

- UMBILICAL COORDINATES ARE THE POSITIONS OF THE R.O.Y. (REMOTELY OPERATED VEHICLE) LOCATED AT THE POINTS USING VERIPOS LD2 ULTRA DGPS RECEIVING SPOTBEAM CORRECTIONS, VERIPOS STANDARD DGPS RECEIVING INMARSAT CORRECTIONS POSITIONING AND SONARDYNE FUSION LBL (LONG BASELINE)
- 2) SURVEYED COORDINATES TRANSFORMED FROM NADB3 (GPS DATUM) NADCON VERSION 2.1.
- 3) THIS DRAWING IS NOT FOR NAVIGATION. PIPELINES AND FEATURES IN THE IMMEDIATE VICINITY ARE OBTAINED FROM BOEM (BUREAU OF OCEAN ENERGY MANAGEMENT) & BSEE (BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT) DATABASE AND CLIENT PROVIDED DATA.
- 4) AS-BUILT SURVEY DATE: JANUARY 30 & FEBRUARY 18,19, 2014



AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-02) SEG#18854

CATENARY EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS

UTEC AS-LAID FLYING LEADS MOORING WIRES

LEASE BLOCK BOUNDARIES PROPOSED STRUCTURES

EXISTING STRUCTURES UTEC AS-FOUND/AS-BUILT STRUCTURES

GEOGRAPHICAL TICKS

UTM TICKS WELLS

GEODESY

KC875

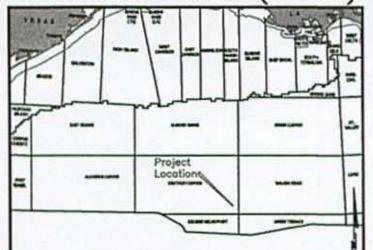
Survey Datum: NAD 27 Ellipsold: Clarke 1866 Projection: Universal Transverse Mercator ZONE 15N Longitude of Central Meridian: 93'W False Easting (m): 500 000 False Northing (m): 0 Scale Factor at Central Meridian: 0.99960 Units: US Survey Feet

CERTIFIED CORRECT AS TO THE HORIZONTAL POSITION OF THE AS-BUILT UMBILICAL BASED ON THE SURVEY METHODS NOTED.

NATHAN EBY, R.P.L.S. TEXAS REG #6198

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LOCATION PLAN (N.T.S)







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7240 BRITTMOORE RD. SUITE 110 HOUSTON, TEXAS 77041 Tel 713-984-8688 Fax 713-984-8683 Website www.utecsurvey.com

LUCIUS DEVELOPMENT PROJECT AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-02) SEGMENT#18854

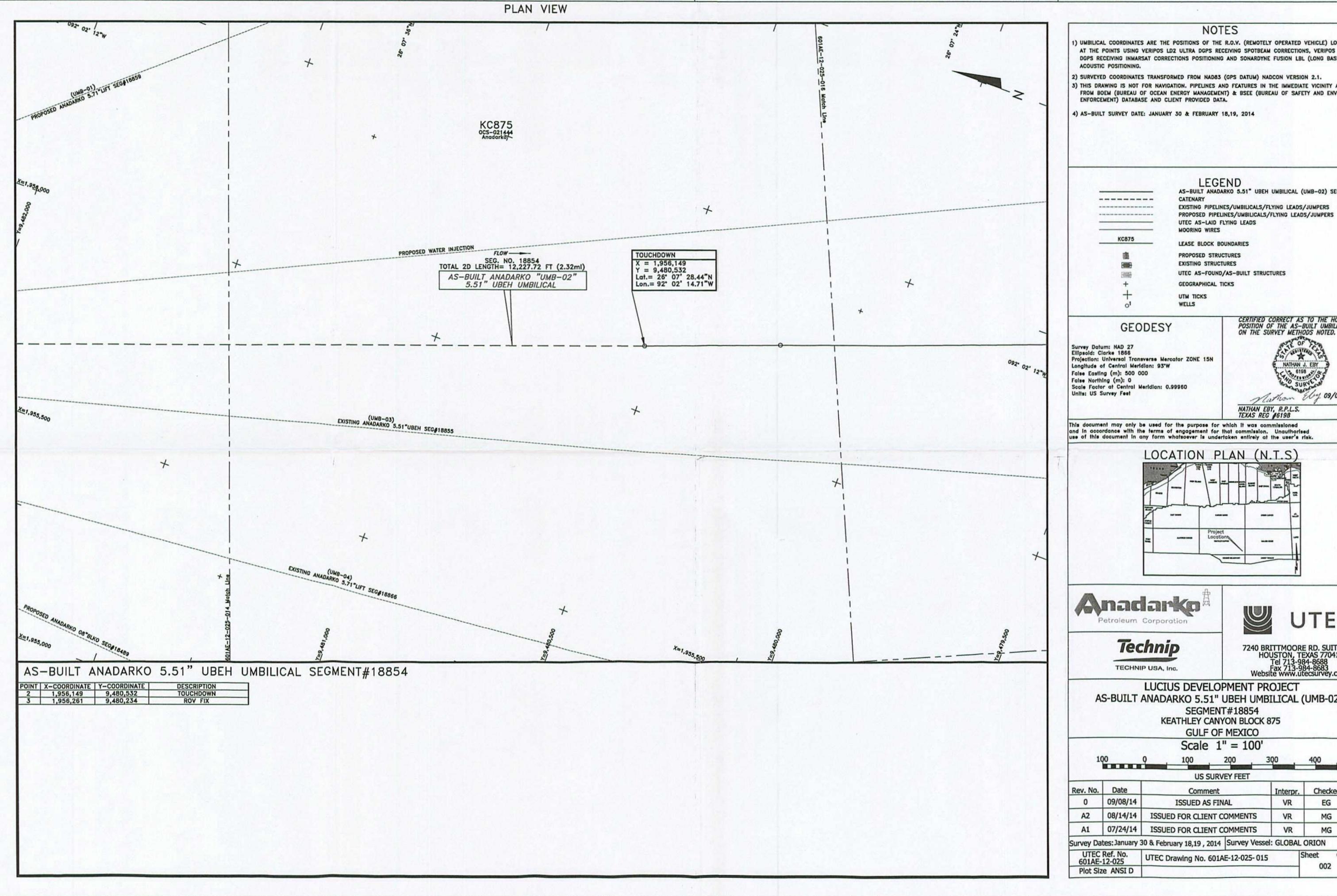
KEATHLEY CANYON BLOCK 875 GULF OF MEXICO

