' 15.043 W 103° 43' 15.043 W

Planning Report - Geographic

Database: Compass
Company: NEW MEXICO
Project: (SP) LEA
Site: PASKE PROJECT

Well: PAKSE 3 SOUTH FED COM 322H

Wellbore: OWB Design: PWP0 Local Co-ordinate Reference:

Survey Calculation Method:

TVD Reference: MD Reference: North Reference: Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft

Grid Minimum Curvature

Design:	PWP	0							
Planned Survey	,								
Measured			Vertical			Мар	Мар		
	clination (°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
10,100.0	0.00	0.00	10,078.2	215.8	300.8	570,107.50	730,027.86	32° 33' 56.839 N	103° 43' 15.043 W
10,200.0	0.00	0.00	10,070.2	215.8	300.8	570,107.50	730,027.86	32° 33' 56.839 N	103° 43' 15.043 W
10,300.0	0.00	0.00	10,278.2	215.8	300.8	570,107.50	730,027.86	32° 33' 56.839 N	103° 43' 15.043 W
10,400.0	0.00	0.00	10,378.2	215.8	300.8	570,107.50	730,027.86	32° 33' 56.839 N	103° 43' 15.043 W
10,439.3	0.00	0.00	10,417.5	215.8	300.8	570,107.50	730,027.86	32° 33' 56.839 N	103° 43' 15.043 W
	12.00 TF								
10,450.0	1.29 4.29	179.64 179.64	10,428.2	215.7 214.5	300.8	570,107.38	730,027.86 730,027.86	32° 33' 56.838 N 32° 33' 56.826 N	103° 43' 15.043 W 103° 43' 15.043 W
10,475.0 10,500.0	7.29	179.64	10,453.2 10,478.1	214.5	300.8 300.8	570,106.17 570,103.65	730,027.88	32° 33' 56.801 N	103° 43' 15.043 W
10,525.0	10.29	179.64	10,502.8	208.1	300.8	570,099.83	730,027.90	32° 33' 56.763 N	103° 43' 15.043 W
10,550.0	13.29	179.64	10,527.2	203.0	300.9	570,094.72	730,027.94	32° 33' 56.713 N	103° 43' 15.043 W
10,575.0	16.29	179.64	10,551.4	196.6	300.9	570,088.34	730,027.98	32° 33' 56.650 N	103° 43' 15.043 W
10,600.0	19.29	179.64	10,575.2	189.0	300.9	570,080.70	730,028.03	32° 33′ 56.574 N	103° 43' 15.043 W
10,625.0	22.29	179.64	10,598.6	180.1	301.0	570,071.83	730,028.08	32° 33' 56.486 N	103° 43' 15.043 W
10,650.0	25.29	179.64	10,621.5	170.0	301.1	570,061.75	730,028.14	32° 33′ 56.387 N	103° 43' 15.043 W
10,675.0	28.29	179.64	10,643.8	158.8	301.1	570,050.48	730,028.22	32° 33' 56.275 N	103° 43' 15.043 W
10,700.0 10,725.0	31.29 34.29	179.64 179.64	10,665.5 10,686.5	146.4 132.8	301.2 301.3	570,038.07 570,024.53	730,028.29 730,028.38	32° 33' 56.152 N 32° 33' 56.018 N	103° 43' 15.043 W 103° 43' 15.042 W
10,750.0	37.29	179.64	10,000.3	118.2	301.3	570,024.33	730,028.47	32° 33' 55.874 N	103° 43' 15.042 W
10,775.0	40.29	179.64	10,726.2	102.6	301.5	569,994.25	730,028.57	32° 33' 55.719 N	103° 43' 15.042 W
10,800.0	43.29	179.64	10,744.9	85.9	301.6	569,977.60	730,028.68	32° 33' 55.554 N	103° 43' 15.042 W
10,825.0	46.29	179.64	10,762.6	68.3	301.7	569,959.99	730,028.79	32° 33′ 55.380 N	103° 43' 15.042 W
10,850.0	49.29	179.64	10,779.4	49.8	301.8	569,941.47	730,028.90	32° 33′ 55.196 N	103° 43' 15.042 W
10,875.0	52.29	179.64	10,795.2	30.4	301.9	569,922.11	730,029.02	32° 33' 55.005 N	103° 43' 15.042 W
10,900.0	55.29	179.64	10,810.0	10.2	302.1	569,901.94	730,029.15	32° 33′ 54.805 N	103° 43' 15.042 W
10,925.0	58.29	179.64 179.64	10,823.7	-10.7	302.2	569,881.02	730,029.28	32° 33′ 54.598 N	103° 43' 15.042 W
10,950.0 10,975.0	61.29 64.29	179.64	10,836.3 10,847.7	-32.3 -54.5	302.3 302.5	569,859.42 569,837.19	730,029.42 730,029.56	32° 33' 54.385 N 32° 33' 54.165 N	103° 43' 15.041 W 103° 43' 15.041 W
11,000.0	67.29	179.64	10,857.9	-34.3 -77.3	302.6	569,814.40	730,029.70	32° 33' 53.939 N	103° 43' 15.041 W
11,025.0	70.29	179.64	10,867.0	-100.6	302.8	569,791.09	730,029.85	32° 33' 53.708 N	103° 43' 15.041 W
11,050.0	73.29	179.64	10,874.8	-124.4	302.9	569,767.35	730,030.00	32° 33' 53.473 N	103° 43' 15.041 W
11,075.0	76.29	179.64	10,881.4	-148.5	303.1	569,743.23	730,030.15	32° 33' 53.235 N	103° 43' 15.041 W
11,100.0	79.29	179.64	10,886.6	-172.9	303.2	569,718.80	730,030.31	32° 33′ 52.993 N	103° 43' 15.040 W
11,125.0	82.29	179.64	10,890.6	-197.6	303.4	569,694.12	730,030.46	32° 33′ 52.749 N	103° 43' 15.040 W
11,150.0	85.29	179.64	10,893.4	-222.4	303.5	569,669.27	730,030.62	32° 33' 52.503 N	103° 43' 15.040 W
11,175.0	88.29	179.64	10,894.8	-247.4	303.7	569,644.31	730,030.78	32° 33′ 52.256 N	103° 43' 15.040 W
11,189.3	90.00	179.64 at 11189.3 N	10,895.0	-261.7	303.8	569,630.05	730,030.87	32° 33′ 52.115 N	103° 43' 15.040 W
11,200.0	90.00	179.64 179.64	לוא 10,895.0	-272.4	303.9	569,619.32	730,030.93	32° 33' 52.009 N	103° 43' 15.040 W
11,300.0	90.00	179.64	10,895.0	-372.4	304.5	569,519.32	730,030.56	32° 33' 51.019 N	103° 43' 15.039 W
11,400.0	90.00	179.64	10,895.0	-472.4	305.1	569,419.32	730,032.19	32° 33' 50.030 N	103° 43' 15.039 W
11,500.0	90.00	179.64	10,895.0	-572.4	305.7	569,319.32	730,032.82	32° 33′ 49.040 N	103° 43' 15.038 W
11,600.0	90.00	179.64	10,895.0	-672.4	306.4	569,219.33	730,033.45	32° 33' 48.051 N	103° 43' 15.037 W
11,700.0	90.00	179.64	10,895.0	-772.4	307.0	569,119.33	730,034.08	32° 33' 47.061 N	103° 43' 15.037 W
11,800.0	90.00	179.64	10,895.0	-872.4	307.6	569,019.33	730,034.71	32° 33' 46.072 N	103° 43' 15.036 W
11,900.0	90.00	179.64	10,895.0 10,895.0	-972.4 1.057.2	308.3	568,919.33	730,035.34	32° 33′ 45.082 N	103° 43' 15.035 W
11,985.0	90.00	179.64 try at 1198	,	-1,057.3	308.8	568,834.36	730,035.88	32° 33' 44.241 N	103° 43' 15.035 W
12,000.0	90.00	179.64	10,895.0	-1,072.4	308.9	568,819.33	730,035.97	32° 33' 44.093 N	103° 43' 15.035 W
12,100.0	90.00	179.64	10,895.0	-1,172.4	309.5	568,719.34	730,036.60	32° 33' 43.103 N	103° 43' 15.034 W
12,200.0	90.00	179.64	10,895.0	-1,172.4	310.2	568,619.34	730,037.23	32° 33' 42.114 N	103° 43' 15.033 W
12,300.0	90.00	179.64	10,895.0	-1,372.4	310.8	568,519.34	730,037.87	32° 33' 41.124 N	103° 43' 15.033 W
12,400.0	90.00	179.64	10,895.0	-1,472.4	311.4	568,419.34	730,038.50	32° 33′ 40.135 N	103° 43' 15.032 W
12,500.0	90.00	179.64	10,895.0	-1,572.4	312.0	568,319.34	730,039.13	32° 33' 39.145 N	103° 43' 15.032 W

Planning Report - Geographic

Database: Compass
Company: NEW MEXICO
Project: (SP) LEA
Site: PASKE PROJECT

Well: PAKSE 3 SOUTH FED COM 322H

Wellbore: OWB Design: PWP0 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft

