

Date Survey Taken	Company	Which counties do you work with farmers in?
10/08/2018	TDS Telecom	Shasta
10/09/2018	Coachella Valley Water District	Riverside
10/09/2018	Wild Goose Storage	Butte, Colusa
10/09/2018	PG&E	Mariposa, Placer, Stanislaus, Merced, Santa Cruz, El Dorado, Santa Clara, Lake, Colusa, Fresno, Tuolumne, Solano, Shasta, Sa Luis Obispo, Siskiyou, Sutter, Yuba, Yolo, Sonoma, Humboldt, Alameda, Glenn, Napa, Sierra, Sacramento, San Mateo, Amador, Nevada, Kern, San Joaquin, Lassen, Tehama, Monterey, Mendocino, Butte, Contra Costa, Marin, Calaveras, Kings

10/10/2018

Shell Pipeline

Kern

10/11/2018

Pajaro Valley Water
Management Agency

Santa Cruz, Monterey

10/16/2018

PG&E

Kern

10/19/2018

PG&E

Kern

10/25/2018

Chevron Pipeline Company

Ventura, San Joaquin,
Kings, Fresno, Alameda,
Sacramento, Solano, Yolo,
Kern, Orange, Santa
Barbara, Los Angeles,
Monterey, Contra Costa

10/29/2018

Kinder Morgan

Placer, Kings, Kern,
Sacramento, Yuba, San
Diego, Sutter, San
Bernardino, Nevada, Los
Angeles, Ventura, Marin,
Santa Clara, Merced, Contra
Costa, Imperial, Alameda,
Riverside, Sierra, San
Benito, Butte, San Joaquin,
Fresno, San Mateo, Orange,
Solano

10/31/2018

San Francisco Public Utilities
Comission

San Joaquin, Stanilaus

Do the farmers generally understand safe operation

Farmer understanding, please explain:

Who do you send to an on-site meeting?

Sometimes

If they know our cable runs through their fields they usually call. However, if they don't know they take for granted nothing is there.

Line Locator

Sometimes

Contractor

Rarely

Often thing filling a dig alert is an intrusion and inconvenience to their farming operations

Trained Plant Operator equipped with line locator

Sometimes

We have farmers that call in USA and abide by safe practices. We also have farmers that do not abide by the one call process and do not call in

Line Locator

Sometimes Most farmers are good; every once in a while a new foreman arrives and may not be as knowledgeable about underground facilities as the past; but they usually respond well to information and work with us

Company Representative who covers specific region where farmer operates, like Central Valley

Sometimes When farmers send their staff out to do the work, they are usually uneducated about 811 rules. When they hire a contractor, the contractor is more likely to know the rules

Operators of our system

Sometimes While the landowners/farmers/foreman may be familiar with PG&E field meet/standby procedure, it's the individual on the equipment at the time, that may need educating by PG&E Locate & Mark personnel.

Line Locator. The PG&E Locator who marks the line usually performs the field meet, while contract personnel perform the standby

Sometimes

Line Locator

Sometimes

farmers that have been working the same land where pipelines exist for an extended period of time generally have knowledge about them and their location and how to work around them. Problems typically materialize when a farmer leases a plot of land from another landowner that they have never worked before and information about the location of pipelines is not passed down. Incidents are also known to occur in cases where a landowner may be aware of the pipeline locations but failed to properly notify his hired labor and contractors of the pipeline locations. Problems can also materialize in instances where a farmer that has never had to work around pipelines before acquires a new piece of land and has to deal with these types of issues for the first time. In CPL's experience farmers tend to believe that their earth work will not proceed deep enough to

Company Representative who covers specific region where farmer operates, like the Central Valley. The company representative is a line locator specifically trained to CPL's Processes and Procedures

Sometimes

Company Representative
who covers specific region
where farmer operates, like
the Central Valley.

Sometimes

Line Locator

Do you send the same person every time?

Same person, please explain:

How often do you hold an on-site meeting

No

Only for a new USA Ticket

No

Monthly

No

Is possible the same person will do the meet, sometimes that is not possible

Yearly

No

We recieve over a million tickets a year. We have a large group of L&M employees who perform locate & mark activities and field meets

Only for a new USA Ticket

No For majority it is the same individual, but on occasion, we do have others that will need to respond Only for a new USA Ticket, Only for a refreshed USA Ticket, Every 6 months

Yes Yearly

No While we do have 1 individual specifically assigned to monitor the 2 backbone transmission lines, there are multiple other transmission gas lines throughout Kern. Normally, the area Locator who marked the line, also performs the field meet, but, due to the varing factors day to day, other Locate personnel will perform field meets Only for a refreshed USA Ticket, Only for a new USA Ticket

Yes

Only for a new USA Ticket

No

The Company
Representative (CR) that
meets the landowner is
qualified to locate CPL's
pipelines but may not always
be the same representative

Only for a new USA Ticket,
Only for a refreshed USA
Ticket

Yes

In the specific area the field representative works.