Scale 1" = 100'

US SURVEY FEET							
Rev. No.	Date	Comment	Interpr.	Checked	Appr.		
0	09/08/14	ISSUED AS FINAL	VR	EG	JL		
A2	08/14/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL		
A1	07/24/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL		

Survey Dates: January 30 & February 18,19 , 2014 | Survey Vessel: GLOBAL ORION

UTEC Ref. No. 601AE-12-025 UTEC Drawing No. 601AE-12-025-014 001 007 Plot Size ANSI D



- 1) UMBILICAL COORDINATES ARE THE POSITIONS OF THE R.O.V. (REMOTELY OPERATED VEHICLE) LOCATED AT THE POINTS USING VERIPOS LD2 ULTRA DGPS RECEIVING SPOTBEAM CORRECTIONS, VERIPOS STANDARD DGPS RECEIVING INMARSAT CORRECTIONS POSITIONING AND SONARDYNE FUSION LBL (LONG BASELINE)
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AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-02) SEG#18854 EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS

UTEC AS-FOUND/AS-BUILT STRUCTURES

CERTIFIED CORRECT AS TO THE HORIZONTAL POSITION OF THE AS-BUILT UMBILICAL BASED ON THE SURVEY METHODS NOTED.

NATHAN EBY, R.P.L.S. TEXAS REG #6198



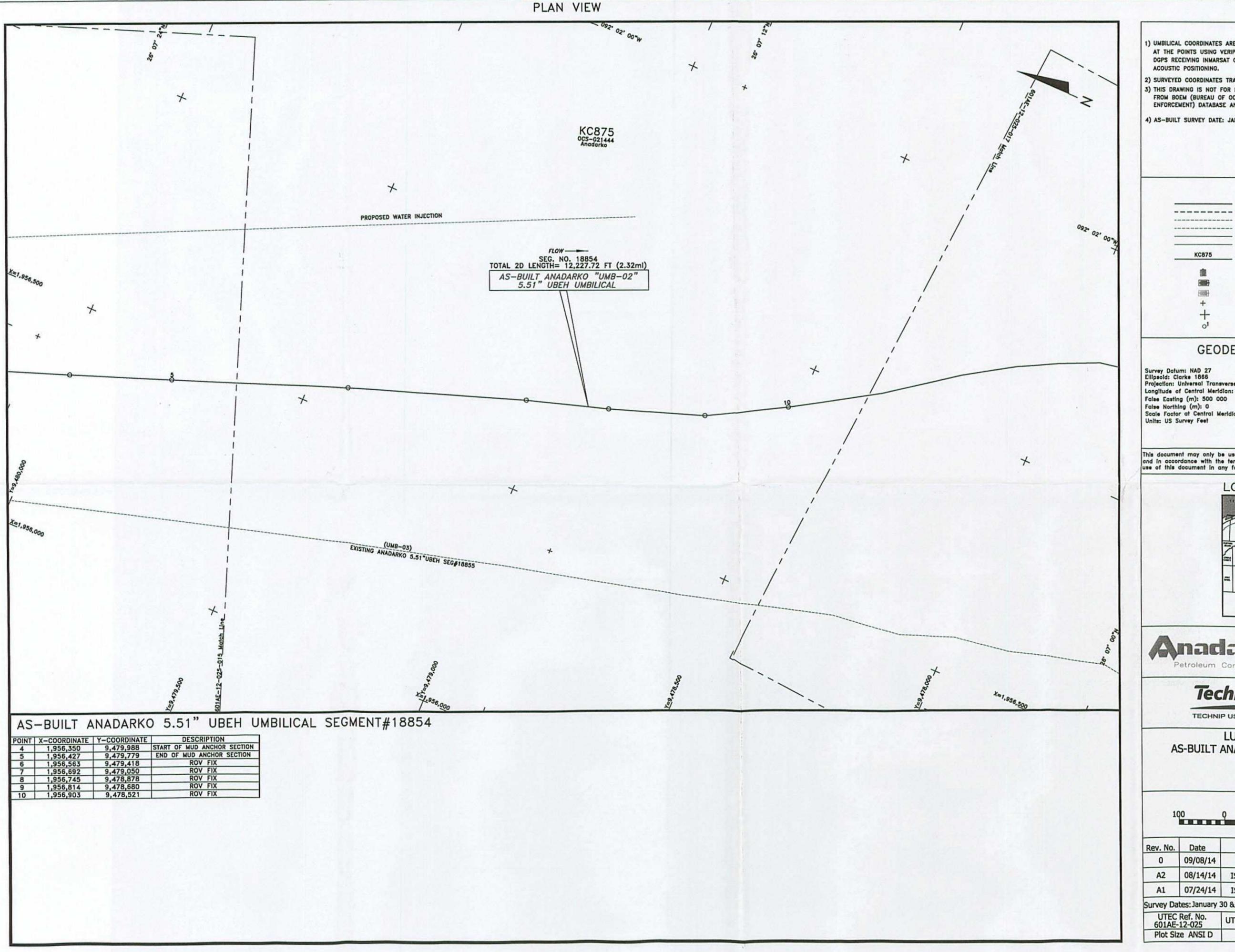


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AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-02)

		03 JUNALI ILLI			
ev. No.	Date	Comment	Interpr.	Checked	Appr.
0	09/08/14	ISSUED AS FINAL	VR	EG	JL
A2	08/14/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL
A1	07/24/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL

002



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- 4) AS-BUILT SURVEY DATE: JANUARY 30 & FEBRUARY 18,19, 2014

LEGEND AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-02) SEG#18854 CATENARY EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS

PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS UTEC AS-LAID FLYING LEADS MOORING WIRES

LEASE BLOCK BOUNDARIES PROPOSED STRUCTURES EXISTING STRUCTURES

UTEC AS-FOUND/AS-BUILT STRUCTURES GEOGRAPHICAL TICKS

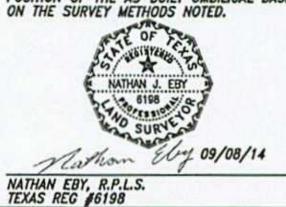
UTM TICKS WELLS

GEODESY

KC875

Survey Datum: NAD 27 Ellipsold: Clarke 1866 Projection: Universal Transverse Mercator ZONE 15N Longitude of Central Meridian: 93°W False Easting (m): 500 000 False Northing (m): 0 Scale Factor at Central Meridian: 0.99960 Units: US Survey Feet

CERTIFIED CORRECT AS TO THE HORIZONTAL POSITION OF THE AS-BUILT UMBILICAL BASED ON THE SURVEY METHODS NOTED.



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LUCIUS DEVELOPMENT PROJECT AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-02) SEGMENT#18854