Grid

Planned Surv	vey .								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
12,600.0		179.64	10,895.0	-1,672.4	312.7	568,219.34	730,039.76	32° 33′ 38.155 N	103° 43' 15.031 W
12,700.0		179.64	10,895.0	-1,772.4	313.3	568,119.35	730,040.39	32° 33' 37.166 N	103° 43' 15.030 W
12,800.0		179.64	10,895.0	-1,872.4	313.9	568,019.35	730,041.02	32° 33′ 36.176 N	103° 43' 15.030 W
12,900.0 13,000.0		179.64 179.64	10,895.0 10,895.0	-1,972.4 -2,072.3	314.6 315.2	567,919.35 567,819.35	730,041.65 730,042.28	32° 33' 35.187 N 32° 33' 34.197 N	103° 43' 15.029 W 103° 43' 15.028 W
13,100.0		179.64	10,895.0	-2,072.3 -2,172.3	315.8	567,719.35	730,042.20	32° 33' 33.208 N	103° 43' 15.028 W
13,200.0		179.64	10,895.0	-2,272.3	316.5	567,619.36	730,043.54	32° 33' 32.218 N	103° 43' 15.027 W
13,300.0		179.64	10,895.0	-2,372.3	317.1	567,519.36	730,044.17	32° 33' 31.229 N	103° 43' 15.026 W
13,308.0	90.00	179.64	10,895.0	-2,380.3	317.1	567,511.39	730,044.22	32° 33′ 31.150 N	103° 43' 15.026 W
NMNM	016640A En	try at 1330	8.0 MD						
13,400.0		179.64	10,895.0	-2,472.3	317.7	567,419.36	730,044.80	32° 33′ 30.239 N	103° 43' 15.026 W
13,500.0		179.64	10,895.0	-2,572.3	318.4	567,319.36	730,045.43	32° 33' 29.250 N	103° 43' 15.025 W
13,600.0		179.64	10,895.0	-2,672.3	319.0	567,219.36 567,119.37	730,046.06	32° 33' 28.260 N	103° 43' 15.024 W 103° 43' 15.024 W
13,700.0 13,800.0		179.64 179.64	10,895.0 10,895.0	-2,772.3 -2,872.3	319.6 320.2	567,019.37	730,046.69 730,047.32	32° 33' 27.271 N 32° 33' 26.281 N	103° 43' 15.023 W
13,900.0		179.64	10,895.0	-2,972.3	320.9	566,919.37	730,047.95	32° 33' 25.292 N	103° 43' 15.023 W
14,000.0		179.64	10,895.0	-3,072.3	321.5	566,819.37	730,048.58	32° 33' 24.302 N	103° 43' 15.022 W
14,100.0		179.64	10,895.0	-3,172.3	322.1	566,719.37	730,049.21	32° 33' 23.313 N	103° 43' 15.021 W
14,200.0		179.64	10,895.0	-3,272.3	322.8	566,619.38	730,049.84	32° 33′ 22.323 N	103° 43' 15.021 W
14,300.0		179.64	10,895.0	-3,372.3	323.4	566,519.38	730,050.47	32° 33' 21.334 N	103° 43' 15.020 W
14,400.0		179.64	10,895.0	-3,472.3	324.0	566,419.38	730,051.10	32° 33' 20.344 N	103° 43' 15.019 W
14,500.0		179.64	10,895.0	-3,572.3	324.7	566,319.38	730,051.73	32° 33' 19.355 N	103° 43' 15.019 W
14,600.0 14,700.0		179.64 179.64	10,895.0 10,895.0	-3,672.3 -3,772.3	325.3 325.9	566,219.38 566,119.39	730,052.36 730,052.99	32° 33' 18.365 N 32° 33' 17.376 N	103° 43' 15.018 W 103° 43' 15.017 W
14,800.0		179.64	10,895.0	-3,872.3	326.5	566,019.39	730,053.62	32° 33' 16.386 N	103° 43' 15.017 W
14,900.0		179.64	10,895.0	-3,972.3	327.2	565,919.39	730,054.25	32° 33' 15.397 N	103° 43' 15.016 W
15,000.0		179.64	10,895.0	-4,072.3	327.8	565,819.39	730,054.88	32° 33' 14.407 N	103° 43' 15.015 W
15,100.0	90.00	179.64	10,895.0	-4,172.3	328.4	565,719.39	730,055.51	32° 33′ 13.418 N	103° 43' 15.015 W
15,200.0		179.64	10,895.0	-4,272.3	329.1	565,619.40	730,056.14	32° 33' 12.428 N	103° 43' 15.014 W
15,300.0		179.64	10,895.0	-4,372.3	329.7	565,519.40	730,056.77	32° 33' 11.439 N	103° 43' 15.014 W
15,400.0		179.64	10,895.0	-4,472.3	330.3	565,419.40	730,057.40	32° 33' 10.449 N	103° 43' 15.013 W
15,500.0 15,600.0		179.64 179.64	10,895.0 10,895.0	-4,572.3 -4,672.3	331.0 331.6	565,319.40 565,219.40	730,058.03 730,058.66	32° 33' 9.460 N 32° 33' 8.470 N	103° 43' 15.012 W 103° 43' 15.012 W
15,700.0		179.64	10,895.0	-4,072.3 -4,772.3	332.2	565,119.41	730,059.29	32° 33' 7.481 N	103° 43' 15.011 W
15,800.0		179.64	10,895.0	-4,872.3	332.8	565,019.41	730,059.92	32° 33' 6.491 N	103° 43' 15.010 W
15,900.0		179.64	10,895.0	-4,972.3	333.5	564,919.41	730,060.55	32° 33' 5.502 N	103° 43' 15.010 W
15,954.0		179.64	10,895.0	-5,026.3	333.8	564,865.44	730,060.89	32° 33' 4.967 N	103° 43' 15.009 W
NMNM	015907 Entr	ry at 15954.	0 MD						
16,000.0		179.64	10,895.0	-5,072.3	334.1	564,819.41	730,061.18	32° 33' 4.512 N	103° 43' 15.009 W
16,100.0		179.64	10,895.0	-5,172.3	334.7	564,719.41	730,061.81	32° 33' 3.522 N	103° 43' 15.008 W
16,200.0		179.64	10,895.0	-5,272.3	335.4	564,619.42	730,062.44	32° 33' 2.533 N	103° 43' 15.008 W
16,300.0 16,400.0		179.64 179.64	10,895.0 10,895.0	-5,372.3 -5,472.3	336.0 336.6	564,519.42 564,419.42	730,063.07 730,063.70	32° 33' 1.543 N 32° 33' 0.554 N	103° 43' 15.007 W 103° 43' 15.006 W
16,500.0		179.64	10,895.0	-5,572.3	337.3	564,319.42	730,064.33	32° 32' 59.564 N	103° 43' 15.006 W
16,600.0		179.64	10,895.0	-5,672.3	337.9	564,219.42	730,064.96	32° 32' 58.575 N	103° 43' 15.005 W
16,700.0		179.64	10,895.0	-5,772.3	338.5	564,119.43	730,065.59	32° 32' 57.585 N	103° 43' 15.005 W
16,800.0	90.00	179.64	10,895.0	- 5,872.3	339.1	564,019.43	730,066.22	32° 32′ 56.596 N	103° 43' 15.004 W
16,900.0		179.64	10,895.0	-5,972.3	339.8	563,919.43	730,066.85	32° 32′ 55.606 N	103° 43' 15.003 W
17,000.0		179.64	10,895.0	-6,072.3	340.4	563,819.43	730,067.48	32° 32' 54.617 N	103° 43' 15.003 W
17,100.0		179.64	10,895.0	-6,172.3	341.0	563,719.43	730,068.11	32° 32′ 53.627 N	103° 43' 15.002 W
17,200.0 17,300.0		179.64 179.64	10,895.0 10,895.0	-6,272.3 -6,372.3	341.7 342.3	563,619.44 563,519.44	730,068.75 730,069.38	32° 32' 52.638 N 32° 32' 51.648 N	103° 43' 15.001 W 103° 43' 15.001 W
17,300.0		179.64	10,895.0	-6,472.3	342.3	563,419.44	730,009.36	32° 32' 50.659 N	103° 43' 15.000 W
17,500.0		179.64	10,895.0	-6,572.3	343.6	563,319.44	730,070.64	32° 32' 49.669 N	103° 43' 14.999 W
,	22.30		.,	-,		,	,		

Planning Report - Geographic

Database: Compass
Company: NEW MEXICO
Project: (SP) LEA
Site: PASKE PROJECT

Well: PAKSE 3 SOUTH FED COM 322H

Wellbore: OWB Design: PWP0 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft

Grid

_									
Planned Surv	ey ey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
17,600.0	90.00	179.64	10,895.0	-6,672.3	344.2	563,219.44	730,071.27	32° 32′ 48.680 N	103° 43' 14.999 W
17,700.0		179.64	10,895.0	-6,772.3	344.8	563,119.45	730,071.90	32° 32' 47.690 N	103° 43' 14.998 W
17,800.0		179.64	10,895.0	-6,872.3	345.4	563,019.45	730,072.53	32° 32' 46.701 N	103° 43' 14.997 W
17,900.0		179.64	10,895.0	-6,972.3	346.1	562,919.45	730,073.16	32° 32' 45.711 N	103° 43' 14.997 W
18,000.0		179.64	10,895.0	-7,072.3	346.7	562,819.45	730,073.79	32° 32' 44.722 N	103° 43' 14.996 W
18,100.0		179.64	10,895.0	-7,172.2	347.3	562,719.45	730,074.42	32° 32' 43.732 N	103° 43' 14.996 W
18,200.0		179.64	10,895.0	-7,272.2	348.0	562,619.46	730,075.05	32° 32' 42.743 N	103° 43' 14.995 W
18,300.0		179.64	10,895.0	-7,372.2	348.6	562,519.46	730,075.68	32° 32' 41.753 N	103° 43' 14.994 W
18,400.0		179.64	10,895.0	-7,472.2	349.2	562,419.46	730,076.31	32° 32' 40.764 N	103° 43' 14.994 W
18,500.0		179.64	10,895.0	-7,572.2	349.9	562,319.46	730,076.94	32° 32' 39.774 N	103° 43' 14.993 W
18,600.0		179.64	10,895.0	-7,672.2	350.5	562,219.46	730,077.57	32° 32' 38.785 N	103° 43' 14.992 W
18,700.0		179.64	10,895.0	-7,772.2	351.1	562,119.47	730,078.20	32° 32' 37.795 N	103° 43' 14.992 W
18,800.0		179.64	10,895.0	-7,872.2	351.8	562,019.47	730,078.83	32° 32' 36.806 N	103° 43' 14.991 W
18,900.0		179.64	10,895.0	-7,972.2	352.4	561,919.47	730,079.46	32° 32' 35.816 N	103° 43' 14.990 W
19,000.0		179.64	10,895.0	-8,072.2	353.0	561,819.47	730,080.09	32° 32' 34.827 N	103° 43' 14.990 W
19,100.0		179.64	10,895.0	-8,172.2	353.6	561,719.47	730,080.72	32° 32' 33.837 N	103° 43' 14.989 W
19,200.0		179.64	10,895.0	-8,272.2	354.3	561,619.48	730,081.35	32° 32' 32.848 N	103° 43' 14.988 W
19,300.0		179.64	10,895.0	-8,372.2	354.9	561,519.48	730,081.98	32° 32' 31.858 N	103° 43' 14.988 W
19,400.0		179.64	10,895.0	-8,472.2	355.5	561,419.48	730,082.61	32° 32' 30.868 N	103° 43' 14.987 W
19,500.0		179.64	10,895.0	-8,572.2	356.2	561,319.48	730,083.24	32° 32' 29.879 N	103° 43' 14.987 W
19,600.0		179.64	10,895.0	-8,672.2	356.8	561,219.48	730,083.87	32° 32' 28.889 N	103° 43' 14.986 W
19,700.0		179.64	10,895.0	-8,772.2	357.4	561,119.49	730,084.50	32° 32' 27.900 N	103° 43' 14.985 W
19,800.0		179.64	10,895.0	-8,872.2	358.1	561,019.49	730,085.13	32° 32' 26.910 N	103° 43' 14.985 W
19,900.0		179.64	10,895.0	-8,972.2	358.7	560,919.49	730,085.76	32° 32' 25.921 N	103° 43' 14.984 W
20,000.0	90.00	179.64	10,895.0	-9,072.2	359.3	560,819.49	730,086.39	32° 32' 24.931 N	103° 43' 14.983 W
20,100.0		179.64	10,895.0	-9,172.2	359.9	560,719.49	730,087.02	32° 32' 23.942 N	103° 43' 14.983 W
20,200.0	90.00	179.64	10,895.0	-9,272.2	360.6	560,619.50	730,087.65	32° 32' 22.952 N	103° 43' 14.982 W
20,300.0	90.00	179.64	10,895.0	-9,372.2	361.2	560,519.50	730,088.28	32° 32' 21.963 N	103° 43' 14.981 W
20,400.0	90.00	179.64	10,895.0	-9,472.2	361.8	560,419.50	730,088.91	32° 32' 20.973 N	103° 43' 14.981 W
20,500.0	90.00	179.64	10,895.0	-9,572.2	362.5	560,319.50	730,089.54	32° 32′ 19.984 N	103° 43' 14.980 W
20,600.0	90.00	179.64	10,895.0	-9,672.2	363.1	560,219.50	730,090.17	32° 32′ 18.994 N	103° 43' 14.979 W
20,700.0	90.00	179.64	10,895.0	-9,772.2	363.7	560,119.51	730,090.80	32° 32' 18.005 N	103° 43' 14.979 W
20,800.0	90.00	179.64	10,895.0	-9,872.2	364.4	560,019.51	730,091.43	32° 32' 17.015 N	103° 43' 14.978 W
20,900.0	90.00	179.64	10,895.0	-9,972.2	365.0	559,919.51	730,092.06	32° 32' 16.026 N	103° 43' 14.978 W
21,000.0		179.64	10,895.0	-10,072.2	365.6	559,819.51	730,092.69	32° 32' 15.036 N	103° 43' 14.977 W
21,100.0		179.64	10,895.0	-10,172.2	366.2	559,719.51	730,093.32	32° 32' 14.047 N	103° 43' 14.976 W
21,200.0		179.64	10,895.0	-10,272.2	366.9	559,619.52	730,093.95	32° 32' 13.057 N	103° 43' 14.976 W
21,230.0	90.00	179.64	10,895.0	-10,302.1	367.1	559,589.56	730,094.14	32° 32' 12.761 N	103° 43' 14.975 W
	015907 Exit								
21,300.0		179.64	10,895.0	-10,372.2	367.5	559,519.52	730,094.58	32° 32' 12.068 N	103° 43' 14.975 W
21,400.0		179.64	10,895.0	-10,472.2	368.1	559,419.52	730,095.21	32° 32' 11.078 N	103° 43' 14.974 W
21,500.0		179.64	10,895.0	-10,572.2	368.8	559,319.52	730,095.84	32° 32′ 10.089 N	103° 43' 14.974 W
21,600.0		179.64	10,895.0	-10,672.2	369.4	559,219.52	730,096.47	32° 32' 9.099 N	103° 43' 14.973 W
21,700.0		179.64	10,895.0	-10,772.2	370.0	559,119.53	730,097.10	32° 32′ 8.110 N	103° 43' 14.972 W
21,800.0		179.64	10,895.0	-10,872.2	370.7	559,019.53	730,097.73	32° 32′ 7.120 N	103° 43' 14.972 W
21,900.0		179.64	10,895.0	-10,972.2	371.3	558,919.53	730,098.36 730,098.99	32° 32′ 6.131 N	103° 43' 14.971 W
22,000.0		179.64	10,895.0	-11,072.2	371.9	558,819.53		32° 32′ 5.141 N	103° 43' 14.970 W
22,100.0		179.64	10,895.0	-11,172.2	372.5 373.2	558,719.53	730,099.62	32° 32′ 4.152 N	103° 43' 14.970 W
22,200.0 22,300.0		179.64	10,895.0	-11,272.2 -11,372.2	373.2	558,619.54	730,100.26	32° 32′ 3.162 N	103° 43' 14.969 W
22,300.0		179.64 179.64	10,895.0 10,895.0	-11,372.2 -11,472.2	373.8 374.4	558,519.54	730,100.89 730,101.52	32° 32' 2.173 N 32° 32' 1.183 N	103° 43' 14.968 W 103° 43' 14.968 W
22,400.0			10,895.0	-11,472.2 -11,572.2	374.4 375.1	558,419.54	730,101.52	32° 32′ 0.193 N	103° 43' 14.967 W
22,500.0		179.64 179.64	10,895.0	-11,572.2 -11,672.2	375.1 375.7	558,319.54 558,219.54	730,102.15	32° 31' 59.204 N	103° 43' 14.967 W
22,700.0		179.64	10,895.0	-11,072.2 -11,772.2	375.7 376.3	558,119.55	730,102.76	32° 31' 58.214 N	103° 43' 14.966 W
22,700.0	30.00	173.04	10,000.0	-11,112.2	370.3	550,118.55	700,100.41	02 01 00.214 N	100 40 14.000 00

Planning Report - Geographic

Database: Compass
Company: NEW MEXICO
Project: (SP) LEA
Site: PASKE PROJECT

PAKSE 3 SOUTH FED COM 322H

Wellbore: OWB Design: PWP0

Well:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well PAKSE 3 SOUTH FED COM 322H

KB @ 3570.2usft KB @ 3570.2usft Grid

Planned Surv	vey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
22,800.0	90.00	179.64	10,895.0	-11,872.2	377.0	558,019.55	730,104.04	32° 31' 57.225 N	103° 43' 14.965 W
22,900.0	90.00	179.64	10,895.0	-11,972.2	377.6	557,919.55	730,104.67	32° 31' 56.235 N	103° 43' 14.965 W
23,000.0	90.00	179.64	10,895.0	-12,072.2	378.2	557,819.55	730,105.30	32° 31' 55.246 N	103° 43' 14.964 W
23,100.0	90.00	179.64	10,895.0	-12,172.1	378.9	557,719.55	730,105.93	32° 31' 54.256 N	103° 43' 14.963 W
23,200.0	90.00	179.64	10,895.0	-12,272.1	379.5	557,619.56	730,106.56	32° 31' 53.267 N	103° 43' 14.963 W
23,300.0	90.00	179.64	10,895.0	-12,372.1	380.1	557,519.56	730,107.19	32° 31' 52.277 N	103° 43' 14.962 W
23,400.0	90.00	179.64	10,895.0	-12,472.1	380.7	557,419.56	730,107.82	32° 31' 51.288 N	103° 43' 14.961 W
23,500.0	90.00	179.64	10,895.0	-12,572.1	381.4	557,319.56	730,108.45	32° 31′ 50.298 N	103° 43' 14.961 W
23,600.0	90.00	179.64	10,895.0	-12,672.1	382.0	557,219.56	730,109.08	32° 31′ 49.309 N	103° 43' 14.960 W
23,700.0	90.00	179.64	10,895.0	-12,772.1	382.6	557,119.57	730,109.71	32° 31′ 48.319 N	103° 43' 14.959 W
23,800.0	90.00	179.64	10,895.0	-12,872.1	383.3	557,019.57	730,110.34	32° 31' 47.330 N	103° 43' 14.959 W
23,860.0	90.00	179.64	10,895.0	-12,932.1	383.6	556,959.59	730,110.72	32° 31' 46.736 N	103° 43' 14.958 W
TD at 2	3860.0								

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP-PAKSE 3 S FC 3 - plan hits target of a Point		0.00	10,895.0	-12,842.1	383.1	557,049.59	730,110.15	32° 31' 47.627 N	103° 43' 14.959 W
BHL-PAKSE 3 S FC 3 - plan hits target o - Point		0.00	10,895.0	-12,932.1	383.6	556,959.59	730,110.72	32° 31' 46.736 N	103° 43' 14.958 W
FTP-PAKSE 3 S FC 3 - plan misses targ - Point			10,895.0 It 10841.7u	165.8 sft MD (1077	300.8 4.0 TVD, 56	570,057.47 0 N, 301.8 E)	730,027.86	32° 33' 56.344 N	103° 43' 15.046 W