Only for a new USA Ticket

No

Only for a new USA Ticket

Do your reps use a standard form?

Is your form Ag-specific? Please explain:

What is included on the form?

No

Type of Underground Facility, USA Ticket Number, Work Start Date & End Date

Yes

Yes

Type of Underground Facility, Work Start & End Date, Map of Underground Facility, Address and/or GPS Coordinates of Work Site, USA Ticket Number, Operator Contact Information, Time & Date of Meeting

No

No, farming operations vary as does pipeline locations and depth, there is no one-size fits all form for AG Operations

USA Ticket Number

Yes

A standard field meet item for all

Type of Underground Facility, Address and/or GPS Coordinates of Work Site, Work Start & End Date, Operator Contact Information, USA Ticket Number, Equipment Type Used, How Many Times our Asset will be Crossed, Contractor Information, If Standby is Required, Information Around Excavation Scope

Yes	General for all on-site meetings	USA Ticket Number, Lines Were Properly Marked, Operator Policies & Procedures, Address and/or GPS Coordinates of Work Site, Work Start & End Date, Operator Contact Information, Type of Underground Facility, Specific Marking Types and Direct Contact Information for Changes to Schedule ORT Scope
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No	No standard form, we just look at our as-builts	I would like to know more information about forms
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No

Yes

Standard Form

Lines Were Properly Marked, Address and/or GPS Coordinates of Work Site, Type of Underground Facility, Map of Underground Facility, USA Ticket Number, Work Start & End Date, Notification on whether the excavation is standby required.

No

Yes

For all onsite meetings.

Operator Policies &
Procedures, Lines Were
Properly Marked, Work Start
& End Date, Operator
Contact Information,
Address and/or GPS
Coordinates of Work Site,
USA Ticket Number, Type of
Underground Facility,
Contact information and
afterhours contact number.

No

Do you have the farmer sign the form?

Does the farmer get a copy for their records?

If you answered no to 15 or 16, explain:

No

Yes

No

No

We do our reports on a laptop, no hard copies out in field

No

No

Most farmers will not or their reps cannot sign a document, most are seasonal workers on site and the owner is rarely present

No

No

It's documented in our work management system

No No We ask or thme to sign, but a lot do not want to sign. Forms were paper copies before and have changed to electronic recently. They can be forwarded if requested.

No No We don't have a "form."

No

No

No, they do not get a copy

Yes

Yes

If no standard form, is the information consistent

What equipment causes concern?

Why does it cause concern?

Springtooth Chisel, Pull Ripper, Mounted Ripper

We make a report and record on file.

Vegetable Cultivator, Rolling Cultivator, Mounted Ripper, Finishing Disc, Plow, Springtooth Chisel, Pull Ripper, Offset Disc, Finishing Chisel, Side Dresser

Anything deeper than 12 inches can do damage to water lines

Each case is reviewed by Corp engineers and crossing agreements thajt are in effect and binding

Mounted Ripper, Pull Ripper

Depth of rippers possible line strikes

They hav an internal field meet form that is completed similar to a checklist

Mounted Ripper, Springtooth Chisel, Pull Ripper, Tractor... Higher Risk activities are ripping, lower risk could be chiseling or discing for shallow lines, but ripping is larger risk

History of dig-ins with severe consequences with heavy ripping

We utilize a form that is our standard

Pull Ripper, Mounted Ripper

Based on depth or utility and time at which other equipment has lowered the depth of cover, rippers have greatest impact and this has been proven over the last few incidents we have experienced.

Not consistent. IF the farmer contacts us, we meet onsite and tell them where we think our facility is buried. Or just mark it when they're not there.

Stubble Disc, Plow, Springtooth Chisel, Mounted Ripper, Rhino Blade, Finishing Disc, Pull Ripper, Offset Disc, Finishing Chisel, Tractor

They sometimes hit our above-ground facilities or markers

While Kern is somewhat unique in the amount of farm land our pipelines run through, my colleagues and myself have made sure taht our message is consistent, regardless of who is performing the field meets.