KEATHLEY CANYON BLOCK 875

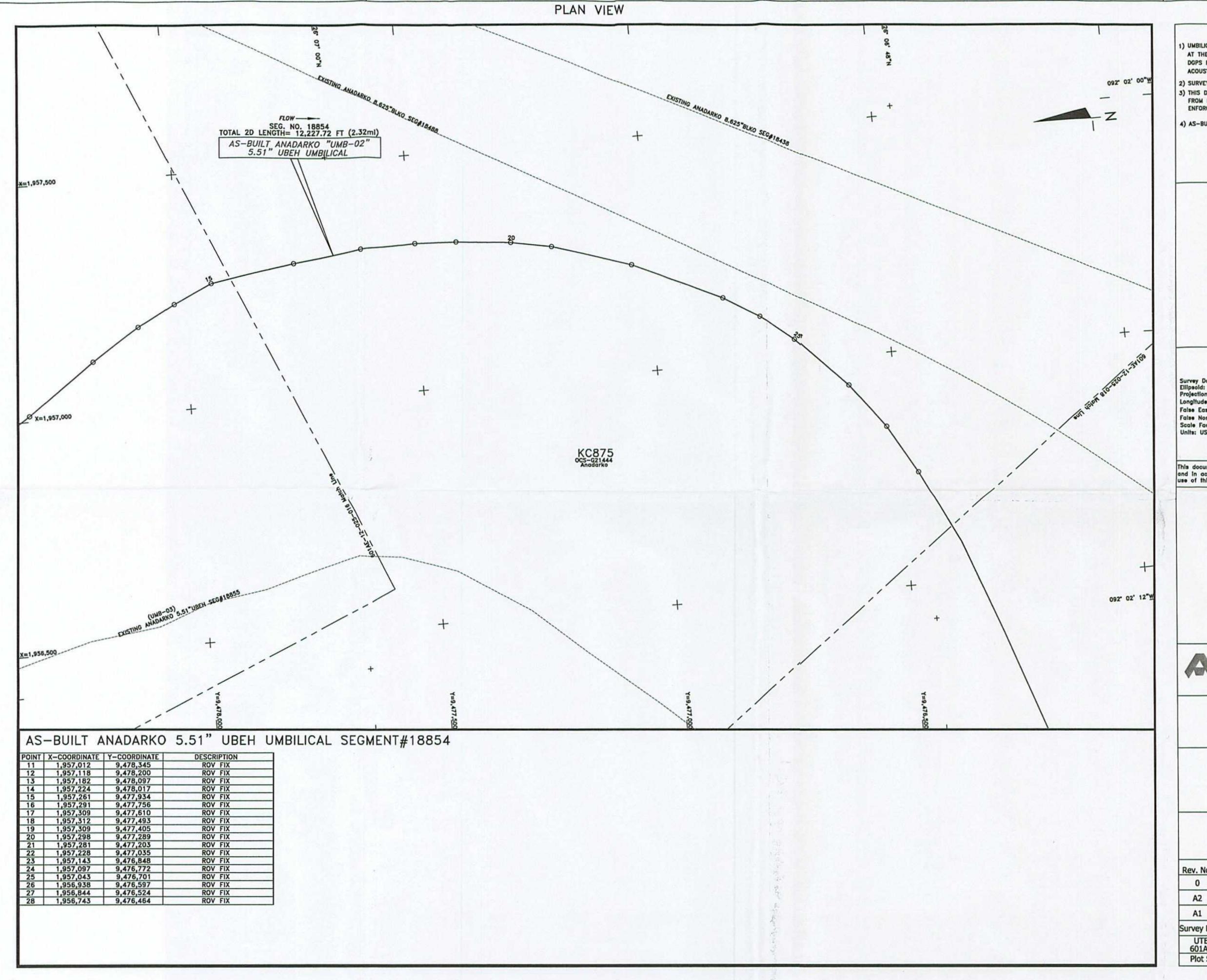
GULF OF MEXICO Scale 1" = 100'

LIS SLIBVEY FEET

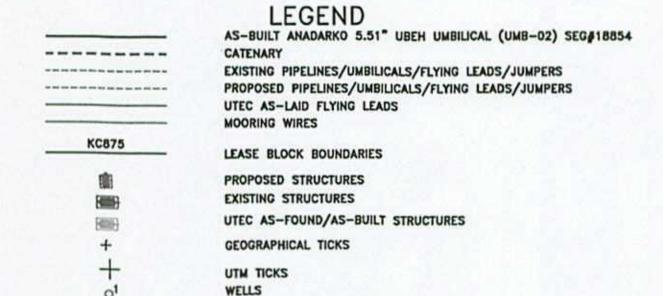
		US SURVET FEET			
Rev. No.	Date	Comment	Interpr.	Checked	Appr.
0	09/08/14	ISSUED AS FINAL	VR	EG	JL
A2	08/14/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL
A1	07/24/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL

Survey Dates: January 30 & February 18,19 , 2014 | Survey Vessel: GLOBAL ORION

UTEC Ref. No. 601AE-12-025 Sheet Of UTEC Drawing No. 601AE-12-025-016 007 003 Plot Size ANSI D



- 1) UMBILICAL COORDINATES ARE THE POSITIONS OF THE R.O.V. (REMOTELY OPERATED VEHICLE) LOCATED AT THE POINTS USING VERIPOS LDZ ULTRA DGPS RECEIVING SPOTBEAM CORRECTIONS, VERIPOS STANDARD DGPS RECEIVING INMARSAT CORRECTIONS POSITIONING AND SONARDYNE FUSION LBL (LONG BASELINE) ACOUSTIC POSITIONING.
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- 4) AS-BUILT SURVEY DATE: JANUARY 30 & FEBRUARY 18,19, 2014



GEODESY

Survey Datum: NAD 27
Ellipsold: Clarke 1865
Projection: Universal Transverse Mercator ZONE 15N
Longitude of Central Meridian: 93°W
False Easting (m): 500 000
False Northing (m): 0
Scale Factor at Central Meridian: 0.99960
Units: US Survey Feet

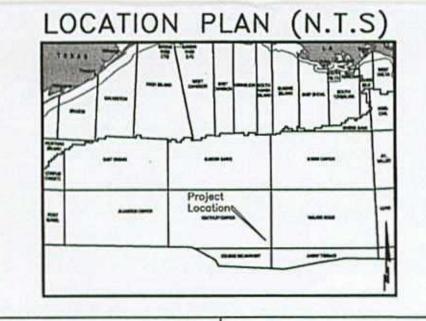
CERTIFIED CORRECT AS TO THE HORIZONTAL
POSITION OF THE AS-BUILT UMBILICAL BASED
ON THE SURVEY METHODS NOTED.