Plan Annot	ations				
	Measured Depth (usft)	Vertical Depth (usft)	Local Coor +N/-S (usft)	rdinates +E/-W (usft)	Comment
	2,000.0	2,000.0	0.0	0.0	Start Build 2.00
	2,350.0	2,349.1	12.4	17.4	Start 2687.1 hold at 2350.0 MD
	5,037.1	5,016.2	203.4	283.4	Start Drop -2.00
	5,387.1	5,365.4	215.8	300.8	Start 5052.1 hold at 5387.1 MD
	10,439.3	10,417.5	215.8	300.8	Start DLS 12.00 TFO 179.64
	11,189.3	10,895.0	-261.7	303.8	Start 12670.7 hold at 11189.3 MD
	11,985.0	10,895.0	-1,057.3	308.8	NMNM 016640B Entry at 11985.0 MD
	13,308.0	10,895.0	-2,380.3	317.1	NMNM 016640A Entry at 13308.0 MD
	15,954.0	10,895.0	-5,026.3	333.8	NMNM 015907 Entry at 15954.0 MD
	21,230.0	10,895.0	-10,302.1	367.1	NMNM 015907 Exit at 21230.0 MD
	23,860.0	10,895.0	-12,932.1	383.6	TD at 23860.0

Permian Resources - Pakse 3 South Fed Com 322H

1. Geologic Formations

Formation	Lithology	Elevation	TVD	Target
Rustler	Sandstone	2419	1151	No
Top of Salt	Salt	2203	1367	No
Tansill	Sandstone	645	2925	No
Capitan	Sandstone	-128	3698	No
Delaware Sands	Sandstone	-1124	4694	No
Brushy Canyon	Sandstone	-2625	6195	No
Bone Spring Lime	Limestone/Shale	-4326	7896	No
1st Bone Spring Sand	Sandstone/Limestone/Shale	-5348	8918	No
2nd Bone Spring Sand	Sandstone/Limestone/Shale	-5899	9469	No
3rd Bone Spring Sand	Sandstone/Limestone/Shale	-6968	10538	Yes
Wolfcamp	Shale	-7371	10941	No

2. Blowout Prevention

BOP installed and tested before drilling	Size?	Min. Required WP	Ту	p e	x	Tested to:	
			Anr	nular	Х	1000 psi	
			Blind	Ram			
12.25	20"	2M	Pipe	Ram			
			Double	e Ram			
			Other*				
			Annular		Х	2500 psi	
	13-5/8"	5M	Blind Ram		Х		
9.875			Pipe Ram		Х	5000 psi	
			Double	e Ram		5000 psi	
			Other*				
			Annular		Х	2500 psi	
			Blind	Ram	Х		
7.875	13-5/8"	5M	Pipe Ram		Х	5000 poi	
			Double Ram			5000 psi	
			Other*				

Equipment: BOPE with working pressure ratings in excess of anticipated maximum surface pressure will be utilized for well control from drill out of surface casing to TMD. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. All BOPE connections shall be flanged, welded or clamped. All choke lines shall be straight unless targeted with running tees or tee blocks are used, and choke lines shall be anchored to prevent whip and reduce vibrations. All valves in the choke line & the choke manifold shall be full opening as to not cause restrictions and to allow for straight fluid paths to minimize potential erosion. All gauges utilized in the well control system shall be of a type designed for drilling fluid service. A top drive inside BOP valve will be utilized at all times. Subs equipped with full opening valves sized to fit the drill pipe and collars will be available on the rig floor in the open position. The key to operate said valve equipped subs will be on the rig floor at all times. The accumulator system will have sufficient capacity to open the HCR and close all three sets of rams plus the annular preventer while retaining at least 300 psi above precharge on the closing manifold (accumulator system shall be capable of doing so without using the closing unit pumps). The fluid reservoir capacity will be double the usable fluid volume of the accumulator system capacity, and the fluid level will be maintained at the manufacturer's recommended level. Prior to connecting the closing unit to the BOP stack, an accumulator precharge pressure test shall be performed to ensure the precharge pressure is within 100 psi of the desired precharge pressure (only nitrogen gas will be used to precharge). Two independent power sources will be made available at all times to power the closing unit pumps so that the pumps can automatically start when the closing valve manifold pressure has decreased to the preset level. Closing unit pumps will be sized to allow opening of HCR and closing of annular preventer on 5" drill pipe achieving at least 200 psi above precharge pressure with the accumulator system isolated from service in less than two minutes. A valve shall be installed in the closing line as close to the annular preventer as possible to act as a locking device; the valve shall be maintained in the open position and shall be closed only when the power source for the accumulator system is inoperative. Remote controls capable of opening and closing all preventers & the HCR shall be readily accessible to the driller; master controls with the same capability will be operable at the accumulator. The wellhead will be a multibowl speed head allowing for hangoff of intermediate casing & isolation of the 133/8 x 95/8 annulus without breaking the connection between the BOP & wellhead to install an additional casing head. A wear bushing will be installed & inspected frequently to guard against internal wear to wellhead. VBRs (variablebore rams) will be run in upper rambody of BOP stack to provide redundancy to annular preventer while RIH w/ production casing;

Requesting Variance? YES

Variance request: Diverter to drill surface hole, break testing, flex hose, and offline cement variances, see attachments in section 8.

Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order II requirements. The BOP test shall be performed before drilling out of the surface casing shoe and will occur at a minimum: a. when initially installed b. whenever any seal subject to test pressure is broken c. following related repairs d. at 30 day intervals e. checked daily as to mechanical operating conditions. The ram type preventer(s) will be tested using a test plug to 250 psi (low) and 5,000 psi (high) (casinghead WP) with a test plug upon its installation onto the 13 surface casing. If a test plug is not used, the ram type preventer(s) shall be tested to 70% of the minimum internal yield pressure of the casing. The annular type preventer(s) shall be tested to 3500 psi. Pressure will be maintained for at least 10 minutes or until provisions of the test are met, whichever is longer. A Sundry Notice (Form 3160 5), along with a copy of the BOP test report, shall be submitted to the local BLM office within 5 working days following the test. If the bleed line is connected into the buffer tank (header), all BOP equipment including the buffer tank and associated valves will be rated at the required BOP pressure. The BLM office will be provided with a minimum of four (4) hours notice of BOP testing to allow witnessing. The BOP Configuration, choke manifold layout, and accumulator system, will be in compliance with Onshore Order 2 for a 5,000 psi system. A remote accumulator and a multi-bowl system will be used, please see attachment in section 8 for multi-bowl procedure. Pressures, capacities, and specific placement and use of the manual and/or hydraulic controls, accumulator controls, bleed lines, etc., will be identified at the time of the BLM 'witnessed BOP test. Any remote controls will be capable of both opening and closing all preventers and shall be readily accessible.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checked will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP), choke lines, and choke manifold. See attached schematics.

Choke Diagram Attachment: 5M Choke Manifold BOP Diagram Attachment: BOP Schematics

3. Casing

String	Hole Size	Casing Size	Тор	Bottom	Top TVD	Bottom TVD	Length	Grade	Weight	Connection	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
Surface	17.5	13.375	0	1176	0	1176	1176	J55	54.5	BTC	1.95	2.21	Dry	5.54	Dry	5.20
Intermediate 1	12.25	10.75	0	2950	0	2950	2950	J55	45.5	BTC	8.10	3.95	Dry	4.54	Dry	4.44
Intermediate 2	9.875	8.625	0	4644	0	4644	4644	P110 HS	32	MO-FXL	4.70	2.30	Dry	3.17	Dry	4.60
Production	7.875	5.5	0	11189	0	10895	11189	P110RY	20	GeoConn	1.96	2.05	Dry	2.02	Dry	2.02
Production	7.875	5.5	11189	23860	10895	10895	12671	P110RY	20	GeoConn	1.96	2.05	Dry	2.02	Dry	2.02
								BLM Mi	n Safe	ty Factor	1.125	1		1.6		1.6

Non API casing spec sheets and casing design assumptions attached.

4. Cement

String	Lead/Tail	Top MD	Bottom MD	Quanity (sx)	Yield	Density	Cu Ft	Excess %	Cement Type	Additives
Surface	Tail	0	1176	920	1.34	14.8	1230	50%	Class C	Accelerator
										EconoCem-HLC + 5% Salt +
Intermediate 1	Lead	0	2360	330	1.88	12.9	620	50%	Class C	5% Kol-Seal
Intermediate 1	Tail	2360	2950	130	1.34	14.8	170	50%	Class C	Retarder
Intermediate 2	Lead	0	3710	290	1.88	12.9	540	50%	Class C	EconoCem-HLC + 5% Salt + 5% Kol-Seal
Intermediate 2	Tail	3710							Class C	Salt
Production	Lead	4144	10439	630	2.41	11.5	1500	40%	Class H	POZ, Extender, Fluid Loss, Dispersant, Retarder
Production	Tail	10439	23860	1690	1.73	12.5	2910	25%	Class H	POZ, Extender, Fluid Loss, Dispersant, Retarder

If losses are encountered while drilling intermediate 2 a stage tool will be added and cement will be adjusted accordingly.

5. Circulating Medium

Mud System Type: Closed

Will an air or gas system be used: No

Describe what will be on location to control well or mitigate oter conditions: Sufficient quantities of mud materials will be on the well site at all times for the purpose of assuring well control and maintaining wellbore integrity. Surface interval will employ fresh water mud. The intermediate hole will utilize a saturated brine fluid to inhibit salt washout. The production hole will employ brine based and oil base fluid to inhibit formation reactivity and of the appropriate density to maintain well control.

Describe the mud monitoring system utilized: Centrifuge separation system. Open tank monitoring with EDR will be used for drilling fluids and return volumes. Open tank monitoring will be used for cement and cuttings return volumes. Mud properties will be monitored at least every 24 hours using industry accepted mud check practices.