Mounted Ripper, Pull Ripper, Springtooth Chisel, Plow

The weight of the equipment, and the depth the implement is able to attain.

N/A	<p>Springtooth Chisel, Finishing Disc, Carrot Harvester, Plow, Offset Disc, Bean Planter, Grain Planter, Finishing Chisel, Potato Digger, Side Dresser, Rhino Blade, Landplane, Vegetable Planter, Stubble Disc, Vegetable Cultivator, Pull Ripper, Mounted Ripper, Lister Bar, Tractor, Rolling Cultivator, Grader</p> <p>Attachments which lower the elevation of top soil across an entire field</p>	<p>Damaging critical facilities resulting in the loss of life for the farmer</p>
<p>When a trained CPL Facility Inspector or "line locator" meets with farmers onsite the Facility Inspector will inform them about CPL's standards, safe practices, procedures, and requirements for working safe around the pipelines. The Facility Inspector then inputs the information shared during the field meeting as a positive response on the one call ticket and data will be emailed to the caller or contact person on the ticket. Depending on the nature of work, if a Chevron pipeline is to be exposed for any reason or if a line crossing is to take place all information at the work site will be captured per CPL procedures and the appropriate records will be updated with the new information. Copies of property agreements (if any) and data will be given to farmer or owner of foreign line.</p>	<p>Finishing Chisel, Mounted Ripper, Vegetable Cultivator, Offset Disc, Stubble Disc, Rhino Blade, Landplane, Tractor, Side Dresser, Springtooth Chisel, Finishing Disc, Plow, Pull Ripper, Rolling Cultivator, Lister Bar... Additional equipment related concerns can arise depending how deep the farmer is planning to work the soil with the implements and the depth of the pipeline. Shallow work (less than 12") is generally not a concern to the pipeline operator but not a guarantee. Additional types of operations that are known to cause potential incidents include:</p> <ul style="list-style-type: none"> • Plows used for digging irrigation ditching and equipment used to clean irrigation ditches • Road grading and road maintenance equipment • Augers for fencing posts and installation of fences – driving t-posts, H-bracing, etc. • Tree removal – the large "clam shell" implement • Land leveling • Heavy equipment just crossing the pipeline 	<p>Protection of landowner's safety and their property by not compromising the integrity of the pipeline.</p>

Lister Bar, Finishing Chisel,
Pull Ripper, Rhino Blade, Damage to the pipeline
Springtooth Chisel, Mounted and/or coating
Ripper, Plow

We provide flyers that
explain what underground
utilities we have in the area

Carrot Harvester, Landplane,
Potato Digger, Tractor, Grain
Planter, Bean Planter, Side
Dresser, Rhino Blade,
Stubble Disc, Vegetable
Cultivator, Finishing Chisel,
Pull Ripper, Plow, Mounted
Ripper, Vegetable Planter,
Lister Bar, Offset Disc,
Finishing Disc, Springtooth
Chisel, Rolling Cultivator

The potential to damage our
underground pipelines

How do you verify pipeline depth is sufficient?

Do farmers ask to know depth?

If yes, how do you respond?

Farmer Pothole and Operator Pothole

Yes

Explain why you cannot tell the farmer the depth

Farmer Pothole

Yes

Explain why you cannot tell the farmer the depth

Locating Equipment, Recorders, Operator Pothole

Yes

Explain why you cannot tell the farmer the depth

Records, Locating Equipment, Farmer Pothole, Operator Pothole

No

Explain why you cannot tell farmer the depth

Operator Pothole, Locating Equipment, Records, ILLI Technology has ability to verify depth when used

Yes

Tell approximate depth

Most farm equipment is safe, since our system was designed to be under farms. The parts of the system that are unsafe are the parts that are on their way to being above ground, or above ground, or when they dig trenches for irrigation lines

No

They only ask if they have to call 811

Farmer Pothole, Locating Equipment, Operator Pothole. While our locating equipment does provide constant depth of facility to myself and my colleagues, we NEVER give depth to contractors, homeowners, and rarely give to our own PG&E crews in the field, however, we do ask how deep they may be going, this allows us to possibly avert an incident

Yes

PG&E Locate & Mark personnel NEVER give depth, there are too many factors in the field that can interfere with our equipment, multiple utilities in the area, common utility ground, how far are we attempting to shoot a signal, soil composition, etc, etc.