NATION J. EBY
6108
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NATHAN EBY, R.P.L.S. TEXAS REG #6198

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LUCIUS DEVELOPMENT PROJECT AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-02)

SEGMENT#18854 KEATHLEY CANYON BLOCK 875 GULF OF MEXICO

Scale 1" = 100'

100 0 100 200 300 400 500

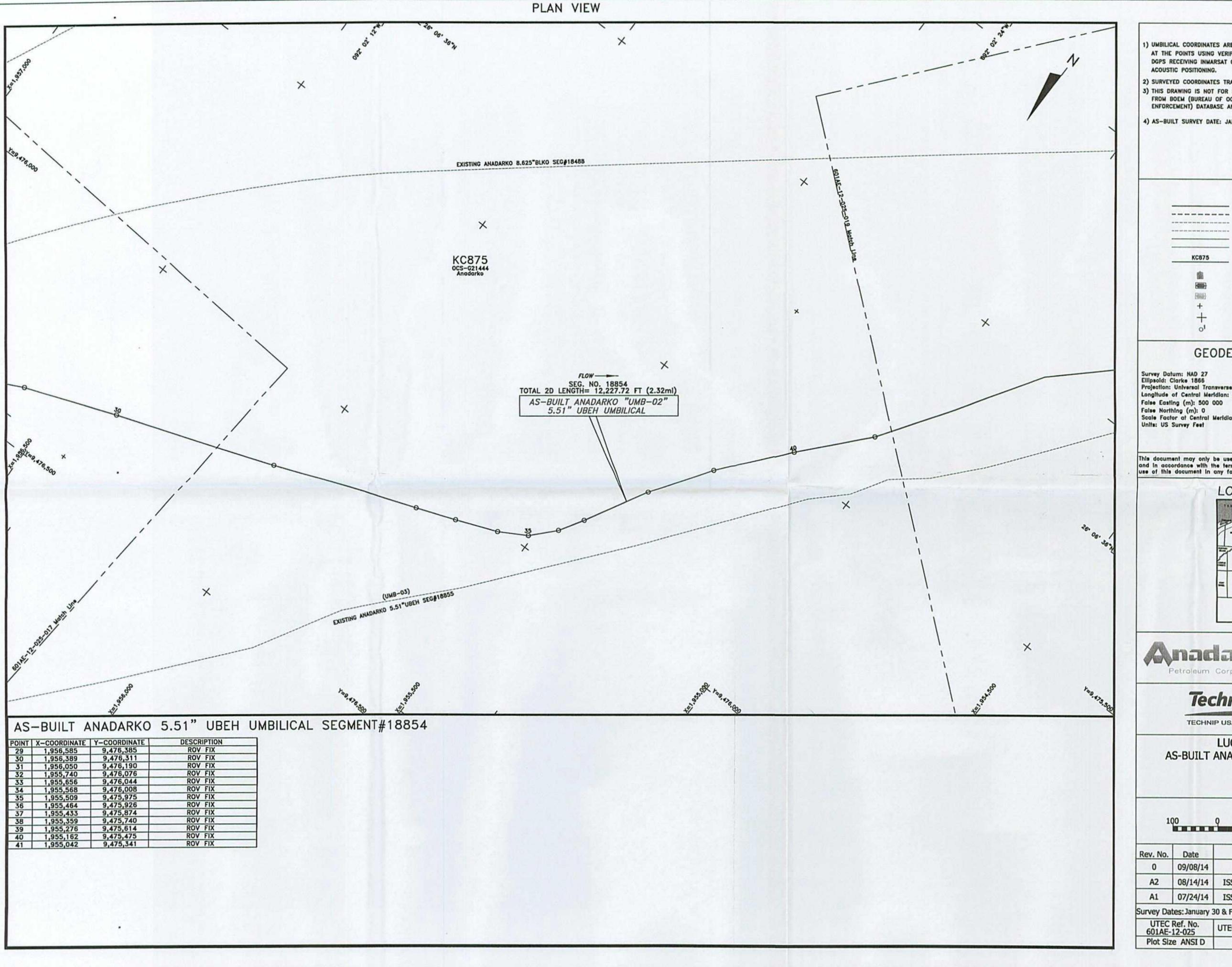
US SURVEY FEET

. No. Date Comment Interpr. Checked Appr.