Cuttings Volume: 10820 Cu Ft

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight	Max Weight	
0	1176	Spud Mud	8.6	9.5	
1176	2950	Salt Saturated	10	10	
2950	4644	Water Base Mud	8.6	9.5	
4644	11189	Brine	9	10	
11189	23860	OBM	9	10	

6. Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Will utilize MWD/LWD (Gamma Ray logging) from intermediate hole to TD of the well.

List of open and cased hole logs run in the well:

DIRECTIONAL SURVEY, GAMMA RAY LOG,

Coring operation description for the well:

N/A

7. Pressure

Anticipated Bottom Hole Pressure	5670	psi
Anticipated Surface Pressure	3269	psi
Anticipated Bottom Hole Temperature	164	°F
Anticipated Abnormal pressure, temp, or geo hazards	No	

8. Waste Management

Waste Type:	Drilling
Waste content description:	Fresh water based drilling fluid
Amount of waste:	1500 bbls
Waste disposal frequency:	Weekly (after drilling all surfaces)
Safe containment description:	Steel tanks with plastic-lined containment berms
Waste disposal type:	Haul to commercial facility
Disposal location ownership:	Commercial
Waste Type:	Grey Water & Human Waste
Waste content description:	Grey Water/Human Waste
Amount of waste:	5000 gallons
Waste disposal frequency:	Weekly
Safe containment description:	Approved waste storage tanks with containment
Waste disposal type:	Haul to commercial facility
Disposal location ownership:	Commercial
Waste Type:	Garbage
Waste content description:	General trash/garbage
Amount of waste:	5000 lbs
Waste disposal frequency:	Weekly
Safe containment description:	Enclosed trash trailer
Waste disposal type:	Haul to commercial facility
Disposal location ownership:	Commercial
Waste Type:	Drilling
Waste content description:	Drill Cuttings
Amount of waste:	10820 Cu Ft
Waste disposal frequency:	Per well
Safe containment description:	Steel tanks
Waste disposal type:	Haul to commercial facility
Disposal location ownership:	Commercial
Waste Type:	Drilling
Waste content description:	Brine water based drilling fluid
Amount of waste:	1500 bbls
Waste disposal frequency:	Monthly
Safe containment description:	Steel tanks with plastic-lined containment berms
Waste disposal type:	Haul to commercial facility
Disposal location ownership:	Commercial

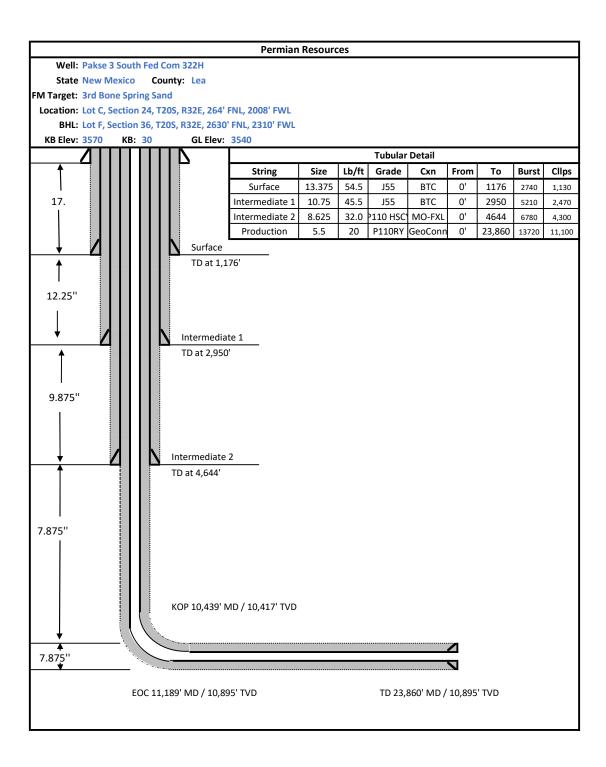
9. Other Information

Well Plan and AC Report: attached Batching Drilling Procedure: attached

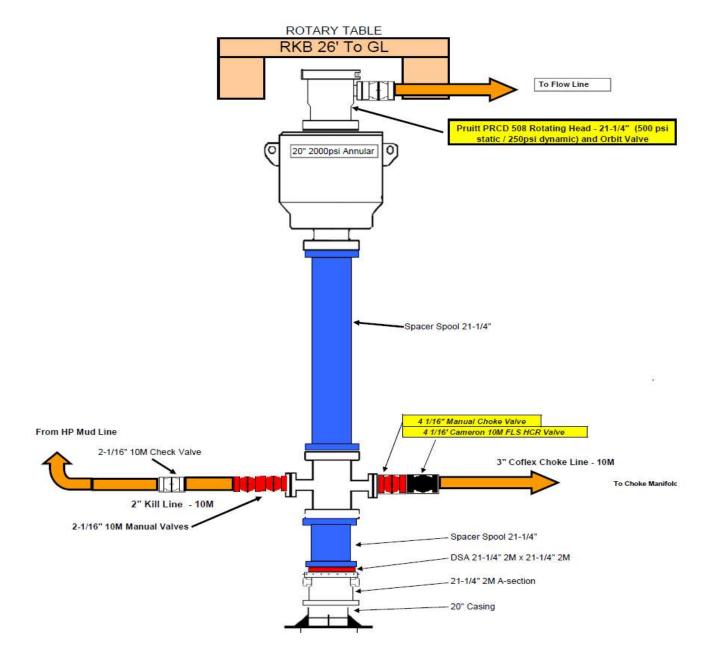
WBD: attached

Flex Hose Specs: attached

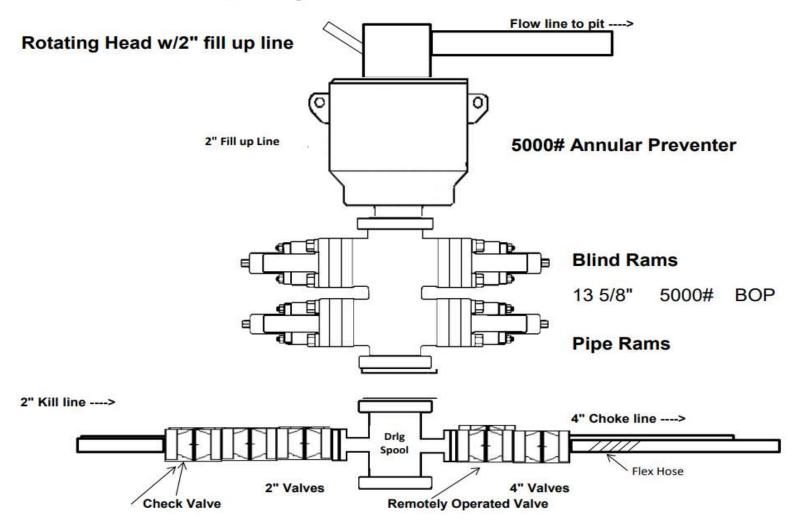
Offline Cementing Procedure: attached Break Testing Procedure: attached



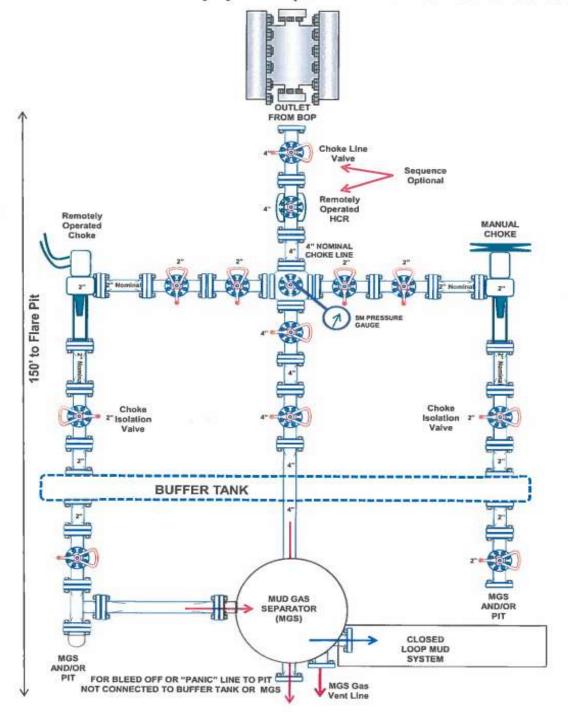
2M BOP



5,000 psi BOP Schematic



5M Choke Manifold Equipment (WITH MGS + CLOSED LOOP)





CONTITECH RUBBER No:QC-DB- 210/ 2014 Industrial Kft. Page: 9 / 113

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT, Nº:		504		
PURCHASER:	Oil & Marine Corp.			P.O. N°:		4500409659		
CONTITECH PUBBER of	HOSE TYPE: 3" ID		ID:		Choke and	nd Kill Hose		
HOSE SERIAL Nº:	NOMINAL / ACTUAL LENGTH:			t: 10,67 m / 10,77 m				
W.P. 68,9 MPa	10000 psi	T.P. 103,4	MPa	1500	10 psi	Duration	60	min
	3	See attachme	ent. (1	page)			
↑ 10 mm = 10 → 10 mm = 20	Min. MPs							
100,000	MPs	Serial	N°		c	lunity	Heat	N°
→ 10 mm = 20	MPs Type	Serial 9251	N= 925	4		Junity SI 4130	Heat A057	
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ATTACHMENT OF QUALITY CONTROL INSPECTION AND TEST CERTIFICATE No. 501, 504, 505