Farmer Pothole

No

Explain why you cannot tell the farmer the depth. Have to inform farmer that we cannot take his word for the depth of the facility and that as per 4216 the facility will need to be potholed so the depth and location of the facility can be verified before any type of excavation can take place.

Records, Operator Pothole,
Locating Equipment

Yes

Explain why you cannot tell the farmer the depth... We cannot verify depth unless we pothole the pipeline and visually see the line. All other depth information is just an estimation. For long sections of pipeline across a field the pipeline depth may vary. Landowners tend to assume the buried depth is constant.

Records, Farmer Pothole,
Locating Equipment

Yes

Explain why you cannot tell
the farmer the depth

Farmer Pothole. Because
HHWP owns the ROW in
fee, the reserved farming
rights can only be exercised
under a Consent Letter. The
process requires the farmer
to pothole the depths of lines
with a representative from
the City present. Potholing
instructions are provided by
HHWP Engineering.

Yes

Explain why you cannot tell
the farmer the depth

Do reps have discretion to determine safe ops?

Discretion, please explain:

Do you have disagreements with farmers?

No

Yes

We ask them to pothole

Yes

Yes

Operators are trained on company policy, concerning crossing and digging, plus always check in before with management before authorizing any digging, we cannot stop normal farm operations, except ripping and removal of cover

Yes

No

Interpretation from our legal team has stated the law states excavator must verify depth of the facilities by hand. Does not leave our representatatives with any options based on excavation depth or type

Yes

Yes

Our representatives have the authority to stop work and also work with other industries to best protect the assets in place

Yes

What do you mean by discretion?

No

Yes

While contract personnel perform the majority of standby operations, myself and my colleagues are also qualified, safety of people, property, and facilities are the number one priority, if need be, we will call law enforcement immediately as a last resort if we feel an unsafe operation is going on

Yes

No	PG&E Reps must follow 4216 and PG&E Policy regarding safe excavation	Yes
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Yes	We have extensive policy and procedures for working with excavators. The Company Rep is trained and qualified in these procedures.	Yes
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Yes	type of equipment and pipeline depth combined with SME review.	Yes
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No

What is the disagreement over?

How often do disagreements happen?

How are disagreements recorded or resolved?

Rarely

Talking it over

They want lines marked over a large area (acres) with many obstructions and untraceable lines

Occasionally

We tell them they must pothole and stay away from our federal ten foot easement around irrigation lines

Filing a dig ticket, removal of cover, crossing requirements

Occasionally

Corp Office alerted and Landmen/Lawyer takes over with input from Operations and locates

Requirement to pothole specifically to verify depth

Occasionally

If someone is excavating unsafely, i.e. no USA Ticket or digging before legal start time we give them a notice of unsafe excavation. We try to meet with them to discuss how we can work better together

Usually on how close they can use equipment to the underground utility

Rarely

They are recorded in our response database (Irthnet) as on-going documentation of events with regards to each USA Ticket

Rarely

1. potholing, in a 3000 x 3000' field gets turned 4 times a year, and we want a pothole every 200', that's potentially 60 potholes that must be done. The majority of these gentlemen laser level their fields, I've been told by these gentlemen if .25" of cover gets lost in a 2 year cycle, that's a lot. So if the previous pothole data indicates 60" depth 3 months ago, why the need to pothole again? Our line hasn't migrated up, and they know how much soil they lose, it doesn't make sense to them to re-verify depth. 2: field meet/standby requirements: it doesn't make sense to them to field meet 4-6-8-10 times a year at the exact same spot on the exact same line they've been working around for 30 years, standby scheduling is also fluid for them, multiple factors play a part as to scheduling standby personnel, they scheduled standby tomorrow, but due to multiple factors, weather

Occasionally

Sometimes these gentlemen think we are there to tell them how to do their job, and since PGE has become a thorn in their side, when we show up on site, we are PGE, therefore sometimes we catch some flak from time to time, we've all been through it, personally, I use active listening techniques, I let them vent, (they're not having issues with me personally, but the logo on my uniform and vehicle), once they're done I ask them what would they like PGE to do to help them, and what can I do personally to help them. My colleagues do the same, as long as these gentlemen aren't being aggressive towards us personally, it's business as usual. It's actually quite surprising how many people hate PGE, so dealing with upset or angry contractors, homeowners, or just some random person driving by yelling obscenities at "PGE" is part of our daily work lives. If something noteworthy

Some Farmers will refuse to pothole and refuse to lift there farm implements over the critical facility right of ways. "We've been farming this field for 40 years"

Occasionally

Gas Compliance Reps, Mark and Locate Supervisors and Dirt Inspectors are notified.