Rev. No.	Date	Comment	Interpr.	Checked	Appr.
0	09/08/14	ISSUED AS FINAL	VR	EG	JL
A2	08/14/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL
A1	07/24/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL

Survey Dates: January 30 & February 18,19, 2014 | Survey Vessel: GLOBAL ORION

UTEC Ref. No. 601AE-12-025	UTEC Drawing No. 601AE-12-025-017	Sheet Of	X
Plot Size ANSI D		004 007	



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4) AS-BUILT SURVEY DATE: JANUARY 30 & FEBRUARY 18,19, 2014

LEGEND

AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-02) SEG#18854 CATENARY

EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS ------

PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS UTEC AS-LAID FLYING LEADS

MOORING WIRES

LEASE BLOCK BOUNDARIES

PROPOSED STRUCTURES EXISTING STRUCTURES

UTEC AS-FOUND/AS-BUILT STRUCTURES

GEOGRAPHICAL TICKS

UTM TICKS

WELLS

GEODESY

Survey Datum: NAD 27 Ellipsold: Clarke 1866 Projection: Universal Transverse Mercator ZONE 15N Longitude of Central Meridian: 93'W False Easting (m): 500 000

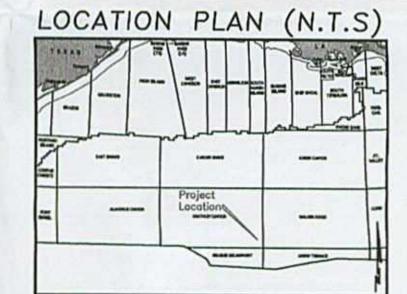
KC875

False Northing (m): 0 Scale Factor at Central Meridian: 0.99960 Units: US Survey Feet

CERTIFIED CORRECT AS TO THE HORIZONTAL POSITION OF THE AS-BUILT UMBILICAL BASED ON THE SURVEY METHODS NOTED.

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LUCIUS DEVELOPMENT PROJECT AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-02)

SEGMENT#18854 **KEATHLEY CANYON BLOCK 875 GULF OF MEXICO**

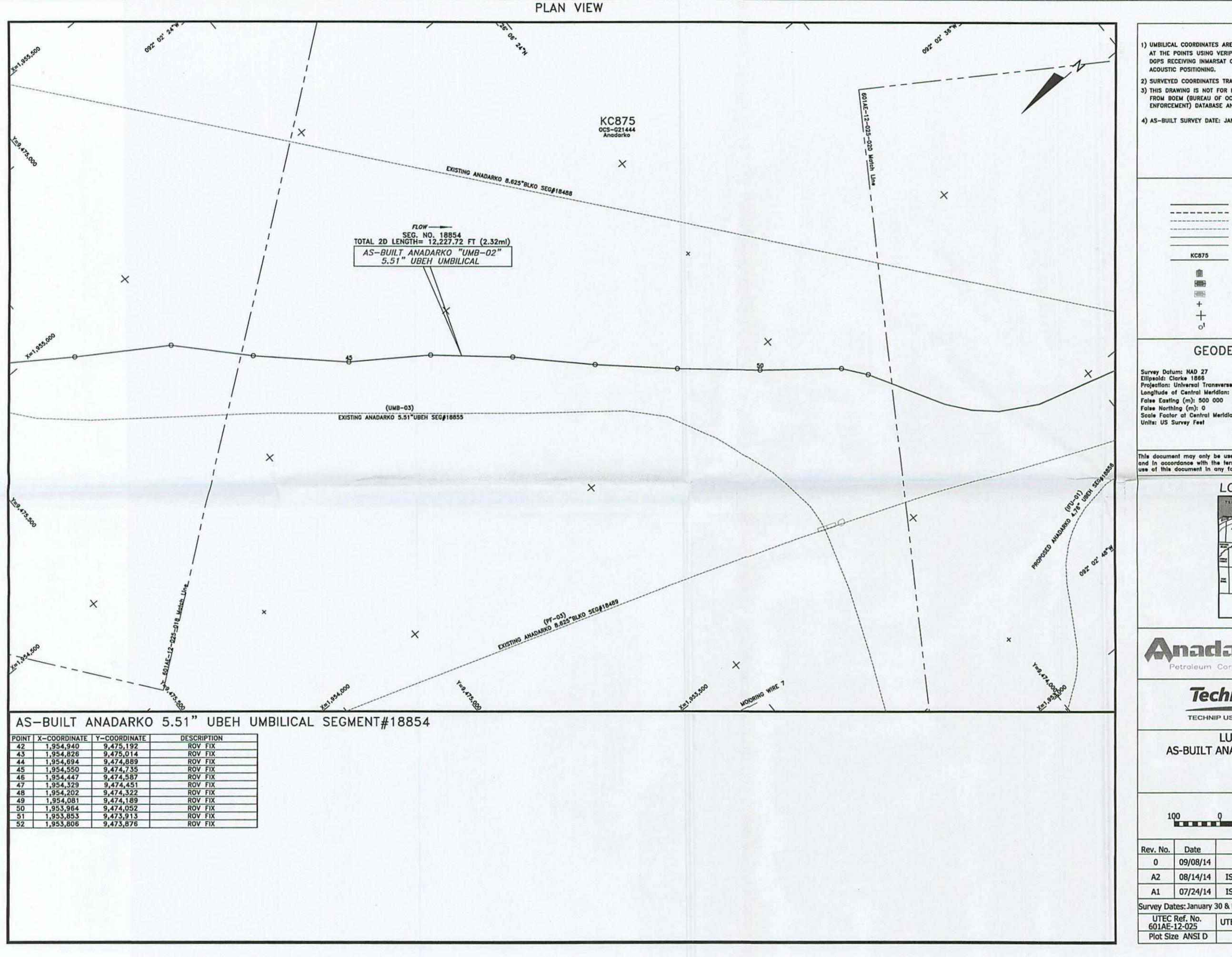
Scale 1" = 100'