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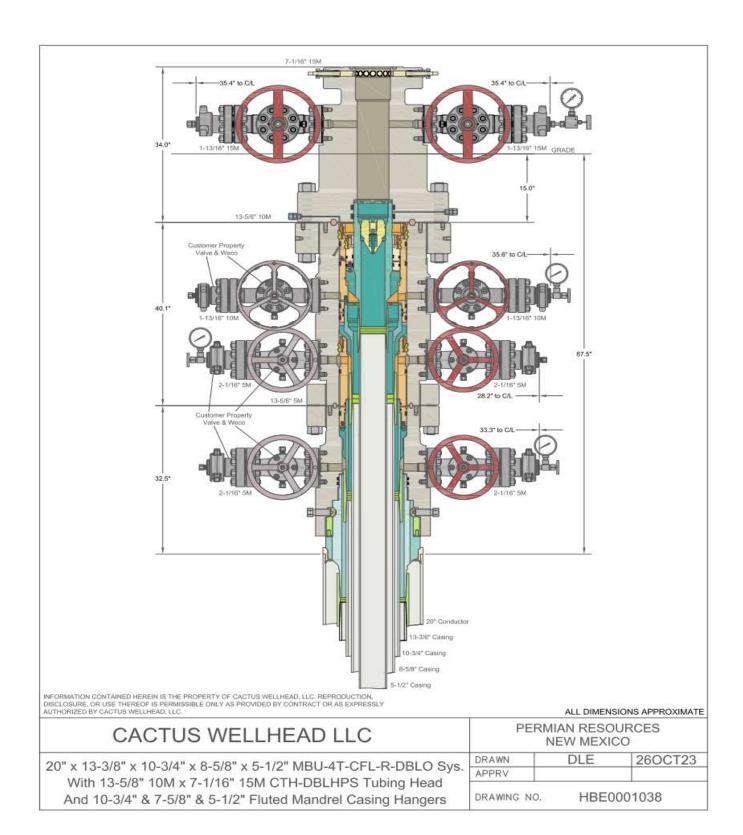
No:QC-DB- 210/ 2014 Page: 15 / 113

ContiTech

Hose Data Sheet

CRI Order No.	538236
Customer	ContiTech Oil & Marine Corp.
Customer Order No	4500409659
Item No.	1
Hose Type	Flexible Hose
Standard	API SPEC 16 C
Inside dia in inches	3
Length	35 ft
Type of coupling one end	FLANGE 4.1/16" 10K API SPEC 6A TYPE 6BX FLANGE C/W BX156 R.GR.SOUR
Type of coupling other end	FLANGE 4.1/16* 10K API SPEC 6A TYPE 6BX FLANGE CAV BX155 R.GR.SOUR
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	USUAL PHOENIX
Cover	NOT FIRE RESISTANT
Outside protection	St.steel outer wrap
Internal stripwound tube	No
Lining	OIL + GAS RESISTANT SOUR
Safety clamp	No
Lifting collar	No
Element C	No
Safety chain	No
Safety wire rope	No
Max.design temperature [°C]	100
Min.design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

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Permian Resources Casing Design Criteria

A sundry will be requested if any lesser grade or different size casing is substituted. All casing will be centralized as specified in On Shore Order II. Casing will be tested as specified in On Shore Order II.

Casing Design Assumptions:

Surface

- 1) Burst Design Loads
 - a) Displacement to Gas
 - (1) Internal: Assumes a full column of gas in the casing with a gas gradient of 0.7 psi/ft in the absence of better information. It is limited to the controlling pressure based on the maximum expected pore pressure within the next drilling interval.
 - (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
 - b) Casing Pressure Test
 - Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.
 - (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
- 2) Collapse Loads
 - a) Cementing
 - (1) Internal: Displacement fluid density.
 - (2) External: Mud weight from TOC to surface and cement slurry weight from TOC to shoe.
 - b) Lost Returns with Mud Drop
 - Internal: Lost circulation at the TD of the next hole section and the fluid level falls to a depth where the hydrostatic pressure of the mud column equals pore pressure at the depth of the lost circulation zone.
 - (2) External: Mud weight to TOC and cement slurry(s) density below TOC.
- 3) Tension Loads
 - a) Overpull Force
 - Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.
 - b) Green Cement Casing Test
 - 1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

Intermediate I

- 1) Burst Design Loads
 - a) Displacement to Gas
 - (1) Internal: Assumes a full column of gas in the casing with a gas gradient of 0.7 psi/ft in the absence of better information. It is limited to the controlling pressure based on the maximum expected pore pressure within the next drilling interval.
 - (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
 - b) Casing Pressure Test
 - Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.

- (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
- 2) Collapse Loads
 - a) Cementing
 - (1) Internal: Displacement fluid density.
 - (2) External: Mud weight from TOC to surface and cement slurry weight from TOC to shoe.
 - b) Lost Returns with Mud Drop
 - Internal: Lost circulation at the TD of the next hole section and the fluid level falls to a
 depth where the hydrostatic pressure of the mud column equals pore pressure at the
 depth of the lost circulation zone.
 - (2) External: Mud weight to TOC and cement slurry(s) density below TOC.
- Tension Loads
 - a) Overpull Force
 - 1. Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.
 - b) Green Cement Casing Test
 - 1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

Intermediate or Intermediate II

- 1) Burst Design Loads
 - a) Gas Kick Profile
 - Internal: Load profile based on influx encountered in lateral portion of wellbore with a maximum influx volume of 150 bbl and a kick intensity of 1.5 ppg using maximum anticipated MW of 9.9 ppg.
 - (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
 - b) Casing Pressure Test
 - Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.
 - (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
- 2) Collapse Loads
 - a) Cementing
 - Internal: Displacement fluid density.
 - (2) External: Mud weight from TOC to surface and cement slurry weight from TOC to shoe.
 - b) Lost Returns with Mud Drop
 - Internal: Lost circulation at the deepest TVD of the next hole section and the fluid level falls
 to a depth where the hydrostatic pressure of the mud column equals pore pressure at the
 depth of the lost circulation zone.
 - (2) External: Mud weight to TOC and cement slurry(s) density below TOC.
- 3) Tension Loads
 - a) Overpull Force
 - 1. Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.
 - b) Green Cement Casing Test
 - 1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

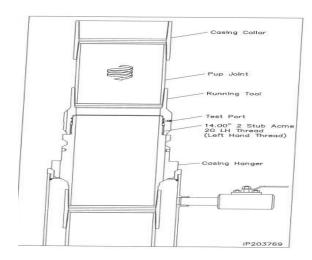
Production

- 1) Burst Design Loads
 - a) Injection Down Casing
 - (1) Internal: Surface pressure plus injection fluid gradient.
 - (2) External: Mud base-fluid density to top of cement and cement mix water gradient (8.4 ppg) below TOC.
 - b) Casing Pressure Test (Drilling)
 - Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.
 - (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
 - c) Casing Pressure Test (Production)
 - (1) Internal: The design pressure test should be the greater of the planned test pressure prior to simulation down the casing, the regulatory test pressure, and the expected gas lift system pressure. The design test fluid should be the fluid associated with the pressure test having the greatest pressure.
 - (2) External: Mud base-fluid density to top of cement and cement mix water gradient (8.4 ppg) below TOC.
 - d) Tubing Leak
 - (1) Internal: SITP plus a packer fluid gradient to the top of packer.
 - (2) External: Mud base-fluid density to top of cement and cement mix water gradient (8.4 ppg) below TOC.
- 2) Collapse Loads
 - a) Cementing
 - (1) Internal: Displacement fluid density.
 - (2) External: Mud weight to TOC and cement slurry(s) density below TOC.
 - b) Full Evacuation
 - (1) Internal: Full void pipe.
 - (2) External: Mud weight to TOC and cement slurry(s) density below TOC.
- 3) Tension Loads
 - a) Overpull Force
 - 1. Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.
 - b) Green Cement Casing Test
 - 1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

Permian Resources Multi-Well Pad Batch Drilling & Off Line Cement Procedure

<u>Surface Casing</u> - PR intends to Batch set and offline cement all surface casing to a depth approved in the APD. Surface Holes will be batch drilled by a big rig. Appropriate notifications will be made prior to spudding the well, running, and cementing casing and prior to skidding to the rig to the next well on pad.

- 1. Drill Surface hole to Approved Depth with Surface Preset Rig and perform wellbore cleanup cycles. Trip out and rack back drilling BHA.
- 2. Run casing with Cactus Multibowl system, with baseplate supported by Conductor.
- 3. Circulate 1.5 csg capacity.
- 4. Flow test Confirm well is static.
- 5. Install cap flange.
- 6. Skid rig to next well on pad
- 7. Remove cap flange (confirm well is static before removal)
 - a) If well is not static use the casing outlet valves to kill well
 - b) Drillers method will be used in well control event
 - c) High pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
 - d) Kill mud will be circulated once influx is circulated out of hole
 - e) Confirm well is static and remove cap flange to start offline cement operations
- 8. Install offline cement tool.
- 9. Rig up cementers.
- 10. Circulate bottoms up with cement truck
- 11. Commence planned cement job, take returns through the annulus wellhead valve
- 12. After plug is bumped confirm floats hold and well is static
- 13. Perform green cement casing test.
 - a) Test Surface casing (.22 psi/ft or 1500 psi whichever is greater) not to exceed 70% casing burst.
- 14. Rig down cementers and equipment
- 15. Install night cap with pressure gauge to monitor.

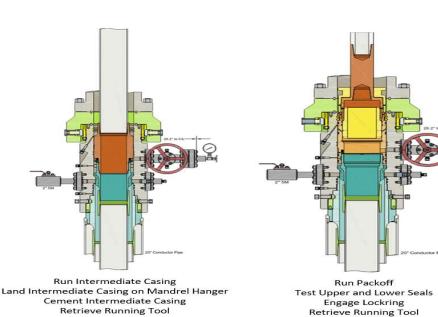


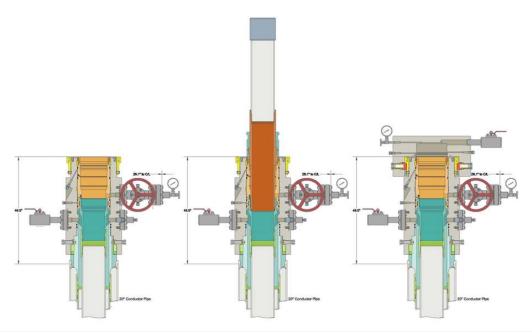
<u>Intermediate 1 Casing</u> – PR intends to Batch set all intermediate 1 casing strings to a depth approved in the APD, typically set into end of salts. Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings.