Complying with pipeline safety requirements that may restrict work the landowner wants to perform. Some examples include planting trees (crop trees), installing buildings, irrigation systems.

Occasionally

Our CRs try to come to an agreement on how the farmer can complete work without compromising the safety of the pipeline. If an agreement cannot be reached, CPL's professional land staff is consulted. Field engineering staff is also engaged as appropriate depending on the complexity of the work proposed by the landowner. Supervisors are also notified, and in some cases, the local law enforcement is contacted if the work is exposing the landowner to injury.

It is rare, but the discussion would revolve around what the farmer can do over the pipeline.

Rarely

During a field meet and through explanation

**Do you walk away
feeling confident?**

**Confidence, please
explain:**

**Do you have Ag-
specific procedures
for ROW?**

Yes

No

Yes

No

No

Some will tell you one thing
and do another as soon as
you are out of sight, requiring
constant surveillance

No

Yes

Yes

Yes

Yes

Yes

No

No

Whether it be a farmer or contractor, as soon as we drive away, they're gonna decide how they will proceed. If I tell the excavator he has to pothole the utility, and hand dig within 2' of my mark, and then the PGE guy drives away, its a crapshoot after that.

Yes

No	Later the same farmers are found excavating near the facilities without standby inspectors onsite and no verification of the depth and location of the facility has taken place.	No
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No	The answer to question #31 depends entirely on how the meeting goes with the landowner. The CR will follow up on the work that has been conducted to verify they are meeting the requirements. The CR may also stay onsite to observe the working person. In addition, air patrol is notified and will observe the work to ensure safety.	Yes
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Yes

No

No

Farmers may not deep rip
but still disc over the
pipelines. We have pictures
of damaged sections of pipe
caused by discing.

No

ROW, please explain: Additional Comments Contact

randy.brunes@tdstelecom.com

This is impossible as farmers often use seasonal workers and work after hours, how could anyone intercept something that is unknown.

There is no recourse against non-compliant farmers, that do not file dig alerts and do not follow the crossing agreements. A survey in e-mail form to the Operator and just not one person participating would be more effective, and include both Operators and Management for a general consensus response of the Operator

pat.baynard@rockpointgs.com

We have aerial patrol, ground patrol, and we also empower our employees to stop work if they see unsafe excavation or no USA

j1ks@pge.com

We have air-patrol as well as representatives that are required to traverse the entire ROW at least bi-weekly if not more often

Russell.J.Guidry@shell.com

If we see them, we will pull over and talk with them, but we don't have a set procedure

We have annual meetings with the farmers who use our project water, and remind them to call 811 then.

bigham@pvwater.org

My colleagues and myself know exactly where these lines run throughout our areas and Kern in general, we are in our areas daily, so catching people digging without tickets happens frequently. Our aerial patrols are frequent and one phone call gets a body on site quickly.

Potholing: Contrary to popular belief, the main reason for it is to verify that when I mark a 10" steel high pressure gas line, (or any other PGE facility) when they do pothole, they better find a 10 " steel line right there, if they don't, we got a large problem, potentially. 2: When it comes to our high pressure lines, some of these pipes are 30-40-50 years old, so any chance we get to lay eyes on even a 3"x 3" area on that line gives us an opportunity to assess its condition. 3: Now we can talk about depth. The vast majority of people we deal with on a daily basis have no clue how very, very difficult it is to try and find something we can't see, to try and control a frequency so it doesn't (literally), jump onto something else, the multiple utilities in any given area that wreck havoc on our ability to keep a signal from straying, the locked gates and pit bulls that we encounter daily, all

jc1w@pge.com

I am unaware of one

Ground patrol and air patrol are trained to identify work in the pipeline easement and notify the appropriate company representative. The ground patrol employees are also trained to stop the work if damage is imminent. CPL will also put "equipment tags" on equipment near the pipeline if no owner or operator is nearby. The equipment tags notify the owner/operator that a pipeline is nearby and provides a CPL content number for additional information.

David.McMasters@Chevron.com

We have an encroachment process for all work without a valid USA Ticket.

brothersj@kindermorgan.com

We are currently replacing damaged sections of one of our large diameter pipelines caused by ripping

kbolter@swater.org