100 0 100 LIS SLIBVEY FEET

		US SURVET FEET			
v. No.	Date	Comment	Interpr.	Checked	Appr.
0	09/08/14	ISSUED AS FINAL	VR	EG	JL
A2	08/14/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL
A1	07/24/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL

Survey Dates: January 30 & February 18,19, 2014 | Survey Vessel: GLOBAL ORION

UTEC Ref. No. 601AE-12-025 UTEC Drawing No. 601AE-12-025-018 Sheet Of 005 007 Plot Size ANSI D



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LEGEND AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-02) SEG#18854

CATENARY EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS UTEC AS-LAID FLYING LEADS MOORING WIRES

LEASE BLOCK BOUNDARIES PROPOSED STRUCTURES EXISTING STRUCTURES

UTEC AS-FOUND/AS-BUILT STRUCTURES GEOGRAPHICAL TICKS

UTM TICKS WELLS

GEODESY

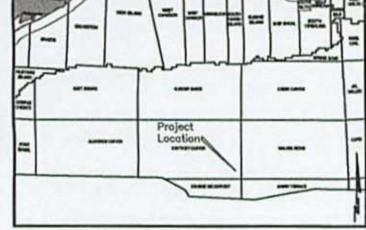
KC875

Survey Datum: NAD 27 Ellipsold: Clarke 1866 Projection: Universal Transverse Mercator ZONE 15N Longitude of Central Meridian: 93'W False Easting (m): 500 000 False Northing (m): 0 Scale Factor at Central Meridian: 0.99950

CERTIFIED CORRECT AS TO THE HORIZONTAL POSITION OF THE AS-BUILT UMBILICAL BASED ON THE SURVEY METHODS NOTED. NATHAN EBY, R.P.L.S. TEXAS REG #6198

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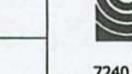
LOCATION PLAN (N.T.S)





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LUCIUS DEVELOPMENT PROJECT AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-02)