Rig will remove the nightcap and install and test BOPE (testing will be performed on the first Intermediate 1 as per requested break testing variance).

Install wear bushing then drill out 20" shoe-track.

- 1. Drill Intermediate 1 hole to approved casing point. Trip out of hole with BHA to run Casing.
- 2. Remove wear bushing then run and land Intermediate 1 casing with mandrel hanger in wellhead.
- 3. Flow test Confirm well is static.
- 4. Set Annular packoff and pressure test. Test to 5k.
- 5. Install BPV, Nipple down BOP and install cap flange.
- 6. Skid rig to next well on pad
- 7. Remove cap flange (confirm well is static before removal)
 - a) If well is not static use the casing outlet valves to kill well
 - b) Drillers method will be used in well control event
 - c) High pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
 - d) Kill mud will be circulated once influx is circulated out of hole
 - e) Confirm well is static and remove cap flange to start offline cement operations
- 8. Install offline cement tool.
- 9. Rig up cementers.
- 10. Circulate bottoms up with cement truck
- 11. Commence planned cement job, take returns through the annulus wellhead valve
- 12. After plug is bumped confirm floats hold and well is static
- 13. Perform green cement casing test.
 - a) Test casing (.22 psi/ft or 1500 psi whichever is greater) not to exceed 70% casing burst
- 14. Rig down cementers and equipment
- 15. Install night cap with pressure gauge to monitor.





<u>Intermediate 2 Casing</u> – PR intends to Batch set all Intermediate 2 casing strings to a depth approved in the APD, typically set into Captain past losses. Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings.

- 1. Rig will remove the nightcap and install and test BOPE (testing will be performed on the first Intermediate 2 as per requested break testing variance).
- 2. Install wear bushing then drill out Intermediate 1 shoe-track.
- 3. Drill Intermediate 2 hole to approved casing point. Trip out of hole with BHA to run Casing.
- 4. Remove wear bushing then run and land Intermediate 2 casing with mandrel hanger in wellhead.
- 5. Flow test Confirm well is static.
- 6. Set Annular packoff and pressure test. Test to 5k.
- 7. Install BPV, Nipple down BOP and install cap flange.
- 8. Skid rig to next well on pad
- 9. Remove cap flange (confirm well is static before removal)
 - a) If well is not static use the casing outlet valves to kill well
 - b) Drillers method will be used in well control event
 - c) High pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
 - d) Kill mud will be circulated once influx is circulated out of hole
 - e) Confirm well is static and remove cap flange to start offline cement operations
- 10. Install offline cement tool.
- 11. Rig up cementers.
- 12. Circulate bottoms up with cement truck
- 13. Commence planned cement job, take returns through the annulus wellhead valve
- 14. After plug is bumped confirm floats hold and well is static
- 15. Perform green cement casing test.
 - a) Test casing (.22 psi/ft or 1500 psi whichever is greater) not to exceed 70% casing burst.
- 16. Rig down cementers and equipment
- 17. Install night cap with pressure gauge to monitor.

<u>Production Casing</u> – PR intends to Batch set all Production casings. Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings.

- 1. Rig will remove the nightcap and install and test BOPE.
- 2. Install wear bushing then drill Intermediate shoe-track.
- 3. Drill Vertical hole to KOP Trip out for Curve BHA.
- 4. Drill Curve, landing in production interval Trip for Lateral BHA.
- 5. Drill Lateral / Production hole to Permitted BHL, perform cleanup cycles and trip out to run Production Casing.
- 6. Remove wear bushing then run Production casing to TD landing casing mandrel in wellhead.
- 7. Cement Production string to surface with floats holding.

Permian Resources BOP Break Testing Variance Procedure

Subject: Request for a Variance Allowing break Testing of the Blowout Preventer Equipment (BOPE). Permian Resources requests a variance to ONLY test broken pressure seals on the BOPE and function test BOP when skidding a drilling rig between multiple wells on a pad.

Background

Title 43 CFR 3172, Drilling Operations, Sections 6.b.9.iv states that the BOP test must be performed whenever any seal subject to test pressure is broken. The current interpretation of the Bureau of Land Management (BLM) requires a complete BOP test and not just a test of the affected component. 43 CFR 3172.13, Variances from minimum standards states, "An operator may request the authorized officer to approve a variance from any of the minimum standards prescribed in §§ 3172.6 through 3172.12. All such requests shall be submitted in writing to the appropriate authorized officer and provide information as to the circumstances which warrant approval of the variance(s) requested and the proposed alternative methods by which the related minimum standard(s) are to be satisfied. The authorized officer, after considering all relevant factors, if appropriate, may approve the requested variance(s) if it is determined that the proposed alternative(s) meet or exceed the objectives of the applicable minimum standard(s).". Permian Resources feels the break testing the BOPE is such a situation. Therefore, as per 43 CFR 3172.13, Permian Resources submits this request for the variance.

Supporting Documentation

The language used in 43 CFR 3172 became effective on December 19, 1988 and has remained the standard for regulating BLM onshore drilling operations for over 30 years. During this time, there have been significant changes in drilling technology. The BLM continues to use the variance request process to allow for the use of modern technology and acceptable engineering practices that have arisen since 43 CFR 3172 was originally released. The Permian Resources drilling rig fleet has many modern upgrades that allow the intact BOP stack to be moved between well slots on a multi-well pad, as well as, wellhead designs that incorporate quick connects facilitating release of the BOP from the wellhead without breaking any BOP stack components apart. These technologies have been used extensively offshore, and other regulators, API, and many operators around the world have endorsed break testing as safe and reliable.

Figure 1: Winch System attached to BOP Stack



Figure 2: BOP Winch System



American Petroleum Institute (API) standards, specification and recommended practices are considered the industry standard and are consistently utilized and referenced by the industry. 43 CFR 3172 recognizes API recommended Practices (RP) 53 in its original development. API Standard 53, Well Control Equipment Systems for Drilling Wells (Fifth Edition, December 2018, Annex C, Table C.4) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 5.3.7.1 states "A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component." See Table C.4 below for reference.

2	API STANDARD 53				
Ta	ble C.4—Initial Pressure Te	esting. Surface BOP Stacks			
Component to be Pressure Tested	Pressure Test—Low Pressure ²⁶ psig (MPa) 250 to 350 (1.72 to 2.41)	Pressure Test—High Pressure*			
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket		
Annular preventer		RWP of annular preventer	MASP or 70% annutar RWP, whichever is lower.		
Fixed pipe, variable bore, blind, and BSR preventers ³²	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP		
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2 41)	RWP of side outlet valve or wellhead system, whichever is lower	ιτΡ		
Choke manifold—upstream of chokes*	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ПР		
Choke manifold—downstream of chokes*	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or MASP for the well program, whichever is lower			
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program			
No visible leaks. The pressure shall remain stable Annular(s) and VBR(s) shall be pre	ssure tested on the largest and small	ressure shall not decrease below the allest OD drill pipe to be used in well	program.		
	from one wellhead to another within when the integrity of a pressure sea	n the 21 days, pressure testing is required in the stroken.	uired for pressure-containing and		
For surface offshore operations, the	ne ram BOPs shall be pressure test band operations, the ram BOPs sha	led with the ram locks engaged and ill be pressure tested with the ram lo			

The Bureau of Safety and Environmental Enforcement (BSEE), Department of Interior, has also utilized the API standards, specification and best practices in the development of its offshore oil and gas regulations and incorporates them by reference within its regulations.

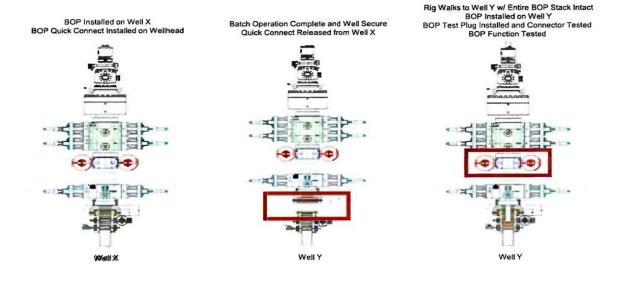
Break testing has been approved by the BLM in the past with other operators based on the detailed information provided in this document.

Permian Resources feels break testing and our current procedures meet the intent of 43 CFR 3172 and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. Permian Resources internal standards require complete BOPE tests more often than that of 43 CFR 3172 (every 21 days). In addition to function testing the annular, pipe rams and blind rams after each BOP nipple up, Permian Resources performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of 43 CFR 3172.

Procedures

- 1) Permian Resources will use this document for our break testing plan for New Mexico Delaware Basin. The summary below will be referenced in the APD or Sundry Notice and receive approval prior to implementing this variance.
- 2) Permian Resources will perform BOP break testing on multi-wells pads where multiple intermediate sections can be drilled and cased within the 21-day BOP test window.
 - a)A full BOP test will be conducted on the first well on the pad.
- b) The first intermediate hole section drilled on the pad will be the deepest. All the remaining hole sections will be the same formation depth or shallower.
- c) A full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
 - d) A full BOP test will be required prior to drilling any production hole.
- 3) After performing a complete BOP test on the first well, the intermediate hole section will be drilled and cased, two breaks would be made on the BOP equipment.
 - a) Between the HCV valve and choke line connection
 - b)Between the BOP quick connect and the wellhead
- 4) The BOP is then lifted and removed from the wellhead by a hydraulic system.
- 5) After skidding to the next well, the BOP is moved to the wellhead by the same hydraulic system and installed.
- 6) The connections mentioned in 3a and 3b will then be reconnected.
- 7) Install test plug into the wellhead using test joint or drill pipe.
- 8) A shell test is performed against the upper pipe rams testing the two breaks.
- 9) The shell test will consist of a 250 psi low test and a high test to the value submitted in the APD or Sundry (e.g. 5,000 psi or 10,000psi).
- 10) Function tests will be performed on the following components: lower pipe rams, blind rams, and annular.
- 11) For a multi-well pad the same two breaks on the BOP would be made and on the next wells and steps 4 through 10 would be repeated.
- 12) A second break test would only be done if the intermediate hole section being drilled could not be completed within the 21 day BOP test window.