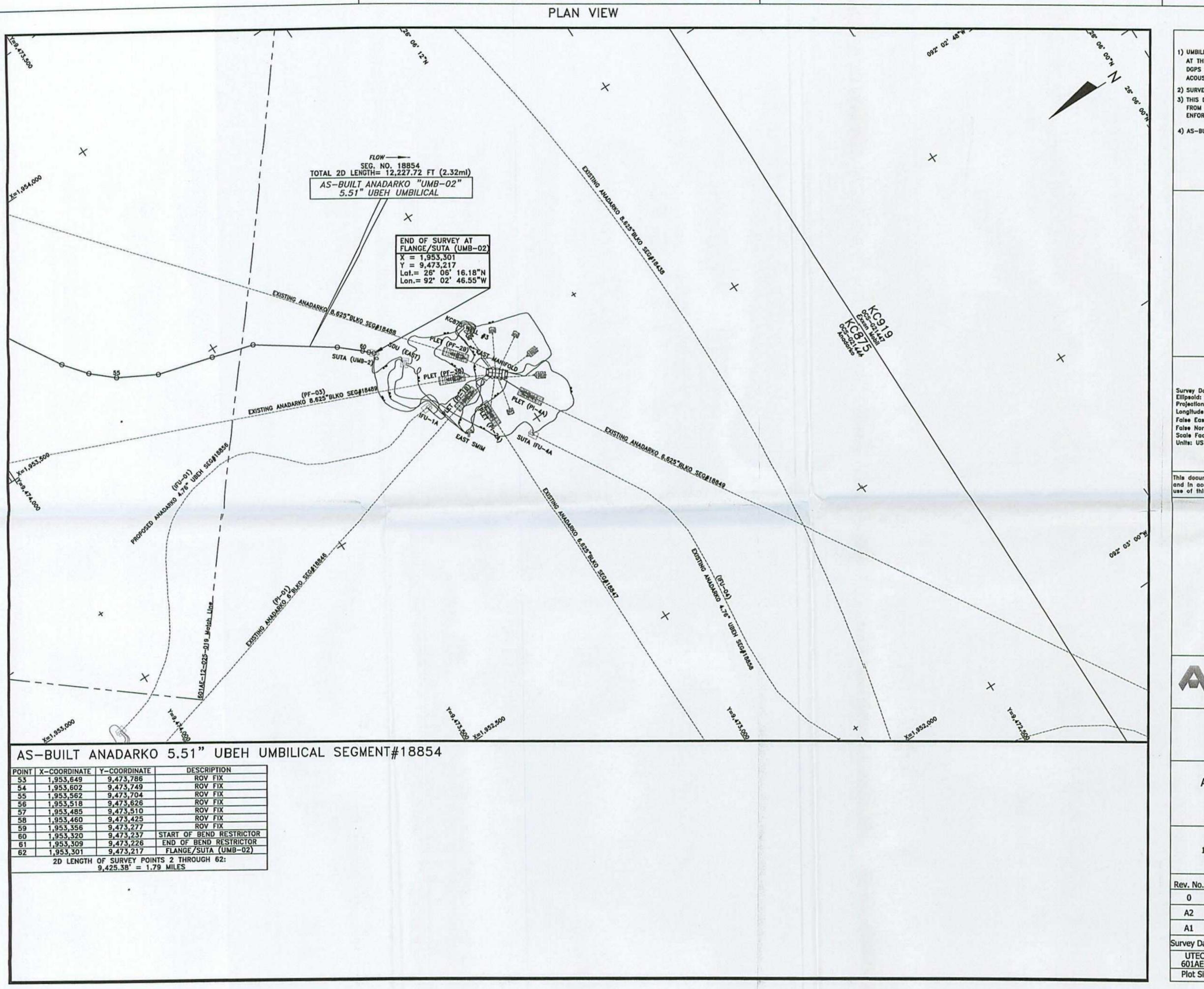
SEGMENT#18854 **KEATHLEY CANYON BLOCK 875 GULF OF MEXICO**

Scale 1" = 100'

10	00	0 100	200	300	400	500
		US	SURVEY FEET			
Rev. No.	Date	Comr	nent	Interpr.	Checked	Appr.
0	09/08/14	ISSUED A	S FINAL	• VR	EG	JL
A2	08/14/14	ISSUED FOR CLIE	ENT COMMENTS	VR	MG	JL
A1	07/24/14	ISSUED FOR CLIE	ENT COMMENTS	VR	MG	JL

Survey Dates: January 30 & February 18,19 , 2014 | Survey Vessel: GLOBAL ORION

UTEC Ref. No. 601AE-12-025-019 Sheet Of 006 007 Plot Size ANSI D



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AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-02) SEG 18854
CATENARY
EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS
PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS
UTEC AS-LAID FLYING LEADS
MOORING WIRES

LEASE BLOCK BOUNDARIES

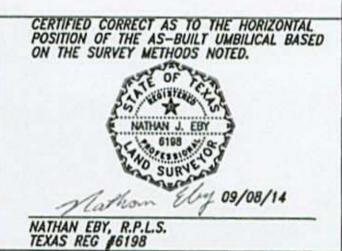
PROPOSED STRUCTURES
EXISTING STRUCTURES
UTEC AS-FOUND/AS-BUILT STRUCTURES

GEOGRAPHICAL TICKS

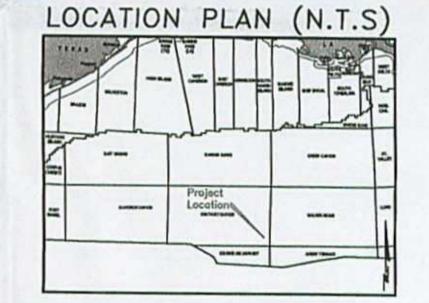
UTM TICKS WELLS

GEODESY

Survey Datum: NAD 27
Ellipsold: Clarke 1866
Projection: Universal Transverse Mercator ZONE 15N
Longitude of Central Meridian: 93°W
False Easting (m): 500 000
False Northing (m): 0
Scale Factor at Central Meridian: 0.99950
Units: US Survey Feet



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LUCIUS DEVELOPMENT PROJECT
AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-02)
SEGMENT#18854

KEATHLEY CANYON BLOCK 875 GULF OF MEXICO

Scale 1" = 100'

100 200 300 400 500

US SURVEY FEET

Rev. No.	Date	Comment	Interpr.	Checked	Appr.
0	09/08/14	ISSUED AS FINAL	VR	EG	JL
A2	08/14/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL
A1	07/24/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL

Survey Dates: January 30 & February 18,19, 2014 Survey Vessel: GLOBAL ORION

UTEC Ref. No. 601AE-12-025 UTEC Drawing No. 601AE-12-025-020 Sheet Of 007 007