Note: Picture below highlights BOP components that will be tested during batch operations



Summary

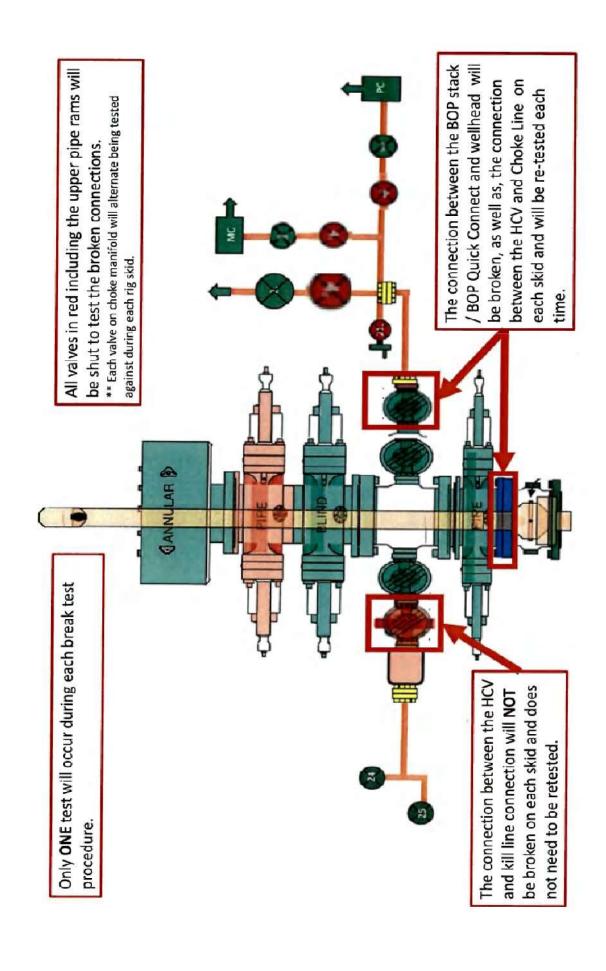
A variance is requested to ONLY test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API Standard 53 states, that for pad drilling operations, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

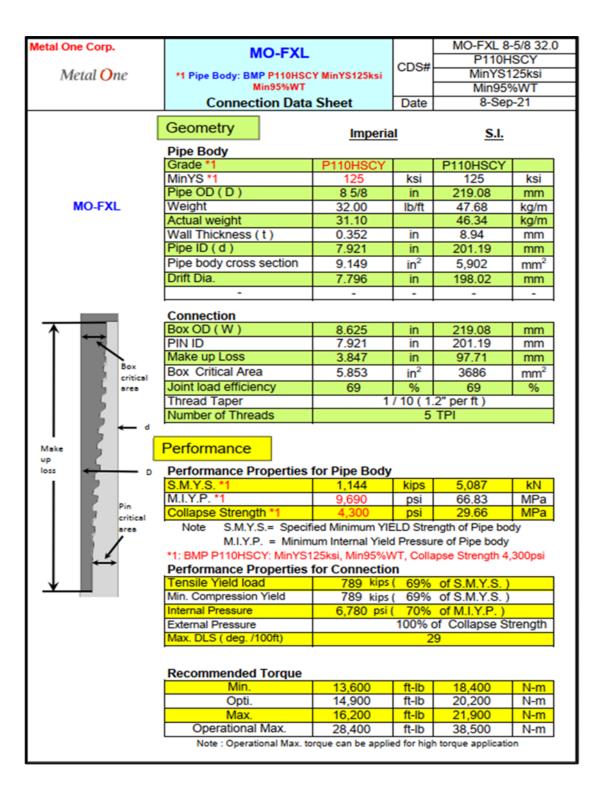
The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control

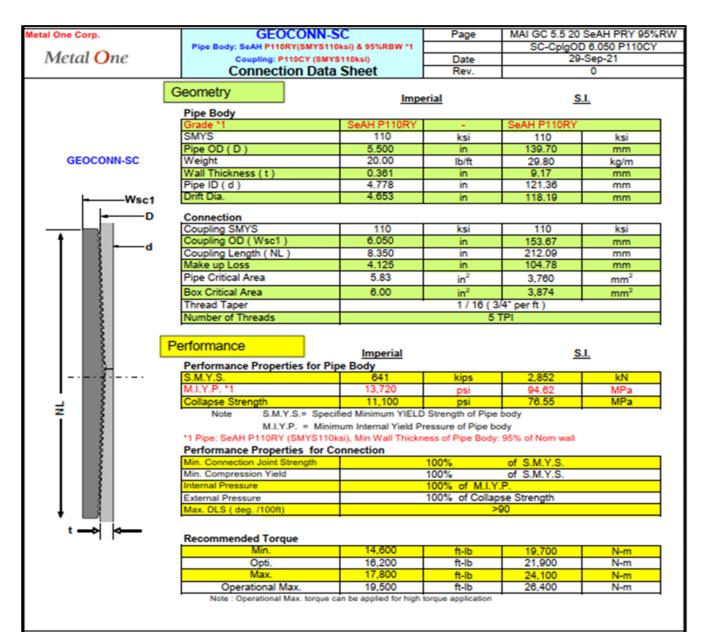
event occurs prior to the commencement of a BOPE Break Testing operation.

Based on public data and the supporting documentation submitted herein to the BLM, we will request permission to ONLY retest broken pressure seals if the following conditions are met:

- 1) After a full BOP test is conducted on the first well on the pad.
- 2) The first intermediate hole section drilled on the pad will be the deepest. All the remaining hole sections will be the same depth or shallower.
- 3) A full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
- 4) A full BOP test will be required prior to drilling the production hole.







Legal Notice
The use of this information is at the reader/user's risk and no warranty is implied or expressed by Metal One Corporation or its parents, subsidiaries or affiliates (herein collectively referred to as "Metal One") with respect to the use of information contained herein. The information provided on this Connection Data Sheet is for informational purposes only, and was prepared by reference to engineering information that is specific to the subject products, without regard to safety-related factors, all of which are the sole responsibility of the operators and users of the subject connectors. Metal One assumes no responsibility for any errors with respect to this

ents regarding the suitability of products for certain types of applications are based on Metal One's knowledge of typical requirements that are often placed on Metal One products in standard well configurations. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a perticular product with the properties described in the product specification is suitable for use in a particular application.

The products described in this Connection Data Sheet are not recommended for use in deep water offshore applications. For more information, please refer to <a href="http://www.mtin.co.io/more-product-with-the-

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: EARTHSTONE OPERATING LLC
WELL NAME & NO.: PAKSE 3 SOUTH FED COM 322H
SURFACE HOLE FOOTAGE: 264'/N & 2008'/W
BOTTOM HOLE FOOTAGE 2630'/N & 2310'/W
LOCATION: Section 24, T.20 S., R.32 E., NMP
COUNTY: Lea County, New Mexico

COA

H2S	• Yes	O No	
Potash	C None	© Secretary	⊙ R-111-P
Cave/Karst Potential	• Low	© Medium	C High
Cave/Karst Potential	Critical Critical		
Variance	O None	• Flex Hose	Other
Wellhead	C Conventional	Multibowl	O Both
Wellhead Variance	O Diverter		
Other	✓ 4 String		□WIPP
Other	☐ Fluid Filled	☐ Pilot Hole	☐ Open Annulus
Cementing	☐ Contingency	☐ EchoMeter	☐ Primary Cement
	Cement Squeeze		Squeeze
Special Requirements	☐ Water Disposal	☑ COM	□ Unit
Special Requirements	☐ Batch Sundry		
Special Requirements	Break Testing	✓ Offline	
Variance		Cementing	Clearance

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet 43 CFR part 3170 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Primary Casing Design:

1. The 13-3/8 inch surface casing shall be set at approximately 1230 feet per BLM Geologist (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. The surface hole shall be 17 1/2 inch in diameter.

- a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The 10-3/4 inch intermediate 1 casing shall be set at approximately 3500 feet per BLM Geologist. The minimum required fill of cement behind the 10-3/4 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
 Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.
 Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.
 - ❖ In <u>R111 Potash Areas</u> if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing salt string must come to surface.
- 3. The **8-5/8** inch intermediate 2 casing shall be set at approximately **5290 feet per BLM Geologist.** The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
 Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.
 Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

- 4. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least **50 feet** on top of Capitan Reef top **or 500 feet** into the previous casing, whichever is greater. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 13-3/8 inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in Onshore Order 1 and 2.

- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

(Note: For a minimum 5M BOPE or less (Utilizing a 10M BOPE system) BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

Offline Cementing

Contact the BLM prior to the commencement of any offline cementing procedure.

Casing Clearance:

Operator casing variance is approved for the utilization of 10-3/4 inch intermediate casing in a 12 ½ inch intermediate hole.

Operator shall clean up cycles until wellbore is clear of cuttings and any large debris, ensure cutting sizes are adequate "coffee ground or less" before cementing.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)
 - Eddy County

EMAIL or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220.

BLM_NM_CFO_DrillingNotifications@BLM.GOV (575) 361-2822

✓ Lea CountyCall the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.
- A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.
- B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-

- off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per 43 CFR part 3170 Subpart 3172.
- C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

JS 2/21/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 320397

CONDITIONS

Operator:	OGRID:
Earthstone Operating, LLC	331165
300 N. Marienfeld St Ste 1000	Action Number:
Midland, TX 79701	320397
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By		Condition Date
pkautz	None	3/25/2024